2023
2024

MEASURING INSTRUMENTS

CATALOGUE NO. EU260

BEST SELLER

INSIZE

All products in this catalogue are usually stocked and available from INSIZE Europe in Spain (subject to our final confirmation)

INSIZE » M&B Calibr | info@insz.ro | (+4) 0775 291 134 | www.insz.ro

PRODUCT INDEX

1 DATA OUTPUT — PAGE 1-3

WIRELESS DATA TRANSMISSION SYSTEMS

DATA OUTPUT CABLES

2 CALIPERS — PAGE 3-25

CALIPERS

DEPTH BASE ATTACHMENTS

ACCESSORY SETS FOR DIGITAL CALIPERS

CARBON FIBER COMPARISON GAGES

SPECIAL PURPOSE CALIPERS

5 MICROMETERS — PAGE 34-46

HIGH PRECISION DIGITAL MICROMETERS/SNAP GAGES

OUTSIDE MICROMETERS

MICROMETERS WITH DIAL INDICATOR

SPECIAL PURPOSE MICROMETERS

3-WIRES

MICROMETER HEADS

MICROMETER STANDS

6 BORE DIAMETER, RADIUS MEASURING INSTRUMENTS — PAGE 47-55

PISTOL GRIP THREE POINTS BORE GAGES

THREE POINTS INTERNAL MICROMETERS

INSIDE MICROMETERS

TUBULAR INSIDE MICROMETERS

BORE GAGES

BORE GAGE SETTERS

TELESCOPING GAGE SETS

RADIUS GAGES

DIGITAL RADIUS CALIPERS

CIRCUMFERENCE TAPES

3 DEPTH MEASURING INSTRUMENTS — PAGE 25-30

DEPTH GAGES

DIAL DEPTH GAGES

DEPTH MICROMETERS

4 HEIGHT MEASURING INSTRUMENTS — PAGE 30-34

DIGITAL HEIGHT GAGES

HEIGHT GAGES

MINI DIGITAL HEIGHT GAGES

7 INDICATORS, STANDS, BENCH CENTERS — PAGE 56-77

DIAL INDICATORS

POINTS

LINEAR GAGES

DIAL TEST INDICATORS

DIAL TEST INDICATOR HOLDERS

DIAL INDICATOR TESTERS

MAGNETIC STANDS

DIAL INDICATOR STANDS

CONCENTRICITY GAGES

BENCH CENTERS

SHANK RUNOUT TESTERS

8 INDICATING MEASURING INSTRUMENTS — PAGE 78-82

INTERNAL/EXTERNAL CALIPER GAGES

THICKNESS GAGES

DIAL SNAP GAGES

DIAL SNAP GAGES

STEP AND GAP GAGES

CRANKSHAFT TESTERS

KEYWAY DEPTH GAGES

PRODUCT INDEX

10 ANGLE AND STRAIGHTNESS MEASURING INSTRUMENTS — PAGE 94-99

PROTRACTORS

UNIVERSAL PROTRACTORS

PERPENDICULARITY TESTERS

GRANITE SQUARES

SQUARES

STRAIGHT EDGES

MAGNALIUM STRAIGHT EDGES

STRAIGHTNESS/FLATNESS GAGES

11 SIMPLE MEASURING TOOLS — PAGE 99-114

FEELER GAGES

PITCH GAGES

RADIUS GAGES

CHAMFER GAGES

TAPER SLOT GAGES

TAPER GAGES

TAPER BORE GAGES

WELDING GAGES

WIRE GAGES

DRILL POINT GAGES

INSIDE/OUTSIDE CALIPERS

DIVIDERS

MEASURING TAPES

MEASURING WHEELS

STEEL RULES

COMBINATION SQUARE SETS

SCRIBING CALIPERS

SCRIBERS

PRECISION SCREWDRIVER SETS

MEASURING TOOL SETS

13 SCALES — PAGE 123-124

DIGITAL SCALES

LINEAR SCALES

DIGITAL READOUTS

9 STANDARDS AND GAGE BLOCKS — PAGE 82-93

GAGE BLOCKS

CALIPER INSPECTION GAGE BLOCK AND RING GAGE SETS

MICROMETER INSPECTION GAGE BLOCK SETS

CALIPER/HEIGHT GAGE CHECKERS

PIN GAGES

SETTING RINGS

PLAIN PLUG GAGES

THREAD RING GAGES

THREAD PLUG GAGES

MEASURING BALLS

12 SET-UP TOOLS — PAGE 114-122

GRANITE SURFACE PLATES

V-BLOCK SETS

PARALLEL SETS

ANGLE PLATE SETS

ADJUSTABLE ANGLE BLOCKS

RIGHT ANGLE PLATES

SINE BARS

PRECISION VISES

XY-AXIS STAGES

CENTERING INDICATORS

EDGE FINDERS

ZERO SETTERS

14 ROUNDNESS, PROFILE AND ROUGHNESS TESTERS — PAGE 125-129

ROUNDNESS MEASURING MACHINES

SURFACE PROFILE MEASURING MACHINES

ROUGHNESS TESTERS

ROUGHNESS SPECIMENS

PRODUCT INDEX

15 PAGE 130-135

JIG SETS FOR CMM

LASER SCAN MICROMETERS

OPTICAL TRANSMISSION PROBES

TOOL PRESETTERS

16 PAGE 135-141

PROFILE PROJECTORS

QUICK MEASUREMENT SYSTEMS

VISION MEASURING SYSTEMS

17 MICROSCOPES PAGE 142-156

TOOLMAKER MICROSCOPES

DIGITAL MICROSCOPES

MICROSCOPES

DIGITAL CAMERAS

PORTABLE MEASURING MICROSCOPES

21 HARDNESS TESTERS PAGE 188-200

HARDNESS TESTERS

24 SCALES PAGE 209-213

ELECTRONIC BALANCES

CRANE SCALES

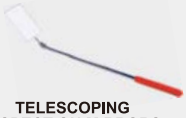
PLATFORM SCALES

18 MAGNIFIERS, VIDEOSCOPES PAGE 156-162

DIGITAL MAGNIFIERS

TABLE MAGNIFIERS WITH ILLUMINATION

MAGNIFIERS


TELESCOPING INSPECTION MIRRORS

VIDEOSCOPES

19 PORTABLE INSTRUMENTS PAGE 163-183

20 LEVELS PAGE 183-187

DIGITAL LEVELS AND SLOPE METERS

CROSS-LINE LASER LEVELS

22 FORCE GAGES PAGE 200-205

FORCE GAGES

SPRING TESTERS

DIAL TENSION GAGES

23 TORQUE TESTERS TORQUE WRENCHES PAGE 205-208

TORQUE TESTERS

TORQUE SCREWDRIVERS

TORQUE WRENCHES

25 INCH PRODUCTS PAGE 214-215

DIAL CALIPERS

OUTSIDE MICROMETERS

DEPTH MICROMETERS

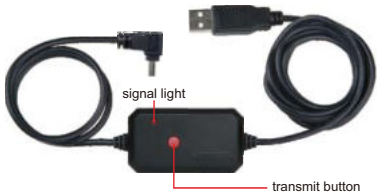
DIAL INDICATORS

DIAL TEST INDICATORS

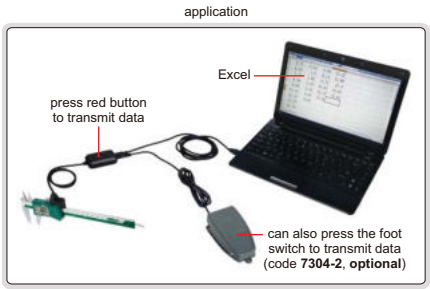
FEELER GAGES

DATA OUTPUT CABLES (KEYBOARD FORMAT)

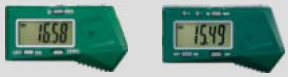
VIDEO



7302-40M



- Recognized as HID keyboard device by computer, no need to install drivers and softwares
- Data can be transmitted to Excel, Word, txt and other files (press transmit button, which is recognized by the computer as keyboard input data and press enter, such as 12.34↙)
- Suitable for any softwares which can receive keyboard signal
- Optional accessory: foot switch (code: **7304-2**), hub (code: **7324-HUB4**, **7324-HUB7**) extension cables (code: **7325-ADD5**, **7325-ADD10**)

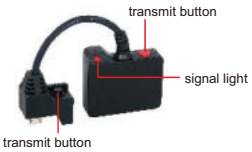
Code	Description	Plug to product	Plug to computer	Applicable products
7302-21	cable for digital calipers (length 3m)	transmit button		 digital calipers and digital depth gages
7302-22	cable for large digital calipers (length 2.5m)			large digital calipers (range ≤1000mm) and digital height gages
7302-30	cable for digital micrometers (length 2.5m)			digital micrometers
7302-40M*	cable for digital indicators (length 2.5m)			digital indicators
7302-50M	cable for digital gages (length 2.5m)			digital thickness gages and digital internal/external caliper gages
7302-60	cable for high precision digital indicators (length 2.5m)			**2140-6** and **2133** series high precision digital indicators

*Long press transmit button to zero the digital indicators

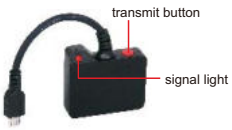
WIRELESS DATA TRANSMISSION SYSTEM

- Through wireless transmission, the measurement data can be transmitted to computers or mobile phones
- Wireless zigbee protocol, conforming to IEEE802, 2.4GHz band
- Transmission distance is 15 meter (Under the condition of no obstruction and no electromagnetic interference. The transmission distance of built-in wireless measuring tools can be found in their respective introduction.)

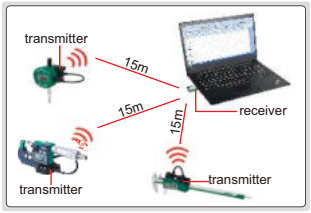
7315-21



7315-22



VIDEO



Transmitter

- Connecting to digital measuring tools such as calipers, micrometers and indicators
- Press the transmit button to send data
- CR2032 battery

Code	Description	Plug to product	Remark
7315-21	transmitter for digital calipers	transmit button	digital calipers and digital depth gages signal light, transmit button, transmit button
7315-22	transmitter for large digital calipers		large digital calipers (range≤1000mm) and digital height gages signal light, transmit button
7315-30	transmitter for digital micrometers		digital micrometers transmit button, signal light
7315-50M	transmitter for digital indicators		digital indicators, digital thickness gages and digital internal/external caliper gages signal light, transmit button
7315-60	transmitter for high precision digital indicators		**2140-6** and **2133** series high precision digital indicators signal light, transmit button

Receiver (keyboard signal)

- For computers and mobile phones with windows, android and ios systems
- Recognized as HID keyboard device, press transmit button of transmitter, which is recognized by computers or mobile phones as keyboard input data and press enter, such as 12.34↙.
- No need to install drivers and softwares
- Data can be transmitted to excel, word, txt etc.
- Suitable for any softwares which can receive keyboard signal

Code	Product	Description	Remark
7315-3	USB port	single channel receiver	connected with 1 transmitter only
7315-6	USB port	multichannel receiver	connected with 6 transmitter, each channel has a transmitter status indicator
7315-7	type-C port		
7315-8	micro USB port		
7315-9	lightning port		

To be continued

Continued from previous page

Receiver (text format, virtual com port)

- Suitable for computers with windows system
- Text format virtual com port, converted to keyboard format with supplied software
- Supplied with EXCEL directional input software (please refer to the next page for details)
- Measurement data can be transmitted to excel, word, txt etc. and any software which receives keyboard signal

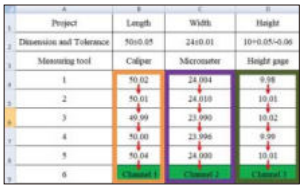
Code	Product	Description	Remark
7315-2		multichannel receiver	connected with maximum 16 transmitters, each of them has unique identification code

EXCEL directional input software

- Included in **7315-2** receiver
- The measurement data of multiple measuring tools can be transmitted to the designated area of excel, which facilitates data management and improves efficiency

Excel directional input software (included in **7315-2**), application example 1

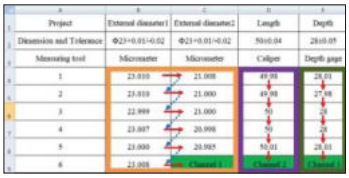
Set the display area of caliper at B4-B9, the readings of caliper are displayed at B4, B5...B9.
Set the display area of micrometer at C4-C9, the readings of micrometer are displayed at C4, C5... C9.
Set the display area of height gage at D4-D9, the readings of height gage are displayed at D4, D5... D9.



serial of workpieces — the next data display area is indicated in green

Excel directional input software (included in **7315-2**), application example 2

Set the display area of micrometer at B4-C9, data input is from the left to the right, the readings of micrometer are displayed at B4, C4, B5, C5... B9, C9.
Set the display area of caliper at D4-D9, the readings of caliper are displayed at D4, D5... D9.
Set the display area of depth gage at E4-E9, the readings of depth gage are displayed at E4, E5... E9.



serial of workpieces — the next data display area is indicated in green

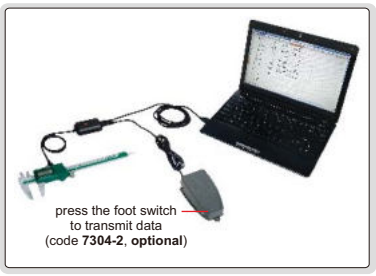
FOOT SWITCH

- For data transmission

Code	Description	Applicable products
7304-2	data transmission foot switch with cable (length 2m)	**7302** series data cables **7305** series data cables

7304-2

application

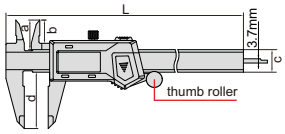


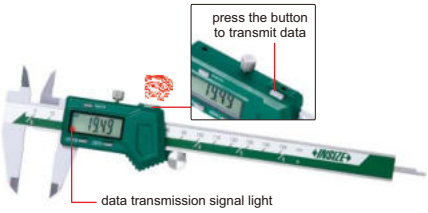
WIRELESS DIGITAL CALIPERS

ATTENTION: THE WORKING LIFE OF A BATTERY IS ABOUT 3-5 MONTHS

VIDEO

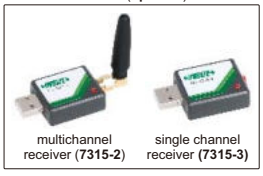
INSPECTION CERTIFICATE





1113-150

receiver (**optional**)



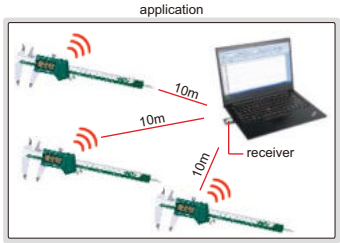
- Built-in wireless data transmission module, Zigbee signal
- Transmission distance is 10 meter (under the condition of no obstruction and no electromagnetic interference)
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch, data transmission
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Made of stainless steel
- Optional accessory: receiver (code **7315-2/3/6/7/8/9**)

(mm)

Code	Range	Accuracy	Thumb roller	L	a	b	c	d
1113-150*	0-150mm/0-6"	±0.03mm	with	236	21	16	16	40
1113-200*	0-200mm/0-8"	±0.03mm	with	286	24	19	16	50
1113-300*	0-300mm/0-12"	±0.03mm	with	400	25	20.5	16	60
1113-150W*	0-150mm/0-6"	±0.03mm	without	236	21	16	16	40
1113-200W*	0-200mm/0-8"	±0.03mm	without	286	24	19	16	50
1113-300W*	0-300mm/0-12"	±0.03mm	without	400	25	20.5	16	60

*Supplied with manufacturer inspection certificate

application



IP67 WATERPROOF DIGITAL CALIPERS

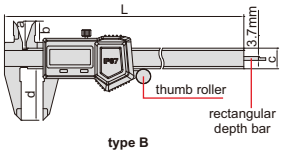
INSPECTION CERTIFICATE

ATTENTION: IT IS NECESSARY TO SET ZERO AFTER POWER ON EACH TIME

ATTENTION: NO DATA OUTPUT

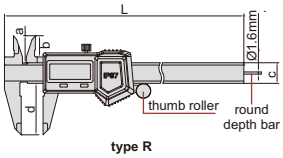
IP67 WATERPROOF

1118-150B



type B

1118-150R



type R

- Accuracy: ±0.03mm
- IP67 dust/waterproof
- Resolution: 0.01mm/0.0005"
- Button function: zero, on/off, mm/inch, ABS/REL, hold
- Battery CR2032, meet DIN862
- Made of stainless steel

(mm)

Code	Range	Thumb roller	Type	L	a	b	c	d
1118-150B*	0-150mm/0-6"	with	B	236	21	16	16	40
1118-200B*	0-200mm/0-8"	with	B	286	24	19	16	50
1118-300B*	0-300mm/0-12"	with	B	400	25	20.5	16	60
1118-150BW*	0-150mm/0-6"	without	B	236	21	16	16	40
1118-200BW*	0-200mm/0-8"	without	B	286	24	19	16	50
1118-300BW*	0-300mm/0-12"	without	B	400	25	20.5	16	60
1118-150R*	0-150mm/0-6"	with	R	236	21	16	16	40

*Supplied with manufacturer inspection certificate

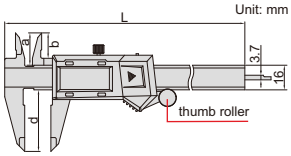
DIGITAL CALIPERS (FRACTION READING)

INSPECTION CERTIFICATE

ATTENTION: NO DATA OUTPUT

fraction reading

1102-150



- Accuracy: ±0.03mm
- Resolution: 0.01mm, 0.0005", 1/128"
- Buttons: unit (mm/in/fraction), ABS, on/off, zero
- Absolute and incremental measurement
- Battery CR2032, automatic power off
- Meet DIN862
- Made of stainless steel

(mm)

Code	Range	Thumb roller	L	a	b	d
1102-150*	0-150mm/0-6"	with	234	20	15	40
1102-200*	0-200mm/0-8"	with	286	24	19	50
1102-300*	0-300mm/0-12"	with	390	26	21.5	60
1102-150W*	0-150mm/0-6"	without	234	20	15	40
1102-200W*	0-200mm/0-8"	without	286	24	19	50
1102-300W*	0-300mm/0-12"	without	390	26	21.5	60

*Supplied with manufacturer inspection certificate

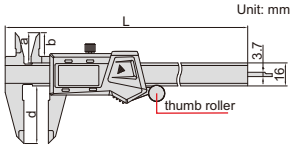
DIGITAL CALIPERS (ABSOLUTE SYSTEM)

INSPECTION CERTIFICATE

DATA OUTPUT

1103-150

- Absolute system, low power consumption, long battery life
- Accuracy: ±0.03mm
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, mm/inch, ORIGIN, ZERO/ABS
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Meet DIN862
- Made of stainless steel
- Optional accessory: wireless transmitter, code **7315-1103**, data output cable (keyboard format), code **7302-1103**



(mm)

Code	Range	Thumb roller	L	a	b	d
1103-150*	0-150mm/0-6"	with	236	21	16.5	40
1103-200*	0-200mm/0-8"	with	286	24	19.5	50
1103-300*	0-300mm/0-12"	with	400	26	21.5	60
1103-150W*	0-150mm/0-6"	without	236	21	16.5	40
1103-200W*	0-200mm/0-8"	without	286	24	19.5	50
1103-300W*	0-300mm/0-12"	without	400	26	21.5	60

*Supplied with manufacturer inspection certificate

DIGITAL CALIPERS (STANDARD TYPE)

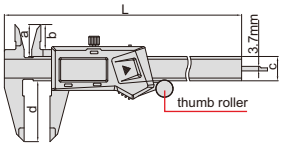
DATA OUTPUT

INSPECTION CERTIFICATE

ATTENTION: NOT WATERPROOF

1108-150

- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output, meet DIN862
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)



With thumb roller (mm)

Code	Range	Accuracy	L	a	b	c	d
1108-150*	0-150mm/0-6"	±0.02mm	236	21	16	16	40
1108-200*	0-200mm/0-8"	±0.03mm	286	24	19	16	50
1108-300*	0-300mm/0-12"	±0.03mm	400	25	20.5	16	60

Without thumb roller (mm)

Code	Range	Accuracy	L	a	b	c	d
1108-150W*	0-150mm/0-6"	±0.02mm	236	21	16	16	40
1108-200W*	0-200mm/0-8"	±0.03mm	286	24	19	16	50
1108-300W*	0-300mm/0-12"	±0.03mm	400	25	20.5	16	60

*Supplied with manufacturer inspection certificate

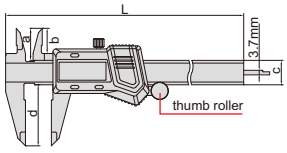
DIGITAL CALIPERS

ATTENTION: NO DATA OUTPUT

INSPECTION CERTIFICATE

1114-150A

- Zinc alloy housing for digital unit
- Resolution: 0.01mm/0.0005"
- Buttons: zero, on/off, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, meet DIN862
- Made of stainless steel



With thumb roller (mm)

Code	Range	Accuracy	L	a	b	c	d
1114-150A*	0-150mm/0-6"	±0.03mm	236	21	16	16	40
1114-200A*	0-200mm/0-8"	±0.03mm	286	24	19	16	50
1114-300A*	0-300mm/0-12"	±0.03mm	400	25	20.5	17	60

Without thumb roller (mm)

Code	Range	Accuracy	L	a	b	c	d
1114-150AW*	0-150mm/0-6"	±0.03mm	236	21	16	16	40
1114-200AW*	0-200mm/0-8"	±0.03mm	286	24	19	16	50
1114-300AW*	0-300mm/0-12"	±0.03mm	400	25	20.5	17	60

*Supplied with manufacturer inspection certificate

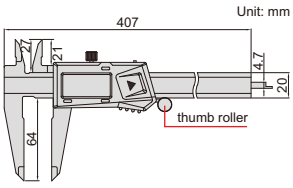
HEAVY DUTY 300mm DIGITAL CALIPERS

INSPECTION CERTIFICATE

DATA OUTPUT

1196-300

- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Meet DIN862
- Made of stainless steel
- Optional accessory: data output cable (code **7315-22**, **7302-22**)



Code	Range	Accuracy	Thumb roller
1196-300*	0-300mm/0-12"	±0.03mm	with
1196-300W*	0-300mm/0-12"	±0.03mm	without

*Supplied with manufacturer inspection certificate

DIGITAL CALIPERS WITH ROUND DEPTH BAR

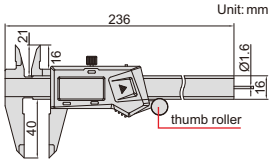
DATA OUTPUT

INSPECTION CERTIFICATE

1119-150

round depth bar Ø1.6mm

- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Meet DIN862
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)



Code	Range	Accuracy	Thumb roller
1119-150*	0-150mm/0-6"	±0.03mm	with
1119-150W*	0-150mm/0-6"	±0.03mm	without

*Supplied with manufacturer inspection certificate

METRIC DIGITAL CALIPERS

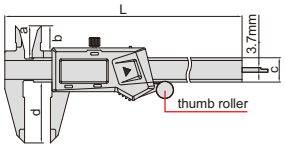
DATA OUTPUT

LOCK READING WITH "HOLD" BUTTON

INSPECTION CERTIFICATE

1109-150

- Resolution: 0.01mm
- Buttons: on/off, zero, hold
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output, meet DIN862
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)



(mm)

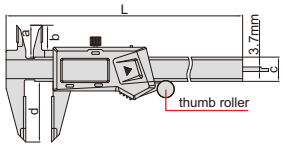
Code	Range	Accuracy	Thumb roller	L	a	b	c	d
1109-150*	0-150mm	±0.03mm	with	236	21	16	16	40
1109-200*	0-200mm	±0.03mm	with	286	24	19	16	50
1109-300*	0-300mm	±0.03mm	with	400	25	20.5	16	60
1109-150W*	0-150mm	±0.03mm	without	236	21	16	16	40
1109-200W*	0-200mm	±0.03mm	without	286	24	19	16	50
1109-300W*	0-300mm	±0.03mm	without	400	25	20.5	16	60

*Supplied with manufacturer inspection certificate

DIGITAL CALIPERS WITH CARBIDE TIPPED JAWS

DATA OUTPUT

INSPECTION CERTIFICATE



- Accuracy: ±0.03mm
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Meet DIN862
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)

1110-150A

1110-150B

Carbide tipped upper and lower jaws (mm)

Code	Range	Thumb roller	L	a	b	c	d
1110-150A*	0-150mm/0-6"	with	236	21	16	16	40
1110-200A*	0-200mm/0-8"	with	286	24	19	16	50
1110-300A*	0-300mm/0-12"	with	400	25	20.5	16	60
1110-150AW*	0-150mm/0-6"	without	236	21	16	16	40
1110-200AW*	0-200mm/0-8"	without	286	24	19	16	50
1110-300AW*	0-300mm/0-12"	without	400	25	20.5	16	60

*Supplied with manufacturer inspection certificate

Carbide tipped lower jaws (mm)

Code	Range	Thumb roller	L	a	b	c	d
1110-150B*	0-150mm/0-6"	with	236	21	16	16	40
1110-200B*	0-200mm/0-8"	with	286	24	19	16	50
1110-300B*	0-300mm/0-12"	with	400	25	20.5	16	60
1110-150BW*	0-150mm/0-6"	without	236	21	16	16	40
1110-200BW*	0-200mm/0-8"	without	286	24	19	16	50
1110-300BW*	0-300mm/0-12"	without	400	25	20.5	16	60

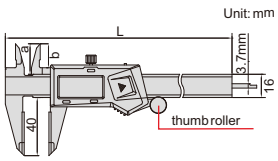
DIGITAL CALIPERS WITH CERAMIC TIPPED JAWS

INSPECTION CERTIFICATE

DATA OUTPUT

- Ceramic tipped jaws for outside measurement, extremely wear-resistant, non-magnetic and non electric conductive
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Meet DIN862
- Optional accessory: data output cable (code **7315-21**, **7302-21**)

1193-150



(mm)

Code	Range	Accuracy	Thumb roller	L	a	b
1193-150*	0-150mm/0-6"	±0.03mm	with	235	21	16.5
1193-150W*	0-150mm/0-6"	±0.03mm	without	235	21	16.5

*Supplied with manufacturer inspection certificate

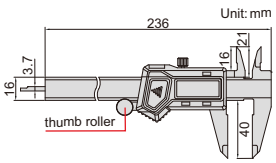
LEFT HAND DIGITAL CALIPERS

INSPECTION CERTIFICATE

DATA OUTPUT

- Designed for left handed users
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Meet DIN862
- Made of stainless steel
- Optional accessory: data output cable (code **7315-22**, **7302-22**)

1130-150



Code	Range	Accuracy	Thumb roller
1130-150*	0-150mm/0-6"	±0.03mm	with
1130-150W*	0-150mm/0-6"	±0.03mm	without

*Supplied with manufacturer inspection certificate

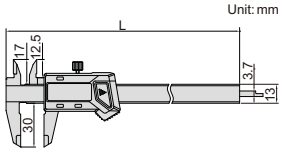
MINI DIGITAL CALIPERS

ATTENTION: NO DATA OUTPUT

1111-100A

- Resolution: 0.01mm/0.0005"
- Buttons: zero, mm/inch, on/off
- Automatic power off, move the digital unit to turn on power
- Battery LR44
- Meet DIN862
- Made of stainless steel

Unit: mm



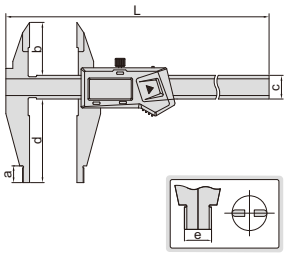
Code	Range	Accuracy	L
1111-75A	0-75mm/0-3"	±0.02mm	144mm
1111-100A	0-100mm/0-4"	±0.02mm	170mm

DIGITAL CALIPERS

DATA OUTPUT

1171-300

- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)



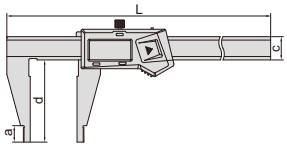
(mm)

Code	Range	Accuracy	L	a	b	c	d	e
1171-200	0-200mm/0-8"	±0.03mm	320	12	38	17	60	10
1171-306	0-300mm/0-12"	±0.04mm	420	12	38	17	60	10
1171-300	0-300mm/0-12"	±0.06mm	420	12	38	17	90	10

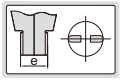
DIGITAL CALIPERS

DATA OUTPUT

1170-300



- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)



(mm)

Code	Range	Accuracy	L	a	c	d	e
1170-200	0-200mm/0-8"	±0.03mm	314	12	17	60	10
1170-306	0-300mm/0-12"	±0.04mm	420	12	17	60	10
1170-300	0-300mm/0-12"	±0.06mm	420	12	17	90	10

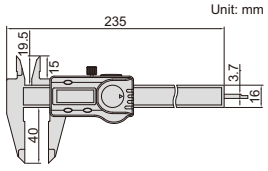
PLASTIC DIGITAL CALIPER

ATTENTION: NO DATA OUTPUT

1139-150

- Made of hard plastic, non-magnetic and non electric conductive
- Prevent workpieces from scratching by calipers
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Battery CR2032, automatic power off

Unit: mm



Code	Range	Accuracy
1139-150	0-150mm/0-6"	±0.1mm

DIAL CALIPERS

INSPECTION CERTIFICATE

SHOCK PROOF

- Shockproof dial indicator
- Made of stainless steel

1312-150A

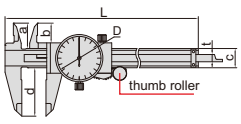
Dial indicator graduation: 0.02mm (mm)

Code	Range	Accuracy	Thumb roller	L	a	b	c	d	D	t
1312-150A*	0-150mm	±0.03mm	with	235	21	16.5	16	40	Ø39	6.5
1312-200A*	0-200mm	±0.03mm	with	288	24	19	16	48	Ø39	6.5
1312-300A*	0-300mm	±0.03mm	with	410	28	22	20	62	Ø44.5	7.5

Dial indicator graduation: 0.01mm (mm)

Code	Range	Accuracy	Thumb roller	L	a	b	c	d	D	t
1311-150A*	0-150mm	±0.03mm	with	235	21	16.5	16	40	Ø39	6.5
1311-200A*	0-200mm	±0.03mm	with	288	24	19	16	48	Ø39	6.5
1311-300A*	0-300mm	±0.03mm	with	410	28	22	20	62	Ø44.5	7.5

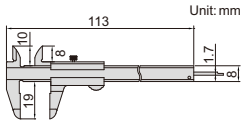
*Supplied with manufacturer inspection certificate



MINI VERNIER CALIPERS

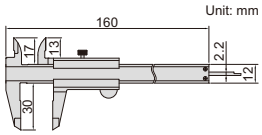
- Meet DIN862
- Made of stainless steel
- Satin chrome plated reading surface

1204-70



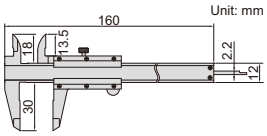
Code	Range	Graduation	Accuracy
1204-70	0-70mm	0.05mm	±0.05mm

1203-1003



Code	Range	Graduation	Accuracy
1203-1003	0-100mm	0.05mm	±0.05mm

1201-1003

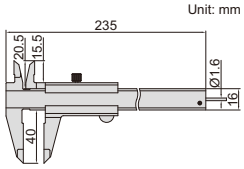


Code	Range	Graduation	Accuracy
1201-1003	0-100mm	0.05mm	±0.05mm

VERNIER CALIPER WITH ROUND DEPTH BAR

- Graduation: 0.05mm/1/128"
- Round depth bar
- Meet DIN862
- Made of stainless steel
- Satin chrome plated reading surface

1202-150



Code	Range	Accuracy
1202-150	0-150mm/0-6"	±0.05mm

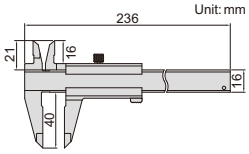
VERNIER CALIPERS (ANTI MAGNETIC)

ATTENTION: NOT HARDENED

PURE COPPER

- Suitable for magnetic parts
- Made of pure copper

1224-150A

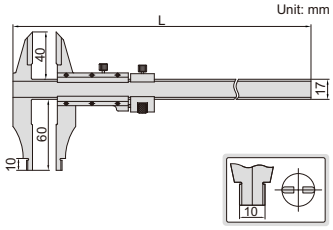


Code	Range	Graduation	Accuracy
1224-150A	0-150mm	0.02mm	±0.05mm
1224-1501A	0-150mm	0.05mm	±0.05mm

VERNIER CALIPERS

- With fine adjustment
- Made of stainless steel
- Satin chrome plated reading surface

1217-3001

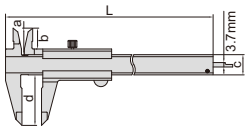


Code	Range	Graduation	Accuracy	L
1217-2503	0-250mm	0.05mm	±0.05mm	360mm
1217-3001	0-300mm	0.02mm	±0.03mm	410mm

VERNIER CALIPERS

- Meet DIN862
- Made of stainless steel
- Satin chrome plated reading surface

1205-1502S



Graduation 0.05mm/1/128" (mm)

Code	Range	Accuracy	L	a	b	c	d
1205-150S	0-150mm/0-6"	±0.05mm	235	20.5	15.5	16	40
1205-200S	0-200mm/0-8"	±0.05mm	290	23.5	19	17	50
1205-300S	0-300mm/0-12"	±0.05mm	414	27.5	22	20	64

Graduation 0.05mm (mm)

Code	Range	Accuracy	L	a	b	c	d
1205-1503S	0-150mm	±0.05mm	235	20.5	15.5	16	40
1205-2003S	0-200mm	±0.05mm	290	23.5	19	17	50
1205-3003S	0-300mm	±0.05mm	414	27.5	22	20	64

Graduation 0.02mm/0.001" (mm)

Code	Range	Accuracy	L	a	b	c	d
1205-1502S	0-150mm/0-6"	±0.03mm	235	20.5	15.5	16	40
1205-2002S	0-200mm/0-8"	±0.03mm	290	23.5	19	17	50
1205-3002S	0-300mm/0-12"	±0.03mm	414	27.5	22	20	64

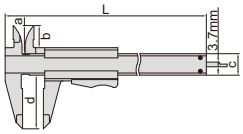
Graduation 0.02mm (mm)

Code	Range	Accuracy	L	a	b	c	d
1205-1501S	0-150mm	±0.03mm	235	20.5	15.5	16	40
1205-2001S	0-200mm	±0.03mm	290	23.5	19	17	50
1205-3001S	0-300mm	±0.03mm	414	27.5	22	20	64

VERNIER CALIPERS WITH THUMB CLAMP

1223-150

- Meet DIN862
- With thumb clamp
- Made of stainless steel
- Satin chrome plated reading surface



Graduation 0.05mm/1/128" (mm)

Code	Range	Accuracy	L	a	b	c	d
1223-150	0-150mm/0-6"	±0.05mm	230	20.5	16.5	16	40
1223-200	0-200mm/0-8"	±0.05mm	295	23.5	19	16	50

Graduation 0.02mm/0.001" (mm)

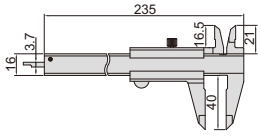
Code	Range	Accuracy	L	a	b	c	d
1223-1502	0-150mm/0-6"	±0.03mm	230	20.5	16.5	16	40
1223-2002	0-200mm/0-8"	±0.03mm	295	23.5	19	16	50

LEFT HAND VERNIER CALIPERS

1239-1502

- Designed for left handed users
- Made of stainless steel
- Satin chrome plated reading surface

Unit: mm



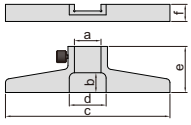
Code	Range	Graduation	Accuracy
1239-150	0-150mm/0-6"	0.05mm/1/128"	±0.05mm
1239-1502	0-150mm/0-6"	0.02mm/0.001"	±0.03mm

DEPTH BASE ATTACHMENTS

- To increase the stability of depth measurement
- Suitable for digital calipers and dial calipers
- Made of stainless steel

6140

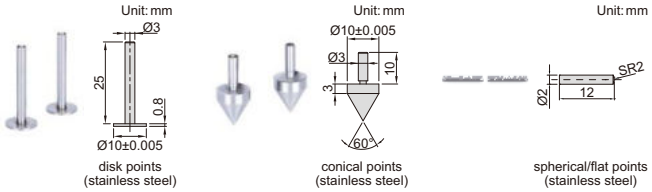
6140-16B

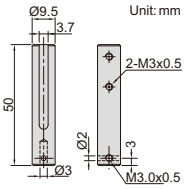


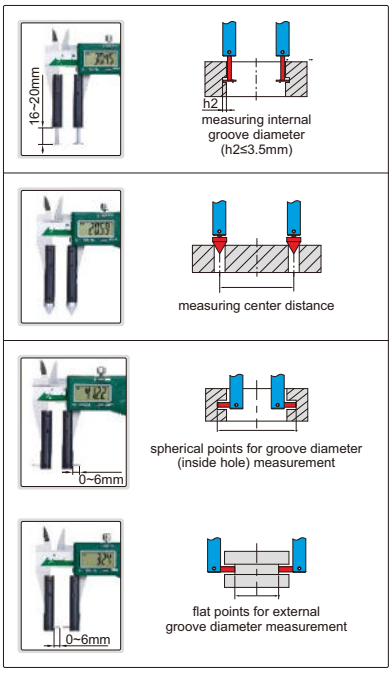
(mm)

Code	a	b	c	d	e	f	Type	Application
6140	16.5	9	75	18	30	6	narrow base (f=6)	Suitable for calipers with beam width (w) 16mm
6140-300A	20	15	125	22	34	9	narrow base (f=9)	Suitable for calipers with beam width (w) 20mm
6140-16B	16	12.5	75	24.5	30	11	wide base (f=11), high stability	Suitable for calipers with beam width (w) 16mm

ACCESSORY SET FOR DIGITAL CALIPERS CODE 6144





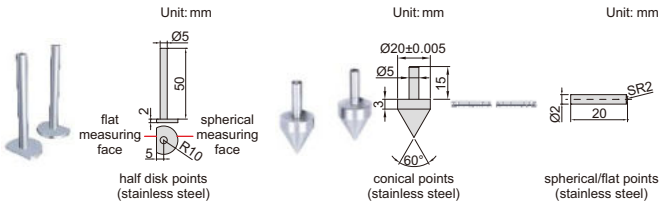


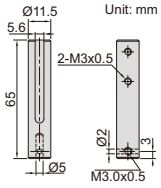
- Suitable for 0-150mm/0-6" and 0-200mm/0-8" digital calipers (thickness of lower jaws≤3.7mm)

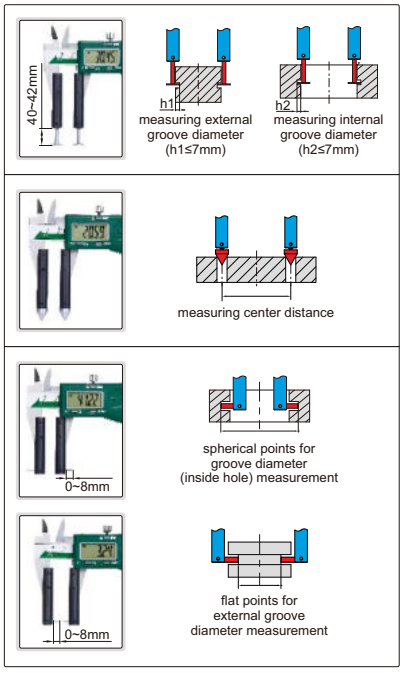
Code
6144

VIDEO

ACCESSORY SET FOR LARGE DIGITAL CALIPERS CODE 6145-500





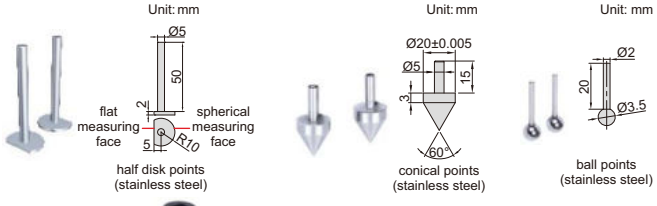


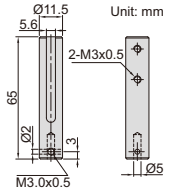
- Suitable for 0-500mm/0-20" and 0-600mm/0-24" digital calipers (thickness of lower jaws≤5.6mm)

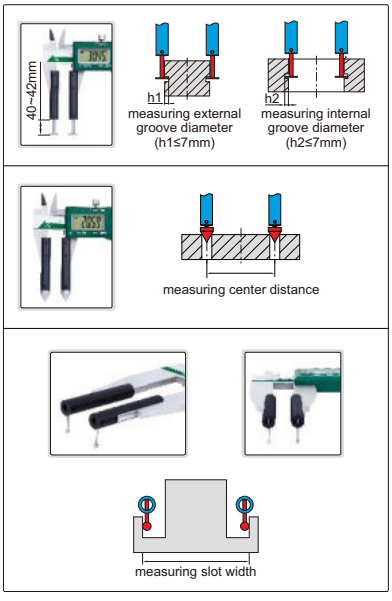
Code
6145-500

VIDEO

ACCESSORY SET FOR LARGE DIGITAL CALIPERS (WITH SIDE POINTS) CODE 6146-500B







- Suitable for 0-500mm/0-20" and 0-600mm/0-24" digital calipers (thickness of lower jaws≤5.6mm)

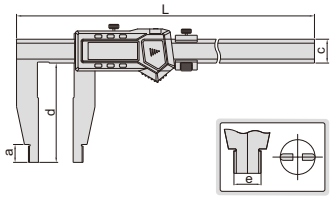
Code
6146-500B

VIDEO

DIGITAL CALIPERS

DATA OUTPUT

1106-501



- Resolution: 0.01mm/0.0005"
- Button function: on/off, zero, mm/inch, ABS, data preset
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable for range ≤1000mm (code **7315-22**, **7302-22**)

(mm)

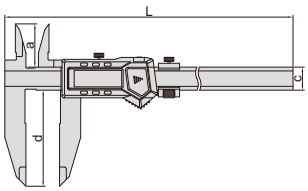
Code	Range	Accuracy	a	c	d	e	L
1106-301	0-300mm/0-12"	±0.05mm	18	24	100	20	420
1106-302	0-300mm/0-12"	±0.05mm	18	24	150	20	420
1106-451	0-450mm/0-18"	±0.05mm	18	24	100	20	625
1106-501	0-500mm/0-20"	±0.05mm	18	24	100	20	675
1106-502	0-500mm/0-20"	±0.06mm	18	24	150	20	675
1106-503	0-500mm/0-20"	±0.06mm	24	31	200	20	675
1106-601	0-600mm/0-24"	±0.05mm	18	24	100	20	770
1106-802	0-800mm/0-32"	±0.07mm	24	31	150	20	1025
1106-1002	0-1000mm/0-40"	±0.08mm	24	31	150	20	1220
1106-1502	0-1500mm/0-60"	±0.11mm	24	42	150	20	1780
1106-2002	0-2000mm/0-80"	±0.14mm	24	42	150	20	2290

DIGITAL CALIPERS

DATA OUTPUT

1135-601

- Resolution: 0.01mm/0.0005"
- Button function: on/off, zero, mm/inch, ABS, data preset
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-22**, **7302-22**)



(mm)

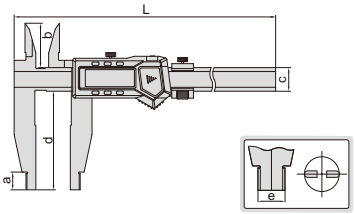
Code	Range	Accuracy	a	c	d	L
1135-451	0-450mm/0-18"	±0.05mm	45	24	100	625
1135-601	0-600mm/0-24"	±0.05mm	45	24	100	770
1135-1002	0-1000mm/0-40"	±0.08mm	60	31	150	1220

DIGITAL CALIPERS

DATA OUTPUT

1136-501

- Resolution: 0.01mm/0.0005"
- Button function: on/off, zero, mm/inch, ABS, data preset
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-22**, **7302-22**)



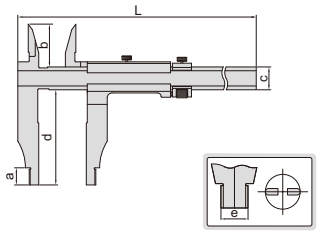
(mm)

Code	Range	Accuracy	a	b	c	d	e	L
1136-301	0-300mm/0-12"	±0.05mm	18	45	24	100	20	420
1136-501	0-500mm/0-20"	±0.05mm	18	45	24	100	20	675
1136-502	0-500mm/0-20"	±0.06mm	18	45	24	150	20	675
1136-601	0-600mm/0-24"	±0.05mm	18	45	24	100	20	770
1136-1002	0-1000mm/0-40"	±0.08mm	24	60	31	150	20	1220

VERNIER CALIPERS (SOLID TYPE)

solid type (without screw)

1236-511



- With fine adjustment
- Made of stainless steel
- Satin chrome plated reading surface

Graduation 0.05mm/1/128" (mm)

Code	Range	Accuracy	a	b	c	d	e	L
1236-524	0-500mm/0-20"	±0.08mm	18	45	24	150	20	670
1236-614	0-600mm/0-24"	±0.08mm	18	45	24	100	20	770
1236-1024	0-1000mm/0-40"	±0.12mm	24	60	31	150	20	1230

Graduation 0.02mm (mm)

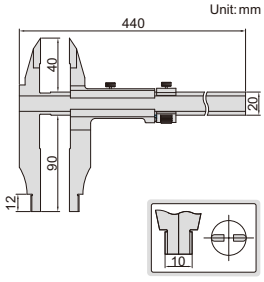
Code	Range	Accuracy	a	b	c	d	e	L
1236-511	0-500mm	±0.05mm	18	45	24	100	20	670
1236-1021	0-1000mm	±0.08mm	24	60	31	150	20	1230

VERNIER CALIPER (SOLID TYPE)

solid type (without screw)

1207-394

- Graduation 0.05mm/1/128"
- With fine adjustment
- Made of stainless steel
- Satin chrome plated reading surface



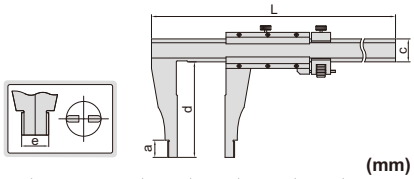
Code	Range	Accuracy
1207-394	0-300mm/0-12"	±0.07mm

VERNIER CALIPERS (SEPARATE TYPE)

separate type (with screws)

1214-500

- Graduation 0.02mm/0.001"
- With fine adjustment
- Made of stainless steel
- Satin chrome plated reading surface



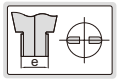
(mm)

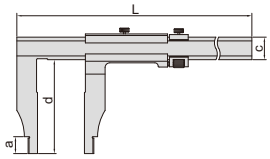
Code	Range	Accuracy	a	c	d	e	L
1214-300	0-300mm/0-12"	±0.05mm	10	20	75	10	410
1214-450	0-450mm/0-18"	±0.05mm	18	24	100	20	620
1214-500	0-500mm/0-20"	±0.05mm	18	24	100	20	670
1214-600	0-600mm/0-24"	±0.05mm	18	24	100	20	770
1214-1000	0-1000mm/0-40"	±0.08mm	24	32	140	20	1216

VERNIER CALIPERS (SOLID TYPE)

solid type (without screw)

1208-521





- With fine adjustment
- Made of stainless steel
- Satin chrome plated reading surface

Graduation 0.05mm/1/128" **(mm)**

Code	Range	Accuracy	a	c	d	e	L
1208-214	0-200mm/0-8"	±0.06mm	10	20	100	10	330
1208-394	0-300mm/0-12"	±0.07mm	10	20	90	10	410
1208-324	0-300mm/0-12"	±0.07mm	18	24	150	20	410
1208-524	0-500mm/0-20"	±0.08mm	18	24	150	20	670
1208-614	0-600mm/0-24"	±0.08mm	18	24	100	20	770
1208-824	0-800mm/0-32"	±0.09mm	24	31	150	20	1030
1208-1024	0-1000mm/0-40"	±0.12mm	24	31	150	20	1230

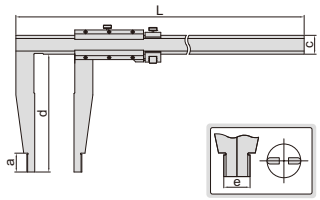
Graduation 0.02mm **(mm)**

Code	Range	Accuracy	a	c	d	e	L
1208-521	0-500mm	±0.06mm	18	24	150	20	670
1208-1021	0-1000mm	±0.08mm	24	31	150	20	1230

LONG JAW VERNIER CALIPERS (SEPARATE TYPE)

1215-1034

separate type (with screws)



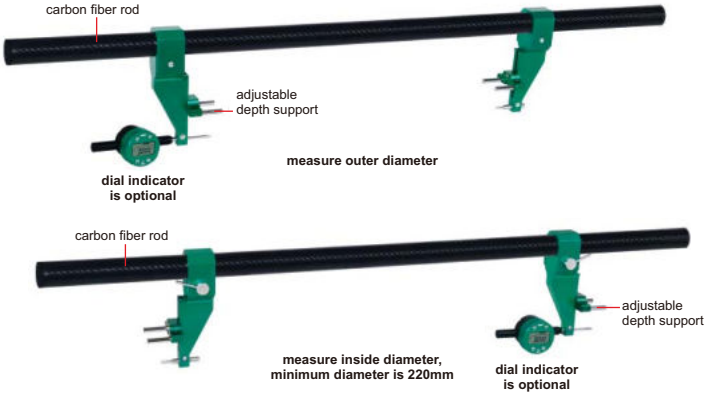
- With fine adjustment
- Made of stainless steel
- Satin chrome plated reading surface

Graduation 0.05mm/1/128" **(mm)**

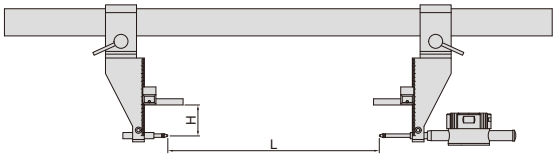
Code	Range	Accuracy	a	c	d	e	L
1215-524	0-500mm/0-20"	±0.08mm	18	24	150	20	670
1215-1034	0-1000mm/0-40"	±0.12mm	24	32	200	20	1330

CARBON FIBER COMPARISON GAGES

CARBON FIBER RODS, LIGHT WEIGHT, NOT EASY TO DEFORM, NO TEMPERATURE EXPAND, SUITABLE FOR THIN-WALL WORKPIECES AND LARGE-SIZE WORKPIECES



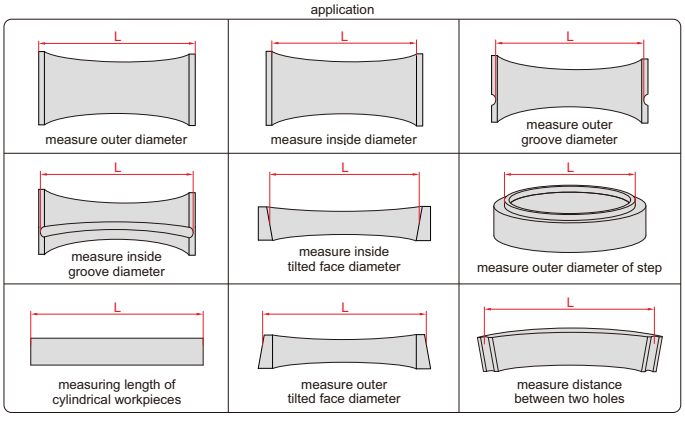
2931-D1000A



- Measure outer diameter, inside diameter, holes distance and cylindrical workpiece length
- Carbon fiber rods, light weight, not easy to deform, no temperature expand
- Optional accessory: cylinder gage blocks (code **4001**)

VIDEO

application



Code	Maximum measuring range (L)	Measuring depth (H)	Repeatability	Weight
2931-D1000A	1000mm	0-100mm	5μm	2.0kg
2931-D1000B	1000mm	0-200mm	10μm	2.3kg
2931-D1000C	1000mm	0-300mm	25μm	2.6kg
2931-D1500A	1500mm	0-100mm	8μm	2.3kg
2931-D1500B	1500mm	0-200mm	15μm	2.6kg
2931-D1500C	1500mm	0-300mm	30μm	2.9kg
2931-D2000A	2000mm	0-100mm	10μm	2.6kg
2931-D2000B	2000mm	0-200mm	20μm	2.9kg
2931-D2000C	2000mm	0-300mm	35μm	3.2kg
2931-D2500A	2500mm	0-100mm	12μm	2.9kg
2931-D2500B	2500mm	0-200mm	25μm	3.2kg
2931-D2500C	2500mm	0-300mm	50μm	3.5kg
2931-D3000A	3000mm	0-100mm	14μm	3.2kg
2931-D3000B	3000mm	0-200mm	30μm	3.5kg
2931-D3000C	3000mm	0-300mm	60μm	3.8kg
2931-D4000A	4000mm	0-100mm	16μm	3.8kg
2931-D4000B	4000mm	0-200mm	35μm	4.1kg
2931-D4000C	4000mm	0-300mm	65μm	4.4kg

UNIVERSAL CALIPER
CODE 1125-600

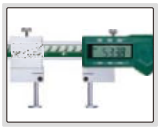
VIDEO

DATA OUTPUT

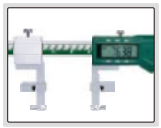
1125-600

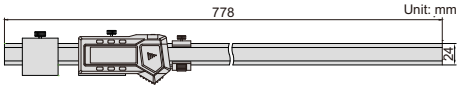
- Buttons: on/off, set, mm/inch, ABS, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-22**, **7302-22**)

working with stands



working with measuring jaws

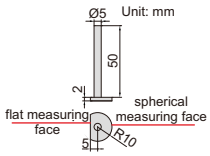


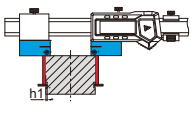


Code	Range*	Resolution	Accuracy
1125-600	0-600mm/0-24"	0.01mm/0.0005"	±0.05mm

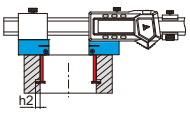
*The range changes according to different points

Half disk points (included)



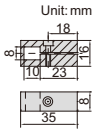


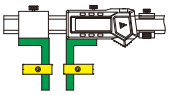
Measuring external groove diameter with flat measuring face(depth h1≤2.5mm)



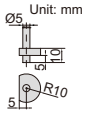
Measuring internal groove diameter with spherical measuring face(depth h2≤7.5mm)

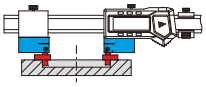
Depth stop (included)





Round shoulder points (optional)

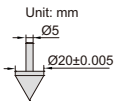


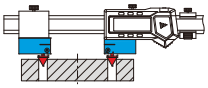


Measure inside diameter of shallow hole

Code
1125-T102

Conical points (optional)

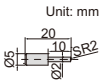


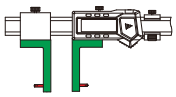


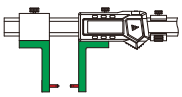
Measuring center distance

Code
1125-T101

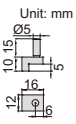
Spherical points (included)

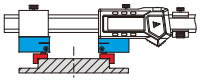






Flat shoulder points (optional)

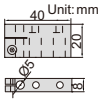


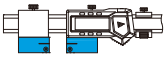


Measure outside diameter of low boss

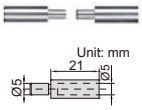
Code
1125-T103

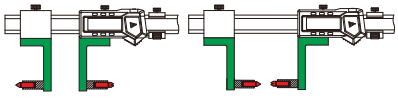
Stands (included)





Point sleeve (optional)

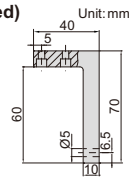


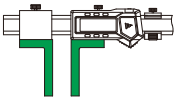


Working with multifunctional points, ball points and screw thread points

Code
1125-T104

Measuring jaws (included)





Multifunctional points 7392* (optional)

Ball points 7391* (optional)

Screw thread points 7381*, 7321* (optional)

*It is necessary to use point sleeve (code **1125-T104**) for these points

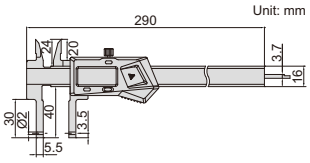
DIGITAL CALIPER WITH INTERCHANGEABLE POINTS
CODE 1526-200

DATA OUTPUT

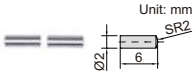
VIDEO

1526-200

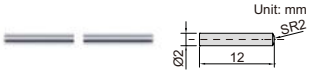
preset buttons



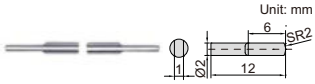
short spherical points (included)



long spherical/flat points (included)



spherical blade points (included)



- Supplied with 3 pairs of points and zero setting block for external measurement
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: points, data output cable (code **7315-21**, **7302-21**)

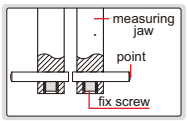
Point	Range	Accuracy	Application
short spherical points	12-212mm/0.5-8.5"(internal)	±0.03mm	for grooves inside small hole
long spherical/flat points	24-224mm/1-8.8"(internal) 0-187mm/0-7.5"(external)	±0.03mm	spherical points for grooves inside hole flat points for external grooves
spherical blade points	24-224mm/1-8.8"(internal) 0-187mm/0-7.5"(external)	±0.03mm	for narrow grooves inside hole

To be continued

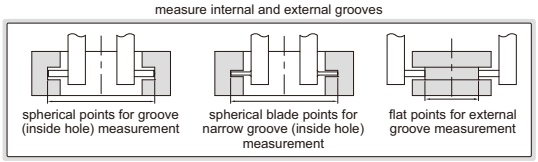
Continued from previous page

zero setting block for external measurement (included)

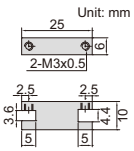
install points



measure internal and external grooves

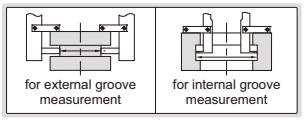


Depth stop (optional)



6143

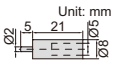
Code
6143

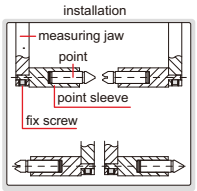


Point sleeve (optional)

1526-T101

Code
1526-T101





Ball points (optional)

7391-T5

Code	Ball dia. (D)
7391-T3*	SØ2.0mm
7391-T4*	SØ2.5mm
7391-T5*	SØ3.0mm
7391-T6*	SØ3.5mm
7391-T7*	SØ4.0mm
7391-T8*	SØ4.5mm
7391-T9*	SØ5.0mm
7391-T10*	SØ6.0mm

*It is necessary to use point sleeve (code **1526-T101**) for these points

Multifunctional points (optional)

7392-T1

7392-T2

7392-T3

7392-T4

7392-T5

7392-T6

7392-T7

7392-T8

7392-T9

Code	Type
7392-T1*	flat
7392-T2*	spherical
7392-T3*	spline

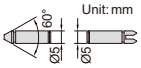
Code	Type
7392-T4*	disk
7392-T5*	blade
7392-T6*	knife-edge

Code	Type
7392-T7*	point
7392-T8*	knife-edge
7392-T9*	point

*It is necessary to use point sleeve (code **1526-T101**) for these points

Screw thread points (optional)

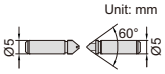
7321-T16



Internal thread (60° thread angle)

Code	Pitch
7321-T11*	0.4-0.5mm/64-48TPI
7321-T12*	0.6-0.9mm/44-28TPI
7321-T13*	1-1.75mm/24-14TPI
7321-T14*	2-3mm/13-9TPI
7321-T15*	3.5-5mm/8-5TPI
7321-T16*	5.5-7mm/4.5-3.5TPI
7321-T1S*	6 pairs/set, including all above points

7381-T11



External thread (60° thread angle)

Code	Pitch
7381-T11*	0.4-0.5mm/64-48TPI
7381-T12*	0.6-0.9mm/44-28TPI
7381-T13*	1-1.75mm/24-14TPI
7381-T14*	2-3mm/13-9TPI
7381-T15*	3.5-5mm/8-5TPI
7381-T16*	5.5-7mm/4.5-3.5TPI
7381-TS*	6 pairs/set, including all above points

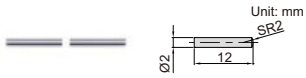
*It is necessary to use point sleeve (code **1526-T101**) for these points

DIGITAL CALIPER WITH INTERCHANGEABLE POINTS
CODE 1124-300A

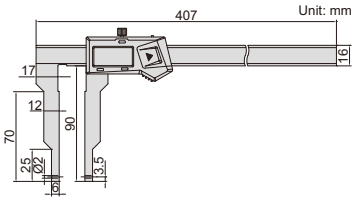
VIDEO

DATA OUTPUT

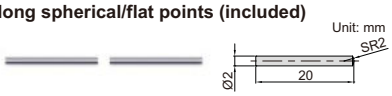
short spherical/flat points (included)



1124-300A



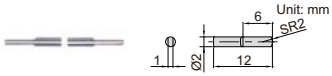
long spherical/flat points (included)



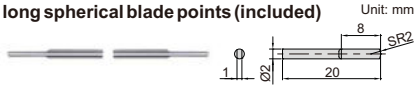
depth stop **6143** (**optional**)

preset buttons

short spherical blade points (included)

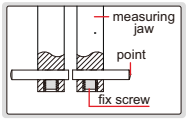


long spherical blade points (included)

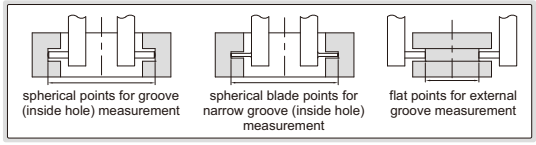


zero setting block for external measurement (included)

install points



measure internal and external grooves



- Supplied with 4 pairs of points and zero setting block for external measurement
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: points (code **1526-T101, 7392, 7391, 7381, 7321**), depth stop (code **6143**), data output cable (code **7315-21**, **7302-21**)

Point	Range	Accuracy	Application
short spherical/ flat points	24-324mm/1-12.7"(internal) 0-288mm/0-11.3"(external)	±0.04mm	spherical points for grooves inside hole (small hole) flat points for external grooves
long spherical/ flat points	40-340mm/1.5-13.3"(internal) 0-272mm/0-10.7"(external)	±0.04mm	spherical points for grooves inside hole (large hole) flat points for external grooves
short spherical blade points	24-324mm/1-12.7"(internal) 0-288mm/0-11.3"(external)	±0.04mm	for narrow grooves inside hole (small hole)
long spherical blade points	40-340mm/1.5-13.3"(internal) 0-272mm/0-10.7"(external)	±0.04mm	for narrow grooves inside hole (large hole)

Multifunctional points 7392* **(optional)**

Ball points 7391*(optional)

Screw thread points 7381*, 7321* (optional)

*It is necessary to use point sleeve (code **1526-T101**) for these points

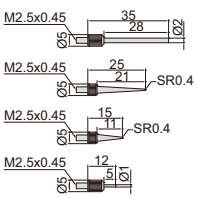
DIGITAL CALIPER WITH INTERCHANGEABLE POINTS

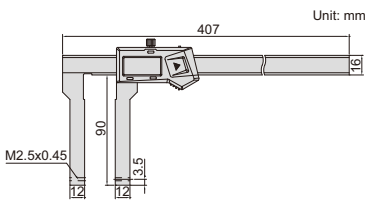
VIDEO

VARIOUS POINTS ARE AVAILABLE

DATA OUTPUT

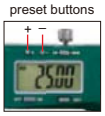
1530-300



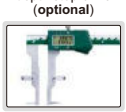


- Supplied with 4 pairs of points and zero setting block for external measurement
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: points, depth stop (code **6143**), data output cable (code **7315-21**, **7302-21**)

preset buttons

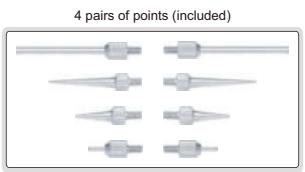


depth stop **6143** (**optional**)

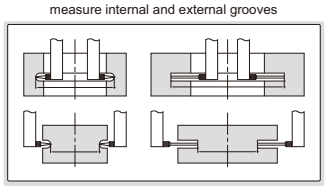


zero setting block for external measurement (included)

4 pairs of points (included)



measure internal and external grooves



Code	Range*	Accuracy
1530-300	0-300mm/0-12"	±0.04mm

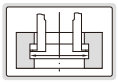
*For different points, the measuring range changes accordingly

DIGITAL INSIDE GROOVE CALIPERS

1520-150

1520-150P

depth stop **6143** (**optional**)



- Measure diameter of grooves inside small bores
- Resolution: 0.01mm/0.0005"
- Buttons type A: on/off, set, mm/inch, preset (+, -),
  type B: on/off, zero, mm/inch, ABS/REL, hold
- Battery CR2032
- Made of stainless steel
- Optional accessory: depth stop (code **6143**)

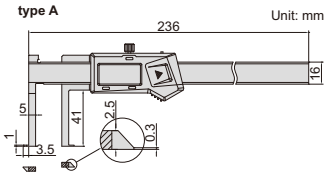
No dust/waterproof, with data interface
(data output cable code 7315-21, 7302-21, optional)

Code	Range	Type	Accuracy
1520-150	11-150mm/0.43-6"	A	±0.04mm

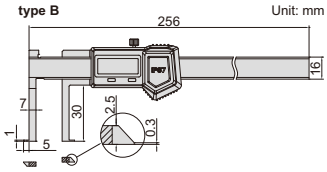
IP67 dust/waterproof, without data interface, no automatic power off, set zero after power on each time

Code	Range	Type	Accuracy
1520-150P	14-150mm/0.56-6"	B	±0.04mm

type A Unit: mm



type B Unit: mm



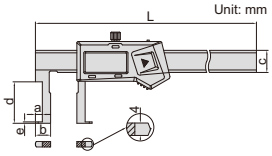
DIGITAL INSIDE GROOVE CALIPERS

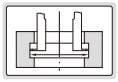
1120-150A
type A

1120-150P
type C

- Measure groove diameter
- Resolution: 0.01mm/0.0005"
- Buttons type A: on/off, set, mm/inch, preset (+, -) ,
  type C: on/off, zero, mm/inch, ABS/REL, hold
- Battery CR2032
- Made of stainless steel
- Optional accessory: depth stop (code **6143**,
  for calipers with c=16mm)

Unit: mm





No dust/waterproof, with data interface, preset (no need to add the width of the jaws on the reading) **(mm)**

Code	Range	Type	Accuracy	L	a	b	c	d	e	Data output cable (optional)
1120-150A	22-150mm/0.87-6"	A	±0.04mm	250	5	11	16	30	1	**7315-21, 7302-21**
1120-1501	35-150mm/1.38-6"	A	±0.06mm	250	6	17.5	16	60	1.5	**7315-21, 7302-21**
1120-200A	25-200mm/0.98-8"	A	±0.04mm	310	5	12.5	16	40	1	**7315-21, 7302-21**
1120-2001	40-200mm/1.57-8"	A	±0.06mm	310	7	20	16	70	2.5	**7315-21, 7302-21**
1120-300A	30-300mm/1.18-12"	A	±0.05mm	410	5	15	16	50	1.5	**7315-21, 7302-21**
1120-3001	50-300mm/1.97-12"	A	±0.07mm	410	8	25	16	80	2.5	**7315-21, 7302-21**
1120-500	40-500mm/1.57-20"	A	±0.07mm	680	5	20	24	90	2.2	**7315-22, 7302-22**

depth stop **6143** (**optional**)

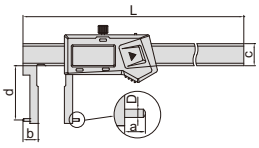
IP67 dust/waterproof, without data interface, no automatic power off, set zero after power on each time, no preset (need to add the width of the jaws on the reading) **(mm)**

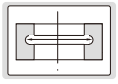
Code	Range	Type	Accuracy	L	a	b	c	d	e
1120-150P	22-150mm/0.87-6"	C	±0.04mm	250	5	11	16	30	1

DIGITAL INSIDE POINT CALIPERS

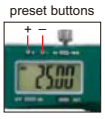
DATA OUTPUT

1121-150A





preset buttons



- Measure groove diameter
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory:
  depth stop (code **6143**,
  for calipers with c=16mm)

depth stop **6143** (**optional**)

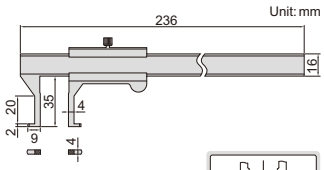
With data interface, preset (no need to add the width of the jaws on the reading) **(mm)**

Code	Range	Accuracy	L	a	b	c	d	D	Data output cable (optional)
1121-150A	24-150mm/0.94-6"	±0.04mm	250	5	12	16	28	Ø2	**7315-21, 7302-21**
1121-1501	35-150mm/1.38-6"	±0.05mm	250	6	17.5	16	60	Ø2	**7315-21, 7302-21**
1121-200A	25-200mm/0.98-8"	±0.04mm	310	5	12.5	16	37	Ø2	**7315-21, 7302-21**
1121-2001	40-200mm/1.57-8"	±0.05mm	310	7	20	16	70	Ø3	**7315-21, 7302-21**
1121-300A	30-300mm/1.18-12"	±0.07mm	410	5	15	16	50	Ø2	**7315-21, 7302-21**
1121-3001A	50-300mm/1.97-12"	±0.07mm	410	8	25	16	77	Ø3	**7315-21, 7302-21**
1121-500A	40-500mm/1.57-20"	±0.07mm	680	5	20	24	90	Ø3	**7315-22, 7302-22**

INSIDE GROOVE VERNIER CALIPER

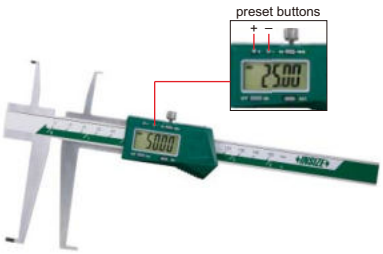
- Measure diameter of grooves inside bores
- Made of stainless steel
- Satin chrome plated reading surface

1262-150A

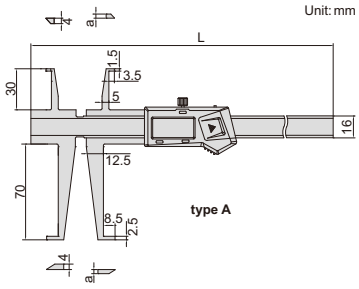


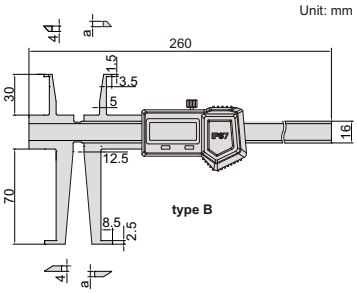
Code	Range	Graduation	Accuracy
1262-150A	18-150mm	0.02mm	±0.04mm

DIGITAL INSIDE GROOVE CALIPERS



1176-150

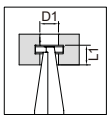




1176-150P

depth stop **6143** (**optional**)

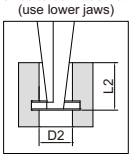
sizes to be measured (use upper jaws)



(mm)

D1	L1
Ø9	<8
Ø10	<15
Ø11~200	<30

sizes to be measured (use lower jaws)



(mm)

D2	L2
Ø17	<16
Ø18	<28
Ø19	<40
Ø20	<50
Ø21	<58
Ø22~200	<70

- Measure diameter of grooves inside bores
- Resolution: 0.01mm/0.0005"
- Buttons type A: on/off, set, mm/inch, preset (+, -),
  type B: on/off, zero, mm/inch, ABS/REL, hold
- Battery CR2032
- Made of stainless steel
- Optional accessory: depth stop (code **6143**)

No dust/waterproof, with data interface (data output cable code 7315-21, 7302-21, optional)

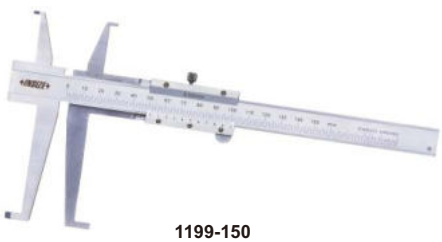
Code	Range of upper jaw	Range of lower jaw	Type	Accuracy	L	a
1176-150	9-150mm/0.35-6"	17-150mm/0.70-6"	A	±0.04mm	260mm	3mm
1176-200	9-200mm/0.35-8"	17-200mm/0.70-8"	A	±0.05mm	320mm	3.5mm

IP67 dust/waterproof, without data interface, no automatic power off, set zero after power on each time

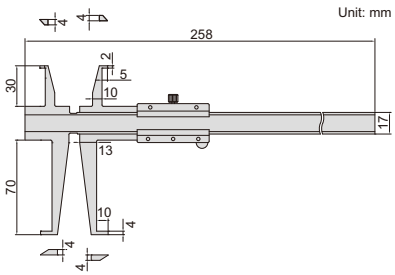
Code	Range of upper jaw	Range of lower jaw	Type	Accuracy	a
1176-150P	9-150mm/0.35-6"	17-150mm/0.70-6"	B	±0.04mm	4mm

INSIDE GROOVE CALIPER

depth stop **6143** (**optional**)



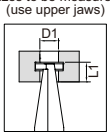
1199-150



- Measure diameter of grooves inside bores
- Graduation: 0.02mm
- Made of stainless steel
- Optional accessory: depth stop (code **6143**)

Code	Range of upper jaw	Range of lower jaw	Accuracy
1199-150	11-150mm	18-150mm	±0.03mm

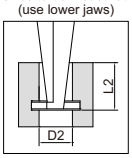
sizes to be measured (use upper jaws)



(mm)

D1	L1
Ø11	<8
Ø12	<10
Ø13	<15
Ø14	<20
Ø15~150	<30

sizes to be measured (use lower jaws)



(mm)

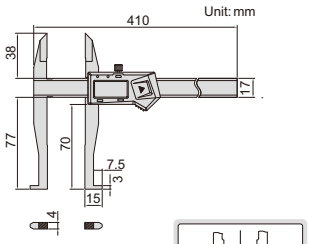
D2	L2
Ø18	<20
Ø19	<28
Ø20	<35
Ø21	<40
Ø22	<50
Ø23~150	<70

DIGITAL DEEP HOLE INSIDE GROOVE CALIPER

DATA OUTPUT

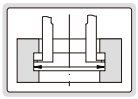
- Measure diameter of grooves inside deep holes
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: depth stop (code **6143**), data output cable (code **7315-21**, **7302-21**)

1129-300



preset buttons

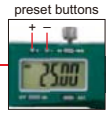
depth stop **6143** (**optional**)



Code	Range of upper jaw	Range of lower jaw	Accuracy
1129-300	0-300mm/0-12"	30-300mm/1.2-12"	±0.04mm

DIGITAL INSIDE GROOVE CALIPERS

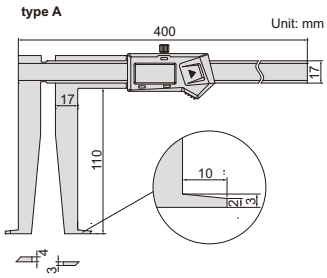
preset buttons



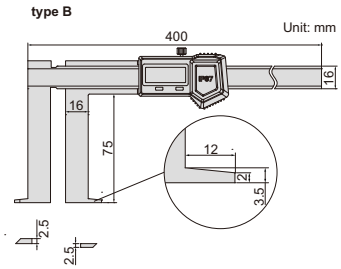
1178-300

1178-300P

type A



type B



- Measure diameter of grooves inside bores
- Resolution: 0.01mm/0.0005"
- Buttons type A: on/off, set, mm/inch, preset (+, -), type B: on/off, zero, mm/inch, ABS/REL, hold
- Battery CR2032
- Made of stainless steel
- Optional accessory: depth stop (code **6143**)

depth stop **6143** (**optional**)

No dust/waterproof, with data interface (data output cable code 7315-21, 7302-21, optional)

Code	Range	Type	Accuracy
1178-300	25-300mm/1.18-12"	A	±0.05mm

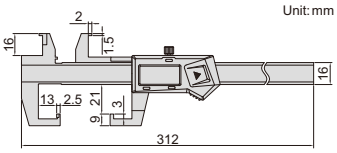
IP67 dust/waterproof, without data interface, no automatic power off, set zero after power on each time

Code	Range	Type	Accuracy
1178-300P	33-300mm/1.30-12"	B	±0.05mm

DIGITAL INSIDE GROOVE CALIPER

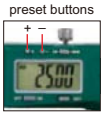
DATA OUTPUT

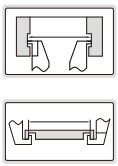
1128-200



- Measure distance of grooves
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)

preset buttons



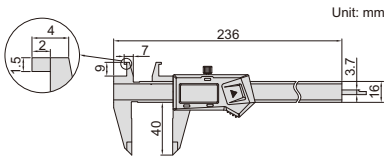


Code	Range of upper jaw	Range of lower jaw	Accuracy
1128-200	10-200mm/0.39-8"	3-200mm/0.12-8"	±0.03mm

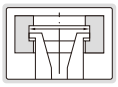
DIGITAL INSIDE GROOVE CALIPER

DATA OUTPUT

1191-150



- Upper jaws for measuring diameter of grooves
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)



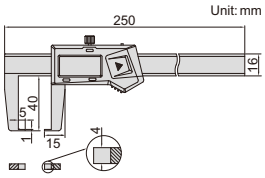
Code	Range of upper jaw	Range of lower jaw	Accuracy
1191-150	8-150mm/0.3-6"	0-150mm/0-6"	±0.03mm

DIGITAL OUTSIDE NECK CALIPER

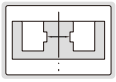
DATA OUTPUT

1187-150A

- Measure grooves and recesses
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: depth stop (code **6143**), data output cable (code **7315-21**, **7302-21**)



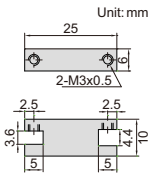
depth stop **6143** (**optional**)



Code	Range	Accuracy
1187-150A	0-150mm/0-6"	±0.04mm

DEPTH STOP FOR CALIPERS

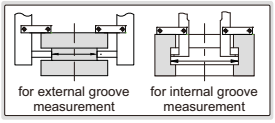
6143



- Supplied in pairs
- Made of stainless steel
- Suitable for caliper series **1124**, **1526**, **1530**, **1520**, **1176**, **1178**, **1120**, **1121**, **1187**, **1129** and **1185**

Code
6143

application

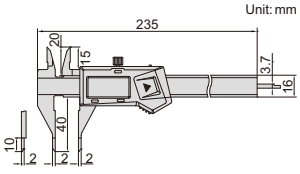


DIGITAL SMALL POINT CALIPER

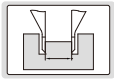
DATA OUTPUT

1169-150

- Small pointed jaws fit into small grooves and recesses
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)



Code	Range	Accuracy
1169-150	0-150mm/0-6"	±0.03mm

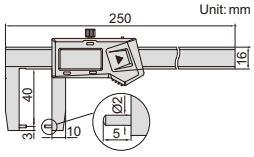


DIGITAL OUTSIDE POINT CALIPER

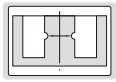
DATA OUTPUT

1185-150A

- Measure wall thickness inside bores and recesses
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: depth stop (code **6143**), data output cable (code **7315-21**, **7302-21**)



depth stop **6143** (**optional**)



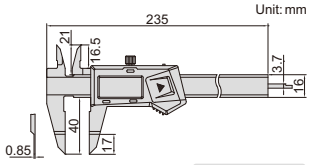
Code	Range	Accuracy
1185-150A	0-150mm/0-6"	±0.04mm

DIGITAL BLADE CALIPER

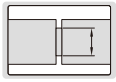
DATA OUTPUT

1188-150A

- The blade jaws fit into small grooves
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)



Code	Range	Accuracy
1188-150A	0-150mm/0-6"	±0.03mm

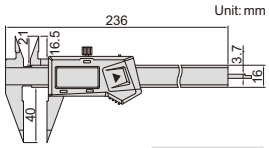


DIGITAL POINT CALIPER

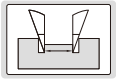
DATA OUTPUT

1183-150A

- Pointed jaws fit into small grooves and recesses
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)



Code	Range	Accuracy
1183-150A	0-150mm/0-6"	±0.03mm

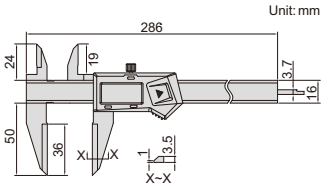


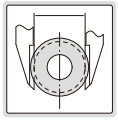
DIGITAL CALIPER WITH KNIFE-EDGE LOWER JAWS

DATA OUTPUT

1532-200

- Measure diameter of narrow grooves
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)





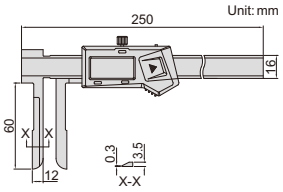
Code	Range	Accuracy
1532-200	0-200mm/0-8"	±0.03mm

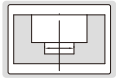
DIGITAL INSIDE KNIFE-EDGE CALIPER

DATA OUTPUT

1123-150A

- Measure diameter of deep step holes
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)





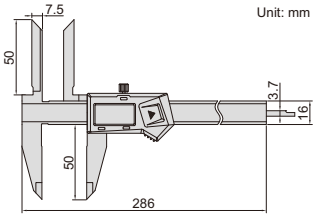
Code	Range	Accuracy
1123-150A	15-150mm/0.6-6"	±0.05mm

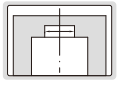
DIGITAL CALIPER WITH LONG UPPER JAWS

DATA OUTPUT

1138-200

- Long upper jaws for measuring diameter of deep holes
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)



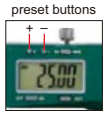


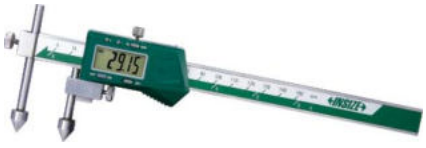
Code	Range	Accuracy
1138-200	0-200mm/0-8"	±0.04mm

DIGITAL OFFSET CENTERLINE CALIPER

DATA OUTPUT

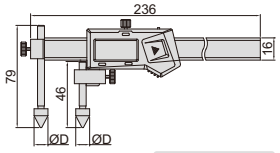
preset buttons

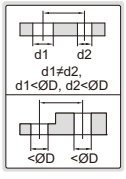




1192-150A

- Measure hole center distance in the same or offset planes
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)





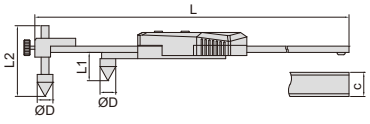
Code	Range	Accuracy	ØD
1192-150A	10-150mm/0.4-6"	±0.05mm	10mm

DIGITAL BACK-JAW CENTERLINE CALIPERS

DATA OUTPUT

- Measure hole center distance in the same or offset planes
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel

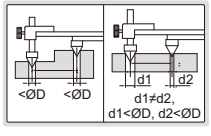
1177-200



(mm)

Code	Range	Accuracy	ØD	c	L1	L2	L	Data output cable (optional)
1177-200	10-200mm/0.4-8"	±0.10mm	10	16	18	45	310	**7315-21, 7302-21**
1177-300	10-300mm/0.4-12"	±0.10mm	10	16	18	45	410	**7315-21, 7302-21**
1177-500	20-500mm/0.8-20"	±0.10mm	20	24	26	70	692	**7315-22, 7302-22**
1177-1000	30-1000mm/1.2-40"	±0.12mm	30	31	39	70	1242	**7315-22, 7302-22**
1177-1500	30-1500mm/1.2-60"	±0.15mm	30	31	39	70	1745	**7315-22, 7302-22**

back-jaw

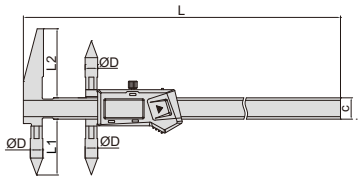


DIGITAL CENTERLINE AND EDGE TO CENTER CALIPERS

DATA OUTPUT

- Measure hole center distance or edge to hole center distance
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel

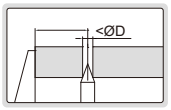
1525-300



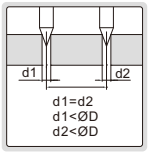
(mm)

Code	Range of upper jaw (edge to center)	Range of lower jaw (center to center)	Accuracy	ØD	L1	L2	c	L	Data output cable (optional)
1525-300	5-300mm/0.2-12"	10-300mm/0.4-12"	±0.08mm	10	44.5	55	17	410	**7315-21, 7302-21**
1525-500	10-500mm/0.4-20"	20-50mm/0.8-20"	±0.09mm	20	50	60	24	690	**7315-22, 7302-22**
1525-1000	15-1000mm/0.6-40"	30-1000mm/1.2-40"	±0.12mm	30	70	81	31	1255	**7315-22, 7302-22**
1525-1500	15-1500mm/0.6-60"	30-1500mm/1.2-60"	±0.15mm	30	70	81	31	1760	**7315-22, 7302-22**

measure edge to hole center distance



measure hole center distance



DIGITAL BACK-JAW EDGE TO CENTER CALIPERS

DATA OUTPUT

- Measure edge to hole center distance
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)

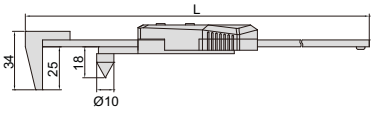
1524-200

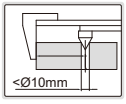
Code	Range	Accuracy	L
1524-200	5-200mm/0.2-8"	±0.1mm	310mm
1524-300	5-300mm/0.2-12"	±0.1mm	410mm

preset buttons

back-jaw

Unit: mm





DIGITAL HOOK CALIPER

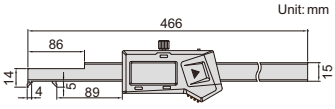
DATA OUTPUT

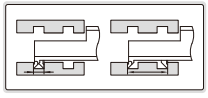
- Measure width and distance of grooves inside bores
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)

1122-300

Code	Range	Accuracy
1122-300	4-300mm/0.16-12"	±0.04mm

Unit: mm



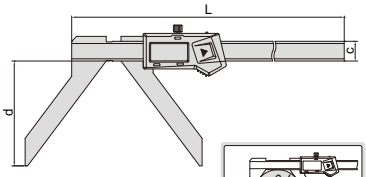


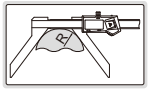
DIGITAL ARC RADIUS CALIPERS

DATA OUTPUT

1189-150B

- Measure the radius of arc less than half round
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)





Code	Range (R)	Accuracy	L	c	d
1189-150B	5-150mm/0.2-6"	±0.05mm	263mm	16mm	65mm
1189-200B	5-200mm/0.2-8"	±0.07mm	313mm	16mm	85mm

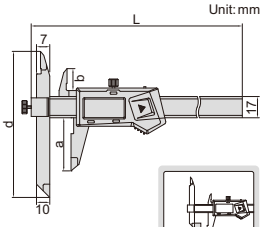
DIGITAL OFFSET CALIPERS

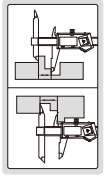
DATA OUTPUT

1186-150A

- The left jaw can slide up and down to facilitate measurement of stepped sections
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)

Unit: mm





(mm)

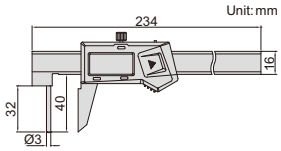
Code	Range	Accuracy	L	a	b	d
1186-150A	0-150mm/0-6"	±0.04mm	249	40	16.5	110
1186-300A	0-300mm/0-12"	±0.05mm	399	60	20.5	130

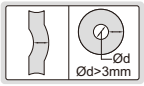
DIGITAL TUBE THICKNESS CALIPER

DATA OUTPUT

- Measure wall thickness of tubes
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)

1161-150A



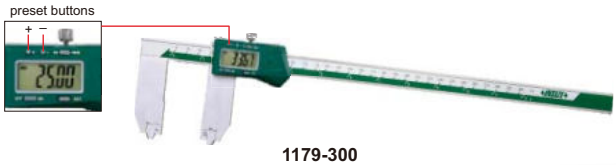


Code	Range	Accuracy
1161-150A	0-150mm/0-6"	±0.05mm

DIGITAL RTJ RING GROOVE CALIPERS

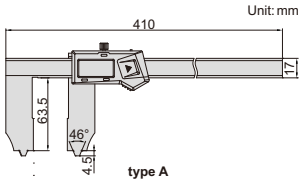
DATA OUTPUT

- Measure ring grooves of flange
- Resolution: 0.01mm/0.0005"
- Button function: on/off, set, zero, mm/inch, data preset
- Battery CR2032, data output
- Made of stainless steel

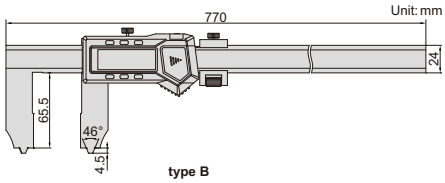


1179-300
type A

1179-600
type B

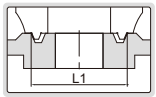


type A

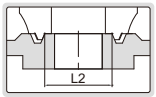


type B

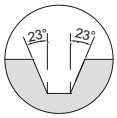
measure outside diameter of RTJ ring groove



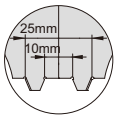
measure inside diameter of RTJ ring groove



applicable for RTJ ring grooves with angle 23°



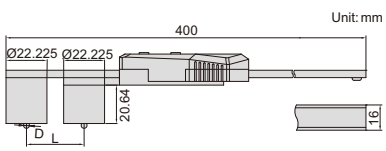
10mm and 25mm need to be added on the reading



Code	Range (inside diameter of RTJ ring groove)	Range (outside diameter of RTJ ring groove)	Angle of RTJ ring groove	Accuracy	Type	Data output cable (optional)
1179-300	10-300mm/0.4-12"	25-300mm/1-12"	23°	±0.06mm	A	**7315-21**, **7302-21**
1179-600	10-600mm/0.4-24"	25-600mm/1-24"	23°	±0.07mm	B	**7315-22**, **7302-22**

DIGITAL CALIPER WITH INTERCHANGEABLE BALL TIPS

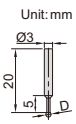
DATA OUTPUT



1527-3001

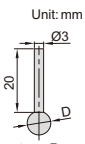
Ball tips (optional, supplied in pair)

1527-T101



type A

1527-T104



type B

- Resolution 0.01mm/.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: ball tips, data output cable (code **7315-21**, **7302-21**)

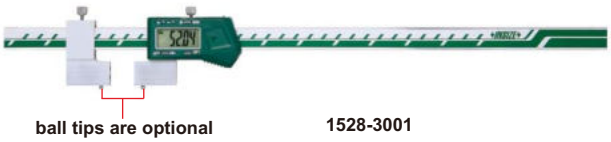
Code	Range	Accuracy
1527-3001	(22.22+D)~300mm*	±0.03mm

*"D" is the diameter of ball tips.

Code	Diameter (D)	Accuracy of diameter	Type	Material
1527-T101	1/16" (Ø1.5875mm)	±0.005mm	A	ruby
1527-T102	1/8" (Ø3.175mm)	±0.005mm	B	stainless steel
1527-T103	3/16" (Ø4.7625mm)	±0.005mm	B	stainless steel
1527-T104	1/4" (Ø6.35mm)	±0.005mm	B	stainless steel
1527-T105	3/8" (Ø9.525mm)	±0.005mm	B	stainless steel
1527-T106	1/2" (Ø12.7mm)	±0.005mm	B	stainless steel

DIGITAL CALIPER WITH INTERCHANGEABLE BALL TIPS

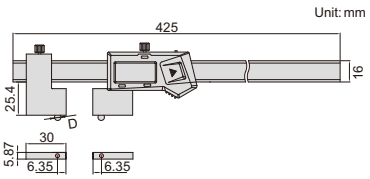
DATA OUTPUT



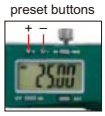
ball tips are optional

1528-3001

- Resolution 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: ball tips, data output cable (code **7315-21**, **7302-21**)



preset buttons

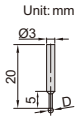


Code	Range	Accuracy
1528-3001	(12.7+D)~300mm*	±0.03mm

*"D" is the diameter of ball tips.

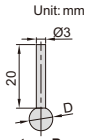
Ball tips (optional, supplied in pair)

1527-T101



type A

1527-T104



type B

Code	Diameter (D)	Accuracy of diameter	Type	Material
1527-T101	1/16" (Ø1.5875mm)	±0.005mm	A	ruby
1527-T102	1/8" (Ø3.175mm)	±0.005mm	B	stainless steel
1527-T103	3/16" (Ø4.7625mm)	±0.005mm	B	stainless steel
1527-T104	1/4" (Ø6.35mm)	±0.005mm	B	stainless steel
1527-T105	3/8" (Ø9.525mm)	±0.005mm	B	stainless steel
1527-T106	1/2" (Ø12.7mm)	±0.005mm	B	stainless steel

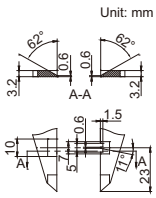
DIGITAL CRIMP HEIGHT CALIPER

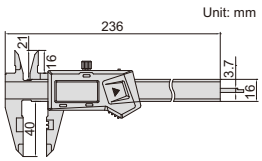
DATA OUTPUT

- Measure crimp height
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Meet DIN862
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)

1165-150A

Code	Range	Accuracy
1165-150A	0-150mm/0-6"	±0.03mm



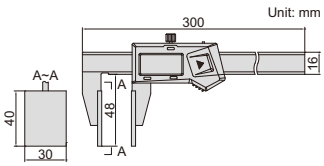


DIGITAL CALIPER WITH LARGE MEASURING FACES

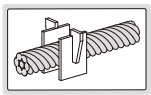
DATA OUTPUT

- Measure diameter of wire ropes, and thickness of soft materials like rubber, sponge, etc.
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)

1172-200



measure diameter of wire ropes



measure thickness of rubber, sponge, etc.

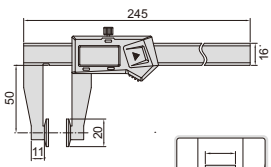
Code	Range	Accuracy
1172-200	0-200mm/0-8"	±0.07mm

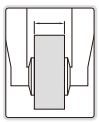
DIGITAL CALIPER WITH DISK FACES

DATA OUTPUT

- Measure thickness of soft sheets
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)

1533-150

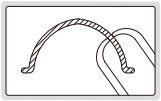




Code	Range	Accuracy
1533-150	0-150mm/0-6"	±0.04mm

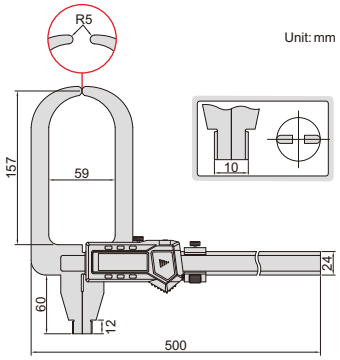
DIGITAL WALL THICKNESS CALIPER

DATA OUTPUT



- Measure wall thickness of helmets, domes and curved pots
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch, ABS, data preset
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-22**, **7302-22**)

1536-300

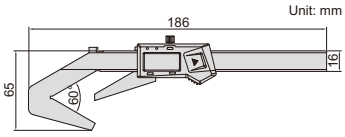


Code	Range	Accuracy
1536-300	0-300mm/0-12"	±0.05mm

DIGITAL V SHAPE CALIPER

ATTENTION: ACTUAL DIAMETER IS 2/3 OF THE READING

1539-3

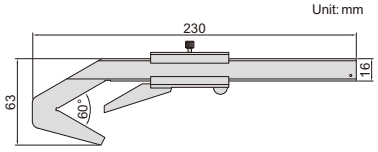


- Measure outside diameter of three number of flutes (such as taps, reamers, end mills and gears)
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Battery CR2032
- Automatic power off, move the digital unit to turn on power
- Data output
- Made of stainless steel

Code	Range	Accuracy
1539-3	Ø4-Ø40mm/0.16"-1.58" DIA	±0.03mm

V SHAPE VERNIER CALIPER

1273-403

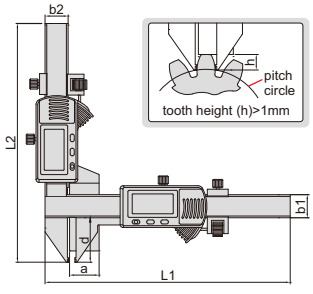


- Measure outside diameter of three number of flutes (such as taps, reamers, end mills and gears)
- Made of stainless steel
- Satin chrome plated reading surface

Code	Range	Graduation	Accuracy
1273-403	Ø4-40mm	0.05mm	±0.05mm

DIGITAL GEAR TOOTH CALIPERS

ATTENTION: NO DATA OUTPUT



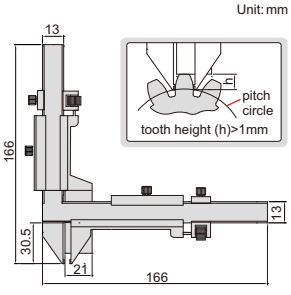
1181-M25A

- Resolution: 0.01mm/0.0005"
- Accuracy of height measurement: ±0.03mm
- Accuracy of thickness measurement: ±0.03mm
- Carbide tips
- Measure the tooth thickness by positioning the tooth height (for tooth height>1mm)
- Buttons: zero, on/off, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Made of stainless steel

(mm)

Code	Range	Total accuracy	L1	L2	a	b1	b2	d
1181-M25A	M1-25mm	±0.04mm	170	165.5	21	16	16	30.5
1181-M50A	M5-50mm	±0.04mm	220	190	50.5	16	16	55

GEAR TOOTH VERNIER CALIPER



1281-M26A

- Graduation: 0.02mm
- Total accuracy: ±0.04mm
- Carbide tips
- Measure the tooth thickness by positioning the tooth height (for tooth height>1mm)
- Made of stainless steel
- Satin chrome plated reading surface

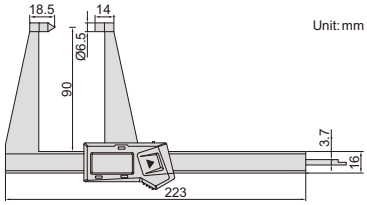
Code	Range	Accuracy of height measurement	Accuracy of thickness measurement
1281-M26A	M1-26mm	±0.03mm	±0.03mm

DIGITAL DISK BRAKE CALIPER

DATA OUTPUT

1162-125A

- Measure thickness of disk brakes
- Resolution 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)

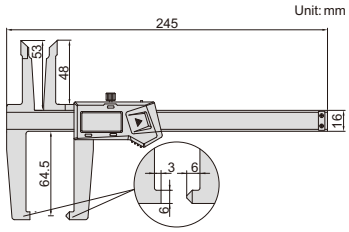


Code	Range	Accuracy
1162-125A	0-125mm/0-5"	±0.05mm

DIGITAL DISK BRAKE AND PAD CALIPER

DATA OUTPUT

1167-150A



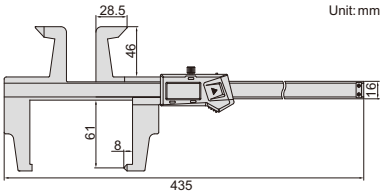
- Measure thickness of disk brakes and pad wear
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)

Code	Range	Accuracy
1167-150A	0-150mm/0-6"	±0.07mm

DIGITAL DRUM BRAKE CALIPER

DATA OUTPUT

1168-300A



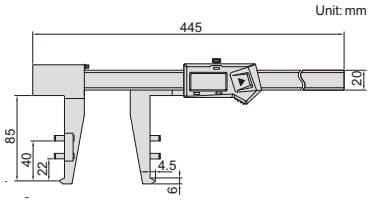
- Measure internal and external diameter of drum brakes
- Resolution 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)

Code	Range	Accuracy
1168-300A	0-300mm/0-12"	±0.07mm

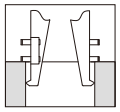
DIGITAL DRUM BRAKE CALIPER

DATA OUTPUT

1538-300



- Measure internal diameter of drum brakes
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-22**, **7302-22**)



calibration block (included)

Code	Range	Accuracy
1538-300	30-300mm/1.2-12"	±0.05mm

IP67 WATERPROOF DIGITAL DEPTH GAGES

ATTENTION: IT IS NECESSARY TO SET ZERO AFTER POWER ON EACH TIME

ATTENTION: NO DATA OUTPUT

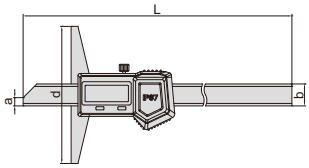
IP67 WATERPROOF

- IP67 dust/waterproof
- Resolution: 0.01mm/0.0005"
- Button function: zero, on/off, mm/inch, ABS/REL, hold
- Meet DIN862
- Battery CR2032
- Made of stainless steel

1149-150

(mm)

Code	Range	Accuracy	L	a	b	d
1149-150	0-150mm/0-6"	±0.03mm	240	6	16	100
1149-200	0-200mm/0-8"	±0.03mm	290	6	16	100
1149-300	0-300mm/0-12"	±0.03mm	390	6	16	150

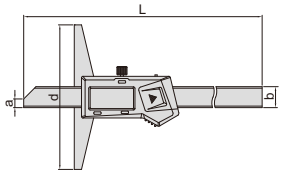


DIGITAL DEPTH GAGES (STANDARD TYPE)

DATA OUTPUT

- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Meet DIN862 (except **1141-500A**)
- Battery CR2032, data output
- Made of stainless steel

1141-150A



(mm)

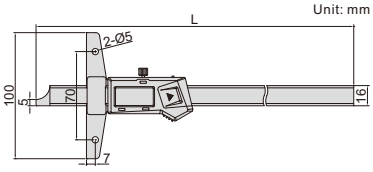
Code	Range	Accuracy	L	a	b	d	Data output cable (optional)
1141-150A	0-150mm/0-6"	±0.03mm	230	6	14.5	100	**7315-21**, **7302-21**
1141-200A	0-200mm/0-8"	±0.03mm	280	6	14.5	100	**7315-21**, **7302-21**
1141-300A	0-300mm/0-12"	±0.03mm	380	6	14.5	150	**7315-21**, **7302-21**
1141-500A	0-500mm/0-20"	±0.05mm	585	7	15	150	**7315-22**, **7302-22**

DIGITAL DEPTH GAGES WITH MOUNTING HOLES FOR EXTENSION BASE

DATA OUTPUT

1147-300

- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Meet DIN862
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**), extension base (code **6141**)



Code	Range	Accuracy	L
1147-150	0-150mm/0-6"	±0.03mm	237mm
1147-200	0-200mm/0-8"	±0.03mm	287mm
1147-300	0-300mm/0-12"	±0.03mm	403mm

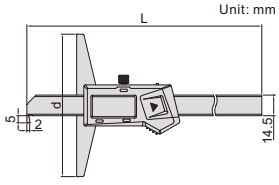
extension base (**optional**)

6141 series

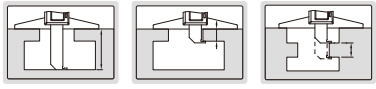
DIGITAL HOOK DEPTH GAGES

DATA OUTPUT

1142-150A



- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)



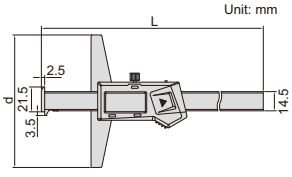
Code	Range	Accuracy	L	d
1142-150A	0-150mm/0-6"	±0.03mm	230mm	100mm
1142-200A	0-200mm/0-8"	±0.03mm	280mm	100mm

DIGITAL DOUBLE HOOK DEPTH GAGES

DATA OUTPUT

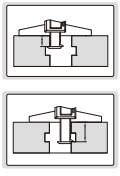
1144-150A

- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Meet DIN862
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)



(mm)

Code	Range	Accuracy	L	d
1144-150A	0-150mm/0-6"	±0.03mm	233	100
1144-200A	0-200mm/0-8"	±0.03mm	283	100
1144-300A	0-300mm/0-12"	±0.03mm	383	150

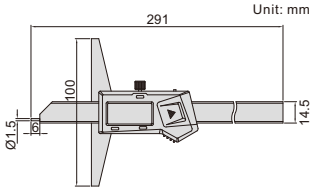


DIGITAL POINT DEPTH GAGE

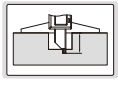
DATA OUTPUT

1143-200A

- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Meet DIN862
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)



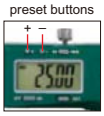
Code	Range	Accuracy
1143-200A	0-200mm/0-8"	±0.03mm



DIGITAL DEPTH GAGES WITH ROUND DEPTH BAR

MEASURE WIDTH AND DEPTH OF GROOVES INSIDE BORE | MEASURE DEPTH OF SMALL HOLES (>Ø4mm) | DATA OUTPUT

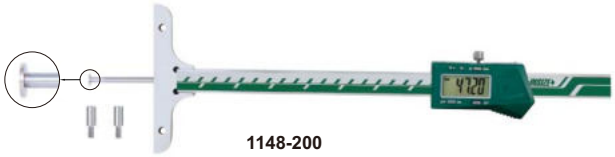
preset buttons



extension base for **1148-200** (**optional**)

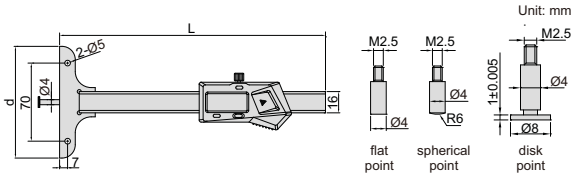
6141 series

1148-100S

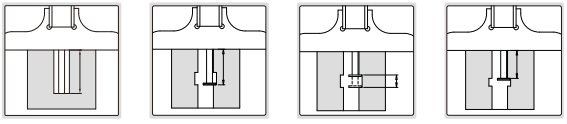


1148-200

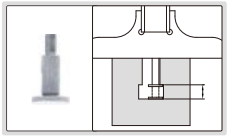
- Resolution: 0.01mm/0.0005"
- Supplied with three interchangeable points (flat, spherical, disk)
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**), extension base (code **6141**, for **1148-200**)



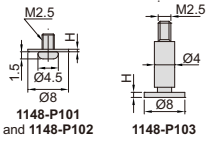
measure depth of small holes (>Ø4mm) | measure depth of grooves inside bore | measure width of grooves inside bore | measure depth of grooves inside bore



1148-P103 (**optional**), measure width of bottom grooves inside blind hole



1148-P101 (**optional**)



1148-P101 and **1148-P102** | **1148-P103**

(mm)

Code	Range*	Accuracy	L	d	Remark
1148-100S	0-100mm/0-4"	±0.02mm	200	45	
1148-100	0-100mm/0-4"	±0.02mm	200	85	
1148-200	0-200mm/0-8"	±0.03mm	300	101	with mounting holes for extension base

*When disk points are used, the range is reduced by 10mm

OPTIONAL DISK POINTS

Code	Description	H	Remark
1148-P101	0.5mm disk point	0.5±0.005mm	for narrow grooves
1148-P102	0.7mm disk point	0.7±0.005mm	for narrow grooves
1148-P103	1mm disk point	1±0.005mm	for grooves inside blind hole

DIGITAL DOUBLE HOOK DEPTH GAGE

DATA OUTPUT

- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch, ABS/INC, data hold, TOL, set
- ABS/INC is for absolute and incremental measurement
- TOL is for tolerance measurement
- Made of stainless steel
- LR44 battery, data output
- Supplied with gage block for zero setting
- Optional accessory: extension base, wireless transmitter (code **7315-1150**), data output cable (code **7302-SPC7**, keyboard format)

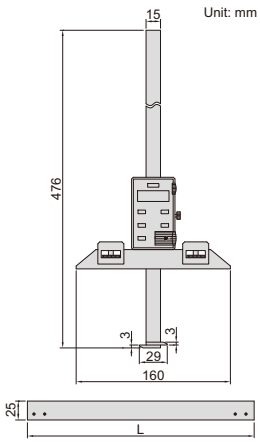
gage block for zero setting (included)

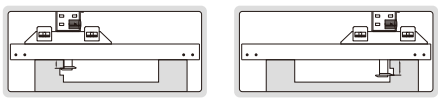
Code	Range	Accuracy
1540-300	0-300mm/0-12"	±0.04mm

Extension base (optional)

Code	L
1540-L300	300mm
1540-L400	400mm
1540-L500	500mm
1540-L600	600mm
1540-L800	800mm

1540-300





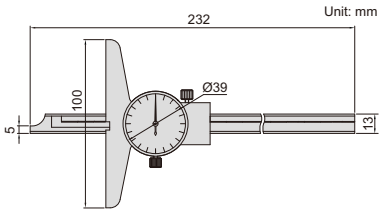
DIAL DEPTH GAGE

SHOCK PROOF

- Shockproof dial indicator
- Made of stainless steel

Code	Range	Graduation	Accuracy
1340-150	0-150mm	0.02mm	±0.03mm

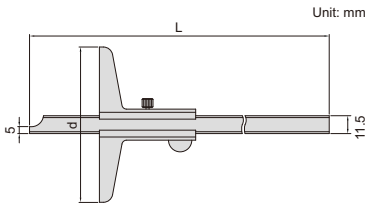
1340-150



VERNIER DEPTH GAGES (STANDARD TYPE)

- Made of stainless steel
- Satin chrome plated reading surface

1240-2001



Graduation 0.05mm (mm)

Code	Range	Accuracy	L	d
1240-150	0-150mm	±0.05mm	245	100
1240-200	0-200mm	±0.05mm	282	100
1240-300	0-300mm	±0.08mm	382	100
1240-500	0-500mm	±0.09mm	585	150

Graduation 0.02mm (mm)

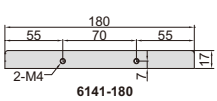
Code	Range	Accuracy	L	d
1240-1501	0-150mm	±0.03mm	245	100
1240-2001	0-200mm	±0.03mm	282	100
1240-3001	0-300mm	±0.04mm	382	100
1240-5001	0-500mm	±0.05mm	585	150

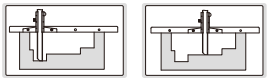
EXTENSION BASES

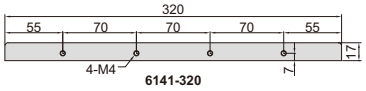
6141-260

- Supplied with two screws
- Made of stainless steel
- Suitable for depth gages series **1147**, **1148**, **1247**, **1248** and **1249**

Code	Length
6141-180	180mm
6141-260	260mm
6141-320	320mm

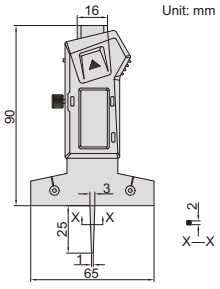






MINI DIGITAL DEPTH GAGE

DATA OUTPUT



1145-25A

- Measure depth of small groove and hole, also measure depth of tire tread
- Buttons: on/off, zero, mm/inch
- Supplied with zero set surface
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)

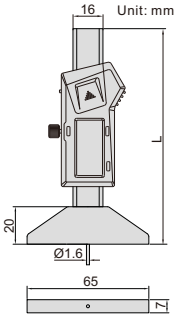
Code	Range	Accuracy	Resolution
1145-25A	0-25mm/0-1"	±0.03mm	0.01mm/0.0005"

MINI DIGITAL DEPTH GAGES WITH ROUND BAR

DATA OUTPUT

- Measure depth of small groove and hole
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+,-)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)

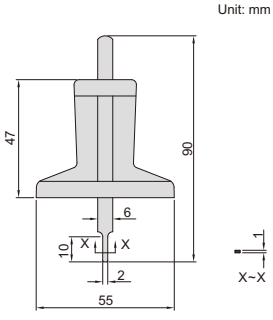
1140-25



Code	Range	Accuracy	L
1140-25	0-25mm/0-1"	±0.02mm	114mm
1140-50	0-50mm/0-2"	±0.02mm	140mm

VERNIER DEPTH GAGE (ECONOMIC TYPE)

1244-30



- Graduation: 0.1mm
- Made of stainless steel

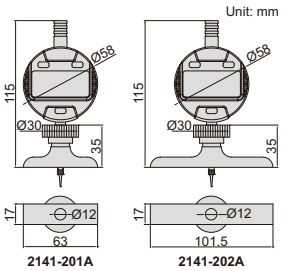
Code	Range	Accuracy
1244-30	0-30mm	±0.10mm

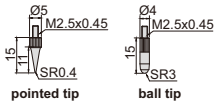
DIGITAL DEPTH GAGES

DATA OUTPUT

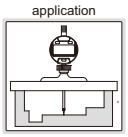
- Accuracy: ±20µm
- Button function: on/off, zero, mm/inch, ABS, data preset, change measuring direction
- CR2032 battery
- Automatic power off (time is adjustable)
- Data output
- Stainless steel base
- Extension rods: 12.5mm (1 pc), 25mm (1 pc), 50mm (1 pc), 75mm (1 pc), 100mm (2 pcs)
- Supplied with pointed tip and ball tip
- Optional accessory: data output cable (code **7315-50M**, **7302-40M**), granite extension holder (code **2141-10**)

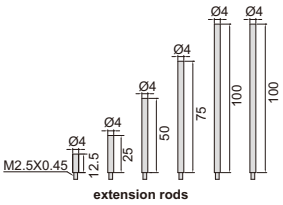
2141-202A





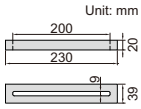
application





Code	Range	Digital indicator stroke	Digital indicator resolution	Base
2141-201A	0-300mm/0-12"	12.7mm/0.5"	0.01mm/0.0005"	63x17mm
2141-202A	0-300mm/0-12"	12.7mm/0.5"	0.01mm/0.0005"	101.5x17mm

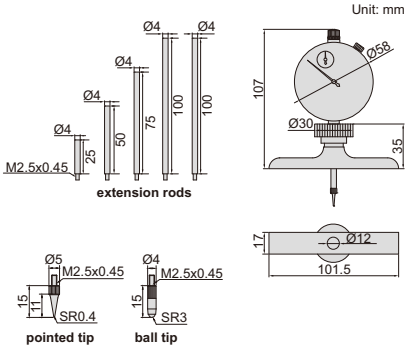
2141-10 (**opitonal**), can be customized according to workpieces



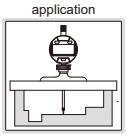
DIAL DEPTH GAGE

- Accuracy: ±0.03mm
- Dial indicator stroke: 30mm
- Dial indicator graduation: 0.01mm
- Stainless steel base
- Extension rods: 25mm (1 pc), 50mm (1 pc), 75mm (1 pc), 100mm (2 pcs)
- Supplied with pointed tip and ball tip
- Optional accessory: granite extension holder (code **2141-10**)

2342-202

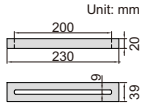


application

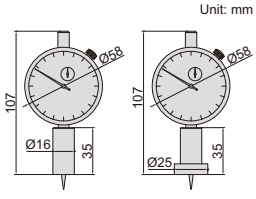


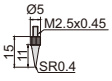
Code	Range	Base
2342-202	0-300mm	101.5x17mm

2141-10 (**opitonal**), can be customized according to workpieces



DIAL DEPTH GAGES



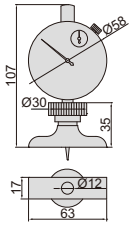


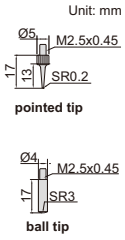
- Accuracy: ±0.017mm
- Stainless steel base
- Pointed tip

2343-102

Code	Range	Dial indicator stroke	Dial indicator graduation	Base
2343-101	0-10mm	10mm	0.01mm	Ø16mm
2343-102	0-10mm	10mm	0.01mm	Ø25mm

DIAL DEPTH GAGE





2341-101A

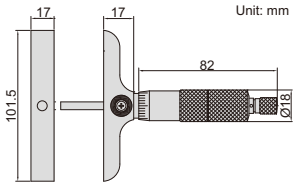
- Dial indicator graduation: 0.01mm
- Stainless steel base
- Supplied with pointed tip and ball tip

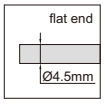
Code	Range	Dial indicator stroke	Accuracy
2341-101A	0-10mm	10mm	±0.017mm

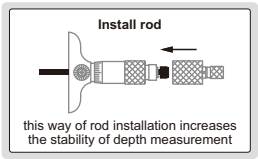
DEPTH MICROMETERS

- Graduation: 0.01mm
- Meet DIN863-2
- Micrometer head accuracy: +/-3μm
- Rod accuracy: +/-(2+L/75)μm,
  L is the measuring range in mm
- Rods with flat end
- Ratchet stop

3241-100







Code	Range	Rods
3241-25	0-25mm	1 pc
3241-50	0-50mm	2 pcs
3241-100	0-100mm	4 pcs
3241-150	0-150mm	6 pcs
3241-300	0-300mm	12 pcs

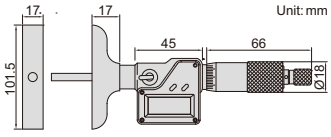
DIGITAL DEPTH MICROMETERS

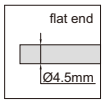
DATA OUTPUT

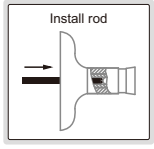
IP65 WATERPROOF

- Micrometer head accuracy: +/-3μm
- Rod accuracy: +/-(2+L/75)μm,
  L is the measuring range in mm
- Button function: on/off, set, mm/inch, data transmit
- IP65 dust/waterproof
- Data output
- Automatic power off
- Rods with flat end
- Ratchet stop
- Optional accessory: data output cable
  (code **7315-30**, **7302-30**)

3540-50







Code	Range	Resolution	Rods
3540-50	0-50mm/0-2"	0.001mm/0.00005"	2 pcs
3540-150	0-150mm/0-6"	0.001mm/0.00005"	6 pcs
3540-300	0-300mm/0-12"	0.001mm/0.00005"	12 pcs

HIGH PRECISION DIGITAL HEIGHT GAGES

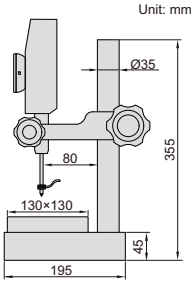
DATA OUTPUT

VIDEO

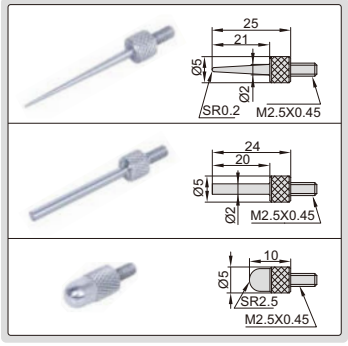
power supplied by charge pal

data transmitted to Excel without software; short press the foot switch to transmit data,long press to zero

- Measuring force: 0.8~1.2N
- Power supply: 5V/1A
  (adapter or charge pal)
- High stability, high precision, high response speed (5000mm/s)
- High brightness LED display
- Ceramic base flatness: 1μm



1155-505



Code	Range	Resolution	Accuracy (20°C)	Output
1155-505	0~50mm	0.5μm/0.00002" (can switch to:1μm/0.00005")	1.5μm	USB
1155-510	0~50mm	0.1μm/0.000005" (can switch to:1μm/0.00005")	1μm	USB

STANDARD DELIVERY

Main unit	1 pc

OPTIONAL ACCESSORY

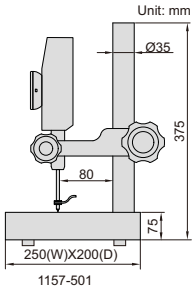
Contact point	code **6282**
Charge pal	**1155-5-POB**
Data output cable (including foot switch)	**1155-5-FOS**

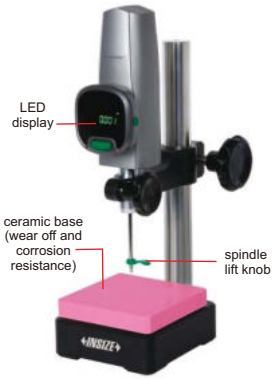
DIGITAL HEIGHT GAGES

DATA OUTPUT

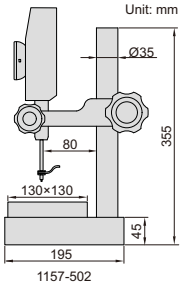
VIDEO

1157-501





1157-502

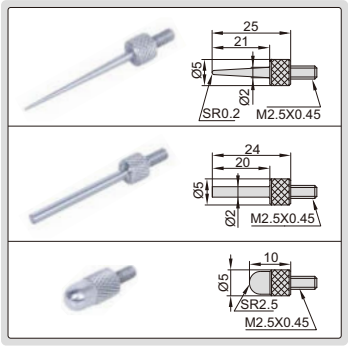


data transmitted to Excel without software

- Measuring force: 0.8~1.2N
- Power supply: 5V/1A (adapter or charge pal)
- Buttons: on/off, zero, mm/inch, mix/min/mix-min
- High response speed (5000mm/s)
- High brightness LED display

power supplied by charge pal

measuring tips (included) Unit: mm



Code	Range	Resolution	Accuracy (20°C)	Output	Base
1157-501	0~50mm	1μm/0.00005"	3μm	USB	granite (flatness: 2μm)
1157-502	0~50mm	1μm/0.00005"	3μm	USB	ceramic (flatness: 1μm)

STANDARD DELIVERY

Main unit	1 pc

OPTIONAL ACCESSORY

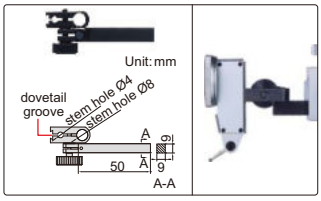
Contact point	code **6282**
Charge pal	**1155-5-POB**
Data output cable (including foot switch)	**1155-5-FOS**

DIGITAL HEIGHT GAGES WITH DRIVING WHEEL

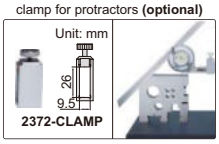
INSPECTION CERTIFICATE

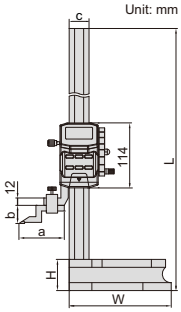
DATA OUTPUT

dial test indicator holder (included)

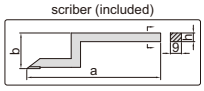


clamp for protractors **(optional)**





scriber (included)



- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch, preset +, preset -, hold
- Automatic power off, move the digital unit to turn on power
- Carbide tipped scriber
- Made of stainless steel
- Battery CR2032
- Data output
- Supplied with dust cover
- With dial test indicator holder
- Optional accessory: data output cable (code **7315-22**, **7302-22**), clamp for protractors (code **2372-CLAMP**)

(mm)

Code	Range	Accuracy	L	W	H	a	b	c	h
1156-300*	0-300mm/0-12"	±0.03mm	515	180	55	80	30	35	9
1156-600*	0-600mm/0-24"	±0.05mm	815	180	55	80	30	35	9
1156-1000*	0-1000mm/0-40"	±0.07mm	1220	265	70	92	48	40	12

*Supplied with manufacturer inspection certificate

1156-300

front

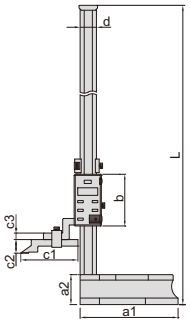
side

1156-1000

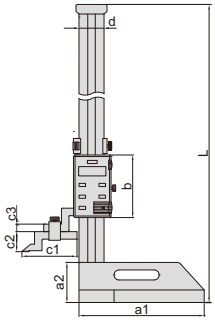
DIGITAL HEIGHT GAGES

DATA OUTPUT

1150-300 1150-500 1150-1000

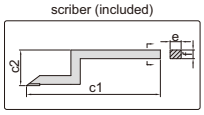


type A, type B

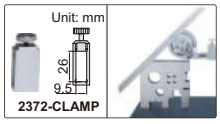


type C

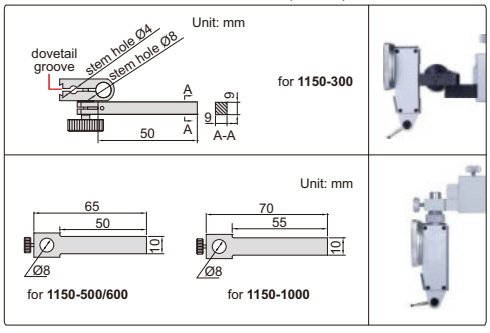
scriber (included)



clamp for protractors (**optional**) for **1150-300**



dial test indicator holder (included)



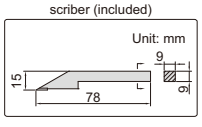
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch, ABS/INC, data hold, TOL, set
- ABS/INC is for absolute and incremental measurement
- TOL is for tolerance measurement
- Carbide tipped scriber
- Made of stainless steel (except the base)
- LR44 battery, data output
- Supplied with dial test indicator holder
- Supplied with dust cover
- Optional accessory: wireless transmitter (code **7315-1150**), data output cable (code **7302-SPC7**, keyboard format), clamp for protractors (code **2372-CLAMP**, for **1150-300**)

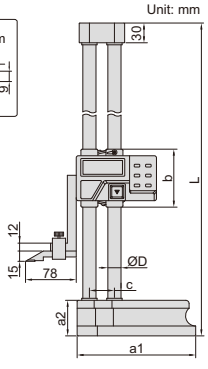
Code	Range	Type	Accuracy	L	a1	a2	b	c1	c2	c3	d	e	f
1150-300	0-300mm/0-12"	A	±0.04mm	485mm	138mm	45mm	95mm	80mm	30mm	10mm	28mm	9mm	9mm
1150-500	0-500mm/0-20"	B	±0.06mm	720mm	180mm	55mm	95mm	103mm	25mm	12mm	30mm	10mm	12mm
1150-600	0-600mm/0-24"	B	±0.06mm	820mm	180mm	55mm	95mm	103mm	25mm	12mm	30mm	10mm	12mm
1150-1000	0-1000mm/0-40"	C	±0.08mm	1275mm	250mm	80mm	125mm	110mm	39mm	15mm	50mm	10mm	15mm

DIGITAL HEIGHT GAGES

DATA OUTPUT

scriber (included)

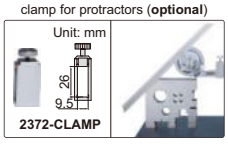




1151-300A

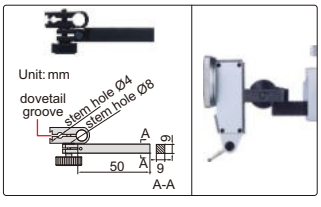
driving wheel on the back

clamp for protractors (**optional**)



- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch, data hold, ABS/INC, preset
- ABS/INC is for absolute and incremental measurement
- Automatic power off, move the digital unit to turn on power
- Carbide tipped scriber
- Made of stainless steel
- Battery CR2032, data output
- With driving wheel
- With dial test indicator holder
- Supplied with dust cover
- Optional accessory:
  clamp for protractors (code **2372-CLAMP**),
  wireless transmitter (code **7315-1151**),
  data output cable (code **7302-1151**, keyboard format)

dial test indicator holder (included)

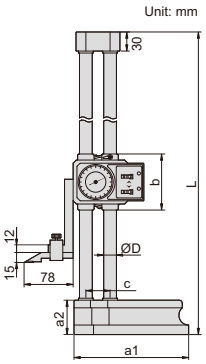


(mm)

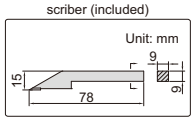
Code	Range	Accuracy	L	a1	a2	b	c	ØD
1151-300A	0-300mm/0-12"	±0.04mm	475	135	43	84	33	15
1151-450A	0-450mm/0-18"	±0.05mm	660	180	54	88	38	20
1151-600A	0-600mm/0-24"	±0.05mm	810	180	54	88	38	20

DIAL HEIGHT GAGES

1351-300

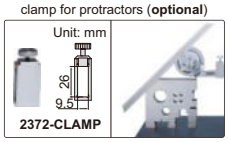


scriber (included)



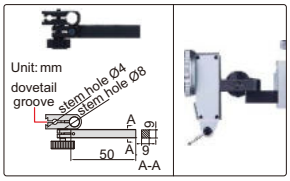
driving wheel on the back

clamp for protractors (**optional**)



- Dial indicator graduation: 0.01mm
- One counter reads in the plus direction and another in the minus direction, so incremental measurement can be made in either direction
- Carbide tipped scriber
- Made of stainless steel (except the base)
- With driving wheel
- With dial test indicator holder
- Supplied with dust cover
- Optional accessory: clamp for protractors (code **2372-CLAMP**)

dial test indicator holder (included)

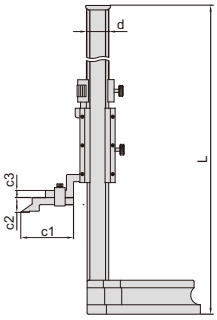


(mm)

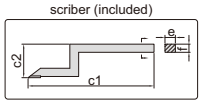
Code	Range	Accuracy	L	a1	a2	b	c	ØD
1351-300	0-300mm	±0.04mm	475	135	43	84	33	15
1351-450	0-450mm	±0.05mm	660	180	54	88	38	20
1351-600	0-600mm	±0.05mm	810	180	54	88	38	20

VERNIER HEIGHT GAGES (BASIC TYPE)

1251-200

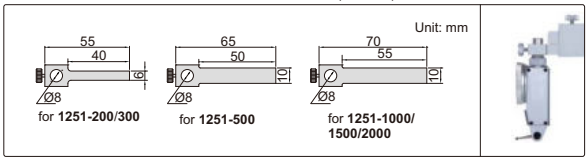


scriber (included)



- Graduation: 0.02mm/0.001"
- Carbide tipped scriber
- Made of stainless steel (except the base)
- Satin chrome plated scale
- With dial test indicator holder
- Supplied with dust cover

dial test indicator holder (included)

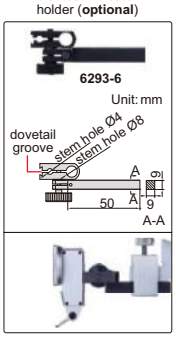


(mm)

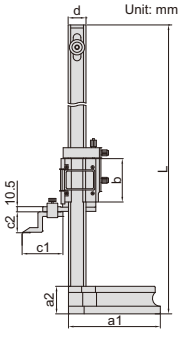
Code	Range	Accuracy	L	c1	c2	c3	d	e	f
1251-200	0-200mm/0-8"	±0.03mm	370	76	25	10	23	6	8
1251-300	0-300mm/0-12"	±0.04mm	470	76	25	10	23	6	8
1251-500	0-500mm/0-20"	±0.05mm	720	105	25	12	30	10	12
1251-1000	0-1000mm/0-40"	±0.07mm	1275	110	39	15	50	10	15
1251-1500	0-1500mm/0-60"	±0.11mm	1790	110	39	15	50	10	15
1251-2000	0-2000mm/0-80"	±0.14mm	2290	110	39	15	50	10	15

VERNIER HEIGHT GAGES

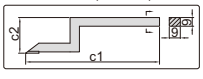
dial test indicator holder (**optional**)



1250-300

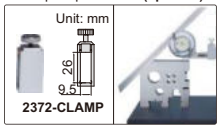


scriber (included)



- Graduation: 0.02mm/0.001"
- Adjustable main scale to set zero
- Carbide tipped scriber
- Made of stainless steel (except the base)
- Satin chrome plated scale
- Supplied with magnifier
- With fine adjustment
- Supplied with dust cover
- Optional accessory: dial test indicator holder (code **6293-6**), clamp for protractors (code **2372-CLAMP**)

clamp for protractors (**optional**)

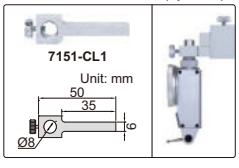


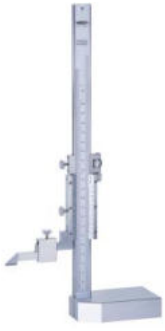
(mm)

Code	Range	Accuracy	L	a1	a2	b	c1	c2	d
1250-300	0-300mm/0-12"	±0.04mm	545	135	43	75	80	30	28
1250-600	0-600mm/0-24"	±0.05mm	870	180	54	85	80	41	35

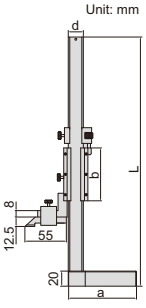
VERNIER HEIGHT GAGES

dial test indicator holder (**optional**)

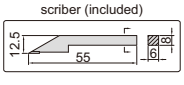




1253-200



scriber (included)



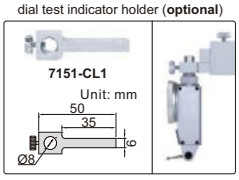
- Graduation 0.02mm/0.001"
- Carbide tipped scriber
- Made of stainless steel (except the base)
- Satin chrome plated scale
- Optional accessory: dial test indicator holder (code **7151-CL1**)

Code	Range	Accuracy	L	a	b	d
1253-150	0-150mm/0-6"	±0.03mm	265mm	75mm	57mm	16mm
1253-200	0-200mm/0-8"	±0.03mm	325mm	90mm	70mm	20mm

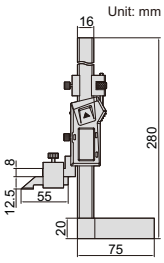
DIGITAL HEIGHT GAGE

DATA OUTPUT

dial test indicator holder (**optional**)

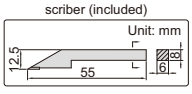


1154-150



- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Carbide tipped scriber
- With fine adjustment
- Made of stainless steel
- Battery CR2032, data output
- Optional accessory: data output cable (code **7315-22**, **7302-22**), dial test indicator holder (code **7151-CL1**)

scriber (included)

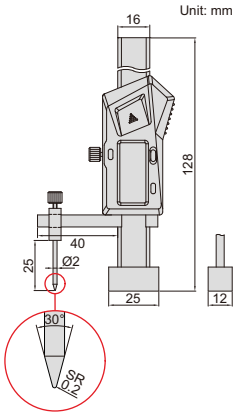


Code	Range	Resolution	Accuracy
1154-150	0-150mm/0-6"	0.01mm/0.0005"	±0.03mm

MINI DIGITAL HEIGHT GAGE

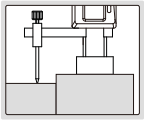
DATA OUTPUT

1146-20A



- Measure height difference of two surfaces
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)

application



Code	Range	Accuracy
1146-20A	0~±20mm/0~±0.8"	±0.02mm

HIGH PRECISION DIGITAL MICROMETERS/SNAP GAGES

ATTENTION: RECHARGEABLE BATTERY, FOR 24 HOURS CONTINUOUS WORKING

ABSOLUTE ENCODER, THE ORIGINAL DATA REMAINS AFTER POWER OFF

IP65 WATERPROOF

MEASUREMENT ACCURACY IS NOT AFFECTED BY THE USE OF SLEEVE

ONE TURN OF SLEEVE MAKES 5MM SPINDLE FEED, PRESS THE FORK, THE SPINDLE RETRACTS 3MM

NON-ROTATING SPINDLE

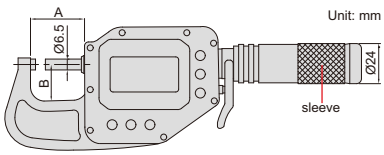
DATA OUTPUT

INSPECTION CERTIFICATE

VIDEO

- Absolute encoder, the original data remains after power off
- Adjustable resolution: 0.0002mm/0.00001"
  0.001mm/0.00005"
  0.01mm/0.0005"
- One turn of sleeve makes 5mm spindle feed
- Measurement accuracy is not affected by the use of sleeve
- Press the fork, the spindle retracts 3mm
- Linear ball bearings for ten million times use
- Carbide spindle and anvil
- Measuring force 7-10N
  Customizable measuring force range 2-12N
  Attention: small measuring force will reduce the dustproof and waterproof level
- Button function: data output, tolerance, data preset, data hold, measuring direction change, max./min./TIR, power off time, on/off, zero, mm/inch, adjust resolution
- Supplied with gage blocks for zero setting (except 0-25mm/0-1")
- Power: rechargeable battery, for 24 hours continuous working

3350-25

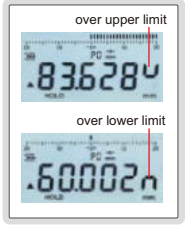


With data interface
Optional accessory:
wireless transmitter, code **7315-3350**,
data output cable (keyboard format), code **7302-3350**

Code	Range	Accuracy	Repeatability	Measuring faces		A	B
				Flatness	Parallelism		
3350-25*	0-25mm/0-1"	1.4μm	0.6μm	0.5μm	1μm	38mm	24mm
3350-50*	25-50mm/1-2"	1.6μm	1μm	0.5μm	1μm	63mm	28mm
3350-75*	50-75mm/2-3"	1.8μm	1μm	0.5μm	1μm	88mm	45mm
3350-100*	75-100mm/3-3.95"	2μm	1μm	0.5μm	1μm	113mm	57mm

*Supplied with manufacturer inspection certificate

warning when over tolerance

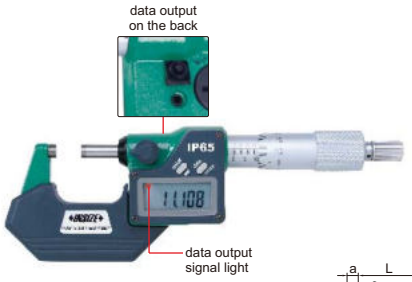


WATERPROOF DIGITAL OUTSIDE MICROMETERS (WITH DATA OUTPUT)

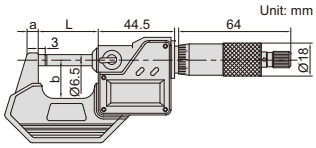
INSPECTION CERTIFICATE

IP65 WATERPROOF

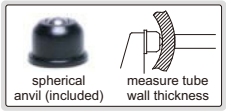
DATA OUTPUT



3101-25A



- Resolution 0.001mm/0.00005"
- IP65 dust/waterproof
- Button function: on/off, set, mm/inch, data transmit
- Data output
- Automatic power off
- Carbide measuring faces
- Ratchet stop
- Supplied with spherical anvil
- Setting standards are included (except 0-25mm/0-1")
- Optional accessory: data output cable (code **7315-30**, **7302-30**)



(mm)

Code	Range	Accuracy	L	a	b
3101-25A*	0-25mm/0-1"	±2µm	34.5	6	25
3101-50A*	25-50mm/1-2"	±2µm	59.5	8	32
3101-75A*	50-75mm/2-3"	±3µm	84.5	8	44.5
3101-100A*	75-100mm/3-4"	±3µm	109.5	8	57
3101-125A	100-125mm/4-5"	±3µm	135	10	70
3101-150A	125-150mm/5-6"	±3µm	160.5	10	82

*Supplied with manufacturer inspection certificate

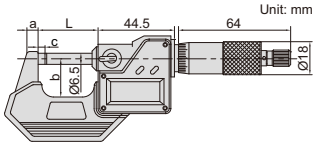
WATERPROOF DIGITAL OUTSIDE MICROMETERS (WITHOUT DATA OUTPUT)

INSPECTION CERTIFICATE

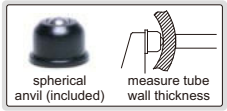
ATTENTION: NO DATA OUTPUT

IP65 WATERPROOF

3108-25A



- Resolution 0.001mm/0.00005"
- IP65 dust/waterproof
- Button function: on/off, set, mm/inch, ABS/INC
- No data output
- Automatic power off
- Carbide measuring faces
- Ratchet stop
- Supplied with spherical anvil
- Setting standards are included (except 0-25mm/0-1")



(mm)

Code	Range	Accuracy	L	a	b	c
3108-25A*	0-25mm/0-1"	±2µm	34.5	6	25	3
3108-50A*	25-50mm/1-2"	±2µm	59.5	8	32	3
3108-75A*	50-75mm/2-3"	±3µm	84.5	8	44.5	3
3108-100A*	75-100mm/3-4"	±3µm	109.5	8	57	3
3108-125A	100-125mm/4-5"	±3µm	135	10	70	3
3108-150A	125-150mm/5-6"	±3µm	160.5	10	82	3

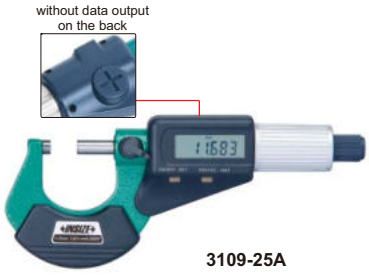
*Supplied with manufacturer inspection certificate

DIGITAL OUTSIDE MICROMETERS (BASIC TYPE, WITHOUT DATA OUTPUT)

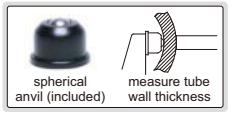
INSPECTION CERTIFICATE

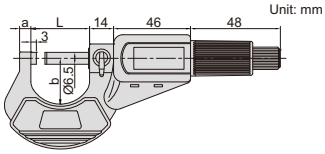
ATTENTION: NO DATA OUTPUT

- Resolution 0.001mm/0.00005"
- Button function: on/off, set, mm/inch, ABS/INC
- No data output
- Automatic power off
- Carbide measuring faces
- Friction thimble
- Supplied with spherical anvil
- Setting standards are included (except 0-25mm/0-1")



3109-25A





(mm)

Code	Range	Accuracy	L	a	b
3109-25A*	0-25mm/0-1"	±2µm	32	6	27.5
3109-50A*	25-50mm/1-2"	±2µm	57	8	37
3109-75A*	50-75mm/2-3"	±3µm	82	8	50
3109-100A*	75-100mm/3-4"	±3µm	107	10	61
3109-125A	100-125mm/4-5"	±3µm	132	10	73
3109-150A	125-150mm/5-6"	±3µm	157	10	85

*Supplied with manufacturer inspection certificate

DIGITAL VERTICAL MICROMETER

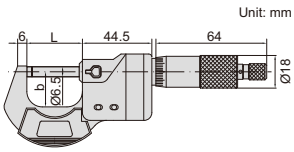
INSPECTION CERTIFICATE

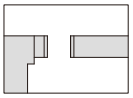
DATA OUTPUT

IP65 WATERPROOF

- Measure the thickness of plates for easy reading
- Resolution 0.001mm/0.00005"
- IP65 dust/waterproof
- Button function: on/off, set, mm/inch, ABS/INC
- Data output
- Automatic power off
- Carbide spindle tip
- Ratchet stop
- Optional accessory: data output cable (code **7315-30**, **7302-30**)

3565-25A



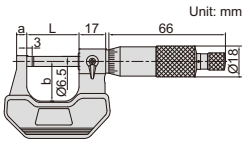


Code	Range	Accuracy	L	b
3565-25A*	0-25mm/0-1"	±2µm	34.5mm	25mm

*Supplied with manufacturer inspection certificate

OUTSIDE MICROMETERS

INSPECTION CERTIFICATE



3202-25A

- Graduation 0.01mm
- Carbide measuring faces
- Meet DIN863-1
- Supplied with setting standards (except 0-25mm)

Individual (mm)

Code	Range	Accuracy	L	a	b
3202-25A*	0-25mm	4μm	32	6	24
3202-50A*	25-50mm	4μm	57	8	32
3202-75A*	50-75mm	5μm	82	8	45
3202-100A*	75-100mm	5μm	107	8	57

Set

Code	Range	Micrometers included
3202-1004A*	0-100mm	3202-25A, 3202-50A, 3202-75A, 3202-100A
3202-1506A	0-150mm	3202-25A, 3202-50A, 3202-75A, 3202-100A, 3202-125A, 3202-150A

*Supplied with manufacturer inspection certificate

OUTSIDE MICROMETERS

INSPECTION CERTIFICATE

3203-50A

3203-25A

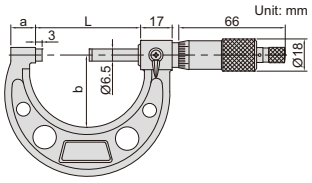
3203-1004A

3203-3006A

Individual (mm)

Code	Range	Accuracy	L	a	b
3203-25A*	0-25mm	±2μm	32	9	28
3203-50A*	25-50mm	±2μm	57	14	38
3203-75A*	50-75mm	±2μm	82	15	49
3203-100A*	75-100mm	±3μm	107	15	60
3203-125A	100-125mm	±3μm	133	16.5	73
3203-150A	125-150mm	±3μm	158	16.5	85
3203-175A	150-175mm	±4μm	183	19.4	104
3203-200A	175-200mm	±4μm	209	19.4	117
3203-225A	200-225mm	±4μm	234	19.4	130
3203-250A	225-250mm	±5μm	260	19.4	142
3203-275A	250-275mm	±5μm	285	19.4	155
3203-300A	275-300mm	±5μm	310	19.4	168

- Graduation: metric 0.01mm
- Carbide measuring faces
- Meet DIN863-1
- Ratchet stop
- Supplied with setting standards (except 0-25mm and 0-1")



Set

Code	Range	Micrometers included	Packaging
3203-1004A*	0-100mm	3203-25A, 3203-50A, 3203-75A, 3203-100A	blow mould case
3203-1506A	0-150mm	3203-25A, 3203-50A, 3203-75A, 3203-100A, 3203-125A, 3203-150A	blow mould case
3203-3006A	150-300mm	3203-175A, 3203-200A, 3203-225A, 3203-250A, 3203-275A, 3203-300A	aluminum box

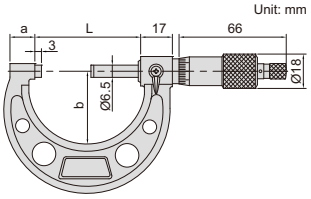
*Supplied with manufacturer inspection certificate

1μm GRADUATION OUTSIDE MICROMETERS

INSPECTION CERTIFICATE

- Graduation: 0.001mm
- Carbide measuring faces
- Meet DIN863-1
- Ratchet stop
- Supplied with setting standards (except 0-25mm)

3210-25A



Individual (mm)

Code	Range	Accuracy	L	a	b
3210-25A*	0-25mm	4μm	32	9	28
3210-50A*	25-50mm	4μm	57	14	38
3210-75A*	50-75mm	5μm	82	15	49
3210-100A*	75-100mm	5μm	107	15	60

Set

Code	Range	Micrometers included
3210-1004A*	0-100mm	3210-25A, 3210-50A, 3210-75A, 3210-100A
3210-1506A	0-150mm	3210-25A, 3210-50A, 3210-75A, 3210-100A, 3210-125A, 3210-150A

*Supplied with manufacturer inspection certificate

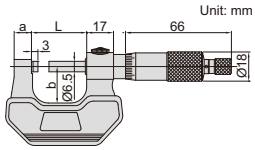
OUTSIDE MICROMETER FOR LEFT OR RIGHT HANDERS

- Graduation 0.01mm
- Graduations on two sides
- Ratchet stop
- Carbide measuring faces
- Meet DIN863-1

front

back

3236-25B



(mm)

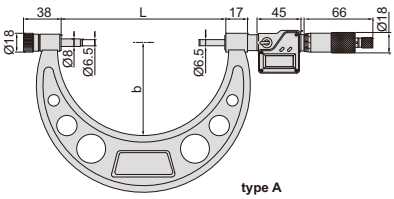
Code	Range	Accuracy	L	a	b
3236-25B	0-25mm	4μm	32	6	24

DIGITAL OUTSIDE MICROMETERS WITH INTERCHANGEABLE ANVILS

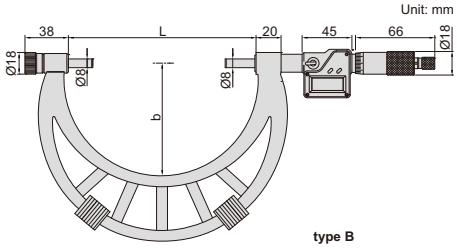
IP65 WATERPROOF

DATA OUTPUT

3506-400A



type A



type B

setting standard (included)

- Resolution 0.001mm/0.0001"
- IP65 dust/waterproof
- Button function: on/off, set, mm/inch, data transmit
- Data output
- Automatic power off
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards
- Optional accessory: data output cable (code **7315-30**, **7302-30**)

interchangeable anvils (included) for different measuring ranges

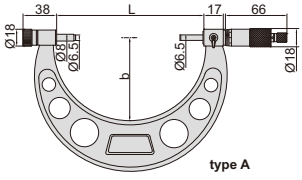
(mm)

Code	Range	Type	Accuracy	L	b	Setting standard (included)
3506-300A	150-300mm/6-12"	A	±8μm	305	165	150, 175, 200, 225, 250, 275
3506-400A	300-400mm/12-16"	B	±9μm	405	224	325, 375
3506-500A	400-500mm/16-20"	B	±11μm	505	275	425, 475

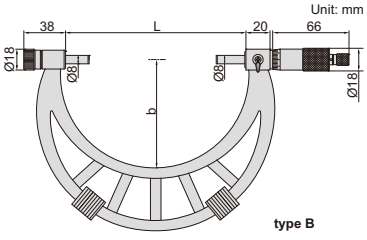
OUTSIDE MICROMETERS WITH INTERCHANGEABLE ANVILS

3206-400

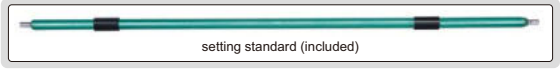
3206-150A



type A



type B


setting standard (included)

(mm)

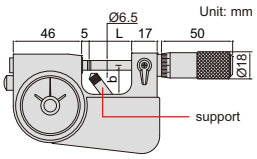
Code	Range	Type	Accuracy	L	b	Setting standard (included)
3206-150A	0-150mm	A	6μm	158	82	25, 50, 75, 100, 125
3206-200A	100-200mm	A	7μm	208	114	100, 125, 150, 175
3206-300A	150-300mm	A	9μm	308	165	150, 175, 200, 225, 250, 275
3206-301A	200-300mm	A	9μm	308	165	200, 225, 250, 275
3206-400	300-400mm	B	11μm	409	224	325, 375
3206-500	400-500mm	B	13μm	509	275	425, 475
3206-600	500-600mm	B	14μm	609	321	525, 575

- Graduation 0.01mm
- Ratchet stop
- Meet DIN863-3
- Carbide measuring faces
- Supplied with setting standards

interchangeable anvils (included) for different measuring ranges

INDICATING MICROMETERS

ATTENTION: SETTING STANDARDS ARE NOT INCLUDED



3332-25

- Meet DIN863-3
- Micrometer head graduation: 0.002mm
- Dial indicator: range ±0.04mm, graduation 0.001mm, accuracy 0.001mm
- Carbide measuring faces
- Optional accessory: gage blocks grade 0 (**4101-A** series), for zero setting

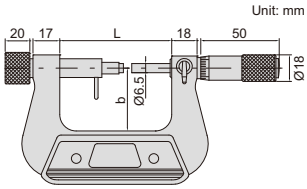
(mm)

Code	Micrometer head range	Micrometer head accuracy	L	b	Remark
3332-25	0-25mm	4µm	28.5	19	with support
3332-50	25-50mm	4µm	53.5	30	with support
3332-75	50-75mm	5µm	78.5	45	without support
3332-100	75-100mm	5µm	103.5	57	without support

MICROMETER WITH DIAL INDICATOR

ATTENTION: NOT SUITABLE FOR 0.001MM DIAL INDICATORS

3331-25A



- Meet DIN863-3
- Micrometer head graduation 0.01mm
- Anvil retracting range: 8mm
- Carbide measuring faces
- Optional accessory: dial indicators (graduation 0.01mm), digital indicators (resolution 0.01mm/0.0005")

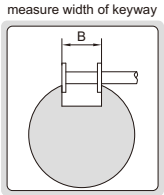
(mm)

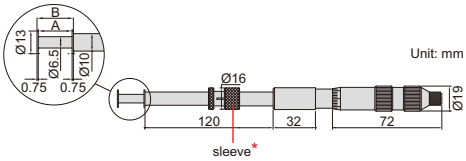
Code	Micrometer head range	Micrometer head accuracy	L	b
3331-25A	0-25mm	4µm	67	38

GROOVE MICROMETER

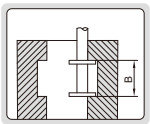
- Measure width of grooves inside bores, measure width of keyway
- Graduation 0.01mm
- Two graduations for inside and outside measurements
- Non-rotating spindle
- Two-directional ratchet stop

measure width of keyway

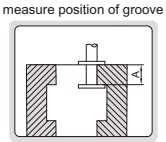




measure width of groove



measure position of groove



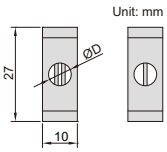
Code	Range (outside A)	Range (inside B)	Accuracy
3287-25B	0-25mm	1.6-26.5mm	10µm

3-WIRES

INSPECTION CERTIFICATE

VIDEO

7382-19



- Used with standard outside micrometers to measure pitch diameter of screw threads
- Diameter accuracy: ±0.5µm
- Cylindricity: 1µm
- Hardness: HRC60
- Supplied with manufacturer inspection certificate

application

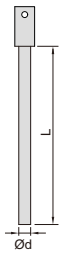
For outside micrometers with spindle Ø6.50mm (ØD)

Code	Pin gage diameter (Ø)	Applicable pitch
7382-21	0.170mm	0.2mm, 0.25mm, 0.3mm
7382-22	0.195mm	0.35mm
7382-23	0.220mm	0.4mm
7382-24	0.250mm	0.45mm
7382-25	0.290mm	0.5mm
7382-26	0.335mm	0.6mm
7382-27	0.390mm	0.7mm
7382-28	0.455mm	0.75mm, 0.8mm
7382-29	0.530mm	0.9mm
7382-210	0.620mm	1.0mm
7382-211	0.725mm	1.25mm
7382-212	0.895mm	1.5mm
7382-213	1.100mm	1.75mm, 2.0mm
7382-214	1.350mm	2.5mm
7382-215	1.650mm	3.0mm
7382-216	2.050mm	3.5mm
7382-217	2.550mm	4mm, 4.5mm
7382-218	3.200mm	5mm, 5.5mm, 6mm
7382-2S	18 pairs/set, including all above 3-wires	

CARBIDE 3-WIRES

CUSTOMIZABLE DIAMETER Ød

INSPECTION CERTIFICATE



7394-76A

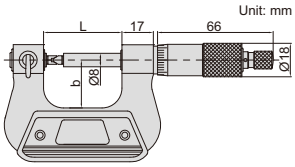
- When Ød≤0.3mm, length L=25mm;
- When Ød>0.3mm, length L=45mm
- Made of carbide
- Hardness HRA90
- Diameter accuracy: ±0.5μm
- Roundness: 0.5μm
- Cylindricity: 1μm
- Supplied with manufacturer inspection certificate

Code	Diameter (Ød)	Applicable pitch
7394-60A	0.170mm	0.2mm, 0.25mm, 0.3mm
7394-61A	0.195mm	0.35mm
7394-62A	0.220mm	0.4mm
7394-63A	0.250mm	0.45mm
7394-64A	0.290mm	0.5mm
7394-65A	0.335mm	0.6mm
7394-66A	0.390mm	0.7mm
7394-67A	0.455mm	0.75mm, 0.8mm
7394-68A	0.530mm	0.9mm
7394-69A	0.620mm	1.0mm
7394-70A	0.725mm	1.25mm
7394-71A	0.895mm	1.5mm
7394-72A	1.100mm	1.75mm, 2.0mm
7394-73A	1.350mm	2.5mm
7394-74A	1.650mm	3.0mm
7394-75A	2.050mm	3.5mm
7394-76A	2.550mm	4mm, 4.5mm
7394-77A	3.200mm	5mm, 5.5mm, 6mm

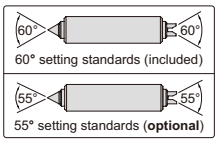
SCREW THREAD MICROMETERS

NON-ROTATING SPINDLE

3281-25A
(measuring tips are optional)



- Measure pitch diameter of screw threads
- Graduation 0.01mm
- Non-rotating spindle
- Ratchet stop
- Supplied with 60° setting standards (except 0-25mm)
- Optional accessory: 55° setting standards, measuring tips (code **7381**)



accuracy of micrometers with tips **(mm)**

Pitch	Range					
	0-25	25-50	50-75	75-100	100-125	125-150
0.4~0.5	±0.01	-	-	-	-	-
0.6~0.8	±0.01	±0.013	-	-	-	-
1~1.25	±0.012	±0.015	±0.017	±0.017	-	-
1.5~2.0	±0.014	±0.017	±0.019	±0.019	±0.020	±0.023
2.5~3.5	±0.016	±0.019	±0.021	±0.021	±0.023	±0.025
4.0~7.0	-	±0.021	±0.023	±0.023	±0.025	±0.028

(mm)

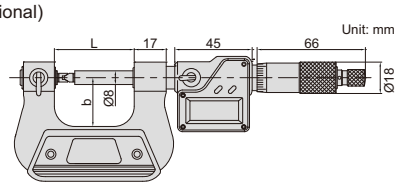
Code	Range	L	b	55° setting standard (optional)
3281-25A	0-25mm	42	26	-
3281-50A	25-50mm	67	38	3281-SP1
3281-75A	50-75mm	92	50	3281-SP2
3281-100A	75-100mm	117.6	62	3281-SP3
3281-125A	100-125mm	143	70	3281-SP4
3281-150A	125-150mm	168.2	82	3281-SP5

DIGITAL SCREW THREAD MICROMETERS

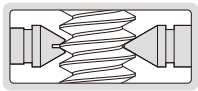
NON-ROTATING SPINDLE

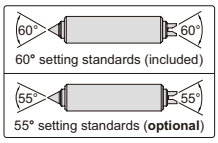
DATA OUTPUT

3581-25A
(measuring tips are optional)



- Measure pitch diameter of screw threads
- Resolution 0.001mm/0.00005"
- Button function: on/off, set, mm/inch, data transmit
- Data output
- Automatic power off
- Non-rotating spindle
- Ratchet stop
- Supplied with 60° setting standards (except 0-25mm/0-1")
- Optional accessory: 55° setting standards, measuring tips (code **7381**), data output cable (code **7315-30**, **7302-30**)





accuracy of micrometers with tips **(mm)**

Pitch	Range			
	0-25	25-50	50-75	75-100
0.4~0.5	±0.01	-	-	-
0.6~0.8	±0.01	±0.013	-	-
1~1.25	±0.012	±0.015	±0.017	±0.017
1.5~2.0	±0.014	±0.017	±0.019	±0.019
2.5~3.5	±0.016	±0.019	±0.021	±0.021
4.0~7.0	-	±0.021	±0.023	±0.023

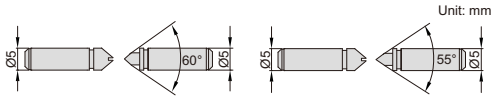
(mm)

Code	Range	L	b	55° setting standard (optional)
3581-25A	0-25mm/0-1"	42	26	-
3581-50A	25-50mm/1-2"	67	38	3281-SP1
3581-75A	50-75mm/2-3"	92	50	3281-SP2
3581-100A	75-100mm/3-4"	117.6	62	3281-SP3

MEASURING TIPS FOR SCREW THREAD MICROMETERS

7381-T13

- Supplied in pairs
- Suitable for **3281**, **3581** series micrometers



60° thread angle

55° thread angle

Whitworth thread (55° thread angle)

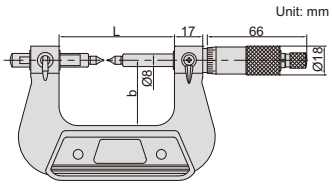
Code	Pitch
7381-T2S	10 pairs/set: 60-48TPI, 48-40TPI, 40-32TPI, 32-24TPI, 24-18TPI, 18-14TPI, 14-10TPI, 10-7TPI, 7-4.5TPI, 4.5-3.5TPI, including all above tips

Metric and unified thread (60° thread angle)

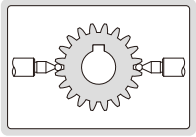
Code	Pitch
7381-T11	0.4-0.5mm/64-48TPI
7381-T12	0.6-0.9mm/44-28TPI
7381-T13	1-1.75mm/24-14TPI
7381-T14	2-3mm/13-9TPI
7381-T15	3.5-5mm/8-5TPI
7381-T16	5.5-7mm/4.5-3.5TPI
7381-TS	6 pairs/set, including all above tips

GEAR TOOTH MICROMETERS

3291-25



- Meet DIN863-3
- Measure over-pin diameter of gears
- Graduation 0.01mm
- Ratchet stop
- Supplied with setting standards (except 0-25mm)
- Optional accessory: ball tips (code **7391**)



(mm)

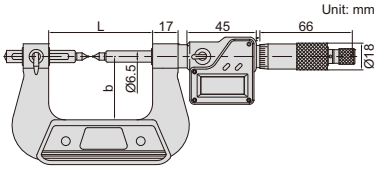
Code	Range	Accuracy	L	b
3291-25	0-25mm	4μm	67	38
3291-50	25-50mm	4μm	92.4	50
3291-75	50-75mm	5μm	117.6	62
3291-100	75-100mm	5μm	143	70

DIGITAL GEAR TOOTH MICROMETERS

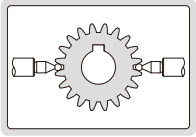
IP65 WATERPROOF

DATA OUTPUT

3591-25A



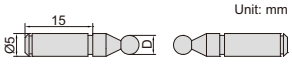
- Measure over-pin diameter of gears
- Resolution 0.001mm/0.00005"
- IP65 dust/waterproof
- Button function: on/off, set, mm/inch, data transmit
- Data output
- Automatic power off
- Ratchet stop
- Supplied with setting standards (except 0-25mm/0-1")
- Optional accessory: ball tips (code **7391**), data output cable (code **7315-30, 7302-30**)



(mm)

Code	Range	Accuracy	L	b
3591-25A	0-25mm/0-1"	±4μm	67	38
3591-50A	25-50mm/1-2"	±4μm	92.4	50
3591-75A	50-75mm/2-3"	±5μm	117.6	62
3591-100A	75-100mm/3-4"	±5μm	143	70

BALL TIPS FOR GEAR TOOTH MICROMETERS



7391-T5

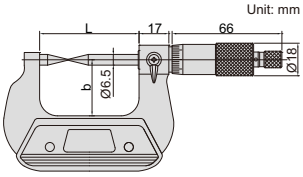
- Supplied in pair
- Suitable for **3291, 3591** series micrometers

Code	Ball dia. (D)
7391-T2	SØ1.5mm
7391-T3	SØ2.0mm
7391-T4	SØ2.5mm
7391-T5	SØ3.0mm
7391-T6	SØ3.5mm

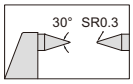
Code	Ball dia. (D)
7391-T7	SØ4.0mm
7391-T8	SØ4.5mm
7391-T9	SØ5.0mm
7391-T10	SØ6.0mm

POINT MICROMETERS

3230-25A



- Measure the web thickness of drills, small grooves and keyways
- Ratchet stop
- Carbide tips
- Supplied with setting standards (except 0-25mm)

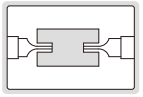


(mm)

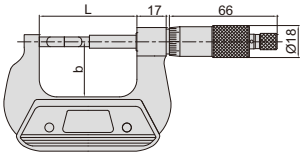
Code	Range	Accuracy	L	b
3230-25A	0-25mm	4μm	57	32
3230-50A	25-50mm	4μm	82	44.5
3230-75A	50-75mm	5μm	107	57
3230-100A	75-100mm	5μm	132.6	69.5

BLADE MICROMETERS

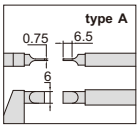
NON-ROTATING SPINDLE

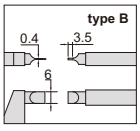


3232-25A



- Meet DIN863-3
- Measure the groove diameter of shafts and keyways
- Graduation: 0.01mm
- Non-rotating spindle
- Ratchet stop
- Supplied with setting standards (except 0-25mm)

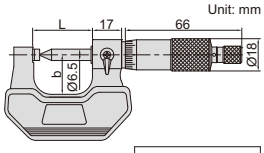




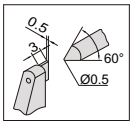
Code	Range	Type	Accuracy	L	b
3232-25A	0-25mm	A	4μm	57mm	32mm
3232-50A	25-50mm	A	4μm	82mm	44.5mm
3232-75A	50-75mm	A	5μm	107mm	57mm
3232-100A	75-100mm	A	5μm	132.6mm	69.5mm
3232-25BA	0-25mm	B	4μm	57mm	32mm

CRIMP HEIGHT MICROMETER

3266-25BA



- Measure the height of crimp contact
- Graduation 0.01mm
- Ratchet stop



Code	Range	Accuracy	L	b
3266-25BA	0-25mm	4μm	34mm	24mm

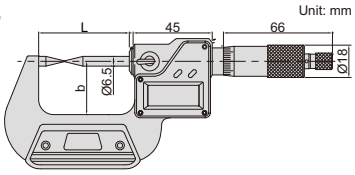
DIGITAL POINT MICROMETERS

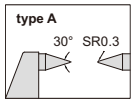
IP65 WATERPROOF

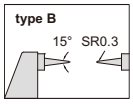
DATA OUTPUT

3530-25A

- Measure the web thickness of drills, small grooves and keyways
- Resolution 0.001mm/0.00005"
- IP65 dust/waterproof
- Button function: on/off, set, mm/inch, data transmit
- Data output
- Automatic power off
- Ratchet stop
- Carbide tips
- Supplied with setting standards (except 0-25mm/0-1")
- Optional accessory: data output cable (code **7315-30**, **7302-30**)







Code	Range	Type	Accuracy	L	b
3530-25A	0-25mm/0-1"	A	±4μm	57mm	32mm
3530-50A	25-50mm/1-2"	A	±4μm	82mm	44.5mm
3530-25BA	0-25mm/0-1"	B	±4μm	57mm	32mm
3530-50BA	25-50mm/1-2"	B	±4μm	82mm	44.5mm

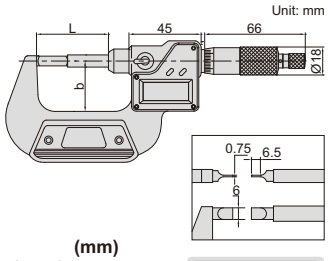
DIGITAL BLADE MICROMETERS

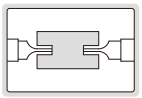
NON-ROTATING SPINDLE

DATA OUTPUT

3532-25A

- Measure the groove diameter of shafts and keyways
- Resolution 0.001mm/0.00005"
- Non-rotating spindle
- Button function: on/off, set, mm/inch, data transmit
- Data output, automatic power off
- Ratchet stop
- Supplied with setting standards (except 0-25mm/0-1")
- Optional accessory: data output cable (code **7315-30**, **7302-30**)





(mm)

Code	Range	Accuracy	L	b
3532-25A	0-25mm/0-1"	±4μm	57	32
3532-50A	25-50mm/1-2"	±4μm	82	44.5

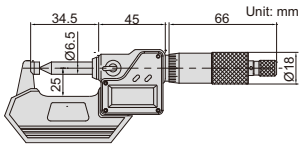
DIGITAL CRIMP HEIGHT MICROMETER

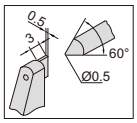
IP65 WATERPROOF

DATA OUTPUT

3566-25BA

- Measure the height of crimp contact
- Resolution 0.001mm/0.00005"
- IP65 dust/waterproof
- Button function: on/off, set, mm/inch, data transmit
- Data output, automatic power off
- Ratchet stop
- Optional accessory: data output cable (code **7315-30**, **7302-30**)

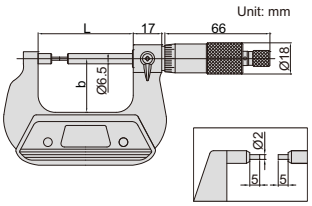




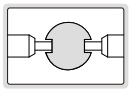
Code	Range	Accuracy
3566-25BA	0-25mm/0-1"	±4μm

SPLINE MICROMETER

3233-25A



- Meet DIN863-3
- Measure splined shafts, slots and keyways
- Graduation 0.01mm
- Ratchet stop
- Carbide measuring faces



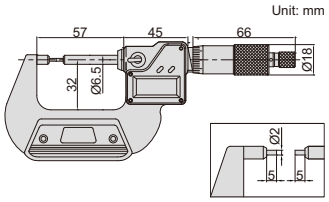
Code	Range	Accuracy	L	b
3233-25A	0-25mm	4µm	57mm	32mm

DIGITAL SPLINE MICROMETER

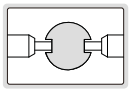
DATA OUTPUT

IP65 WATERPROOF

3533-25A



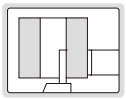
- Measure splined shafts, slots and keyways
- IP65 dust/waterproof
- Button function: on/off, set, mm/inch, data transmit
- Data output
- Automatic power off
- Ratchet stop
- Carbide measuring faces
- Optional accessory: data output cable (code **7315-30**, **7302-30**)



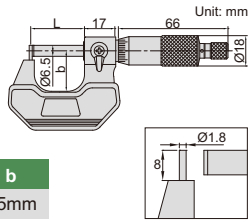
Code	Range	Accuracy	Resolution
3533-25A	0-25mm/0-1"	±4µm	0.001mm/0.00005"

CYLINDRICAL ANVIL TUBE MICROMETER

3261-25A



- Measure wall thickness of tubes
- Graduation 0.01mm
- Ratchet stop
- Carbide spindle tip



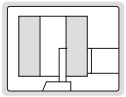
Code	Range	Accuracy	L	b
3261-25A	0-25mm	6µm	36mm	25mm

DIGITAL CYLINDRICAL ANVIL TUBE MICROMETER

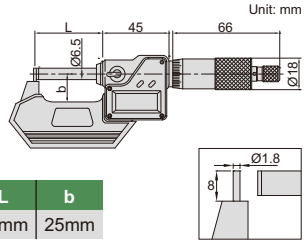
IP65 WATERPROOF

DATA OUTPUT

3561-25A



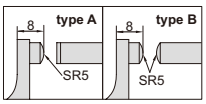
- Measure wall thickness of tubes
- Resolution 0.001mm/0.00005"
- IP65 dust/waterproof
- Button function: on/off, set, mm/inch, data transmit
- Data output, automatic power off
- Ratchet stop
- Carbide spindle tip
- Optional accessory: data output cable (code **7315-30**, **7302-30**)

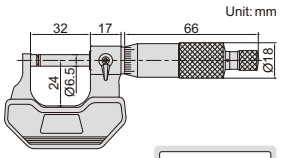


Code	Range	Accuracy	L	b
3561-25A	0-25mm/0-1"	±6µm	36mm	25mm

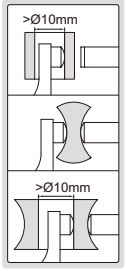
SPHERICAL ANVIL TUBE MICROMETERS

3260-25A





- Meet DIN863-3
- Measure wall thickness of tubes
- Graduation: 0.01mm
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards (except 0-25mm)



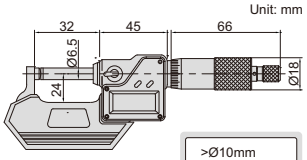
Code	Range	Type	Accuracy
3260-25A	0-25mm	A	4µm
3260-25SA	0-25mm	B	4µm

DIGITAL SPHERICAL ANVIL TUBE MICROMETERS

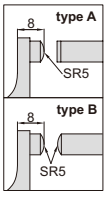
IP65 WATERPROOF

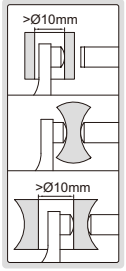
DATA OUTPUT

3560-25A



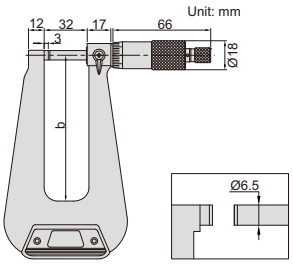
- Measure wall thickness of tubes
- Resolution 0.001mm/0.00005"
- IP65 dust/waterproof
- Button function: on/off, set, mm/inch, data transmit
- Data output, automatic power off
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards (except 0-25mm/0-1")
- Optional accessory: data output cable (code **7315-30**, **7302-30**)





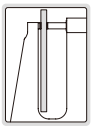
Code	Range	Type	Accuracy
3560-25A	0-25mm/0-1"	A	±4µm
3560-25SA	0-25mm/0-1"	B	±4µm

SHEET METAL MICROMETER



3239-253

- Deep frame suitable for sheet metal, paper and plastic
- Graduation 0.01mm
- Ratchet stop
- Carbide measuring faces

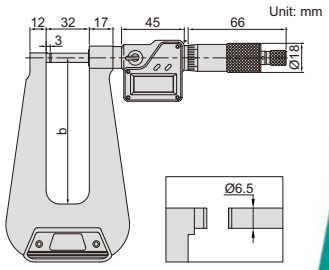


Code	Range	Accuracy	b
3239-253	0-25mm	7µm	155mm

DIGITAL SHEET METAL MICROMETER

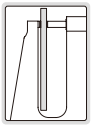
IP65 WATERPROOF

DATA OUTPUT



3539-253A

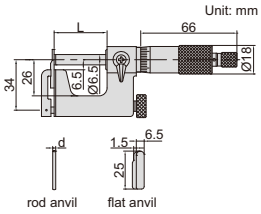
- Deep frame suitable for sheet metal, paper and plastic
- Resolution 0.001mm/0.00005"
- IP65 dust/waterproof
- Button function: on/off, set, mm/inch, data transmit
- Data output
- Automatic power off
- Ratchet stop
- Carbide measuring faces
- Optional accessory: data output cable (code **7315-30, 7302-30**)



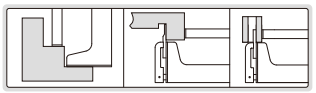
Code	Range	Accuracy	b
3539-253A	0-25mm/0-1"	±7µm	155mm

INTERCHANGEABLE ANVIL MICROMETERS

3262-25A



- Measure tube thickness, shoulder edge distance, rivet head height, etc.
- Supplied with flat anvil and rod anvil
- Graduation 0.01mm
- Ratchet stop
- Carbide spindle tip
- Setting standards are included (except 0-25mm)



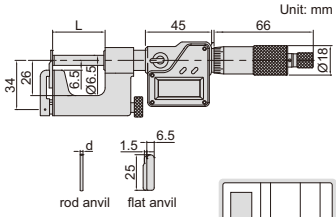
Code	Range	Accuracy	L	d
3262-25A	0-25mm	4µm	28.5mm	Ø3mm
3262-50A	25-50mm	4µm	53.5mm	Ø5mm

DIGITAL INTERCHANGEABLE ANVIL MICROMETERS

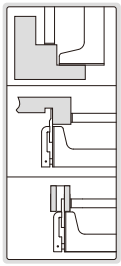
IP65 WATERPROOF

DATA OUTPUT

3562-25A



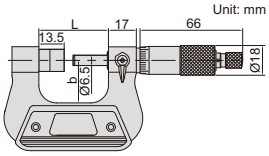
- Measure tube thickness, shoulder edge distance, rivet head height, etc.
- Supplied with flat anvil and rod anvil
- Resolution 0.001mm/0.00005"
- IP65 dust/waterproof
- Button function: on/off, set, mm/inch, data transmit
- Data output, automatic power off
- Ratchet stop
- Carbide spindle tip
- Setting standards are included (except 0-25mm/0-1")
- Optional accessory: data output cable (code **7315-30, 7302-30**)

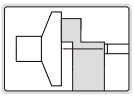


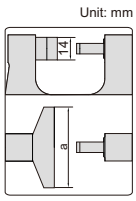
Code	Range	Accuracy	L	d
3562-25A	0-25mm/0-1"	±4µm	28.5mm	Ø3mm
3562-50A	25-50mm/1-2"	±4µm	53.5mm	Ø5mm

LARGE ANVIL MICROMETER

3234-25A







- Graduation 0.01mm
- Ratchet stop

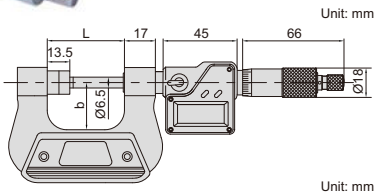
Code	Range	Accuracy	L	a	b
3234-25A	0-25mm	4µm	42mm	50mm	26mm

DIGITAL LARGE ANVIL MICROMETER

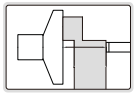
DATA OUTPUT

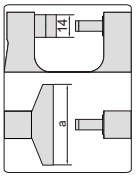
IP65 WATERPROOF

3534-25A



- Resolution 0.001mm/0.00005"
- IP65 dust/waterproof
- Button function: on/off, set, mm/inch, data transmit
- Data output
- Automatic power off
- Ratchet stop
- Optional accessory: data output cable (code **7315-30**, **7302-30**)





(mm)

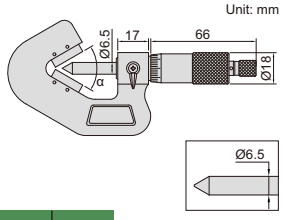
Code	Range	Accuracy	L	a	b
3534-25A	0-25mm/0-1"	±4µm	42	50	26

V-ANVIL MICROMETER

3290-153A

- Measure the diameter of parts or cutting tools with odd grooves, such as taps, reamers and end mills
- Graduation 0.01mm
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards

Unit: mm



Code	Range	Flutes	Accuracy	α
3290-153A	1-15mm	3	4μm	60°

DIGITAL V-ANVIL MICROMETER

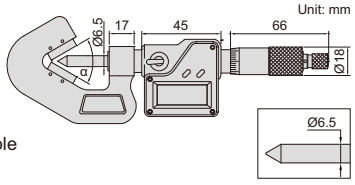
IP65 WATERPROOF

DATA OUTPUT

3590-153A

- Measure the diameter of parts or cutting tools with odd grooves, such as taps, reamers and end mills
- Resolution 0.001mm/0.00005"
- IP65 dust/waterproof
- Button function: on/off, set, mm/inch, data transmit
- Data output, automatic power off
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards
- Optional accessory: data output cable (code **7315-30, 7302-30**)

Unit: mm



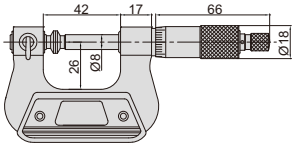
Code	Range	Flutes	Accuracy	α
3590-153A	1-15mm/0.04-0.6"	3	±4μm	60°

NON-ROTATING SPINDLE UNIVERSAL MICROMETER

NON-ROTATING SPINDLE

3280-25A

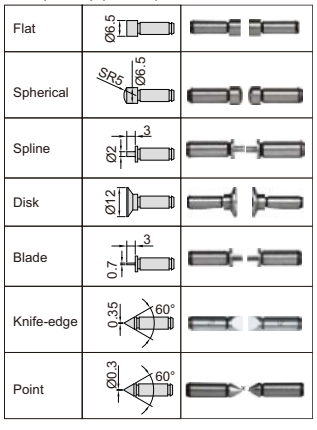
Unit: mm



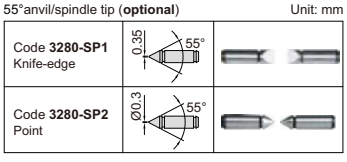
Code	Range	Accuracy
3280-25A	0-25mm	4μm

- Meet DIN863-3
- Graduation 0.01mm
- Non-rotating spindle
- Ratchet stop
- Supplied with 7 pairs of anvil/spindle tip
- Optional accessory: 55° anvil/spindle tip (code **3280-SP1** and **3280-SP2**)

Anvil/spindle tip (included) Unit: mm



55°anvil/spindle tip (**optional**) Unit: mm



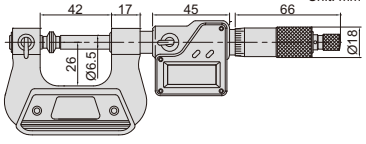
DIGITAL UNIVERSAL MICROMETER

NON-ROTATING SPINDLE

DATA OUTPUT

3580-25A

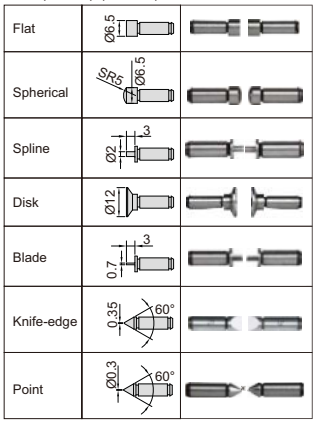
Unit: mm



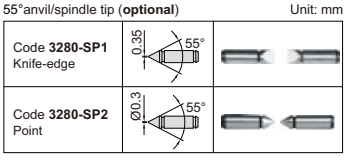
Code	Range
3580-25A	0-25mm/0-1"

- Accuracy: ±4μm
- Resolution 0.001mm/0.00005"
- Non-rotating spindle
- Button function: on/off, set, mm/inch, data transmit
- Data output, automatic power off
- Ratchet stop
- Supplied with 7 pairs of anvil/spindle tip
- Optional accessory: 55° anvil/spindle tip code **3280-SP1** and **3280-SP2**, data output cable (code **7315-30, 7302-30**)

Anvil/spindle tip (included) Unit: mm



55°anvil/spindle tip (**optional**) Unit: mm



DISK MICROMETERS

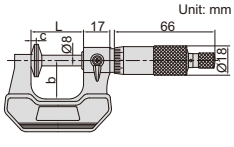
- Measure root tangent length of gear
- Graduation 0.01mm
- Ratchet stop
- Supplied with setting standards

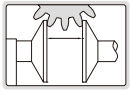
(mm)

Code	Range	Accuracy	Parallelism	L	b	c
3282-25	0-25mm	4μm	5μm	34	24	3.3
3282-50	25-50mm	4μm	5μm	59	32	3.3
3282-75	50-75mm	5μm	5μm	85	45	3.3
3282-100	75-100mm	5μm	5μm	110	57	3.3

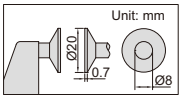
3282-25

Unit: mm





Unit: mm

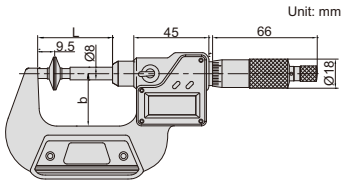


DIGITAL NON-ROTATING SPINDLE DISK MICROMETERS

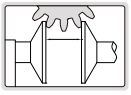
NON-ROTATING SPINDLE

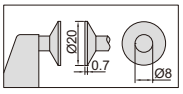
DATA OUTPUT

3594-25A



- Measure root tangent length of gear
- Resolution 0.001mm/0.00005"
- Non-rotating spindle
- Button function: on/off, set, mm/inch, data transmit
- Data output
- Automatic power off
- Ratchet stop
- Supplied with setting standards
- Optional accessory: data output cable (code **7315-30**, **7302-30**)

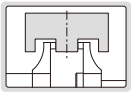


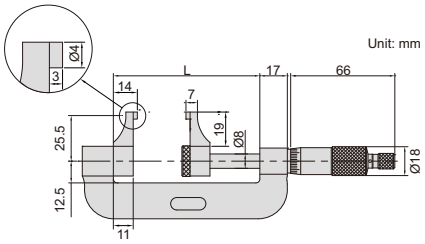


Code	Range	Accuracy	Parallelism	L	b
3594-25A	0-25mm/0-1"	±4μm	5μm	43mm	32mm
3594-50A	25-50mm/1-2"	±4μm	5μm	68mm	44.5mm
3594-75A	50-75mm/2-3"	±5μm	5μm	93mm	57mm
3594-100A	75-100mm/3-4"	±5μm	5μm	118.5mm	70mm

CALIPER TYPE MICROMETER

3238-25





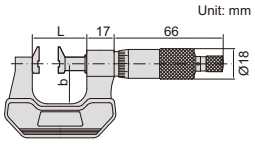
- Graduation 0.01mm
- Non-rotating spindle
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards (except 0-25mm)

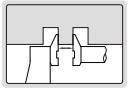
Code	Range	Accuracy	L
3238-25	0-25mm	10μm	56mm

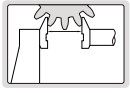
JAW TYPE MICROMETER

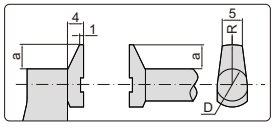
NON-ROTATING SPINDLE

3283-25A









- Graduation 0.01mm
- Non-rotating spindle
- Ratchet stop

(mm)

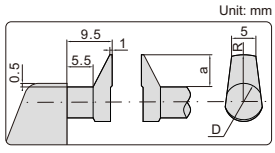
Code	Range	Accuracy	L	a	b	R	D
3283-25A	0-25mm	4μm	34	6	24	10	8

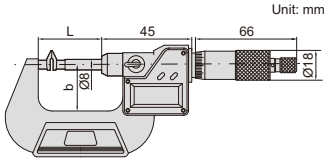
DIGITAL JAW TYPE MICROMETER

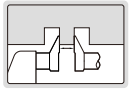
NON-ROTATING SPINDLE

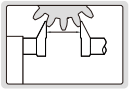
DATA OUTPUT

3583-25A









- Resolution 0.001mm/0.00005"
- Non-rotating spindle
- Button function: on/off, set, mm/inch, data transmit
- Data output
- Automatic power off
- Ratchet stop
- Optional accessory: data output cable (code **7315-30**, **7302-30**)

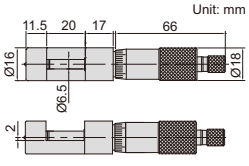
(mm)

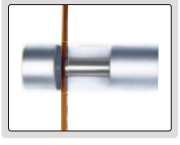
Code	Range	Accuracy	L	a	b	R	D
3583-25A	0-25mm/0-1"	±4μm	43	6.5	32	10	8

WIRE MICROMETER

- Meet DIN863-3
- Measure diameter of wires and small balls
- Graduation 0.01mm
- Ratchet stop
- Carbide measuring faces

3285-10





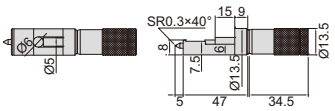
Code	Range	Accuracy
3285-10	0-10mm	4μm

CAN SEAM MICROMETERS

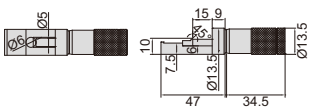
3293-131

3293-132

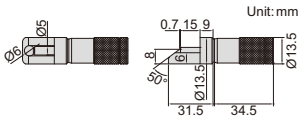
3293-133



3293-131



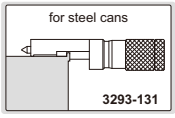
3293-132

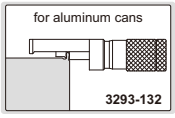


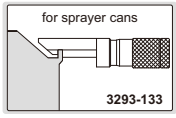
3293-133

- Measure the width, height and depth of can seams
- Graduation 0.01mm

Code	Range	Accuracy
3293-131	0-13mm	4μm
3293-132	0-13mm	4μm
3293-133	0-13mm	4μm





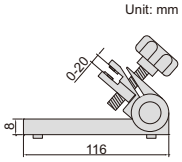


MICROMETER STAND

- Suitable for outside micrometers up to 100mm

Code
6300

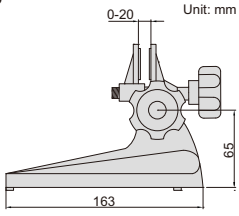
6300



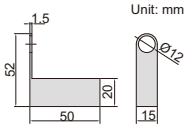
MICROMETER STAND

6301

- Suitable for outside micrometers up to 100mm



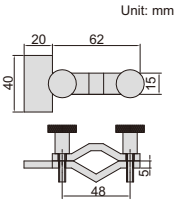
Code
6301



6301-1

- Suitable for inside micrometers

Code	Description	Applicable products
6301-1	clamp for inside micrometers	all sizes of **3220** series



6301-2

- Suitable for three points internal micrometers

Code	Description	Applicable products
6301-2	clamp for three points internal micrometers	up to 100mm of **3127** and **3227** series

MICROMETER SETTING STANDARDS

6310-100

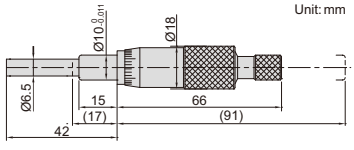
(mm)

Code	Length	Accuracy	D
6310-25	25	±1.5μm	Ø7
6310-50	50	±2μm	Ø7
6310-75	75	±2.5μm	Ø7
6310-100	100	±3μm	Ø8

MICROMETER HEAD

6381-25W

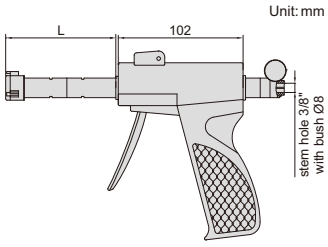
- Meet DIN863-2
- Ratchet stop



Code	Range	Stem	Spindle tip	Accuracy	Graduation
6381-25W	0-25mm	plain	flat (carbide)	3μm	0.01mm

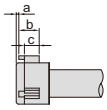
PISTOL GRIP THREE POINTS BORE GAGES

INSPECTION CERTIFICATE



Type A
6-12mm, steel measuring points

2124-8



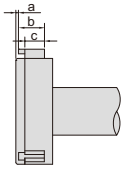
Type B
12-50mm, carbide measuring points

2124-25

- Optional accessory:
  digital indicators (code **2108-101F**, resolution 0.001mm/0.00005")

setting ring (included)

extension rod (included)



Type C
50-100mm, carbide measuring points

2124-100

Individual **(mm)**

Code	Range	Type	Accuracy (without digital indicator)	Setting ring (included)	Extension rod (included)	L	a	b	c
2124-8 *	6-8mm	A	4µm	Ø6mm	100mm	50	1.5	2.5	—
2124-10 *	8-10mm	A	4µm	Ø8mm	100mm	50	1.5	2.5	—
2124-12 *	10-12mm	A	4µm	Ø10mm	100mm	50	1.5	2.5	—
2124-16 *	12-16mm	B	4µm	Ø16mm	150mm	65	0.5	6	4.5
2124-20 *	16-20mm	B	4µm	Ø16mm	150mm	65	0.5	6	4.5
2124-25 *	20-25mm	B	4µm	Ø25mm	150mm	91	0.5	8	6
2124-30 *	25-30mm	B	4µm	Ø25mm	150mm	91	0.5	8	6
2124-40 *	30-40mm	B	4µm	Ø40mm	150mm	97	0.5	14	12
2124-50 *	40-50mm	B	5µm	Ø40mm	150mm	97	0.5	14	12
2124-63 *	50-63mm	C	5µm	Ø62mm	150mm	112	0.5	17.5	14.5
2124-75 *	62-75mm	C	5µm	Ø62mm	150mm	112	0.5	17.5	14.5
2124-88 *	75-88mm	C	5µm	Ø87mm	150mm	112	0.5	17.5	14.5
2124-100 *	87-100mm	C	5µm	Ø87mm	150mm	112	0.5	17.5	14.5

Set

Code	Range	Probes included	Setting ring (included)	Extension rod (included)
2124-S123 *	6-12mm	6-8mm, 8-10mm, 10-12mm	Ø6mm, Ø8mm, Ø10mm	100mm
2124-S202 *	12-20mm	12-16mm, 16-20mm	Ø16mm	150mm
2124-S504 *	20-50mm	20-25mm, 25-30mm, 30-40mm, 40-50mm	Ø25mm, Ø40mm	150mm
2124-S1004 *	50-100mm	50-63mm, 62-75mm, 75-88mm, 87-100mm	Ø62mm, Ø87mm	150mm

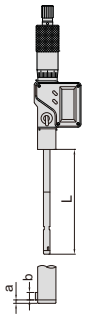
2124- S504

*Supplied with manufacturer inspection certificate

DIGITAL THREE POINTS INTERNAL MICROMETERS

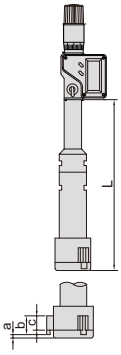
INSPECTION CERTIFICATE | IP65 WATERPROOF | DATA OUTPUT

3127-12



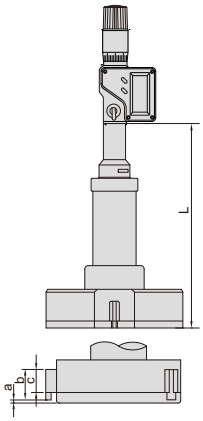
Type A
6-12mm, steel measuring points three points

3127-40



Type B
12-50mm, carbide measuring points three points

3127-125



Type C
50-150mm, carbide measuring points three points

- Resolution 0.001mm/0.00005"
- IP65 dust/waterproof
- Buttons: on/off, set, mm/inch, data transmit
- Data output
- Automatic power off
- Ratchet stop
- Optional accessory:
  data output cable (code **7315-30**, **7302-30**), setting ring (code **6312**), micrometer stand and clamp (code **6301** and **6301-2**)

micrometer stand with clamp (**optional**)

setting ring

6-100mm: included
100-150mm: **optional**

extension rod

included

Individual (mm)

Code	Range	Type	Accuracy	Setting ring	Extension rod (included)	L	a	b	c
3127-8 *	6-8mm/0.24-0.31"	A	4μm	Ø6mm (included)	100mm	57	1.5	2.5	—
3127-10 *	8-10mm/0.31-0.39"	A	4μm	Ø8mm (included)	100mm	57	1.5	2.5	—
3127-12 *	10-12mm/0.39-0.47"	A	4μm	Ø10mm (included)	100mm	57	1.5	2.5	—
3127-16 *	12-16mm/0.47-0.63"	B	4μm	Ø16mm (included)	150mm	99	0.5	6	4.5
3127-20 *	16-20mm/0.63-0.79"	B	4μm	Ø16mm (included)	150mm	99	0.5	6	4.5
3127-25 *	20-25mm/0.79-0.98"	B	4μm	Ø25mm (included)	150mm	105	0.5	8	6
3127-30 *	25-30mm/0.98-1.18"	B	4μm	Ø25mm (included)	150mm	105	0.5	8	6
3127-40 *	30-40mm/1.18-1.57"	B	4μm	Ø40mm (included)	150mm	110	0.5	14	12
3127-50 *	40-50mm/1.57-1.97"	B	5μm	Ø40mm (included)	150mm	110	0.5	14	12
3127-63 *	50-63mm/1.97-2.48"	C	5μm	Ø62mm (included)	150mm	127	0.5	17.5	14.5
3127-75 *	62-75mm/2.44-2.95"	C	5μm	Ø62mm (included)	150mm	127	0.5	17.5	14.5
3127-88 *	75-88mm/2.95-3.46"	C	5μm	Ø87mm (included)	150mm	127	0.5	17.5	14.5
3127-100 *	87-100mm/3.43-3.94"	C	5μm	Ø87mm (included)	150mm	127	0.5	17.5	14.5
3127-125 *	100-125mm/3.94-4.92"	C	5μm	**optional**	150mm	175	0.9	29	25
3127-150 *	125-150mm/4.92-5.91"	C	5μm	**optional**	150mm	175	0.9	29	25

Set

Code	Range	Micrometers included	Setting ring (included)	Extension rod (included)
3127-123 *	6-12mm/0.24-0.47"	6-8mm, 8-10mm, 10-12mm	Ø6mm, Ø8mm, Ø10mm	100mm
3127-202 *	12-20mm/0.47-0.79"	12-16mm, 16-20mm	Ø16mm	150mm
3127-504 *	20-50mm/0.79-1.97"	20-25mm, 25-30mm, 30-40mm, 40-50mm	Ø25mm, Ø40mm	150mm
3127-1004 *	50-100mm/1.97-3.94"	50-63mm, 62-75mm, 75-88mm, 87-100mm	Ø62mm, Ø87mm	150mm

*Supplied with manufacturer inspection certificate

3127-202

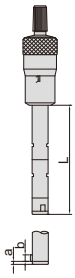
THREE POINTS INTERNAL MICROMETERS

INSPECTION CERTIFICATE

- Meet DIN863-4
- 6-12mm: graduation 0.001mm, 12-200mm: graduation 0.005mm
- Ratchet stop
- Optional accessory: setting rings (code **6312**), micrometer stand and clamp (code **6301** and **6301-2**)

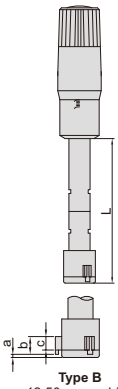
micrometer stand with clamp (**optional**)

3227-8



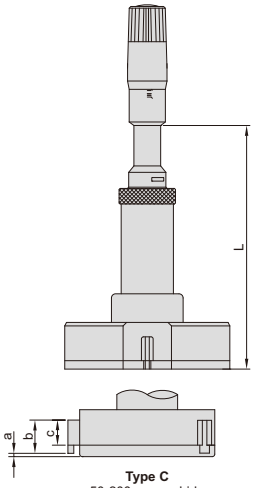
Type A
6-12mm, steel measuring points three points

3227-16



Type B
12-50mm, carbide measuring points three points

3227-125



Type C
50-200mm, carbide measuring points three points

Individual (mm)

Code	Range	Type	Accuracy	Setting ring	Extension rod (included)	L	a	b	c
3227-8*	6-8mm	A	4μm	Ø6mm (included)	100mm	54.5	1.5	2.5	—
3227-10*	8-10mm	A	4μm	Ø8mm (included)	100mm	54.5	1.5	2.5	—
3227-12*	10-12mm	A	4μm	Ø10mm (included)	100mm	54.5	1.5	2.5	—
3227-16*	12-16mm	B	4μm	Ø16mm (included)	150mm	80	0.5	6	4.5
3227-20*	16-20mm	B	4μm	Ø16mm (included)	150mm	80	0.5	6	4.5
3227-25*	20-25mm	B	4μm	Ø25mm (included)	150mm	90	0.5	8	6
3227-30*	25-30mm	B	4μm	Ø25mm (included)	150mm	90	0.5	8	6
3227-40*	30-40mm	B	4μm	Ø40mm (included)	150mm	97	0.5	14	12
3227-50*	40-50mm	B	5μm	Ø40mm (included)	150mm	97	0.5	14	12
3227-63*	50-63mm	C	5μm	Ø62mm (included)	150mm	114	0.5	17.5	14.5
3227-75*	62-75mm	C	5μm	Ø62mm (included)	150mm	114	0.5	17.5	14.5
3227-88*	75-88mm	C	5μm	Ø87mm (included)	150mm	114	0.5	17.5	14.5
3227-100*	87-100mm	C	5μm	Ø87mm (included)	150mm	114	0.5	17.5	14.5
3227-125*	100-125mm	C	5μm	**optional**	150mm	140	0.9	29	25
3227-150*	125-150mm	C	5μm	**optional**	150mm	140	0.9	29	25
3227-175*	150-175mm	C	7μm	**optional**	150mm	140	0.9	29	25
3227-200*	175-200mm	C	7μm	**optional**	150mm	140	0.9	29	25

setting ring

6-100mm: included
100-200mm: **optional**

extension rod

included

Set

Code	Range	Micrometers included	Setting ring (included)	Extension rod (included)
3227-123*	6-12mm	6-8mm, 8-10mm, 10-12mm	Ø6mm, Ø8mm, Ø10mm	100mm
3227-202*	12-20mm	12-16mm, 16-20mm	Ø16mm	150mm
3227-504*	20-50mm	20-25mm, 25-30mm, 30-40mm, 40-50mm	Ø25mm, Ø40mm	150mm
3227-1004*	50-100mm	50-63mm, 62-75mm, 75-88mm, 87-100mm	Ø62mm, Ø87mm	150mm

*Supplied with manufacturer inspection certificate

3227-504

WIDE RANGE THREE POINTS INTERNAL MICROMETERS

INSPECTION CERTIFICATE

- Meet DIN863-4
- Graduation 0.001mm
- Carbide measuring faces
- Ratchet stop
- Setting rings are included

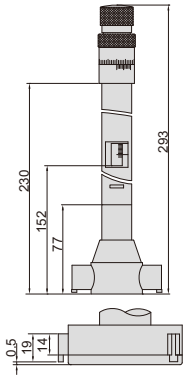
Code	Range	Accuracy	Setting ring
3228-70*	50-70mm	5μm	Ø50mm (included)
3228-100*	70-100mm	5μm	Ø70mm (included)
3228-150*	100-150mm	6μm	Ø100mm (included)
3228-250*	150-250mm	8μm	Ø150mm (included)

*Supplied with manufacturer inspection certificate

setting ring

3228-70

Unit: mm

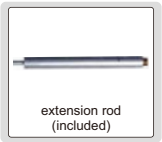


DIGITAL WIDE RANGE THREE POINTS INTERNAL MICROMETERS

INSPECTION CERTIFICATE

- Meet DIN863-4
- Resolution 0.001mm/0.00005"
  (resolution of 3128-300 is 0.001mm/0.0001")
- IP54 dust/waterproof
- Buttons: on/off, set, mm/inch, ABS/INC
- Data output, automatic power off
- Carbide measuring faces
- Ratchet stop
- Supplied with extension rods
- Setting rings are included (except 200-300mm)
- Optional accessory: data output cable
  (code **7315-30**, **7302-30**)

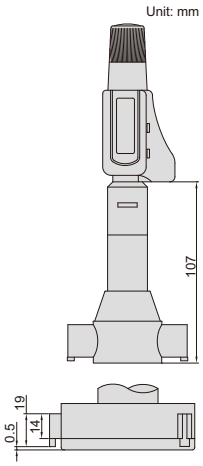
setting ring


extension rod
(included)

IP54 WATERPROOF

DATA OUTPUT

3128-70

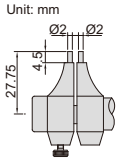


Code	Range	Accuracy	Setting ring	Extension rod (included)
3128-70*	50-70mm/1.97-2.76"	5μm	Ø50mm (included)	150mm
3128-100*	70-100mm/2.76-3.94"	5μm	Ø70mm (included)	150mm
3128-150*	100-150mm/3.94-5.91"	6μm	Ø100mm (included)	150mm
3128-250*	150-250mm/5.91-9.84"	8μm	Ø150mm (included)	150mm
3128-300*	200-300mm/7.87-11.81"	9μm	Ø200mm **(optional)**	150mm

*Supplied with manufacturer inspection certificate

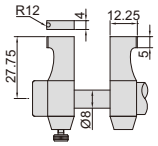
INSIDE MICROMETERS (ECONOMIC TYPE)

ATTENTION: LOW PARALLELISM OF TWO MEASURING FACES

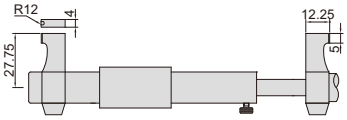


type A

3220-50



type B



type C

micrometer stand with clamp **(optional)**

- Graduation 0.01mm
- Ratchet stop
- Carbide measuring faces
- Optional accessory: setting ring (code **6312**),
  micrometer stand and clamp (code **6301** and **6301-1**)

Code	Range	Type	Setting ring	Accuracy
3220-30	5-30mm	A	5mm (included)	7μm
3220-50	25-50mm	B	25mm (included)	8μm
3220-75	50-75mm	B	50mm **(optional)**	9μm
3220-100	75-100mm	C	75mm **(optional)**	10μm

DIGITAL INSIDE MICROMETERS (ECONOMIC TYPE)

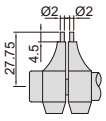
ATTENTION: LOW PARALLELISM OF TWO MEASURING FACES

DATA OUTPUT

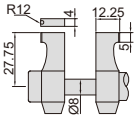
3520-30

- Resolution 0.001mm/0.00005"
- Button function: on/off, set, mm/inch, data transmit
- Data output
- Automatic power off
- Ratchet stop
- Carbide measuring faces
- Optional accessory:
  data output cable
  (code **7315-30**, **7302-30**),
  setting ring (code **6312**)

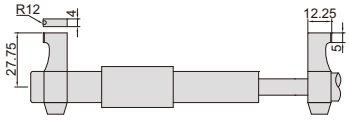
Unit: mm



type A



type B



type C

Code	Range	Type	Setting ring	Accuracy
3520-30	5-30mm/0.2-1.2"	A	5mm (included)	±5μm
3520-50	25-50mm/1-2"	B	25mm (included)	±6μm
3520-75	50-75mm/2-3"	B	50mm **(optional)**	±7μm
3520-100	75-100mm/3-4"	C	75mm **(optional)**	±8μm

DIGITAL TUBULAR INSIDE MICROMETERS

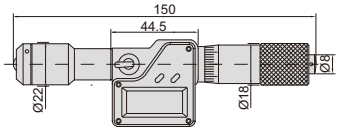
IP65 WATERPROOF

DATA OUTPUT

- Micrometer head: 150-175mm
- Graduation: 0.001mm/0.00005"
- Accuracy: (3+n+L/50)μm
  n= number of rods
  L=maximum measuring length (mm)
- Carbide measuring faces
- The diameter of extension rods is 22mm
- IP65 dust/waterproof
- Button function: on/off, set, mm/inch, data transmit
- Data output
- Automatic power off
- Supplied with setting standards
- Optional accessory: data output cable
  (code **7315-30**, **7302-30**)

3521-1000

Unit: mm

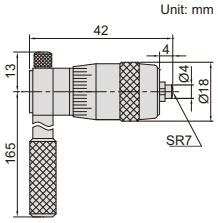


Code	Range	Travel of micrometer head	Extension rods
3521-175	150-175mm	25mm	—
3521-1000	150-1000mm	25mm	25mm, 50mm (2 pcs), 100mm, 200mm, 400mm

TUBULAR INSIDE MICROMETERS

- Graduation: 0.01mm
- Accuracy: (6+L/50)µm
  L=maximum measuring length (mm)
- Optional accessory: setting ring (code **6312**), gage block accessory (code **6881**), cylinder gage block (code **4001**), caliper/height gage checker (code **6884**)

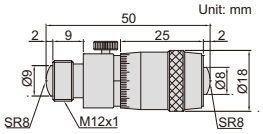
3221-50



Code	Range	Travel of micrometer head	Extension rods
3221-50	25-50mm	7mm	2 pcs
3221-300	50-300mm	13mm	10 pcs

TUBULAR INSIDE MICROMETERS

- Micrometer head: 50-63mm
- Travel of micrometer head: 13mm
- Graduation: 0.01mm
- Accuracy: (3+n+L/50)µm
  n=number of rods,
  L=maximum measuring length (mm)
- Supplied with setting standards
- Carbide measuring faces

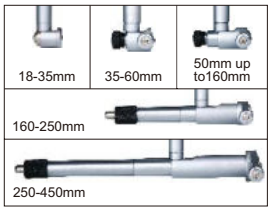


3222-150

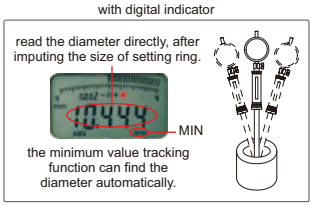
Code	Range	Extension rods
3222-150	50-150mm	13mm, 25mm, 50mm
3222-300	50-300mm	13mm, 25mm, 50mm (2 pcs), 100mm
3222-500	50-500mm	13mm, 25mm, 50mm (2 pcs), 100mm, 200mm
3222-600	50-600mm	13mm, 25mm, 50mm, 100mm, 150mm, 200mm
3222-1000	50-1000mm	13mm, 25mm, 50mm (2 pcs), 100mm, 200mm (2 pcs), 300mm
3222-1500	50-1500mm	13mm, 25mm, 50mm (2 pcs), 100mm, 200mm (3 pcs), 300mm (2 pcs)

BORE GAGES

ATTENTION: NOT SUITABLE FOR 0.001MM DIAL INDICATORS

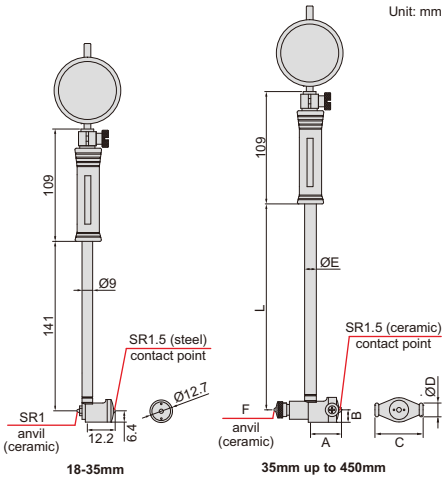


VIDEO



2322-160A

2122-35A



- Repeatability: 0.003mm
- Optional accessory: setting ring (code **6312**), long handle (code **7351**), bore gage setter

(mm)

Range	A	B	C	ØD	ØE	F	L
35-60mm	22	9	27	13	12.8	SR2	141
50-100mm	26	9	35	13	12.8	SR2	141
50-160mm	26	9	35	13	12.8	SR2	141
100-160mm	26	9	35	13	12.8	SR2	141
160-250mm	56.5	13	74.5	15	12.8	SR2	241
250-450mm	86.5	15	101.5	15	14.5	SR2.5	241

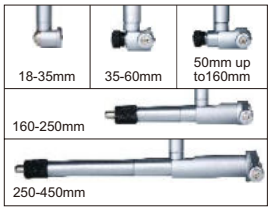
With dial indicator

Code	Range	Indicator	Accuracy
2322-35A	18-35mm	dial indicator, range 10mm, graduation 0.01mm (code **2308-10FA**)	±0.015mm
2322-60A	35-60mm		±0.018mm
2322-100A	50-100mm		±0.018mm
2322-160A	50-160mm		±0.018mm
2322-161A	100-160mm		±0.018mm
2322-250A	160-250mm		±0.018mm
2322-450A	250-450mm		±0.018mm

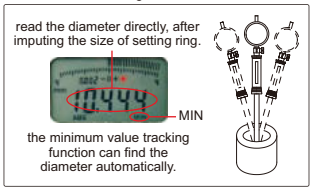
With digital indicator (data output cable code 7315-50M, 7302-40M, optional)

Code	Range	Indicator	Accuracy
2122-35A	18-35mm	digital indicator, code **2108-10F**, range 12.7mm/0.5", resolution 0.002mm/0.0001" (can switch to: 0.01mm/0.0005")	±0.015mm
2122-60A	35-60mm		±0.018mm
2122-160A	50-160mm		±0.018mm
2122-250A	160-250mm		±0.018mm
2122-450A	250-450mm		±0.018mm

PRECISION BORE GAGES



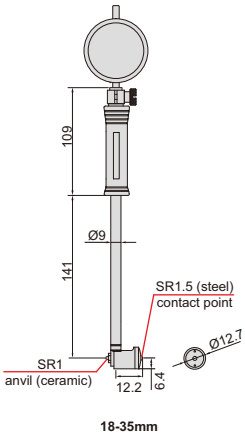
with digital indicator



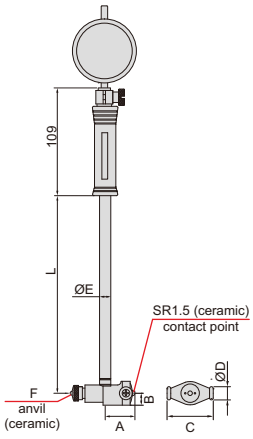
2825-160

2126-35

Unit: mm



18-35mm



35mm up to 450mm

(mm)

Range	A	B	C	ØD	ØE	F	L
35-60mm	22	9	27	13	12.8	SR2	141
50-100mm	26	9	35	13	12.8	SR2	141
50-160mm	26	9	35	13	12.8	SR2	141
100-160mm	26	9	35	13	12.8	SR2	141
160-250mm	56.5	13	74.5	15	12.8	SR2	241
250-450mm	86.5	15	101.5	15	14.5	SR2.5	241

- Optional accessory: setting ring (code **6312**), long handle (code **7351**), bore gage setter

With dial indicator

Code	Range	Indicator	Accuracy	Repeatability
2825-35	18-35mm	dial indicator, range 1mm, graduation 0.001mm (code **2313-1FA**)	±0.007mm	0.0015mm
2825-60	35-60mm		±0.007mm	0.0015mm
2825-100	50-100mm		±0.007mm	0.0015mm
2825-160	50-160mm		±0.007mm	0.0015mm
2825-161	100-160mm		±0.007mm	0.0015mm
2825-250	160-250mm		±0.007mm	0.0015mm
2825-450	250-450mm		±0.007mm	0.0015mm

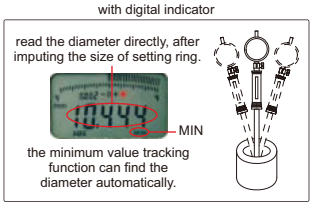
With digital indicator (data output cable code 7315-50M, 7302-40M, optional)

Code	Range	Indicator	Accuracy	Repeatability
2126-35	18-35mm	digital indicator, code **2108-101F**, range 12.7mm/0.5", resolution 0.001mm/0.00005"	±0.007mm	0.002mm
2126-60	35-60mm		±0.007mm	0.002mm
2126-100	50-100mm		±0.007mm	0.002mm
2126-160	50-160mm		±0.007mm	0.002mm
2126-161	100-160mm		±0.007mm	0.002mm
2126-250	160-250mm		±0.007mm	0.002mm
2126-450	250-450mm		±0.007mm	0.002mm

BORE GAGES FOR SMALL HOLES

ATTENTION: NOT SUITABLE FOR 0.001MM DIAL INDICATORS

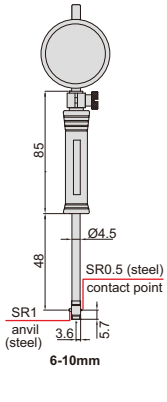
with digital indicator



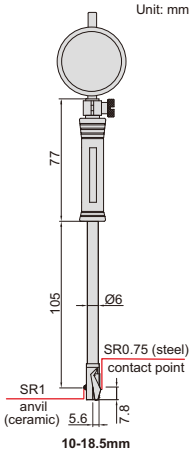
2852-10

2152-18

Unit: mm



6-10mm



10-18.5mm

- Repeatability: 0.003mm
- Optional accessory: setting ring (code **6312**), bore gage setter

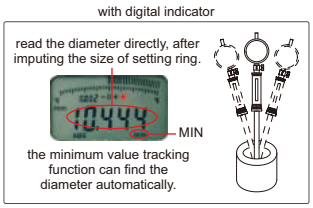
With dial indicator

Code	Range	Indicator	Accuracy
2852-10	6-10mm	dial indicator, range 3mm, graduation 0.01mm (code **2311-3F**)	±0.012mm
2852-18	10-18.5mm		±0.012mm

With digital indicator (data output cable code 7315-50M, 7302-40M, optional)

Code	Range	Indicator	Accuracy
2152-10	6-10mm	digital indicator, code **2108-10F**, range 12.7mm/0.5", resolution 0.002mm/0.0001" (can switch to: 0.01mm/0.0005")	±0.012mm
2152-18	10-18.5mm		±0.012mm

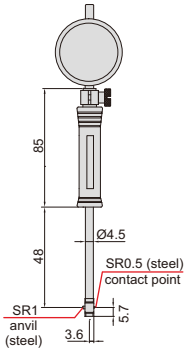
PRECISION BORE GAGES FOR SMALL HOLES



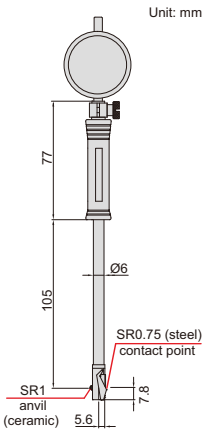
- Accuracy: ±0.007mm
- Optional accessory: setting ring (code **6312**), bore gage setter

2853-10

2153-18



6-10mm



10-18.5mm

With dial indicator

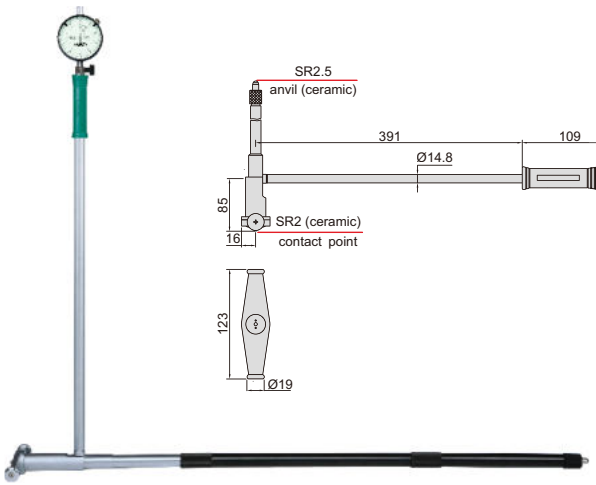
Code	Range	Indicator	Repeatability
2853-10	6-10mm	dial indicator, range 1mm, graduation 0.001mm (code **2313-1FA**)	0.0015mm
2853-18	10-18.5mm		0.0015mm

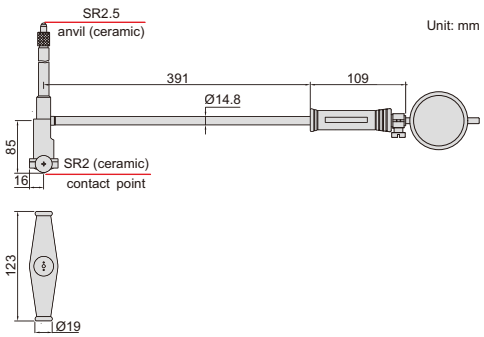
With digital indicator (data output cable code 7315-50M, 7302-40M, optional)

Code	Range	Indicator	Repeatability
2153-10	6-10mm	digital indicator, code **2108-101F**, range 12.7mm/0.5", resolution 0.001mm/0.00005"	0.002mm
2153-18	10-18.5mm		0.002mm

BORE GAGE

ATTENTION: NOT SUITABLE FOR 0.001MM DIAL INDICATORS





2828-800A

(mm)

Code	Range	Accuracy	Repeatability	Indicator
2828-800A	400-800mm	±0.025	0.003	dial indicator, code **2308-10FA**, range 10mm, graduation 0.01mm

BORE GAGE SETS

ATTENTION: NOT SUITABLE FOR 0.001MM DIAL INDICATORS

- Repeatability: 0.003mm
- Optional accessory: setting ring (code **6312**)
  long handle (code **7351**)

packaging (code **2824-S3**)

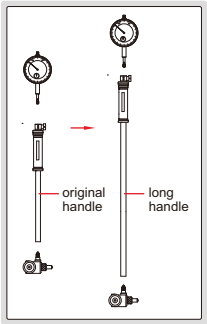
Code	Range	Indicator	Bore gages included	Accuracy
2824-S160	35-160mm	dial indicator, code **2308-10FA**, range 10mm, graduation 0.01mm	① 35-50mm (dial indicator and handle are not included) ② 50-160mm	35-50mm ±0.018mm 50-160mm ±0.018mm
2824-S3	18-160mm	dial indicator, code **2308-10FA**, range 10mm, graduation 0.01mm	① 18-35mm ② 35-60mm (dial indicator is not included) ③ 50-160mm (dial indicator is not included)	18-35mm ±0.015mm 35-60mm ±0.018mm 50-160mm ±0.018mm

2824-S160

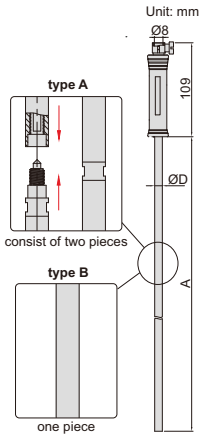
2824-S3

LONG HANDLES

method of use (replace the original handle with long handle)



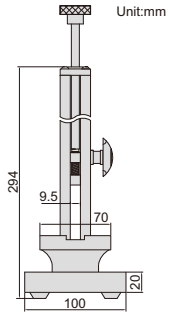
7351-EX11



- To assist deep-hole measurement
- Can be used for bore gages **2322**, **2122**, **2824** and **2827**

Code	Applicable bore gages	A	ØD	Type
7351-EX11	35-60mm, 50-100mm, 50-160mm, 100-160mm	475mm	13mm	B
7351-EX12		980mm	13mm	
7351-EX13		1480mm	14.5mm	A
7351-EX14		1980mm	14.5mm	
7351-EX21	160-250mm, 250-450mm	480mm	14.5mm	B
7351-EX22		980mm	14.5mm	
7351-EX23		1480mm	14.5mm	A
7351-EX24		1980mm	14.5mm	

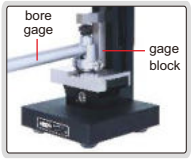
BORE GAGE SETTERS



7353-160

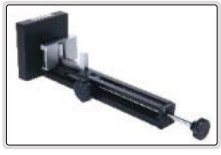
VIDEO

application



gage blocks for **7353-160**

horizontal use



- Vertical and horizontal use
- To be used with gage blocks

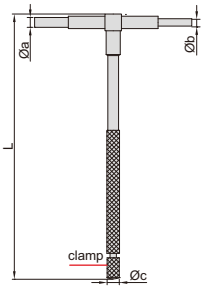
Gage block set for 7353-160

Blocks per set	Size (mm)	Step (mm)	Quantity (pcs)	Remark
33	1.005		1	grade 2 (ISO3650)
	1.01-1.09	0.01	9	
	1.1-1.9	0.1	9	
	1-9	1	9	
	10-30	10	3	
	50		1	
	100		1	

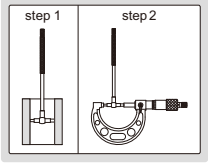
Code	Range	Repeatability	Remark
7353-160	0-160mm	1.2μm	with gage block set
7353-160W	0-160mm	1.2μm	without gage block set

TELESCOPING GAGE SET

4206-1



- 6 gages per set
- For quick measurement of inside diameter of holes and width of slots
- Satin chrome finish



(mm)

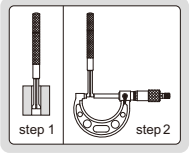
Range	L	Øa	Øb	Øc
8-12.7mm	115	3.9	2.9	6.2
12.7-19mm	115	5.3	3.8	6.2
19-32mm	115	5.3	3.8	6.2
32-54mm	137	7.6	6.1	7.2
54-90mm	137	7.6	6.1	7.2
90-150mm	137	7.6	6.1	7.2

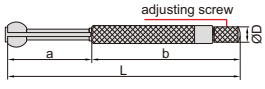
Code	Total range	Gages included (mm)
4206-1	8-150mm	8-12.7, 12.7-19, 19-32, 32-54, 54-90, 90-150

SMALL HOLE GAGE SET

- 4 gages per set
- For small holes, slots and grooves, etc.
- Satin chrome finish

4208-1





(mm)

Range	L	a	b	ØD
3-5mm	76	24	52	5
5-7.5mm	79	27	52	5
7.5-10mm	88	30	58	6
10-13mm	91	34	58	6

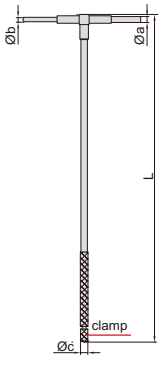
Code	Total range	Gages included
4208-1	3-13mm	3-5mm, 5-7.5mm, 7.5-10mm, 10-13mm

LONG HANDLE TELESCOPING GAGES

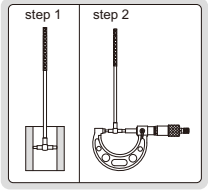
- For quick measurement of inside diameter of deep holes and width of slots
- Satin chrome finish

(mm)

Code	Range	L	Øa	Øb	Øc
4209-1	8-12.7mm	300	3.9	2.9	6.2
4209-2	12.7-19mm	300	5.3	3.8	6.2
4209-3	19-32mm	300	5.3	3.8	6.2
4209-4	32-54mm	300	7.6	6.1	7.2
4209-5	54-90mm	300	7.6	6.1	7.2
4209-6	90-150mm	300	7.6	6.1	7.2



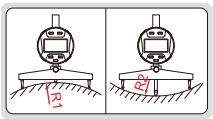
4209-6



DIGITAL RADIUS GAGE (LOW ACCURACY)

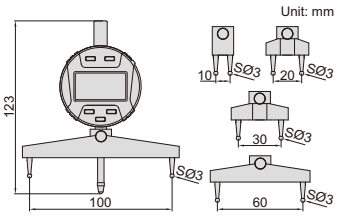
ATTENTION: NO DATA OUTPUT

VIDEO



2183

- Resolution: 0.005mm/0.0002"
- Buttons: on/off, hold, mm/inch, s (select jaws), zero
- Measure radius of internal or external arcs
- Display can be rotated by 320º
- Supplied with 5 jaws for different sizes of arc
- Battery CR2032
- Automatic power off (time is adjustable)



Code	Range of external radius (R1)	Range of internal radius (R2)	Accuracy (mm)
2183	5-910mm/0.2-35.83"	7-910mm/0.3-35.83"	±0.01R*

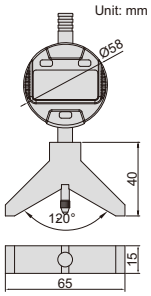
*R is the radius to be measured. For example, radius is 100mm, the accuracy is ±0.01x100=±1mm

DIGITAL RADIUS GAGE

DATA OUTPUT

VIDEO

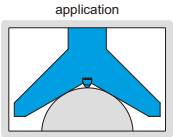
2188-55



pin gage (included)

- Measure radius of external arc, arc angle of measured surface should be larger than 60˚
- Display radius value, no need to calculate
- Button function: on/off, zero, data preset, inch/mm
- Keep preset data in memory after restart
- CR2032 battery
- Automatic power off (time is adjustable)
- Data output
- Stainless steel base
- Supplied with pin gage for zero setting
- Optional accessory: data output cable (code **7315-50M**, **7302-40M**)

application



Code	Range (radius)	Resolution	Accuracy
2188-55	4-53mm/0.16-2.09"	0.01mm/0.0005"	±0.02mm

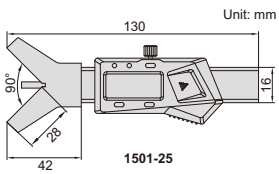
DIGITAL RADIUS CALIPERS

ATTENTION: THE ACTUAL RADIUS IS 2.414 TIMES OF THE READING

DATA OUTPUT

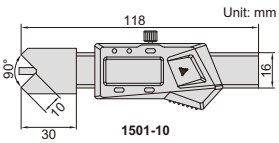
VIDEO

1501-25



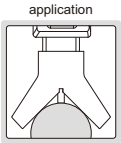
1501-25

1501-10



1501-10

application



- Measure radius of external arc, arc angle of measured surface should be larger than 90°
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Supplied with pin gage for zero setting

pin gage (included)

1501-10 can measure small workpieces or workpieces with steps

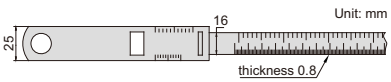
Code	Range (radius)	Accuracy
1501-25	2-25mm/0.079-1"	±0.05mm
1501-10	2-10mm/0.079-0.394"	±0.05mm

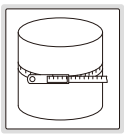
CIRCUMFERENCE TAPES

- Measure diameter and circumference of pipes, trees, tires, etc.
- Graduation: 0.1mm
- Laser engraved scale
- Made of stainless steel

7114-950

Code	Circumference range	Diameter range	Accuracy	
			Circumference	Diameter
7114-950	150-950mm	Ø50-300mm	±3mm	±1mm
7114-2200	940-2200mm	Ø300-700mm	±3mm	±1mm
7114-3460	2190-3460mm	Ø700-1100mm	±3mm	±1mm





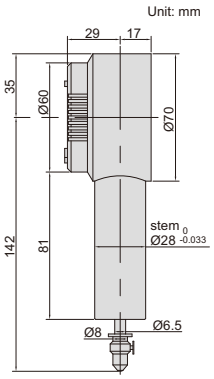
HIGH PRECISION DIGITAL INDICATORS

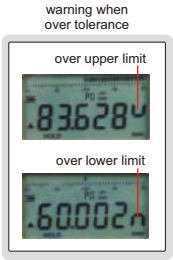
DATA OUTPUT | Ø28MM STEM SUITABLE FOR REINFORCED CLAMPING | ABSOLUTE ENCODER, THE ORIGINAL DATA REMAINS AFTER POWER OFF

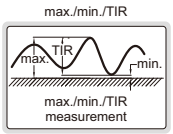
LINEAR BALL BEARINGS FOR TEN MILLION TIMES USE | ATTENTION: RECHARGEABLE BATTERY, FOR 24 HOURS CONTINUOUS WORKING

- Linear ball bearings for ten million times use
- Ø28mm stem suitable for reinforced clamping
- Absolute encoder, the original data remains after power off
- Adjustable resolution: 0.0002mm/0.00001"
  0.001mm/0.00005"
  0.01mm/0.0005"
- Reading in digital and analog
- Button function: data output, tolerance, data preset, data hold, measuring direction change, max./min./TIR, power off time, on/off, mm/inch, adjust resolution
- Power: rechargeable battery, for 24 hours continuous working
- Ruby probe

2140-6







wireless receiver
2134-R1, 2134-R2 (optional)

With data interface
Optional accessory:
wireless transmitter, code **7315-60**,
data output cable (keyboard format), code **7302-60**
data output cable (serial port format), code **7305-G60**
(cable length 3m, optional cable length maximum 15m; RS232 protocol, optional RS485 protocol)

Code	Range	Accuracy	Hysteresis	Remark
2140-6	0-6mm/0-0.24"	1.6μm	0.8μm	flat back

Built-in wireless
Optional accessory:
wireless receiver (keyboard format, connect up to 15 digital indicators), code **2134-R1**
wireless receiver (serial port format, connect up to 15 digital indicators), code **2134-R2**

Code	Range	Accuracy	Hysteresis	Remark
2140-6WL	0-6mm/0-0.24"	1.6μm	0.8μm	flat back

HIGH PRECISION DIGITAL INDICATORS

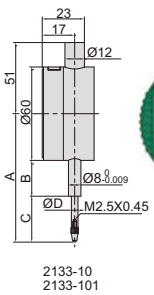
INSPECTION CERTIFICATE

DATA OUTPUT | LINEAR BALL BEARINGS FOR TEN MILLION TIMES USE

ATTENTION: RECHARGEABLE BATTERY, FOR 24 HOURS CONTINUOUS WORKING

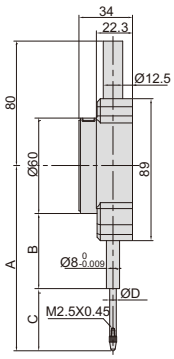
ABSOLUTE ENCODER, THE ORIGINAL DATA REMAINS AFTER POWER OFF

- Linear ball bearings for ten million times use
- Absolute encoder, the original data remains after power off
- Reading in digital and analog
- Data output
- With flat back
- Button function: data output, tolerance, data preset, data hold, measuring direction change, max./min./TIR, power off time, on/off, mm/inch, adjust resolution
- Power: rechargeable battery, for 24 hours continuous working
- Optional accessory: contact points
  wireless transmitter, code **7315-60**
  data output cable (keyboard format), code **7302-60**
  data output cable (serial port format), code **7305-G60**
  (cable length 3m, optional cable length maximum 15m; RS232 protocol, optional RS485 protocol)



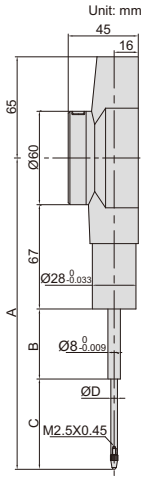
2133-10
2133-101

2133-10



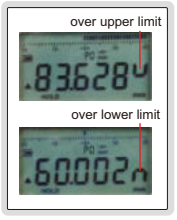
2133-25
2133-251

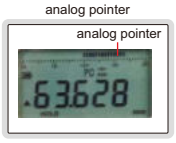
2133-25

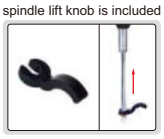


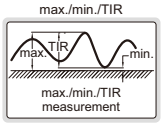
2133-50

2133-50









Low precision
Carbide probe
Adjustable resolution: 0.0005mm/0.00002"
0.001mm/0.00005"
0.01mm/0.0005"

(mm)

Code	Range	Accuracy	Hysteresis	A	B	C	ØD
2133-10*	12.7mm/0.5"	3μm	1.5μm	75.4	20.6	24.8	5
2133-25*	25.4mm/1"	3μm	1.5μm	109.5	38.5	41	5
2133-50*	50.8mm/2"	3μm	1.5μm	201	32	72	4.5

*Supplied with manufacturer inspection certificate

High precision
Ruby probe
Adjustable resolution: 0.0002mm/0.00001"
0.001mm/0.00005"
0.01mm/0.0005"

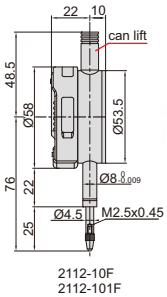
(mm)

Code	Range	Accuracy	Hysteresis	A	B	C	ØD
2133-101*	12.7mm/0.5"	1.5μm	1μm	77.4	26	21.4	4
2133-251*	25.4mm/1"	1.8μm	1μm	116.1	42.5	44	4

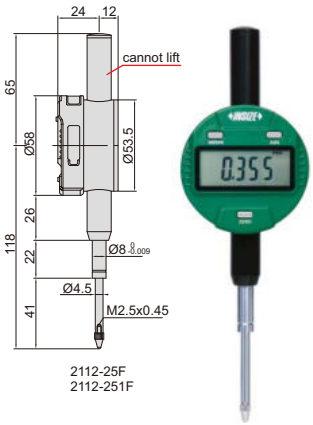
DIGITAL INDICATORS (STANDARD TYPE)

INSPECTION CERTIFICATE

DATA OUTPUT

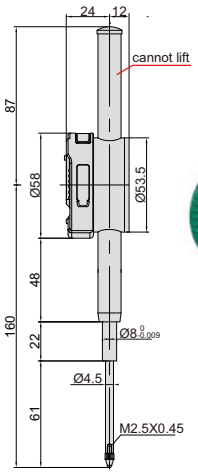


2112-101F



2112-251F

Unit: mm



2112-501F

spindle lift knob is included

- Button function: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement
- Switchable high/low frequency measurement mode, high frequency mode is suitable for high speed moving of spindle and has large power consumption, low power consumption in low frequency mode
- Keep preset data in memory after restart
- CR2032 battery, automatic power off (time is adjustable), data output
- Optional accessory: data output cable (code **7315-50M, 7302-40M, 7305-40M**), backs, contact points

Resolution 0.01mm/0.0005"

Code	Range	Accuracy	Hysteresis	Maximum measuring force	Remark
2112-10F*	12.7mm/0.5"	20μm	10μm	1.5N	flat back
2112-25F*	25.4mm/1"	20μm	10μm	2.2N	flat back
2112-50F*	50.8mm/2"	30μm	10μm	2.5N	flat back
2112-10*	12.7mm/0.5"	20μm	10μm	1.5N	lug back
2112-25*	25.4mm/1"	20μm	10μm	2.2N	lug back
2112-50*	50.8mm/2"	30μm	10μm	2.5N	lug back

*Supplied with manufacturer inspection certificate

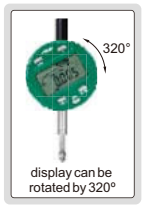
Resolution 0.001mm/0.00005"

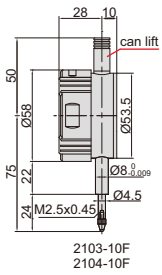
Code	Range	Accuracy	Hysteresis	Maximum measuring force	Remark
2112-101F*	12.7mm/0.5"	5μm	2μm	1.5N	flat back
2112-251F*	25.4mm/1"	5μm	3μm	2.2N	flat back
2112-501F*	50.8mm/2"	6μm	3μm	2.5N	flat back

DIGITAL INDICATORS (ADVANCED TYPE)

INSPECTION CERTIFICATE

DATA OUTPUT



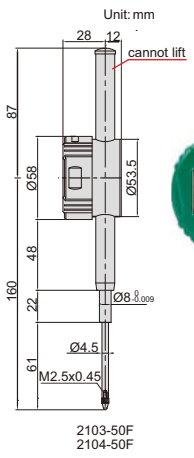


2103-10F

spindle lift knob is included

2104-25F

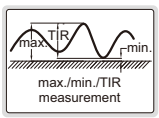
Unit: mm



2103-50F

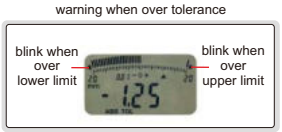
- Reading in digital and analog
- Display can be rotated by 320°
- Button function: tolerance Go and No-Go display, data preset, measuring direction change, max./min./TIR measurement, inch/metric conversion, absolute/incremental measurement
- Keep preset data and tolerance data in memory after restart
- CR2032 battery, automatic power off (time is adjustable)
- Data output
- Optional accessory: data output cable (code **7315-50M, 7302-40M, 7305-40M**), backs, contact points

max./min./TIR



analog pointer

warning when over tolerance



Resolution 0.001mm/0.00005"

Code	Range	Accuracy	Hysteresis	Maximum measuring force	Remark
2103-10F*	12.7mm/0.5"	5μm	2μm	1.5N	flat back
2103-25F*	25.4mm/1"	5μm	3μm	2.2N	flat back
2103-50F*	50.8mm/2"	6μm	3μm	2.5N	flat back

Resolution 0.01mm/0.0005"

Code	Range	Accuracy	Hysteresis	Maximum measuring force	Remark
2104-10F*	12.7mm/0.5"	20μm	10μm	1.5N	flat back
2104-25F*	25.4mm/1"	20μm	10μm	2.2N	flat back
2104-50F*	50.8mm/2"	30μm	10μm	2.5N	flat back

*Supplied with manufacturer inspection certificate

DIGITAL INDICATORS (WITH TRANSMISSION BUTTON AND SIGNAL LIGHT)

INSPECTION CERTIFICATE

DATA OUTPUT

VIDEO

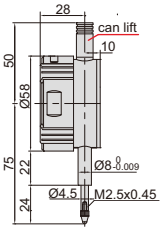
2138-10F

2139-25F

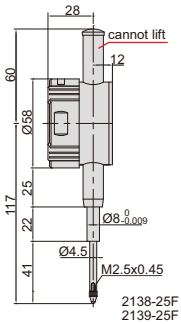
2139-25P

2138-50F

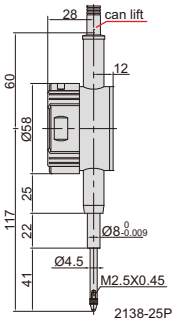
Unit: mm



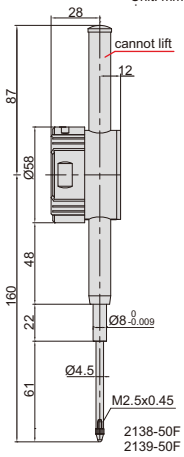
2138-10F
2139-10F



2138-25F
2139-25F



2138-25P
2139-25P



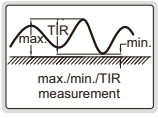
2138-50F
2139-50F

- Reading in digital and analog
- Display can be rotated by 320º
- Button function: on/off, zero, tolerance Go and No-Go display, data preset, measuring direction change, max./min./TIR measurement, inch/metric conversion, absolute/incremental measurement, data output
- Keep preset data and tolerance data in memory after restart
- CR2032 battery, automatic power off (time is adjustable)
- Data output
- Optional accessory: data output cable (code **7315-50M, 7302-40M, 7305-40M**), backs, contact points

analog pointer

warning when over tolerance

max./min./TIR



spindle lift knob is included

Resolution 0.001mm/0.00005"

Code	Range	Accuracy	Hysteresis	Maximum measuring force	Remark
2138-10F*	12.7mm/0.5"	5µm	2µm	1.5N	flat back
2138-25F*	25.4mm/1"	5µm	3µm	2.2N	flat back
2138-50F*	50.8mm/2"	6µm	3µm	2.5N	flat back
2138-25P*	25.4mm/1"	5µm	3µm	2.2N	flat back, with lift cap
2138-50P*	50.8mm/2"	6µm	3µm	2.5N	flat back, with lift cap

Resolution 0.01mm/0.0005"

Code	Range	Accuracy	Hysteresis	Maximum measuring force	Remark
2139-10F*	12.7mm/0.5"	20µm	10µm	1.5N	flat back
2139-25F*	25.4mm/1"	20µm	10µm	2.2N	flat back
2139-50F*	50.8mm/2"	30µm	10µm	2.5N	flat back
2139-25P*	25.4mm/1"	20µm	10µm	2.2N	flat back, with lift cap
2139-50P*	50.8mm/2"	30µm	10µm	2.5N	flat back, with lift cap

*Supplied with manufacturer inspection certificate

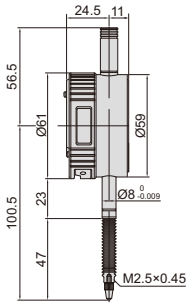
2138-25P/50P
2129-25P/50P

WATERPROOF DIGITAL INDICATORS

INSPECTION CERTIFICATE

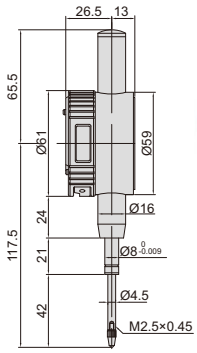
WATERPROOF

DATA OUTPUT



2115-10F
2115-101F

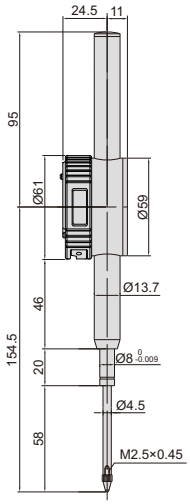
2115-10F



2115-25F
2115-251F

2115-25F

Unit: mm

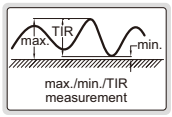


2115-50F
2115-501F

2115-50F

spindle lift knob is included (except **2115-101F**, **2115-10F**)

max./min./TIR



Resolution 0.001mm/0.00005"

Code	Range	Dust/waterproof	Accuracy	Hysteresis	Remark
2115-101F*	12.7mm/0.5"	IP65	5µm	2µm	flat back
2115-251F*	25.4mm/1"	IP54	5µm	3µm	flat back
2115-501F*	50.8mm/2"	IP54	6µm	3µm	flat back

Resolution 0.01mm/0.0005"

Code	Range	Dust/waterproof	Accuracy	Hysteresis	Remark
2115-10F*	12.7mm/0.5"	IP65	20µm	10µm	flat back
2115-25F*	25.4mm/1"	IP54	20µm	10µm	flat back
2115-50F*	50.8mm/2"	IP54	30µm	10µm	flat back

*Supplied with manufacturer inspection certificate

- Dust/waterproof
- Button function: on/off, zero, mm/inch, data preset, tolerance, change measuring direction, max./min./TIR measurement, absolute/incremental measurement
- Keep preset data and tolerance data in memory after restart
- CR2032 battery, automatic power off
- Data output
- Optional accessory: data output cable (code **7315-50M**, **7302-40M**, **7305-40M**), backs, contact points

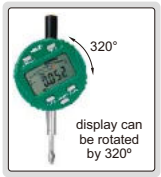
warning when over tolerance

DIGITAL INDICATOR FOR BORE GAGES (WITH TRANSMISSION BUTTON AND SIGNAL LIGHT)

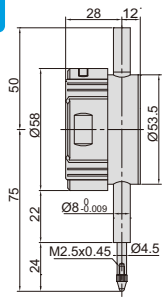
THE ORIGINAL DATA REMAINS AFTER POWER OFF

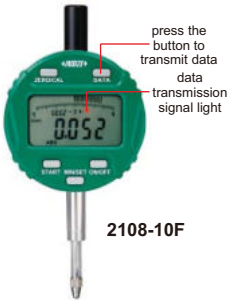
DATA OUTPUT

INSPECTION CERTIFICATE



Unit: mm



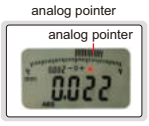


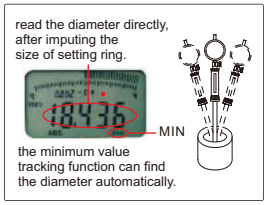
2108-10F

- Specially designed for bore gages
- The minimum value tracking function can find the diameter automatically
- Read the diameter directly, after imputing the size of setting ring
- Reading in digital and analog
- Display can be rotated by 320º
- Button function: on/off, minimum value tracking, calibration, data preset, inch/metric conversion
- Data remains after power off, no need to recalibrate after power on
- CR2032 battery
- Automatic power off (time is adjustable)
- Data output, with flat back
- Optional accessory: data output cable (code **7315-50M, 7302-40M, 7305-40M**), backs, contact points, spindle lift knob

VIDEO

analog pointer





Code	Range	Resolution	Accuracy	Hysteresis
2108-10F*	12.7mm/0.5"	0.002mm/0.0001" (can switch to: 0.01mm/0.0005")	20µm	10µm

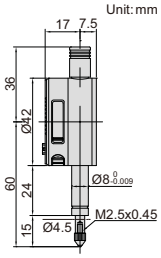
*Supplied with manufacturer inspection certificate

COMPACT DIGITAL INDICATOR

INSPECTION CERTIFICATE

DATA OUTPUT

Unit: mm



2114-5F

- Button function:
  in/mm: short press for inch/metric conversion
  long press to change measuring direction
  ABS: short press for absolute/incremental measurement
  long press to preset data
  0/ON: short press to turn on when power is off
  short press to set zero when power is on
  long press to turn off
- Keep preset data in memory after restart
- CR1632 battery, automatic power off
- Data output, with flat back
- Optional accessory: data output cable (code **7315-50M**, **7302-40M**, **7305-40M**), contact points

Code	Range	Resolution	Accuracy	Hysteresis
2114-5F*	5mm/0.2"	0.01mm/0.0005"	20µm	10µm

*Supplied with manufacturer inspection certificate

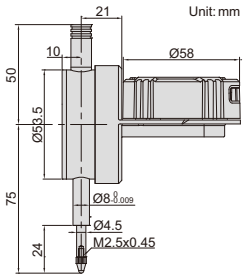
BACK PLUNGER TYPE DIGITAL INDICATOR

INSPECTION CERTIFICATE

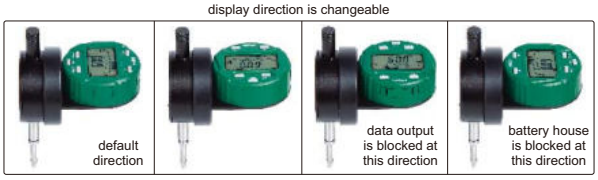
DATA OUTPUT

- Display can rotate 320º, and display direction is changeable
- Reading in digital and analog
- Button function: tolerance Go and No-Go display, data preset, measuring direction change, max./min./TIR measurement, inch/metric conversion, absolute/incremental measurement
- Keep preset data and tolerance data in memory after restart
- CR2032 battery, automatic power off (time is adjustable)
- Data output, with flat back
- Optional accessory: data output cable (code **7315-50M**, **7302-40M**, **7305-40M**), backs, contact points

2118-10

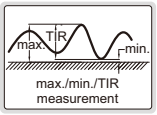


display direction is changeable



remark: to change above direction, 4 fixing screws on the back of display need to be removed first.

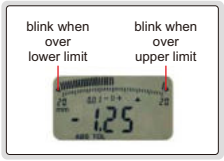
max./min./TIR



spindle lift knob is included

analog pointer

warning when over tolerance



display can rotate 320º

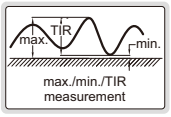
Code	Range	Resolution	Accuracy	Hysteresis
2118-10*	12.7mm/0.5"	0.01mm/0.0005"	20μm	10μm

*Supplied with manufacturer inspection certificate

LARGE STROKE DIGITAL INDICATORS

DATA OUTPUT

max./min./TIR

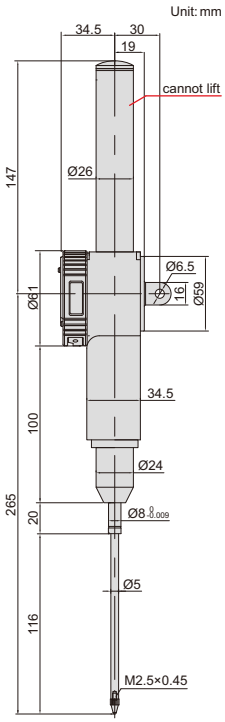


spindle lift knob is included

warning when over tolerance

- Button function: on/off, zero, mm/inch, data preset, tolerance, change measuring direction, max./min./TIR measurement, absolute/incremental measurement
- Keep preset data and tolerance data in memory after restart
- CR2032 battery, automatic power off
- Maximum measuring force: 3.2N
- Data output
- Optional accessory: data output cable (code **7315-50M**, **7302-40M**, **7305-40M**), backs, contact points

2117-100



Resolution 0.01mm/0.0005"

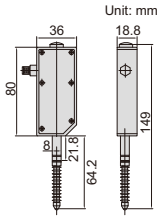
Code	Range	Accuracy	Hysteresis	Remark
2117-100	100mm/4"	30μm	10μm	lug back

Resolution 0.001mm/0.00005"

Code	Range	Accuracy	Hysteresis	Remark
2117-1001	100mm/4"	9μm	3μm	lug back

LINEAR GAGES

LINEAR GAGE
IP65
WATERPROOF



7107-11

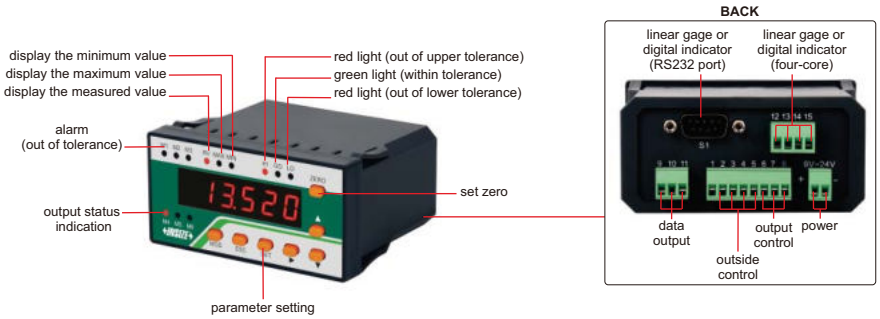
- Capacitance type linear encoder
- Shock-proof, water proof, dust proof, suitable for high speed movement, long working life
- Optional: display unit **7106-1A**, multichannel interface box **7107-1** or **7107-2**

SPECIFICATION

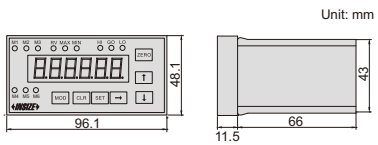
Code	7107-11	7107-12
Measuring range	12mm/0.47"	12mm/0.47"
Resolution	0.01mm/0.0004"	0.001mm/0.00004"
Accuracy	20μm	5μm
Hysteresis	10μm	2μm
Measuring principle	capacitance type linear encoder	
Voltage	5V	
Sampling frequency	100 times/sec.	
Working life	ten million times	
Dust/waterproof	IP65	
Measuring force	1.5N	
Cable length	2m	
Data output	RS232	

DISPLAY UNIT CODE 7106-1A

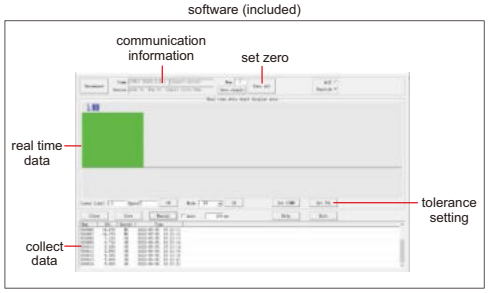
VIDEO



7106-1A



software (included)



- Can be connected with **7107-11** or **7107-12** linear gage, can also be connected with digital indicator (data cable **7309-C01M** is needed)
- Set tolerance and make judgment (out of upper tolerance, within tolerance, out of lower tolerance), output the judgment to control outside devices, control from outside (set zero, hold reading and collect data)
- Software of display unit (included): in the software, it is possible to set tolerance and show judgment (red when out of tolerance, green when within tolerance), set zero, collect data manually or automatically (time is adjustable), output data to Excel, print report

connected with
7107-11 or **7107-12** linear gage

connected with digital indicator
(data cable **7309-C01M** is needed)

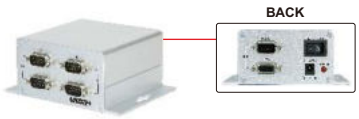
suitable for **2112, 2114, 2115, 2116, 2501, 2103** and **2104** series digital indicators

SPECIFICATION

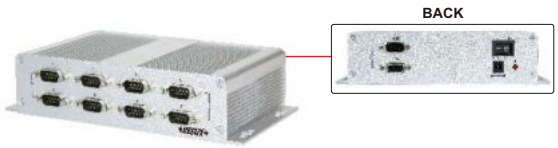
Code	7106-1A
Display	6 digits
Quantity of linear gage or digital indicator to be connected	1 pc
Tolerance	set tolerance and make judgment with alarm and lights (out of upper tolerance, within tolerance, out of lower tolerance)
Output control	output the tolerance judgment (out of upper tolerance, within tolerance, out of lower tolerance) to control outside devices
Outside control	control the display units from outside (set zero, hold reading and collect data)
Data output	connect to computer software and serial communication
Power supply	DC 9~24V

MULTICHANNEL INTERFACE BOXES

VIDEO

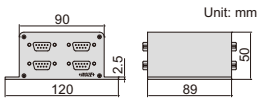


7107-1

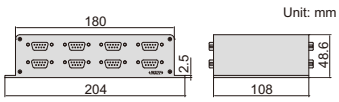


7107-2

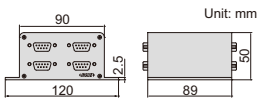
7107-3



7107-1



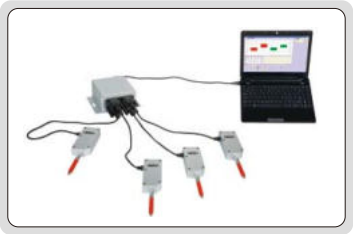
7107-2



7107-3

- Can be connected with **7107-11** or **7107-12** linear gages, can also be connected with digital indicators (data cable **7309-C01M** is needed)
- Connection box (code **7107-3**) is needed to connect interface boxes, when two or more interface boxes are used. Maximum 4 interface boxes can be connected.
- Software of interface boxes (included): in the software, it is possible to set tolerance of each channel and show judgment (red when out of tolerance, green when within tolerance), set zero, collect data manually or automatically (time is adjustable), output data to Excel, print report.

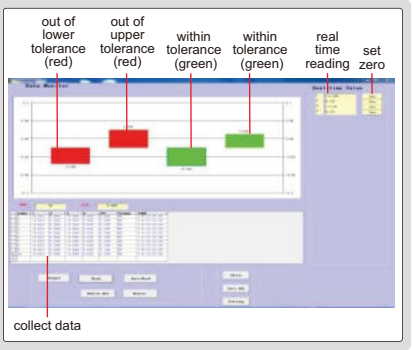
connected with **7107-11** or **7107-12** linear gages



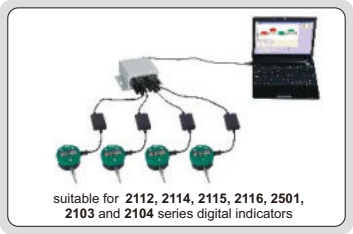
INTERFACE BOX SPECIFICATION

Code	7107-1	7107-2
Quantity of linear gages or digital indicators to be connected	4 pcs	8 pcs
Data output	RS232 and RS485	
Power supply	DC 9~24V	

software (included)



connected with digital indicators
(data cable **7309-C01M** is needed)



CONNECTION BOX (OPTIONAL) SPECIFICATION

Code	7107-3
Quantity of interface boxes to be connected	4 pcs (maximum 4 interface boxes can be connected)
Data output	RS232 and RS485
Power supply	DC 9~24V

DIGITAL LINEAR GAGES

INSPECTION CERTIFICATE

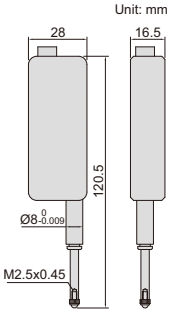
IP43 WATERPROOF

ABSOLUTE ENCODER, THE ORIGINAL DATA REMAINS AFTER POWER OFF

- Scale type: optical grating
- Absolute encoder, the original data remains after power off
- Digital signal output, amplifier is not required
- Repeatability: 0.5μm
- Measuring force: 1.5N
- Dust/waterproof: IP43
- Baud rate: 9600 (can be customized)
- Cable length: 3m (can be customized)

7130-10

7130-10L



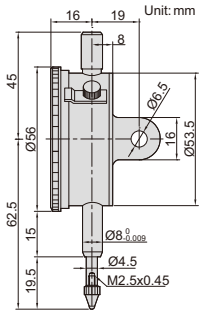
Code	Range	Resolution	Accuracy	Outgoing cable direction	Output signal	Output interface
7130-10	0-12.7mm	0.1μm	1.6μm	horizontal	RS232, TTL level	
7130-10L	0-12.7mm	0.1μm	1.6μm	vertical	RS232, TTL level	

PRECISION DIAL INDICATORS

INSPECTION CERTIFICATE

JEWELED BEARING

2313-1A



- Graduation: 0.001mm
- Dial reading: 0-100-0
- Jeweled bearing
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs, contact points

Code	Range	Accuracy	Hysteresis	Range/rev	Remark
2313-1FA*	1mm	5μm	2μm	0.2mm	flat back
2313-2FA*	2mm	6μm	2.5μm	0.2mm	flat back
2313-1A*	1mm	5μm	2μm	0.2mm	lug back

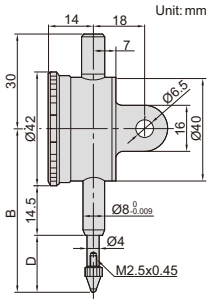
*Supplied with manufacturer inspection certificate

COMPACT DIAL INDICATORS

INSPECTION CERTIFICATE

JEWELED BEARING

2311-5



- Range/rev: 0.5mm
- Dial reading: 0-50
- Meet DIN878
- Jeweled bearing
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs, contact points

(mm)

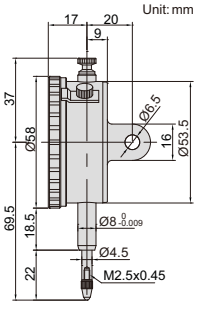
Code	Range	Graduation	Accuracy	Hysteresis	Remark	B	D
2311-3F*	3mm	0.01mm	12μm	3μm	flat back	46	10.5
2311-5F*	5mm	0.01mm	14μm	3μm	flat back	48	12.5
2311-3*	3mm	0.01mm	12μm	3μm	lug back	46	10.5
2311-5*	5mm	0.01mm	14μm	3μm	lug back	48	12.5

*Supplied with manufacturer inspection certificate

DIAL INDICATORS (BASIC TYPE)

INSPECTION CERTIFICATE

2301-10



- Graduation: 0.01mm
- Dial reading: 0-100
- Meet DIN878
- Jeweled bearing
- Supplied with limit hands and bezel clamp
- Packed in carton box
- Optional accessory: backs, contact points

carton box

Code	Range	Accuracy	Hysteresis	Range/rev	Remark
2301-10F*	10mm	17μm	3μm	1mm	flat back
2301-10*	10mm	17μm	3μm	1mm	lug back with spare flat back

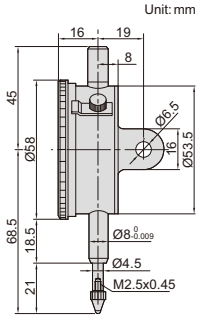
*Supplied with manufacturer inspection certificate

DIAL INDICATORS (STANDARD TYPE)

INSPECTION CERTIFICATE

JEWELED BEARING

2308-10A



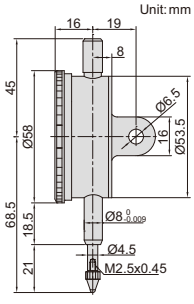
- Graduation: 0.01mm
- Dial reading: 0-100
- Meet DIN878
- Jeweled bearing
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs, contact points

Code	Range	Accuracy	Hysteresis	Range/rev	Remark
2308-3FA*	3mm	12μm	3μm	1mm	flat back
2308-5FA*	5mm	14μm	3μm	1mm	flat back
2308-10FA*	10mm	17μm	3μm	1mm	flat back
2308-3A*	3mm	12μm	3μm	1mm	lug back
2308-5A*	5mm	14μm	3μm	1mm	lug back
2308-10A*	10mm	17μm	3μm	1mm	lug back

*Supplied with manufacturer inspection certificate

SHOCKPROOF DIAL INDICATORS

INSPECTION CERTIFICATE



- Graduation: 0.01mm
- Dial reading: 0-100
- Meet DIN878
- Shockproof
- Jeweled bearing
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs, contact points

2314-10A

JEWELED BEARING

SHOCK PROOF

Code	Range	Accuracy	Hysteresis	Range/rev	Remark
2314-10FA*	10mm	17μm	3μm	1mm	flat back
2314-10A*	10mm	17μm	3μm	1mm	lug back

*Supplied with manufacturer inspection certificate

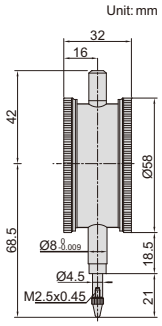
DOUBLE FACE DIAL INDICATOR

INSPECTION CERTIFICATE

- Graduation: 0.01mm
- Meet DIN878
- Read from both sides
- Jeweled bearing
- Supplied with limit pointers
- Optional accessory: contact points

front back

2328-10



Code	Range	Accuracy	Hysteresis	Range/rev	Dial reading
2328-10*	10mm	17μm	3μm	1mm	0-100

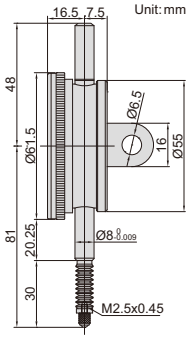
*Supplied with manufacturer inspection certificate

WATERPROOF DIAL INDICATORS

INSPECTION CERTIFICATE

IP54 WATERPROOF

2324-10A



- Hysteresis: 3μm
- Dial reading: 0-100
- Meet DIN878
- IP54 dust/waterproof
- With limit pointers
- Optional accessory: back, contact points

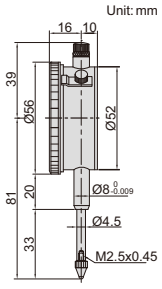
Code	Range	Graduation	Accuracy	Range/rev	Remark
2324-10FA*	10mm	0.01mm	17μm	1mm	flat back
2324-10A*	10mm	0.01mm	17μm	1mm	lug back

*Supplied with manufacturer inspection certificate

DIAL INDICATOR (BASIC TYPE, LONG STROKE)

INSPECTION CERTIFICATE

2302-25F



carton box

- Graduation: 0.01mm
- Dial reading: 0-100
- Supplied with limit pointers and bezel clamp
- Packed in carton box
- Optional accessory: backs, contact points

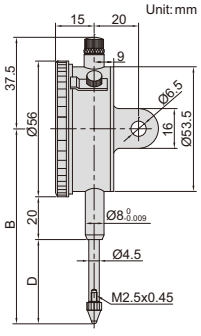
Code	Range	Accuracy	Hysteresis	Range/rev	Remark
2302-25F*	25mm	35μm	7μm	1mm	flat back

*Supplied with manufacturer inspection certificate

DIAL INDICATORS (LONG STROKE)

INSPECTION CERTIFICATE

2310-30A



- Graduation: 0.01mm
- Dial reading: 0-100
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs, contact points

(mm)

Code	Range	Accuracy	Hysteresis	Range/rev	Remark	B	D
2310-20FA*	20mm	25μm	5μm	1mm	flat back	83	35
2310-30FA*	30mm	35μm	7μm	1mm	flat back	88	40
2310-20A*	20mm	25μm	5μm	1mm	lug back	83	35
2310-30A*	30mm	35μm	7μm	1mm	lug back	88	40

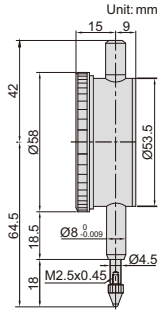
*Supplied with manufacturer inspection certificate

ONE REVOLUTION DIAL INDICATORS

INSPECTION CERTIFICATE

SHOCK PROOF

2316-05F



- Dial indicator stroke: 5mm
- Meet DIN878
- Eliminate the possibility of reading errors due to miscounting
- Shockproof
- With flat back
- Supplied with limit pointers
- Optional accessory: backs, contact points

Code	Range	Graduation	Accuracy	Hysteresis	Dial reading
2316-05F*	0.5mm	0.01mm	9μm	3μm	25-0-25
2316-1F*	1mm	0.01mm	9μm	3μm	50-0-50

*Supplied with manufacturer inspection certificate

DIAL INDICATORS (LONG STROKE)

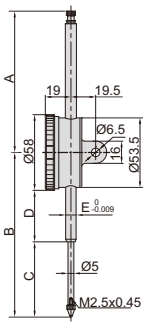
JEWELED BEARING | SHOCK PROOF | INSPECTION CERTIFICATE

2309-50

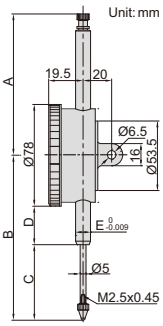
- Range/rev: 1mm
- Dial reading: 0-100
- Shockproof
- Jeweled bearing
- Supplied with limit pointers
- Optional accessory: backs, contact points

back of type B

stem clamp Ø10mm of **2309-100D**



type A



type B

Code	Range	Type	Graduation	Accuracy	Hysteresis	Remark
2309-30F *	30mm	A	0.01mm	35μm	7μm	flat back
2309-50 *	50mm	A	0.01mm	40μm	8μm	flat back with spare lug back
2309-50D *	50mm	B	0.01mm	40μm	8μm	flat back with spare lug back
2309-100D	100mm	B	0.01mm	50μm	9μm	flat back with spare lug back

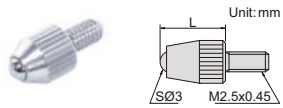
(mm)

Code	Type	A	B	C	D	E
2309-30F	A	37.5	89.5	40.9	19.5	Ø8
2309-50	A	108.3	126.2	57.7	39.5	Ø8
2309-50D	B	108.3	126.2	57.7	29.5	Ø8
2309-100D	B	167.6	207.8	108	60.8	Ø10

Note: 1) **2309-100D** can only be used vertically
2) **2309-100D** is supplied with stem clamp Ø10mm for magnetic stands (code **6200-60**, **6201-60**, **6202-80**, **6202-100**)
3) **2309-30F** can not accept optional backs

*Supplied with manufacturer inspection certificate

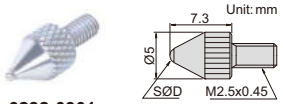
CONTACT POINTS



6282-0101

BALL POINT

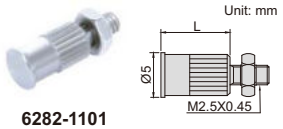
Code	Material of measuring face	L (mm)
6282-0101	carbide	7.3
6282-0103	ceramic	7.3
6282-0104	carbide	8.3



6282-0301

BALL POINT

Code	Material of measuring face	SØD
6282-0301	steel	1mm
6282-0302	carbide	1.5mm
6282-0303	carbide	1.8mm
6282-0304	carbide	2.5mm
6282-0305	carbide	4mm

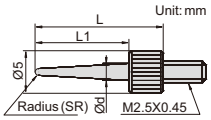


6282-1101

FLAT POINT

Code	Material of measuring face	L
6282-1101	steel	8mm

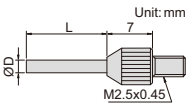
6282-1601



NEEDLE POINT (mm)

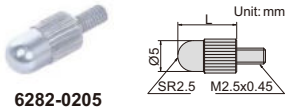
Code	Material of measuring face	L1	L	SR	Ød
6282-1601	steel	11	15	0.4	2
6282-1602	steel	13	17	0.2	2
6282-1603	steel	21	25	0.4	3
6282-1604	steel	31	35	0.4	3

6282-1706



NEEDLE POINT

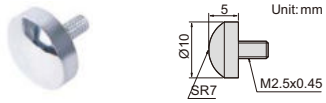
Code	Material of measuring face	ØD	L
6282-1705	carbide	1mm	8mm
6282-1706	carbide	1mm	10mm
6282-1707	carbide	1mm	20mm
6282-1708	carbide	1mm	40mm
6282-1712	carbide	1.5mm	20mm
6282-1713	carbide	1.5mm	40mm
6282-1714	carbide	2mm	8mm
6282-1715	carbide	2mm	18mm
6282-1716	carbide	2mm	28mm
6282-1717	carbide	2mm	40mm



6282-0205

SHELL TYPE POINT

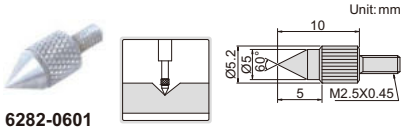
Code	Material of measuring face	L
6282-0205	steel	15mm
6282-0210	steel	30mm



6282-0401

SPHERICAL POINT

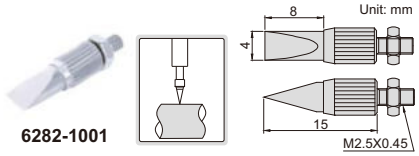
Code	Material of measuring face
6282-0401	steel



6282-0601

CONICAL POINT

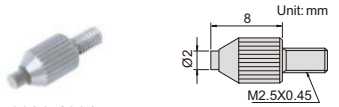
Code	Material of measuring face
6282-0601	steel



6282-1001

KNIFE EDGE POINT

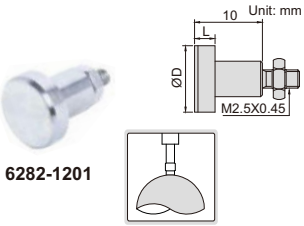
Code	Material of measuring face
6282-1001	steel



6282-1301

FLAT POINT

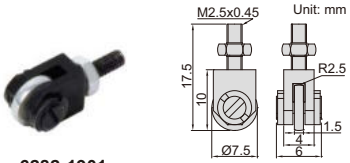
Code	Material of measuring face
6282-1301	carbide



6282-1201

FLAT POINT (mm)

Code	Material of measuring face	ØD	L
6282-1201	steel	10	3
6282-1202	steel	15	4
6282-1203	steel	20	3
6282-1204	steel	25	4
6282-1205	steel	30	4

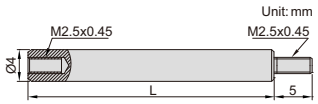


6282-1901

ROLLER POINT

Code	Material of measuring face
6282-1901	steel

EXTENSION RODS



6282-2011

Code	Material	L
6282-2001	steel	10mm
6282-2002	steel	15mm
6282-2003	steel	20mm
6282-2004	steel	25mm
6282-2005	steel	30mm
6282-2006	steel	35mm
6282-2007	steel	40mm
6282-2008	steel	45mm
6282-2009	steel	50mm

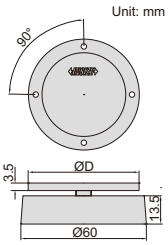
Code	Material	L
6282-2010	steel	55mm
6282-2011	steel	60mm
6282-2012	steel	65mm
6282-2013	steel	70mm
6282-2014	steel	75mm
6282-2015	steel	80mm
6282-2016	steel	90mm
6282-2017	steel	100mm

MAGNETIC BACKS

front

back

7331-M2

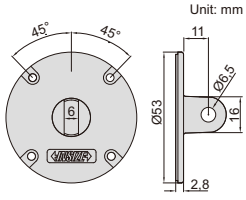


(mm)

Code	ØD	For digital/dial indicators
7331-M1	51.5	2103
		2104
		2108
		2109
		2112
		2115
		2116
		2117
		2118
		2138
		2301
		2302
		2308
		2309 (except 2309-30, 2309-30F)
		2313
		2314
		2316
		2801
7331-M2	54	2318

LUG BACKS

7330-L2



7330-L2 and 7330-L10

Code	For digital/dial indicators
7330-L1	2311
7330-L2	2308 2309 (except 2309-30, 2309-30F) 2313 2314 2324 2316
7330-L5	2103 2104 2108 2109 2112 2113 2115
7330-L10	2310

SPINDLE LIFT KNOB

7332

- For dial/digital indicators with spindle diameter Ø4.5mm or Ø5mm

Code
7332

DIAL TEST INDICATORS

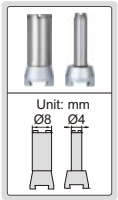
INSPECTION CERTIFICATE

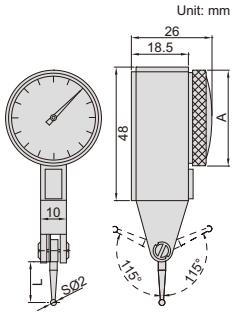
JEWELED BEARING

2380-08

- Meet DIN2270 (except **2380-02**, **2381-02**)
- Jeweled bearing
- Carbide contact point
- Two measuring directions
- Anti magnetic body
- Supplied with two clamps: diameter Ø4mm and Ø8mm
- Optional accessory: styli

clamps (included)





Graduation: 0.01mm (mm)

Code	Range	Accuracy	Hysteresis	Dial reading	A	L
2380-08*	0.8mm	13µm	3µm	0-40-0	Ø30	13.5
2381-08*	0.8mm	13µm	3µm	0-40-0	Ø37	13.5

Graduation: 0.002mm (mm)

Code	Range	Accuracy	Hysteresis	Dial reading	A	L
2380-02*	0.2mm	6µm	2µm	0-100-0	Ø30	12.5
2381-02*	0.2mm	6µm	2µm	0-100-0	Ø37	12.5

Graduation: 0.001mm (mm)

Code	Range	Accuracy	Hysteresis	Dial reading	A	L
2381-021*	0.2mm	6µm	2µm	0-100-0	Ø37	12.5

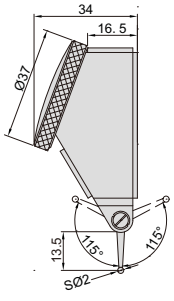
*Supplied with manufacturer inspection certificate

TILTED FACE TYPE DIAL TEST INDICATOR

INSPECTION CERTIFICATE

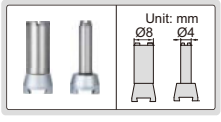
JEWELED BEARING

2399-08



- Meet DIN2270
- Jeweled bearing
- Carbide contact point
- Two measuring directions
- Anti magnetic body
- Supplied with two clamps: diameter Ø4mm and Ø8mm
- Optional accessory: styli

clamps (included)



Code	Range	Graduation	Accuracy	Hysteresis	Dial reading
2399-08*	0.8mm	0.01mm	13µm	3µm	0-40-0

*Supplied with manufacturer inspection certificate

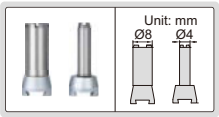
VERTICAL TYPE DIAL TEST INDICATOR

INSPECTION CERTIFICATE

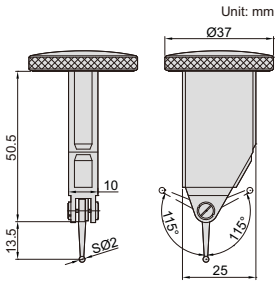
JEWELED BEARING

- Meet DIN2270
- Jeweled bearing
- Carbide contact point
- Two measuring directions
- Anti magnetic body
- Supplied with two clamps: diameter Ø4mm and Ø8mm
- Optional accessory: styli

clamps (included)



2398-08



Code	Range	Graduation	Accuracy	Hysteresis	Dial reading
2398-08*	0.8mm	0.01mm	13µm	3µm	0-40-0

*Supplied with manufacturer inspection certificate

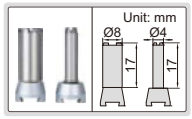
LONG STYLI DIAL TEST INDICATOR

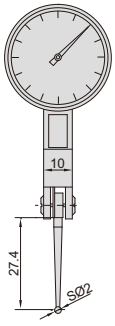
INSPECTION CERTIFICATE

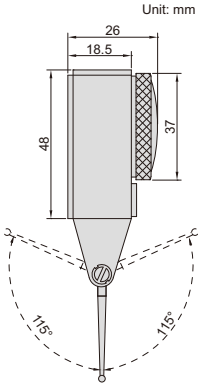
JEWELED BEARING

2383-08A

clamps (included)







- Meet DIN2270
- Jeweled bearing
- Carbide contact point
- Two measuring directions
- Anti magnetic body
- Supplied with two clamps: diameter Ø4mm and Ø8mm
- Optional accessory: styli

Code	Range	Graduation	Accuracy	Hysteresis	Dial reading
2383-08A*	0.8mm	0.01mm	13µm	3µm	0-40-0

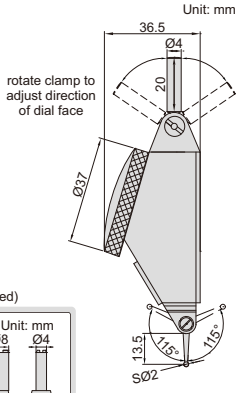
*Supplied with manufacturer inspection certificate

LARGE RANGE DIAL TEST INDICATOR

JEWELED BEARING

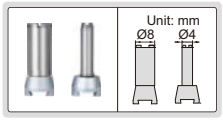
INSPECTION CERTIFICATE

2386-16A



- Jeweled bearing
- Carbide contact point
- Two measuring directions
- Anti magnetic body
- Supplied with two clamps: diameter Ø4mm and Ø8mm
- Optional accessory: styli

clamps (included)



Code	Range	Graduation	Accuracy	Hysteresis	Dial reading
2386-16A*	1.6mm	0.01mm	25µm	8µm	0-40-0

*Supplied with manufacturer inspection certificate

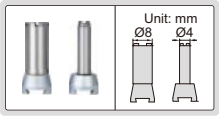
LARGE RANGE BACK PLUNGER TYPE DIAL TEST INDICATOR

JEWELED BEARING

INSPECTION CERTIFICATE

- Jeweled bearing
- Carbide contact point
- Two measuring directions
- Anti magnetic body
- Supplied with two clamps: diameter Ø4mm and Ø8mm
- Optional accessory: styli

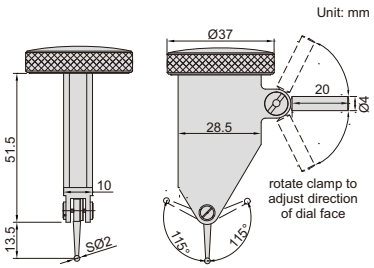
clamps (included)



Code	Range	Graduation	Accuracy	Hysteresis	Dial reading
2480-16*	1.6mm	0.01mm	18µm	3µm	0-40-0

*Supplied with manufacturer inspection certificate

2480-16

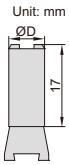


CLAMPS FOR DIAL TEST INDICATORS

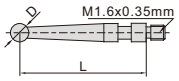
Code	ØD
6298-1	Ø4mm
6298-2	Ø8mm

6298-1

6298-2



STYLI FOR DIAL TEST INDICATORS



6284-3

(mm)

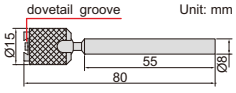
Code	For dial test indicator	Material of contact point	L	D
6284-1	2380-08 2398-08 2381-08 2399-08	steel	13.5	SØ1
6284-3		carbide	13.5	SØ2
6284-4		ruby	13.5	SØ2
6284-8		carbide	13.5	SØ3
6284-21	2380-02 2381-02	steel	12.5	SØ1
6284-22		carbide	12.5	SØ2

DIAL TEST INDICATOR UNIVERSAL HOLDER

- Set the indicators at the desired attitude to the workpiece

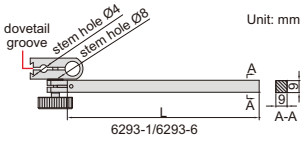
6297-1

Code
6297-1



DIAL TEST INDICATOR HOLDERS

6293-1



6293-2

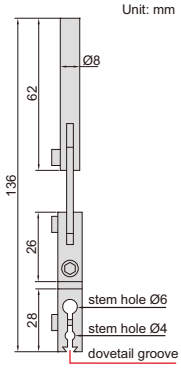
Code	Stem section	Stem length (L)
6293-1	9x9mm	100mm
6293-6	9x9mm	50mm
6293-2	Ø8mm	115mm

DIAL TEST INDICATOR HOLDER

6296-1

- Supplied with hex key

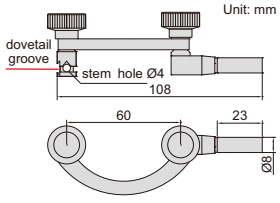
Code
6296-1



DIAL TEST INDICATOR HOLDER

6291-1

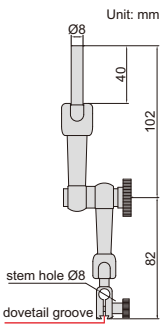
- Can be used with dial test indicators



Code
6291-1

DIAL TEST INDICATOR HOLDER

- Can be used with dial test indicators

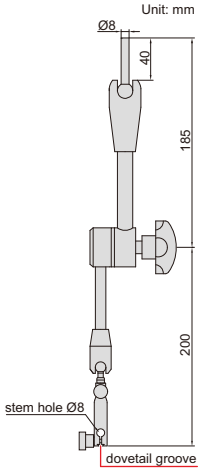


6295-1A

Code
6295-1A

DIAL INDICATOR HOLDER

- Can be used with dial test indicators or dial indicators

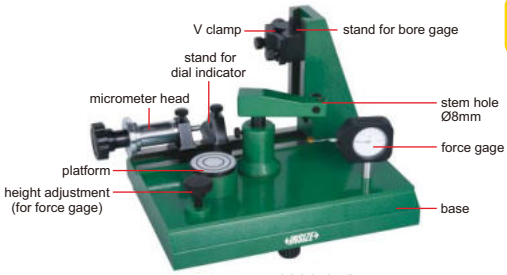


6294-1A

Code
6294-1A

DIAL INDICATOR TESTER
CODE 2396-25A

- To calibrate dial indicators, test indicators and dial bore gages
- Dimension: 270x210x205mm
- Weight: 11kg



2396-25A

ATTENTION: NOT SUITABLE FOR INDICATORS WITH GRADUATION 0.001MM

VIDEO

Micrometer head

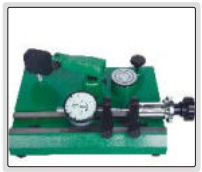
Range	Sampling interval	Accuracy	Hysteresis
0-25mm	0.1mm	4μm (0-25mm), 3μm (0-10mm), 2μm (0-1mm)	1μm

Force gage

Range	Graduation	Accuracy
0-1.6N	0.05N	±5% (of load capacity)

Platform

Diameter	Flatness	Roughness
50mm	1μm	0.05μm



inspect accuracy of dial indicators (range 0-25mm)

inspect accuracy of dial bore gages (range 6-450mm)

inspect accuracy of test indicators

half round gage block
code **2396-block** (**optional**)

Half round gage block (optional)

Code	Parallelism
2396-block	1μm

test force of dial indicators

test repeatability of dial indicators

test the effect of lateral force on accuracy of dial indicators (half round gage block is required)

test the effect of lateral force on accuracy of test indicators (half round gage block is required)

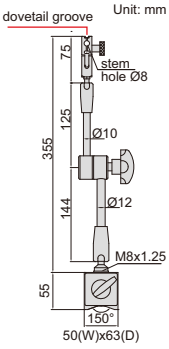
UNIVERSAL MAGNETIC STAND (ECONOMIC TYPE)

ATTENTION: LOW LOCKING FORCE

- Applicable holding stem: Ø8mm
- For digital/dial indicators and dial test indicators

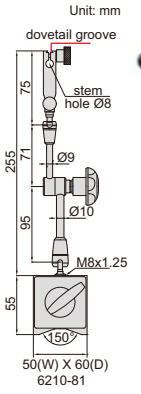
Code	Magnetic force	Remark
6208-80A	80kgf	with fine adjustment and dovetail groove

6208-80A

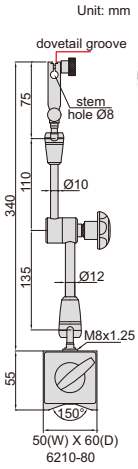


UNIVERSAL MAGNETIC STANDS

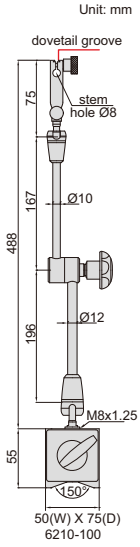
- For digital/dial indicators and dial test indicators
- With fine adjustment and dovetail groove



6210-81



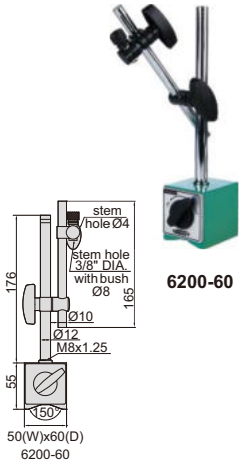
6210-80



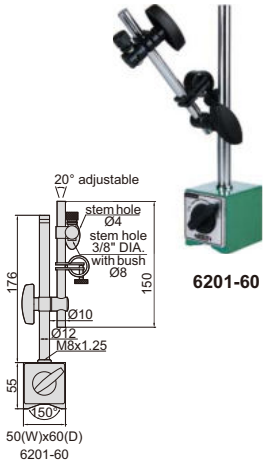
6210-100

Code	Magnetic force	Applicable holding stem
6210-81	80kgf	Ø8mm
6210-80	80kgf	Ø8mm
6210-100	100kgf	Ø8mm

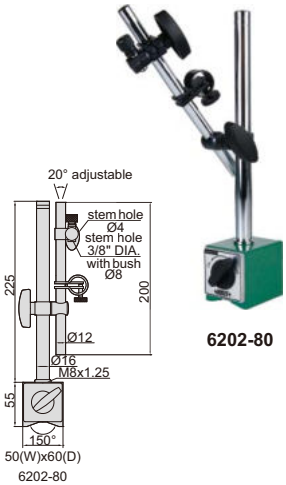
MAGNETIC STANDS



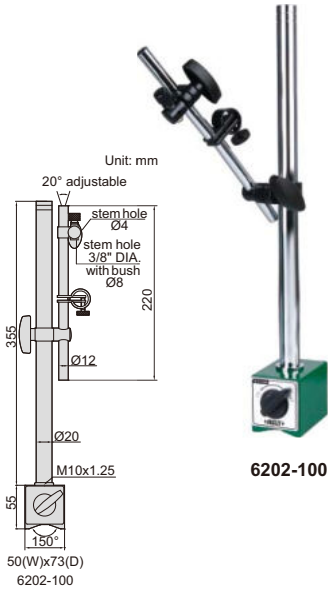
6200-60



6201-60



6202-80



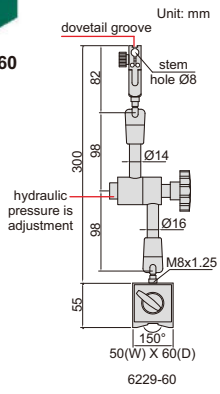
6202-100

- For digital/dial indicators and dial test indicators

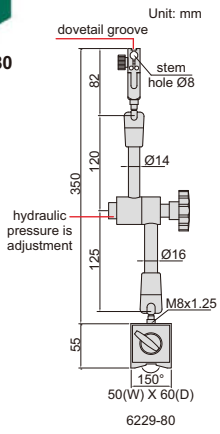
Code	Magnetic force	Applicable holding stem	Remark
6200-60	60kgf	Ø8mm, Ø4mm, 3/8" DIA.	without fine adjustment
6201-60	60kgf	Ø8mm, Ø4mm, 3/8" DIA.	with fine adjustment
6202-80	80kgf	Ø8mm, Ø4mm, 3/8" DIA.	with fine adjustment
6202-100	100kgf	Ø8mm, Ø4mm, 3/8" DIA.	with fine adjustment

HYDRAULIC UNIVERSAL MAGNETIC STANDS

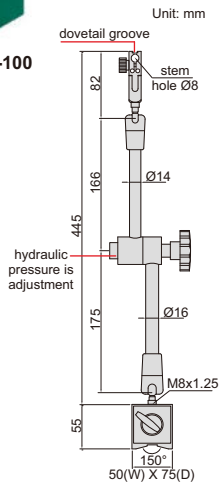
6229-60



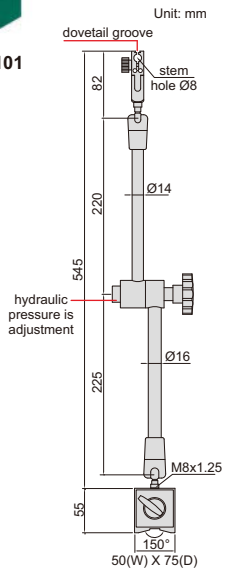
6229-80



6229-100



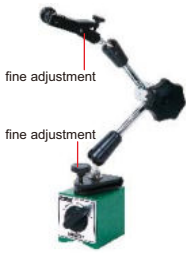
6229-101



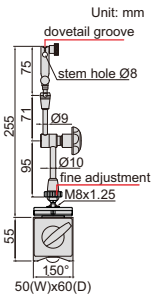
- Hydraulic pressure is adjustment
- For digital/dial indicators and dial test indicators

Code	Magnetic force	Applicable holding stem	Remark
6229-60	60kgf	Ø8mm	with fine adjustment and dovetail groove
6229-80	80kgf	Ø8mm	with fine adjustment and dovetail groove
6229-100	100kgf	Ø8mm	with fine adjustment and dovetail groove
6229-101	100kgf	Ø8mm	with fine adjustment and dovetail groove

MAGNETIC STAND WITH DOUBLE FINE ADJUSTMENT



6272-80

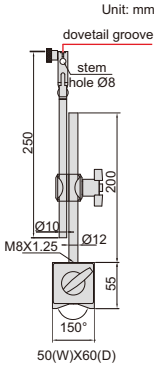


- Magnetic force: 80kgf
- With double fine adjustments on the head and on the base
- For digital/dial indicators and dial test indicators

Code	Applicable holding stem	Remark
6272-80	Ø8mm	with double fine adjustment and dovetail groove

MAGNETIC STAND

6216-80

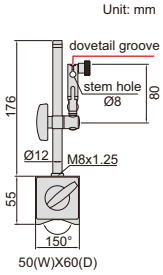


- For digital/dial indicators and dial test indicators

Code	Magnetic force	Applicable holding stem	Remark
6216-80	80kgf	Ø8mm	with fine adjustment and dovetail groove

MAGNETIC STAND (FOR 0.001MM DIAL AND DIAL TEST INDICATORS)

6221-80

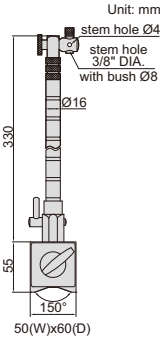


- For 0.001mm and 0.01mm dial and dial test indicators

Code	Magnetic force	Applicable holding stem	Remark
6221-80	80kgf	Ø8mm	with fine adjustment and dovetail groove

FLEX ARM MAGNETIC STAND

ATTENTION: FOR DIAL TEST INDICATORS ONLY



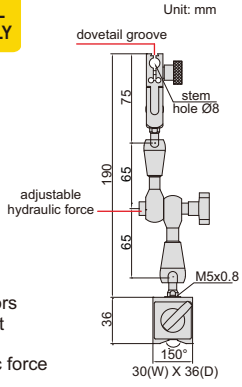
6207-80A

- For dial test indicators

Code	Magnetic force	Applicable holding stem
6207-80A	80kgf	Ø8mm, Ø4mm, 3/8" DIA.

HYDRAULIC MINI MAGNETIC STAND

ATTENTION: FOR DIAL TEST INDICATORS ONLY



6228-40

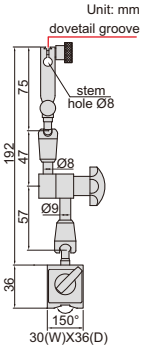
- For dial test indicators
- With fine adjustment and dovetail groove
- Adjustable hydraulic force

Code	Magnetic force	Applicable holding stem
6228-40	40kgf	Ø8mm

MINI MAGNETIC STAND

ATTENTION: FOR DIAL TEST INDICATORS ONLY

6224-40



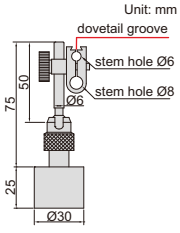
- For dial test indicators
- With fine adjustment and dovetail groove

Code	Magnetic force	Applicable holding stem
6224-40	40kgf	Ø8mm

MINI MAGNETIC STAND

- For dial test indicators
- With dovetail groove

6211-10



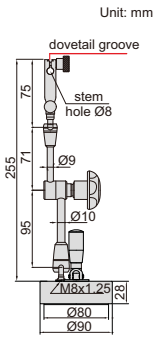
ATTENTION: FOR DIAL TEST INDICATORS ONLY

Code	Magnetic force	Applicable holding stem
6211-10	10kgf	Ø6mm, Ø8mm

VACUUM STAND

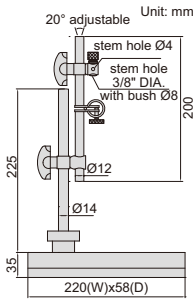
- Diameter of vacuum disc: Ø80mm
- Suitable for granite surface plates or cast iron surface plates
- For digital/dial indicators and dial test indicators

6217-B



Code	Vacuum force	Applicable holding stem	Remark
6217-B	80kgf	Ø8mm	with fine adjustment and dovetail groove

UNIVERSAL STAND



6214-A

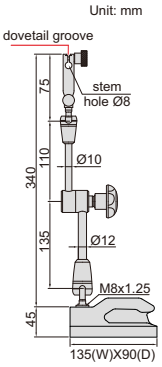
- For digital/dial indicators and dial test indicators
- With fine adjustment

Code	Applicable holding stem
6214-A	Ø8mm, Ø4mm, 3/8" DIA.

UNIVERSAL DIAL INDICATOR STANDS (NON-MAGNETIC)

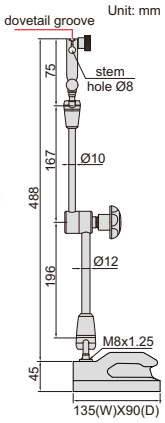
- Hardened base
- Suitable for granite surface plates and cast iron surface plates
- For digital/dial indicators and dial test indicators

6225-80



6225-80

6225-100

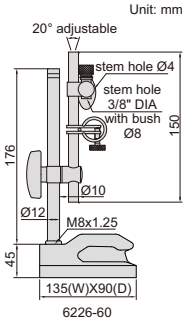


6225-100

Code	Applicable holding stem	Remark
6225-80	Ø8mm	with fine adjustment and dovetail groove
6225-100	Ø8mm	with fine adjustment and dovetail groove

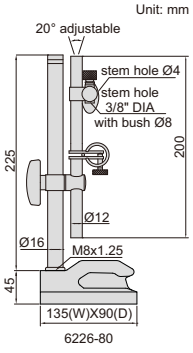
DIAL INDICATOR STANDS (NON-MAGNETIC)

6226-60



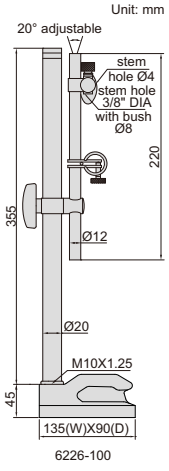
6226-60

6226-80



6226-80

6226-100



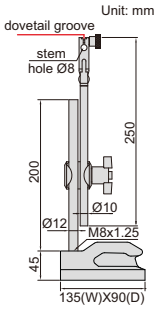
6226-100

Code	Applicable holding stem	Remark
6226-60	Ø8mm, Ø4mm, 3/8" DIA	with fine adjustment
6226-80	Ø8mm, Ø4mm, 3/8" DIA	with fine adjustment
6226-100	Ø8mm, Ø4mm, 3/8" DIA	with fine adjustment

- Hardened base
- Suitable for granite surface plates and cast iron surface plates
- For digital/dial indicators and dial test indicators

DIAL INDICATOR STAND (NON-MAGNETIC)

6227-80

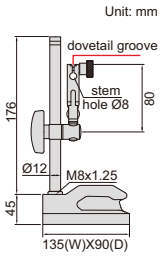


- Hardened base
- Suitable for granite surface plates and cast iron surface plates
- For digital/dial indicators and dial test indicators

Code	Applicable holding stem	Remark
6227-80	Ø8mm	with fine adjustment and dovetail groove

DIAL INDICATOR STAND (FOR 0.001MM DIAL AND DIAL TEST INDICATORS)

6230-60



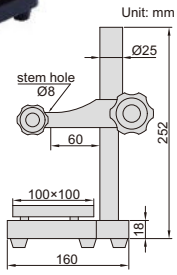
- Non-magnetic and hardened base
- Suitable for granite surface plates or cast iron surface plates
- For 0.001mm and 0.01mm dial and dial test indicators

Code	Applicable holding stem	Remark
6230-60	Ø8mm	with fine adjustment and dovetail groove

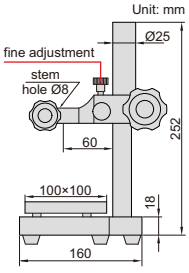
DIAL INDICATOR STANDS

6876-150

6876-150D



6876-150



6876-150D

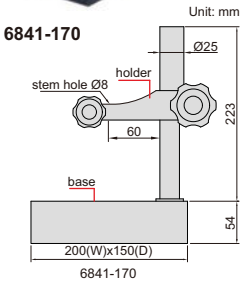
- Vertical travel of holder: 150mm
- Applicable holding stem: Ø8mm
- Ceramic anvil
- Supplied with dust cover

Code	Anvil	Remark
6876-150	ceramic, plain, flatness 1.5μm	without fine adjustment
6876-150D	ceramic, plain, flatness 1.5μm	with fine adjustment, fine adjustment range 3mm

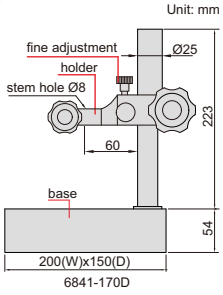
GRANITE DIAL INDICATOR STANDS (BASIC TYPE)

6841-170

6841-170D



6841-170

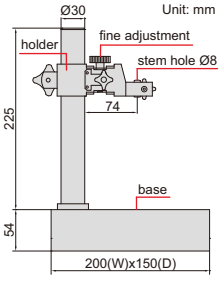


6841-170D

- Vertical travel of holder: 170mm
- Applicable holding stem: Ø8mm
- Supplied with dust cover

Code	Anvil	Remark
6841-170	flatness 1.5μm	without fine adjustment
6841-170D	flatness 1.5μm	with fine adjustment, fine adjustment range 3mm

GRANITE DIAL INDICATOR STAND

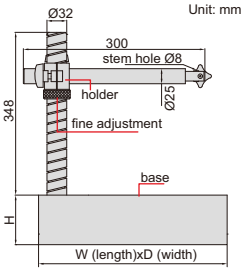


6866-150

- Vertical travel of holder: 150mm
- Fine adjustment range: 2mm
- Supplied with dust cover

Code	Applicable holding stem	Base
6866-150	Ø8mm	flatness 2.5μm

GRANITE DIAL INDICATOR STANDS



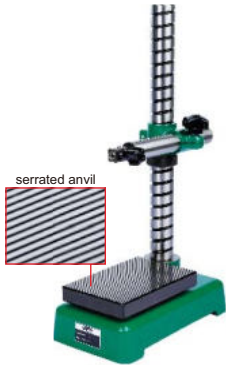
6867-250

- Vertical travel of holder: 250mm
- Fine adjustment range: entire stroke
- Supplied with dust cover

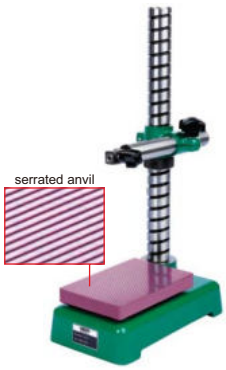
(mm)

Code	Applicable holding stem	W	D	H	Base
6867-250	Ø8mm	300	300	75	flatness 2.8μm
6867-400	Ø8mm	400	300	100	flatness 3μm

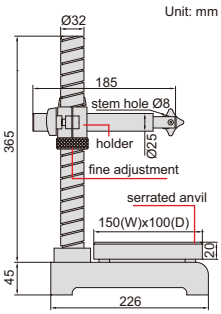
DIAL INDICATOR STANDS



6864-250



6864-250T



- Vertical travel of holder: 250mm
- Applicable holding stem: Ø8mm
- Fine adjustment range: entire stroke
- Supplied with dust cover

Code	Anvil
6864-250	steel (hardness HRC60±2), serrated, flatness 1.5μm
6864-250T	ceramic, serrated, flatness 1.5μm

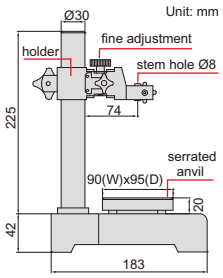
DIAL INDICATOR STANDS

6863-150

6863-150T

- Vertical travel of holder: 150mm
- Fine adjustment range: 2mm
- Applicable holding stem: Ø8mm
- Supplied with dust cover

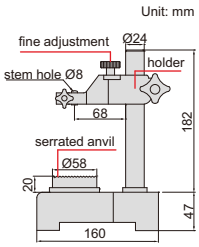
Code	Anvil
6863-150	steel (hardness HRC60±2), serrated, flatness 1.5μm
6863-150T	ceramic, serrated, flatness 1.5μm



DIAL INDICATOR STANDS

6862-1001

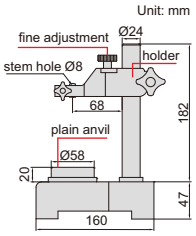
6862-1002



6862-1001
6862-1001T

6862-1001T

6862-1002T



6862-1002
6862-1002T

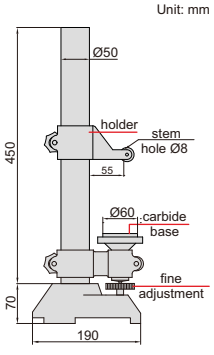
Code	Anvil
6862-1001	steel (hardness HRC60±2), serrated, flatness 1.5μm
6862-1002	steel (hardness HRC60±2), plain, flatness 1.5μm
6862-1001T	ceramic, serrated, flatness 1.5μm
6862-1002T	ceramic, plain, flatness 1.5μm

- Vertical travel of holder: 100mm
- Fine adjustment range: 2mm
- Applicable holding stem: Ø8mm
- Supplied with dust cover

HEAVY DUTY DIAL INDICATOR STAND

- Vertical travel of holder: 300mm
- Fine adjustment range: 5mm
- Carbide base
- Supplied with dust cover
- Optional accessory:
  holder with stem hole Ø28 (code **6869-D28**)

6869-300



Code	Applicable holding stem	Base
6869-300	Ø8mm	plain, flatness 1μm, carbide

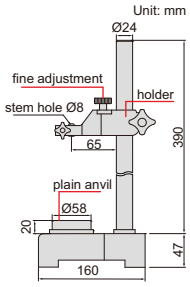
TRANSFER STANDS

- Vertical travel of holder: 335mm
- Fine adjustment range: 2mm
- Applicable holding stem: Ø8mm
- Supplied with dust cover

Code	Anvil
6865-300	steel (hardness HRC60±2), plain, flatness 1.5μm
6865-300T	ceramic, plain, flatness 1.5μm

6865-300

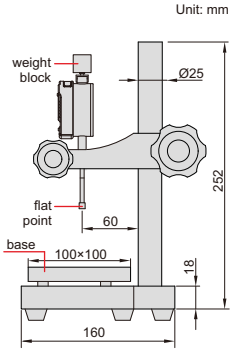
6865-300T



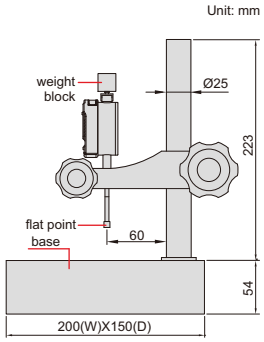
rigid construction, designed to make comparison height measurement (set zero with gage block then measure height of workpiece) with dial indicators or digital indicators (variation of measuring force is high)

DIGITAL RUBBER THICKNESS GAGES

DATA OUTPUT



2878-6B



2878-71B

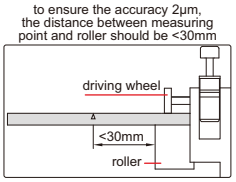
- Measure thickness of vulcanized rubber and plastic products
- Button function: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement
- CR2032 battery, automatic power off (time is adjustable)
- Supplied with dust cover
- Optional accessory: data output cable (code **7315-50M, 7302-50M**), flat points, weight blocks

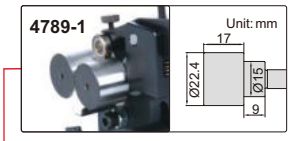
Code	Range	Resolution	Accuracy	Flat point diameter	Pressure	Base
2878-6A	12.7mm/0.5"	0.01mm/0.0005"	20μm	6mm	22kPa±5kPa	ceramic, plain, flatness 1.5μm
2878-6B	12.7mm/0.5"	0.001mm/0.00005"	5μm	6mm	22kPa±5kPa	ceramic, plain, flatness 1.5μm
2878-71A	12.7mm/0.5"	0.01mm/0.0005"	20μm	6mm	22kPa±5kPa	granite, plain, flatness 2.5μm
2878-71B	12.7mm/0.5"	0.001mm/0.00005"	5μm	6mm	22kPa±5kPa	granite, plain, flatness 2.5μm

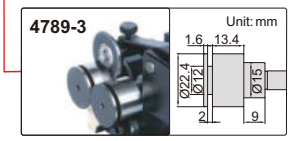
Flat points and weight blocks (Optional)

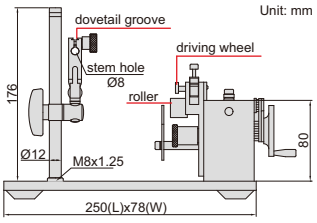
Flat point	Flat point code	Pressure				
		10kPa±2kPa	22kPa±5kPa	20kPa±3kPa	70kPa±5kPa	1.6kPa±0.1kPa
		Weight block code	Weight block code	Weight block code	Weight block code	Weight block code
Ø4mm	**2878-P4**	–	**2878-W4B**	–	–	–
Ø5mm	**2878-P5**	**2878-W5A**	**2878-W5B**	**2878-W5C**	**2878-W5D**	–
Ø6mm	**2878-P6**	**2878-W6A**	**2878-W6B**	–	–	–
Ø8mm	**2878-P8**	**2878-W8A**	**2878-W8B**	–	–	–
Ø10mm	**2878-P10**	**2878-W10A**	**2878-W10B**	**2878-W10C**	–	–
Ø25mm	**2878-P25**	–	–	–	–	**2878-W25E**
1x4mm (rectangle)	**2878-P14**	–	–	–	**2878-W14D**	–

CONCENTRICITY GAGES









- Optional accessory: dial test indicator

Code	Accuracy	Applicable diameter
4789-1	2μm	Ø3.5mm-25mm
4789-3	2μm	Ø1mm-25mm

CONCENTRICITY GAGES

HIGH STABILITY, LONG WORKING LIFE

dial test indicator is optional

4725-45

dial test indicator is optional

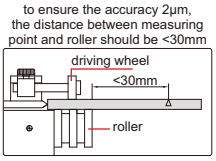
4725-60

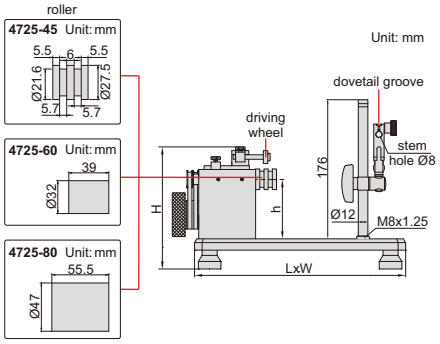
dial test indicator is optional

4725-80

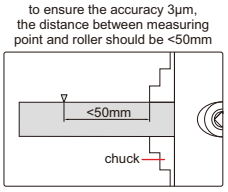
- With ball bearing, high stability, long working life
- Accuracy: 2μm
- Optional accessory: dial test indicator

Code	Diameter range	Center height (h)	LxWxH	Weight
4725-45	3-45mm	80mm	280x130x170mm	6kg
4725-60	8-60mm	90mm	350x160x190mm	15.6kg
4725-80	8-80mm	130mm	400x200x250mm	25kg

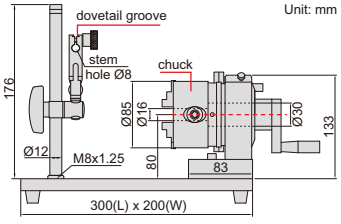




CONCENTRICITY GAGE



4786-1



for cylinder

for tube

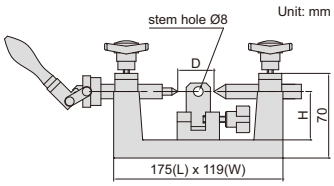
- Accuracy: 3μm
- Ø50mm setting ring and Ø55mm calibration cylinder are included
- Optional accessory: dial test indicator

Code	Applicable inside diameter	Applicable outside diameter
4786-1	Ø24-64mm	Ø2-70mm

MINI BENCH CENTER

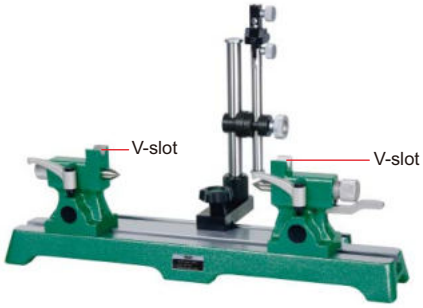
- Distance between two centers (D): 35-100mm
- Diameter of center (Ød): 6mm
- Taper of center: MT1

4721-75A

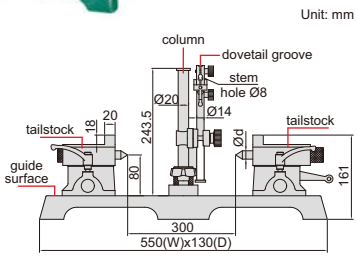


Code	Runout accuracy	Center height (H)	Weight	Load
4721-75A	2μm	40mm	4.5kg	4kg

BENCH CENTER (BASIC TYPE)



4782-300

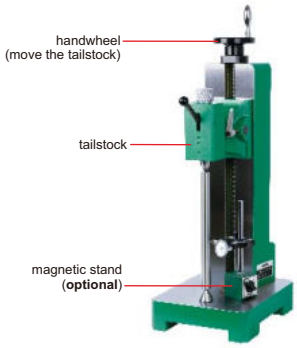


- Runout accuracy: 2μm
- Distance between two centers: 300mm
- Taper of center: MT1
- Hardened cast-iron guide surface
- Movable column
- V-slot for cylinder Ø4~Ø22mm

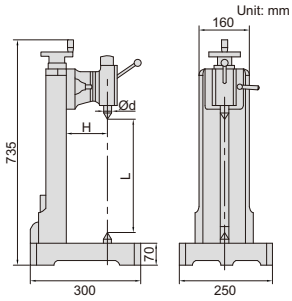
Code	Parallelism*	Center height	Diameter of center (Ød)	Load
4782-300	0.01mm	80mm	Ø16mm	25kg

*Parallelism of two centers to the guide surface

VERTICAL BENCH CENTER



4728-360



- Runout accuracy: 2μm
- Distance between two centers (L): 360mm
- Diameter of center (Ød): 24.1mm
- Taper of center: MT3
- Hardened cast-iron guide surface
- Use handwheel to move the tailstock
- Optional accessory:
  magnetic stands, dial test indicators

Code	Parallelism*	Center height (H)	Weight	Load
4728-360	0.01mm	130mm	85kg	80kg

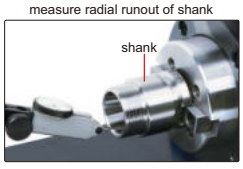
*Parallelism of two centers to the guide surface

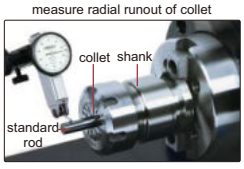
SHANK RUNOUT TESTERS

standard shank
(included)

VIDEO

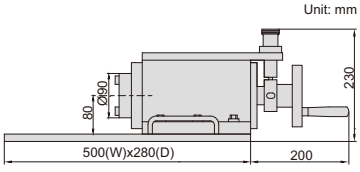
4771-30

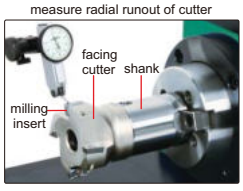


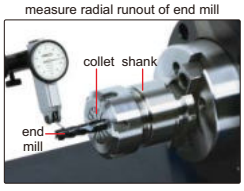


- Measure the radial runout of shanks, collets and cutting tools
- Optional accessory:
  dial test indicators, magnetic stands

Code	Taper	Accuracy
4771-30	BT30	1μm
4771-40	BT40	1μm
4771-50	BT50	1μm





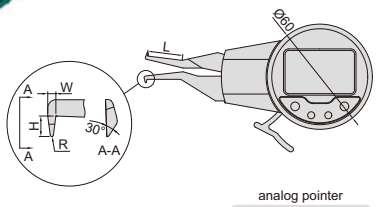


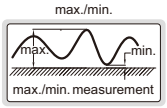
DIGITAL INTERNAL CALIPER GAGES

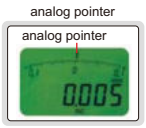
DATA OUTPUT

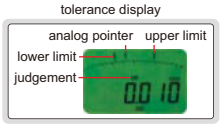
2121-15

Unit: mm









- Resolution: 0.005mm/0.0002"
- Reading in digit and analog
- Display can be rotated by 170º
- Button function: tolerance Go and No-Go display, data preset, max./min. measurement, data holding, inch/metric conversion, absolute/incremental measurement
- CR2032 battery, automatic power off
- Data output
- Optional accessory: data output cable (code **7315-30**, **7302-30**)

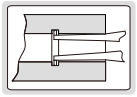
(mm)

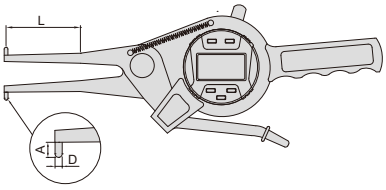
Code	Range	Accuracy	Repeatability	L	H	W	R
2121-15	5-15mm/0.2-0.6"	±0.03mm	0.01mm	20	2	1.5	R0.3
2121-25	5-25mm/0.2-1.0"	±0.03mm	0.01mm	35	1.5	1.0	R0.3
2121-31	10-30mm/0.4-1.2"	±0.03mm	0.01mm	55	5.5	2.5	R0.5
2121-41	20-40mm/0.8-1.6"	±0.03mm	0.01mm	80	6.0	3.0	R0.5

DIGITAL INTERNAL CALIPER GAGES

DATA OUTPUT

2151-35





- Accuracy: ±0.04mm
- Carbide measuring tips
- Reading in digit and analog
- With transmission button and signal light
- Display can be rotated by 320º
- Button function: on/off, zero, tolerance Go and No-Go display, data preset, measuring direction change, max./min./TIR measurement, inch/metric conversion, data output, absolute/incremental measurement
- CR2032 battery, automatic power off (time is adjustable)
- Data output
- Optional accessory: data output cable (code **7315-50M**, **7302-50M**)

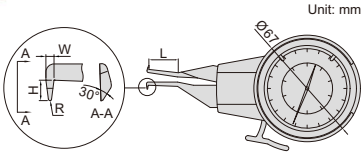
(mm)

Code	Range	Resolution	L	A	D
2151-35	15-35mm/0.6-1.4"	0.01mm/0.0005"	50	3	Ø3
2151-55	35-55mm/1.4-2.2"	0.01mm/0.0005"	80	6	Ø3
2151-75	55-75mm/2.2-3"	0.01mm/0.0005"	90	8	Ø3
2151-95	75-95mm/3-3.8"	0.01mm/0.0005"	100	8	Ø3
2151-115	95-115mm/3.8-4.6"	0.01mm/0.0005"	120	10	Ø3.2
2151-135	115-135mm/4.6-5.4"	0.01mm/0.0005"	120	10	Ø3.2

INTERNAL DIAL CALIPER GAGES

2222-15

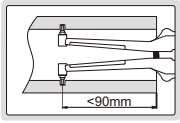
Unit: mm



(mm)

Code	Range	Graduation	Accuracy	L	H	W	R
2222-15	5-15mm	0.01mm	±0.02mm	20	2	1.5	R0.3
2222-25	5-25mm	0.01mm	±0.03mm	35	1.5	1.0	R0.3
2222-301	10-30mm	0.01mm	±0.03mm	55	5.5	2.5	R0.5
2222-401	20-40mm	0.01mm	±0.03mm	80	6.0	3.0	R0.5

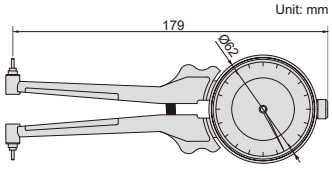
INTERNAL DIAL CALIPER GAGE WITH INTERCHANGEABLE POINTS

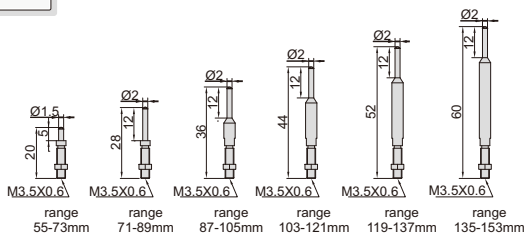


2223-153

6 pair of points (included)

Unit: mm





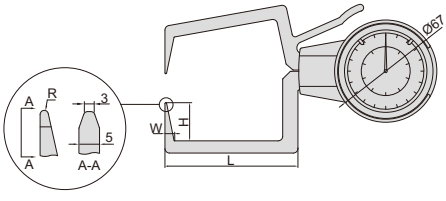
- Supplied with 6 pairs of points

Code	Range	Dial indicator range	Graduation	Accuracy
2223-153	55-153mm	2mm	0.01mm	±0.02mm

EXTERNAL DIAL CALIPER GAGE

2333-201

Unit: mm



(mm)

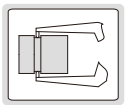
Code	Range	Graduation	Accuracy	L	H	W	R
2333-201	0-20mm	0.01mm	±0.03mm	80	25	6.5	R0.5

DIGITAL EXTERNAL CALIPER GAGE

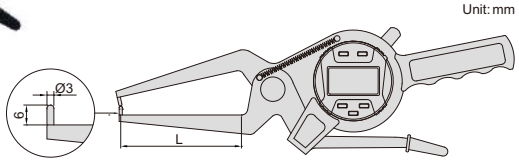
DATA OUTPUT

2132-20

- Carbide measuring tips
- Reading in digit and analog
- With transmission button and signal light
- Display can be rotated by 320º
- Button function: on/off, zero, tolerance Go and No-Go display, data preset, measuring direction change, max./min./TIR measurement, inch/metric conversion, absolute/incremental measurement, data output
- CR2032 battery, automatic power off (time is adjustable)
- Data output
- Optional accessory: data output cable (code **7315-50M, 7302-50M**)



Unit: mm

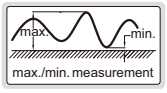


Code	Range	Resolution	Accuracy	L (mm)
2132-20	0-20mm/0-0.8"	0.01mm/0.0005"	±0.04mm	60

DIGITAL EXTERNAL CALIPER GAGE

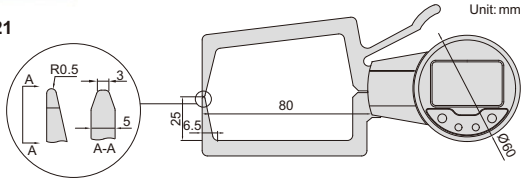
DATA OUTPUT

max./min.



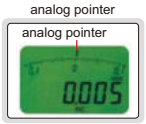
2131-21

Unit: mm

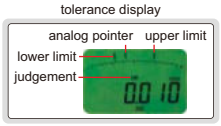


- Resolution: 0.005mm/0.0002"
- Repeatability: 0.01mm
- Reading in digit and analog
- Display can be rotated by 170º
- Button function: tolerance Go and No-Go display, data preset, max./min. measurement, data holding, inch/metric conversion, absolute/incremental measurement
- CR2032 battery, automatic power off
- Data output
- Optional accessory: data output cable (code **7315-30, 7302-30**)

analog pointer



tolerance display



Code	Range	Accuracy
2131-21	0-20mm/0-0.8"	±0.03mm

HIGH PRECISION DIGITAL THICKNESS GAGES

ATTENTION: RECHARGEABLE BATTERY, FOR 12 HOURS CONTINUOUS WORKING

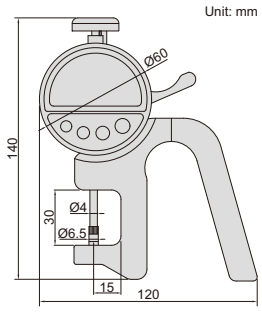
MEASURING TIPS AND ANVILS CAN BE CUSTOM-MADE

ABSOLUTE ENCODER, THE ORIGINAL DATA REMAINS AFTER POWER OFF

DATA OUTPUT

2879-10

Unit: mm



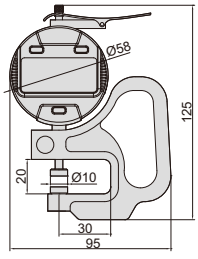
- Absolute encoder, the original data remains after power off
- Button function: on/off, zero, tolerance, absolute/incremental measurement, max./min./TIR, data preset, mm/inch, data output, data hold
- Measuring force: 0.5-1N
- Reading in digital and analog
- Power: rechargeable battery, for 12 hours continuous working
- Data output
- Supplied with data output cable (keyboard format)

Code	Range	Resolution	Accuracy	Repeatability
2879-10	0-10mm/0-0.4"	0.001mm/0.00005"	±0.002mm	0.001mm
2879-101	0-10mm/0-0.4"	0.0005mm/0.00002"	±0.0015mm	0.0005mm

DIGITAL THICKNESS GAGES

DATA OUTPUT

Unit: mm



2871-101

- Ceramic spindle tip and anvil
- Button function: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement
- Keep preset data in memory after restart
- CR2032 battery, automatic power off (time is adjustable)
- Data output
- Optional accessory: data output cable (code **7315-50M, 7302-50M**)

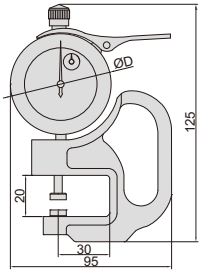
Code	Range	Resolution	Accuracy
2871-10	0-10mm/0-0.4"	0.01mm/0.0005"	±0.02mm
2871-101	0-10mm/0-0.4"	0.001mm/0.00005"	±0.005mm

THICKNESS GAGES

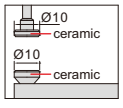
2364-10

2364-1

Unit: mm



Code	Range	Graduation	Accuracy	ØD
2364-10	0-10mm	0.01mm	±0.02mm	58mm
2364-1	0-1mm	0.001mm	±0.005mm	56mm



DIGITAL THICKNESS GAGE

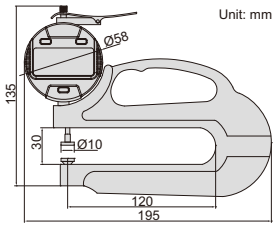
DATA OUTPUT

2872-10

measuring tips and anvils can be custom-made

- Ceramic spindle tip and anvil
- Buttons: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement
- Keep preset data in memory after restart
- Battery CR2032, automatic power off (time is adjustable)
- Data output
- Optional accessory: data output cable (code **7315-50M, 7302-50M**)

Unit: mm

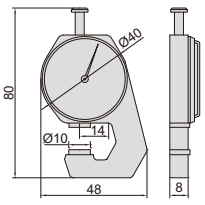


Code	Range	Resolution	Accuracy
2872-10	0-10mm/0-0.4"	0.01mm/0.0005"	±0.02mm

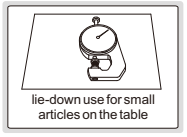
THICKNESS GAGE

SUITABLE FOR JEWELLERY

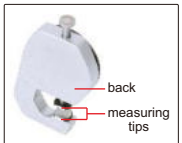
Unit: mm



2361-10



lie-down use for small articles on the table



two measuring tips are flush with the back

Code	Range	Graduation	Accuracy
2361-10	0-10mm	0.1mm	±0.05mm

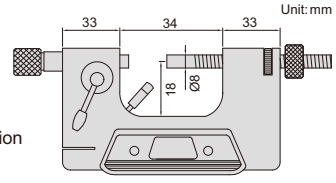
DIAL SNAP GAGE

ATTENTION: NOT SUITABLE FOR 0.001MM DIAL INDICATORS

digital indicator is optional

2184-50W

Unit: mm

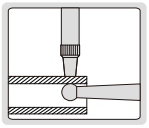


- Quick measurement for mass production
- Anvil retracting stroke: 3mm
- Measuring force: 6-9N
- Carbide measuring faces
- Optional accessory: dial indicators (graduation 0.01mm), digital indicators (resolution 0.01mm/0.0005")

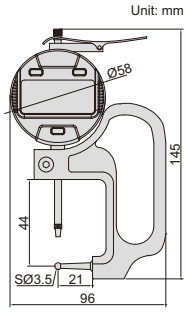
Code	Range
2184-25W	0-25mm

DIGITAL TUBE THICKNESS GAGE

DATA OUTPUT



Unit: mm



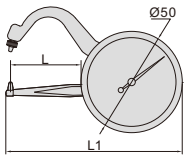
2876-10

- Buttons: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement
- Keep preset data in memory after restart
- Battery CR2032 , automatic power off (time is adjustable)
- Data output
- Optional accessory: data output cable (code **7315-50M, 7302-50M**)

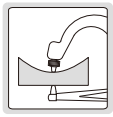
Code	Range	Resolution	Accuracy
2876-10	0-10mm/0-0.4"	0.01mm/0.0005"	±0.02mm

THICKNESS GAGE

Unit: mm



2862-101



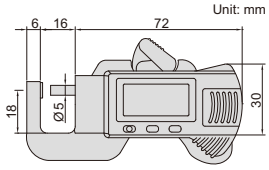
Code	Range	Graduation	Accuracy	L	L1
2862-101	0-10mm	0.05mm	±0.1mm	35mm	85mm

DIGITAL SNAP GAGE

ATTENTION: NO DATA OUTPUT

2166-12

Unit: mm



Code	Range	Resolution	Accuracy
2166-12	0-12mm/0-0.5"	0.01mm/0.0005"	±0.03mm

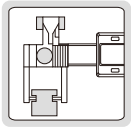
DIGITAL 3-PURPOSE SNAP GAGE

ATTENTION: NO DATA OUTPUT

SUITABLE FOR JEWELLERY

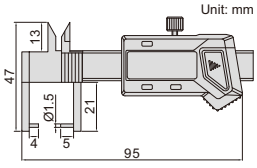
2164-25A

VIDEO



- Resolution: 0.01mm/0.0005"
- Buttons: zero, mm/inch, on/off
- Battery LR44
- Made of stainless steel

Unit: mm



Code	Range	Accuracy
2164-25A	0-25mm/0-1"	±0.03mm

STEP AND GAP GAGE

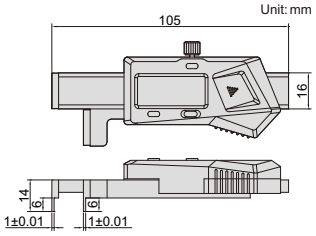
DATA OUTPUT

- Resolution: 0.01mm/0.0005"
- Measure step height and gap width
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Supplied with zero setting block
- Optional accessory: data output cable (code **7315-21**, **7302-21**)

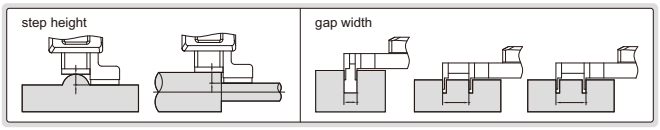
Code	Range	Accuracy
2168-12	0-12.7mm/0-0.5"	±0.03mm

front back

2168-12

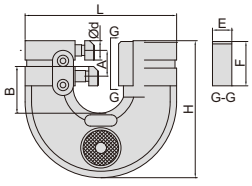


zero setting block (included)



ADJUSTABLE SNAP GAGES

FAST AND ACCURATE MEASUREMENT OF CYLINDERS



2187-19

- Used as Go/No-Go gage by setting upper and lower limits
- Flatness of anvil: 1.5μm
- Parallelism of measuring faces:
  range 0-32mm: 3μm
  range 32-89mm: 4μm
  range 89-300mm: 5μm

(mm)

Code	Range	L	A	B	E	F	H	Ød
2187-6	0-6mm	74	15	17.5	12.2	27.2	71.5	7
2187-13	6-13mm	85	15	26	12.2	27.2	79.5	12.3
2187-19	13-19mm	93	15	27	12.2	27.2	83	12.3
2187-25	19-25mm	100	15	33.5	12.2	27.2	89.5	12.3
2187-32	25-32mm	111	18	38.5	15.2	35.2	104	15.3
2187-38	32-38mm	117	18	41.5	15.2	35.2	105	15.3
2187-44	38-44mm	123	18	44.5	15.2	35.2	109	15.3
2187-51	44-51mm	130	18	48	15.2	35.2	117	15.3

DIAL SNAP GAGES

QUICK AND ACCURATE MEASUREMENT OF CYLINDRICAL WORKPIECES

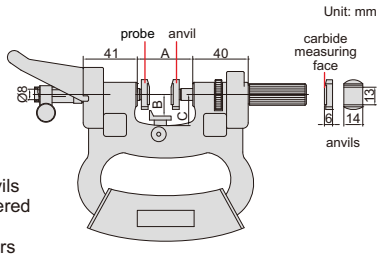
INSPECTION CERTIFICATE

digital indicator is optional

2186-25

application

VIDEO



- Left anvil retracting stroke: 2mm
- Measuring force: 6-8N
- Flatness of anvil: 1.5μm
- Repeatability: 1μm
- Carbide measuring faces for anvils
- Front edges of anvils are chamfered for easy workpiece insertion
- Optional accessory: dial indicators and digital indicators (reading 0.001mm or 0.01mm)

(mm)

Code	Range	Parallelism of measuring faces	A	B	C
2186-25*	0-25mm	4μm	42	11-18	20
2186-50*	25-50mm	4μm	69	11-32	41
2186-75*	50-75mm	5μm	94	17-41	51
2186-100*	75-100mm	6μm	119	31-55	65

*Supplied with manufacturer inspection certificate

DIAL SNAP GAGES (ECONOMIC TYPE)

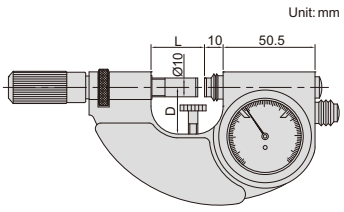
ATTENTION: SETTING STANDARDS ARE NOT INCLUDED

IP54 WATERPROOF

- Go/No-Go judgement for mass production
- Dial indicator: range ±0.04mm, graduation 0.001mm, accuracy 0.001mm
- IP54 dust/waterproof
- Measuring force: 5-10N
- Carbide measuring faces
- Optional accessory: gage blocks grade 0 (**4101-A** series), for zero setting

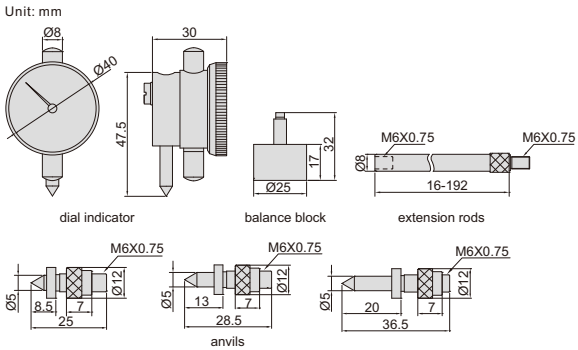
Code	Range	L	D
3334-25	0-25mm	28.5mm	25mm
3334-50	25-50mm	53.5mm	35mm
3334-75	50-75mm	78.5mm	47.5mm
3334-100	75-100mm	103.5mm	60mm

3334-25



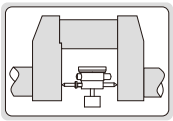
CRANKSHAFT TESTERS

2841-500



- To test crankshaft deflection
- The balance block is mounted on the back of dial indicator to keep the dial indicator facing up

Code	Range	Dial indicator range	Extension rods	Accuracy	Graduation
2841-300	60-300mm	3mm	16mm, 32mm, 64mm, 128mm	±0.016mm	0.01mm
2841-500	60-500mm	3mm	16mm, 32mm, 64mm, 96mm, 128mm, 192mm	±0.016mm	0.01mm

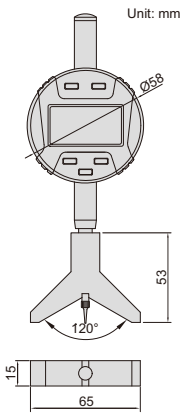


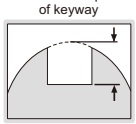
DIGITAL KEYWAY DEPTH GAGE

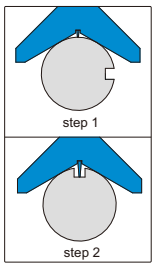
DATA OUTPUT

- Measure keyway depth of cylindrical workpieces with diameter Ø10-100mm
- Button function: on/off, zero, inch/metric conversion absolute/incremental measurement, data preset, measuring direction change
- CR2032 battery
- Automatic power off (time is adjustable)
- Data output
- Stainless steel base
- Pointed tip
- Optional accessory: data output cable (code **7315-50M, 7302-40M**)

2182-25







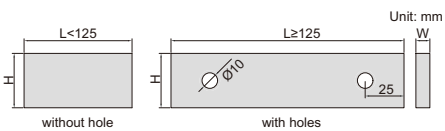
Code	Range	Accuracy	Resolution
2182-25	0-25.4mm/0-1"	±0.02mm	0.01mm/0.0005"

STEEL GAGE BLOCK SETS

INSPECTION CERTIFICATE

4100-87

- Made of alloy steel
- Meet ISO3650
- Gage blocks ≥ 125mm have clamping holes
- Supplied with manufacturer inspection certificate



Dimension: (mm)

Size (L)	W	H
0.5≤L≤10mm	9	30
L>10mm	9	35

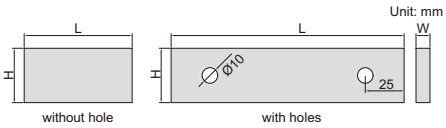
Blocks per set	Gage blocks included in set			Code	
	Size (mm)	Step (mm)	Quantity	Grade 1	Grade 2
122	1.0005 1.001-1.009 1.01-1.49 1.6-1.9 0.5-24.5 30-100 25-75	0.001 0.01 0.1 0.5 10 50	1 9 49 4 49 8 2	**4100-1122**	**4100-2122**
112	1.0005 1.001-1.009 1.01-1.49 0.5-24.5 25-100	0.001 0.01 0.5 25	1 9 49 49 4	**4100-1112**	**4100-2112**
103	1.005 1.01-1.49 0.5-24.5 25-100	0.01 0.5 25	1 49 49 4	**4100-1103**	**4100-2103**

Blocks per set	Gage blocks included in set			Code		
	Size (mm)	Step (mm)	Quantity	Grade 0	Grade 1	Grade 2
87	1.001-1.009 1.01-1.49 0.5-9.5 10-100	0.001 0.01 0.5 10	9 49 19 10	**4100-87**	**4100-187**	**4100-287**
47	1.005 1.01-1.19 1.2-1.9 1-9 10-100	0.01 0.1 1 10	1 19 8 9 10	**4100-47**	**4100-147**	**4100-247**
32	1.005 1.01-1.09 1.1-1.9 1-9 10-30 50	0.01 0.1 1 10	1 9 9 9 3 1	**4100-32**	**4100-132**	**4100-232**
8	125-175 200-250 300-500	25 50 100	3 2 3	**4100-8**	**4100-18**	**4100-28**

INDIVIDUAL STEEL GAGE BLOCKS

INSPECTION CERTIFICATE

CUSTOM-MADE
CAN SUPPLY ANY SIZES FROM 0.5 TO 1000MM, SUCH AS 72.672MM



4101-A70

4101-A200

- Grade 0, 1 and 2 gage blocks are available
- Made of alloy steel
- Meet ISO3650
- Gage blocks with clamping holes:125, 150, 175, 200, 250, 300, 400, 500, 600, 700, 800, 900, 1000mm
- Supplied with manufacturer inspection certificate

Dimension: (mm)

Size (L)	W	H
0.5≤L≤10mm	9	30
L>10mm	9	35

Grade 0 (mm)

Code	Size
4101-A1	1
4101-A10	10
4101-A100	100

Grade 2 (mm)

Code	Size
4101-C1	1
4101-C10	10
4101-C100	100
4101-C200	200
4101-C250	250
4101-C300	300

Grade 1 (mm)

Code	Size
4101-BD5	0.5
4101-B1	1
4101-B1D001	1.001
4101-B1D002	1.002
4101-B1D003	1.003
4101-B1D004	1.004
4101-B1D005	1.005
4101-B1D006	1.006
4101-B1D009	1.009
4101-B1D01	1.01
4101-B1D02	1.02
4101-B1D03	1.03
4101-B1D04	1.04
4101-B1D05	1.05
4101-B1D06	1.06
4101-B1D07	1.07
4101-B1D08	1.08
4101-B1D09	1.09
4101-B1D1	1.1

Grade 1 (mm)

Code	Size
4101-B1D12	1.12
4101-B1D15	1.15
4101-B1D16	1.16
4101-B1D18	1.18
4101-B1D19	1.19
4101-B1D2	1.2
4101-B1D21	1.21
4101-B1D22	1.22
4101-B1D24	1.24
4101-B1D25	1.25
4101-B1D26	1.26
4101-B1D27	1.27
4101-B1D3	1.3
4101-B1D32	1.32
4101-B1D33	1.33
4101-B1D34	1.34
4101-B1D35	1.35
4101-B1D36	1.36
4101-B1D37	1.37

Grade 1 (mm)

Code	Size
4101-B1D4	1.4
4101-B1D42	1.42
4101-B1D43	1.43
4101-B1D45	1.45
4101-B1D46	1.46
4101-B1D47	1.47
4101-B1D48	1.48
4101-B1D49	1.49
4101-B1D5	1.5
4101-B1D6	1.6
4101-B1D7	1.7
4101-B1D8	1.8
4101-B1D9	1.9
4101-B2	2
4101-B2D5	2.5
4101-B3	3
4101-B3D5	3.5
4101-B4	4
4101-B4D5	4.5

Grade 1 (mm)

Code	Size
4101-B5	5
4101-B5D5	5.5
4101-B6	6
4101-B7	7
4101-B7D5	7.5
4101-B8	8
4101-B8D5	8.5
4101-B9	9
4101-B9D5	9.5
4101-B10	10
4101-B11	11
4101-B12	12
4101-B13	13
4101-B14	14
4101-B15	15
4101-B16	16
4101-B18	18
4101-B20	20
4101-B21	21

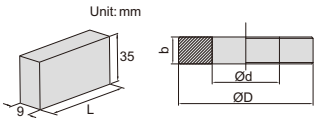
Grade 1 (mm)

Code	Size
4101-B22	22
4101-B23	23
4101-B25	25
4101-B30	30
4101-B35	35
4101-B40	40
4101-B45	45
4101-B50	50
4101-B60	60
4101-B70	70
4101-B75	75
4101-B80	80
4101-B90	90
4101-B100	100
4101-B125	125
4101-B131D4	131.4
4101-B150	150

CALIPER INSPECTION GAGE BLOCK AND RING GAGE SET

INSPECTION CERTIFICATE

- Gage blocks meet ISO3650
  Ring gages meet DIN2250-1:2008
- Supplied with manufacturer inspection certificate



4176-30

Ring gage sizes:

diameter (Ød)*	b	ØD
Ø4mm	5mm	22mm
Ø25mm	14mm	53mm

*The size of the ring gage when supplied may have deviation. For example, the size Ø25mm may be 24.996mm

(mm)

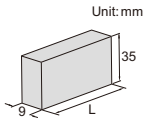
Code	Material	Gage blocks included in set (L)	Ring gages included in set (Ød)	Applicable calipers
4176-30	alloy steel	30, 41.3, 131.4	4, 25	0-150

CALIPER INSPECTION GAGE BLOCK SET

INSPECTION CERTIFICATE

- Meet ISO3650/grade 2
- Supplied with manufacturer inspection certificate

4108-3005



(mm)

Code	Material	Gage blocks included in set (L)	Applicable calipers
4108-3005	alloy steel	30, 41.3, 131.4, 243.5, 281.2	0-150, 0-200, 0-300

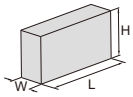
MICROMETER INSPECTION GAGE BLOCK SET

INSPECTION CERTIFICATE

- Meet ISO3650/grade 0
- One piece of optical flat is included (size Ø30x12mm)
- Supplied with manufacturer inspection certificate

optical flat (included)

4160-10



Dimension:

Size (L)	W	H
0.5≤L≤10mm	9mm	30mm
L>10mm	9mm	35mm

application

Code	Material	Gage blocks included in set	Applicable micrometer
4160-10	alloy steel	2.5mm, 5.1mm, 7.7mm, 10.3mm, 12.9mm, 15mm, 17.6mm, 20.2mm, 22.8mm, 25mm	0-25mm

CALIPER/HEIGHT GAGE CHECKERS

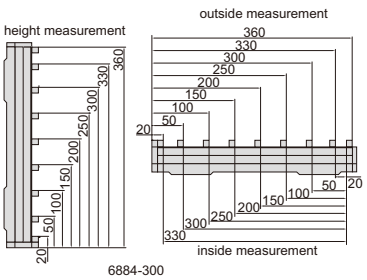
INSPECTION CERTIFICATE

horizontal use

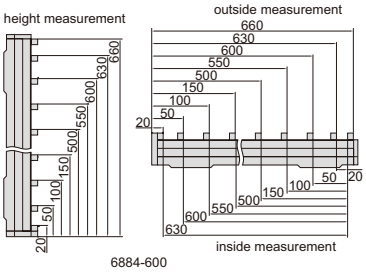
vertical use

6884-300

Unit: mm

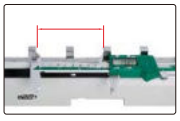


6884-300

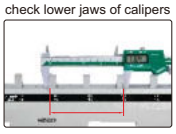


6884-600

check upper jaws of calipers



check lower jaws of calipers



check height gages

- To check calipers and height gages
- Constructed with steel gage blocks

(mm)

Code	Size	Range of inside measurement	Range of outside measurement	Range of height measurement	Accuracy
6884-300*	0-300mm	20, 50, 100, 150, 200, 250, 300, 330	20, 50, 100, 150, 200, 250, 300, 330, 360	20, 50, 100, 150, 200, 250, 300, 330, 360	±3μm
6884-600*	0-600mm	20, 50, 100, 150, 200, 250, 300,350, 400, 450, 500, 550, 600, 630	20, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 630, 660	20, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 630, 660	±5μm

*Supplied with manufacturer inspection certificate

INSIDE MICROMETER ACCESSORY

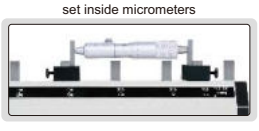
- Supplied with a pair of 5mm carbide gage blocks

Code
6884-A10*

*Supplied with manufacturer inspection certificate

6884-A10

set inside micrometers

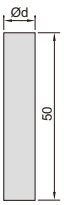


PIN GAGE SETS

Code	Diameter Ød (mm)	Step	Pin gages per set
4166-2S	1.00, 1.01, 1.02, ···· 2.00	0.01mm	101
4166-3S	2.00, 2.01, 2.02, ···· 3.00	0.01mm	101
4166-4S	3.00, 3.01, 3.02, ···· 4.00	0.01mm	101
4166-5S	4.00, 4.01, 4.02, ···· 5.00	0.01mm	101
4166-6S	5.00, 5.01, 5.02, ···· 6.00	0.01mm	101
4166-7S	6.00, 6.01, 6.02, ···· 7.00	0.01mm	101
4166-8S	7.00, 7.01, 7.02, ···· 8.00	0.01mm	101
4166-9S	8.00, 8.01, 8.02, ···· 9.00	0.01mm	101
4166-10S	9.00, 9.01, 9.02, ···· 10.00	0.01mm	101

4166-10

Unit: mm



Code	Diameter Ød (mm)	Step	Pin gages per set
4166-411	1.0, 1.1, 1.2, ···· 5.0	0.01mm	41
4166-511	5.0, 5.1, 5.2, ···· 10.0	0.01mm	51
4166-512	10.0, 10.1, 10.2, ···· 15.0	0.01mm	51
4166-513	15.0, 15.1, 15.2, ···· 20.0	0.01mm	51

- Meet DIN2269, grade 1
- Made of alloy steel
- Hardness HRC62-65
- Diameter accuracy: ±1μm

Code	Diameter Ød (mm)	Step	Pin gages per set
4166-0D	0.20, 0.21, 0.22, ···· 0.50	0.01mm	31
4166-1	0.50, 0.51, 0.52, ···· 1.00	0.01mm	51
4166-1D	1.00, 1.01, 1.02, ···· 1.50	0.01mm	51
4166-2	1.50, 1.51, 1.52, ···· 2.00	0.01mm	51
4166-2D	2.00, 2.01, 2.02, ···· 2.50	0.01mm	51
4166-3	2.50, 2.51, 2.52, ···· 3.00	0.01mm	51
4166-3D	3.00, 3.01, 3.02, ···· 3.50	0.01mm	51
4166-4	3.50, 3.51, 3.52, ···· 4.00	0.01mm	51
4166-4D	4.00, 4.01, 4.02, ···· 4.50	0.01mm	51
4166-5	4.50, 4.51, 4.52, ···· 5.00	0.01mm	51
4166-5D	5.00, 5.01, 5.02, ···· 5.50	0.01mm	51
4166-6	5.50, 5.51, 5.52, ···· 6.00	0.01mm	51
4166-6D	6.00, 6.01, 6.02, ···· 6.50	0.01mm	51
4166-7	6.50, 6.51, 6.52, ···· 7.00	0.01mm	51
4166-7D	7.00, 7.01, 7.02, ···· 7.50	0.01mm	51
4166-8	7.50, 7.51, 7.52, ···· 8.00	0.01mm	51
4166-8D	8.00, 8.01, 8.02, ···· 8.50	0.01mm	51
4166-9	8.50, 8.51, 8.52, ···· 9.00	0.01mm	51
4166-9D	9.00, 9.01, 9.02, ···· 9.50	0.01mm	51
4166-10	9.50, 9.51, 9.52, ···· 10.00	0.01mm	51

Code	Diameter Ød (mm)	Step	Pin gages per set
4166-10D	10.00, 10.01, 10.02, ···· 10.50	0.01mm	51
4166-11	10.50, 10.51, 10.52, ···· 11.00	0.01mm	51
4166-11D	11.00, 11.01, 11.02, ···· 11.50	0.01mm	51
4166-12	11.50, 11.51, 11.52, ···· 12.00	0.01mm	51
4166-12D	12.00, 12.01, 12.02, ···· 12.50	0.01mm	51
4166-13	12.50, 12.51, 12.52, ···· 13.00	0.01mm	51
4166-13D	13.00, 13.01, 13.02, ···· 13.50	0.01mm	51
4166-14	13.50, 13.51, 13.52, ···· 14.00	0.01mm	51
4166-14D	14.00, 14.01, 14.02, ···· 14.50	0.01mm	51
4166-15	14.50, 14.51, 14.52, ···· 15.00	0.01mm	51
4166-15D	15.00, 15.01, 15.02, ···· 15.50	0.01mm	51
4166-16	15.50, 15.51, 15.52, ···· 16.00	0.01mm	51
4166-16D	16.00, 16.01, 16.02, ···· 16.50	0.01mm	51
4166-17	16.50, 16.51, 16.52, ···· 17.00	0.01mm	51
4166-17D	17.00, 17.01, 17.02, ···· 17.50	0.01mm	51
4166-18	17.50, 17.51, 17.52, ···· 18.00	0.01mm	51
4166-18D	18.00, 18.01, 18.02, ···· 18.50	0.01mm	51
4166-19	18.50, 18.51, 18.52, ···· 19.00	0.01mm	51
4166-19D	19.00, 19.01, 19.02, ···· 19.50	0.01mm	51
4166-20	19.50, 19.51, 19.52, ···· 20.00	0.01mm	51

PIN GAGE HANDLES (OPERATED WITHOUT WRENCH)

- Operated without wrench
- Made of aluminum
- Pin gages can be installed

7342-M1

application

Code	Applicable pin gage diameter
7342-M0	0.30-1.50mm/0.011-0.060"
7342-M1	1.51-6.35mm/0.061-0.250"
7342-M2	6.36-12.70mm/0.251-0.500"
7342-M3	12.71-15.88mm/0.501-0.625"

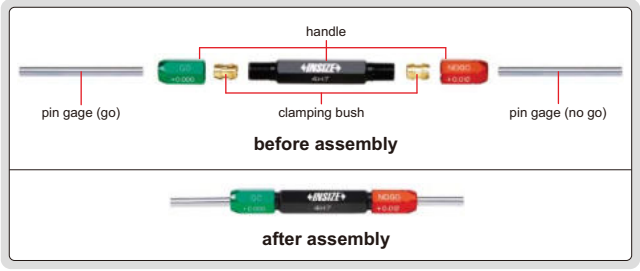
Code	Applicable pin gage diameter
7342-M4	15.89-19.00mm/0.626-0.750"
7342-M5	19.01-21.13mm/0.751-0.832"
7342-M6	21.14-23.27mm/0.833-0.916"
7342-M7	23.28-25.40mm/0.917-1.000"

PIN GAGE HANDLES (OPERATED WITH WRENCH)

handle

brass
clamping bush
(0.2~7.14mm)

aluminum
clamping bush
(7.14~24.80mm)



- Wrench is needed to install pins
- Clamping bushes (0.2~7.14mm) are made of brass, clamping bushes (7.14~24.80mm) are made of aluminum

Code	Applicable pin gage diameter	Including	
		Handle	Clamping bush (mm)
7341-0S	0.2-1.02mm	1 pc	6 pairs (the clamping range are 0.2-0.38, 0.38-0.51, 0.51-0.64, 0.64-0.76, 0.76-0.89, 0.89-1.02)
7341-1S	1.02-1.91mm	1 pc	7 pairs (the clamping range are 1.02-1.14, 1.14-1.27, 1.27-1.40, 1.40-1.52, 1.52-1.65, 1.65-1.78, 1.78-1.91)
7341-2S	1.91-3.33mm	1 pc	8 pairs (the clamping range are 1.91-2.08, 2.08-2.26, 2.26-2.44, 2.44-2.62, 2.62-2.79, 2.79-2.97, 2.97-3.15, 3.15-3.33)
7341-3S	3.33-4.57mm	1 pc	7 pairs (the clamping range are 3.33-3.51, 3.51-3.68, 3.68-3.86, 3.86-4.04, 4.04-4.22, 4.22-4.39, 4.39-4.57)
7341-4S	4.57-5.79mm	1 pc	6 pairs (the clamping range are 4.57-4.78, 4.78-4.98, 4.98-5.18, 5.18-5.38, 5.38-5.59, 5.59-5.79)
7341-5S	5.79-7.14mm	1 pc	6 pairs (the clamping range are 5.79-5.99, 5.99-6.20, 6.20-6.40, 6.40-6.63, 6.63-6.88, 6.88-7.14)
7341-6S	7.14-8.66mm	1 pc	6 pairs (the clamping range are 7.14-7.39, 7.39-7.65, 7.65-7.90, 7.90-8.15, 8.15-8.41, 8.41-8.66)

Code	Applicable pin gage diameter	Including	
		Handle	Clamping bush (mm)
7341-7S	8.66-10.31mm	1 pc	6 pairs (the clamping range are 8.66-8.92, 8.9 -9.17, 9.17-9.42, 9.42-9.70, 9.70-10.01, 10.01-10.31)
7341-8S	10.31-11.81mm	1 pc	4 pairs (the clamping range are 10.31-10.67,10.67-11.05, 11.05-11.43, 11.43-11.81)
7341-9S	11.81-12.95mm	1 pc	3 pairs (the clamping range are 11.81-12.19, 12.19-12.57, 12.57-12.95)
7341-10S	12.95-14.71mm	1 pc	4 pairs (the clamping range are 12.95-13.51, 13.51-13.89, 13.89-14.30, 14.30-14.71)
7341-11S	14.71-16.13mm	1 pc	4 pairs (the clamping range are 14.71-15.09, 15.09-15.49, 15.49-15.88, 15.88-16.13)
7341-12S	16.13-17.88mm	1 pc	4 pairs (the clamping range are 16.13-16.66, 16.66-17.07, 17.07-17.48,17.48-17.88)
7341-13S	17.88-19.30mm	1 pc	4 pairs (the clamping range are 17.88-18.26, 18.26-18.67, 18.67-19.05, 19.05-19.30)
7341-15S	19.30-24.80mm	1 pc	8 pairs (the clamping range are 19.30-19.84, 19.84-20.62, 20.62-21.41, 21.41-22.23, 22.23-23.03, 23.03-23.80, 23.80-24.59, 24.59-24.80)

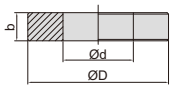
SETTING RINGS

INSPECTION CERTIFICATE

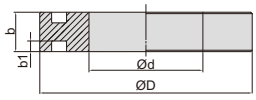
CAN SUPPLY CUSTOM SETTING RINGS FROM Ø1.500MM TO Ø400.000MM, FOR EXAMPLE, Ø17.085MM

- For zero setting of inside micrometers, three points internal micrometers and bore gages
- The size marked on the setting ring is checked at the direction of the marking line
- Deviation (difference between the ordered size and the size marked on the setting ring when supplied): For example, the ordered size is Ø10.125mm, the size marked on the setting ring when supplied may be Ø10.135mm
- Meet DIN2250-1:2008

6312-20



Ø1.5mm-100mm



Ø100mm-400mm

(mm)

Diameter d **	b	ØD	Deviation	Roundness and cylindricity
Ø1.5-2.5	4mm	22mm	±10.0μm	0.3μm
Ø2.5-3	5mm	22mm	±10.0μm	0.3μm
Ø3-5	5mm	22mm	±10.0μm	0.4μm
Ø5-10	8mm	32mm	±10.0μm	0.4μm
Ø10-15	10mm	38mm	±10.0μm	0.5μm
Ø15-18	12mm	45mm	±10.0μm	0.5μm
Ø18-20	12mm	45mm	±10.0μm	0.6μm
Ø20-25	14mm	53mm	±10.0μm	0.6μm
Ø25-30	16mm	63mm	±10.0μm	0.6μm
Ø30-32	16mm	63mm	±10.0μm	0.7μm
Ø32-40	18mm	71mm	±10.0μm	0.7μm
Ø40-50	20mm	85mm	±10.0μm	0.7μm
Ø50-60	20mm	100mm	±10.0μm	0.8μm
Ø60-70	24mm	112mm	±10.0μm	0.8μm
Ø70-80	24mm	125mm	±10.0μm	0.8μm
Ø80-90	24mm	140mm	±10.0μm	1.0μm
Ø90-100	24mm	160mm	±10.0μm	1.0μm

**For example Ø3-5mm means Ø3mm<diameter d≤Ø5mm

(mm)

Diameter d **	b	b1	ØD	Deviation	Roundness and cylindricity
Ø100-110	30mm	8mm	164mm	±10.0μm	1.0μm
Ø110-130	34mm	10mm	192mm	±10.0μm	1.0μm
Ø130-150	34mm	10mm	220mm	±10.0μm	1.2μm
Ø150-170	36mm	10mm	248mm	±10.0μm	1.5μm
Ø170-190	36mm	10mm	276mm	±10.0μm	1.5μm
Ø190-210	38mm	10mm	300mm	±10.0μm	1.5μm
Ø210-230	38mm	10mm	324mm	±10.0μm	2.5μm
Ø230-250	40mm	12mm	350mm	±10.0μm	2.5μm
Ø250-270	40mm	12mm	375mm	±10.0μm	3.0μm
Ø270-290	42mm	12mm	400mm	±10.0μm	3.0μm
Ø290-300	42mm	12mm	425mm	±10.0μm	3.0μm
Ø300-320	42mm	12mm	430mm	±10.0μm	4.0μm
Ø320-330	42mm	12mm	440mm	±10.0μm	4.0μm
Ø330-340	42mm	12mm	450mm	±10.0μm	4.0μm
Ø340-350	42mm	12mm	460mm	±10.0μm	4.0μm
Ø350-360	42mm	12mm	470mm	±10.0μm	4.0μm
Ø360-370	42mm	12mm	480mm	±10.0μm	4.0μm
Ø370-380	42mm	12mm	490mm	±10.0μm	4.0μm
Ø380-390	42mm	12mm	500mm	±10.0μm	4.0μm
Ø390-400	42mm	12mm	510mm	±10.0μm	4.0μm

Code	Size
6312-1D5*	Ø1.5mm
6312-2*	Ø2mm
6312-2D5*	Ø2.5mm
6312-3*	Ø3mm
6312-3D5*	Ø3.5mm
6312-4*	Ø4mm
6312-4D5*	Ø4.5mm
6312-5*	Ø5mm
6312-5D5*	Ø5.5mm
6312-6*	Ø6mm
6312-6D5*	Ø6.5mm
6312-7*	Ø7mm
6312-7D5*	Ø7.5mm
6312-8*	Ø8mm
6312-8D5*	Ø8.5mm
6312-9*	Ø9mm
6312-9D5*	Ø9.5mm
6312-10*	Ø10mm
6312-10D5*	Ø10.5mm
6312-11*	Ø11mm
6312-11D5*	Ø11.5mm
6312-12*	Ø12mm
6312-12D5*	Ø12.5mm
6312-13*	Ø13mm
6312-13D5*	Ø13.5mm
6312-14*	Ø14mm
6312-14D5*	Ø14.5mm

Code	Size
6312-15*	Ø15mm
6312-15D5*	Ø15.5mm
6312-16*	Ø16mm
6312-16D5*	Ø16.5mm
6312-17*	Ø17mm
6312-17D5*	Ø17.5mm
6312-18*	Ø18mm
6312-18D5*	Ø18.5mm
6312-19*	Ø19mm
6312-19D5*	Ø19.5mm
6312-20*	Ø20mm
6312-20D5*	Ø20.5mm
6312-21*	Ø21mm
6312-21D5*	Ø21.5mm
6312-22*	Ø22mm
6312-22D5*	Ø22.5mm
6312-23*	Ø23mm
6312-23D5*	Ø23.5mm
6312-24*	Ø24mm
6312-24D5*	Ø24.5mm
6312-25*	Ø25mm
6312-25D5*	Ø25.5mm
6312-26*	Ø26mm
6312-26D5*	Ø26.5mm
6312-27*	Ø27mm
6312-27D5*	Ø27.5mm
6312-28*	Ø28mm

Code	Size
6312-28D5*	Ø28.5mm
6312-29*	Ø29mm
6312-29D5*	Ø29.5mm
6312-30*	Ø30mm
6312-31*	Ø31mm
6312-32*	Ø32mm
6312-33*	Ø33mm
6312-34*	Ø34mm
6312-35*	Ø35mm
6312-36*	Ø36mm
6312-37*	Ø37mm
6312-38*	Ø38mm
6312-39*	Ø39mm
6312-40*	Ø40mm
6312-41*	Ø41mm
6312-42*	Ø42mm
6312-43*	Ø43mm
6312-44*	Ø44mm
6312-45*	Ø45mm
6312-46*	Ø46mm
6312-47*	Ø47mm
6312-48*	Ø48mm
6312-49*	Ø49mm
6312-50*	Ø50mm
6312-55*	Ø55mm
6312-60*	Ø60mm
6312-62*	Ø62mm

Code	Size
6312-65*	Ø65mm
6312-70*	Ø70mm
6312-75*	Ø75mm
6312-80*	Ø80mm
6312-85*	Ø85mm
6312-87*	Ø87mm
6312-90*	Ø90mm
6312-95*	Ø95mm
6312-100*	Ø100mm
6312-112D5*	Ø112.5mm
6312-125*	Ø125mm
6312-137D5*	Ø137.5mm
6312-150*	Ø150mm
6312-162D5*	Ø162.5mm
6312-175*	Ø175mm
6312-187D5*	Ø187.5mm
6312-200*	Ø200mm
6312-212D5*	Ø212.5mm
6312-225*	Ø225mm
6312-237D5*	Ø237.5mm
6312-250*	Ø250mm
6312-262D5*	Ø262.5mm
6312-275*	Ø275mm
6312-287D5*	Ø287.5mm
6312-300*	Ø300mm
6312-350*	Ø350mm
6312-400*	Ø400mm

*Supplied with manufacturer inspection certificate

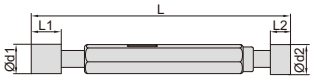
PLAIN PLUG GAGES

- Supplied with Go and No-Go gages together
- Class H7
- Hardness HRC 60±2
- Standard DIN7150-2

4124-12

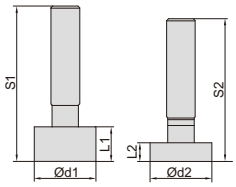
CUSTOM-MADE
OTHER CLASSES ARE AVAILABLE, SUCH AS H8, H9
OTHER DIAMETERS ARE AVAILABLE, SUCH AS 19.003mm
OTHER LENGTHS ARE AVAILABLE, SUCH AS 70mm

type A



type A

type B



type B

Size tolerance of H7 (mm)

Diameter Ød	Type	Size tolerance of Go gage (µm)	Size tolerance of No-Go gage (µm)	L1	L2	L	S1, S2
≥2, ≤3	A	+0.5 / +2.5	+9 / +11	6.5	4.5	62	–
>3, ≤6	A	+0.75 / +3.25	+10.75 / +13.25	8	6	74	–
>6, ≤10	A	+0.75 / +3.25	+13.75 / +16.25	10	7	87	–
>10, ≤14	A	+1 / +4	+16.5 / +19.5	12	8	99	–
>14, ≤18	A	+1 / +4	+16.5 / +19.5	14	10	114	–
>18, ≤24	A	+1 / +5	+19 / +23	16	12	132	–
>24, ≤30	A	+1 / +5	+19 / +23	18	14	136	–
>30, ≤40	A	+1.5 / +5.5	+23 / +27	20	15	155	–
>40, ≤50	A	+1.5 / +5.5	+23 / +27	25	18	169	–
>50, ≤65	B	+1.5 / +6.5	+27.5 / +32.5	30	18	–	164, 152
>65, ≤80	B	+1.5 / +6.5	+27.5 / +32.5	35	25	–	169, 159
>80, ≤100	B	+2 / +8	+32 / +38	35	25	–	169, 159

Code	Diameter	Type
4124-2	2mm	A
4124-3	3mm	A
4124-4	4mm	A
4124-5	5mm	A
4124-6	6mm	A
4124-7	7mm	A
4124-8	8mm	A
4124-9	9mm	A
4124-10	10mm	A
4124-11	11mm	A
4124-12	12mm	A

Code	Diameter	Type
4124-13	13mm	A
4124-14	14mm	A
4124-15	15mm	A
4124-16	16mm	A
4124-17	17mm	A
4124-18	18mm	A
4124-19	19mm	A
4124-20	20mm	A
4124-21	21mm	A
4124-22	22mm	A
4124-23	23mm	A

Code	Diameter	Type
4124-24	24mm	A
4124-25	25mm	A
4124-26	26mm	A
4124-28	28mm	A
4124-29	29mm	A
4124-30	30mm	A
4124-31	31mm	A
4124-32	32mm	A
4124-34	34mm	A
4124-35	35mm	A
4124-36	36mm	A

Code	Diameter	Type
4124-38	38mm	A
4124-39	39mm	A
4124-40	40mm	A
4124-41	41mm	A
4124-42	42mm	A
4124-44	44mm	A
4124-45	45mm	A
4124-46	46mm	A
4124-47	47mm	A
4124-49	49mm	A
4124-50	50mm	A

Code	Diameter	Type
4124-52	52mm	B
4124-55	55mm	B
4124-60	60mm	B
4124-65	65mm	B
4124-70	70mm	B
4124-75	75mm	B
4124-80	80mm	B
4124-85	85mm	B
4124-100	100mm	B

METRIC THREAD PLUG GAGES

INSPECTION CERTIFICATE

- Supplied with Go and No-Go gages together
- Standard ISO1502
- Supplied with manufacturer inspection certificate

4130-10

Size (mm)		Code		
Nominal diameter	Pitch	Class 6H	Class 6G	Class 4H
M0.8	0.2	**4130-D8**	**4130-D8G**	–
M0.9	0.225	**4130-D9**	–	–
M1	0.25	**4130-1**	–	–
M1.2	0.25	**4130-1D2**	–	**4130-1D2H**
M1.4	0.3	**4130-1D4**	–	**4130-1D4H**
M1.6	0.35	**4130-1D6**	**4130-1D6G**	**4130-1D6H**
M1.8	0.35	**4130-1D8**	–	–
M2	0.4	**4130-2**	**4130-2G**	**4130-2H**
M2.2	0.45	**4130-2D2**	–	–
M2.3	0.4	**4130-2D3**	–	–
M2.5	0.45	**4130-2D5**	**4130-2D5G**	**4130-2D5H**
M2.6	0.45	**4130-2D6**	–	–
M3	0.5	**4130-3**	**4130-3G**	**4130-3H**
M3.5	0.6	**4130-3D5**	**4130-3D5G**	–
M4	0.7	**4130-4**	**4130-4G**	**4130-4H**
M4.5	0.75	**4130-4D5**	–	–
M5	0.8	**4130-5**	**4130-5G**	–
M6	1	**4130-6**	**4130-6G**	**4130-6H**
M7	1	**4130-7**	–	–
M8	1.25	**4130-8**	–	–

Size (mm)		Code		
Nominal diameter	Pitch	Class 6H	Class 6G	Class 4H
M9	1.25	**4130-9**	**4130-9G**	–
M10	1.5	**4130-10**	**4130-10G**	–
M11	1.5	**4130-11**	–	–
M12	1.75	**4130-12**	**4130-12G**	–
M14	2	**4130-14**	**4130-14G**	–
M16	2	**4130-16**	**4130-16G**	–
M18	2.5	**4130-18**	**4130-18G**	**4130-18H**
M20	2.5	**4130-20**	**4130-20G**	–
M22	2.5	**4130-22**	–	–
M24	3	**4130-24**	–	–
M27	3	**4130-27**	–	–
M30	3.5	**4130-30**	**4130-30G**	–
M33	3.5	**4130-33**	–	–
M36	4	**4130-36**	–	**4130-36H**
M39	4	**4130-39**	–	–
M45	4.5	**4130-45**	–	–
M48	5	**4130-48**	–	–
M56	5.5	**4130-56**	–	–
M60	5.5	**4130-60**	–	–

Set (class 6H)

Code	Thread plug gages included
4130-S7	M3x0.5 (**4130-3**), M4x0.7 (**4130-4**), M5x0.8 (**4130-5**), M6x1 (**4130-6**), M8x1.25 (**4130-8**), M10x1.5 (**4130-10**), M12x1.75 (**4130-12**)

METRIC FINE THREAD PLUG GAGES

INSPECTION CERTIFICATE

- Supplied with Go and No-Go gages together
- Standard ISO1502
- Supplied with manufacturer inspection certificate

4139-20G

Code example:
"**-1A**" stands for "**4139-1A**"

Size (mm)		Code (4139)		
Nominal diameter	Pitch	Class 6H	Class 6G	Class 4H
M1	0.2	-1A	–	–
M1.6	0.2	-1D6A	-1D6AG	–
M1.8	0.2	-1D8A	–	–
M2	0.2	-2A	-2AG	–
	0.25	-2B	-2BG	–
M2.5	0.2	-2D5A	–	–
	0.25	-2D5B	–	–
M3	0.25	-3B	–	–
	0.35	-3D	–	–
M3.5	0.35	-3D5D	–	–
	0.5	-3D5G	–	–
M4	0.5	-4G	-4GG	-4GH
M4.5	0.5	-4D5G	–	–
M5	0.25	-5B	–	–
	0.5	-5G	-5GG	–
M6	0.25	-6B	-6BG	–
	0.5	-6G	–	–
M7	0.5	-7G	–	–
M8	0.5	-8G	–	–
	1	-8P	-8PG	–
M9	0.5	-9G	-9GG	–
	0.75	-9L	–	–
	1	-9P	–	–
M10	0.5	-10G	–	–
	1	-10P	-10PG	–
	1.25	-10Q	-10QG	–
M11	0.5	-11G	–	–
	1	-11P	–	–
M12	0.5	-12G	-12GG	-12GH
	1	-12P	-12PG	–
	1.25	-12Q	-12QG	–
	1.5	-12R	-12RG	–
M13	1.5	-13R	–	–
M14	0.5	-14G	–	–
	1	-14P	–	–
	1.25	-14Q	–	–
	1.5	-14R	-14RG	–
M15	0.5	-15G	–	–
	1	-15P	-15PG	-15PH
	1.5	-15R	-15RG	–
M16	0.5	-16G	–	–
	1	-16P	–	–
	1.25	-16Q	–	–
	1.5	-16R	–	–
M17	0.5	-17G	–	–
	1	-17P	–	–
	1.5	-17R	–	–
M18	1	-18P	–	–
	1.5	-18R	-18RG	–
	2	-18T	–	–

Size (mm)		Code (4139)		
Nominal diameter	Pitch	Class 6H	Class 6G	Class 4H
M19	1	-19P	–	–
M20	0.5	-20G	–	–
	1	-20P	-20PG	–
	1.5	-20R	-20RG	–
	2	-20T	–	–
M21	1	-21P	–	–
	1.5	-21R	–	–
M22	0.5	-22G	–	–
	1	-22P	-22PG	–
	1.5	-22R	-22RG	–
	2	-22T	–	–
M24	0.5	-24G	–	–
	1	-24P	-24PG	–
	1.25	-24Q	–	–
	1.5	-24R	-24RG	–
	2	-24T	-24TG	–
M25	0.5	-25G	–	–
	1	-25P	–	–
	1.5	-25R	–	–
	2	-25T	–	–
M26	1	-26P	–	–
	1.5	-26R	–	–
M27	0.5	-27G	–	–
	1	-27P	-27PG	–
	1.5	-27R	–	-27RH
	2	-27T	–	-27TH
M28	1	-28P	–	–
	1.5	-28R	-28RG	–
	2	-28T	–	–
M30	0.75	-30L	–	–
	1	-30P	–	-30PH
	1.5	-30R	–	-30RH
	2	-30T	-30TG	–
	3	-30V	–	–
M31	1.5	-32R	–	–
	2	-32T	–	–
M32	0.75	-33L	–	–
	1	-33P	–	–
	1.5	-33R	–	–
	2	-33T	–	–
	3	-33V	–	–
M33	1.5	-34R	–	–
	2	-34T	–	–
M36	1	-36P	–	–
	1.5	-36R	–	–
	2	-36T	–	-36TH
	3	-36V	–	–
M37	0.75	-37L	–	–

Size (mm)		Code (4139)	
Nominal diameter	Pitch	Class 6H	Class 6G
M38	0.75	-38L	–
	1.5	-38R	–
	2	-38T	–
M39	1	-39P	–
	1.5	-39R	–
	2	-39T	–
	3	-39V	–
M40	1	-40P	–
	2	-40T	–
M42	1	-42P	–
	1.5	-42R	-42RG
	3	-42V	-42VG
M45	1	-45P	–
	1.5	-45R	-45RG
	2	-45T	–
	3	-45V	–
M48	1	-48P	–
	1.5	-48R	–
	2	-48T	–
	3	-48V	–
M52	1	-52P	–
	1.5	-52R	–
	3	-52V	–
	4	-52X	–
M55	1.5	-55R	–
	2	-55T	–
M56	1.5	-56R	–
	3	-56V	–
M58	1	-60P	–
	2	-60T	–
	3	-60V	–

METRIC THREAD RING GAGES

INSPECTION CERTIFICATE

4120-16

4120-16N

- Standard ISO1502
- Supplied with manufacturer inspection certificate

Code example:
"**-2**" stands for "**4120-2**"

Size (mm)		Code (4120)					
		Class 6g		Class 6e		Class 6h	
Nominal diameter	Pitch	GO	NOGO	GO	NOGO	GO	NOGO
M2	0.4	**-2**	–	–	–	**-2H**	**-2HN**
M2.2	0.45	**-2D2**	**-2D2N**	–	–	–	–
M2.5	0.45	**-2D5**	–	–	–	**-2D5H**	–
M2.6	0.45	**-2D6**	–	–	–	–	–
M3	0.5	**-3**	**-3N**	–	–	**-3H**	**-3HN**
M3.5	0.6	**-3D5**	**-3D5N**	–	–	–	–
M4	0.7	**-4**	–	**-4E**	**-4EN**	**-4H**	**-4HN**
M5	0.8	**-5**	**-5N**	**-5E**	–	**-5H**	**-5HN**
M6	1	**-6**	**-6N**	**-6E**	**-6EN**	**-6H**	**-6HN**
M7	1	**-7**	**-7N**	–	–	–	–
M8	1.25	**-8**	**-8N**	**-8E**	**-8EN**	**-8H**	–
M9	1.25	**-9**	**-9N**	**-9E**	–	–	–
M10	1.5	**-10**	**-10N**	**-10E**	**-10EN**	**-10H**	**-10HN**
M11	1.5	**-11**	**-11N**	–	–	–	–
M12	1.75	**-12**	**-12N**	**-12E**	**-12EN**	**-12H**	–
M14	2	**-14**	**-14N**	–	–	**-14H**	–
M16	2	**-16**	**-16N**	**-16E**	**-16EN**	**-16H**	–
M18	2.5	**-18**	**-18N**	–	–	–	–
M20	2.5	**-20**	**-20N**	**-20E**	**-20EN**	**-20H**	**-20HN**
M22	2.5	**-22**	**-22N**	–	–	–	–
M24	3	**-24**	**-24N**	–	–	–	–
M27	3	**-27**	–	–	–	**-27H**	–
M30	3.5	**-30**	**-30N**	–	–	**-30H**	–
M33	3.5	**-33**	**-33N**	–	–	–	–
M36	4	**-36**	**-36N**	–	–	**-36H**	**-36HN**
M39	4	**-39**	**-39N**	–	–	–	–
M42	4.5	**-42**	**-42N**	–	–	–	–
M45	4.5	**-45**	**-45N**	–	–	–	–
M48	5	**-48**	**-48N**	–	–	–	–
M56	5.5	**-56**	**-56N**	–	–	–	–

Go ring gage set (class 6g)

Code	Thread ring gages included
4120-S7	M3x0.5 (**4120-3**), M4x0.7 (**4120-4**), M5x0.8 (**4120-5**), M6x1 (**4120-6**), M8x1.25 (**4120-8**), M10x1.5 (**4120-10**), M12x1.75 (**4120-12**)

No Go ring gage set (class 6g)

Code	Thread ring gages included
4120-S7N	M3x0.5 (**4120-3N**), M4x0.7 (**4120-4N**), M5x0.8 (**4120-5N**), M6x1 (**4120-6N**), M8x1.25 (**4120-8N**), M10x1.5 (**4120-10N**), M12x1.75 (**4120-12N**)

METRIC FINE THREAD RING GAGES

INSPECTION CERTIFICATE

4129-9P

4129-9PN

Code example:
"**-2D5D**" stands for "**4129-2D5D**"

- Standard ISO1502
- Supplied with manufacturer inspection certificate

Size (mm)		Code (4129)					
		Class 6g		Class 6e		Class 6h	
Nominal diameter	Pitch	GO	NOGO	GO	NOGO	GO	NOGO
M3	0.35	-3D	-3DN	–	–	-3DH	-3DHN
M3.5	0.35	-3D5D	-3D5DN	–	–	–	–
M4	0.5	-4G	-4GN	–	–	-4GH	4GHN
M4.5	0.5	-4D5G	-4D5GN	-4D5GE		–	–
M5	0.5	-5G	–	–	–	-5GH	–
M6	0.5	-6G	-6GN	–	–	–	–
	0.75	-6L	-6LN	–	–	-6LH	-6LHN
M7	0.5	-7G	-7GN	–	–	–	–
	0.75	-7L	-7LN	-7LE	-7LEN	–	–
M8	0.5	-8G	-8GN	–	–	–	–
	0.75	-8L	-8LN	–	–	–	–
	1	-8P	-8PN	-8PE	-8PEN	-8PH	-8PHN
M9	0.5	-9G	-9GN	–	–	–	–
	0.75	-9L	-9LN	–	–	–	–
	1	-9P	-9PN	–	–	-9PH	–
M19	1.5	-19R	-19RN	–	–	–	–
M20	0.5	-20G	-20GN	–	–	–	–
	0.75	-20L	-20LN	–	–	–	–
	1	-20P	-20PN	-20PE	-20PEN	-20PH	–
	1.25	-20Q	–	–	–	-20QH	-20QHN
	1.5	-20R	-20RN	-20RE	-20REN	–	–
	2	-20T	-20TN	–	–	–	–
M21	1	-21P	-21PN	–	–	–	–
M22	0.75	-22L	-22LN	–	–	–	–
	1	-22P	-22PN	-22PE	-22PEN	–	–
	1.5	-22R	-22RN	-22RE	-22REN	-22RH	-22RHN
	2	-22T	-22TN	–	–	-22TH	–
M23	1	-23P	-23PN	–	–	–	–
M24	0.75	-24L	-24LN	–	–	–	–
	1	-24P	-24PN	–	–	-24PH	-24PHN
	1.25	-24Q	-24QN	–	–	–	–
	1.5	-24R	-24RN	–	–	–	–
	2	-24T	–	–	–	-24TH	–
M25	1	-25P	-25PN	–	–	–	–
	1.5	-25R	-25RN	–	–	-25RH	–
	2	-25T	-25TN	–	–	–	–
M26	1	-26P	-26PN	–	–	–	–
	1.5	-26R	-26RN	-26RE	–	–	–
	2	-26T	-26TN	–	–	–	–
M27	0.75	-27L	-27LN	–	–	–	–
	1	-27P	-27PN	–	–	-27PH	–
	1.5	-27R	-27RN	–	–	-27RH	-27RHN
	2	-27T	-27TN	–	–	-27TH	–
M28	1	-28P	-28PN	–	–	–	–
	1.5	-28R	-28RN	–	-28REN	–	–
	2	-28T	–	–	–	-28TH	-28THN

Size (mm)		Code (4129)				
		Class 6g		Class 6e	Class 6h	
Nominal diameter	Pitch	GO	NOGO	GO	GO	NOGO
M30	0.75	-30L	-30LN	–	–	–
	1	-30P	-30PN	–	-30PH	-30PHN
	1.5	-30R	-30RN	–	-30RH	-30RHN
	2	-30T	-30TN	–	-30TH	-30THN
	3	-30V	-30VN	–	–	–
M32	1	-32P	-32PN	–	–	–
	1.5	-32R	-32RN	–	–	–
	2	-32T	-32TN	–	–	–
M33	0.75	-33L	-33LN	–	–	–
	1	-33P	-33PN	–	–	–
	1.5	-33R	-33RN	–	–	–
	2	-33T	-33TN	–	–	–
	3	-33V	-33VN	–	–	–
M34	1	-34P	–	–	–	–
	1.5	-34R	–	–	–	–
M35	1.5	-35R	-35RN	–	-35RH	–
M36	1	-36P	–	–	–	–
	1.5	-36R	-36RN	–	-36RH	-36RHN
	2	-36T	-36TN	–	-36TH	–
	3	-36V	-36VN	–	–	–
M38	1.5	-38R	-38RN	–	–	–
M39	1	-39P	-39PN	–	–	–
	1.5	-39R	-39RN	–	–	–
	2	-39T	-39TN	–	–	–
	3	-39V	-39VN	–	–	–
M40	1.5	-40R	-40RN	-40RE	-40RH	-40RHN
M42	1.5	-42R	-42RN	–	-42RH	-42RHN
	2	-42T	-42TN	–	-42TH	-42THN
	3	-42V	-42VN	–	–	–
M45	1.5	-45R	-45RN	–	–	–
	2	-45T	-45TN	–	–	–
	3	-45V	-45VN	-45VE	–	–
M48	1.5	-48R	-48RN	–	–	–
	2	-48T	-48TN	–	-48TH	-48THN
	3	-48V	-48VN	–	-48VH	-48VHN
M50	1.5	-50R	–	–	–	–
M52	1.5	-52R	-52RN	–	-52RH	-52RHN
	2	-52T	-52TN	–	-52TH	–
	3	-52V	-52VN	–	-52VH	-52VHN
	4	-52X	-52XN	–	–	–
M55	2	-55T	-55TN	–	–	–
M56	1.5	-56R	-56RN	–	–	–
	2	-56T	–	–	–	–
	3	-56V	–	–	-56VH	-56VHN
	4	-56X	–	–	–	–
M58	1.5	-58R	-58RN	–	-58RH	-58RHN
	2	-58T	–	–	–	–
M60	1.5	-60R	-60RN	–	–	–
	2	-60T	-60TN	–	–	–
	3	-60V	–	–	–	–
	4	-60X	-60XN	–	–	–

AMERICAN STANDARD THREAD PLUG GAGES

INSPECTION CERTIFICATE

- Supplied with Go and No-Go gages together
- Standard ANSI/ASME B1.2
- Supplied with manufacturer inspection certificate

4131-102

Size	Code	
	Class 2B	Class 3B
No. 0-80UNF	4131-02	–
No. 1-64UNC	4131-11	–
No. 1-72UNF	4131-12	–
No. 2-56UNC	4131-21	–
No. 3-56UNF	4131-32	–
No. 4-40UNC	4131-41	4131-41B
No. 4-48UNF	4131-42	4131-42B
No. 5-40UNC	4131-51	4131-51B
No. 6-32UNC	4131-61	4131-61B
No. 6-40UNF	4131-62	–
No. 8-32UNC	4131-81	4131-81B
No. 8-36UNF	4131-82	–
No. 10-24UNC	4131-101	–
No. 10-32UNF	4131-102	4131-102B
No. 12-24UNC	4131-121	–
No. 12-28UNF	4131-122	–
1/4-20UNC	4131-1B1	4131-1B1B
1/4-28UNF	4131-1B2	4131-1B2B
1/4-32UNEF	4131-1B3	–

Size	Code	
	Class 2B	Class 3B
5/16-18UNC	4131-5D1	4131-5D1B
5/16-24UNF	4131-5D2	4131-5D2B
5/16-32UNEF	4131-5D3	4131-5D3B
3/8-16UNC	4131-3C1	4131-3C1B
3/8-24UNF	4131-3C2	4131-3C2B
3/8-32UNEF	4131-3C3	–
7/16-14UNC	4131-7D1	4131-7D1B
7/16-20UNF	4131-7D2	4131-7D2B
1/2-13UNC	4131-1A1	4131-1A1B
1/2-20UNF	4131-1A2	–
1/2-28UNEF	4131-1A3	–
9/16-12UNC	4131-9D1	4131-9D1B
9/16-18UNF	4131-9D2	4131-9D2B
9/16-24UNEF	4131-9D3	–
5/8-11UNC	4131-5C1	4131-5C1B
5/8-18UNF	4131-5C2	4131-5C2B
5/8-24UNEF	4131-5C3	–
11/16-16UN	4131-11D516	–
11/16-24UNEF	4131-11D3	–

Size	Code	
	Class 2B	Class 3B
3/4-10UNC	4131-3B1	4131-3B1B
3/4-16UNF	4131-3B2	4131-3B2B
3/4-20UNEF	4131-3B3	4131-3B3B
13/16-16UN	4131-13D516	–
13/16-20UNEF	4131-13D3	–
7/8-9UNC	4131-7C1	4131-7C1B
7/8-14UNF	4131-7C2	–
1-8UNC	4131-2A1	–
1-12UNF	4131-2A2	–
1-14UNS	4131-2A514	–
1-32UN	4131-2A532	–
1 1/16-12UN	4131-1E512	–
1 1/8-7UNC	4131-1F1	4131-1F1B
1 1/8-8UN	4131-1F58	4131-1F58B
1 1/8-12UNF	4131-1F2	–
1 3/16-12UN	4131-3E512	–
1 1/4-7UNC	4131-1G1	–
1 1/4-8UN	4131-1G58	4131-1G58B
1 1/4-12UNF	4131-1G2	–

AMERICAN STANDARD THREAD RING GAGES

INSPECTION CERTIFICATE

- Standard ANSI/ASME B1.2
- Class 2A
- Supplied with manufacturer inspection certificate

front back

4121-1B1

front back

4121-1B1N

Size	Code	
	GO	NOGO
No. 4-40UNC	4121-41	4121-41N
No. 5-40UNC	4121-51	4121-51N
No. 6-32UNC	4121-61	4121-61N
No. 8-32UNC	4121-81	4121-81N
No. 10-32UNF	4121-102	4121-102N
No. 12-24UNC	4121-121	4121-121N
No. 12-28UNF	4121-122	4121-122N
1/4-20UNC	4121-1B1	4121-1B1N
1/4-28UNF	4121-1B2	4121-1B2N
5/16-18UNC	4121-5D1	4121-5D1N
5/16-24UNF	4121-5D2	4121-5D2N
5/16-32UNEF	4121-5D3	4121-5D3N
3/8-16UNC	4121-3C1	4121-3C1N
3/8-24UNF	4121-3C2	4121-3C2N
3/8-32UNEF	4121-3C3	4121-3C3N

Size	Code	
	GO	NOGO
7/16-14UNC	4121-7D1	4121-7D1N
7/16-20UNF	4121-7D2	4121-7D2N
7/16-28UNEF	4121-7D3	4121-7D3N
1/2-13UNC	4121-1A1	4121-1A1N
1/2-20UNF	4121-1A2	4121-1A2N
1/2-28UNEF	4121-1A3	4121-1A3N
9/16-12UNC	4121-9D1	4121-9D1N
9/16-18UNF	4121-9D2	4121-9D2N
5/8-11UNC	4121-5C1	4121-5C1N
5/8-18UNF	4121-5C2	4121-5C2N
11/16-16UN	4121-11D516	4121-11D516N
3/4-10UNC	4121-3B1	4121-3B1N
3/4-16UNF	4121-3B2	4121-3B2N
3/4-20UNEF	4121-3B3	4121-3B3N
13/16-16UN	4121-13D516	4121-13D516N

Size	Code	
	GO	NOGO
7/8-9UNC	4121-7C1	4121-7C1N
7/8-14UNF	4121-7C2	4121-7C2N
7/8-16UN	4121-7C516	4121-7C516N
1-8UNC	4121-2A1	4121-2A1N
1-12UNF	4121-2A2	4121-2A2N
1-14UNS	4121-2A514	4121-2A514N
1-32UN	4121-2A532	4121-2A532N
1 1/8-7UNC	4121-1F1	4121-1F1N
1 1/8-12UNF	4121-1F2	4121-1F2N
1 1/4-7UNC	4121-1G1	4121-1G1N
1 1/4-8UN	4121-1G58	4121-1G58N
1 1/4-12UNF	4121-1G2	4121-1G2N
1 5/16-12UN	4121-5E512	4121-5E512N

CERAMIC MEASURING BALLS

INSPECTION CERTIFICATE

4190-40D000

- Zirconia material, high strength and hardness, extremely wear resistance and corrosion resistance, good insulation, antistatic and magnetic resistance
- Mirror surface without holes
- Supplied with manufacturer inspection certificate

Individual

Code	Diameter	Accuracy	Roundness
4190-1D000	1.000mm	±2μm	0.5μm
4190-1D200	1.200mm	±2μm	0.5μm
4190-1D300	1.300mm	±2μm	0.5μm
4190-1D340	1.340mm	±2μm	0.5μm
4190-1D500	1.500mm	±2μm	0.5μm
4190-1D588	1.588mm (1/16")	±2μm	0.5μm
4190-1D750	1.750mm	±2μm	0.5μm
4190-2D000	2.000mm	±2μm	0.5μm
4190-2D381	2.381mm (3/32")	±2μm	0.5μm
4190-2D500	2.500mm	±2μm	0.5μm
4190-2D778	2.778mm (7/64")	±2μm	0.5μm
4190-3D000	3.000mm	±2μm	0.5μm
4190-3D175	3.175mm (1/8")	±2μm	0.5μm
4190-3D500	3.500mm	±2μm	0.5μm
4190-3D969	3.969mm (5/32")	±2μm	0.5μm
4190-4D000	4.000mm	±2μm	0.5μm
4190-4D500	4.500mm	±2μm	0.5μm
4190-4D763	4.763mm (3/16")	±2μm	0.5μm
4190-5D000	5.000mm	±2μm	0.5μm
4190-5D556	5.556mm (7/32")	±2μm	0.5μm
4190-5D953	5.953mm (15/64")	±2μm	0.5μm
4190-6D000	6.000mm	±2μm	0.5μm
4190-6D350	6.350mm (1/4")	±2μm	0.5μm
4190-6D500	6.500mm	±2μm	0.5μm
4190-6D747	6.747mm (17/64")	±2μm	0.5μm
4190-7D000	7.000mm	±2μm	0.5μm
4190-7D144	7.144mm (9/32")	±2μm	0.5μm
4190-7D500	7.500mm	±2μm	0.5μm
4190-7D938	7.938mm (5/16")	±2μm	0.5μm
4190-8D000	8.000mm	±2μm	0.5μm
4190-8D731	8.731mm (11/32")	±2μm	0.5μm

Individual

Code	Diameter	Accuracy	Roundness
4190-9D525	9.525mm (3/8")	±2μm	0.5μm
4190-10D000	10.000mm	±2μm	0.5μm
4190-10D318	10.318mm (13/32")	±2μm	0.5μm
4190-11D000	11.000mm	±2μm	0.5μm
4190-11D113	11.113mm (7/16")	±2μm	0.5μm
4190-11D509	11.509mm (29/64")	±2μm	0.5μm
4190-11D906	11.906mm (15/32")	±2μm	0.5μm
4190-12D000	12.000mm	±2μm	0.5μm
4190-12D303	12.303mm (31/64")	±2μm	0.5μm
4190-12D700	12.700mm (1/2")	±2μm	0.5μm
4190-13D000	13.000mm	±2μm	0.6μm
4190-13D494	13.494mm (17/32")	±2μm	0.6μm
4190-14D000	14.000mm	±2μm	0.6μm
4190-14D288	14.288mm (9/16")	±2μm	0.6μm
4190-15D000	15.000mm	±2μm	0.6μm
4190-15D081	15.081mm (19/32")	±2.5μm	0.6μm
4190-15D875	15.875mm (5/8 ")	±2.5μm	0.6μm
4190-16D000	16.000mm	±2.5μm	0.6μm
4190-16D669	16.669mm (21/32")	±2.5μm	0.6μm
4190-17D462	17.462mm (11/16")	±2.5μm	0.6μm
4190-18D000	18.000mm	±2.5μm	0.6μm
4190-18D256	18.256mm (23/32")	±2.5μm	0.6μm
4190-19D050	19.050mm (3/4")	±2.5μm	0.6μm
4190-19D844	19.844mm (25/32")	±2.5μm	0.6μm
4190-20D000	20.000mm	±2.5μm	0.6μm
4190-22D000	22.000mm	±2.5μm	1μm
4190-22D225	22.225mm (7/8")	±2.5μm	1μm
4190-23D812	23.812mm (15/16")	±2.5μm	1μm
4190-25D000	25.000mm	±2.5μm	1μm
4190-40D000	40.000mm	±2.5μm	1.5μm

Set (25 pairs)

Code	Ceramic balls included (one pair per size)
4190-S25	1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 6, 6.5, 7, 7.5, 8, 10, 11, 12, 13, 14, 15, 16, 18, 20, 22, 25mm

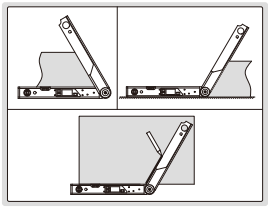
WATERPROOF DIGITAL PROTRACTOR (HEAVY DUTY)

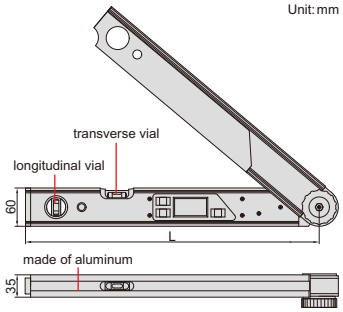
ABSOLUTE LEVEL

AUTOMATIC BACKLIGHT

IP54 WATERPROOF

2174-225



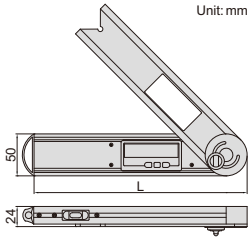


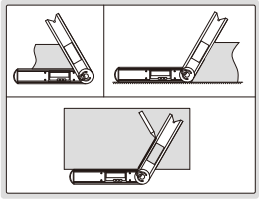
- Suitable for setting horizontal and vertical mitre angles of cutting machine
- Buttons: ON/OFF, HOLD/SUP, SPR/CNR/MTR/BVL
- IP54 dust/waterproof
- With transverse and longitudinal vials
- 2xAAA batteries
- Absolute level, zero setting is not needed when batteries are replaced
- Backlight turns off in one minute after no data changing, automatic power off in 5 minutes

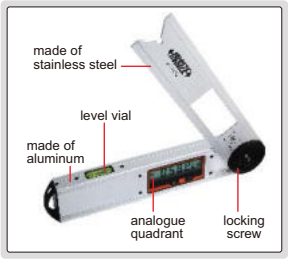
Code	Size (L)	Range	Resolution	Accuracy
2174-225	460mm	0-225°	0.05°	±0.10°

DIGITAL PROTRACTOR

2171-250



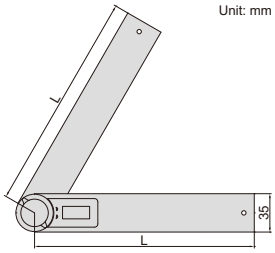




- Buttons: on/off, hold (keep the reading), zero, ABS (absolute and incremental measurement)
- Fix the locking screw at 4 positions for different measuring ranges: 0°~225°, -225°~0°, -45°~180°, -180°~45°
- Remove the locking screw for 360° range
- With level vial
- Battery CR2032
- Automatic power off

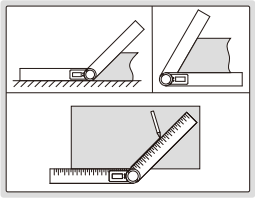
Code	Size (L)	Range	Resolution	Accuracy
2171-250	250mm	0-360°	0.05°	±0.15°

DIGITAL PROTRACTORS



2176-200

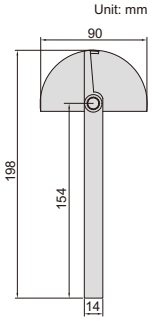
- Resolution: 0.1°
- Buttons: on/off, zero
- With clamping screw to lock the blades
- Graduation of blade: 1mm and 1/32"
- Made of stainless steel
- CR2032 battery, automatic power off



Code	Size (L)	Range	Accuracy
2176-200	200mm	0-360°	±0.3°
2176-300	300mm	0-360°	±0.3°

PROTRACTOR (ECONOMIC TYPE)

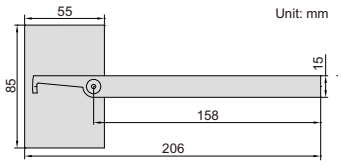
4780-85A



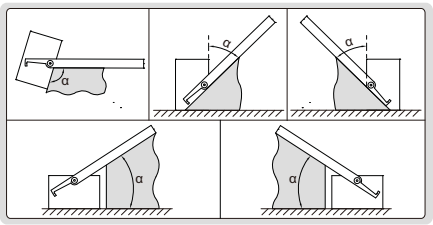
- Made of stainless steel
- With clamping screw

Code	Size	Range	Graduation	Accuracy
4780-85A	90x154mm	0-180°	1°	±0.5°

PROTRACTOR



4781-85A

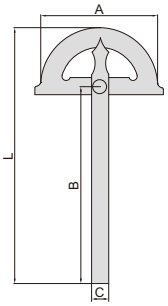


- Made of stainless steel
- Satin chrome plated scale
- With clamping screw

Code	Size	Range	Graduation	Accuracy
4781-85A	85x158mm	0-180°	1°	±0.3°

PROTRACTORS

4799-180



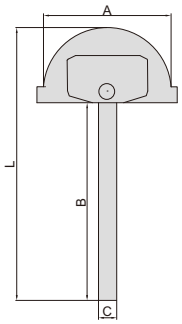
- Made of stainless steel (**4799-1300** is made of carbon steel)
- Satin chrome plated scale
- With clamping screw

Code	Size (AxB)	Range	Accuracy	Graduation	L	C
4799-180	80x120mm	0-180°	±0.3°	1°	168mm	11mm
4799-1120	120x150mm	0-180°	±0.3°	1°	220mm	14mm
4799-1150	150x200mm	0-180°	±0.3°	1°	285mm	16mm
4799-1200	200x300mm	0-180°	±0.3°	1°	413mm	20mm
4799-1300	300x500mm	0-180°	±0.3°	1°	675mm	30mm

DIGITAL PROTRACTORS

ATTENTION: NO DATA OUTPUT

4779-120



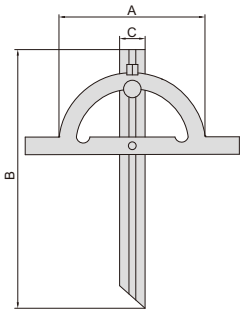
the reading can turn over

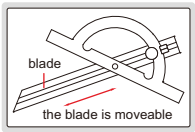
- Range: 0-180°
- Buttons: on/off, zero, hold/turn
- Made of stainless steel
- With clamping screw

Code	Size (AxB)	Resolution	Accuracy	L	C
4779-120	120×150mm	0.05°	±0.3°	220mm	22mm
4779-150	150×200mm	0.05°	±0.3°	285mm	22mm
4779-200	200×300mm	0.05°	±0.3°	409mm	22mm

PROTRACTORS

4797-100





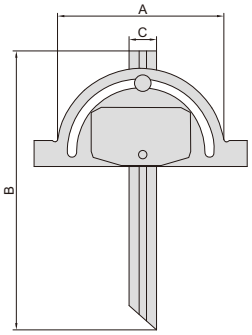
- Graduation: 1°
- Made of carbon steel
- Satin chrome plated
- With clamping screw
- The blade is moveable

Code	Size (AxB)	Range	Accuracy	C
4797-100	100x150mm	10-170°	±0.3°	18mm
4797-150	150x300mm	10-170°	±0.3°	22mm
4797-200	200x400mm	10-170°	±0.3°	24mm
4797-250	250x500mm	10-170°	±0.3°	28mm
4797-300	300x600mm	10-170°	±0.3°	32mm

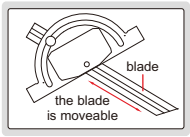
DIGITAL PROTRACTORS

ATTENTION: NO DATA OUTPUT

4778-100



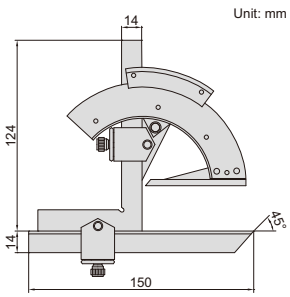
the reading can turn over



- Range: 0-180°
- Buttons: on/off, zero, hold/turn
- Made of stainless steel
- With clamping screw
- The blade is moveable

Code	Size (AxB)	Resolution	Accuracy	C
4778-100	100x150mm	0.05°	±0.3°	22mm
4778-150	150x300mm	0.05°	±0.3°	22mm
4778-200	200x400mm	0.05°	±0.3°	24mm

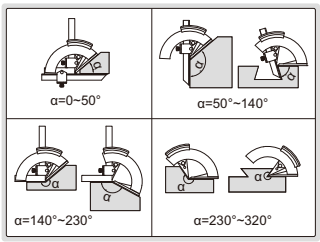
PROTRACTOR



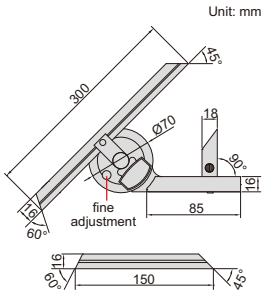
2374-320

- Made of stainless steel
- Satin chrome plated scale

Code	Range	Graduation	Accuracy
2374-320	0 - 320°	2'	±2'

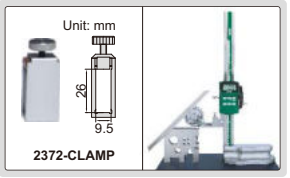


UNIVERSAL PROTRACTOR



2372-360

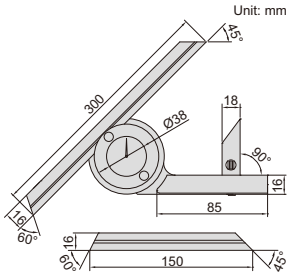
clamp for height gages **(optional)**



- Parallax-free reading
- Made of stainless steel
- Optional accessory: clamp (code **2372-CLAMP**), suitable for height gages **1156, 1150-300, 1351, 1151** and **1250**

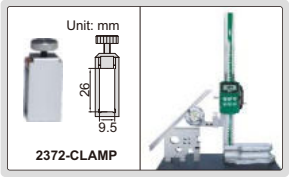
Code	Range	Graduation	Accuracy
2372-360	0 - 360°	5'	±5'

DIAL PROTRACTOR



2373-360

clamp for height gages **(optional)**



- Made of stainless steel
- Optional accessory: clamp (code **2372-CLAMP**), suitable for height gages **1156,1150-300, 1351, 1151** and **1250**

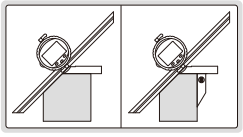
Code	Range	Graduation	Accuracy
2373-360	0 - 360°	5'	±5'

DIGITAL PROTRACTOR

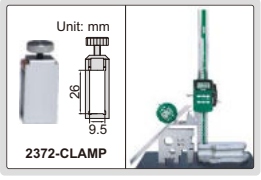
VIDEO

DATA OUTPUT

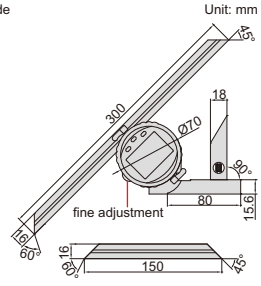
- Display in degree (for example 32.655°) and degree/minute/second (for example 32°39'30")
- SET button: preset the reading, change measuring direction
- MODE button: choose 0~90°, 0~180° or 0~360° display
- ZERO/ON/OFF button: zero and power on/off
- Battery CR2032, automatic power off
- Data output
- Supplied with square to set 90°
- Made of stainless steel
- Optional accessory: data output cable (code **7315-50**, **7302-SPC3B**), clamp (code **2372-CLAMP**), suitable for height gages **1156**, **1150-300**, **1351**, **1151** and **1250**



clamp for height gages **(optional)**



2172-360A



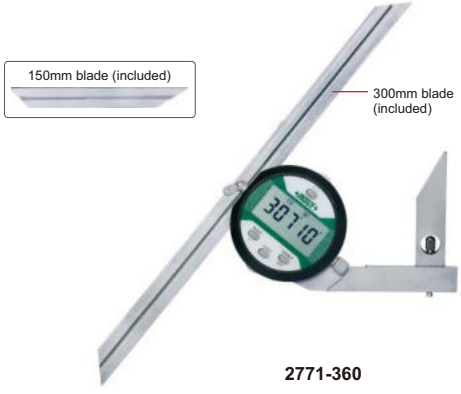
Code	Range	Resolution	Accuracy
2172-360A	0-360°	10"/0.005°	±5'

DIGITAL PROTRACTOR (BASIC TYPE)

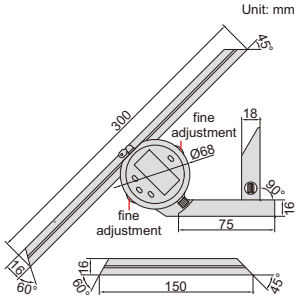
ABSOLUTE ZERO

DATA OUTPUT

- Absolute zero, zero setting is not needed when batteries are replaced
- Button function: choose 0~90°, 0-180° or 0-360° display, change resolution, display flips over, data hold, zero, on/off supplementary angle measurement
- Battery CR2032, automatic power off
- Data output
- Made of stainless steel
- Optional square for zero setting
- Optional accessory: clamp (code **2372-CLAMP**), suitable for height gages **1156**, **1150-300**, **1351**, **1250** and **1151**, data output cable (code **7315-2771**, **7302-50M**)



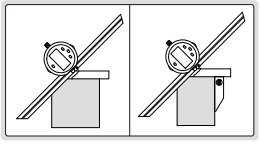
2771-360



Code	Range	Resolution	Accuracy
2771-360	0-360°	1'/0.01°	±5'

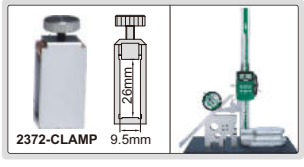
Square (for zero setting, optional)

Code
2771-S90



square **(optional)**

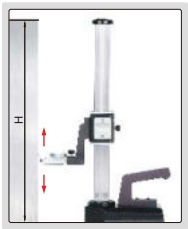
clamp for height gages **(optional)**



PERPENDICULARITY TESTERS

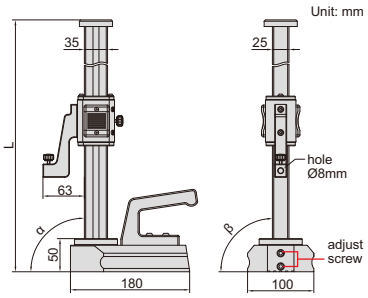
VIDEO

- Optional accessory: dial test indicators (graduation: 1µm or 2µm)



Code	Range (H)	Perpendicularity (α)	Side perpendicularity (β)	L
4770-300	0-300mm	3µm	10µm	460mm
4770-600	0-600mm	5µm	20µm	760mm

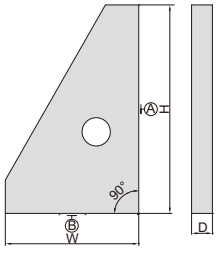
4770-300



GRANITE SQUARES

CUSTOM-MADE
SUPPLY SPECIAL SIZES ACCORDING TO CUSTOMER'S REQUEST

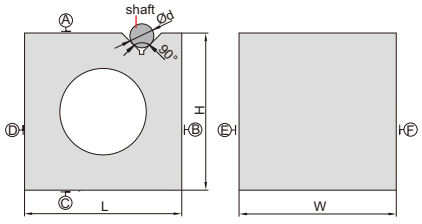
4141-250



Code	Size (HxW)	Flatness of A	Flatness of B	Squareness of A to B	D
4141-250	250x160mm	1µm	1µm	2µm	25mm
4141-400	400x250mm	1.5µm	1µm	3µm	40mm
4141-630	630x400mm	2µm	1.5µm	4µm	63mm

GRANITE SQUARE WITH V GROOVE

4142-200



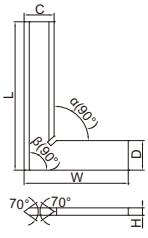
- Parallelism and squareness of A, B, C, D, E and F: 6µm
- Parallelism and squareness of V groove to A, B, C, D, E and F: 6µm

Code	Size (LxWxH)	Range of shaft (Ød)
4142-200	200x200x200mm	9-70mm

90° BEVELED EDGE SQUARES

- Satin chrome plating
- Beveled edges for inside and outside measurement
- Made of hardened stainless steel

4790-0100



DIN875 grade 00 (mm)

Code	Size (LxW)	Squareness		C	D	H
		Inside (α)	Outside (β)			
4790-050	50x40mm	2.4µm	2.5µm	13	13	4
4790-075	75x50mm	2.6µm	2.8µm	15	15	4
4790-0100	100x70mm	2.8µm	3.0µm	20	20	5
4790-0150	150x100mm	3.2µm	3.5µm	30	30	6
4790-0200	200x130mm	3.7µm	4.0µm	34	34	7
4790-0300	300x200mm	4.6µm	5.0µm	40	40	8

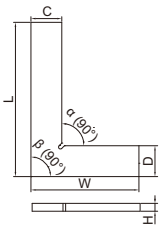
DIN875 grade 0 (mm)

Code	Size (LxW)	Squareness		C	D	H
		Inside (α)	Outside (β)			
4790-500	50x40mm	6µm	6µm	13	13	4
4790-750	75x50mm	6µm	7µm	15	15	4
4790-1000	100x70mm	7µm	7µm	20	20	5
4790-1500	150x100mm	7µm	8µm	30	30	6
4790-2000	200x130mm	8µm	9µm	34	34	7
4790-3000	300x200mm	10µm	11µm	40	40	8

90° FLAT EDGE SQUARES

- Made of hardened stainless steel

4791-100



DIN875 grade 0 (mm)

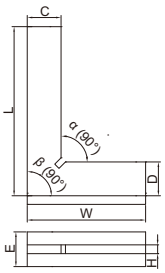
Code	Size (LxW)	Squareness		C	D	H
		Inside (α)	Outside (β)			
4791-50	50x40mm	6µm	6µm	15	15	4
4791-75	75x50mm	6µm	7µm	15	15	4
4791-100	100x70mm	7µm	7µm	20	20	5
4791-150	150x100mm	7µm	8µm	30	30	6
4791-200	200x130mm	8µm	9µm	30	30	7
4791-250	250x165mm	9µm	10µm	35	35	7
4791-300	300x200mm	10µm	11µm	40	40	8

DIN875 grade 1 (mm)

Code	Size (LxW)	Squareness		C	D	H
		Inside (α)	Outside (β)			
4791-501	50x40mm	12µm	13µm	15	15	4
4791-751	75x50mm	13µm	14µm	15	15	4
4791-1001	100x70mm	14µm	15µm	20	20	5
4791-1501	150x100mm	16µm	18µm	30	30	6
4791-2001	200x130mm	19µm	20µm	30	30	6

90° FLAT EDGE SQUARES WITH WIDE BASE

4793-100



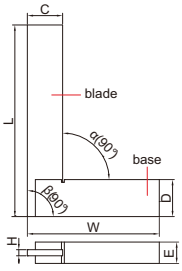
- DIN875 grade 0
- Made of hardened stainless steel

(mm)

Code	Size (LxW)	Squareness		C	D	H	E
		Inside (α)	Outside (β)				
4793-50	50x40mm	6μm	6μm	13	13	4	13
4793-75	75x50mm	6μm	7μm	15	15	4	15
4793-100	100x70mm	7μm	7μm	20	20	5	20
4793-150	150x100mm	7μm	8μm	30	30	6	30
4793-200	200x130mm	8μm	9μm	30	30	7	30
4793-250	250x165mm	9μm	10μm	35	35	7	35
4793-300	300x200mm	10μm	11μm	40	40	8	40

MACHINIST SQUARES WITH WIDE BASE (ECONOMIC TYPE)

ATTENTION: NO ANTI-RUST TREATMENT, NOT HARDEND



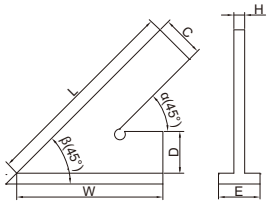
- DIN875 grade 2
- Made of carbon steel, no anti-rust treatment, not hardend

4707-100

(mm)

Code	Size (LxW)	Squareness		C	D	H	E
		Inside (α)	Outside (β)				
4707-50	50x40mm	24μm	25μm	16	12	3	9
4707-75	75x50mm	26μm	28μm	16	16	3	9
4707-100	100x70mm	28μm	30μm	19	19	3	12
4707-150	150x100mm	33μm	35μm	25	25	3	16
4707-200	200x130mm	37μm	40μm	30	32	4	16
4707-250	250x165mm	42μm	45μm	30	32	4	19
4707-300	300x200mm	47μm	50μm	32	32	4	19
4707-400	400x250mm	56μm	60μm	38	38	5	22
4707-500	500x300mm	65μm	70μm	45	50	6	25
4707-600	600x350mm	75μm	80μm	50	50	6	30
4707-750	750x400mm	90μm	95μm	55	55	6	50
4707-900	900x500mm	103μm	110μm	65	75	9	50
4707-1000	1000x550mm	113μm	120μm	65	75	9	50

45° SQUARES WITH WIDE BASE



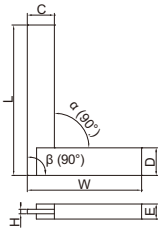
4747-150

- Made of hardened stainless steel

(mm)

Code	Size (LxW)	Accuracy		C	D	H	E
		Inside (α)	Outside (β)				
4747-150	150x100mm	32μm	36μm	20	20	5	20
4747-200	200x130mm	36μm	41μm	25	25	5	25

90° FLAT EDGE SQUARES WITH WIDE BASE



- DIN875 grade 0
- Made of hardened stainless steel

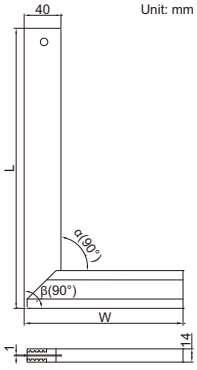
4792-100

(mm)

Code	Size (LxW)	Squareness		C	D	H	E
		Inside (α)	Outside (β)				
4792-50	50x40mm	6μm	6μm	12	12	3	10
4792-75	75x50mm	6μm	7μm	14	14	3	10
4792-100	100x70mm	7μm	7μm	18	18	3	10
4792-150	150x100mm	8μm	8μm	22	22	4	12
4792-200	200x130mm	9μm	9μm	25	25	4	12

TRY SQUARE

2275-300



- Graduation: 1mm
- Stainless steel blade, aluminum base

Code	Size (LxW)	Squareness	
		Inside (α)	Outside (β)
2275-300	300x170mm	0.5mm	0.5mm

STRAIGHT EDGES

- DIN874
- Beveled edge
- Made of hardened stainless steel
- Satin chrome plating

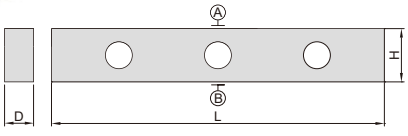
4700-100

(mm)

Code	Size (L)	Straightness	W	H
4700-100	100mm	2.4μm	5	25
4700-150	150mm	2.6μm	6	30
4700-200	200mm	2.8μm	6	30
4700-300	300mm	3.2μm	8	40

GRANITE STRAIGHT EDGES

4147-500A



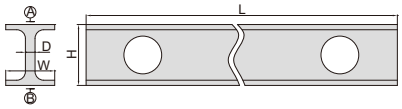
Code	Length (L)	Flatness of A and B	Parallelism between A and B	D	H
4147-500A	500mm	2.1μm	3.2μm	50mm	80mm
4147-1000A	1000mm	3.0μm	4.5μm	60mm	120mm

MAGNALIUM STRAIGHT EDGES

LIGHT WEIGHT

4180-1500

- Made of magnalium, light weight, non-deform, no rusty

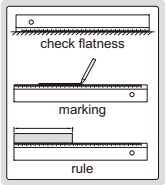


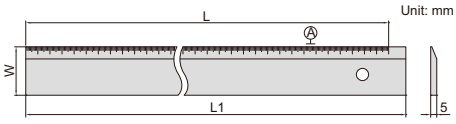
(mm)

Code	Length (L)	Flatness of A and B	Parallelism between A and B	H	W	D	Weight
4180-500	500mm	3μm	4μm	60	30	5	1kg
4180-1000	1000mm	5μm	8μm	60	30	5	1.5kg
4180-1500	1500mm	15μm	22μm	100	40	7	4.5kg
4180-2000	2000mm	18μm	27μm	100	40	7	6kg
4180-3000	3000mm	48μm	72μm	150	80	8	21kg

STRAIGHT EDGES

7111-300A





- Check flatness and straightness, as well as for marking
- Graduation on the beveled edge
- Made of hardened tool steel
- Chrome plated

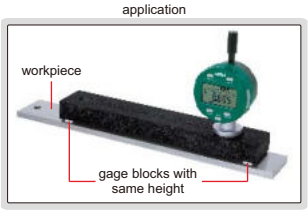
Code	Range (L)	Straightness of A	L1	W
7111-300A	300mm	0.02mm	310mm	40mm
7111-500A	500mm	0.03mm	510mm	40mm

STRAIGHTNESS/FLATNESS GAGE

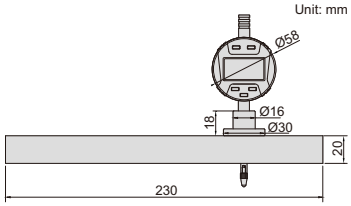
VIDEO

DATA OUTPUT

GRANITE HOLDER CAN BE CUSTOMIZED ACCORDING TO WORKPIECES



2144-200



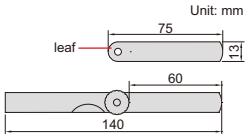
- Optional accessory: data output cable (code **7315-50M, 7302-40M**)

Code	Range	Digital indicator resolution	Straightness measurement accuracy	Parallelism of top and botton surfaces of granite holder	Flatness of top and botton surfaces of granite holder
2144-200	200mm	0.001mm/0.00005"	3μm	2μm	1.5μm

FEELER GAGE

- Range: 0.04-1.00mm
- Made of hardened alloy steel
- Meet DIN2275/grade TC1
- Accuracy: ±(3+T/80) μm, 'T' is the thickness of leaves in μm

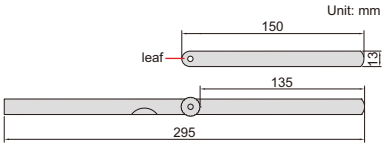
4601-25



Code	Thickness of leaves included (mm)	Quantity of leaves
4601-25	0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00	25

LONG FEELER GAGE

4605-20



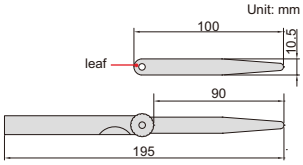
- Range: 0.05-1.00mm
- Made of hardened alloy steel
- Meet DIN2275/grade TC1
- Accuracy: ±(3+T/80) μm, 'T' is the thickness of leaves in μm

Code	Thickness of leaves included (mm)	Quantity of leaves
4605-20	0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00	20

FEELER GAGES

- Made of hardened alloy steel
- Meet DIN2275/grade TC1
- Accuracy: ±(3+T/80) µm,
  'T' is the thickness of leaves in µm

4602-20

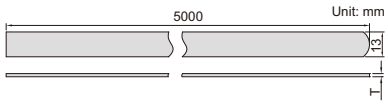


Code	Range	Thickness of leaves included (mm)	Quantity of leaves
4602-13A	0.03-0.50mm	0.03, 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.15, 0.20, 0.30, 0.40, 0.50	13
4602-13	0.05-1.00mm	0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.40, 0.50, 0.60, 0.70, 0.80, 0.90, 1.00	13
4602-17	0.02-1.00mm	0.02, 0.03, 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.15, 0.20, 0.25, 0.30, 0.40, 0.50, 0.75, 1.00	17
4602-20	0.05-1.00mm	0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00	20
4602-32	0.03-1.00mm	0.03, 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.13, 0.15, 0.18, 0.20, 0.23, 0.25, 0.28, 0.30, 0.33, 0.35, 0.38, 0.40, 0.45, 0.50, 0.55, 0.60, 0.63, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 1.00	32

FEELER GAGE TAPES

- Used as shims to accurately set spacing
- Made of hardened alloy steel
- Length 5m
- Width 13mm

4621-30

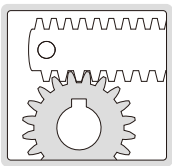


Code	Thickness (T)	Accuracy
4621-02	0.02mm	±4µm
4621-03	0.03mm	±4µm
4621-04	0.04mm	±4µm
4621-05	0.05mm	±4µm
4621-06	0.06mm	±4µm
4621-07	0.07mm	±5µm
4621-08	0.08mm	±5µm
4621-09	0.09mm	±5µm
4621-10	0.10mm	±5µm

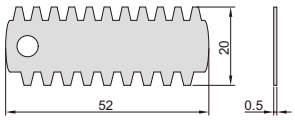
Code	Thickness (T)	Accuracy
4621-12	0.12mm	±5µm
4621-15	0.15mm	±6µm
4621-18	0.18mm	±7µm
4621-20	0.20mm	±8µm
4621-25	0.25mm	±9µm
4621-30	0.30mm	±9µm
4621-35	0.35mm	±11µm
4621-40	0.40mm	±12µm
4621-45	0.45mm	±12µm

Code	Thickness (T)	Accuracy
4621-50	0.50mm	±14µm
4621-55	0.55mm	±14µm
4621-60	0.60mm	±14µm
4621-65	0.65mm	±14µm
4621-70	0.70mm	±17µm
4621-75	0.75mm	±17µm
4621-80	0.80mm	±19µm
4621-90	0.90mm	±22µm

GEAR TOOTH PITCH GAGES



4860-245



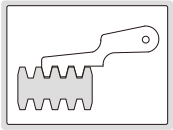
- Accuracy: ±0.05mm
- Check the module pitch of gear tooth
- Made of hardened stainless steel

Code	Range	Pressure angle	Quantity of leaves
4860-145	0.35-4.5mm	14.5°	15
4860-245	0.35-4.5mm	20°	15
4860-112	5-12mm	14.5°	8
4860-212	5-12mm	20°	8

PITCH GAGE

4824-12

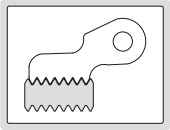
- Accuracy: ±0.07mm
- Check the pitch of screw thread
- Made of medium carbon steel



Code	Range	Thread type	Pitch of leaves included	Quantity of leaves
4824-12	2-20mm	Tr30°	2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 16, 20mm	12

PITCH GAGES

4820-124



- Identify the pitch of screw thread
- Made of medium carbon steel

Metric 60° screw

Code	Range	Pitch of leaves included	Quantity of leaves
4820-124	0.25-7mm	0.25, 0.3, 0.35, 0.4, 0.5, 0.7, 0.75, 0.8, 0.9, 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7mm	24

Unified 60° screw

Code	Range	Pitch of leaves included	Quantity of leaves
4820-230	4-42TPI	4, 4-1/2, 5, 5-1/2, 6, 7, 8, 9, 10, 11, 11-1/2, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42TPI	30

Metric 60° and Whitworth 55° screw

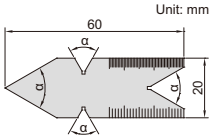
Code	Range	Pitch of leaves included	Quantity of leaves
4820-452	0.25-6mm	0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6mm	52
	4-62TPI	4, 4-1/2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 19, 20, 22, 24, 25, 26, 28, 30, 32, 36, 40, 48, 60, 62TPI	

Metric 60° and Unified 60° screw

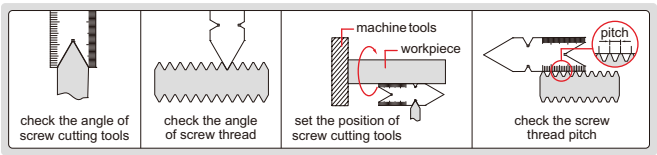
Code	Range	Pitch of leaves included	Quantity of leaves
4820-552	0.4-7mm	0.4, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7mm	52
	4-42TPI	4, 4-1/2, 5, 5-1/2, 6, 7, 8, 9, 10, 11, 11-1/2, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42TPI	

CENTER GAGES

4810-601



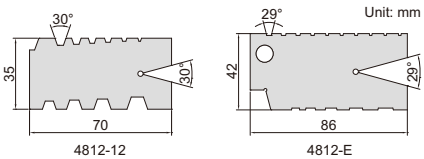
- To check and set screw cutting tools, and check the angle and pitch of screw thread
- Angle accuracy: ±30min.
- Made of stainless steel



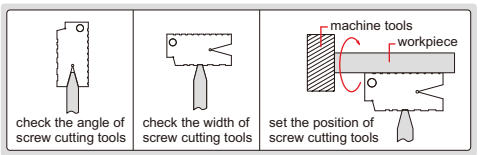
Code	Thread type	Angle (α)	Graduation
4810-601	METRIC 60°	60°	0.5mm and 1mm
4810-55	WHITWORTH 55°	55°	14ths and 20ths on front side, 24ths and 32ths on back side

THREAD GAGES

4812-E



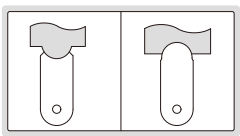
- To check and set screw cutting tools
- Made of medium carbon steel



Code	Range	Thread type	Pitch
4812-12	2-12mm	Tr 30°	2, 3, 4, 5, 6, 7, 8, 9, 10, 12mm
4812-E	1-10TPI	ACME 29°	1, 1-1/3, 1-1/2, 1-3/4, 2, 2-1/2, 3, 4, 5, 6, 7, 8, 9, 10TPI

RADIUS GAGES

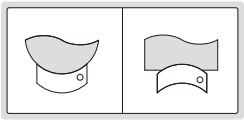
4801-17



- Made of carbon steel

Code	Range	Radius of leaves included (mm)	Quantity of leaves (internal+external)
4801-17	1-7mm	1, 1.25, 1.5, 1.75, 2, 2.25, 2.5, 2.75, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7	17+17
4801-16	7.5-15mm	7.5, 8, 8.5, 9, 9.5, 10, 10.5, 11, 11.5, 12, 12.5, 13, 13.5, 14, 14.5, 15	16+16
4801-15	15.5-25mm	15.5, 16, 16.5, 17, 17.5, 18, 18.5, 19, 19.5, 20, 21, 22, 23, 24, 25	15+15

RADIUS GAGE

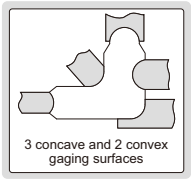


4802-31

- Made of stainless steel

Code	Range	Radius of leaves included (mm)	Quantity of leaves
4802-31	25-40mm	25, 25.5, 26, 26.5, 27, 27.5, 28, 28.5, 29, 29.5, 30, 30.5, 31, 31.5, 32, 32.5, 33, 33.5, 34, 34.5, 35, 35.5, 36, 36.5, 37, 37.5, 38, 38.5, 39, 39.5, 40	31 pcs

RADIUS GAGE SET

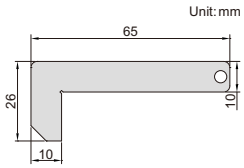


4804-26

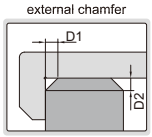
- Each piece has 3 concave and 2 convex gaging surfaces
- Supplied with handle
- Made of medium carbon steel

Code	Range	Radius of leaves included (mm)	Quantity of leaves
4804-26	0.5-13mm	0.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10, 10.5, 11, 11.5, 12, 12.5, 13	26

CHAMFER GAGE

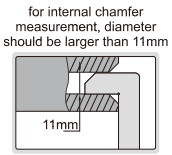


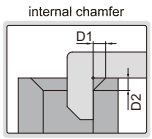
4844-1



- Accuracy: ±0.25mm
- To measure internal and external chamfers
- Made of stainless steel

Code	Graduation
4844-1	0.5mm

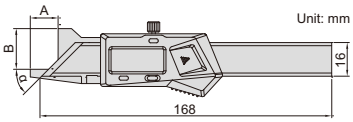


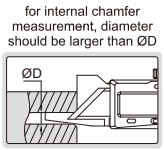


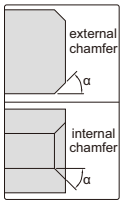
DIGITAL CHAMFER GAGES

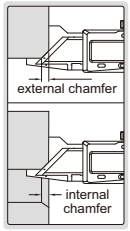
DATA OUTPUT

1180-6







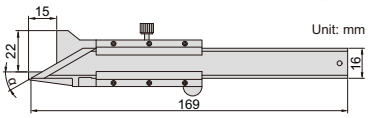


- Measure 30º/45º/60º chamfer dimension
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)

Code	Range	Accuracy	Chamfer (α)	A	B	ØD
1180-6	0-10mm/0-0.39"	±0.06mm	45º	15mm	22mm	7mm
1180-63	0-10mm/0-0.39"	±0.06mm	30º	15mm	22mm	8mm
1180-66	0-10mm/0-0.39"	±0.06mm	60º	14mm	21mm	7mm

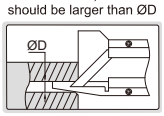
CHAMFER GAGES

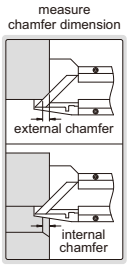
1267-6



- Measure 30º/45º/60º chamfer dimension
- Accuracy: ±0.06mm
- Graduation: 0.02mm
- Made of stainless steel
- Satin chrome plated reading surface

Code	Range	Chamfer (α)	ØD
1267-6	0-10mm	45º	7mm
1267-63	0-10mm	30º	8mm
1267-66	0-10mm	60º	7mm





DIGITAL CHAMFER GAGES

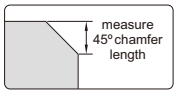
VIDEO

DATA OUTPUT

ATTENTION: THE ACTUAL LENGTH IS 1.414 TIMES OF THE READING

ATTENTION: CHAMFER OF HOLES CANNOT BE MEASURED

- Measure 45º chamfer length
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Supplied with pin gage for zero setting

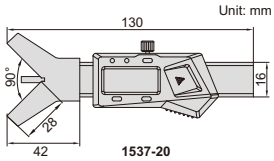


Code	Range	Accuracy
1537-20	0-20mm/0-0.787"	±0.05mm
1537-8	0-8mm/0-0.315"	±0.05mm

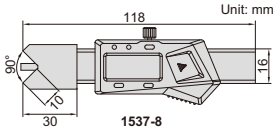
1537-8 can measure small workpieces or workpieces with steps

pin gage (included)

1537-20



1537-8

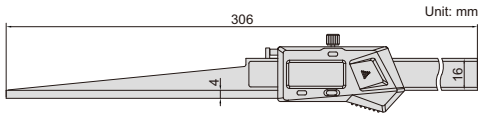


DIGITAL TAPER SLOT GAGE

DATA OUTPUT

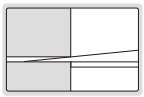
ATTENTION: ACTUAL SLOT WIDTH IS 1/10 OF THE READING

1160-10



- Measuring opening, slot width
- Resolution: 0.01mm/0.0005"
- Accuracy: ±0.03mm
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)

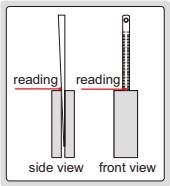
measure slot width



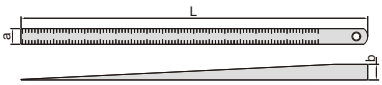
Code	Range
1160-10	0.2-10mm/0.01-0.39"

TAPER SLOT GAGES

4630-1



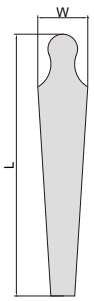
- For quick measurement of slot width
- Satin chrome plated reading surface
- Made of stainless steel



(mm)

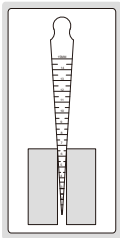
Code	Range	Graduation	Accuracy	L	a	b
4630-3	0.4-6mm	0.05mm	±0.04mm	164	12.5	6.5
4630-1	0.5-10mm	0.05mm	±0.07mm	220	10	10.5
4630-2	0.5-15mm	0.1mm	±0.08mm	184	12.5	16.5

TAPER GAGES

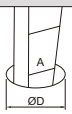


4833-2

measure slot width



measure diameter of hole



when measuring diameter of holes, correction on reading is needed due to the thickness of taper gage. For example, when reading A is 14.96mm, diameter ØD is 15mm.

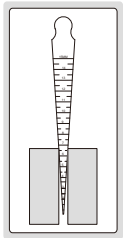
- Measure opening, slot width, hole diameter, etc.
- Diameter correction table on the back (only for **4833-1**, **4833-2**)
- Made of stainless steel

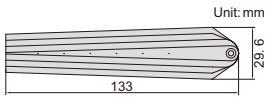
Code	Range	Graduation	Accuracy	L	W
4833-1	0.8-15mm	0.1mm	±0.05mm	146mm	17mm
4833-2	15-30mm	0.1mm	±0.05mm	159mm	30.4mm
4833-3	30-45mm	0.1mm	±0.05mm	166mm	45.4mm
4833-4	45-60mm	0.1mm	±0.05mm	170mm	60.5mm

TAPER GAGE SET

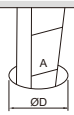
4837-1

measure slot width





measure diameter of hole



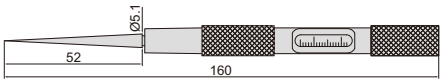
when measuring diameter of holes, correction on reading is needed due to the thickness of taper gage. For example, when reading A is 14.96mm, diameter ØD is 15mm.

- Include 4pcs (1-8mm, 8-15mm, 15-22mm, 22-29mm)
- Measure opening, slot width, hole diameter, etc.
- Diameter correction table on the back
- Made of stainless steel

Code	Range	Graduation	Accuracy
4837-1	1-29mm	0.05mm	±0.05mm

SMALL TAPER BORE GAGE

4855-5



- Quick measurement of small bore diameter
- Hardened working face
- Supplied with protection cap

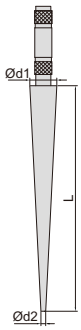
supplied with protection cap

Code	Range	Graduation	Accuracy
4855-5	0.1-5mm	0.01mm	±0.03mm

TAPER BORE GAGES

- Graduation: 0.1mm
- Accuracy: ±0.05mm
- Quick measurement of bore diameter
- Hardened steel, HRC50-58
- Satin chrome plated surface
- Aluminium oxided handle

4852-3

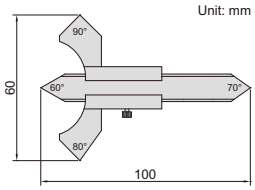


(mm)

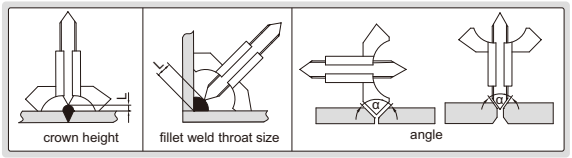
Code	Range	L	Ød1	Ød2
4852-1	1-6.5mm	62.5	7	0.8
4852-3	3-16mm	143	17	2.8
4852-15	15-30mm	165	31	14.7
4852-30	30-45mm	165	46	29.6

WELDING GAGE

4830



- Made of stainless steel
- Satin chrome plated reading surface

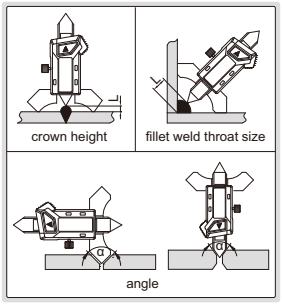


Code	Measurement	Range	Graduation	Accuracy
4830	crown height	0-8mm	0.1mm	±0.1mm
	fillet weld throat size	0-20mm	0.1mm	±0.3mm
	angle	60°, 70°, 80°, 90°	—	±1°

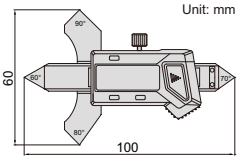
DIGITAL WELDING GAGE

ATTENTION: NO DATA OUTPUT

- Buttons: zero, mm/inch, on/off
- Battery LR44
- Made of stainless steel



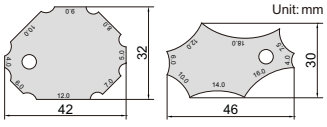
4831-20A

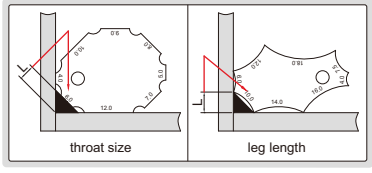


Code	Measurement	Range	Resolution	Accuracy
4831-20A	crown height	0-7mm	0.01mm/0.0005"	±0.03mm
	fillet weld throat size	0-20mm	0.01mm/0.0005"	±0.1mm
	angle	60°, 70°, 80°, 90°	—	±1°

FILLET WELDING GAGE

4832-1



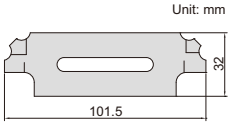


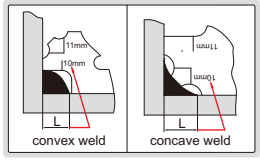
- Made of stainless steel
- Sizes marked on both faces

Code	Throat size (mm)	Leg length (mm)	Accuracy
4832-1	4, 5, 6, 7, 8, 9, 10, 12	4, 6, 7.5, 10, 12, 14, 16, 18	±0.5mm

FILLET WELDING GAGE

4836-1



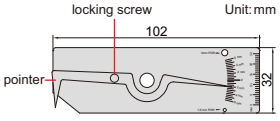


- Measure concave and convex weld sizes
- 7 blades are included
- Made of stainless steel

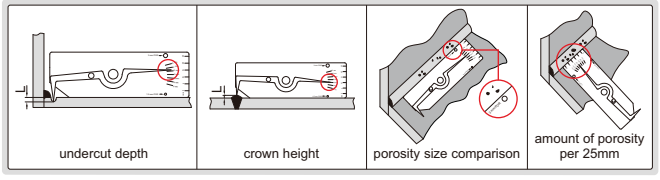
Code	Size (mm)	Accuracy
4836-1	3, 4, 5, 6, 8, 9, 10, 11, 12, 14, 16, 19, 22, 25	±0.5mm

WELDING GAGE

4834-1



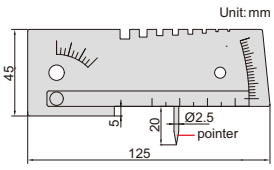
- Pointer can be locked for later reference
- Made of stainless steel

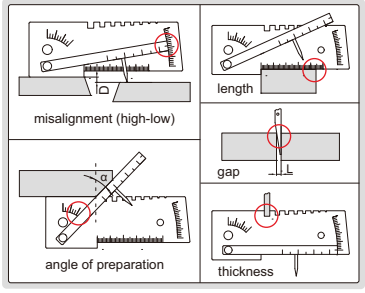


Code	Measurement	Range	Graduation	Accuracy
4834-1	undercut depth	0-6mm	0.5mm	±0.5mm
	crown height	0-6mm	0.5mm	±0.5mm
	porosity size comparison	1.5mm, 3mm	—	±0.2mm
	amount of porosity per 25mm	25mm	1mm	—

WELDING GAGE

4848-1

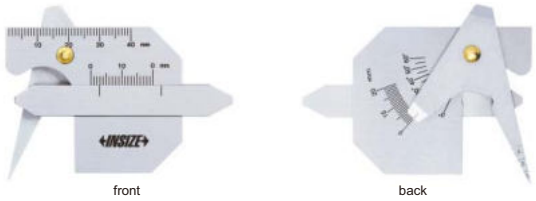




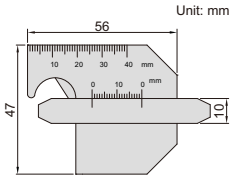
- Made of stainless steel

Code	Measurement	Range	Graduation	Accuracy
4848-1	misalignment (high-low)	-5mm~+15mm	1mm	±0.5mm
	angle of preparation	0°-45°	5°	±2.5°
	length	0-50mm	1mm	±0.5mm
	gap	1-4mm	0.5mm	±0.25mm
	thickness	1, 1.2, 2.0, 2.5, 3.0, 3.25, 4.0, 5.0mm	—	±0.1mm

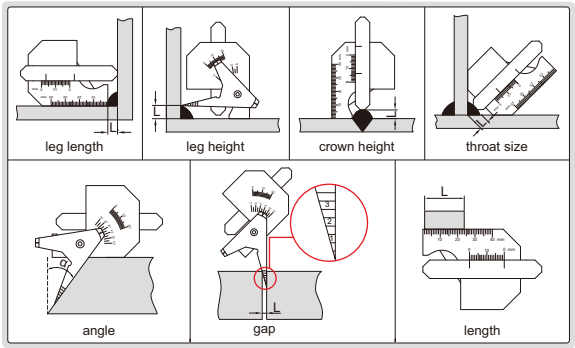
WELDING GAGE



6832-1



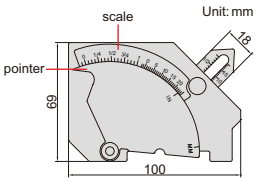
- Made of stainless steel
- Satin chrome plated surface

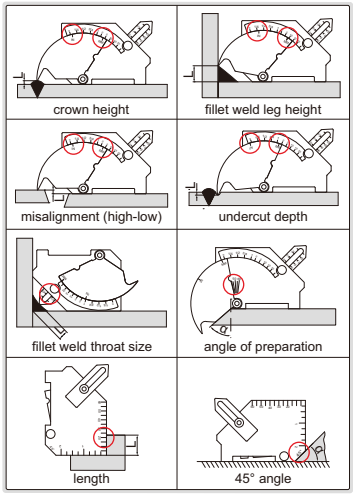


Code	Measurement	Range	Graduation	Accuracy
6832-1	leg length	0-20mm	1mm	±0.3mm
	leg height	0-20mm	1mm	±0.3mm
	crown height	0-20mm	1mm	±0.3mm
	throat size	0-10mm	1mm	±0.3mm
	angle	0°-60°	5°	±1°
	gap	1-3.5mm	0.5mm	±0.2mm
	length	0-40mm	1mm	±0.3mm

WELDING GAGE

4835-1



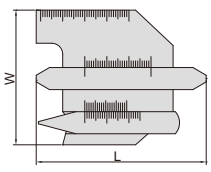


- Adjustable scale to compensate pointer wear
- Made of stainless steel

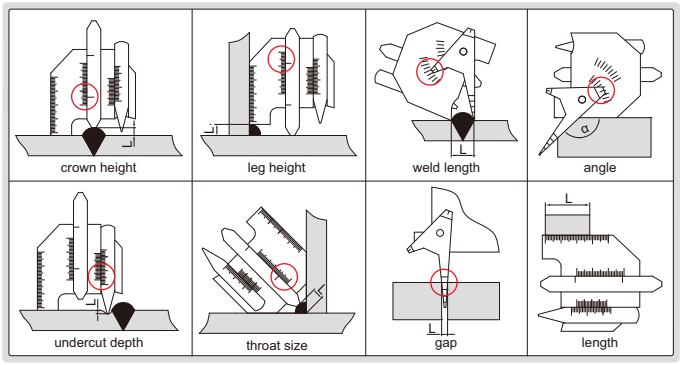
Code	Measurement	Range	Graduation	Accuracy
4835-1	crown height	0-25mm (0-1")	1mm (1/16")	±0.5mm
	fillet weld leg height	0-25mm (0-1")	1mm (1/16")	±0.5mm
	misalignment (high-low)	0-25mm (0-1")	1mm (1/16")	±0.5mm
	undercut depth	0-2mm (0-1/8")	1mm (1/16")	±0.5mm
	fillet weld throat size	0-20mm (0-3/4")	1mm (1/16")	±0.5mm
	angle of preparation	0-60°	5°	±1°
	length	0-60mm (0-2")	1mm (1/16")	±0.5mm
	45° angle	—	—	±1°

WELDING GAGE

4838-1



- Made of stainless steel

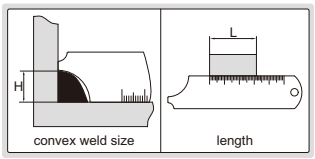


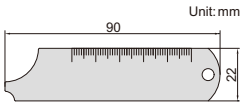
Code	Measurement	Range	Graduation	Accuracy	LxW
4838-1	crown height	0-10mm	1mm	±0.5mm	62x77mm
	leg height	0-14mm	1mm	±0.5mm	
	undercut depth	0-5mm	0.05mm	±0.05mm	
	throat size	0-13mm	1mm	±0.5mm	
	weld length	0-40mm	1mm	±1mm	
	angle	90°-150°	5°	±1°	
	gap	0.5-5mm	1mm	±0.5mm	
	length	0-40mm	1mm	±0.5mm	

FILLET WELDING GAGE

- Measure convex weld sizes
- 3 blades are included
- Made of stainless steel

4847-1



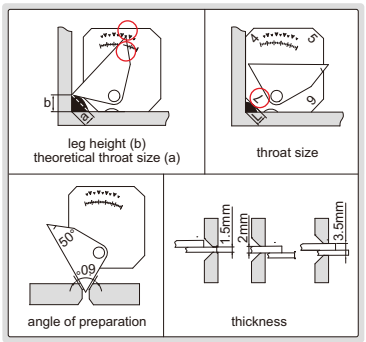


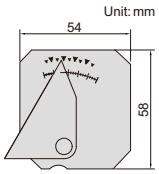
Code	Measurement	Range	Graduation	Accuracy
4847-1	convex weld size	4, 6, 8, 10, 12, 14mm	—	±0.5mm
	length	0-50mm	1mm	±0.5mm

WELDING GAGE

4850-1

- Made of stainless steel

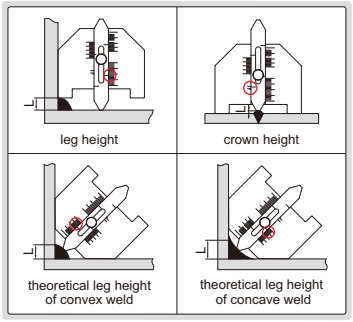




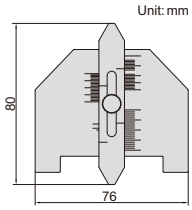
Code	Measurement	Range	Graduation	Accuracy
4850-1	leg height (b)	0-18mm	1mm	±0.5mm
	theoretical throat size (a)	2-12mm	1mm	±0.5mm
	throat size	4, 5, 6, 7mm	—	±0.5mm
	angle of preparation	50°, 60°	—	±1°
	thickness	1.5, 2, 3.5mm	—	±0.2mm

WELDING GAGE

- Accuracy: ±0.5mm
- Made of stainless steel



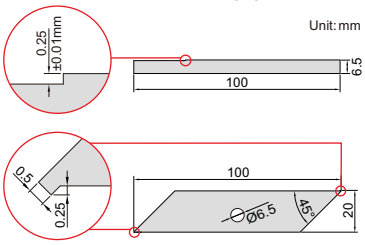
4851-1



Code	Measurement	Range	Graduation
4851-1	leg height	0-20mm	1mm
	crown height	0-3mm	—
	theoretical leg height of convex weld	0-20mm	1mm
	theoretical leg height of concave weld	0-20mm	1mm

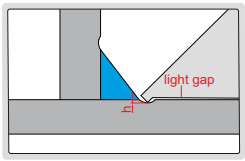
WELDING UNDERCUT GAGE

4849-1



calibration block (included)

application

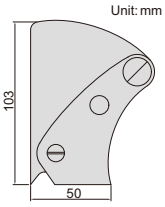


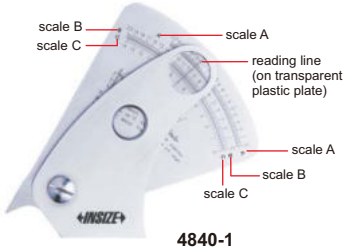
when there is a light gap, h<0.25mm;
when there is no light gap, h≥0.25mm

Code
4849-1

- Measure undercut
- Calibration block is included
- Made of stainless steel

WELDING GAGE

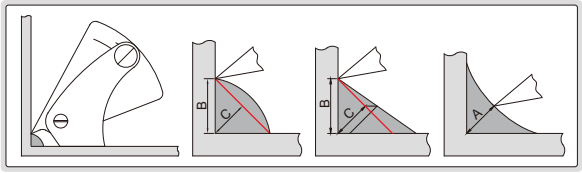




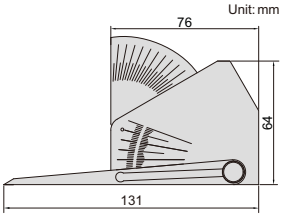
4840-1

- Made of stainless steel

Code	Graduation	Accuracy
4840-1	0.2mm	±0.3mm

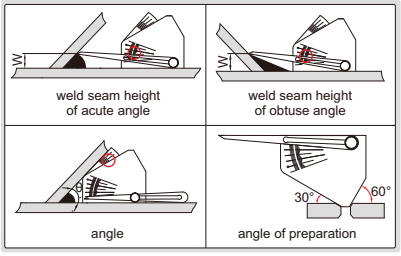


FILLET WELDING GAGE

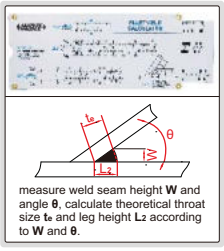


4846-1

- Calculating card is included
- Made of stainless steel



calculating card (included)

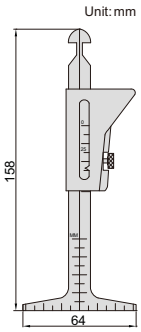


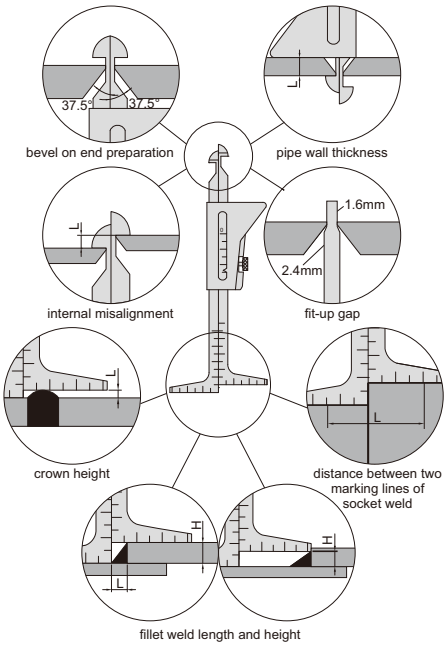
Code	Measurement	Range	Graduation	Accuracy
4846-1	weld seam height **W**	0-50mm/0-2"	2mm/.050"	±1mm
	angle **θ**	30°~90°	2.5°	±1°
	60° angle	—	—	±0.5°

PIPE WELDING GAGE

- Made of stainless steel

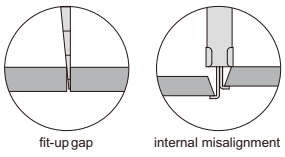
4839-1



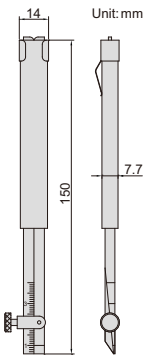


Code	Measurement	Range	Graduation	Accuracy
4839-1	bevel on end preparation	37.5°	—	±1°
	pipe wall thickness	0-45mm (0~1-3/4")	1mm (1/16")	±0.5mm
	internal misalignment	0-35mm (0~1-3/8")	1mm (1/32")	±0.5mm
	fit-up gap	1.6mm, 2.4mm	—	±0.1mm
	crown height	0-35mm (0~1-3/8")	1mm (1/32")	±0.5mm
	distance between two marking lines of socket weld	0-60mm (0~2-3/8")	1mm (1/16")	±0.5mm
	fillet weld length	0-30mm (0~1-1/4")	1mm (1/16")	±0.5mm
	fillet weld height	0-35mm (0~1-3/8")	1mm (1/32")	±0.5mm

PIPE WELDING GAGE



4841-1



- Made of stainless steel

Code	Measurement	Range	Graduation	Accuracy
4841-1	internal misalignment	0-30mm	1mm	±0.5mm
	fit-up gap	0.7-4mm	0.1mm	±0.1mm

6-PIECE WELDING GAGE SET

- Includes:
  1) Welding gage (code **4834-1**)
  2) Fillet welding gage, size 3~25mm, 7 blades (code **4836-1**)
  3) Pipe welding gage (code **4841-1**)
  4) Telescoping inspection mirror, size of mirror Ø32mm, length 178~505mm (code **7160-1**)
  5) Pocket rule with sliding clip, range 150mm/6", graduation 1mm, 1/64" (code **7119-150**)
  6) LED flashlight (code **ISGF-0501**)

5064

Code
5064

7-PIECE WELDING GAGE SET

- Includes:
  1) Welding gage (code **4834-1**)
  2) Welding gage (code **4851-1**)
  3) Fillet welding gage, size 3~25mm, 7 blades (code **4836-1**)
  4) Outside micrometer, range 0-25mm, graduation 0.01mm (code **3203-25A**)
  5) Digital caliper, range 0-150mm/0-6", resolution 0.01mm/0.005" (code **1108-150**)
  6) Pocket rule with sliding clip, range 150mm/6", graduation 1mm, 1/64" (code **7119-150**)
  7) Magnifier with illumination, magnification 4X (code **7513-4**)

5072

Code
5072

7-PIECE WELDING GAGE SET

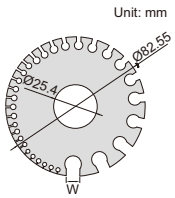
- Includes:
  1) Welding gage (code **4834-1**)
  2) Welding gage (code **4851-1**)
  3) Pipe welding gage (code **4839-1**)
  4) Outside micrometer, range 0-25mm, graduation 0.01mm (code **3203-25A**)
  5) Telescoping inspection mirror, size of mirror Ø32mm, length 178~505mm (code **7160-1**)
  6) Magnifier with illumination, magnification 4X (code **7513-4**)
  7) Steel rule, range 150mm/6", graduation 0.5mm, 1mm, 1/64", 1/32", 1/16" (code **7110-150**)

5071

Code
5071

AMERICAN STANDARD WIRE GAGE

4808



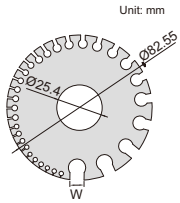
No.	W	No.	W
0	8.250mm/0.3249"	18	1.020mm/0.0403"
1	7.350mm/0.2893"	19	0.912mm/0.0359"
2	6.540mm/0.2576"	20	0.813mm/0.0320"
3	5.830mm/0.2294"	21	0.724mm/0.0285"
4	5.190mm/0.2043"	22	0.643mm/0.0253"
5	4.620mm/0.1819"	23	0.574mm/0.0226"
6	4.110mm/0.1620"	24	0.511mm/0.0201"
7	3.670mm/0.1443"	25	0.440mm/0.0179"
8	3.260mm/0.1285"	26	0.404mm/0.0159"
9	2.910mm/0.1144"	27	0.361mm/0.0142"
10	2.590mm/0.1019"	28	0.320mm/0.0126"
11	2.300mm/0.0907"	29	0.287mm/0.0113"
12	2.050mm/0.0808"	30	0.254mm/0.0100"
13	1.820mm/0.0720"	31	0.226mm/0.0089"
14	1.630mm/0.0641"	32	0.203mm/0.0080"
15	1.450mm/0.0571"	33	0.180mm/0.0071"
16	1.290mm/0.0508"	34	0.160mm/0.0063"
17	1.150mm/0.0453"	35	0.142mm/0.0056"
		36	0.127mm/0.0050"

- For gaging non-ferrous wire and metals such as copper, brass and aluminum
- Hardened to HRC50-57

Code	Range
4808	0-36 (8.250-0.127mm/0.3249-0.0050")

U.S. STANDARD SHEET METAL GAGE

4809

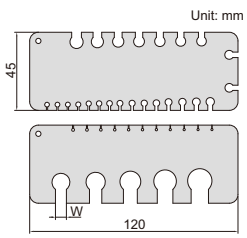


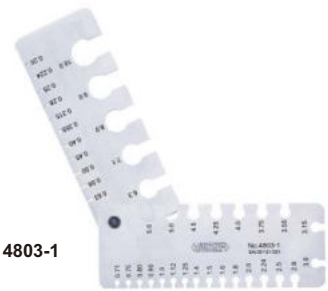
No.	W	No.	W
0	7.938mm/0.3125"	18	1.270mm/0.0500"
1	7.144mm/0.2813"	19	1.111mm/0.0438"
2	6.747mm/0.2656"	20	0.953mm/0.0375"
3	6.350mm/0.2500"	21	0.873mm/0.0344"
4	5.953mm/0.2344"	22	0.794mm/0.0313"
5	5.556mm/0.2188"	23	0.714mm/0.0281"
6	5.159mm/0.2031"	24	0.635mm/0.0250"
7	4.763mm/0.1875"	25	0.556mm/0.0219"
8	4.366mm/0.1719"	26	0.476mm/0.0188"
9	3.969mm/0.1563"	27	0.437mm/0.0172"
10	3.572mm/0.1406"	28	0.397mm/0.0156"
11	3.175mm/0.1250"	29	0.357mm/0.0141"
12	2.778mm/0.1094"	30	0.318mm/0.0125"
13	2.381mm/0.0938"	31	0.278mm/0.0109"
14	1.984mm/0.0781"	32	0.258mm/0.0102"
15	1.786mm/0.0703"	33	0.238mm/0.0094"
16	1.588mm/0.0625"	34	0.218mm/0.0086"
17	1.429mm/0.0563"	35	0.198mm/0.0078"
		36	0.179mm/0.0070"

- For gaging sheet metal, plate iron and steel
- Hardened to HRC50-57

Code	Range
4809	0-36 (7.938-0.179mm/0.3125-0.0070")

WIRE GAGE





4803-1

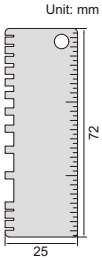
- For gaging non-ferrous wire and metals such as copper, brass and aluminum
- Hardened to HRC51-53
- Including 2 pcs wire gages

Code	Range
4803-1	0.2-10mm

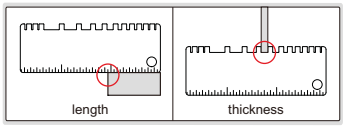
wire diameter (W)	wire diameter (W)	wire diameter (W)
0.200mm	0.900mm	3.55mm
0.224mm	1.000mm	3.75mm
0.250mm	1.120mm	4.00mm
0.280mm	1.250mm	4.25mm
0.315mm	1.400mm	4.50mm
0.355mm	1.500mm	5.00mm
0.400mm	1.60mm	5.60mm
0.450mm	1.80mm	6.30mm
0.500mm	2.00mm	7.10mm
0.560mm	2.24mm	8.00mm
0.630mm	2.50mm	9.00mm
0.710mm	2.80mm	10.00mm
0.750mm	3.00mm	
0.800mm	3.15mm	

THICKNESS GAGE

4853-1



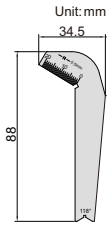
- Made of stainless steel



Code	Measurement	Range	Graduation	Accuracy
4853-1	length	0-2 3/4"	1/16"	1/32"
	thickness	24GA. (0.0239"), 22GA. (0.0299"), 20GA.(0.0359")	—	±0.002"
		18GA. (0.0478"), 16GA. (0.0598"), 14GA. (0.0747"), 1/8" (0.125"),10GA. (0.1345"), 3/16" (0.1875"), 1/4" (0.250"), 5/16" (0.3125")		±0.004"
		0.024", 0.030", 0.035"		±0.002"

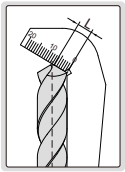
DRILL POINT GAGE

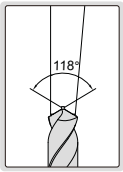
4843-1



- For twist drills with 118° angle, to check if the center of tip is concentric with the drill body
- Made of stainless steel

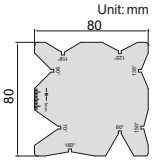
Code	Accuracy	
	Angle	Length
4843-1	±0.5°	±0.5mm





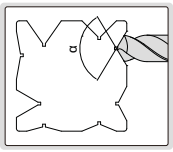
DRILL ANGLE GAGE

4842-1



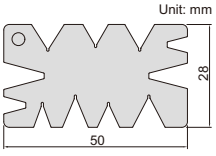
- Check drills with angle 60°, 70°, 90°, 118°, 125°, 135°, 150° or 160°
- Made of stainless steel

Code	Accuracy
4842-1	±0.5°



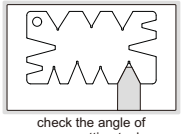
ANGLE GAGE

4854-1



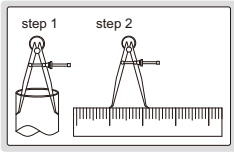
- Made of stainless steel

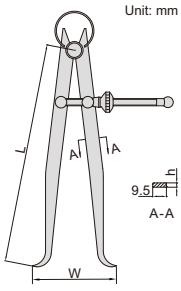
Code	Range	Accuracy
4854-1	29°, 30°, 40°, 45°, 50°, 55°, 60°	±10'



check the angle of screw cutting tools

INSIDE SPRING CALIPERS





7261-150

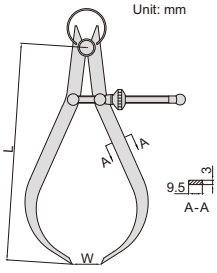
- Made of carbon steel

Code	Size (L)	Range (W)	h
7261-150	150mm	17-150mm	2mm
7261-200	200mm	17-200mm	3mm
7261-300	300mm	18-300mm	3mm

tips

OUTSIDE SPRING CALIPERS

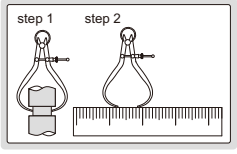
tips



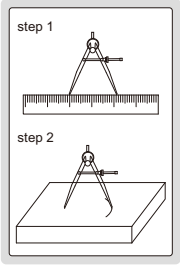
- Made of carbon steel

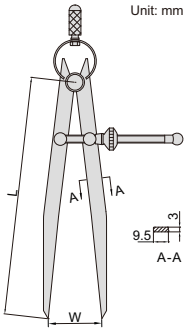
7262-150

Code	Size (L)	Range (W)
7262-150	155mm	0-140mm
7262-200	210mm	0-210mm
7262-250	265mm	0-270mm
7262-300	310mm	0-320mm



SPRING DIVIDERS





7260-150

Code	Size (L)	Range (W)
7260-150	150mm	0-150mm
7260-200	200mm	0-210mm
7260-250	245mm	0-260mm
7260-300	300mm	0-320mm

- Made of carbon steel
- Hardened points

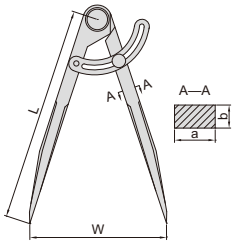
DIVIDERS

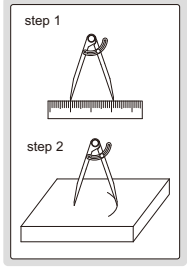
- Made of carbon steel
- Hardened points

(mm)

Code	Size (L)	Range (W)	a	b
7247-150	150mm	0-140mm	8.5	7
7247-200	200mm	0-190mm	10	7
7247-300	300mm	0-290mm	12	7

7247-150



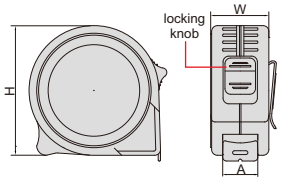


MEASURING TAPES

EG II

7140-5

graduation



- Non-glare nylon surface for wear resistance

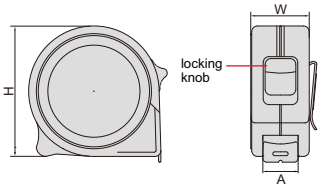
Code	Range	Graduation	Width of tape A	W	H
7140-3	0-3m	1mm	16mm	28mm	62mm
7140-5	0-5m	1mm	19mm	30mm	68mm
7140-8	0-8m	1mm	25mm	38mm	78mm

MEASURING TAPE (BASIC TYPE)

EG II

7142-5

- Non-glare nylon coating tape, wear resistance

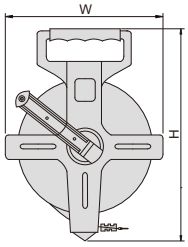


graduation

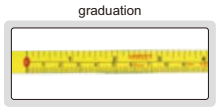
Code	Range	Graduation	Width of tape A	W	H
7142-5	0-5m/0-16ft	1mm, 1/16"	19mm	31mm	64mm

LONG MEASURING TAPE

EG II



graduation

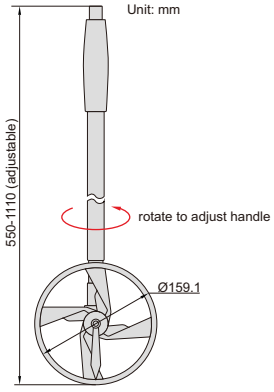


- High tensile strength fibreglass tape
- Nylon coating tape, wear resistance

7143-50

Code	Range	Graduation	Width of tape	W	H
7143-50	0-50m/0-165ft	1mm, 1/8"	13mm	220mm	320mm

MEASURING WHEEL (BASIC TYPE)



- ABS plastic frame, wear-resistant PU tire
- Three-section adjustable handle

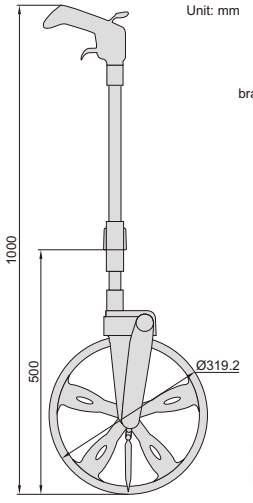
7144-1

Code	Range	Resolution
7144-1	0.1-9999.9m	0.1m

MEASURING WHEEL

after folding

backpack (included)



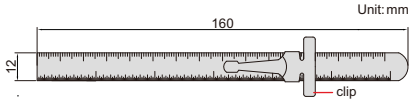
- ABS plastic frame, wear-resistant PU tire
- Two-section foldable handle

Code	Range	Resolution
7145-1	0.1-9999.9m	0.1m

7145-1

POCKET RULE WITH SLIDING CLIP

7119-150

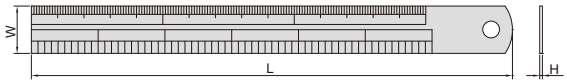


- With sliding clip, clip also can be used as depth gage base
- Inch/metric conversion table on the back
- Made of stainless steel

Code	Range	Graduation	Accuracy
7119-150	150mm/6"	1mm, 1/64"	±0.15mm

STEEL RULES

7110-300



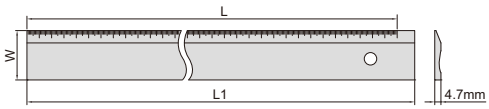
- Graduation: 0.5mm, 1mm, 1/64", 1/32", 1/16"
- Rigid rules
- Made of stainless steel
- Non-glare surface

(mm)

Code	Range	Accuracy	L	W	H	Remark
7110-150	150mm/6"	±0.18mm	170	18	1.0	graduation on front and back
7110-200	200mm/8"	±0.18mm	220	18	1.0	graduation on front and back
7110-300	300mm/12"	±0.27mm	330	25	1.0	graduation on front and back
7110-3001	300mm/12"	±0.27mm	325	30	1.0	graduation on front and back
7110-500	500mm/20"	±0.27mm	530	30	1.2	graduation on front and back
7110-600	600mm/24"	±0.45mm	630	30	1.2	graduation on front and back
7110-1000	1000mm/40"	±0.45mm	1040	32	1.5	graduation on front and back
7110-1500	1500mm/60"	±0.63mm	1550	38	1.8	graduation on front
7110-2000	2000mm/80"	±0.80mm	2065	40	2.0	graduation on front

ALUMINUM RULES

7123-300

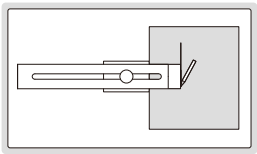


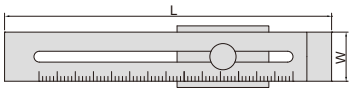
- Made of aluminum, oxidized surface

Code	Range (L)	Accuracy	Graduation	L1	W
7123-300	300mm	±0.5mm	1mm	321mm	50mm
7123-600	600mm	±0.9mm	1mm	624mm	50mm
7123-1000	1000mm	±0.9mm	1mm	1024mm	50mm

MARKING GAGES

7120-200A



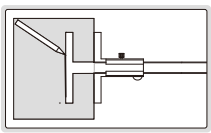


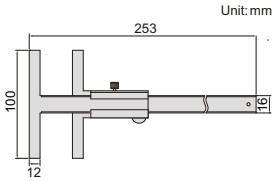
- Made of carbon steel
- Satin chrome plated

Code	Range	Graduation	Accuracy	L	W
7120-200A	0-200mm	0.1mm	±0.1mm	250mm	40mm
7120-250A	0-250mm	0.1mm	±0.1mm	300mm	40mm
7120-300A	0-300mm	0.1mm	±0.1mm	350mm	40mm

T-SHAPE MARKING GAGE

1275-150B



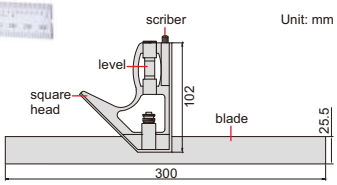


- Made of stainless steel
- Satin chrome plated reading surface

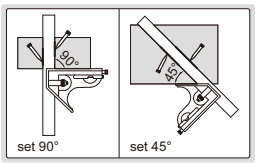
Code	Range	Graduation	Accuracy
1275-150B	0-150mm	0.02mm	±0.04mm

COMBINATION SQUARE (ECONOMIC TYPE)

2276-300



- Square head (made of zinc): to set the blade at 90° or 45° to an edge of a workpiece accuracy: ±0.5°
- Blade (made of stainless steel): range: 300mm/12", graduation: 1mm and 1/32" on front face,1mm and 1/16" on back face



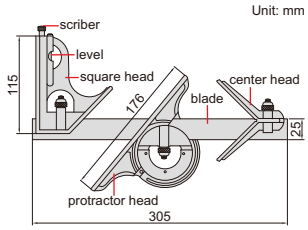
Code
2276-300

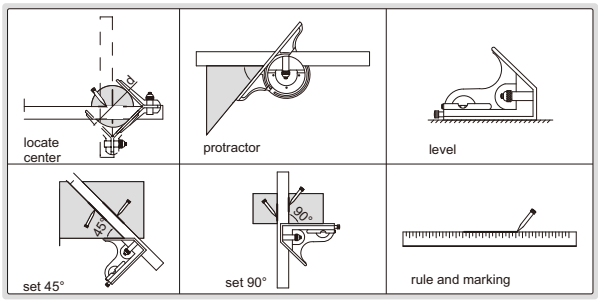
COMBINATION SQUARE SETS

- Center head (made of cast iron): to locate center of cylinder with diameter (Ød): 30-100mm accuracy: ±0.15mm
- Protractor head (made of cast iron): to set the blade at desired angle to an edge of a workpiece, and can be used to measure angles range: 0-180°, accuracy: ±20min.
- Square head (made of cast iron): to set the blade at 90° or 45° to an edge of a workpiece accuracy: ±8min for 90° square, ±10min for 45° square
- Blade (made of stainless steel): range: 300mm/12", graduation: 0.5mm and 1/32" on front face, 1mm and1/64" on back face
- Optional accessory: rigid rule (code **7113**)

2278-2

2278-180

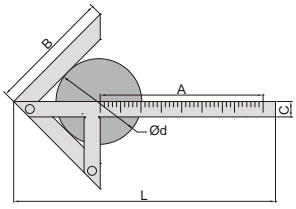


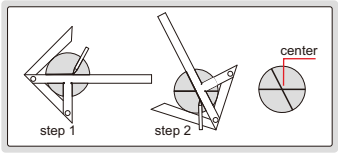


Code	Remark
2278-2	2-piece set
2278-180	4-piece set

CENTER MARKING GAGES

7205-100



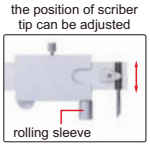


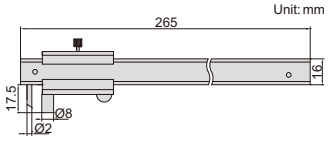
- Accuracy: ±0.15mm
- Marking the center of round plates and shafts
- Made of stainless steel
- Satin chrome plated

Code	Size (AxB)	Diameter of shafts (Ød)	C	L
7205-100	100x70mm	4-90mm	12mm	153mm
7205-150	150x130mm	4-190mm	15mm	245mm
7205-200	200x150mm	6-220mm	15mm	310mm

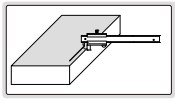
SCRIBER CALIPER

7202-200A





- Graduation: 0.1mm, 1/128"
- Made of stainless steel
- Satin chrome plated reading surface
- Carbide scriber tip
- Optional accessory: carbide scriber tip (code **SP-SCRIBER-7202**)

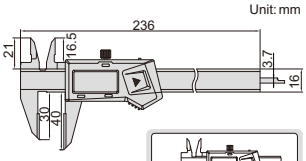


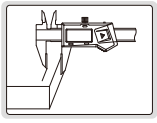
Code	Range	Accuracy
7202-200A	0-200mm/0-8"	±0.1mm

DIGITAL SCRIBING CALIPER

DATA OUTPUT

1166-150A



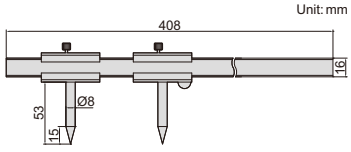


- The carbide-tipped jaws facilitate scribing on workpieces
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)

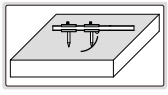
Code	Range	Accuracy	Resolution
1166-150A	0-150mm/0-6"	±0.03mm	0.01mm/0.0005"

SCRIBING CALIPER

7203-300A



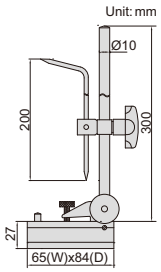
- Made of stainless steel
- Satin chrome plated reading surface
- Hardened scriber tips



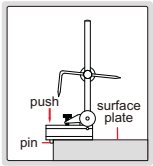
Code	Range	Accuracy	Graduation
7203-300A	51-300mm	±0.1mm	0.1mm

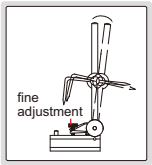
HEIGHT SCRIBER

- Grooved bottom for cylinder
- Two pins to be set against the edge of surface plate



6990-300A





Code
6990-300A

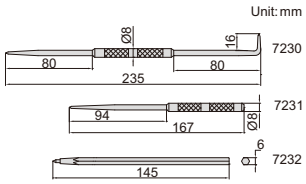
SCRIBERS

7230

7231

7232

- **7230** and **7231** are nickel plated, **7232** is zinc-plated



Code	Tip
7230	hardened tips
7231	hardened tip
7232	carbide tip

PRECISION SCREWDRIVER SET CODE ISGF-0901

ISGF-0901

packaging

- Includes:
  4 pcs "–": 1.4mm, 2.0mm, 2.4mm, 3.0mm
  2 pcs "+": 0#, 1#
- Rotating cap
- Material: CRV, hardness: HRC52~56

2-PIECE MEASURING TOOL SET

- Includes:
  1) Digital caliper, range 0-150mm/0-6", resolution 0.01mm/0.0005" without thumb roller (code **1108-150W**)
  2) Digital outside micrometer, range 0-25mm/0-1", resolution 0.001mm/0.00005" (code **3109-25A**)

5022-W

Code
5022-W

2-PIECE MEASURING TOOL SET

- Includes:
  1) Dial test indicator, range 0.8mm, graduation 0.01mm (code **2380-08**)
  2) Magnetic stand

5023

Code
5023

2-PIECE MEASURING TOOL SET

- Includes:
  1) Dial indicator, range 10mm, graduation 0.01mm (code **2308-10A**)
  2) Magnetic stand (code **6201-60**)

5024

Code
5024

4-PIECE MEASURING TOOL SETS

- Includes:
  1) Vernier caliper, range 0-150mm/0-6" graduation 0.05mm/1/128" (code **1205-150S**) for **5041**, graduation 0.02mm/0.001" (code **1205-1502S**) for **5041-2**
  2) Outside micrometer, range 0-25mm, graduation 0.01mm (code **3202-25A**)
  3) 90° beveled edge square, 100x70mm, grade 0 (code **4790-1000**)
  4) Steel rule, 150mm/6" (code **7110-150**)

5041

Code	Remark
5041	vernier caliper, graduation 0.05mm/1/128" (code **1205-150S**)
5041-2	vernier caliper, graduation 0.02mm/0.001" (code **1205-1502S**)

4-PIECE MEASURING TOOL SET

5042-W

- Includes:
  1) Digital caliper, range 0-150mm/0-6", resolution 0.01mm/0.0005" without thumb roller (code **1108-150W**)
  2) Outside micrometer, range 0-25mm, graduation 0.01mm, (code **3202-25A**)
  3) 90° beveled edge square, 100x70mm, grade 0 (code **4790-1000**)
  4) Steel rule, 150mm/6" (code **7110-150**)

Code
5042-W

6-PIECE MEASURING TOOL SETS

- Includes:
  1) Vernier caliper, range 0-150mm/0-6" graduation 0.05mm/1/128" (code **1205-150S**) for **5063**, graduation 0.02mm/0.001" (code **1205-1502S**) for **5063-2**
  2) Outside micrometer, range 0-25mm graduation 0.01mm (code **3202-25A**)
  3) 90° beveled edge square, 100x70mm grade 00 (code **4790-0100**)
  4) Straight edge, 100mm (code **4700-100**)
  5) Spring divider, 150mm (code **7260-150**)
  6) Steel rule, 200mm/8" (code **7110-200**)

5063

Code	Remark
5063	vernier caliper, graduation 0.05mm/1/128" (code **1205-150S**)
5063-2	vernier caliper, graduation 0.02mm/0.001" (code **1205-1502S**)

5-PIECE MEASURING TOOL SET

- Includes:
  1) Digital caliper, range 0-150mm/0-6", resolution 0.01mm/0.0005" without thumb roller (code **1108-150W**)
  2) Digital outside micrometer, range 0-25mm/0-1", resolution 0.001mm/0.00005" (code **3109-25A**)
  3) Digital indicator, range 12.7mm/0.5", resolution 0.01mm/0.0005" (code **2112-10**)
  4) Magnetic stand (code **6201-60**)
  5) Micrometer stand (code **6300**)

5052-W

Code
5052-W

9-PIECE MEASURING TOOL SET

- Includes:
  1) Digital caliper, range 0-150mm/0-6", resolution 0.01mm/0.0005" without thumb roller (code **1108-150W**)
  2) Outside micrometer, range 0-25mm, graduation 0.01mm (code **3202-25A**)
  3) Protractor, range 0-180°, graduation 1° (code **4799-180**)
  4) Pitch gauge, range 0.25-7mm, 24pcs, metric 60° thread (code **4820-124**)
  5) Radius gauge, range 1-7mm (code **4801-17**)
  6) Feeler gauge, range 0.05-1.00mm, 20 pcs (code **4602-20**)
  7) 90° beveled edge square, 100x70mm, grade 0 (code **4790-1000**)
  8) Scriber (code **7230**)
  9) Steel rule, 150mm/6" (code **7110-150**)

5091-W

Code
5091-W

13-PIECE MEASURING TOOL SETS

- Includes:
  1) Digital caliper, range 0-150mm/0-6", resolution 0.01mm/0.0005"
  2) Outside micrometer, range 0-25mm, graduation 0.01mm (code **3202-25A**)
  3) Dial indicator, range 10mm, graduation 0.01mm (code **2308-10A**)
  4) Magnetic stand (code **6201-60**)
  5) Protractor, range 0-180°, graduation 1° (code **4799-180**)
  6) Pitch gauge, range 0.25-7mm, 24 pcs, metric 60° thread (code **4820-124**)
  7) Radius gauge, range 1-7mm (code **4801-17**)
  8) Feeler gauge, range 0.05-1.00mm, 20pcs (code **4602-20**)
  9) 90° beveled edge square, 100x70mm, grade 0 (code **4790-1000**)
  10) Scriber (code **7230**)
  11) Steel rule, 150mm/6" (code **7110-150**)
  12) Depth base attachment (code **6140**)
  13) Zero setting bar for depth base attachment

5013-W

Code	Remark
5013-W	digital caliper, without thumb roller code **1108-150W**
5013	digital caliper, with thumb roller code **1108-150**

GRANITE SURFACE PLATES

- Made of Indian granite, high hardness, free from deterioration or dimensional change over time, minimal changes in dimension due to temperature changes
- Meet DIN876, grade 00 is for inspection room or lab, grade 0 is for workshop
- Optional accessory:
  stand for granite surface plate (code **6902**),
  jack for granite surface plate (code **6903**)

6900-132

CUSTOM-MADE
SUPPLY SPECIAL SIZES ACCORDING TO CUSTOMER'S REQUEST

INSPECTION CERTIFICATE

Grade 00

Code	Size (LxWxH)	Flatness	Weight (Kg)	Max. load (Kg)
6900-132*	300x200x60mm	2.7μm	11	30
6900-142*	400x250x60mm	2.9μm	18	50
6900-144*	400x400x60mm	3.1μm	29	60
6900-153*	500x315x70mm	3.2μm	33	60
6900-164*	630x400x80mm	3.5μm	60	65
6900-166*	630x630x100mm	3.8μm	119	75
6900-185*	800x500x100mm	3.9μm	120	100
6900-1106*	1000x630x140mm	4.4μm	265	200
6900-1107*	1000x750x150mm	4.5μm	337	300
6900-1101*	1000x1000x150mm	4.8μm	450	400
6900-1128*	1200x800x160mm	4.9μm	461	500
6900-1161*	1600x1000x180mm	5.8μm	864	600

Grade 0

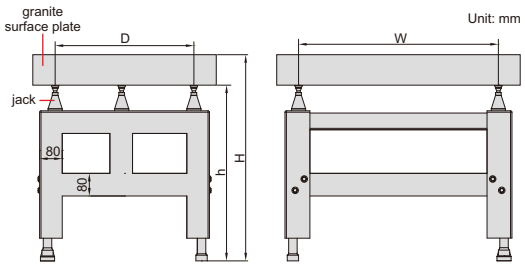
Code	Size (LxWxH)	Flatness	Weight (Kg)	Max. load (Kg)
6900-032*	300x200x60mm	5.4μm	11	60
6900-042*	400x250x60mm	5.9μm	18	100
6900-044*	400x400x60mm	6.3μm	29	120
6900-053*	500x315x70mm	6.4μm	33	120
6900-064*	630x400x80mm	7.0μm	60	130
6900-066*	630x630x100mm	7.6μm	119	150
6900-085*	800x500x100mm	7.8μm	120	200
6900-0106*	1000x630x140mm	8.7μm	265	400
6900-0107*	1000x750x150mm	9.0μm	337	600
6900-0101*	1000x1000x150mm	9.7μm	450	800
6900-0128*	1200x800x160mm	9.8μm	461	1000
6900-0161*	1600x1000x180mm	11.5μm	864	1200

*Supplied with manufacturer inspection certificate

STANDS FOR GRANITE SURFACE PLATES

- For medium size granite surface plates
- 5 jacks are included
- Adjusting range of jacks: 25mm
- One foot on the bottomis adjustable

6902-64A



Low stands (mm)

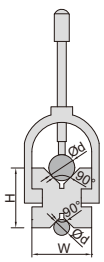
Code	For granite surface plate	W	D	H (with granite surface plate)	h (without granite surface plate)
6902-64A	630x400x80mm (code **6900-064** and **6900-164**)	352	224	775-800	695-720
6902-66A	630x630x100mm (code **6900-066** and **6900-166**)	352	352	775-800	675-700
6902-85A	800x500x100mm (code **6900-085** and **6900-185**)	448	280	775-800	675-700
6902-106A	1000x630x140mm (code **6900-0106** and **6900-1106**)	560	352	755-780	615-640
6902-107A	1000x750x150mm (code **6900-0107** and **6900-1107**)	560	420	755-780	605-630
6902-101A	1000x1000x150mm (code **6900-0101** and **6900-1101**)	560	560	755-780	605-630
6902-128A	1200x800x160mm (code **6900-0128** and **6900-1128**)	672	448	755-780	595-620
6902-161A	1600x1000x180mm (code **6900-0161** and **6900-1161**)	896	560	755-780	575-600

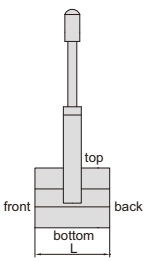
High stands (mm)

Code	For granite surface plate	W	D	H (with granite surface plate)	h (without granite surface plate)
6902-64H	630x400x80mm (code **6900-064** and **6900-164**)	352	224	1000-1025	920-945
6902-66H	630x630x100mm (code **6900-066** and **6900-166**)	352	352	1000-1025	900-925
6902-85H	800x500x100mm (code **6900-085** and **6900-185**)	448	280	1000-1025	900-925
6902-106H	1000x630x140mm (code **6900-0106** and **6900-1106**)	560	352	1000-1025	860-885
6902-107H	1000x750x150mm (code **6900-0107** and **6900-1107**)	560	420	1000-1025	850-875
6902-101H	1000x1000x150mm (code **6900-0101** and **6900-1101**)	560	560	1000-1025	850-875
6902-128H	1200x800x160mm (code **6900-0128** and **6900-1128**)	672	448	1000-1025	840-865
6902-161H	1600x1000x180mm (code **6900-0161** and **6900-1161**)	896	560	1000-1025	820-845

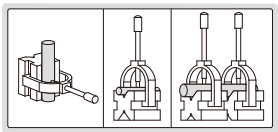
V-BLOCK SETS

6896-11





- Hold cylindrical workpieces for inspection and machining
- Two V-blocks per set
- Made of alloy steel
- Hardened to HRC60±2
- V groove on the top for large shafts
- V groove on the bottom for small shafts (except **6896-10**)

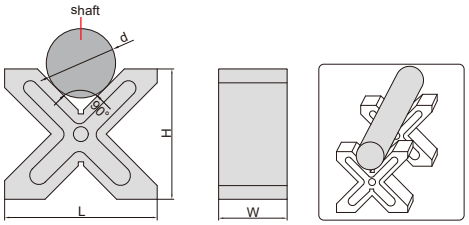


Code	Size (LxWxH)	Range of shafts (Ød)	Parallelism of both V grooves to top and bottom sides	Squareness of both V grooves to front and back sides	Height difference of a matched pair
6896-10	25x20x20mm	3-20mm	3μm	3μm	3μm
6896-11	50x40x40mm	5-30mm	5μm	5μm	5μm
6896-12	80x63x63mm	7-63mm	5μm	5μm	5μm
6896-13	100x80x80mm	7-80mm	5μm	5μm	5μm
6896-14	70x140x140mm	9-140mm	5μm	5μm	5μm

V-BLOCK SETS

- For positioning cylindrical workpieces
- Two V-blocks per set
- Each V-block has four 90° V-grooves
- Cast iron, hardness HB170-240

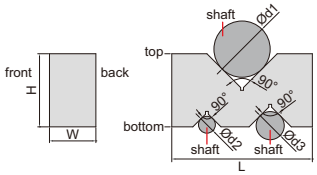
6805-2

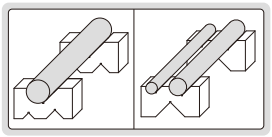


Code	Size (L×H×W)	Range of shafts (Ød)	Parallelism of four V grooves to all sides	Height difference of a matched pair
6805-1	150×130×75mm	8-120mm	15μm	20μm
6805-2	200×170×90mm	12-180mm	15μm	20μm

V-BLOCK SETS

6887-3





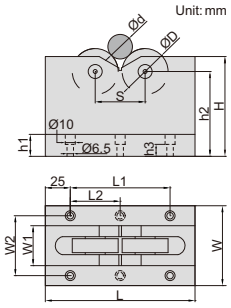
- Two V-blocks per set
- Made of hardened tool steel

Code	Size (LxWxH)	Range of shafts (Ød1)	Range of shafts (Ød2)	Range of shafts (Ød3)
6887-1	50x19x24mm	3-32mm	3-16mm	3-22mm
6887-2	75x24x35mm	3-50mm	3-20mm	3-32mm
6887-3	100x33x52mm	3-68mm	3-26mm	3-40mm
6887-4	125x44x69mm	3-87mm	3-34mm	3-50mm

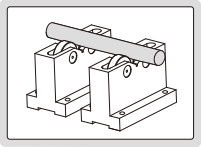
Code	Parallelism of three V grooves to top and bottom sides	Height difference of a matched pair
6887-1	5μm	5μm
6887-2	5μm	5μm
6887-3	5μm	5μm
6887-4	5μm	5μm

ROLLER BEARING V-BLOCK SETS

6888-1



- Runout accuracy: 5μm
- Parallelism of bearings to bottom: 12μm
- Two V-blocks per set
- Workpieces don't get damaged due to bearings
- Suitable for heavy workpieces



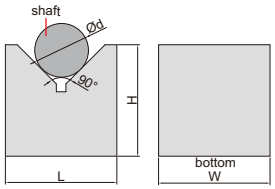
(mm)

Code	W1	W2	h1	h2	h3	L1	L2	S
6888-1	22	44	20	85	12	100	–	60
6888-2	40	60	22	85	12	100	–	50
6888-3	60	80	30	124	20	180	90	120

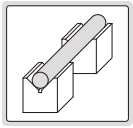
Code	Size (LxWxH)	Code of bearings	Diameter of bearings (ØD)	Range of shafts (Ød)	Load capacity
6888-1	150x60x100mm	16004 ZZ	42mm	25-70mm	500kg
6888-2	150x80x100mm	6303 ZZ	47mm	5-55mm	1000kg
6888-3	230x100x150mm	6306 ZZ	72mm	70-200mm	1000kg

GRANITE V-BLOCK SET

6897-1



- Two V-blocks per set



Code	Size (LxWxH)	Range of shafts (Ød)	Parallelism of V groove to bottom	Height difference of a matchet pair
6897-1	70x50x70mm	6-75mm	4μm	5μm

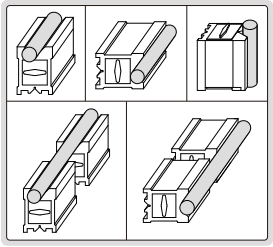
MAGNETIC V-BLOCKS (PROFESSIONAL TYPE)

HARDENED SURFACES | HIGH PRECISION | STRONG MAGNETIC FORCE

6889-11

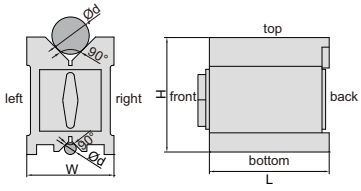
6889-1

- Hardened, high accuracy, strong magnetic force, for grinding, light milling, drilling and inspection of round and square workpieces
- All working surfaces are hardened to HRC60±2
- Magnetic force on top, bottom and two V grooves
- V groove on the top for large shafts
- V groove on the bottom for small shafts
- Suitable for cast iron surface plates and granite surface plates



Individual

Code	Size (LxWxH)	Range of shafts (Ød)	Magnetic force	Parallelism of V grooves to top, bottom, left, right sides	Squareness of V grooves to back side
6889-11	75x56x75mm	5-40mm	85kgf	5μm	5μm
6889-22	100x70x95mm	5-65mm	150kgf	5μm	5μm
6889-33	150x75x100mm	5-70mm	190kgf	6μm	6μm
6889-55	160x125x130mm	5-140mm	220kgf	12μm	12μm
6889-44	200x125x150mm	10-140mm	400kgf	12μm	12μm



Matched pair

Code	Size (LxWxH)	Range of shafts (Ød)	Magnetic force	Parallelism of V grooves to top, bottom, left, right sides	Squareness of V grooves to back side	Height difference of a matched pair
6889-1	75x56x75mm	5-40mm	85kgf	5μm	5μm	5μm
6889-2	100x70x95mm	5-65mm	150kgf	5μm	5μm	5μm
6889-3	150x75x100mm	5-70mm	190kgf	6μm	6μm	6μm
6889-5	160x125x130mm	5-140mm	220kgf	12μm	12μm	12μm
6889-4	200x125x150mm	10-140mm	400kgf	12μm	12μm	12μm

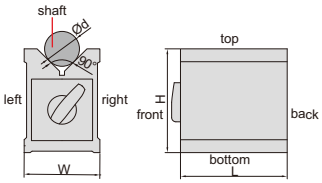
MAGNETIC V-BLOCK (ECONOMIC TYPE)

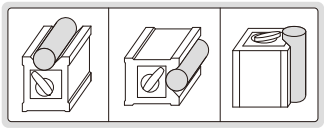
ATTENTION: NOT SUITABLE FOR STEEL OR IRON SURFACES, OTHERWISE THE MAGNETIC FORCE WILL BE REDUCED

ATTENTION: NOT HARDENED

- Parallelism of V groove to top, bottom, left and right sides: 10μm
- Hold cylindrical workpieces for inspection and machining
- Supplied in single piece
- Not hardened
- Not suitable for steel or iron surface, otherwise the magnetic force will be reduced

6890-702





Code	Size (LxWxH)	Range of shafts (Ød)	Magnetic force	Squareness of V groove to back side
6890-702	70x60x73mm	6-44mm	56kgf	10μm

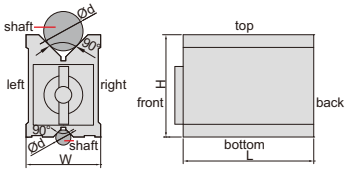
MAGNETIC V-BLOCKS (ECONOMIC TYPE)

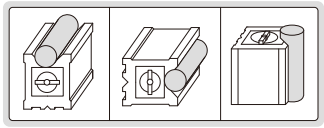
ATTENTION: NOT SUITABLE FOR STEEL OR IRON SURFACES, OTHERWISE THE MAGNETIC FORCE WILL BE REDUCED

ATTENTION: NOT HARDENED

- Hold cylindrical workpieces for inspection and machining
- Not hardened
- V groove on the top for large shafts
- V groove on the bottom for small shafts
- Not suitable for steel or iron surface, otherwise the magnetic force will be reduced

6801-1202





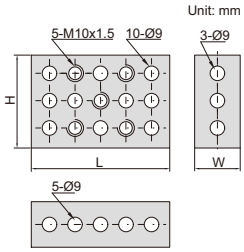
Code	Size (LxWxH)	Range of shafts (Ød)	Magnetic force	Parallelism of V grooves to top, bottom, left, right side	Squareness of V grooves to back side
6801-1201	80x70x95mm	6-67mm	64kgf	10μm	10μm
6801-1202	100x70x95mm	6-67mm	80kgf	10μm	10μm
6801-1203	120x70x95mm	6-67mm	96kgf	10μm	10μm

PARALLEL SET

- Pairs of matched blocks for positioning and set-up
- Screws and wrench are included
- Hardness HRC 55-62

screws and wrench are included

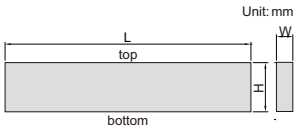
6531-25



Code	Size (L×H×W)	Size accuracy	Squareness	Parallelism	Height difference of a matched pair
6531-25	75×50×25mm	10μm	7μm/25mm	10μm	10μm

PARALLEL SETS

- Parallelism between top and bottom: 5μm
- Height difference of a matched pair: 5μm
- Hardened to HRC55-60
- Made of alloy tool steel



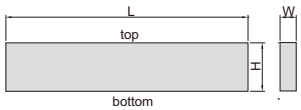
6533-144

Code	Parallels per set	Length (L)	Thickness (W)	Height (H)
6533-6	6 pairs	200mm	9.5mm	35, 40, 45, 50, 55, 58mm
6533-8	8 pairs	160mm	8mm	12, 17, 22, 25, 28, 32, 36, 38mm
6533-81	8 pairs	200mm	8mm	17, 22, 26, 28, 32, 36, 38, 42mm
6533-9	9 pairs	160mm	4mm	10, 14, 18, 22, 26, 30, 34, 38, 42mm
6533-10	10 pairs	150mm	3mm	13, 16, 19, 22, 25, 28, 31, 35, 38, 41mm
6533-144	14 pairs	150mm	10mm	14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 35, 40, 45, 50mm

PARALLEL SETS

- Parallelism between top and bottom: 5μm
- Height difference of a matched pair: 5μm
- Made of alloy tool steel
- Hardened to HRC55-60

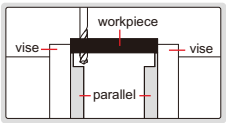
6511-20

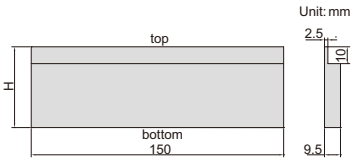


Code	Parallels per set	Length (L)	Height (H)×Thickness (W)
6511-20	20 pairs	100mm	5×2*, 10×2, 15×2, 20×2, 6×3*, 11×3, 16×3, 21×3, 7×4*, 12×4, 17×4, 22×4, 8×5*, 13×5, 18×5, 23×5, 9×6*, 14×6, 19×6, 24×6mm
6511-24	24 pairs	125mm	11×8, 16×8, 21×8, 26×8, 31×8, 36×8, 13×10, 18×10, 23×10, 28×10, 33×10, 38×10, 15×12, 20×12, 25×12, 30×12, 35×12, 40×12, 17×14, 22×14, 27×14, 32×14, 37×14, 42×14mm
6511-241	24 pairs	150mm	11×8, 16×8, 21×8, 26×8, 31×8, 36×8, 13×10, 18×10, 23×10, 28×10, 33×10, 38×10, 15×12, 20×12, 25×12, 30×12, 35×12, 40×12, 17×14, 22×14, 27×14, 32×14, 37×14, 42×14mm

*Parallelism between top and bottom and height difference of a matched pair of 5×2mm, 6×3mm, 7×4mm, 8×5mm and 9×6mm in **6511-20** is 7μm

PARALLEL SET





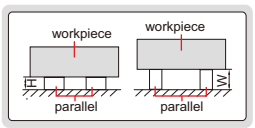
- Height difference of a matched pair: 5μm
- Hardened to HRC55-60
- Made of alloy tool steel

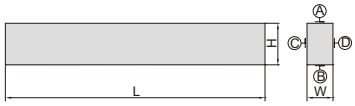
6534-6

Code	Parallels per set	Parallelism between top and bottom	Height (H)
6534-6	6 pairs	5μm	25, 30, 35, 40, 45, 48mm

GRANITE PARALLEL SET

- Made of granite, hard and no rusty, no dimensional change over time or temperature change
- Two parallels per set



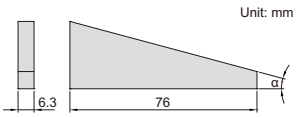


4143-250

Code	Size (LxWxH)	Parallelism between A and B	Parallelism between C and D	Height difference of a matched pair
4143-250	250x25x40mm	3μm	3μm	3μm

ANGLE PLATE SETS

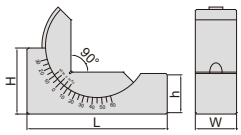
- Accuracy: ±20 seconds
- For angle set-up in tooling, production and inspection
- Hardness HRC52



4006-12

Code	Angle plates included	Angle α
4006-10	10 pcs	1°, 2°, 3°, 4°, 5°, 10°, 15°, 20°, 25°, 30°
4006-12	12 pcs	1/4°, 1/2°, 1°, 2°, 3°, 4°, 5°, 10°, 15°, 20°, 25°, 30°

ADJUSTABLE ANGLE BLOCK



6535-30

- Graduation of angle: 10 minutes
- Made of hardened tool steel
- With locking screw

Code	Size (LxWxH)	h	Adjustable angle	Accuracy of angle
6535-30	102x30x49mm	30mm	30°~0°~60°	10 minutes

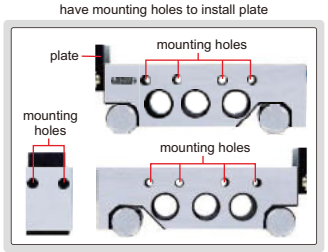
SINE BARS

CAN BE CUSTOMIZED

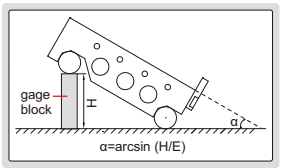
HIGH PRECISION

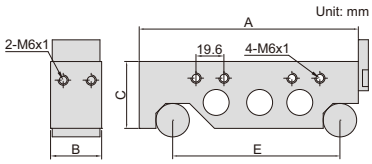
4155-100

the front and back ends and two sides have mounting holes to install plate



- Made of alloy tool steel

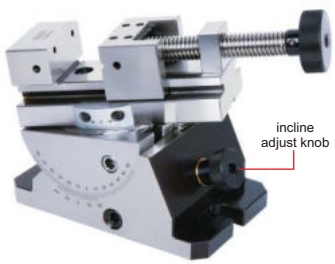




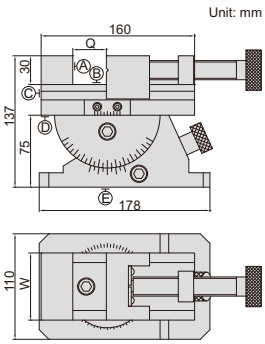
(mm)

Code	Roller distance (E)	Table size (AxB)	C	Accuracy of α at 30°
4155-100	100mm	130x30mm	40	±5 seconds
4155-200	200mm	230x30mm	40	±5 seconds
4155-300	300mm	345x40mm	50	±8 seconds

PRECISION UNIVERSAL VISE



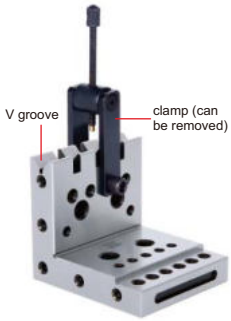
6521-80



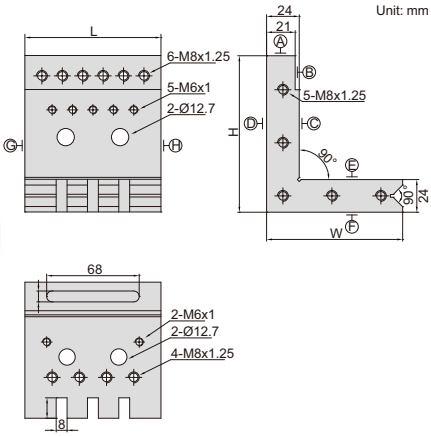
- Horizontal rotary: range 360°, graduation 0.05°
- Vertical incline: range 45°, graduation 0.05°
- With incline adjust knob
- Parallelism and squareness between A, B, C and D: 5μm/100mm, parallelism between D and E at 0°: 10μm/100mm
- Made of tool steel
- Hardness HRC56-58

Code	Jaw opening (Q)	Jaw width (W)
6521-80	0-80mm	70mm

RIGHT ANGLE PLATE



6547-1

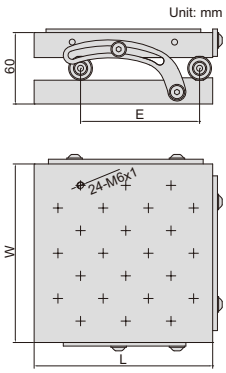


- Made of alloy steel
- Hardened to HRC60±2
- V groove for cylinders
- Parallelism and squareness between A, B, C, D, E, F, G and H: 10μm
- Parallelism and squareness of V groove to A, B, C, D, E, F, G and H: 10μm

Code	Size (LxWxH)
6547-1	100x100x115mm

SINE TABLE

6527-100

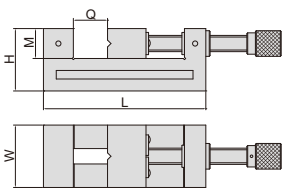


- Accuracy of angle: ±15 seconds
- Made of alloy tool steel
- Hardness HRC58-60

Code	Roller distance (E)	Table size (LxW)	Adjustable angle
6527-100	100mm	150x150mm	0-60°

PRECISION VISES

6520-73A

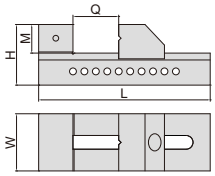


- Parallelism: 8μm/100mm
- Squareness: 10μm/100mm
- Made of alloy steel
- Hardness HRC56-58

Code	Jaw opening (Q)	Jaw width (W)	L	H	M
6520-73A	0-73mm	63mm	176mm	63mm	30mm
6520-76A	0-76mm	73mm	190mm	73mm	35mm
6520-120A	0-120mm	98mm	255mm	82mm	40mm

PRECISION VISES

- Parallelism: 3μm/100mm
- Squareness: 5μm/100mm
- Made of alloy steel
- Hardness HRC56-58



6526-80

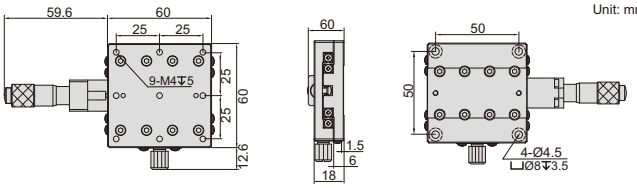
(mm)

Code	Jaw opening (Q)	Jaw width (W)	Overall length (L)	H	M
6526-80	0-80mm	50mm	150mm	53	25
6526-100	0-100mm	73mm	190mm	70	35

X-AXIS STAGE

- Cross roller guides, achieve high precision and smooth movement
- Stages made of aluminum alloy

6582-602



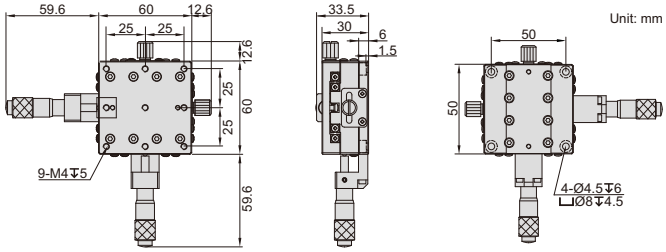
SPECIFICATION (micrometer in the middle)

Code	X-axis displacement	Parallelism of top to bottom surface	Micrometer graduation	Micrometer accuracy	Maximum load	Micrometer location	Stage size	Weight
6582-602	±6.5mm	0.03mm	0.01mm	0.01mm	49N (5kgf)	middle	60x60mm	0.24kg

XY-AXIS STAGE

- Cross roller guides, achieve high precision and smooth movement
- Stages made of aluminum alloy

6584-602



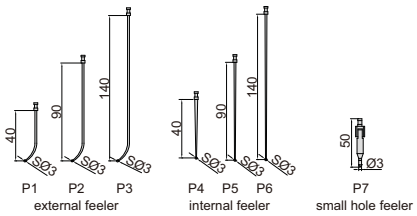
SPECIFICATION (micrometer in the middle)

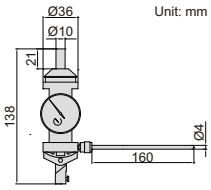
Code	XY-axis displacement	Parallelism of top to bottom surface	Micrometer graduation	Micrometer accuracy	Maximum load	Micrometer location	Stage size	Weight
6584-602	±6.5mm	0.06mm	0.01mm	0.01mm	49N (5kgf)	middle	60x60mm	0.48kg

CENTERING INDICATOR

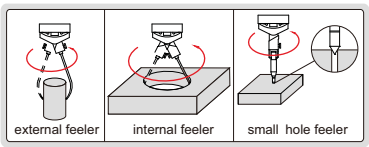
VIDEO

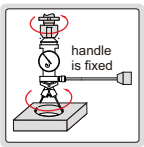
2385-3





- Provides quick and accurate centering in boring and milling set-up
- Maximum speed is recommended not to exceed 800RPM

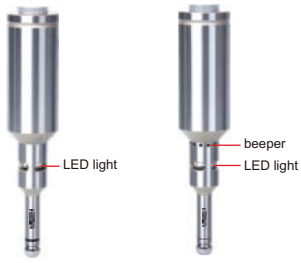




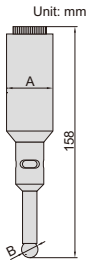
Code
2385-3

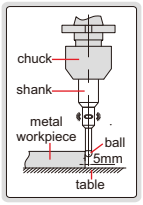
Feeler	Measuring diameter	Accuracy
P1	Ø0-60mm	0.015mm
P2	Ø0-160mm	0.02mm
P3	Ø0-250mm	0.03mm
P4	Ø3.2-80mm	0.015mm
P5	Ø3.2-180mm	0.02mm
P6	Ø3.2-280mm	0.03mm
P7	Ø0-2.8mm	0.015mm

LARGE SHANK ELECTRONIC EDGE FINDERS



6572-1 6572-2

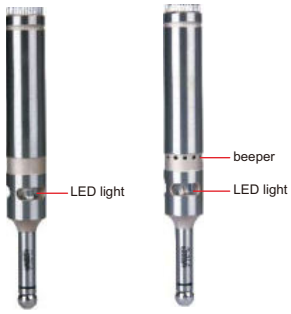




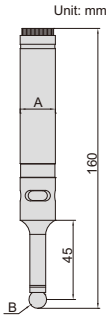
- The shank is electrically conducted to the metal workpiece through the chuck and table. The LED lights up and the beeper sounds (only for **6572-2**), when the ball touches the workpiece
- Not suitable for rotary use
- Hardened shank and contact ball

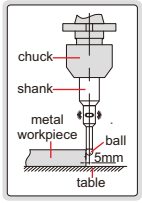
Code	Shank (A)	Contact ball (B)	Accuracy	Beeper	Battery
6572-1	Ø32mm	SØ10mm	5μm	without	23A, 12V×1 pc
6572-2	Ø32mm	SØ10mm	5μm	with	23A, 12V×1 pc

ELECTRONIC EDGE FINDERS



6566-2 6566-3



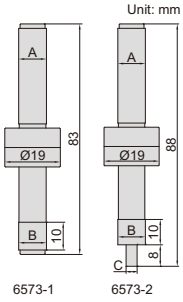


- The shank is electrically conducted to the metal workpiece through the chuck and table. The LED lights up and the beeper sounds (only for **6566-3**), when the ball touches the workpiece
- Not suitable for rotary use
- Hardened shank and contact ball

Code	Shank (A)	Contact ball (B)	Accuracy	Beeper	Battery
6566-2	Ø20mm	SØ10mm	5μm	without	23A, 12Vx1 pc
6566-3	Ø20mm	SØ10mm	5μm	with	23A, 12Vx1 pc

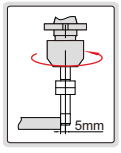
NON-MAGNETIC EDGE FINDERS

6573-1 6573-2

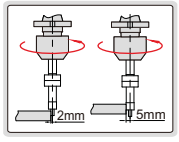


6573-1 6573-2

- TiAlN coating, non-magnetic, hardness HV2500, extremely wear resistance
- Suitable for machine speed 400~600rpm



6573-1

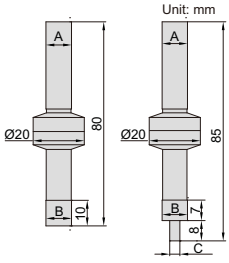


6573-2

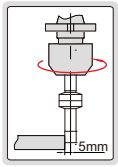
Code	Shank (A)	Contact point (B)	Contact point (C)	Accuracy
6573-1	Ø10mm	Ø10mm	—	5μm
6573-2	Ø10mm	Ø10mm	Ø4mm	5μm

EDGE FINDERS

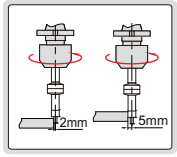
6562-3 6562-4



6562-3 6562-4



6562-3

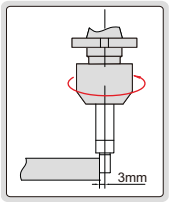


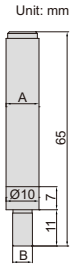
6562-4

- Hardened shank and contact point
- Suitable for machine speed 400-600rpm

Code	Shank(A)	Contact point (B)	Contact point (C)	Accuracy
6562-3	Ø10mm	Ø10mm	—	5μm
6562-4	Ø10mm	Ø10mm	Ø4mm	5μm

EDGE FINDER



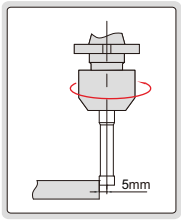


6567-1

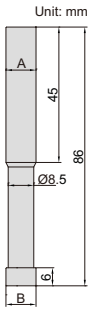
- Hardened shank and contact point
- Suitable for machine speed 400-600rpm

Code	Shank (A)	Contact point (B)	Accuracy
6567-1	Ø10mm	Ø6mm	8μm

CERAMIC EDGE FINDER



6568-1



- Ceramic contact point, non magnetic
- Suitable for machine speed 400-600rpm

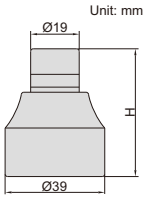
Code	Shank (A)	Contact point (B)	Accuracy
6568-1	Ø10mm	Ø10mm	8μm

ELECTRONIC ZERO SETTER

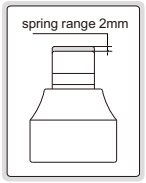
INSIZE PLUS
MADE IN EUROPE

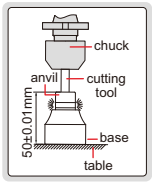
LOW TEST FORCE

- The base is electrically conducted to the cutting tools through the table and chuck, the LED lights up when the cutting tool touches the anvil
- Magnetic base
- Two batteries LR44



6553-50



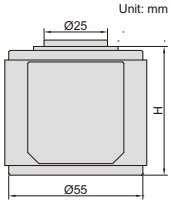


Code	Height (H)	Accuracy	Test force
6553-50	50mm	±10µm	7N (at 49mm)

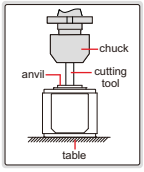
DIGITAL ZERO SETTER

IP65 WATERPROOF

- Resolution: 0.001mm/0.00005"
- IP65 dust/waterproof
- Buttons: on/off, mm/inch, zero
- CR2032 battery
- Automatic power off
- Magnetic base
- Automatic backlight at zero



6557-50

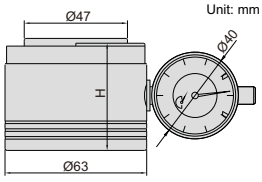


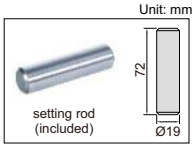
Code	Height (H)	Anvil stroke	Accuracy*	Test force	Repeatability
6557-50	50mm	2.5mm	±10µm/0.0004"	10N (at 50mm)	2µm

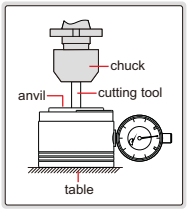
*The accuracy is ensured within Ø10mm of the center

ZERO SETTER

6556-50



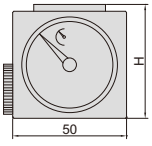


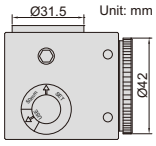


Code	Height (H)	Accuracy	Test force
6556-50	50mm	±10µm	10N (at 50mm)

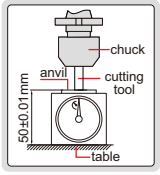
ZERO SETTER

2397-502A





- Magnetic base

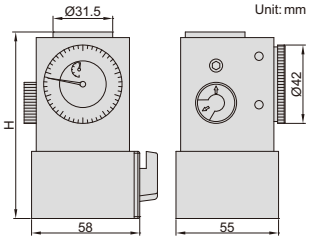


Code	Height (H)	Accuracy	Test force
2397-502A	50mm	±10µm	9N (at 50mm)

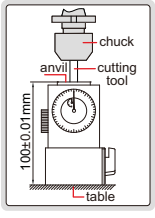
ZERO SETTER

- Magnetic base with on-off switch
- Test force: 9N (at 100mm)

Code	Height (H)	Accuracy
2394-100A	100mm	±10µm

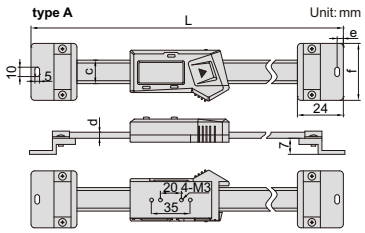


2394-100A



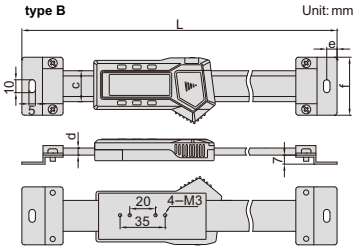
DIGITAL HORIZONTAL SCALES

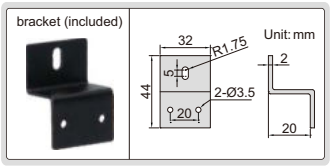
DATA OUTPUT

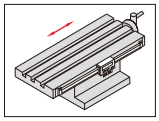


7101-300A

7101-400A







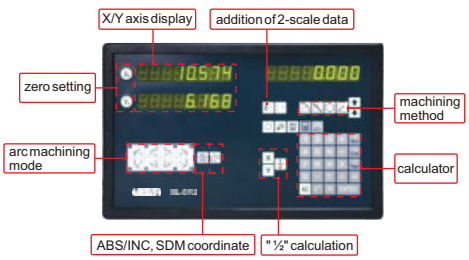
- Resolution: 0.01mm/0.0005"
- Buttons type A: on/off, zero, mm/inch,
  type B: on/off, zero, mm/inch, ABS, data preset
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Supplied with bracket to be mounted on the back

(mm)

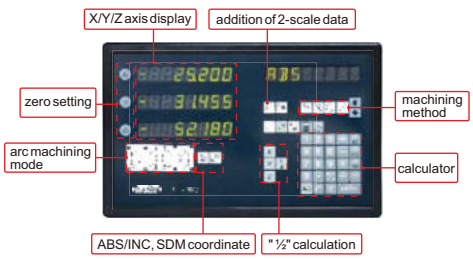
Code	Range	Type	Accuracy	L	c	d	e	f	Data output cable (optional)
7101-100A	100mm	A	±0.02mm	215	16	4	6	36	7315-21, 7302-21, 7305-21
7101-150A	150mm	A	±0.03mm	265	16	4	6	36	7315-21, 7302-21, 7305-21
7101-200A	200mm	A	±0.03mm	315	16	4	6	36	7315-21, 7302-21, 7305-21
7101-300A	300mm	A	±0.04mm	445	16	4	6	36	7315-21, 7302-21, 7305-21
7101-400A	400mm	B	±0.05mm	590	24	5.5	8	45	7315-22, 7302-22, 7305-22
7101-500A	500mm	B	±0.05mm	690	24	5.5	8	45	7315-22, 7302-22, 7305-22
7101-600A	600mm	B	±0.08mm	790	24	5.5	8	45	7315-22, 7302-22, 7305-22
7101-800A	800mm	B	±0.10mm	990	24	5.5	8	45	7315-22, 7302-22, 7305-22
7101-1000A	1000mm	B	±0.10mm	1240	31	10.5	10	60	7315-22, 7302-22, 7305-22

DIGITAL READOUTS

VIDEO



ISL-DR2



ISL-DR3

software CD (included)

SPECIFICATION

Code	ISL-DR2	ISL-DR3
Application	two-axis	three-axis
Scale input ports	2	3
Resolution	0.05μm, 0.1μm, 0.2μm, 0.5μm, 1μm, 2μm, 5μm, 10μm, 20μm, 50μm	
Functions	addition of 2-scale data, linearity error compensation, smoothing, RS232C interface unit, BCD code out, zero setting, preset, resolution setting, counting direction setting, inch/mm conversion, ABS/INC conversion, expansion/contraction coefficient setting, "½" calculation, detecting RI, bolt-hole circle machining, ramp circle machining	
Power supply	110/220V, 50/60Hz	
Dimension	295x185x45mm	
Weight	1.45kg	

STANDARD DELIVERY

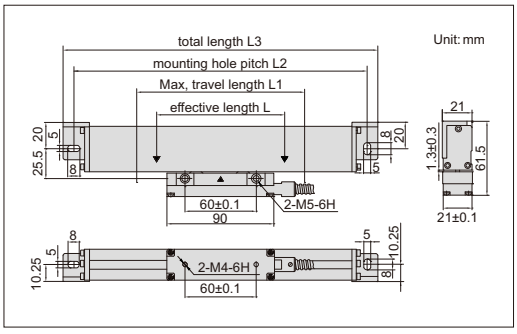
Main unit	1 pc
Mounting bracket	1 pc
Ground cable	1 pc
RS232C cable	1 pc
Software CD for RS232C	1 pc

LINEAR SCALES (TTL SIGNAL)

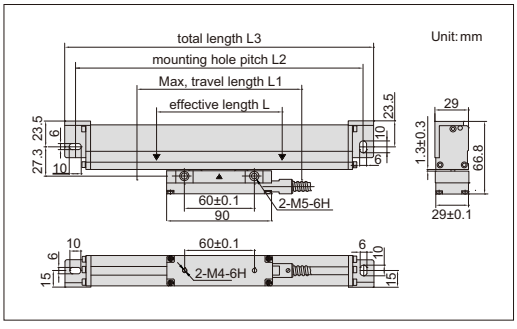
ISL-A5-300

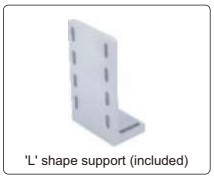
Effective length (L)	Code		
	Thin type		Thick type
	Series ISL-A1	Series ISL-A5	Series ISL-B5
50mm	ISL-A1-50	ISL-A5-50	ISL-B5-50
100mm	ISL-A1-100	ISL-A5-100	ISL-B5-100
150mm	ISL-A1-150	ISL-A5-150	ISL-B5-150
200mm	ISL-A1-200	ISL-A5-200	ISL-B5-200
250mm	ISL-A1-250	ISL-A5-250	ISL-B5-250
300mm	ISL-A1-300	ISL-A5-300	ISL-B5-300
350mm	ISL-A1-350	ISL-A5-350	ISL-B5-350
400mm	ISL-A1-400	ISL-A5-400	ISL-B5-400
450mm	ISL-A1-450	ISL-A5-450	ISL-B5-450
500mm	ISL-A1-500	ISL-A5-500	ISL-B5-500
550mm	ISL-A1-550	ISL-A5-550	ISL-B5-550
600mm	ISL-A1-600	ISL-A5-600	ISL-B5-600
650mm	ISL-A1-650	ISL-A5-650	ISL-B5-650
700mm	ISL-A1-700	ISL-A5-700	ISL-B5-700
750mm	ISL-A1-750	ISL-A5-750	ISL-B5-750
800mm	ISL-A1-800	ISL-A5-800	ISL-B5-800
850mm	ISL-A1-850	ISL-A5-850	ISL-B5-850
900mm	ISL-A1-900	ISL-A5-900	ISL-B5-900
950mm	ISL-A1-950	ISL-A5-950	ISL-B5-950
1000mm	ISL-A1-1000	ISL-A5-1000	ISL-B5-1000
1100mm		ISL-A5-1100	ISL-B5-1100
1200mm			ISL-B5-1200
1300mm			ISL-B5-1300
1400mm			ISL-B5-1400
1500mm			ISL-B5-1500
1600mm			ISL-B5-1600
1700mm			ISL-B5-1700
1800mm			ISL-B5-1800
1900mm			ISL-B5-1900
2000mm			ISL-B5-2000

Series ISL-A1 and ISL-A5

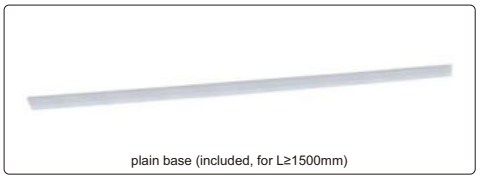


Series ISL-B5





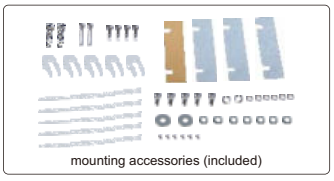
'L' shape support (included)



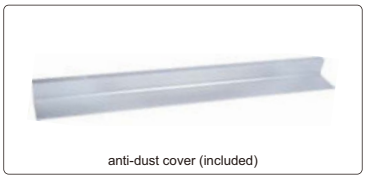
plain base (included, for L≥1500mm)

STANDARD DELIVERY

Main Unit	1 pc
'L' shape support	1 pc
Anti-dust cover	1 pc
Plain base	1 pc (for L≥1500mm)
Mounting accessories	1 package



mounting accessories (included)

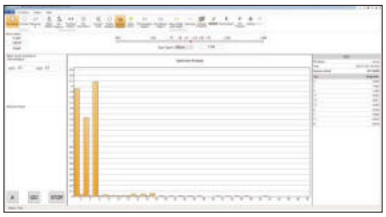


anti-dust cover (included)

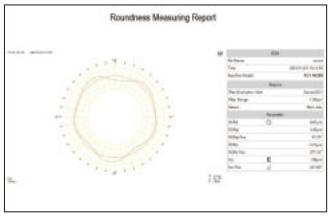
SPECIFICATION

Code	Series ISL-A1		Series ISL-A5		Series ISL-B5	
L1 (mm)	L+30(L<950)	L+50(L≥950)	L+30(L<950)	L+50(L≥950)	L+30(L<950)	L+50(L≥950)
L2 (mm)	L+132(L<950)	L+152(L≥950)	L+132(L<950)	L+152(L≥950)	L+136(L<950)	L+156(L≥950)
L3 (mm)	L+149(L<950)	L+169(L≥950)	L+149(L<950)	L+169(L≥950)	L+154(L<950)	L+174(L≥950)
Resolution	1μm		5μm		5μm	
Max. response speed	50m/min		90m/min		60m/min	
Scale grating pitch	20μm					
Scale reference point pitch	50mm					
Accuracy	±(5+5L/1000)μm L is the effective length in mm					
Cable length	3.5m (L: 50-950mm), 5m (L: 1000-1500mm), 10m (L: 1600-2000mm)					
Output signal	TTL					
Socket	9PD					
Power supply	5±0.5V					

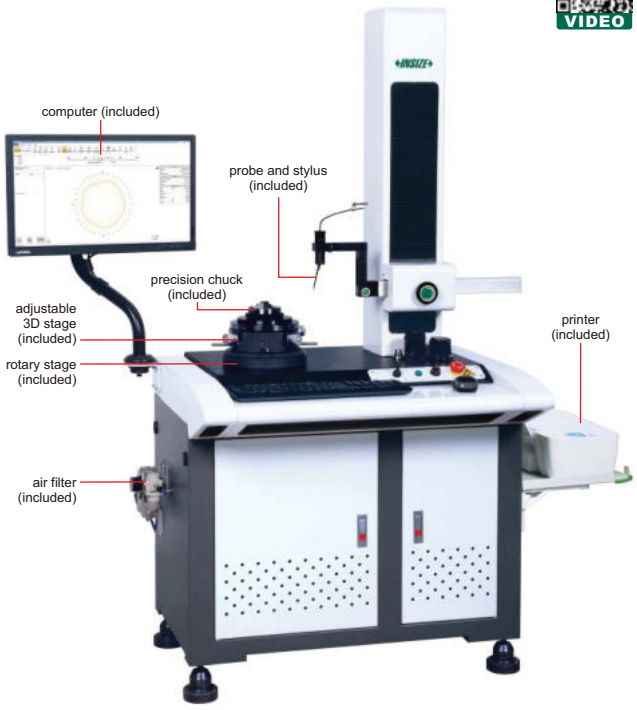
ROUNDNESS MEASURING MACHINE
CODE RCT-RA260



spectrum analysis



measurement



SPECIFICATION

Probe	measuring range	±300μm
	resolution	0.001μm
	linear accuracy	0.25%
Ruby stylus	size	Ø2x10mm
	direction	two directions
	adjustable angle	±45°
X axis	travel	165mm
	excess range	25mm
	drive mode	by hand
Z axis	drive mode	motor
	travel	320mm
	movement speed	0.5~10mm/s
Rotary stage	rotation accuracy	(0.025+6H/10000)μm for H≤20mm, H is the measuring height in mm
	rotation speed	6rpm
	max. measuring diameter	260mm
	max. workpiece diameter (rotation diameter)	400mm
Rotary axis	radial rotation accuracy	±0.0125μm
	axial runout accuracy	±0.05μm
Adjustable 3D stage	diameter	180mm
	adjustment range of center	±3mm
	adjustment range of level	±2°
	weight capacity	20kg
Granite stage		700×500mm
Precision chuck	external grip diameter	Ø1~Ø81mm
	internal grip diameter	Ø31~Ø70mm
Air filter	pressure range	0~0.8MPa
	oil mist removalaccuracy	0.01μm
	export oil mist concentration	0.5mg/m³
Dimension (LxWxH)		1300×795×1715mm
Power supply		220±10%V, 50Hz
Power		500W
Weight		320kg

- Air-floating spindle
- Can measure roundness, coaxiality, concentricity, flatness, radial runout, axial runout, parallelism and perpendicularity.
- Spectrum analysis, automatic gap/burr removal, waveform analysis
- 4 roundness evaluation methods: smallest area method, least square method, smallest circumscribed circle method, largest inscribed circle method
- Measuring filer: 1-15upr, 1-50upr, 1-150upr, 1-250upr, 1-500upr, 15-100upr, 15-500upr, 2-15upr
- Filter form: Gauss (ISO standard)
- Software is included, for measurement,analysis, data output, etc.

STANDARD DELIVERY

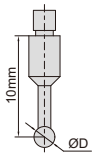
Main unit	1 pc
Probe (with ruby stylus)	1 pc each
Standard block	1 pc
Precision chuck	1 pc
Adjustable 3D stage	1 pc
Rotary stage	1 pc
Computer	1 pc
Software	1 set
Printer	1 pc
Air filter	1 set
Installation tools	1 set

standard block (included)

OPTIONAL ACCESSORY

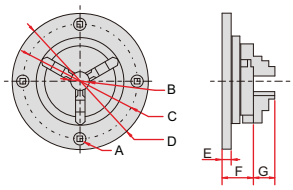
Probes	refer to details
Precision chucks	refer to details
Dryer	ISC-DRY

SPECIFICATION OF PROBES



Code	Diameter (ØD)	Remark
RCT-RA260-T1	2mm	included
RCT-RA260-T2	0.5mm	optional
RCT-RA260-T3	1mm	optional
RCT-RA260-T4	4mm	optional
RCT-RA260-T5	8mm	optional

SPECIFICATION OF PRECISION CHUCKS

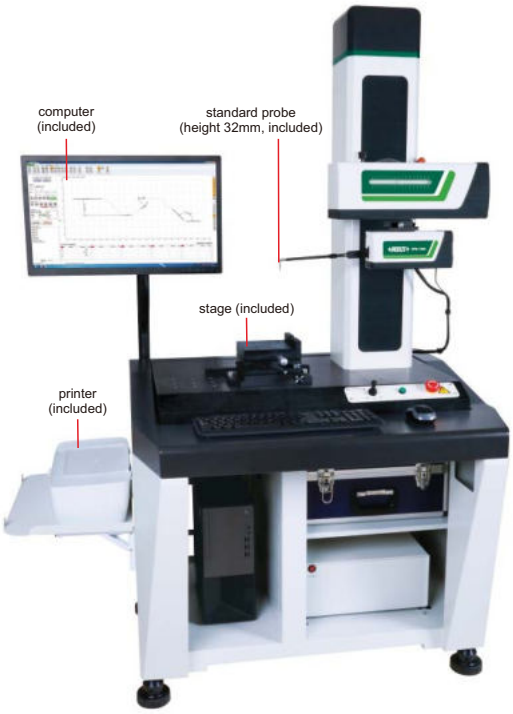


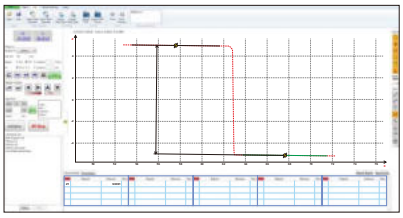
(mm)

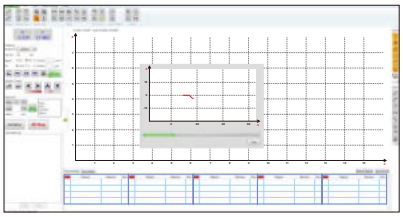
Code	A	B	C	D	E	F	G	Clamping range		Remark
								external grip dia.	internal grip dia.	
RCT-RA260-C1	M5x0.8	16	100	118	8	28	13	Ø0.8~63	Ø23~58	optional
RCT-RA260-C2	M6x1.0	20	116	143	10.5	37	15	Ø1~81	Ø31~70	included
RCT-RA260-C3	M6x1.0	26	140	168	10	39	19	Ø1~100	Ø36~90	optional

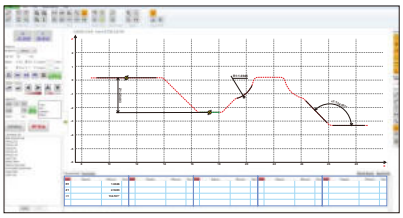
SURFACE PROFILE MEASURING MACHINE
CODE SPM-1000

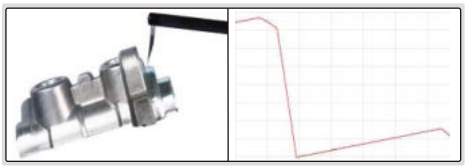
VIDEO

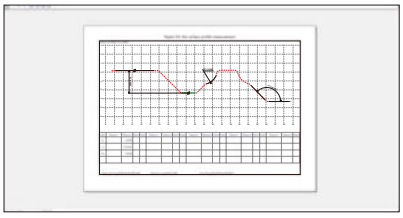



calibration


contour scanning


dimension measurement

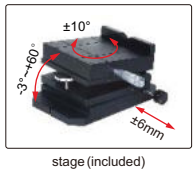



data output

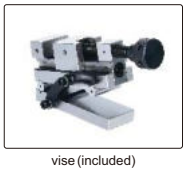
- Software is included, for surface profile measurement and data output
- Probe compensation
- Output as format txt, csv, etc.
- Large range design, the leverage ratio is 1:2.2, maintain the original accuracy of the sensor
- The overall structure of the Z-axis sensor does not have any elastic components, ensuring the measuring force is constant regardless the position of probe

SPECIFICATION

X axis measuring range	140mm
X axis resolution	0.2μm
X axis straightness	0.8μm/100mm
X axis traverse speed	0.1~10mm/s
Z axis measuring range	±20mm
Z axis resolution	0.05μm
Z axis traverse speed	0.5~10mm/s
Linear accuracy	±(1.5+|0.2H|)μm, H is measuring height in mm
Angular measuring accuracy	±2′
Arc measuring accuracy	±(2+R/8)μm, R is 2~10mm standard ball
Radius of probe tip	25μm
Traverse direction	backword
Measuring force	6.86~9.8mN
Measuring unit	mm/inch
Traceable angle	72° (upward), 87° (downward)
Drive mode	motor
Travel of Z axis	430mm
Dimension (L×W×H)	1200×700×1780mm
Power supply	220±5%V, 50Hz
Weight	320kg



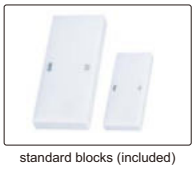
stage (included)


vise (included)

standard balls (included)

STANDARD DELIVERY

Main unit	1 pc
Standard probe and arm	1 pc of each
Standard block	2 pcs
Standard ball	2 pcs
Standard shaft	1 pc
Stage	1 pc
Vise	1 pc
Measuring arm	1 pc
Computer	1 pc
Measurement software	1 pc
Printer	1 pc
Installation tools	1 set


standard blocks (included)

standard shaft (included)

OPTIONAL ACCESSORY

Probe and arm	refer to details

ROUGHNESS TESTER
CODE ISR-C002

CAN BE OPERATED BY MOBILE PHONES OR COMPUTERS

BLUETOOTH

DATA OUTPUT

- Roughness tester can be operated by mobile phones (only Android system) or computers
- Data can be sent to Excel by connecting to computers via bluetooth or SPC cable
- Support bluetooth printer
- 21 roughness parameters
- Display roughness value, profile and curve
- Memory of maximum 100 results
- Automatic power off

VIDEO

software CD (included)

probe cover (included)

put the small workpieces directly under the probe for measurement

adjustable stand (included)

bluetooth printer (**optional**)

light duty test stand (**optional**)

the maximum workpiece height is 220mm

heavy duty test stand (**optional**)

the maximum workpiece height is 310mm

operate roughness tester by computers

connect to computers via USB cable (software is included), display roughness values, profile and curve

operate roughness tester by mobile phones

connect to mobile phones via bluetooth (only Android system), display roughness values, profile and curve

data can be sent to Excel by connecting to computer via bluetooth or SPC cable

via bluetooth

receiver (**optional**)

SPC cable (**optional**)

receiver (**optional**)

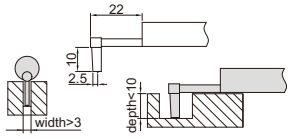
via SPC cable

Unit: mm

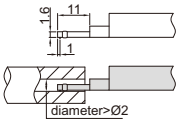
extension rod (optional), code ISR-C002-ER

transverse rod (optional), code ISR-C002-TR

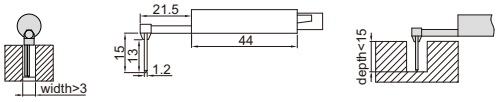
deep groove probe (optional), code ISR-C002-DGP



small hole probe (optional), code ISR-C002-SBP



deep groove probe (optional), code ISR-C002-DGP1



SPECIFICATION

Parameters		Ra, Rz, Rq, Rv, Rp, RS, R3z, R3y, Rt, Rz (JIS), Rk, Rku, Rsm, Rpc, Rpk, Rvk, Rsk, Mr1, Mr2, Ry (JIS), Rmax
Range		320μm (-160μm~160μm)
Accuracy		±10%
Resolution (Ra)		0.001μm
Probe	type	inductive
	stylus radius/angle	5μm/90°
	stylus material	diamond
Measuring force		4mN
Measuring unit		μm/μin
Cut off		0.25/0.8/2.5mm
Number of cut-off		1 to 5
Moving speed		0.5mm/s, 1mm/s
Memory		100 measurement results
Output		bluetooth and USB
Power		built-in rechargeable battery
Dimension (L×W×H)		141×55×40mm
Weight		400g

STANDARD DELIVERY

Main unit	1 pc
Standard probe	1 pc
Calibration block and support	1 pc of each
Adjustable stand	1 pc
Probe cover	1 pc
Software and USB cable	1 pc
AC/DC adapter	1 pc

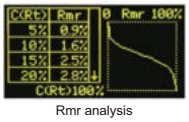
OPTIONAL ACCESSORY

Extension rod	ISR-C002-ER
Transverse rod	ISR-C002-TR
Tiny hole probe	ISR-C002-SBP
Deep groove probe	ISR-C002-DGP
Deep groove probe	ISR-C002-DGP1*
Light duty test stand	ISR-C002-STAND1
Heavy duty test stand	ISR-C002-STAND
Bluetooth printer	ISR-C002-PRINTER
Receiver	ISR-C300-RECEIVER
SPC cable	ISR-C300-SPC

*Need to be delivered with roughness tester **ISR-C002**

screen display

measurement result



Rmr analysis

roughness profile

ROUGHNESS TESTER (SEPARABLE TYPE)
CODE ISR-C300

CAN BE OPERATED BY COMPUTER OR MOBILE PHONE

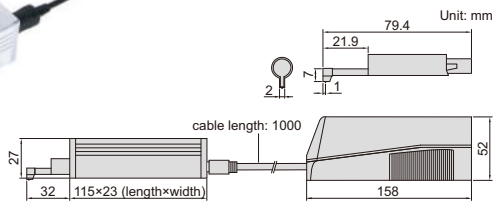
TOUCH SCREEN

BLUETOOTH

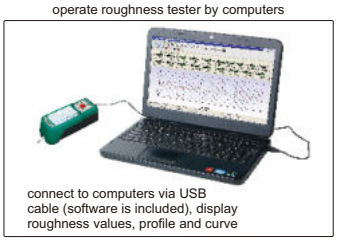
DATA OUTPUT

VIDEO

- Roughness tester can be operated by mobile phone (only android system) or computers
- Data can be sent to Excel by connecting to computers via bluetooth or SPC cable
- Support bluetooth printer
- 22 roughness parameters
- Meet ISO, DIN, ANSI, JIS standards
- Display roughness values, profile and curve
- Memory of maximum 100 data and waveform
- Built-in lithium battery, working time more than 50 hours
- Touch screen
- Automatic power off



operate roughness tester by computers

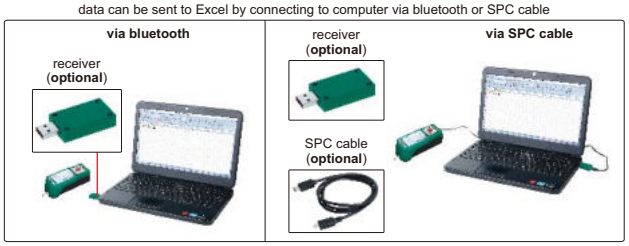


connect to computers via USB cable (software is included), display roughness values, profile and curve

operate roughness tester by mobile phones

connect to mobile phones via bluetooth (only Android system), display roughness values, profile and curve

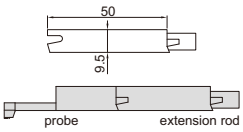
data can be sent to Excel by connecting to computer via bluetooth or SPC cable



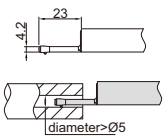
optional probes

Unit: mm

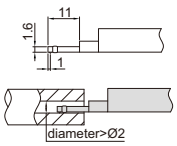
extension rod (**optional**), code **ISR-C002-ER**



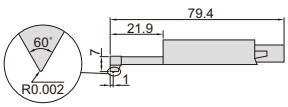
small hole probe (**optional**), code **ISR-C002-PROBE**



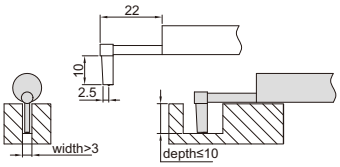
tiny hole probe (**optional**), code **ISR-C002-SBP**



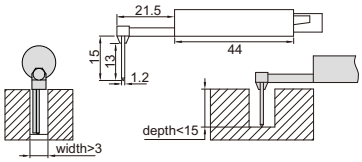
2μm/60˚probe (**optional**), code **ISR-C300-P2UM** (When Ra<0.5μm, the accuracy with this probe is better)



deep groove probe (**optional**), code **ISR-C002-DGP**



deep groove probe (**optional**), code **ISR-C002-DGP1**



roughness tester screen display

measurement result

roughness profile

Rmr analysis

software CD (included)

probe and main unit can be combined together

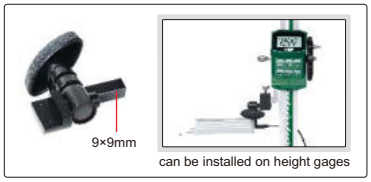
SPECIFICATION

Parameters		Ra, Rz, Rq, Rv, Rp, Rs, R3z, R3y, Rt, Rc, Rz (JIS), Rk, Rku, Rsm, Rpc, Rpk, Rvk, Rsk, Mr1, Mr2, Ry, Rmax
Range	**X axis**	17.5mm
	Z axis	320μm (-160μm~160μm)
Accuracy		±10%
Resolution (Ra)		0.001μm
Probe	**type**	inductive
	stylus radius/angle	5μm/90°
	stylus material	diamond
Measuring force		4mN
Measuring unit		μm/μin
Cut off		0.25/0.8/2.5mm
Number of cut-offs		1~5
Moving speed		0.135mm/s, 0.5mm/s, 1mm/s
Memory		100 measurement results
Output		bluetooth and USB
Power		built-in rechargeable battery
Dimension (L×W×H)		158×64×52mm
Weight		400g

magnetic stand adapter (included)

can be installed on magnetic stands

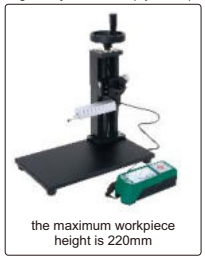
height gage adapter (**optional**)



can be installed on height gages

NOTE: Please check whether the adapter can fit your height gages. When using **INSIZE** height gages, please use the dial test indicator holder of height gages

light duty test stand (**optional**)



the maximum workpiece height is 220mm

heavy duty test stand (**optional**)

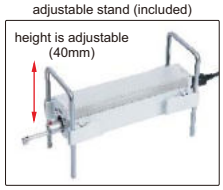
the maximum workpiece height is 310mm

To be continued

Continued from previous page

bluetooth printer (**optional**)

adjustable stand (included)



STANDARD DELIVERY

Main unit	1pc
Standard probe	1pc
Calibration block and support	1pc of each
Connecting cable (long and short)	1pc of each
Magnetic stand adapter	1pc
Adjustable stand	1pc
Touch pen	1pc
Software and USB cable	1pc
AC/DC adapter	1pc

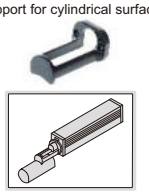
OPTIONAL ACCESSORY

Extension rod	ISR-C002-ER
Small hole probe	ISR-C002-PROBE
Tiny hole probe	ISR-C002-SBP
Deep groove probe	ISR-C002-DGP
Deep groove probe	ISR-C002-DGP1*
2μm/60˚ probe	ISR-C300-P2UM
Bluetooth printer	ISR-C002-PRINTER
Height gage adapter	ISR-C300-LB1
Receiver	ISR-C300-RECEIVER
SPC cable	ISR-C300-SPC
Support for flat surface	ISR-C300-COVER1
Support for cylindrical surface	ISR-C300-COVER2
Light duty test stand	ISR-C002-STAND1
Heavy duty test stand	ISR-C002-STAND

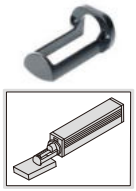
*Need to be delivered with roughness tester **ISR-C300**

probe support (**optional**)

support for cylindrical surface



support for flat surface



ROUGHNESS TESTER (BASIC TYPE) CODE ISR-C003

VIDEO

ATTENTION: THIS ROUGHNESS TESTER IS NOT SUITABLE FOR ROUGH TURNING, MILLING AND PLANING WORKPIECES

calibration block (included)

- Unit: μm, μin
- Automatic power off

fixture for small shafts (**optional**)

application

STANDARD DELIVERY

Main unit	1 pc
Calibration block	1 pc
AC/DC adapter	1 pc

SPECIFICATION

Parameters		Ra, Rz, Rq, Rt
Range		Ra, Rq: 0.05~15μm Rz, Rt: 0.1~50μm
Accuracy		±10%
Resolution (Ra)		0.01μm
Probe	type	piezoelectric
	stylus radius/angle	10μm/90°
	stylus material	diamond
Measuring force		5mN
Measuring unit		μm/μin
Cut off		0.25/0.8/2.5mm
Evaluation length		1.25mm for cut off 0.25mm 4mm for cut off 0.8mm 5mm for cut off 2.5mm
Moving speed		0.75mm/s
Power		built-in rechargeable battery
Dimension (L×W×H)		106×70×24mm
Weight		200g

OPTIONAL ACCESSORY

Fixture for small shafts	ISR-C003-FIXTURE

SURFACE ROUGHNESS SPECIMEN SET CODE ISR-CS130-W

INSIZE PLUS
MADE IN EUROPE

- For checking, identifying and specifying the roughness by symbol
- Rust-proof, made of pure Nickel

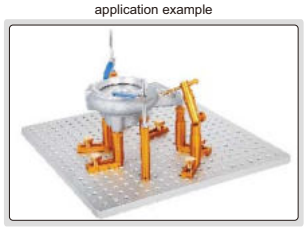
Machining method	Roughness (Ra)	Roughness (Rz)	Quantity
Flat lapping	0.05, 0.1, 0.2μm	0.55, 1, 1.6μm	3 pcs
	2, 4, 8μin		
Reaming	0.4, 0.8, 1.6μm	3, 6, 10μm	3 pcs
	16, 32, 63μin		
Plain grinding	0.05, 0.1, 0.2, 0.4, 0.8, 1.6μm	0.55, 1, 1.6, 3, 6, 10μm	6 pcs
	2, 4, 8, 16, 32, 63μin		
Horizontal milling	0.4, 0.8, 1.6, 3.2, 6.3, 12.5μm	2.5, 4, 8, 16, 32, 50μm	6 pcs
	16, 32, 63, 125, 250, 500μin		
Vertical milling	0.4, 0.8, 1.6, 3.2, 6.3, 12.5μm	2.5, 4, 8, 16, 32, 50μm	6 pcs
	16, 32, 63, 125, 250, 500μin		
Turning	0.4, 0.8, 1.6, 3.2, 6.3, 12.5μm	2.5, 4, 8, 16, 32, 50μm	6 pcs
	16, 32, 63, 125, 250, 500μin		

JIG SET FOR CMM
CODE ISY-600

acrylic tray (included)

ISY-600

application example



VIDEO

Product	Code	Size (mm)	Quantity
stand	ISY-600-80001	Ø12×50	6
	ISY-600-80002	Ø12×30	6
	ISY-600-80007	Ø12×20	6
stand	ISY-600-80003	Ø16×50	6
	ISY-600-80004	Ø16×30	6
	ISY-600-80008	Ø16×20	6
stand	ISY-600-80005	Ø20×50	6
	ISY-600-80006	Ø20×30	6
	ISY-600-80009	Ø20×20	6
spring stand	ISY-600-800010	—	2
universal support with damping	ISY-600-800012	—	2
stand with fine adjustment	ISY-600-800013	Ø20×55~78	2

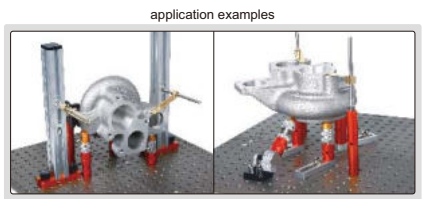
Product	Code	Size (mm)	Quantity
magnetic stand (magnetic top surface)	ISY-600-800014	Ø20×20	4
stand for slice parts	ISY-600-800015	Ø20×20	2
adaptor	ISY-600-800016	Ø20×15	6
clamping screw for base plate	ISY-600-800017	—	2
V shaped support	ISY-600-800018	Ø20×25	2
clamping screw	ISY-600-800019	—	6
sliding support plate	ISY-600-800020	68×20×10	6
clip	ISY-600-800021	12×70	5
chuck support	ISY-600-800022	—	2
clip stand	ISY-600-800023	Ø6×80	2
	ISY-600-800024	Ø6×40	3
aluminum support head	ISY-600-800025	—	3
nylon support head	ISY-600-800026	—	3
wrench	ISY-600-800027	Ø8×48	2
base plate	ISY-600-800028	400×400×15	1

JIG SET FOR CMM
CODE ISY-100

VIDEO

ISY-100

application examples



To be continued

Continued from previous page

Product	Code	Size (mm)	Quantity	Application
stand	ISY-100-1001	Ø16×30	5	
	ISY-100-1002	Ø16×50	5	
	ISY-100-1003	Ø16×100	3	
stand	ISY-100-1004	Ø20×30	5	
	ISY-100-1005	Ø20×50	5	
	ISY-100-1006	Ø20×100	3	
stand with fine adjustment	ISY-100-2001	Ø16×45~60	2	height adjustment: 45~60mm
stand with fine adjustment	ISY-100-2003	Ø20×45~60	2	
horizontal spring stand	ISY-100-4001	—	2	
horizontal screw stand	ISY-100-5001	—	2	
magnetic stand (magnetic top surface)	ISY-100-7001	Ø20×25	3	
stand for slice parts	ISY-100-8001	Ø20×25	2	ISY-100-8001 and ISY-100-8002 use cooperatively
clamping stand for slice parts	ISY-100-8002		1	
clip	ISY-100-1201	—	2	
clip	ISY-100-1301	—	2	
clip stand	ISY-100-1401	Ø6×60	2	
	ISY-100-1402	Ø6×100	2	
vertical square column	ISY-100-3003	30×30×250	2	
sliding support plate	ISY-100-1801	78×20×10	3	
clamping screw	ISY-100-2301	Ø8×20	6	
screw	ISY-100-2302	Ø8×20	6	
base plate	ISY-600-400200	400×400×12 hole size: M8×1.25 hole center distance: 20	2 pieces	—

Product	Code	Size (mm)	Quantity	Application
wrench	ISY-100-3701	Ø3.8×70	1	—
wrench	ISY-100-3801	M2.5	1	—
	ISY-100-3802	M5	1	—
	ISY-100-3803	M6	1	—
45° stand	ISY-100-9001	—	2	
V shaped support	ISY-100-1901	—	2	
V shaped support	ISY-100-1902	—	2	
marker	ISY-6100-1501	—	52*	
dust cleaner	ISY-100-3501	—	1	—
lubricating oil	ISY-100-3601	—	1	—

*Letter A~Z, number 0~25

Product	Code	Quantity	Material	Application
support head	ISY-100-27016	2	aluminum	
	ISY-100-27018	2	nylon	
support head	ISY-100-27026	2	aluminum	
	ISY-100-27028	2	nylon	
support head	ISY-100-27036	2	aluminum	
	ISY-100-27038	2	nylon	
support head	ISY-100-27046	2	aluminum	
	ISY-100-27048	2	nylon	
support head	ISY-100-27056	2	aluminum	
	ISY-100-27058	2	nylon	
support head	ISY-100-27066	2	aluminum	
	ISY-100-27068	2	nylon	
support head	ISY-100-27076	2	aluminum	
	ISY-100-27078	2	nylon	

JIGS FOR CMM (ANVIL Ø6mm)

CAN BE CUSTOMIZED

VIDEO

ISY-400

ISY-400-1

ISY-400-2

ISY-400-3

ISY-400-4

ISY-400-5

ISY-400-6

Code	Product	Remark
ISY-400	jig set	including 3 pcs **ISY-400-1**, 9 pcs **ISY-400-2**, 9 pcs **ISY-400-3**, 1 pc **ISY-400-4**, 3 pcs **ISY-400-5**, 3 pcs **ISY-400-6**

(mm)

Code	Product	Size	Anvil area	Anvil stroke
ISY-400-1	spring anvil	135×60×90	36×100	24

(mm)

Code	Product	Size
ISY-400-2	block	120×60×20
ISY-400-3	block	120×60×30
ISY-400-4	base plate	500×500×12
ISY-400-5	connecting plate	130×120×12
ISY-400-6	clamp handle	—

JIGS FOR CMM (ANVIL Ø6mm)

CAN BE CUSTOMIZED

VIDEO

ISY-500

ISY-500-1

ISY-500-2

ISY-500-3

ISY-500-4

ISY-500-5

ISY-500-6

ISY-500-7

Code	Product	Remark
ISY-500	jig set	including 1pc **ISY-500-1**, 1 pc **ISY-500-2**, 2 pcs **ISY-500-3**, 10 pcs **ISY-500-4**, 2 pcs **ISY-500-5**, 1 pc **ISY-500-6**, 2 pcs **ISY-500-7**

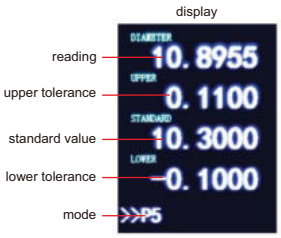
(mm)

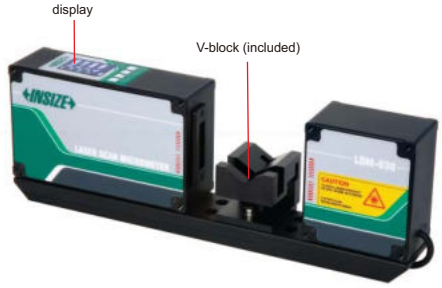
Code	Product	Size	Anvil area	Anvil stroke
ISY-500-1	spring anvil	135×60×90	36×100	24
ISY-500-2	adjustable spring anvil (range 0-40mm)	134×120×130	36×100	24

(mm)

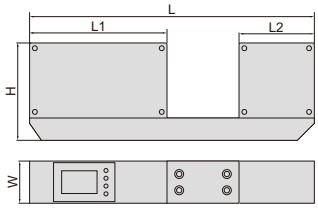
Code	Product	Size
ISY-500-3	base plate	300×240×20
ISY-500-4	block	120×90×20
ISY-500-5	connecting plate	170×90×15
ISY-500-6	connecting block of base plate	80×50×10
ISY-500-7	clamp handle	—

LASER SCAN MICROMETERS





LDM-030



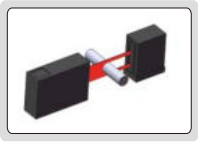
LDM-065

- Measure external diameter, ellipticity, run-out, maximum diameter of tools, etc.
- Can be used for transparent or non transparent workpieces
- Tolerance measurement
- Online or offline measurement
- Connected with computer and PLC

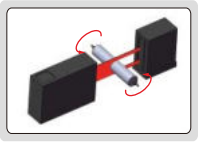
calibration gage (**optional**)

SPECIFICATION

Code	LDM-030	LDM-065
Measuring range	0.1~30mm	0.5~65mm
Resolution	0.01/0.1/1/10/100μm selectable	
25°C accuracy	±(0.5+10%D)μm, D is measuring diameter in mm	
Repeatability	±(0.3+5%D)μm, D is measuring diameter in mm	
Laser wave length	650nm	
Measuring speed	800~3200times/s (adjustable)	
Operation temperature	0~50°C	
Operation humidity	35~85RH without condensation	
Output	dual channel RS485	
Alarm output	24V, 1A	
Power supply	DC24V, 2A	
Dimension (L×W×H)	351×52×120mm	469×52×156mm
Weight	5kg	8kg

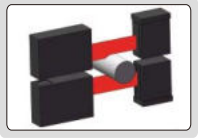


measure external diameter



measure ellipticity and run-out

two-axis measurement



large size measurement

STANDARD DELIVERY

Main unit	1 pc
V-block	1 pc
AC/DC adapter	1 pc
RS485 cable	1 pc

OPTIONAL ACCESSORY

Calibration gage	custom made

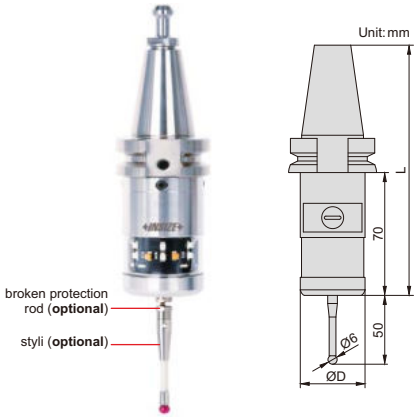
Dimension **(mm)**

Code	LDM-030	LDM-065
L	351	469
W	52	52
H	120	146
L1	170	203
L2	95	131

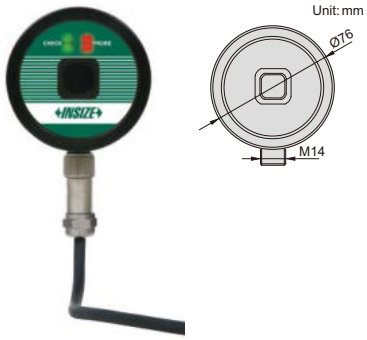
OPTICAL TRANSMISSION PROBES FOR CNC MACHINE TOOLS

IP68 WATERPROOF

VIDEO



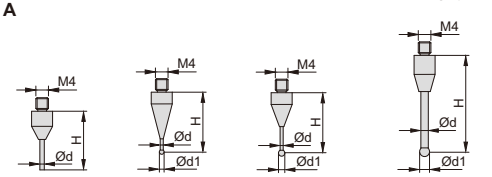
9407-1



9407-1A

- On-machine measurement
- Multi-channel transmission between probes and receivers, for anti-interference
- Transmit three kinds of signals: trigger, contact and low battery voltage
- With spindle protection function
- Optical transmission range: 1m, 3m, 5m
- Automatic power off in 3 seconds, move styli to power on

Unit: mm



9407-P1 9407-P2 9407-P3 9407-P4~9407-P11

OPTICAL PROBE SPECIFICATION

Code	9407-1*	9407-2*
Probe length (L)	140mm	180mm
Probe diameter (ØD)	40mm	46.5mm
Trigger accuracy of styli in any one direction	1μm	
Protection stroke triggered by styli in all directions	X and Y axis stroke: ±12.5°, Z axis stroke: 5mm	
Trigger force of styli in all directions	X and Y axis: 0.9N, Z axis: 6N	
Applicable spindle	BT30	BT50
Dust/waterproof	IP68	
Power supply	2×LS14250 lithium battery	

*9407-1 can be customized to spindle below BT40, 9407-2 can be customized to spindle over BT50; HSK, SK and ISO series spindles also can be customized.

STYLI (OPTIONAL)

(mm)

Code	H	Ød	Ød1	Material of measuring face
9407-P1	20	1	—	carbide
9407-P2	19.5	0.7	1	ruby
9407-P3	19	1.4	2	ruby
9407-P4	20	0.7	1	ruby
9407-P5	20	1.5	2	ruby
9407-P6	20	2	3	ruby
9407-P7	20	2	4	ruby
9407-P8	50	3	4	ruby
9407-P9	50	3.8	5	ruby
9407-P10	50	4.5	6	ruby
9407-P11	75	3.8	5	ruby

RECEIVER SPECIFICATION

Code	9407-1A
Protection function	low battery voltage or probe transmitting signal all the time**
Applicable probe	code 9407-1, 9407-2
Cable length	5m
Dust/waterproof	IP68

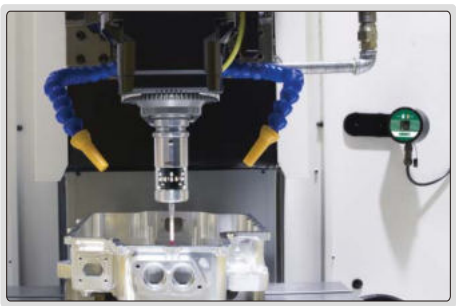
**When the battery voltage is low or the probe transmits signal all the time, the receiver will send a signal to the machine tool to stop working

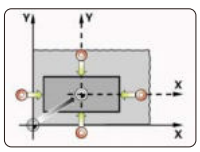
BROKEN PROTECTION ROD (OPTIONAL)

Code	H
9407-R1	12mm
9407-R2	22mm

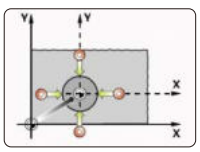
Unit: mm

application

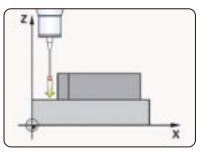




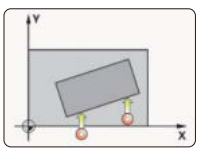
find center of rectangular boss



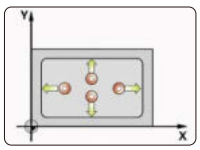
find center of the round boss



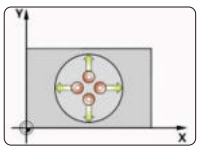
measure position of point on any axis



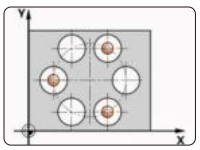
measure inclination of line



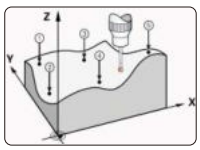
measure rectangular cavity



measure round cavity



measure center of holes



measure freeform surfaces

TOOL PRESETTER (BASIC TYPE)
CODE TLP-300H

VIDEO

rotate tools

standard rod (included)

BT50/BT40 converter (**optional**)

BT50/BT30 converter (**optional**)

- Absolute linear scales, zero setting is not needed after power on and off

SPECIFICATION

Maximum tool diameter (X axis)	Ø300mm
Height measuring range	60~300mm
Repeatability	0.005mm
Measuring accuracy	0.02mm
Linear scale resolution	0.005mm
Dial indicator graduation	0.01mm
Spindle holder	BT50
Power supply	110/220V, 50/60HZ
Dimension (L×W×H)	600x365x690mm
Weight	68kg

STANDARD DELIVERY

Main unit	1 pc
BT50 spindle holder	1 pc
Standard rod	1 pc
Dial indicator	2 pcs
Wrench	1 set
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

BT50/BT30 converter	TLP-300H-C1
BT50/BT40 converter	TLP-300H-C2

PROFILE PROJECTOR
CODE ISP-Z3015

INSPECTION CERTIFICATE

VIDEO

OPTIONAL ACCESSORY

lens

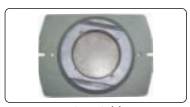
holder with clamp

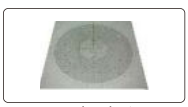
swivel center support

V-block with clamp

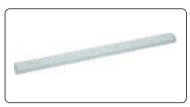
blue filter

demo sample


rotary table (glass plate diameter 100mm)


overlay chart (protractor with 1° graduation, radius with 1mm increment)

50mm reading scale (check magnification accuracy)


300mm calibration scale (check magnification accuracy together with 50mm reading scale or calibrate measuring accuracy)

To be continued

Continued from previous page

SPECIFICATION

Lens	magnification	10X (included)	20X (**optional**)	50X (**optional**)	100X (**optional**)
	view field	Ø30mm	Ø15mm	Ø6mm	Ø3mm
	working distance	77.7mm	44.3mm	38.4mm	25.3mm
Max. workpiece height		90mm	90mm	90mm	90mm
Magnification accuracy		±0.08%			
Image		erect image			
Projector screen		diameter: Ø300mm			
		rotation range: 0°~360°, resolution: 1" or 0.01°			
		reference lines: cross-hairs			
Stage	metal stage size	340×152mm			
	glass stage size	196×96mm			
	X-Y stage travel	range: 150×50mm			
		resolution: 0.5μm			
		accuracy: (4+L/25)μm L is the measuring length in mm			
	Z (focus) travel range	90mm			
	max. load capacity	4kg			
Illumination		contour illumination: 24V/150W halogen lamp, brightness is adjustable			
		surface illumination: 24V/150W halogen lamp			
Data processing unit	display	X-Y stage travel, screen rotation			
	output	RS232C			
	function	measure coordinate of point			
		measure coordinate of line			
		measure center coordinate, radius of circle with three points			
		measure distance between two objects			
		measure angle with four points or two lines			
		set origin of coordinate			
		coordinate transform			
		set midpoint of coordinate			
Power supply		110/220V, 50/60Hz			
Dimension (L×W×H)		550×770×1100mm			
Weight		135kg			

STANDARD DELIVERY

Main unit	1 pc
10X lens with half-reflection mirror and oblique illuminator mirror	1 pc
Overlay chart clip	4 pcs
Foot-switch	1 pc
Anti-dust cover	1 pc
USB cable	1 pc

OPTIONAL ACCESSORY

20X lens with half-reflection mirror and oblique illuminator mirror	ISP-Z3015-LENS20X
50X lens with half-reflection mirror	ISP-Z3015-LENS50X
100X lens with half-reflection mirror	ISP-Z3015-LENS100X
Rotary table	ISP-Z3015-TABLE
Overlay chart	ISP-Z3015-CHART
Holder with clamp	ISP-Z3015-HOLDER
Swivel center support	ISP-Z3015-SUPPORT
V-block with clamp	ISP-Z3015-VBLOCK
50mm reading scale	ISP-Z3015-SCALE50
300mm calibration scale	ISP-Z3015-RULE
Blue filter	ISP-Z3015-FILTER
Demo sample	ISP-Z3015-DEMO

QUICK MEASUREMENT SYSTEM (WITHOUT STITCHING)

VIDEO

- One or more workpieces can be measured by one step operation
- Place workpieces at any position
- Focus and measure automatically

QMS-A110

SPECIFICATION

Code		QMS-A110
Optical lens		low-distortion lens, single-field telecentric Ø100mm
View field range		100×80mm
Measurement range (X×Y)		98×78mm
Measurement accuracy*		±3μm
Repeatability		±1μm
Max.weight of workpiece		5kg
Measurement time		<2s
Measurement data		2D measurement
Power supply		220V, 50Hz, 600W
Illumination system	back light	telecentric illuminator, green light
	ring light	4-zone circular white high light circular (directional) low-angle green light (eletric)
	coaxial light (optional)	vertical illuminator, white light
Environmental requirement		temperature: 20°C±2°C, relative humidity: 30%~80%, vibration: <0.002g, less than 15Hz
Dimension (L×W×H)		580×235×790mm
Weight		40kg

* The optimum temperature is 20°C±1°C
Within 80×64mm, on focal position and environment temperature at 20°C±1°C

STANDARD DELIVERY

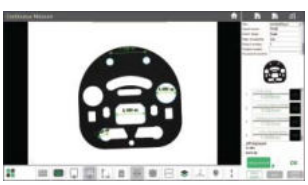
Main unit	1 pc
Computer	1 pc
Software	1 pc

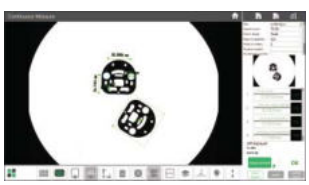
OPTIONAL ACCESSORY

Coaxial light illumination	QMS-23-A3
Data transimission function of software	QMS-23-D1
CAD import function of software	QMS-23-C1
Foot-switch	QMS-43-FS1

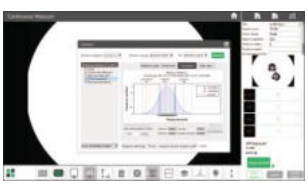
Software (included)

- Automatically measure widths, holes, rings, angles at the same time, simple and efficient.





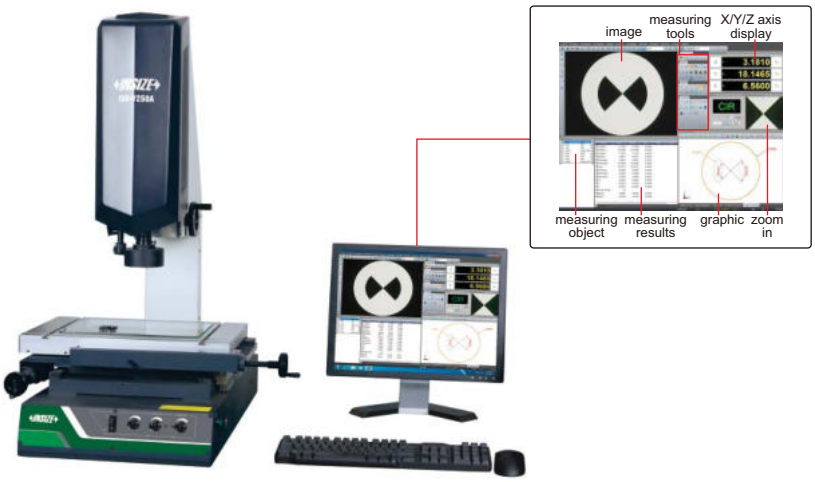
- Measuring result can be stored automatically.
OK items and NG items can be counted automatically.



VISION MEASURING SYSTEMS

INSPECTION CERTIFICATE

VIDEO



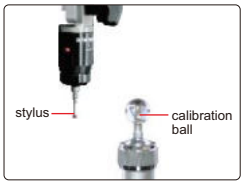
ISD-V250A

computer is included

lens with coaxial light (**optional**, must be installed in factory)

SPECIFICATION

Code	ISD-V150A	ISD-V250A	ISD-V300A
Measuring range (X×Y×Z)	150×100×150mm	250×150×150mm	300×200×150mm
Stage size	354×228mm	450×280mm	500×330mm
Glass stage size	210×160mm	306×196mm	350×250mm
Resolution of X/Y/Z axis	0.5μm		
Accuracy of X/Y axis	≤(3.5+L/100)μm (L is the measuring length in mm)		
Repeatability of X/Y axis	2μm		
Objective	0.7X~4.5X (zoom)		
Working distance	92mm		
Magnification	33X~195X (on 19" monitor)		
Camera	1/3" color CCD, 0.3M pixel		
Illumination	surface and contour with adjustable LED		
Max. height of workpiece	150mm		
Max. weight of workpiece	20kg		
Operation system	Windows 7/8/10		
Drive method	manual		
Power supply	110/220V, 50/60Hz		
Dimension (L×W×H)	560×540×850mm	760×600×900mm	760×600×900mm
Weight	100kg	120kg	140kg



probe (**optional**), includes Ø2mm and Ø3mm styli, Ø25mm calibration ball, measuring accuracy is 10μm

STANDARD DELIVERY

Main unit	1 pc
Computer	1 pc
Calibration glass chart	1 pc
Clay	1 pc
Foot switch	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

0.5X auxiliary objective	Code: **ISD-V-OB05X** Working distance: 175mm Magnification: 16.5~97.5X (on 19" monitor)
2X auxiliary objective	Code: **ISD-V-OB2X** Working distance: 36mm Magnification: 66~390X (on 19" monitor)
Probe	Code: **ISD-V-PROBE** Includes Ø2mm and Ø3mm styli, Ø25mm calibration ball
Vision measuring system with coxial light lens (with computer)	Code **ISD-V150ACL, ISD-V250ACL, ISD-V300ACL**
Office software	Code **7313-OFFICE**

SOFTWARE

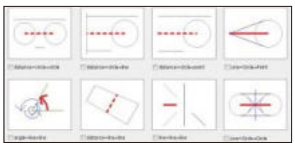
- **Operation system:** Windows 7/8/10
- **Language:** English
- **Single measuring tools:**

- measure coordinate of point
- measure center coordinate and axis length of ellipse
- measure length of open curve
- measure distance of two elements
- measure center coordinate, diameter and area of circle
- measure length, width and area of rectangle
- measure length and area of closed curve
- measure distance between two points
- measure length, width and diameter of key slot
- measure angle of two lines
- measure length and diameter of arc
- measure width and diameter of ring
- measure focus distance of urface

To be continued

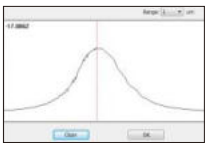
Continued from previous page

■ **Combined measuring tools:**

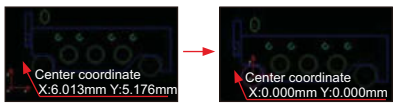


measure distance and angle of two elements

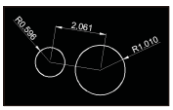
■ **Focus indicator:**



■ **Coordinate transfer:**



■ **Data export to CAD, EXCEL and WORD**



CAD

EXCEL

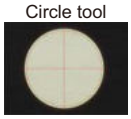
WORD

■ **Edge-detection:**

Point tool

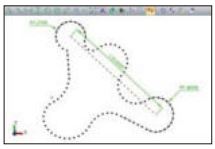
Box tool

Circle tool



■ **Profile detection:**

■ **Contour scanning:**



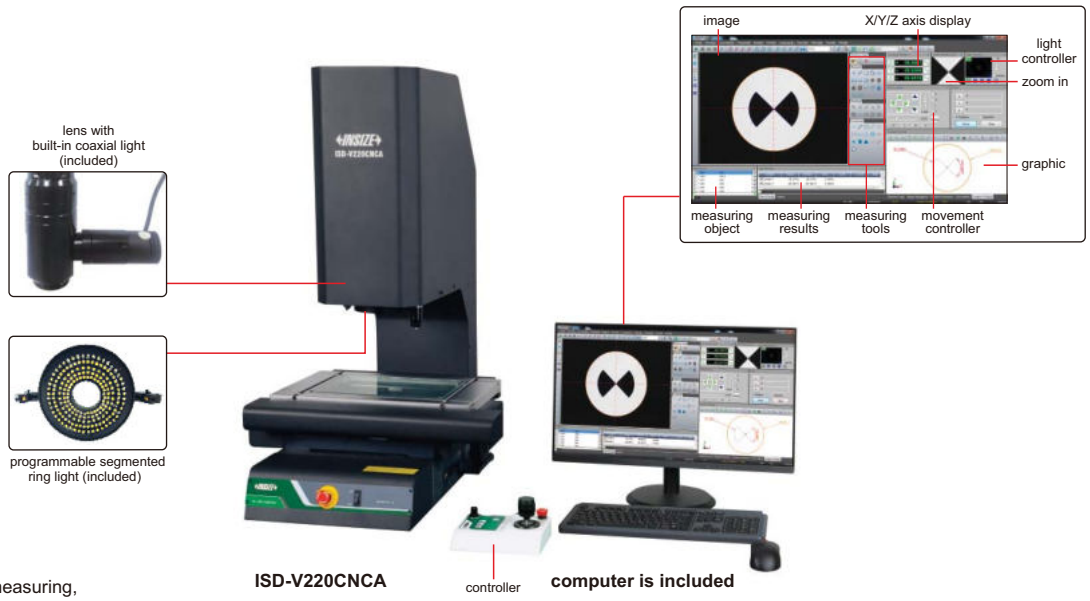
■ **CAD measuring:**

Input CAD drawing and set reference, move the stage to make the target box in the center of crosshair, then the software will do automatic measurement

CNC VISION MEASURING SYSTEMS

INSPECTION CERTIFICATE

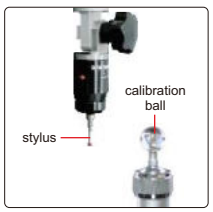
VIDEO



- Automatic edge-detection, focus, measuring, contour scanning, calibration, etc.
- Servo motors for X, Y, Z axis
- SPC function for large quantity measurement
- Measuring software is included

STANDARD DELIVERY

Main unit	1 pc
Software	1 pc
Computer	1 pc
24" display	1 pc
Len with coaxial light	1 pc
Controller	1 pc
Calibration glass chart	1 pc
Laser positioner	1 pc
Clay	1 pc
Anti-dust cover	1 pc



probe (**optional**), includes Ø2mm and Ø3mm styli, Ø25mm calibration ball, measuring accuracy is 10μm

laser probe (**optional**) measuring accuracy is 5μm

To be continued

Continued from previous page

SPECIFICATION

Code (manual zoom lens)		ISD-V220CNCA	ISD-V270CNCA	ISD-V370CNCA
Measuring range (X×Y×Z)		220×120×150mm	270×170×150mm	370×270×150mm
Stage size		450×280mm	500×330mm	606×466mm
Glass stage size		306×196mm	350×250mm	450×350mm
Resolution of X/Y/Z axis		0.5μm		
Accuracy of X/Y axis		≤(2.5+L/100)μm (L is the measuring length in mm)		≤(3.5+L/100)μm (L is the measuring length in mm)
Repeatability of X/Y axis		2μm		
Objective		0.7X~4.5X (zoom)		
Working distance		92mm		
Magnification		33.0X~208.6X (on 24" monitor)		
Camera		Giga-bit network camera		
Illumination	surface	coaxial light, programmable segmented ring light		
	contour	adjustable LED light		
View field (diagonal length)		1.5~10.8mm		
Max. height of workpiece		150mm		
Max. weight of workpiece		30kg		
Operation system		Windows 7/8/10		
Drive method		automatic		
Power supply		220V, 50/60Hz		
Dimension (L×W×H)		760×600×900mm	760×600×900mm	970×670×940mm
Weight		146kg	168kg	266kg

OPTIONAL ACCESSORY

0.5X auxiliary objective	Code: **ISD-V-OB05X** Working distance: 175mm Magnification: 16.5~104.3X (with manual zoom lens, on 24" monitor)
2X auxiliary objective	Code: **ISD-V-OB2X** Working distance: 36mm Magnification: 66~417.2X (with manual zoom lens, on 24" monitor)
Probe	Code: **ISD-V-PROBE** Includes Ø2mm and Ø3mm styli, Ø25mm calibration ball
Laser probe	Code: **ISD-V-LASER**
Office software	Code: **7313-OFFICE**
Desk	Code: **ISD-V-DESK**

SOFTWARE

- **Operation system:** Windows 7/8/10
- **Language:** English
- **Single measuring tools:**

measure coordinate of point

measure center coordinate and axis length of ellipse

measure length of open curve

measure distance of two elements

measure center coordinate, diameter and area of circle

measure length, width and area of rectangle

measure length and area of closed curve

measure distance between two points

measure length, width and diameter of key slot

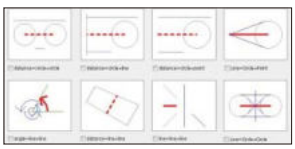
measure angle of two lines

measure length and diameter of arc

measure width and diameter of ring

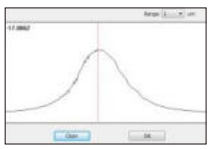
measure focus distance of urface

- **Combined measuring tools:**

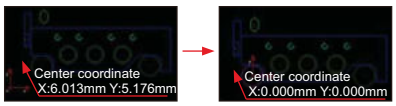


measure distance and angle of two elements

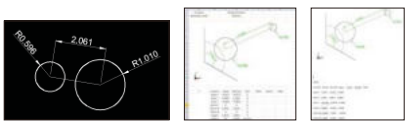
- **Focus indicator:**



- **Coordinate transfer:**



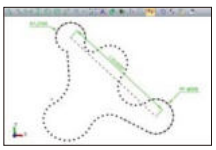
- **Data export to CAD, EXCEL and WORD**



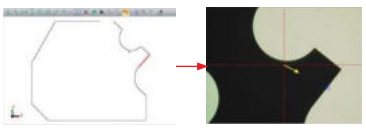
- **Profile detection:**

- **Edge-detection:**

- **Contour scanning:**



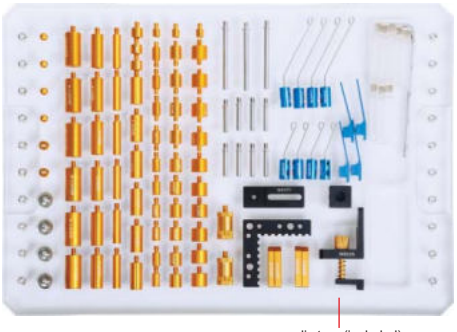
- **CAD measuring:**

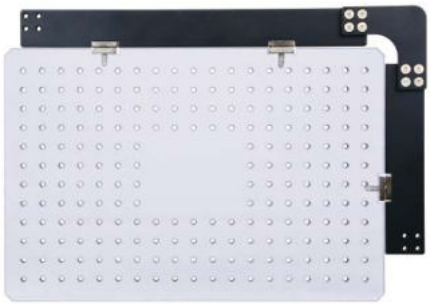


Input CAD drawing and set reference, move the stage to make the target box in the center of crosshair, then the software will do automatic measurement

JIG SET FOR VISION MEASURING SYSTEMS
CODE ISY-700

VIDEO

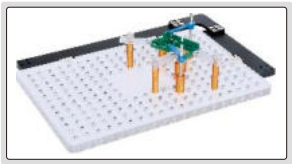




acrylic tray (included)

ISY-700

application example



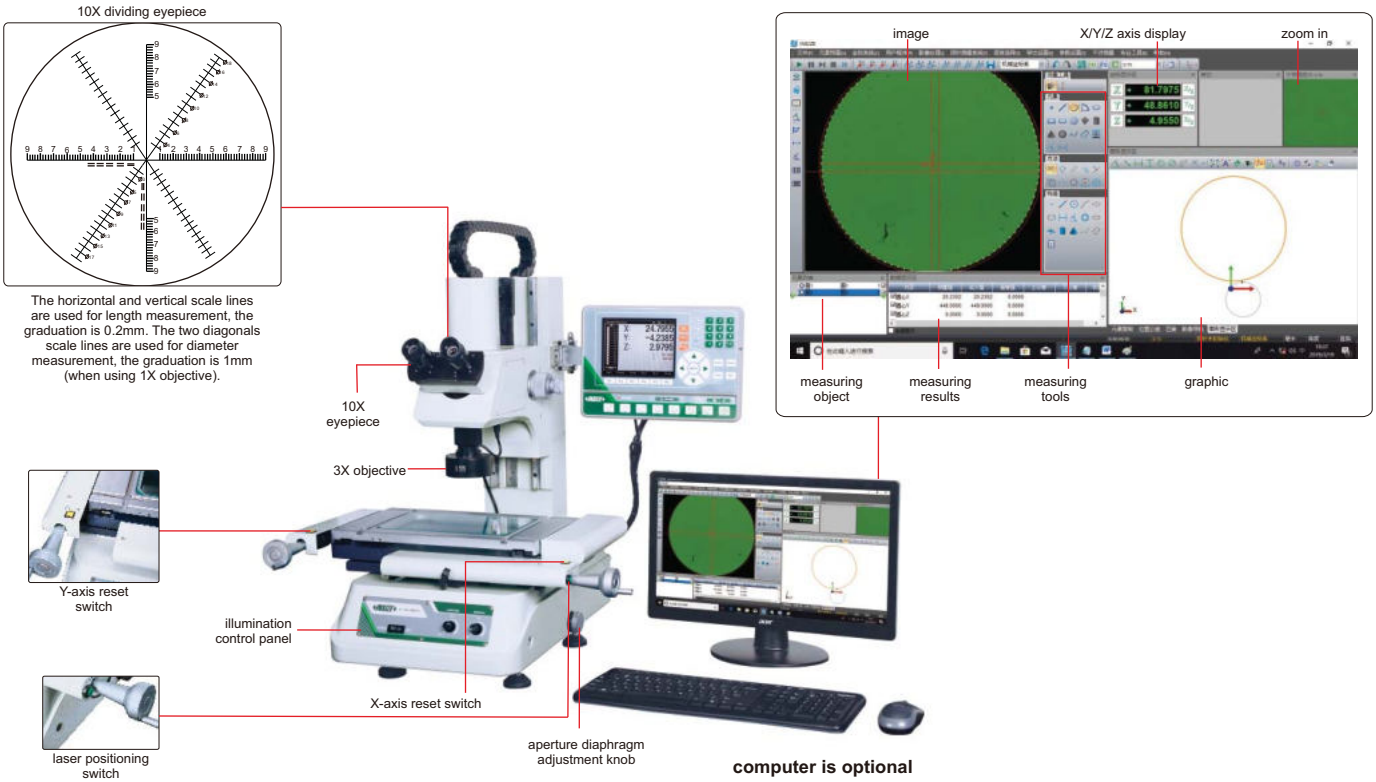
Product	Code	Size (mm)	Quantity
clip	ISY-700-90001	7×34	4
clip	ISY-700-90002	Ø1.5×24	4
	ISY-700-90003	Ø1.5×50	4
clip stand	ISY-700-90004	Ø4×20	8
	ISY-700-90005	Ø4×46	3
spherical support head	ISY-700-90006	—	4
stand	ISY-700-90007	Ø6×10	6
	ISY-700-90008	Ø6×25	6
	ISY-700-90019	Ø6×6	3
stand	ISY-700-90009	Ø9×7	3
	ISY-700-90010	Ø9×10	6
	ISY-700-90011	Ø9×20	6
	ISY-700-90012	Ø9×25	6
stand	ISY-700-90013	Ø12×10	6
	ISY-700-90014	Ø12×25	6
stand for slice parts	ISY-700-90015	Ø6×10	4
	ISY-700-90016	Ø9×10	4
	ISY-700-90017	Ø12×10	4
stand with fine adjustment	ISY-700-90018	Ø12×20~25	2

Product	Code	Size (mm)	Quantity
adapter for square support	ISY-700-90020	—	2
clamping screw	ISY-700-90021	—	4
L-shaped positioning plate	ISY-700-90022	50×50×6	1
sliding support plate	ISY-700-90023	30×12×5	4
square support	ISY-700-90024	20×16×16	1
base for square support	ISY-700-90025	45×16×6	1
spring stand	ISY-700-90026	—	1
acrylic sliding support plate	ISY-700-90028	45×12×5	8
wrench	ISY-700-90029	M3	1
acrylic base plate	ISY-700-90030	300×200×12	1

TOOLMAKER MICROSCOPE

VIDEO

INSPECTION CERTIFICATE



SPECIFICATION

Code	**ISD-VMM215** (binocular)
X/Y axis travel	200×100mm
Z axis travel	150mm
Metal stage size	404×228mm
Glass stage size	260×160mm
Resolution of X/Y/Z axis	0.5μm
Accuracy of X/Y axis	≤(2.5+L/100)μm (L is the measuring length in mm)
Repeatability	2μm
Camera	1/3" color CCD, 0.3M pixel
Optical magnification	30X (with 3X objective)
Image magnification	114X (on 19" monitor)
Illumination	surface and contour with adjustable LED
Max. weight of workpiece	25kg
Power supply	100V~240V, 50/60Hz
Operation system	Windows 7/8/10
Drive method	manual
Dimension (L×W×H)	540×667×850mm
Weight	110kg

DATA PROCESSING UNIT

Output	RS232
Function	simple measuring tools
	measure coordinate of points
	measure lines
	measure center coordinate, radius of circle with three points
	measure distances betwen two objects
	measure angles
	set origin of coordinate
	skew and calibrate the workpiece
	measure rectangle (including length, width, perimeter and center coordinate)
	measure thread (including thread diameter, screw pitch, screw angle)
	measure slot (including center coordinate, length, width)

STANDARD DELIVERY

Main unit	1 pc
Video card with dongle	1 pc
Software disc	1 pc
Calibration glass chart	1 pc
Demo sample	1 pc
Foot switch	1 pc
3X objective	1 pc

OPTIONAL ACCESSORY

1X objective	**ISD-VMM-LENS1X**
5X objective	**ISD-VMM-LENS5X**
10X objective	**ISD-VMM-LENS10X**
Toolmaker microscopes (with computer)	Code: **ISD-VMM215A** (binocular)

To be continued

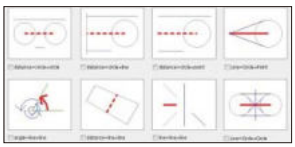
Continued from previous page

SOFTWARE

- **Operation system:** Windows 7/8/10
- **Language:** English
- **Single measuring tools:**

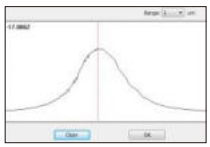
- measure coordinate of point
- measure center coordinate and axis length of ellipse
- measure length of open curve
- measure distance of two elements
- measure center coordinate, diameter and area of circle
- measure length, width and area of rectangle
- measure length and area of closed curve
- measure distance between two points
- measure length, width and diameter of key slot
- measure angle of two lines
- measure length and diameter of arc
- measure width and diameter of ring
- measure focus distance of urface

- **Combined measuring tools:**

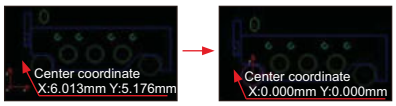


measure distance and angle of two elements

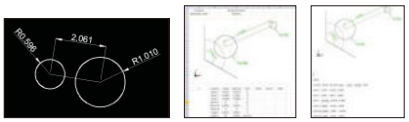
- **Focus indicator:**



- **Coordinate transfer:**



- **Data export to CAD, EXCEL and WORD**



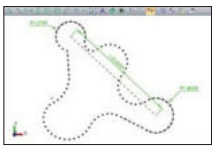
CAD EXCEL WORD

- **Profile detection:**

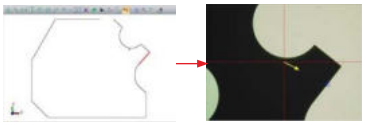
- **Edge-detection:**

Point tool Box tool Circle tool

- **Contour scanning:**



- **CAD measuring:**



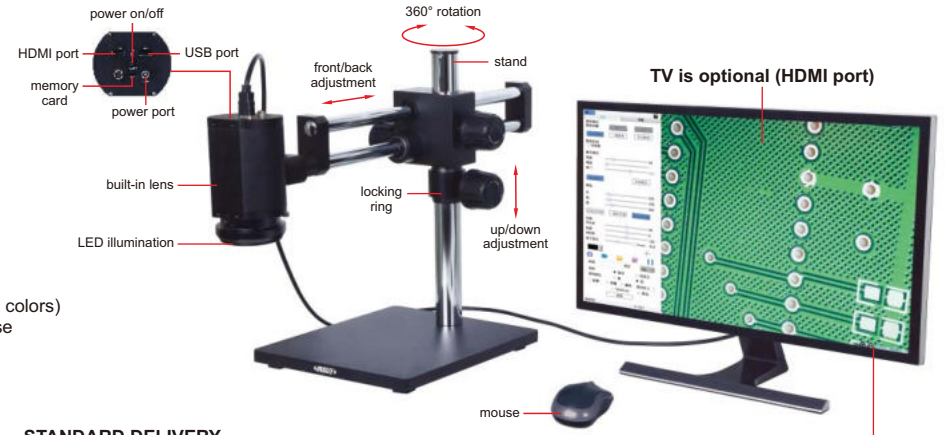
Input CAD drawing and set reference, move the stage to make the target box in the center of crosshair, then the software will do automatic measurement

AUTO FOCUS DIGITAL MICROSCOPE (LARGE VIEW FIELD) CODE 5302-AF105

MEASUREMENT | AUTO FOCUS | TAKE PICTURES AND VIDEOS

VIDEO

- 1080P high-definition image
- Auto focus camera
- Take pictures and videos, saved to memory card
- Connected to TV by HDMI port
- Automatic exposure and white balance
- Brightness, contrast ratio, gain are adjustable
- Display cross hair (blue/green/red/yellow/black/brown colors)
- Built-in software without computer, operation by mouse



1~14X optical zoom adjustment

SPECIFICATION

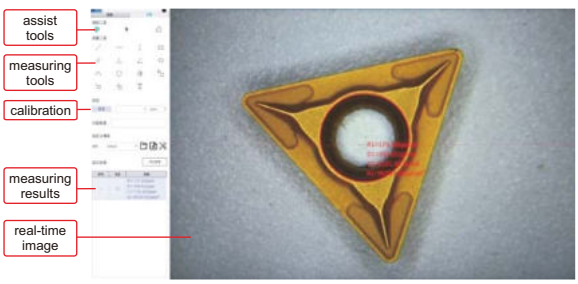
Magnification	1.8X~27.5X (on 28" TV)
Sensor	1/2.8" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Auto focus distance	100mm~∞
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	500×280×410mm
Weight	17kg

STANDARD DELIVERY

Main unit (with stand)	1 pc
LED illumination	1 pc
16G memory card and holder	1 pc
Mouse	1 pc
HDMI cable (for TV)	1 pc
Power adapter	2 pcs

Focus distance	Adjustable magnification (on 28" TV)	View field	Measuring accuracy
100mm	4.5~27.5X	24×14~161×90mm	0.02mm
150mm	3~21X	30×17~240×128mm	0.02mm
200mm	2.3~17.5X	38×20~305×176mm	0.02mm
250mm	2~15X	42×24~320×210mm	0.02mm
270mm	1.8~14.4X	43×25~378×240mm	0.02mm

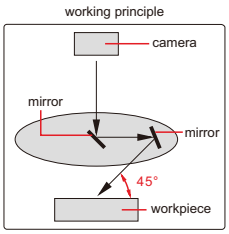
MEASURING SOFTWARE (INCLUDED)



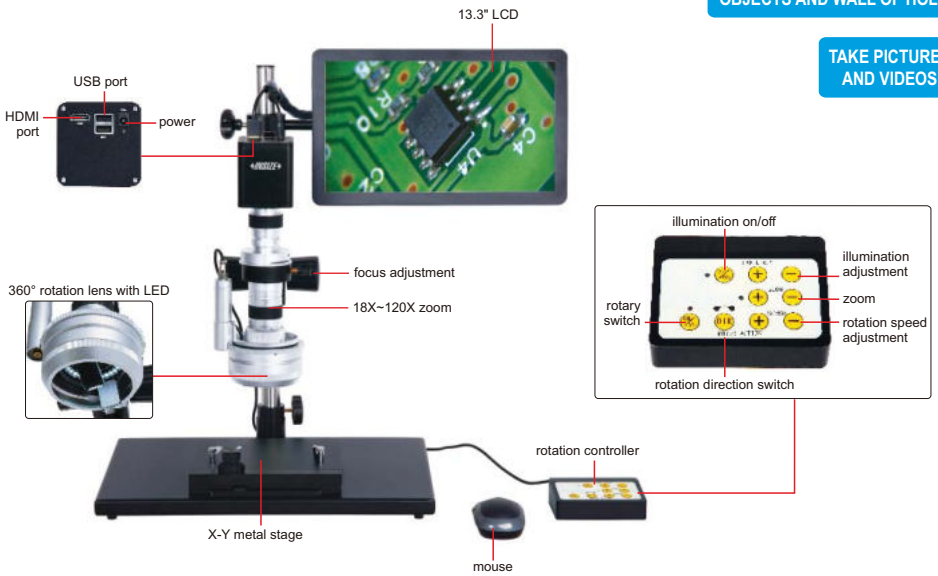
3D MOTORIZED ROTATION MICROSCOPE (WITH DISPLAY)
CODE 5301-D400

SUITABLE TO CHECK CONVEX OBJECTS AND WALL OF HOLE

TAKE PICTURES AND VIDEOS



VIDEO



- 1080P high-definition 3D image
- Take pictures and videos, save to USB flash disk
- Automatic white balance and exposure
- Brightness, contrast ratio and gain are adjustable

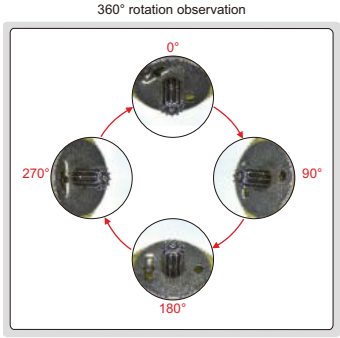
SPECIFICATION

Magnification	18X~120X
View field	2.4×1.5mm~16×9mm
Focus distance	20mm
View angle	45°
Sensor	1/2.8" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Output	HDMI
Rotation speed	2~5RPM
Power supply	110/220V, 50/60Hz
Dimension (L×W×H)	570×300×430mm
Weight	10kg

STANDARD DELIVERY

Main unit	1 pc
Rotation controller	1 pc
X-Y metal stage	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
Power adapter	2 pcs

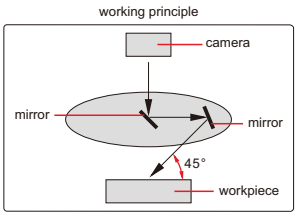
360° rotation observation



3D MANUAL ROTATION MICROSCOPE (WITH DISPLAY)
CODE 5313-S407

SUITABLE TO CHECK CONVEX OBJECTS AND WALL OF HOLES

TAKE PICTURES AND VIDEOS



VIDEO

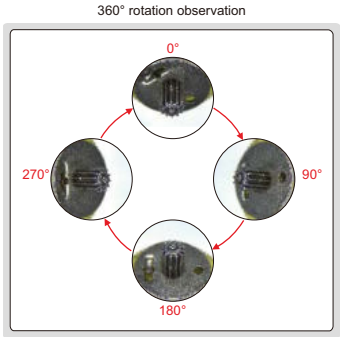
SPECIFICATION

Magnification	18X~120X
View field	2.4×1.5mm~16×9mm
Focus distance	20mm
View angle	45°
Sensor	1/2.8" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Output	HDMI
Power supply	220V, 50/60Hz
Dimension (L×W×H)	570×300×430mm
Weight	10kg

STANDARD DELIVERY

Main unit	1 pc
X-Y metal stage	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
Power adapter	2 pcs

360° rotation observation



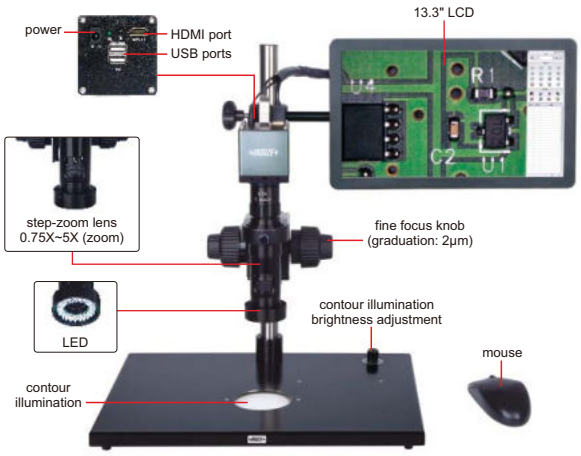
DIGITAL MEASURING MICROSCOPE (WITH DISPLAY)

MEASUREMENT

BUILT-IN SOFTWARE WITHOUT COMPUTER

TAKE PICTURES

VIDEO



ISM-DL301 (with contour illumination)

- 1080P high-definition image
- Built-in software without computer, operation by mouse
- Take pictures, saved to USB flash disk
- Measurement results can be output to Excel
- Automatic white balance and exposure
- Brightness, contrast ratio, gain are adjustable

16G USB flash disk (included)

calibration plate (included)

1X auxiliary objective (included)

0.5X camera adapter (included)

1X camera adapter (**optional**)

2X auxiliary objective (**optional**)

SPECIFICATION

Code	ISM-DL301 (with contour illumination)
Magnification	15X~100X
Sensor	1/2" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	570×300×430mm
Weight	6.5kg

STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
HDMI cable	1 pc
Power adapter	3 pcs

OPTIONAL ACCESSORY

1X camera adapter	ISM-DL-CA1X
2X auxiliary objective	ISM-DL-OB2X
X-Y glass stage (travel: 74×60mm)	ISM-DL-STAGE
X-Y metal stage	ISM-DL-STAGE1
LED light	see details
Auxiliary objective	see details

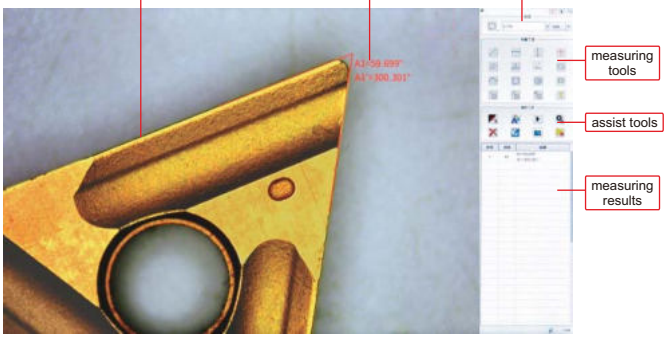
MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD

Auxiliary Objective	Specification	Camera adapter	
		0.5X (included)	1X (optional)
1X (included)	Magnification	15~100X	30~200X
	Focus distance	70±2mm	70±2mm
	View filed	16×11~2.5×1.6mm	7.8×5.3~1.2×0.8mm
2X (optional)	Magnification	30~200X	60~400X
	Focus distance	29±2mm	29±2mm
	View field	7.8×5.3~1.2×0.8mm	3.8×2.7~0.6×0.4mm

MAGNIFICATION AND MEASURING ACCURACY

Objective magnification	Image magnification	Measuring accuracy
0.75X	15X	±8μm
1X	20X	±7μm
1.5X	30X	±6μm
2X	40X	±6μm
2.5X	50X	±6μm
3X	60X	±5μm
3.5X	70X	±5μm
4X	80X	±4μm
4.5X	90X	±4μm
5X	100X	±4μm

SOFTWARE (INCLUDED)



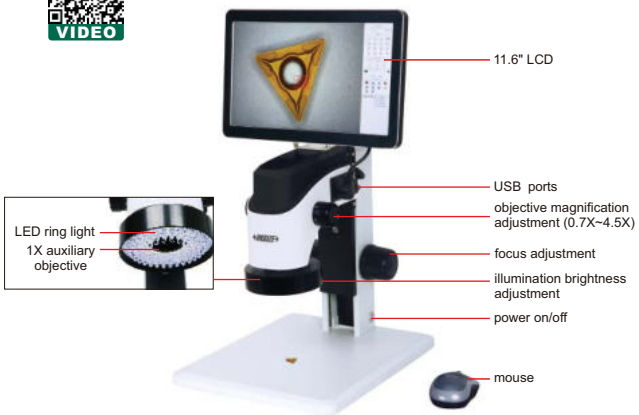
DIGITAL MEASURING MICROSCOPE
CODE 5307-ID100A

VIDEO

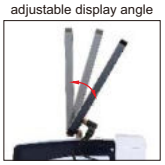
ELECTRONIC MAGNIFICATION FEEDBACK LENS

BUILT-IN SOFTWARE WITHOUT COMPUTER

- Electronic magnification feedback lens: when the objective lens magnification is changed manually, the software automatically selects the corresponding pre-calibration data and calibration is not needed
- Two methods of LED brightness adjustment, knob adjustment and software adjustment
- Built-in software without computer, operated by mouse
- Take pictures, save to USB flash disk
- Measuring results can be sent to Excel



adjustable display angle



SPECIFICATION

Sensor	1/2" CMOS
Pixel	2M
Resolution	1920×1080
Magnification	12~77X
Focus distance	100mm
View field	2.7×1.9~17.5×11.9mm
Max workpiece height	60mm
Frame rate	60fps
Output	USB/HDMI
Power supply	power adapter
Dimension (L×W×H)	610×610×660mm
Weight	4.5kg

STANDARD DELIVERY

Main unit	1 pc
Calibration plate	1 pc
Power adapter	1 pc
Mouse	1 pc
16G USB flash disk	1 pc

OPTIONAL ACCESSORY

0.5X auxiliary objective	5307-ID100A-OB05X
0.75X auxiliary objective	5307-ID100A-OB075X
2X auxiliary objective	5307-ID100A-OB2X

MAGNIFICATION AND MEASURING ACCURACY

Objective magnification	Magnification	Measuring accuracy
0.7X	12X	±9μm
1X	17X	±9μm
1.5X	26X	±8μm
2X	35X	±7μm
2.5X	43X	±7μm
3X	51X	±7μm
3.5X	60X	±6μm
4X	68X	±6μm
4.5X	77X	±5μm

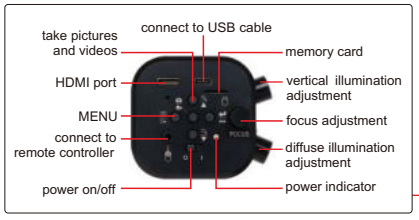
DIGITAL MICROSCOPE

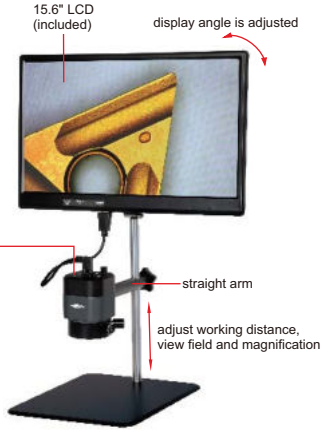
MEASUREMENT

TAKE PICTURES AND VIDEOS

VIDEO

- Independent control of vertical illumination and diffuse illumination
- Back focus adjustment extends working distance
- Take pictures and videos, save to memory card

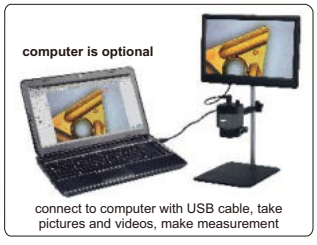




5309-DM50

SPECIFICATION

Code	5309-DM50
Arm type	straight
Sensor	1/2.8" CMOS
Pixel	2M
Resolution	1920×1080
Exposure	real-time auto, single auto, manual adjustment
White balance	real-time auto, single auto, manual RGB adjustment
Record format	pictures: JPG videos: MOV
Record media	memory card
Working distance	45~169mm
Magnification	9~41X
View field	7.6×4~38.5×21.7mm
Power supply	DC12V 3A



connect to computer with USB cable, take pictures and videos, make measurement

remote controller (included)

white/black plate (included)

plastic calibration rule (graduation 1mm, included)

STANDARD DELIVERY

Main unit	1 pc
Memory card and holder	1 pc
Plastic calibration rule (graduation 1mm)	1 pc
White/black plate	1 pc
Remote controller	1 pc
USB cable	1 pc
Measuring software	1 pc
Power adapter	1 pc

USE COMPUTERS, OPTIONAL

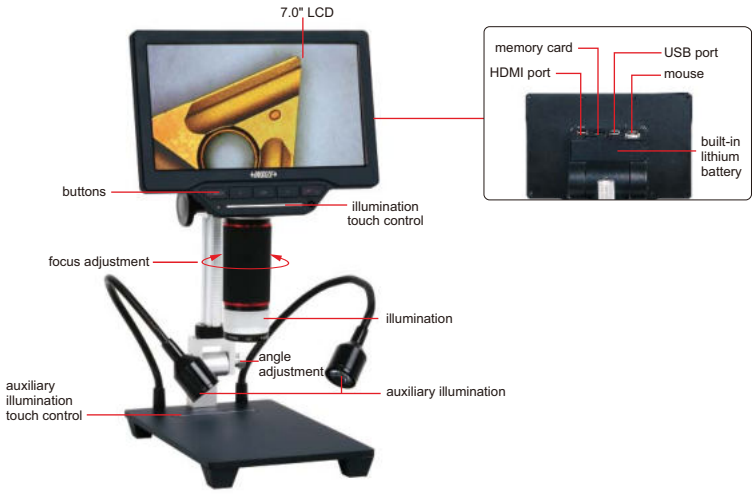
Image magnification	View field	Measuring accuracy
9.0X	38.5×21.7mm	±0.02mm
13.0X	26.6×15.0mm	±0.02mm
17.0X	20.5×11.7mm	±0.02mm
22.0X	16.0×9.0mm	±0.02mm
28.5X	11.9×6.3mm	±0.02mm
34.0X	9.8×5.5mm	±0.01mm
41.0X	7.6×4.1mm	±0.01mm

MINI DIGITAL MICROSCOPE (ECONOMIC TYPE)
CODE 5311-M710

TAKE PICTURES AND VIDEOS

BUILT-IN LITHIUM BATTERY

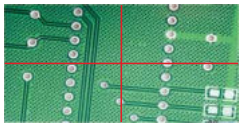
VIDEO



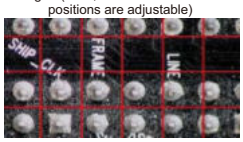
8G memory card and holder (included)

infrared ray remote controller (included)

cross hair



grid (color, line thickness and positions are adjustable)



SPECIFICATION

Display resolution	1024×600
Sensor	1/3" CMOS
Sensor resolution	1280×960
Single pixel size	2μm×2μm
Frame rate	60fps/30fps
Magnification	1X~16X
White balance	auto/manual (10 levels RGB)/calibration
Exposure control	AE lock/exposure compensation (10 levels)
Image control	contrast/saturation/sharpness
Record media	memory card
Output	HDMI
Power supply	built-in lithium battery/power adapter
Dimension(L×W×H)	174×200×350mm
Weight	1.5kg

STANDARD DELIVERY

Main unit	1 pc
USB cable	1 pc
HDMI cable	1 pc
IR remote controller	1 pc
8G memory card and holder	1 pc
Plastic calibration rule	1 pc
Power adapter	1 pc

SOFTWARE FOR COMPUTER (included)

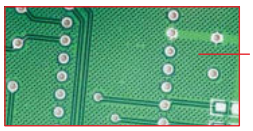
- **Language**: Chinese (Simplified), English
- **Operation system**: Windows 7/8/8.1/10 (64bit)
- **Port**: USB2.0 or above
- **Measuring accuracy**: 0.02mm

- point counting
- straight line length
- continuous line length
- area of a rectangle
- area of a polygon
- distance between 2 lines
- point-line distance
- distance between parallel lines
- distance between line and first parallel line
- center distance of concentric circle
- radius of a 2-point circle
- radius of a 3-point circle
- center distance of 2 circles
- radius of a circle
- cross line
- double cross line
- angle
- arc

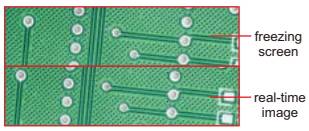
connect to computer with USB cable, take pictures and videos, make measurement

- **Screen freezing:**

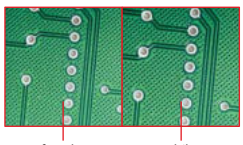
full screen



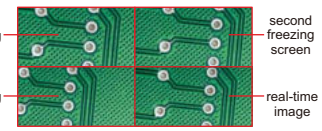
up-down split screen

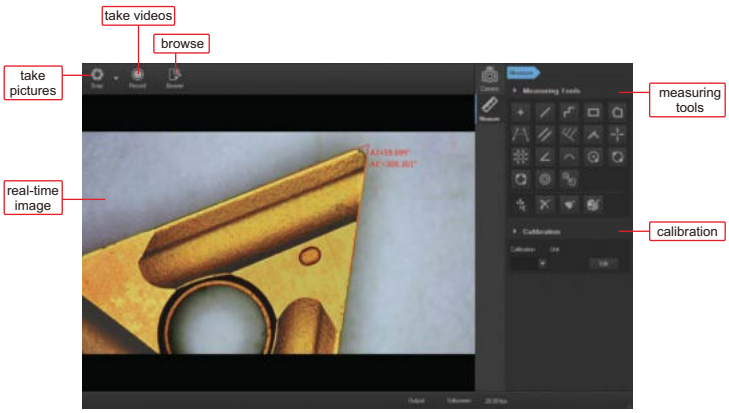


left-right split screen



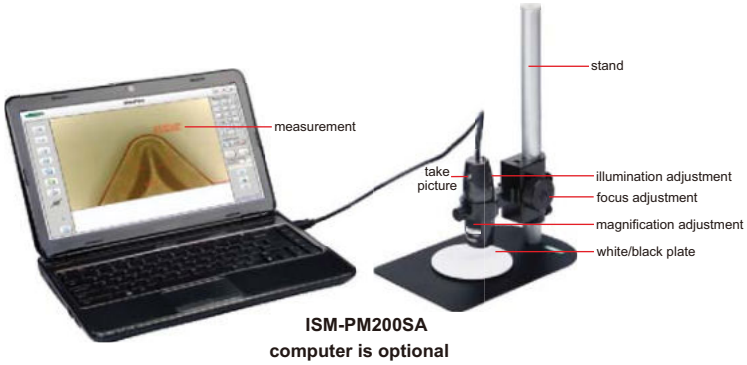
1/4 split screen





DIGITAL MEASURING MICROSCOPE

VIDEO



ISM-PM200SA
computer is optional

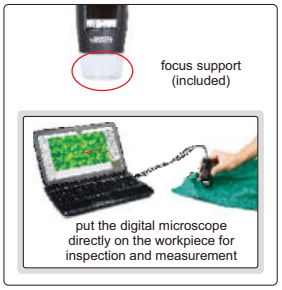
- Can take pictures and videos
- Supplied with software
- Calibration rules (graduation 0.1 and 1mm) are included
- With focus support

software CD (included)

SPECIFICATION

Code	**ISM-PM200SA**
Magnification	10X~200X
Stand	standard
Pixel	2M (resolution: 1600×1200)
Ilumination	built-in adjustable LED
Power supply	USB 2.0 cable (voltage required: 5±0.1V)

filter (**optional**)



MAGNIFICATION, FOCUS DISTANCE, VIEW FIELD AND ACCURACY

Magnification	Focus distance	View field (mm)	Accuracy
50X	21mm	8.1×6.4	30μm
100X	13mm	3.9×3.1	15μm
150X	16mm	2.6×2.1	10μm
200X	19mm	1.8×1.5	8μm

OPTIONAL ACCESSORY

Green filter	**ISM-PM-GREEN**
Yellow filter	**ISM-PM-YELLOW**
Blue filter	**ISM-PM-BLUE**

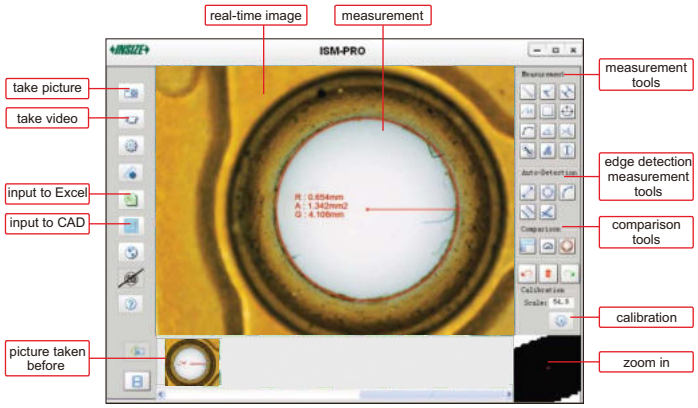
SOFTWARE

- **Language:** English, Japanese, Korean, German, Turkey, Portuguese, Chinese
- **Operation system:** Windows 7/8/XP/Vista
- **Measurement tools:**

  - measure length of line or distance between two points
  - measure distance between point and line
  - measure distance between two parallel lines
  - measure length of continuous line
  - measure area of rectangle
  - measure radius, girth and area of circle
  - measure radius, length and angle of arc
  - measure distance between two circles
  - measure angle with three points
  - measure angle with two lines
  - add text
  - add number with circle

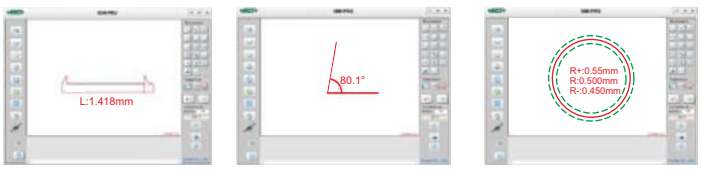
- **Edge detection measurement tools:**

  - detect line automatically, and calculate length
  - detect arc automatically, and calculate radius, angle and arc length
  - detect two lines automatically, and calculate angle
  - detect circle automatically, and calculate radius, girth and area
  - detect two parallel lines automatically, and calculate distance

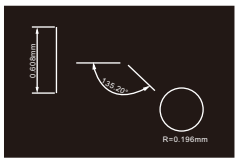


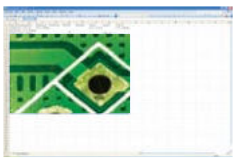
- **Comparison tools:**
  Create line, angle or circle with desired size, to compare with workpieces.

  create line — create angle — create circle with tolerance



- **Data export to CAD or Excel:**

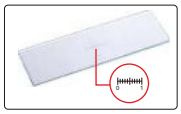




WiFi DIGITAL MEASURING MICROSCOPE
CODE ISM-WF200

VIDEO

plastic calibration rule
(graduation 1mm, included)

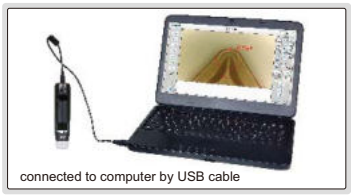

glass calibration rule
(graduation 0.1mm, included)

software CD
(included)

connected to iPad by WiFi

connected to Android device by WiFi

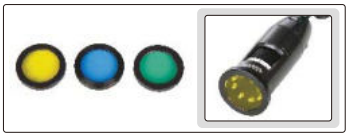
connected to computer by WiFi


connected to computer by USB cable

- Maximum working distance is 5m under WiFi mode
- Can be connected to multiple iPads, Android devices or computers at the same time under WiFi mode
- Take pictures and videos
- Supplied with software

stand (code **ISM-PM-STAND**, **optional**)

filter (**optional**)



SPECIFICATION

Magnification	10X~200X
Pixel	1.3M (resolution: 1280x1024)
Illumination	built-in adjustable LED
Power supply	built-in rechargeable battery

STANDARD DELIVERY

Microscope	1 pc
Focus support ring for 80X/150X	1 pc
Focus support ring for 60X/200X	1 pc
Glass calibration rule (graduation 0.1mm)	1 pc
Plastic calibration rule (graduation 1mm)	1 pc
Software and USB cable	1 pc
AC/DC adapter	1 pc

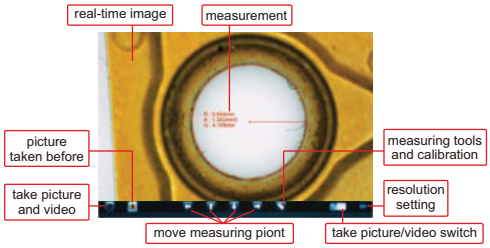
OPTIONAL ACCESSORY

Stand	**ISM-PM-STAND**
Green filter	**ISM-PM-GREEN**
Yellow filter	**ISM-PM-YELLOW**
Blue filter	**ISM-PM-BLUE**

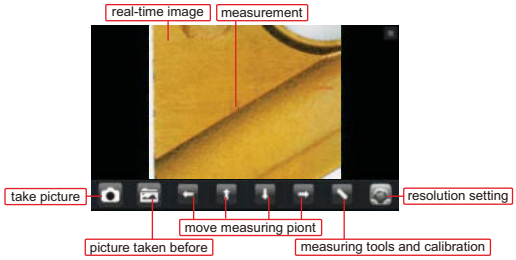
MAGNIFICATION, FOCUS DISTANCE, VIEW FIELD AND ACCURACY

Magnification	Focus distance	View field	Accuracy
50X	21mm	8.1×6.4mm	30μm
100X	13mm	3.9×3.1mm	15μm
150X	16mm	2.6×2.1mm	10μm
200X	19mm	1.8×1.5mm	8μm

❶ **Software ISM-PAD** (for iPad by WiFi)

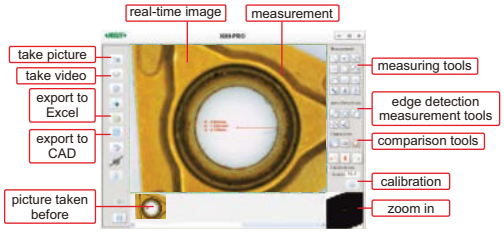


❷ **Software ISM-APK** (for Android devices by WiFi)



❸ **Software ISM-WF Partner** (for computer by WiFi)

❹ **Software ISM-PRO** (for computer by USB cable)



INDUSTRIAL MICROSCOPES

VIDEO

- Infinite optical system, polarization observation, dark field observation
- Kohler illumination system provides uniform illumination field
- Objective 50X is spring type

5101-M500

STANDARD DELIVERY

Main unit	1 pc
Anti-dust cover	1 pc

SPECIFICATION

Code	5101-M500 (bright field objectives)				5101-M500BD (bright & dark field objectives)			
Illumination	6V/30W halogen lamp, brightness is adjustable				12V/50W halogen lamp, brightness is adjustable			
Objective (infinite plan achromatic)	bright field objectives				bright & dark field objectives			
	5X	10X	20X	50X	5X	10X	20X	50X
Working distance	26.1mm	20.2mm	8.80mm	3.68mm	9.70mm	9.30mm	7.23mm	2.50mm
Numerical aperture	0.12	0.25	0.40	0.70	0.12	0.25	0.40	0.70
Magnification	50X~500X							
Eyepiece (wide field)	10X (view field: Ø22mm)							
Stage	double layer							
	size: 160×140mm							
	travel: 35x30mm							
Pupil distance	53~75mm							
Diopter adjustment	±5 diopter (one eyepiece)							
Power supply	220V, 50/60Hz							
Dimension (L×W×H)	415×345×380mm							
Weight	14kg							

OPTIONAL ACCESSORY

Bright field objective (for 5101-M500)	PL40X	5101-M-OB40X
	PL60X	5101-M-OB60X
	PL80X	5101-M-OB80X
	PL100X	5101-M-OB100X
Camera adapter*		5101-M-ADAPTER
Bright & dark field objective (for 5101-M500BD)	PL40X	5101-M-BD40X
	PL60X	5101-M-BD60X
	PL80X	5101-M-BD80X
	PL100X	5101-M-BD100X
10X dividing eyepiece (0.1mm/div.)		5101-M-EPD10X
Digital camera		ISM-CM20, ISM-CM63, ISM-ZS70-S

*Digital camera must be used with camera adapter

METALLURGICAL MICROSCOPES

VIDEO

- Infinite optical system, polarization observation, dark field observation
- Kohler illumination system provides uniform illumination field
- Objectives 50X, 100X are spring type

5103-M1000

STANDARD DELIVERY

Main unit	1 pc
Polarizer and analyzer	1 pc of each
Anti-dust cover	1 pc

SPECIFICATION

Code	5103-M1000 (bright field objectives)				5103-M1000BD (bright & dark field objectives)			
Illumination	6V/30W halogen lamp, brightness is adjustable				12V/50W halogen lamp, brightness is adjustable			
Objective (infinite plan achromatic)	bright field objectives				bright & dark field objectives			
	10X	20X	50X	100X	5X	10X	20X	50X
Working distance	20.2mm	8.80mm	3.68mm	0.40mm	9.70mm	9.30mm	7.23mm	2.50mm
Numerical aperture	0.25	0.40	0.70	0.85	0.12	0.25	0.40	0.70
Magnification	100X~1000X				50X~500X			
Eyepiece (wide field)	10X (view field: Ø22mm)							
Stage	double layer							
	size: 242×200mm							
	travel: 30x30mm							
Pupil distance	53~75mm							
Diopter adjustment	±5 diopter (one eyepiece)							
Power supply	220V, 50/60Hz							
Dimension (L×W×H)	614×250×394mm							
Weight	13kg							

OPTIONAL ACCESSORY

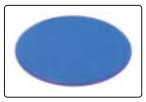
Bright field objective (for 5103-M1000)	PL5X	5101-M-OB5X
	PL40X	5101-M-OB40X
	PL60X	5101-M-OB60X
	PL80X	5101-M-OB80X
Bright & dark field objective (for 5103-M1000BD)	PL40X	5101-M-BD40X
	PL60X	5101-M-BD60X
	PL80X	5101-M-BD80X
	PL100X	5101-M-BD100X
10X dividing eyepiece (0.1mm/div.)		5103-M-EPD10X
Camera adapter*		5101-M-ADAPTER
Digital camera		ISM-CM63

*Digital camera must be used with camera adapter

METALLURGICAL MICROSCOPES

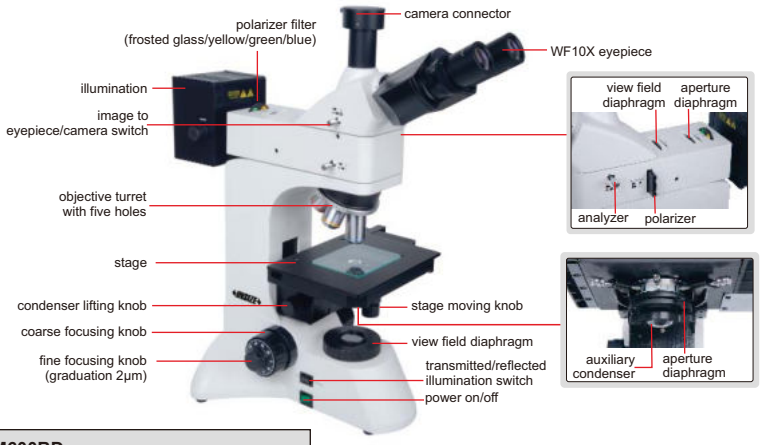
VIDEO

- Infinite optical system, observation in reflected or transmitted illumination, polarizing observation and dark field observation
- Kohler illumination system provides uniform illumination field
- Objectives 40X, 60X are spring type



blue filter (included)

frosted glass filter (included)



5102-M600

STANDARD DELIVERY

Main unit	1 pc
Anti-dust cover	1 pc
Filter (blue/frosted glass)	1 pc of each

SPECIFICATION

Code	5102-M600 (bright field objectives)				5102-M600BD (bright & dark field objectives)			
Illumination	6V/30W (transmitted), 6V/30W (reflected)				12V/30W (transmitted), 12V/50W (reflected)			
Objective (infinite plan achromatic)	bright field objectives				bright & dark field objectives			
	5X	10X	40X	60X	5X	10X	20X	40X
Working distance	26.1mm	20.2mm	3.98mm	3.18mm	9.70mm	9.30mm	7.20mm	3.00mm
Numerical aperture	0.12	0.25	0.60	0.70	0.12	0.25	0.40	0.70
Magnification	50X~600X				50X~400X			
Eyepiece (wide field)	10X (view field: Ø22mm)							
Stage	double layer							
	size: 210×140mm							
	travel: 75x50mm							
Pupil distance	53~75mm							
Diopter adjustment	±5 diopter (one eyepiece)							
Power supply	220V, 50/60Hz							
Dimension (L×W×H)	456×260×498mm							
Weight	11kg							

OPTIONAL ACCESSORY

Bright field objective (for 5102-M600)	PL20X	5101-M-OB20X
	PL50X	5101-M-OB50X
	PL80X	5101-M-OB80X
	PL100X	5101-M-OB100X
Camera adapter*		5101-M-ADAPTER
Bright & dark field objective (for 5102-M600BD)	PL50X	5101-M-BD50X
	PL60X	5101-M-BD60X
	PL80X	5101-M-BD80X
	PL100X	5101-M-BD100X
10X dividing eyepiece (0.1mm/div.)		5101-M-EPD10X
Digital camera		ISM-CM20, ISM-CM63, ISM-ZS70-S

*Digital camera must be used with camera adapter

ZOOM STEREO MICROSCOPE (PROFESSIONAL TYPE) CODE 5107-S70T

VIDEO

- Greenough optical system, clear observation, real color
- High working distance is convenient for operation
- Excellent flat image and large depth of field, make observation comfortable
- 6.7:1 large zoom ratio, allow quick observation adjustment

SPECIFICATION

Optical tube	trinocular
Eyepiece (wide field)	10X (view field: Ø22mm)
Objective	0.67X~4.5X (zoom)
Observation tube	45° trinocular tube inclination angle, built-in 0.5X adapter
Zoom ratio	6.7:1
Pupil distance	50~75mm
Diopter adjustment	-8~+5 diopter (both eyepieces)
Working distance of objective	110mm
Max. workpiece height	106mm
Illumination	adjustable LED light
Power supply	110/220V
Dimension (L×W×H)	330×300×368mm
Weight	3.5kg

white/black plate (included)

frosted glass filter (included)

STANDARD DELIVERY

Main unit	1 pc
10X eyepiece	2 pcs
Ø100mm glass plate	1 pc
Ø100mm white/black plate	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Auxiliary objective	0.5X	5107-S70T-OB05X
	1.5X	5107-S70T-OB15X
	2X	5107-S70T-OB20X
Eyepiece	15X (view field: Ø16mm)	5107-S70T-EP15X
	20X (view field: Ø12.5mm)	5107-S70T-EP20X
LED ring light		ISM-ZS-RL
Digital camera		ISM-CM20, ISM-CM63, ISM-ZS70-S

LED ring light (optional)

PARALLEL LIGHT STEREO MICROSCOPE CODE ISM-ZS200

PARALLEL LIGHT PATH: REDUCE FATIGUE
ACCESSORIES CAN BE ADDED INTO LIGHT PATH

VIDEO

- Infinity parallel optical system and 20° inclined optical tube reduce fatigue
- Coaxial illumination is optional for deep holes which cannot be observed by ring light
- Aperture diaphragm is optional for large depth for field and high quality image

optical path splitter (**optional**)

iris diaphragm (**optional**)

coaxial illumination (**optional**)

SPECIFICATION

Optical tube	binocular (20° inclined)
Eyepiece (wide field)	10X (view field: Ø22mm)
Objective	0.8X~8X (zoom)
Zoom ratio	1:10
Pupil distance	55~75mm
Diopter adjustment	±5 diopter (both eyepieces)
Working distance of objective	78mm
Max. workpiece height	72mm
Illumination	adjustable reflected and transmitted LED light
Power supply	110/220V, 50/60HZ
Dimension (L×W×H)	240×280×440mm
Weight	4.3kg

STANDARD DELIVERY

Main unit	1 pc
WF 10X eyepiece	2 pcs
Ø100mm glass plate	1 pc
Ø100mm white/black plate	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Objective	0.5X achromatic objective (focus distance: 186mm)	ISM-ZS200-OB05X*
	2X plan achromatic objective (focus distance: 32.5mm)	ISM-ZS200-OB2X
	0.5X plan apochromatic objective (focus distance: 126mm)	ISM-ZS200-APO05X*
Eyepiece	WF15X (view field: Ø16mm)	ISM-ZS200-EP15X
	WF20X (view field: Ø12mm)	ISM-ZS200-EP20X
	WF30X (view field: Ø20mm)	ISM-ZS200-EP30X
Sleeve for objective		ISM-ZS30-ADAPTER
Iris diaphragm		ISM-ZS200-IRD
Optical path splitter		ISM-ZS200-OBS
Coaxial illumination		ISM-ZS200-COAXIAL
Digital camera**		ISM-CM20, ISM-CM63

*0.5X auxiliary objective must be used with **ISM-ZS30-ADAPTER**

**Digital camera must be used with optical path splitter

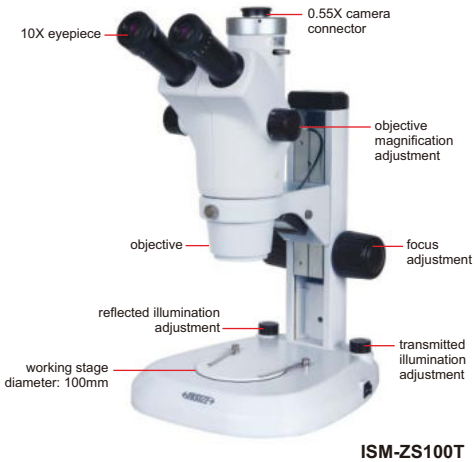
ZOOM STEREO MICROSCOPES (ADVANCED TYPE)

LARGE ZOOM RATIO

VIDEO

connect to digital camera (for **ISM-ZS100T**)

LED ring light (**optional**)



ISM-ZS100T

SPECIFICATION

Code	ISM-ZS100	ISM-ZS100T
Optical tube	binocular	trinocular
Eyepiece (wide field)	10X (view field: Ø23mm)	
Objective	0.6X~5X (zoom)	
Zoom ratio	1:8.3	
Pupil distance	55~75mm	
Diopter adjustment	±5 diopter (two eyepieces)	
Working distance of objective	115mm	
Max. workpiece height	75mm	
Illumination	adjustable reflected and transmitted LED light	
Power supply	110/220V, 50/60HZ	
Dimension (L×W×H)	260×310×490mm	
Weight	4.9kg	

STANDARD DELIVERY

Main unit	1 pc
Digital camera adapter 0.55X for ISM-ZS100T	1 pc
WF10X eyepiece	2 pcs
Ø100mm glass plate	1 pc
Ø100mm white/black plate	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Auxiliary objective	0.5X (focus distance: 220mm)	ISM-ZS100-OB05X*
	0.7X (focus distance: 125mm)	ISM-ZS100-OB07X
	2X (focus distance: 45mm)	ISM-ZS100-OB2X
Eyepiece	WF15X (view field: Ø16mm)	ISM-ZS100-EP15X
	WF20X (view field: Ø12mm)	ISM-ZS100-EP20X
	WF30X (view field: Ø8mm)	ISM-ZS100-EP30X
Sleeve for auxiliary objective		ISM-ZS30-ADAPTER
LED ring light		ISM-ZSRL
Digital camera adapter 1X for ISM-ZS100T		ISM-ZS100-DA
Digital camera for ISM-ZS100T		ISM-CM20, ISM-CM63, ISM-ZS70-S

*0.5X auxiliary objective must be used with **ISM-ZS30-ADAPTER**

ZOOM STEREO MICROSCOPES (STANDARD TYPE)

VIDEO

ISM-ZS50

SPECIFICATION

Code	ISM-ZS50	ISM-ZS50T
Optical tube	binocular	trinocular
Eyepiece (wide field)	10X (view field: Ø22mm)	
Objective	0.8X~5X (zoom)	
Zoom ratio	1:6.3	
Pupil distance	55-75mm (adjustable)	
Diopter adjustment	±5 diopter (two eyepieces)	
Working distance of objective	115mm	
Max. workpiece height	75mm	
Illumination	adjustable reflected and transmitted LED light	
Power supply	110/220V, 50/60Hz	
Dimension (L×W×H)	290x260x480mm	
Weight	4.9kg	

STANDARD DELIVERY

Main unit	1 pc
WF10X eyepiece	2 pcs
Ø100mm glass plate	1 pc
Ø100mm white/black plate	1 pc
Anti-dust cover	1 pc

LED ring light (**optional**)

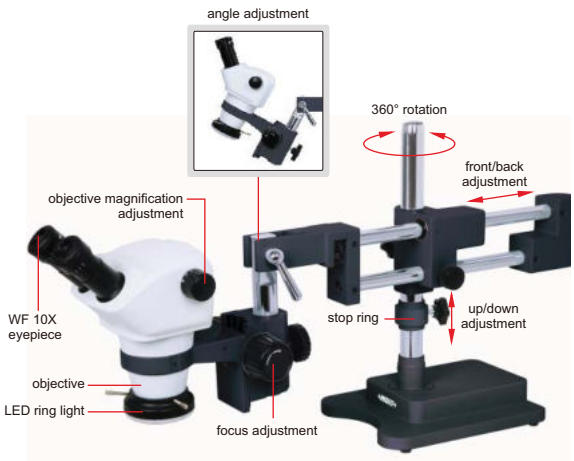
OPTIONAL ACCESSORY

Auxiliary objective	0.5X	ISM-ZS50-OB05X *
	2X	ISM-ZS50-OB2X
Eyepiece	10X dividing eyepiece (graduation 0.1mm/div.)	ISM-ZS50-EPD10X
	WF15X (view field: Ø16mm)	ISM-ZS50-EP15X
	WF20X (view field: Ø12mm)	ISM-ZS50-EP20X
LED ring light		ISM-ZS-RL
Sleeve for auxiliary objective		ISM-ZS30-ADAPTER
Digital camera for ISM-ZS50T		ISM-CM20, ISM-CM63, ISM-ZS70-S
Camera adapter 0.5X for ISM-ZS50T **		ISM-MAS-ADAPTER

* 0.5X auxiliary objective must be used with **ISM-ZS30-ADAPTER**
** Digital camera must be used with camera adapter 0.5X

ZOOM STEREO MICROSCOPES (WITH UNIVERSAL STAND)

VIDEO



5106-M50

SPECIFICATION

Code	5106-M50	5106-M50T
Optical tube	binocular	trinocular
Eyepiece (wide field)	10X (view field: Ø22mm)	
Objective	0.8X~5X (zoom)	
Zoom ratio	1:6.3	
Pupil distance	55~75mm	
Diopter adjustment	±5 diopter (two eyepieces)	
Working distance of objective	115mm	
Max. workpiece height	300mm	
Illumination	adjustable reflected LED ring light	
Power supply	power adapter	
Dimension (L×W×H)	790×230×430mm	
Weight	20kg	

STANDARD DELIVERY

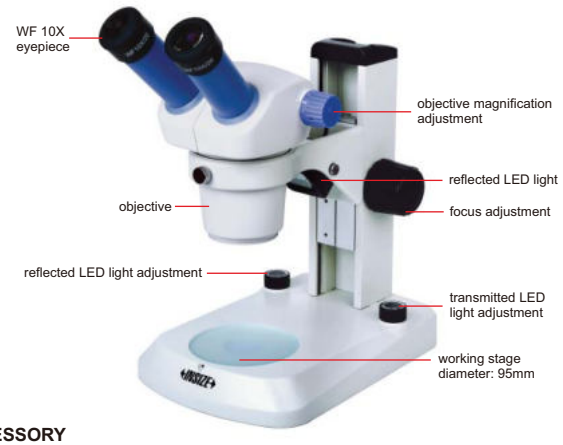
Main unit (with stand)	1 pc
WF 10X eyepiece	2 pcs
LED ring light	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Auxiliary objective	0.5X	ISM-ZS50-OB05X*
	2X	ISM-ZS50-OB2X
Eyepiece	10X dividing eyepiece (0.1mm/div.)	ISM-ZS50-EPD10X
	WF15X (view field: Ø16mm)	ISM-ZS50-EP15X
	WF20X (view field: Ø12mm)	ISM-ZS50-EP20X
Sleeve for auxiliary objective		ISM-ZS30-ADAPTER
Digital camera for 5106-M50T		ISM-CM20, ISM-CM63
Camera adapter 0.5X for 5106-M50T **		ISM-MAS-ADAPTER

* 0.5X auxiliary objective must be used with **ISM-ZS30-ADAPTER**
** Digital camera must be used with camera adapter 0.5X

ZOOM STEREO MICROSCOPE (BASIC TYPE)
CODE ISM-ZS30



VIDEO

SPECIFICATION

Optical tube	binocular
Eyepiece (wide field)	10X (view field: Ø20mm)
Objective	1X~4.5X (zoom)
Zoom ratio	1:4.5
Pupil distance	55~75mm (adjustable)
Diopter adjustment	±5 diopter (two eyepieces)
Working distance of objective	97mm
Max. workpiece height	60mm
Illumination	adjustable reflected and transmitted LED light
Power supply	110/220V, 50/60Hz
Dimension (L×W×H)	260×190×400mm
Weight	4.3kg

STANDARD DELIVERY

Main unit	1 pc
WF 10X eyepiece	2 pcs
Ø95mm glass plate	1 pc
Ø95mm white/black plate	1 pc
Anti-dust cover	1 pc

LED ring light (**optional**)

OPTIONAL ACCESSORY

Auxiliary objective	0.5X	ISM-ZS30-OB05X*
	0.63X	ISM-ZS30-OB06X*
	0.75X	ISM-ZS30-OB07X*
	2X	ISM-ZS30-OB2X
Eyepiece	10X dividing eyepiece (graduation 0.1mm/div.)	ISM-ZS30-EPD10X
	WF15X (view field: Ø16mm)	ISM-ZS50-EP15X
	WF20X (view field: Ø12mm)	ISM-ZS50-EP20X
LED ring light		ISM-ZS-RL
Sleeve for auxiliary objective		ISM-ZS30-ADAPTER
Digital camera		ISM-CM63
Camera adapter 0.75X**		ISM-AD-0D75

* 0.5X, 0.63X and 0.75X auxiliary objectives must be used with **ISM-ZS30-ADAPTER**
**Digital camera must be used with camera adapter 0.75X

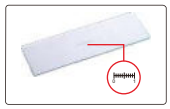
DIGITAL CAMERA FOR MICROSCOPES (WITH PAD)
CODE ISM-ZS70-S

MEASUREMENT, TAKE PICTURES AND VIDEOS

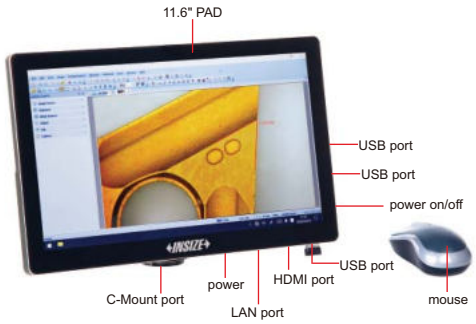
ATTENTION: CAMERA CONNECTOR AND ADAPTER ARE NEEDED ACCORDING TO MICROSCOPES

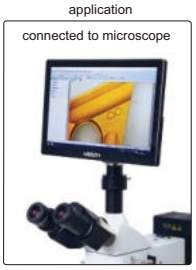
VIDEO

- Windows 10 operation system
- Built-in software, can take pictures and videos, can measure Language: Chinese, English, French, Japanese, German, Polish, Arabic
- Automatic exposure, white balance, brightness, contrast ratio, saturation are adjustable
- Image process feature: zoom in/out, flip, mirror, stitching and so on
- Output to Excel or CSV file



glass calibration rule (included, graduation 0.1mm)



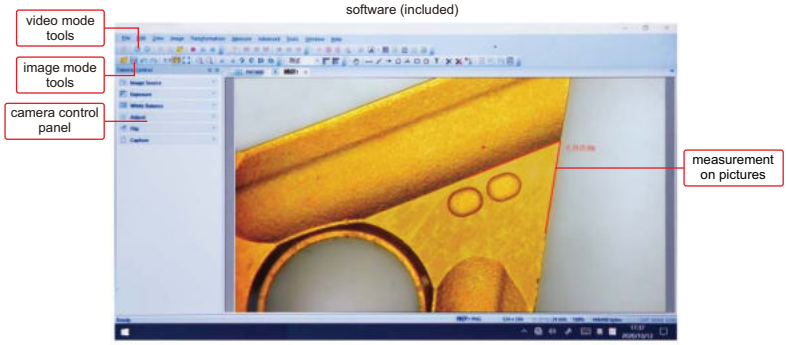


SPECIFICATION

Sensor	1/2.3" CMOS
Pixel	16M
Resolution	800×600, 1600×1200, 1920×1080, 2048×1536, 2304×1728, 2592×1944, 4608×3456
Frame rate	30fps (1920×1080)
Output	HDMI, USB 3.0
Power supply	power adapter
Dimension (L×W×H)	280.3×177.4×12.5mm
Weight	0.9kg

STANDARD DELIVERY

Main unit	1 pc
Mouse	1 pc
Glass calibration rule (graduation 0.1mm)	1 pc
AC/DC adapter	1 pc



- **Measurement tools**

measure line | measure meander line | arrow mark | measure polygon | calibration
measure angle | measure rectangle | measure circle | text mark | show/hide scale

DIGITAL CAMERA FOR MICROSCOPES
CODE ISM-CM63

ATTENTION: ADAPTERS ARE NEEDED ACCORDING TO MICROSCOPES

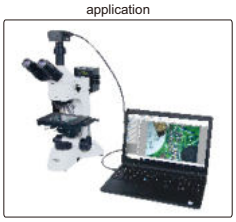
VIDEO

- To be used with computers
- Sony Exmor back-illuminated CMOS sensor
- USB3.0 transmission
- Automatic exposure, gain adjustment, white balance, chrominance adjustment, saturation adjustment, gamma correction, luminance adjustment, contrast adjustment

C-mount port

adapter 0.75X (**optional**)

application



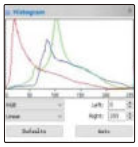
Measurement tools:

- measure length of line or distance between two points
- measure rectangle
- measure angle
- measure radius, girth and area of circle
- measure axis lengths, girth and area of ellipse
- calibration
- measure distance between two parallel lines
- measure width and diameter of ring
- measure diameter, length, perimeter angle of arc
- measure area of polygon
- measure center distance between two circles
- measure length of open curve

software (included)

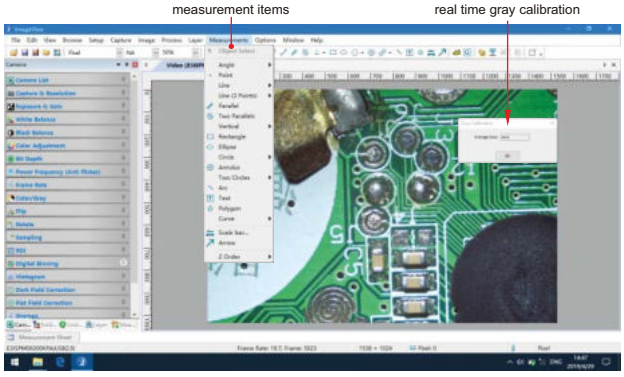
selectable resolution

histogram
(quantify the distribution of color and brightness)

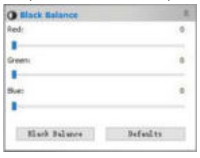


measurement items

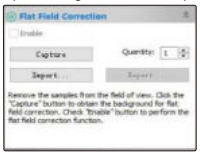
real time gray calibration



black balance
(reduce color difference)



flat field correction
(reduce brightness difference)



dark field correction
(reduce thermal noise)

The software can control image completely, including measurement, image stitch, extend focus depth, image gray processing, RGB histogram observation, image color sampling, 3D plot(3D representation of image intensity), image exposure, white balance, black balance, image bit depth, flat field correction and dark field correction, etc.

counting

select counting tool

automatic counting

Extend focus depth

focus on the top

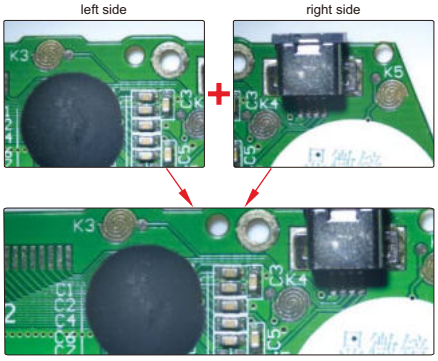
focus on the bottom

clear image of both top and bottom

automatic image stitching (expand field of view)

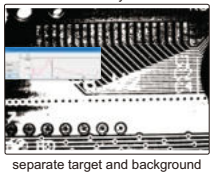
left side

right side



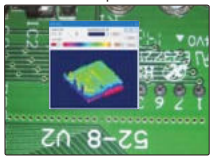
after stitching

Binary



separate target and background

3D plot



Visualize the distribution of image brightness and color

SPECIFICATION

Sensor (back-up)	1/1.8" CMOS
Resolution	3072×2048
Pixel	6.3M
Single pixel size	2.4×2.4μm
Spectral range	380-650nm (with infrared cut filter)
Frame rate	30fps
Sampling average	1×1
Exposure time	0.1ms~15s
Power supply	USB port
Weight	400g

STANDAER DELIVERY

Camera (USB cable included)	1 pc
Software	1 pc

COMPUTER REQUIREMENT

Operation system	Windows/7/8/10
CPU	Intel Core 2 2.8Hz or above
Memery	2GB or above
USB port	USB3.0 (Recommand) or USB2.0
Display	17" or above

OPTIONAL ACCESSORY

Adapter 0.75X	**ISM-AD-0D75**

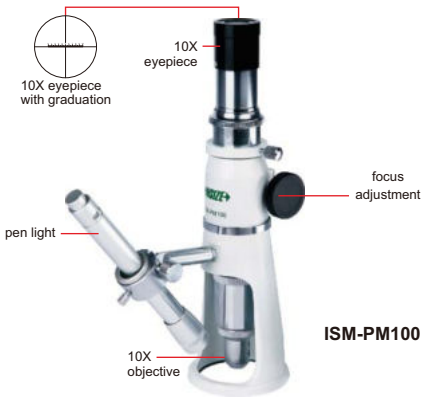
PORTABLE MEASURING MICROSCOPE

SPECIFICATION

Code	ISM-PM100
Total magnification	100X
Eyepiece	10X with graduation
Objective (achromatic)	10X (numerical aperture: 0.25)
Working distance	7mm
Graduation	0.01mm
Viewing field	Ø1.8mm
Focus range	30mm
Illumination	LED light
Diameter of base	Ø63mm
Height	210mm
Weight	650g

STANDARD DELIVERY

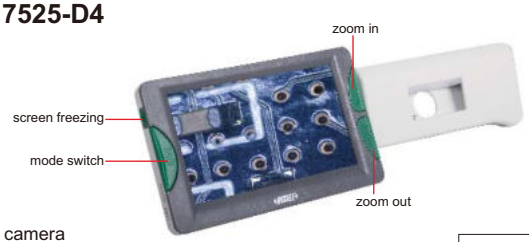
Main unit	1 pc
Pen light	1 pc
Battery (AAA)	2 pcs



ISM-PM100

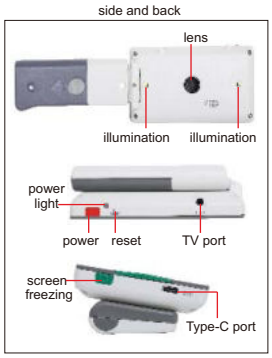
DIGITAL MAGNIFIER CODE 7525-D4

VIDEO



- 720P60 camera
- Auto focus
- With screen freezing function
- 26 color modes can be switched to meet the needs of different people
- Port to TV
- Automatic shutdown after 3 minutes

side and back



STANDARD DELIVERY

Main unit	1 pc
Video output cable	1 pc
USB charging cable	1 pc
Power adapter	1 pc

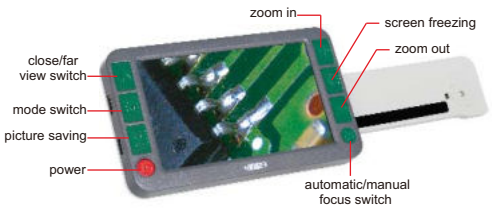
after the handle is folded, the magnifier can be directly placed on the object for observation

SPECIFICATION

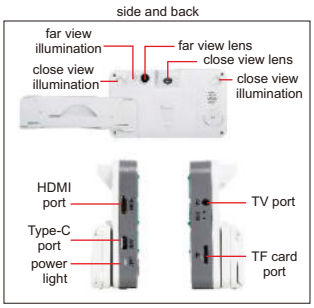
Screen size	4.3 inch
Screen resolution	480x272
Magnification	2X-32X
Pixel	8M
Focus	manual/automatic
Color mode (26 modes)	color mode, color enhancement mode, negative mode, monochrome mode, black on white, white on black, blue on white, white on blue, yellow on black, black on yellow, yellow on blue, blue on yellow, green on white, white on green, orange on white, white on orange, red on black, black on red, orange on black, black on orange, yellow on green, green on yellow, red on white, white on red yellow on white, white on yellow
Output	TV
Charging port	Type-C
Lithium battery	1600mAH (for 4 hours working)
Dimension (LxWxH)	123x39x76mm (when the handle is folded)
Weight	210g

DIGITAL MAGNIFIER CODE 7526-D5

VIDEO

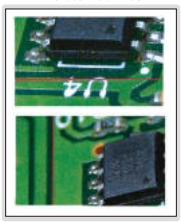


side and back



after the handle is folded, the magnifier can be directly placed on the object for observation

horizontal and vertical red lines



- 720P60 (close view) and 1080P30 (far view) cameras
- Double autofocus
- 26 color modes can be switched to meet the needs of different people
- Adopt folding bracket
- Detachable handle design, suitable for left-handed or right-handed use
- TV and HDMI ports to TV and display
- Automatic shutdown after 3 minutes

STANDARD DELIVERY

Main unit	1 pc
HDMI cable	1 pc
Video output cable	1 pc
USB charging cable	1 pc
Power adapter	1 pc

SPECIFICATION

Screen size	5 inch
Screen resolution	800x480
Magnification	2X-32X
Close view pixel	8M
Far view pixel	8M
Focus	manual/automatic
Color mode (26 modes)	color mode, color enhancement mode, negative mode, monochrome mode, black on white, white on black, blue on white, white on blue, yellow on black, black on yellow, yellow on blue, blue on yellow, green on white, white on green, orange on white, white on orange, red on black, black on red, orange on black, black on orange, yellow on green, green on yellow, red on white, white on red,yellow on white, white on yellow
Line	horizontal and vertical red lines
Function	screen freezing, image moving, photo playback, and high definition storage
Output	TV and HDMI
storage	supports up to 32G TF card
Charging port	Type-C
Lithium battery	2500mAH (for 4 hours working)
Dimension (LxWxH)	145x30x85mm (when the handle is folded)
Weight	275g

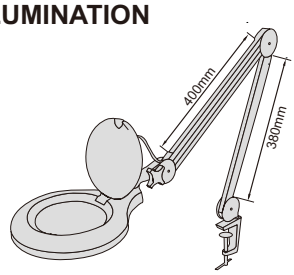
TABLE MAGNIFIER WITH ILLUMINATION
CODE 7517-3D

- Four steps brightness adjustment
- LED illumination, working life 20000h
- Resin lens

SPECIFICATION

Magnification	1.75X
Diopter	3D
Lens diameter	Ø125mm
Illumination	power: 3W, illuminance: 260lm
Power supply	power adapter 12V, 1A

TABLE MAGNIFIER WITH ILLUMINATION
CODE 7516-5D



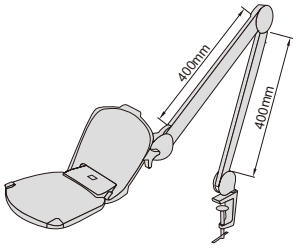
- LED illumination, working life 20000h

SPECIFICATION

Magnification	2.25X
Diopter	5D
Lens diameter	Ø122mm
Illumination	power: 7W, illuminance: 420lm
Power supply	100~240V, 50~60Hz

TABLE MAGNIFIERS WITH ILLUMINATION

- LED illumination, working life 20000h
- Resin lens



SPECIFICATION

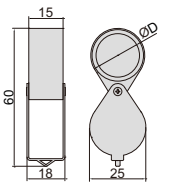
Code	7520-320D	7521-3D
Magnification	two magnifications 1.75X/6X	1.75X
Diopter	3D/20D	3D
Lens diameter	160×127mm	Ø126mm
Illumination	power: 6W, illumination: 550lm	
Power supply	power adapter 12V, 1A	

7520-320D

7521-3D

FOLDING MAGNIFIER

7511-8

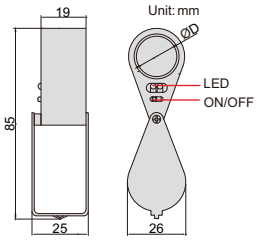


- Glass lens

Code	Magnification	Lens diameter (ØD)
7511-8	10X	Ø21mm

FOLDING MAGNIFIER WITH ILLUMINATION

7515-10



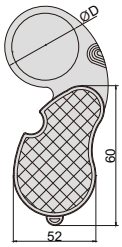
- Resin lens
- Powered by 3xLR927 batteries (included)

Code	Magnification	Lens diameter (ØD)
7515-10	10X	Ø21mm

FOLDING MAGNIFIER WITH ILLUMINATION

Unit: mm

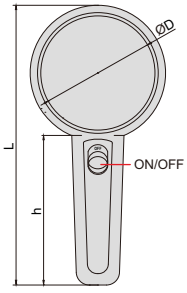
7514-1



- Resin lens
- Powered by 2xCR1620 batteries (included)
- LED lights up automatically when opened

Code	Magnification	Lens diameter (ØD)
7514-1	2.5X	Ø45mm

MAGNIFIERS WITH ILLUMINATION



7513-2

7513-4

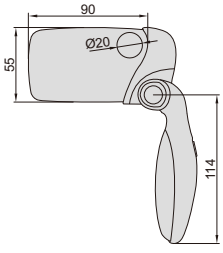
- Glass lens
- Powered by 3xAAA batteries (included)

Code	Magnification	Lens diameter (ØD)	L	h
7513-2	2X	Ø75mm	170mm	90mm
7513-4	4X	Ø50mm	145mm	90mm

MAGNIFIER WITH ILLUMINATION

Unit:mm

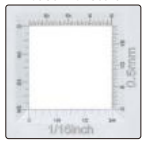
7518-26

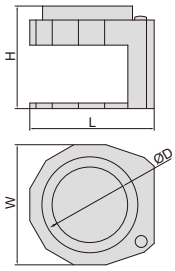


- Two magnifications
- LED illumination
- Powered by 2 pcs AAA batteries (included)
- Resin lens

Code	Magnification	Lens size
7518-26	2X/6X	90x55mm

MAGNIFIER WITH ILLUMINATION





7524-10

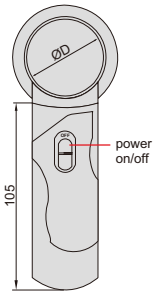
- Glass lens
- Powered by 3xAG7 batteries
- 3 pcs LED and 3 pcs UV
- Base with scale, graduation: 0.5mm, 1/16"

Code	Magnification	Lens diameter (ØD)	L	H	W
7524-10	10X	Ø30mm	60mm	50mm	56mm

MAGNIFIER WITH TWO LENSES

Unit: mm

7522-610

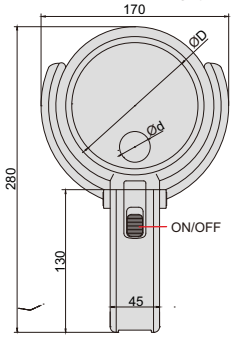


- Resin lens
- Interchangeable lenses
- Powered by 3 pcs AAA batteries (included)

Code	Lens number	Magnification	Lens diameter (ØD)
7522-610	2 pcs	6X	50mm
		10X	37mm

THREE WAYS MAGNIFIER WITH ILLUMINATION

Unit: mm

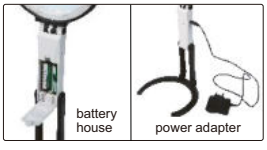


VIDEO

three ways use

7512-1

- Resin lens
- Powered by 2xAA batteries (included) or power adapter (110~240V, 50~60Hz)



Code	Magnification	Lens diameter (ØD/Ød)
7512-1	2X/4X	Ø120mm/Ø28mm

MAGNIFICATION GLASSES

- Resin lens
- Interchangeable lenses
- Powered by 3 pcs AAA batteries (included)

7523-3D5

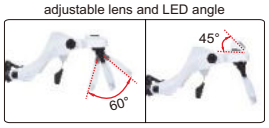
head band (included)

Code	Lens number	Magnification
7523-3D5	5 pcs	1X
		1.5X
		2X
		2.5X
		3.5X

adjustable holder angle

moveable lens for focus

adjustable lens and LED angle



2 pcs LED

interchangeable lenses

TELESCOPING INSPECTION MIRRORS

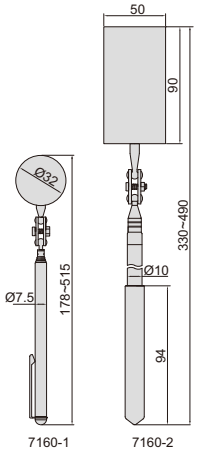
7160-1

7160-2

- Inspect hidden areas
- Rotation of the mirror: 360°
- Length of the handle is adjustable, the handle is made of stainless steel

Code	Size of mirror	Length
7160-1	Ø32mm	178~515mm
7160-2	50x90mm	330~490mm

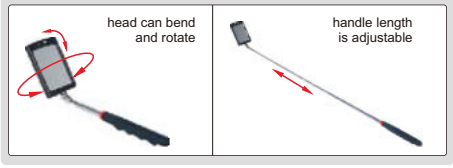
Unit: mm



TELESCOPING INSPECTION MIRROR (WITH ILLUMINATION)

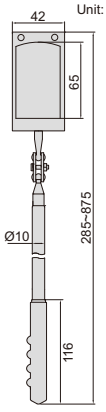
7162-1

- Inspect hidden areas
- Head can bend and rotate
- Telescoping handle, made of stainless steel
- With two CR2032 batteries



Code	Size of mirror	Length
7162-1	65x42mm	285~875mm

Unit: mm



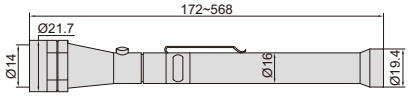
TELESCOPING MAGNETIC PICK-UP AND FLASHLIGHT

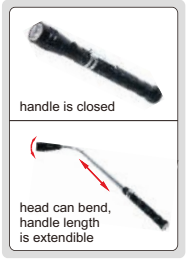
magnetic head

magnetic end to attach on steel surfaces

7163-1

Unit: mm





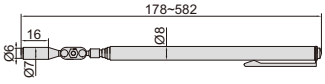
- For illumination and pick up metal parts in hidden areas
- Head can bend
- Telescoping handle, made of stainless steel
- Magnetic head and end
- With four LR44 batteries

Code	Magnetic end	Magnetic head	Flashlight range	Battery life	Length (mm)
7163-1	4kgf	2kgf	3m	8h	172~568

TELESCOPING MAGNETIC PICK-UP

7161-1

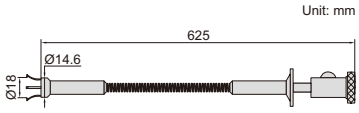
Unit: mm



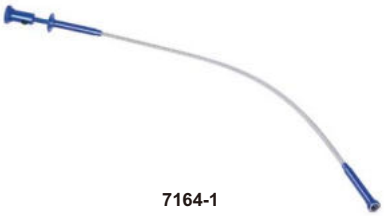
- Pick up metal parts from hidden areas
- Rotation of the magnetic head: 360°
- Length of the handle is adjustable, the handle is made of stainless steel

Code	Size of magnetic tip	Magnetic force	Length
7161-1	Ø6mm	0.45kgf	178~582mm

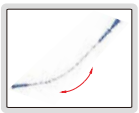
FLEXIBLE PICK-UP AND FLASHLIGHT



- For illumination and pick up steel parts in hidden areas
- Flexible spring rod, made of stainless steel
- Three LR44 batteries



7164-1



flexible spring rod

flashlight head

magnetic head

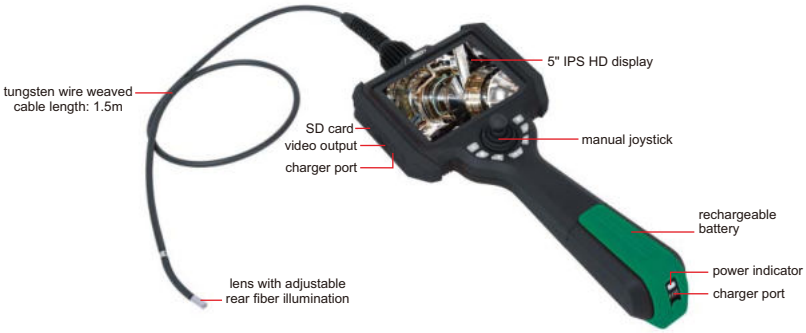
4 retractable claws

Code	Magnetic force	Flashlight range	Battery life
7164-1	0.9kgf	1m	24h

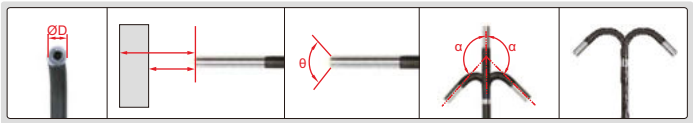
VIDEOSCOPES

REAR FIBER ILLUMINATION

VIDEO



ISV-K6015



diameter (ØD) | depth of field (DOF) | angle of view (θ) | bend range (α) | bend

changeable lens cable

SPECIFICATION

Code		ISV-K3915	ISV-K6015
Lens	diameter (ØD)	3.9mm	6.0mm
	pixel	0.92M	
	resolution	1280×720	
	depth of field	8-150mm	12-200mm
	bending direction	four directions	four directions
	bending range (α)	±160°	
	angle of view (θ)	120°	
	illumination	rear fiber	
	lens	sapphire glass lens	
	dust/waterproof	IP67	
	bend control	manual joystick	
Cable	length	1.5m	1.5m
	type	tungsten wire weaved cable	
Main unit	display	5" high definition LCD	
	function	take pictures, take videos	
	file format	picture: JPG, video: MP4	
	image process	image zoom (1X, 2X, 3X, 4X)	
	image control	freeze, flip over, playback and analog ruler	
	memory	memory card	
	output	USB, HDMI	
	power supply	rechargeable lithium battery (working time ≥ 4hours), AC/DC adapter (for continuous working)	
Weight		1000g	

STANDARD DELIVERY

Main unit	1 pc
32G SD card	1 pc
Card reader	1 pc
USB cable	1 pc
Tripod	1 pc
AC/DC adapter	1 pc

OPERATION ENVIRONMENT

Main unit	-10~50°C, no preheat
Operation temperature	-20~70°C
Storage temperature	-20~60°C
Relative humidity	maximum 90%, no condensation

OPTIONAL ACCESSORY

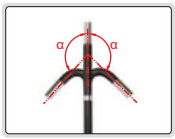
WIFI output	**ISV-K-WIFI** (must be installed in factory, only for Android OS)
Temperature alarm	**ISV-K-HTALARM** (must be installed in factory)
Clamp	**ISV-K-CLAMP1, ISV-K-CLAMP2, ISV-K-CLAMP3, ISV-K-CLAMP4** (must be installed in factory)

MOBILE PHONE VIDEOSCOPE

VIDEO

- For Android and IOS mobile phones

ISV-P6



bending of lens up to 180°

angle of view

lens with LED

bend in any direction

SPECIFICATION

Code	**ISV-P6**
Diameter of lens (ØD)	6±0.2mm
Length of cable	1m
Resolution	960×720, 1280×720 (switchable)
Depth of field	20mm~∞
Angle of view (θ)	100°
Bending range (α)	0~180°
Illumination	LED with 3 levels control
Cable type	wear resistant
Interface	USB, type-C
Mobile phone system	Android, IOS
Power supply	rechargeable battery (for 2 hours working)
Dimension (L×W×H)	195×57×105mm
Weight	450g

STANDARD DELIVERY

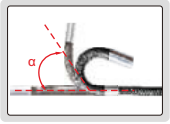
Main unit (with cable)	1 pc
Type-C cable	1 pc
Micro USB cable	1 pc
Iphone cable	1 pc
Charging cable	1 pc

VIDEOSCOPE (BASIC TYPE)

TUNGSTEN WIRE WEAVED CABLE BREAK AND WEAR RESISTANCE

VIDEO

ISV-S106



220° bending angle

LED 6 levels control

120° view angle

360° bending direction

SPECIFICATION

Code		**ISV-S106**
Lens	**diameter (ØD)**	6mm
	pixel	1M
	resolution	1280×720
	depth of field	20~150mm
	bending direction	360°
	bending range (α)	0°~220°
	angle of view (θ)	120°
	illumination	7 pcs LED, with 6 levels control
	illuminance	25000Lux
	lens	sapphire glass lens
	dust/waterproof	IP67
	bend control	manual joystick
	temperature alarm	temperature sensor (**optional**)
Cable	**length**	1.5m
	type	tungsten wire weaved cable
Main unit	**display**	3.5" IPS full-view display
	display resolution	640×480
	function	take pictures, take videos
	file format	picture: JPG, video: MP4
	image process	image zoom (1X, 2X, 3X, 4X, 5X)
	memory	memory card (maximum: 64G)
	output	USB, HDMI, WIFI (**optional**)
	dust/waterproof	IP65
	power supply	rechargeable lithium battery (working time ≥ 3 hours; optional: additional battery, working time ≥ 9 hours) AC/DC adapter (for continuous working)
Weight		1000g

STANDARD DELIVERY

Main unit (with cable & lens)	1 pc
16G SD card	1 pc
Card reader	1 pc
USB cable	1 pc
Battery	1 pc
AC/DC adapter	1 pc

OPTIONAL ACCESSORY

Additional battery	**ISV-S106-BATTERY** (must be installed in factory)
WIFI output	**ISV-S106-WIFI**
Temperature alarm	**ISV-S106-HT-ALARM**

VIDEOSCOPE (BASIC TYPE)
CODE ISV-E40

VIDEO

MEMORY CABLE CAN BE FIXED AT ANY SHAPE

IP67 WATERPROOF

hook (included)

magnet pick up (included)

45° mirror (included)

SPECIFICATION

Lens	diameter (ØD)	8mm
	pixel	0.92M
	resolution	1280x720
	depth of field	30~80mm
	angle of view	77°
	illumination	3 levels
	dust/waterproof	IP67
Cable	length	1180mm
	type	memory (can be set at any shape)
Main unit	display	5" IPS LCD
	function	take picture, take video
	file format	picture: JPG, video: MOV
	image process	image zoom (1.5X, 2X, 3X, 4X)
	memory	memory card (**optional**)
	output	type-C
	power supply	rechargeable lithium battery (for 5 hours working)
	dimension	217×155×131mm
Weight		506g

STANDARD DELIVERY

Main unit	1 pc
45° mirror	1 pc
Hook	1 pc
Magnet pick up	1 pc

OPTIONAL ACCESSORY

32G memory card	ISV-E40-CARD
Card reader	ISV-E40-READER

OPERATION ENVIRONMENT

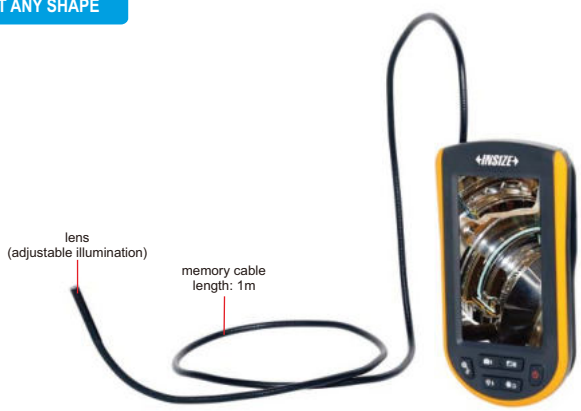
Operation temperature	-10~50°C
Storage temperature	-20~60°C
Operation humidity	15%~85%

VIDEOSCOPE (ECONOMIC TYPE)
CODE ISV-E30

IP67 WATERPROOF

MEMORY CABLE CAN BE FIXED AT ANY SHAPE

VIDEO



SPECIFICATION

Lens	diameter	5.2mm
	pixel	0.4M
	depth of field	30~80mm
	angle of view	72°
	illumination	8 levels
	dust/waterproof	IP67
Cable	length	1m
	type	memory (can be set at any shape)
Main unit	display	4.3" LCD
	function	take picture, take video
	file format	picture: JPG, video: AVI
	image zoom	2X
	memory card	memory card (**optional**)
	output	micro USB
	power supply	AA battery
	dimension	154×32.5×87.5mm
Weight		280g

cable can be wrapped around the main unit

hook (included)

magnet pick up (included)

STANDARD DELIVERY

Main unit	1 pc
Hook	1 pc
Magnet pick up	1 pc
AA battery	4 pcs

OPTIONAL ACCESSORY

32G memory card	ISV-E40-CARD
Card reader	ISV-E40-READER

OPERATION ENVIRONMENT

Operation temperature	-10~50°C
Storage temperature	-20~60°C
Operation humidity	15%~85%

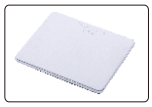
COATING THICKNESS GAGE (HIGH PRECISION)
CODE ISO-8000FN

SUITABLE FOR THIN COATING BELOW 10μm

FOR MAGNETIC AND NON-MAGNETIC SUBSTRATES

VIDEO

calibration foils (included)


zero calibration plate (included)

eddy current probe (**optional**)

magnetic induction probe (included)

- Can measure thickness of thin coating below 10μm
- High repeatability
- Magnetic induction probe measures the thickness of non-magnetic coating and non-metallic coating on magnetic metal substrate
  Substrate: iron, steel, magnetic stainless steel (not for non-magnetic stainless steel)
  Coating: zinc, aluminum, copper, chrome, tin, plastic, powder, paint (not for nickel)
- Eddy current probe measures the thickness of non-conductive coating on non-magnetic metal substrate
  Substrate: copper, aluminum, zinc, non-magnetic stainless steel
  Coating: plastic, powder, paint, anodizing (not for chrome and zinc plating)
- Maximum, minimum, average and variance values can be calculated automatically

SPECIFICATION

Probe		magnetic induction probe (included)	eddy current probe (optional)*
Measuring range		0~500μm	0~1500μm
Resolution		0.1μm (range<100μm) 1μm (100μm≤range≤500μm)	0.1μm (range<100μm) 1μm (100μm≤range<1000μm) 0.01mm (1.00mm≤range≤1.50mm)
Accuracy		±(0.5+2%L)μm L is measuring thickness in μm	
Repeatability		≤(0.2+0.8%L)μm L is measuring thickness in μm	
Measuring mode		single and continuous	
Measure interval	single mode	1.5s	0.8s
	continuous mode	0.4s	0.4s
Calibration mode		zero calibration and multi-points calibration (1~5 points)	
Minimum substrate thickness		0.1m	0.05mm
Minimum measuring area		Ø7mm	
Minimum radius of curvature workpieces	convex surface	1.5mm	
	concave surface	10mm	
Unit		μm/mil	
Power supply		4×1.5V AAA batteries	
Dimension		148×76×26mm	
Weight		148g	

*For precision measurement of thin coating below 10μm, please use the stand for eddy current probe

stand (**optional**)

STANDARD DELIVERY

Main unit	1 pc
Magnetic induction probe	1 pc
Zero calibration plate	1 pc
Calibration foils (5.6μm, 11.6μm, 24.6μm, 50.0μm, 100μm, 252μm, 390μm)	1 set
1.5V AAA battery	4 pcs

OPTIONAL ACCESSORY

Eddy current probe (with zero calibration plate)	ISO-8000FN-N1500*
Stand	ISO-8000FN-STAND

COATING THICKNESS GAGE (BASIC TYPE)
CODE ISO-1200FN

VIDEO

FOR MAGNETIC AND NON-MAGNETIC SUBSTRATES

- Probe is suitable for both magnetic and non-magnetic metal substrates
- Can measure the thickness of non-magnetic coating and non-metallic coating on magnetic metal substrate
  Substrate: iron, steel, magnetic stainless steel (not for non-magnetic stainless steel)
  Coating: zinc, aluminum, copper, chrome, tin, plastic, powder, paint (not for nickel)
- Can measure the thickness of non-conductive coating on non-magnetic metal substrate
  Substrate: copper, aluminum, zinc, non-magnetic stainless steel
  Coating: plastic, powder, paint, anodizing (not for chrome and zinc plating)
- 3 measuring modes: Fe, NFe, Fe/NFe
- Store 9 measuring records
- Small and portable, easy for operation

ruby contact point

Fe zero calibration plate (included)

NFe zero calibration plate (included)

standard foil (included)

SPECIFICATION

Measuring range		0~2000μm
Resolution		0.1μm (range<100μm) 1μm (100μm≤range<1000μm) 0.01mm (1mm≤range≤2mm)
Accuracy		±(2μm+3%L) L is measuring thickness in μm
Measure interval		0.5s
Calibration mode		zero calibration
Measuring mode		Fe, NFe, Fe/NFe
Minimum substrate thickness	Fe	0.2mm
	NFe	0.05mm
Minimum measuring area		Ø25mm
Minimum radius of curvature workpieces	convex surface	5mm
	concave surface	25mm
Unit		μm/mil
Power supply		2×1.5V AA batteries
Main unit dimension		101×62×28mm
Probe dimension		71×26×22mm
Weight		114g

STANDARD DELIVERY

Main unit	1 pc
Fe zero calibration plate	1 pc
NFe zero calibration plate	1 pc
Standard foil (100μm)	1 pc
1.5V AA battery	2 pcs

COATING THICKNESS GAGE (BASIC TYPE)
CODE ISO-1000FN

VIDEO

FOR MAGNETIC AND NON-MAGNETIC SUBSTRATES

- Probe is suitable for both magnetic and non-magnetic metal substrates
- Can measure the thickness of non-magnetic coating and non-metallic coating on magnetic metal substrate
  Substrate: iron, steel, magnetic stainless steel (not for non-magnetic stainless steel)
  Coating: zinc, aluminum, copper, chrome, tin, plastic, powder, paint (not for nickel)
- Can measure the thickness of non-conductive coating on non-magnetic metal substrate
  Substrate: copper, aluminum, zinc, non-magnetic stainless steel
  Coating: plastic, powder, paint, anodizing (not for chrome and zinc plating)
- 3 measuring modes: Fe, NFe, Fe/NFe
- Store 9 measuring records
- Small and portable, easy for operation

ruby contact point

Fe zero calibration plate (included)

NFe zero calibration plate (included)

standard foil (included)

SPECIFICATION

Measuring range		0~2000μm
Resolution		0.1μm (range<100μm) 1μm (100μm≤range<1000μm) 0.01mm (1mm≤range≤2mm)
Accuracy		±(2μm+3%L) L is measuring thickness in μm
Measure interval		0.5s
Calibration mode		zero calibration
Measuring mode		Fe, NFe, Fe/NFe
Minimum substrate thickness	Fe	0.2mm
	NFe	0.05mm
Minimum measuring area		Ø25mm
Minimum radius of curvature workpieces	convex surface	5mm
	concave surface	25mm
Unit		μm/mil
Power supply		2×1.5V AA batteries
Dimension		101×62×28mm
Weight		79g

STANDARD DELIVERY

Main unit	1 pc
Fe zero calibration plate	1 pc
NFe zero calibration plate	1 pc
Standard foil (100μm)	1 pc
1.5V AA battery	2 pcs

COATING THICKNESS GAGE
CODE 9501-1200

FOR MAGNETIC AND NON-MAGNETIC SUBSTRATES

DATA OUTPUT

software CD (included)

VIDEO

- Magnetic induction probe (FE) measures the thickness of non-magnetic coating and non-metallic coating on magnetic metal substrate.
  Substrate: iron, steel, magnetic stainless steel (not for non-magnetic stainless steel)
  Coating: zinc, copper, chrome, tin, plastic, powder, paint (not for nickel)
- Eddy current probe (NFE) measures the thickness of non-conductive coating on non-magnetic metal substrate.
  Substrate: copper, aluminum, zinc, non-magnetic stainless steel
  Coating: plastic, powder, paint, anodizing (not for chrome and zinc plating)
- Tolerance measurement
- Automatic power off

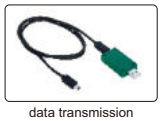
eddy current probe NFE (**optional**) with zero calibration block

magnetic induction probe FE90 for bores and grooves (**optional**)

magnetic induction probe FE10 for large range (**optional**)

zero calibration block for FE (included)

calibration foils (included)


data transmission cable (**optional**)

SPECIFICATION

Probe type	FE (included) magnetic induction probe	NFE (optional) eddy current probe	FE90 (optional) magnetic induction probe for bores and grooves	FE10 (optional) magnetic induction probe for large range
Measuring range	0~1250μm	0~1250μm	0~1250μm	500~10000μm
Accuracy	±(3%L+1)μm (range≤1250μm) ±(3%L+10)μm (range>1250μm) L is measuring thickness in μm			
Resolution	0.1μm (range<100μm)			
	1μm (range≥100μm)			
Measuring mode	continuous and single			
Minimum substrate thickness	0.5mm	0.3mm	0.5mm	2mm
Minimum measuring area	Ø7mm	Ø5mm	Ø7mm	Ø40mm
Minimum curvature radius of convex workpiece	1.5mm	3mm	–	10mm
Memory	500			
Output	USB			
Power supply	2×1.5V AA batteries			
Dimension	128×68×32mm			
Weight	340g			

STANDARD DELIVERY

Main unit	1 pc
Magnetic induction probe (FE)	1 pc
Zero calibration block for FE probe	1 pc
Calibration foils (50μm, 100μm, 250μm, 500μm, 1000μm)	1 set
1.5V AA battery	2 pcs
Software and USB cable	1 pc

OPTIONAL ACCESSORY

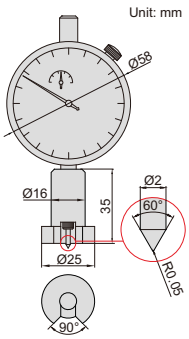
Data transmission cable	9501-1200-SPC
Eddy current probe (NFE) with zero calibration block	9501-1200-NFE
Magnetic induction probe (FE90) for bores and grooves	9501-1200-FE90
Magnetic induction probe (FE10) for large range	9501-1200-FE10

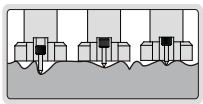
SURFACE PROFILE GAGE

VIDEO

- Measure peak-to-valley height of blast cleaned surface.
  If the profile is too low, the adhesion of the coating to the surface will be reduced.
  If the profile is too high, there is the danger that the profile peaks will remain uncoated, allowing rust spots to occur.
- Meet ASTM D 4417-B
- Zero set block is included, set zero before measurement
- Stainless steel base

2344-1

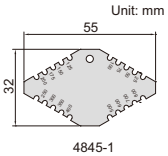



measure peak-to-valley height of blast cleaned surface

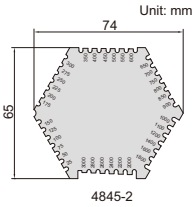
Code	Range	Dial indicator stroke	Dial indicator graduation	Accuracy
2344-1	0-1mm	1mm	0.001mm	±0.005mm

WET FILM GAGES

4845-1



4845-2



- Made of stainless steel

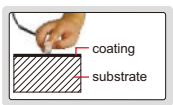
Code	Range	Accuracy	Thickness
4845-1	25-800μm	±5μm	1.8mm
4845-2	25-3000μm	25-100μm: ±5μm 100μm-3000μm: ±5%	1mm

ULTRASONIC THICKNESS GAGE CODE ISU-720D

DATA OUTPUT | WITH A AND B SCAN | PENETRATE NON-METALLIC COATING AND MEASURE THE THICKNESS OF METAL SUBSTRATES

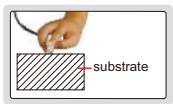
- Two measuring modes, Echo-Echo (E-E) and Transmit-Echo (T-E):
  – E-E is applicable for non-metallic coating (such as paint, plastic resin, etc.) on metal substrates, can penetrate coating and measure the thickness of substrates
  – T-E is to measure the thickness of material without coating, such as metal, plastic, glass, nylon, resin, ceramics, ice, etc.
- A scan, through the waveform, judges whether there are impurities, pores, cracks and so on inside, in order to avoid wrong measurement
- B scan, measures continuously, displays the thickness change on the screen
- Transducers can be automatically identified and zeroed
- Memory 10000 measurement values
- Data can be input to Excel and Word as keyboard signal
- Automatic or manual measurement
- When transducers are removed from workpieces, the measurement data are held on screen for easy viewing
- Set upper and lower limits for alarm when out-of-tolerance
- Automatic power off

VIDEO



Echo-Echo mode (E-E)

couplant (included)



Transmit-Echo mode (T-E)

transducer **ISU-T04** (optional)

transducer **ISU-T06** (optional)

transducer **ISU-T08** (optional)

transducer **ISU-T12** (optional)

transducer **ISU-T13** (optional)

transducer **ISU-T25** (optional)

SPECIFICATION (ON STEEL)

Measuring range	T-E mode: substrate thickness 1.5~200mm
	E-E mode: substrate thickness 3~25mm
Measuring unit	mm/inch
Resolution	0.1/0.01mm
Accuracy	±0.04mm (H<9.9mm) ±(0.04+0.1%H) mm (H: 10~99.9mm) ±(0.3%H) mm (H>100mm) H is the thickness to be measured in mm
Frequency	5.0MHZ
Display	320×240, color screen display
Velocity	1000~9999m/s
Measuring frequency	2 times/second and 10 times/second
Applicable temperature	-20~50°C
Output	USB
Power supply	2×1.5V AA batteries
Dimension	133×75×29mm
Weight	260g (including batteries)

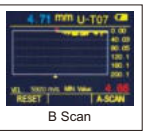
STANDARD DELIVERY

Main unit	1 pc
Bicrystal transducer ISU-T07	1 pc
Battery (AA)	2 pcs
Couplant	1 bottle
USB cable	1 pc

OPTIONAL ACCESSORY

Transducer	ISU-T04, ISU-T06, ISU-T08, ISU-T12, ISU-T13, ISU-T25
Couplant (for ISU-T13)	ISU-HT5-COUPLANT

A Scan



B Scan

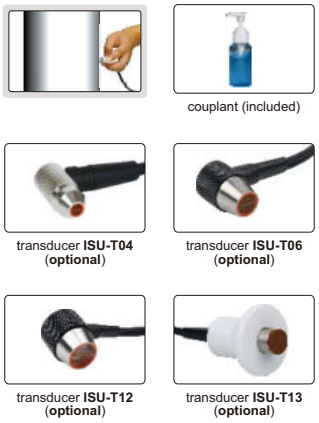
SPECIFICATION OF TRANSDUCERS (ON STEEL)

Code	Mode	Frenquency	Diameter (Ød)	Measuring range	Minimum size of pipes for measurement (diameter × wall thickness)	Applicable temperature	Application
ISU-T07 (included)	T-E E-E	5.0MHz	13.2mm	T-E mode: 1.5~200mm E-E mode: 3~25mm	T-E mode: Ø25×3mm	<60°C	general use
ISU-T04 (optional)	T-E	10.0MHz	6mm	0.7~20mm	Ø15×1mm	<60°C	for small tubes
ISU-T06 (optional)	T-E	7.5MHz	9mm	0.7~50mm	Ø15×1.2mm	<60°C	for thin workpieces
ISU-T08 (optional)	T-E	5.0MHz	11mm	0.8~300mm	Ø25×1.2mm	<60°C	general use
ISU-T12 (optional)	T-E	2.0MHz	17mm	2~400mm	Ø40×3mm	<60°C	for casting iron
ISU-T13 (optional)	T-E	5.0MHz	15mm	3~100mm	Ø25×2mm	<350°C	for high temperature
ISU-T25 (optional)	T-E	1.0MHz	26mm	3~200mm	–	<60°C	for fiberglass and organic material

ULTRASONIC THICKNESS GAGE
CODE ISU-250C

INSPECTION CERTIFICATE | DATA OUTPUT | VIDEO

- Measure the thickness from one side of objects, suitable for pipes, tanks, etc.
- Applicable material: metal, plastic, glass, nylon, resin, ceramic, ice
- Tolerance measurement
- Average calculation of maximum 9 readings
- Data can be input to Excel and Word as keyboard signal



SPECIFICATION (ON STEEL)

Resolution	0.01mm (range<100mm)
	0.1mm (range≥100mm)
Repeatability	0.03mm (range<100mm)
	0.1mm (range≥100mm)
Accuracy	±0.04mm (range<10mm) ±(0.04+H/1000)mm (range 10~100mm) ±H/333mm (range≥100mm) H is the thickness to be measured in mm
Velocity	1000-9999m/s
Power supply	2×1.5V AAA batteries
Dimension	64×116×27mm
Weight	220g

STANDARD DELIVERY

Main unit	1 pc
Transducer ISU-T08	1 pc
Battery (AAA)	2 pcs
Couplant (for ISU-T04, ISU-T06, ISU-T08, ISU-T12)	1 bottle
USB cable	1 pc

OPTIONAL ACCESSORY

Transducer	ISU-T04, ISU-T06, ISU-T12, ISU-T13
Couplant (for ISU-T13)	ISU-HT5-COUPLANT

SPECIFICATION OF TRANSDUCERS (ON STEEL)

Code	Frequency	Diameter (Ød)	Measuring range	Minimum size of pipes for measurement (diameter × wall thickness)	Applicable temperature	Application
ISU-T08 (included)	5.0MHz	11mm	0.8~300mm	Ø25×1.2mm	<60°C	general use
ISU-T04 (optional)	10.0MHz	6mm	0.7~20mm	Ø15×1mm	<60°C	for small tubes
ISU-T06 (optional)	7.5MHz	9mm	0.7~50mm	Ø15×1.2mm	<60°C	for thin workpieces
ISU-T12 (optional)	2.0MHz	17mm	2~400mm	Ø40×3mm	<60°C	for casting iron
ISU-T13 (optional)	5.0MHz	15mm	3~100mm	Ø25×2mm	<350°C	for high temperature

ULTRASONIC THICKNESS GAGE (BASIC TYPE)
CODE ISU-100D

INSPECTION CERTIFICATE

ATTENTION: NOT SUITABLE FOR CASTINGS AND ALUMINUM WORKPIECES

VIDEO

- Measure the thickness from one side of objects, suitable for pipes, tanks, etc.
- Applicable material: steel, stainless steel, glass, copper, brass, polystyrene, titanium, etc.

SPECIFICATION (ON STEEL)

Measuring range		0.8~300mm
Resolution		0.01mm (range<100mm)
		0.1mm (range≥100mm)
Accuracy		±0.04mm (range<10mm) ±(0.04+H/1000)mm (range 10~100mm) ±H/333mm (range≥100mm) H is the thickness to be measured in mm
Transducer	frequency	5MHz
	diameter (Ød)	10.8mm
Minimum size of pipes for measurement		20×1.2mm (diameter × wall thickness)
Applicable temperature		<60°C
Velocity		1000-9999m/s
Power supply		2×AAA batteries
Dimension		114×64×28mm
Weight		200g

STANDARD DELIVERY

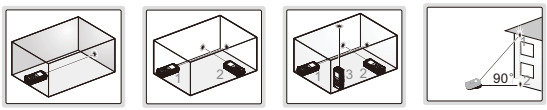
Main unit	1 pc
Transducer	1 pc
Couplant	1 bottle
Battery (AAA)	2 pcs

LASER DISTANCE METERS

VIDEO

9561-50B

- Large display with backlight
- Unit: m, ft, in, ft+in
- Distance, area, volume and height measurement
- Continuos measuring mode to track maximum and minimum value
- Memory of 30 measurement values
- Automatic power off: laser 30s, main unit 180s



distance measurement | area measurement | volume measurement | height measurement

SPECIFICATION

Code	9561-50B	9561-70B
Measuring range	0.2~50m	0.2~70m
Resolution	0.001m, 0.001ft, 1/32"	
Accuracy	±(2+D/11)mm D: measured distance, unit: m	
Laser type	630~670nm, class II, <1mW	
Power supply	2×AAA batteries	
Dimension (L×W×H)	115×50×28mm	
Weight	95g	

STANDARD DELIVERY

Main unit	1 pc
Battery (AAA)	2 pcs

INFRARED THERMOMETER (BASIC TYPE) CODE 0210-G260

- MAX/MIN temperature display
- °C/°F conversion function
- Auto data hold and auto power off

STANDARD DELIVERY

Main unit	1 pc
Battery	1 pc

SPECIFICATION

Measuring range	-30°C~260°C/-22°F~500°F
Accuracy	±4°C/±7°F (≤0°C) ±2% or ±2°C/±4°F (>0°C)
Resolution	0.1°C/0.1°F
Distance to spot size (D:S)	8:1
Emissivity	0.95 (fixed)
Diode laser	output<1mW, wavelength 630~670nm class 2 (II) laser product
Spectral response	6~14μm
Response time	less than 1s
Power supply	9V battery
Dimension	82×42×160mm
Weight	180g

INFRARED THERMAL IMAGING CAMERA CODE 9130-H360

VIDEO

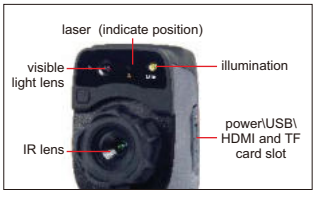
IP54 WATERPROOF

DATA OUTPUT

- 4 inch high-brightness touchscreen
- Four image presentations: IR, visible, PIP and MIF
- WIFI real-time sharing, one-click connection to mobile devices
- USB interface for data transmission and charging
- Built-in illumination
- Video can be recorded and stored

STANDARD DELIVERY

Main unit	1 pc
Power supply adapter	1 pc
USB cable	1 pc
HDMI cable	1 pc
Capacitive screen gloves	1 pc
TF card (16GB)	1 pc



SPECIFICATION

IR resolution	192×144
NETD	≤50mk
Focus length	7mm/F1.1
Angle of view	37.8°×28.8°
Spatial resolution	3.45mrad
Focus adjustment	focus-free
Detector type	unrefrigerated vanadium oxide/8~14μm
Pixel size	25μm
Visible camera	resolution 500W, focus-free
Display	4" highlight LCD touch screen, 480×800
Image mode	IR image, visible image, MIF, PIP
Digital zoom	1.1~4
Color palette	8 modes
Temperature range	-20°C~350°C
Accuracy	±2°C or ±2% (of maximize range)
Emissivity	0.01-1.00 (adjustable)
Storage	in camera and TF card (up to 32GB)
Image format	JPG with temp info
Output	USB, HDMI
Power	rechargeable Li-ion battery (7.4V), working time≥4h
Operation temperature	-10°C~50°C
Vibration	10HZ~150HZ~10HZ 0.15mm (IEC 60068-2-6)
Impact	30g 11ms (IEC 60068-2-27)
Weight	735g
Dimension	274x97x78mm

INFRARED THERMAL IMAGING CAMERA (BASIC TYPE)
CODE 9132-T400

NON-CONTACT TEMPERATURE MEASUREMENT

VIDEO

DATA OUTPUT

IP54 WATERPROOF

front view

- IR/visible/laser indicator
- Trigger button for photo taking
- 2-meter drop test, IP54 protection

STANDARD DELIVERY

Main unit	1 pc
Power supply adapter	1 pc
TYPE-C cable	1 pc
16G TF card	1 pc

SPECIFICATION

IR image	IR resolution	120×90@17μm
	detector type	VOx/7.5~14μm
	frame rate	25Hz/9Hz
	thermal sensitivity/NETD	60mk
	focal length	2.28mm/F1.13
	field of view (FOV)	50°×38°
	spatial resolution (IFOV)	7.6mrad
	focus	focus-free
Visible camera	visible camera resolution	320×240, focus-free
	flashlight	yes
Image display	display	2.4 inch IPS technology TFT display
	display resolution	320×240
	image model	IR/visible/picture-in-picture
	color palettes	6: white hot, iron red, hot iron, arctic, rainbow 1, rainbow 2
Temperature measurement	temperature range	-20~150°C, 100~400°C (auto switching)
	accuracy	±2°C or ±2%, whichever is greater (target temp ≥0°C, ambient temp is 15~30°C)
	measurement spot	center spot
	measurement area	3 (incl. max & min temp)
	auto max & min spot tracking	yes
	alarm	full screen max & min spot alarm
Image storage	storage media	TF card (16G)
	IR image format	full radiometric (JPG) (120 x 90)
	visible image	yes, 320x240
Connections & communications	USB	type-C, TF card slot
	tripod interface	yes
	mobile APP	yes
	PC IR analysis software	yes
Power system	battery type	rechargeable li ion battery
	battery operation time	>5 hours
	charging time	internal charge, ≤2.5 hours
Environmental parameters	operation temperature	-10~50°C
	storage temperature	-40~70°C
	protection	IP54, 2-meter drop test
	certification	CE/ROHS/FCC
	dimension (LxWxH)	194×61.5×76mm
	weight	350g

DIGITAL THERMOHYGROMETER
CODE 9362-TH27

- Measure humidity, ambient temperature and dew-point temperature
- Max/Min/Average mode
- Alarm function

SPECIFICATION

Sensor	NTC thermistor/humidity capacitance/digital sensor
Temperature range	-20°C~70°C/-4°F~158°F
Temperature accuracy	±0.5°C/±0.9°F
Temperature resolution	0.1°C/0.2°F (minimum adjustable unit is 0.2°F in setting mode)
Humidity range	0~100%RH
Humidity accuracy	±5%RH
Humidity resolution	0.1%RH
Sampling interval	5s
Battery	1.5V AAA
Dimensions	95×107×18mm
Weight	105g

STANDARD DELIVERY

Main unit	1 pc
Battery (AAA)	1 pc

DATA LOGGER FOR TEMPERATURE AND HUMIDITY (BUILT-IN SENSOR)
CODE 0311-3070

VIDEO

IP54 WATERPROOF

DATA OUTPUT

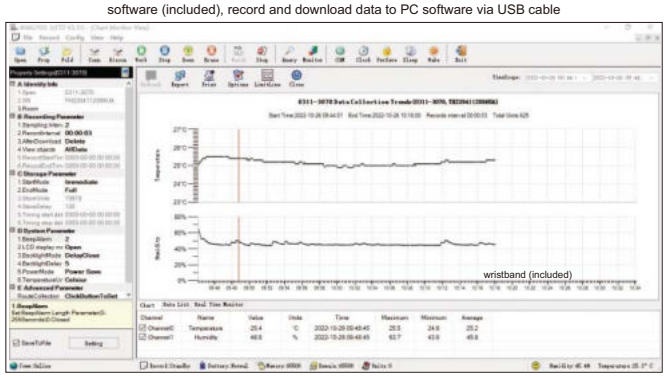
- Signal acquisition, display, storage, analysis function
- Low power consumption
- Built-in high-precision temperature and humidity sensor
- Software is included

stand (included)

SPECIFICATION

Temperature range	-30°C~70°C/-22°F~158°F
Temperature accuracy	±0.3°C (at 23°C±2°C), other range ±0.5°C ±0.6°F (at 73.4°F±3.6°F), other range ±0.9°F
Temperature resolution	0.1°C/0.2°F
Humidity range	0%RH~100%RH
Humidity accuracy	±3%RH (at 10%RH~85%RH), other range ±5%RH
Humidity resolution	0.1%RH
Memory capacity	10918
Alarm	function: alarm when over high or low limit method: display+buzz+backlight
Sampling interval	2s, 5s, 10s, 30s, 60s, 255s (adjustable)
Logging interval	2 seconds~24 hours (adjustable)
Start with delay	1~120 seconds (adjustable)
Start mode	start immediately/delay start/timing start
End mode	full/FIFO/preset/timing end
Timing start/end	random start/end with format YYMMDD HHMMSS
Interface	USB
Time battery	CR2032
Power supply	3.2V lithium battery or 5~24V DC
Dimensions	123×117×33mm
Weight	260g

software (included), record and download data to PC software via USB cable



STANDARD DELIVERY

Main unit	1 pc
Software and USB cable	1 pc
Time battery	1 pc
Lithium battery	1 pc
Screwdriver	1 pc

OPTIONAL ACCESSORY

Power adapter	0311-3070-ADAPTER

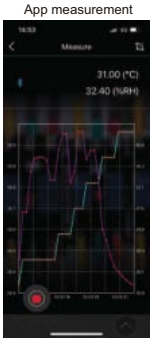
THERMOHYGROMETER
CODE 0310-H26

- Measure humidity, ambient temperature, dew point temperature and wet bulb temperature
- Min/Max, data hold function
- Bluetooth 4.0
- Auto power off

SPECIFICATION

Function	Measuring range	Resolution	Accuracy
Ambient temperature	0°C~50°C 32°F~122°F	0.1°C/0.1°F	±1.0°C/±1.8°F
Wet bulb temperature	0°C~50°C 32°F~122°F		
Dew point temperature	0°C~50°C 32°F~122°F		
Humidity	0%RH~80%RH	0.1%RH	±5.0%RH
Auto power off	30 minutes		
Data port	Bluetooth 4.0		
Power supply	9V battery		
Dimension	204×54×36mm		
Weight	172g		

App measurement



App record

STANDARD DELIVERY

Main unit	1 pc
Battery	1 pc

ANEMOMETER
CODE 0110-1125

- Measure air velocity and temperature
- Min/Max, data hold function
- Bluetooth 4.0
- Auto power off

App measurement

App record

SPECIFICATION

	Unit	Measuring range	Resolution	Accuracy
Air velocity	m/s	1.1~25.0	0.01	±(3%+0.3)
	km/h	4~90	0.1	±(3%+1)
	ft/min	220~4920	1	±(3%+40)
	MPH	2.5~56.0	0.1	±(3%+0.4)
	knots	2.2~48.0	0.1	
Air temperature	°C	0~50	0.1	±2
	°F	32~122	0.1	±4
Sensors	air velocity sensor, NTC-type precision thermistor			
Sampling time	0.5s			
Operation altitude	max 2000m			
Operation environment	0~50°C, 0~80%RH			
Storage environment	-10~60°C, 0~80%RH			
Auto power off	10 minutes			
Data port	Bluetooth 4.0			
Power supply	9V			
Dimension	213×54×36mm			
Weight	172g			

STANDARD DELIVERY

Main unit	1 pc
Battery	1 pc

LIGHT METER (BASIC TYPE)
CODE 0130-L110

- Suitable for measuring illuminance in various occasions
- Data hold function
- Fast switching of measuring range, easy to operate

SPECIFICATION

Measuring range	Lux	1~1999	10~19990	100~100000
Resolution	Lux	1	10	100
Accuracy		± (4%+10d), range<10000Lux ± (5%+10d), range≥10000Lux (d is resolution, calibrated with standard incandescent lamp at color temperature 2856K)		
Repeatability		±2%		
Sampling time		0.5s		
Operation environment		0~40°C, 0~70%RH		
Storage environment		-10~50°C, 0~80%RH		
Battery		9V		
Photodetector dimension		105×58×28mm		
Main unit dimension		130×72×30mm		
Weight		170g		

STANDARD DELIVERY

Main unit	1 pc
Battery	1 pc

LIGHT METER
CODE 0131-A120

- Photosensor can rotate 90° clockwise and rotate 180° counterclockwise
- Build-in calibration filters ensure the accuracy when working in different colors
- Data hold function
- Lux/FC unit switch
- Low battery warning

SPECIFICATION

Measuring range	Lux	0.1~199.9	1~1999	10~19990	100~199900
Resolution	Lux	0.1	1	10	100
Measuring range	FC	0.01~19.99	0.1~199.9	1~1999	10~19990
Resolution	FC	0.01	0.1	1	10
Accuracy		±(4%+10d), range<20000Lux/2000FC ±(5%+10d), range≥20000Lux/2000FC (d is resolution, calibrated with standard incandescent lamp at color temperature 2856K)			
Repeatability		±2%			
Sampling time		0.5s			
Operation environment		0~40°C, 0~70%RH			
Storage environment		-10~50°C, 0~80%RH			
Battery		9V			
Dimension		185×68×38mm			
Weight		130g			

STANDARD DELIVERY

Main unit	1 pc
Battery	1 pc

INDUCTIVE MOISTURE METER
CODE 0120-IM24

- Suitable for wood, gypsum and cement
- MAX/MIN/HOLD mode
- Alarm function
- Low battery indication
- Auto power off

SPECIFICATION

Measuring range	0~100%
Resolution	1%
Accuracy	±4%
Detection depth	20~40mm
Sampling time	0.5s
Battery	9V
Dimension	185×55×38mm
Weight	193g

STANDARD DELIVERY

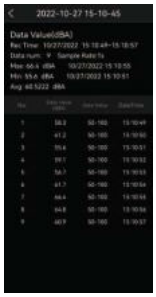
Main unit	1 pc
Battery	1 pc

SOUND LEVEL METER
CODE 0010-A35

- Auto range selection
- Over range indication
- Display backlight
- Min/Max, data hold function
- Bluetooth 4.0
- Auto power off
- Supplied with APP for Apple and Android

App measurement

App record



SPECIFICATION

Frequency	31.5Hz~8KHz
Measuring Range	35dB~130dB
Accuracy	IEC 61672-1:2013 Class 2
Resolution	0.1dB
Frequency weighting	A and C
Display update	2 times/sec
Microphone	1/2 inch electret condenser microphone
Power supply	9V battery
Operation temperature and humidity	0°C~40°C/32°F~104°F, 10%RH~90%RH
Dimensions	185×54×36mm
Weight	184g

STANDARD DELIVERY

Main unit	1 pc
Battery	1 pc
Windscreen	1 pc

DIGITAL SOUND LEVEL METER (ADVANCED TYPE)
CODE 9353-413

SPECIFICATION

Measuring range	40dB~130dB (ref.20μPa)
Frequency	20Hz~12.5kHz
Resolution	0.1dB
Accuracy	IEC 61672-1:2013 Class 2
Frequency weighting	A weighting
Response time	fast (125ms), slow (1s)
Microphone	pre polarization condenser microphone
Reference direction	axial direction of condenser microphone
Power supply	4×1.5V AAA batteries
Dimension	210×68×27mm
Weight	240g

- Automatic range conversion
- Over range indicator
- Maximum mode
- Data hold
- AC signal output: 0.707Vrms, impedance approx.100Ω
  DC signal output: 20mV/dB, impedance approx.1kΩ

STANDARD DELIVERY

Main unit	1 pc
Battery (AAA)	4 pcs
Screwdriver	1 pc

CONTACT TACHOMETER
CODE 9224-213

wheel with 0.1m perimeter (included)

clamping sleeve (included)

cone head (included)

small cone head (included)

cone cavity head (included)

STANDARD DELIVERY

Main unit	1 pc
Wheel with 0.1m perimeter	1 pc
Clamping sleeve	1 pc
Cone head	1 pc
Small cone head	1 pc
Cone cavity head	1 pc
Battery (AA)	3 pcs

VIDEO

- Can measure rotary speed, line speed and line length
- Automatically save the maximum value, minimum value and the last value, 96 data can be stored during continuous measurement
- With backlight display

SPECIFICATION

Measuring range	rotary speed	0.5~19999RPM
	line speed	0.05~500m/min
	line length	0.05~99999m
Resolution	rotary speed	0.1RPM (range 0.5~999.9RPM) 1RPM (range 1000~19999RPM)
	line speed	0.01m/min (range 0.05~99.99m/min) 0.1m/min (range 100~500m/min)
	line length	0.02m
Accuracy	rotary speed	±(0.4%n+1d)RPM (n<300RPM) ±(0.05%n+1d)RPM (n≥300RPM) n is rotary speed, d is resolution
	line speed	±(1%+1d)m/min d is resolution
	line length	±(1%+1d)m d is resolution
Sampling time		0.8s (above 60RPM)
Operation temperature		0~40°C
Power supply		3×AA batteries
Dimension		171×71×35mm
Weight		162g

NON-CONTACT TACHOMETER
CODE 9223-120

VIDEO

- Accurately measure the rotary speed without contact
- Automatically save the maximum value, minimum value and the last value, 500 data can be stored during continuous measurement

SPECIFICATION

Measuring range	2.5~99999RPM
Resolution	0.1RPM (range 2.5~999.9RPM) 1RPM (range 1000~99999RPM)
Accuracy	±(0.05%n+1d)RPM n is rotary speed, d is resolution
Laser power	Class 3R, 3mW~4mW
Sampling time	0.6 second (above 100RPM)
Measuring distance	50~500mm
Operation temperature	0~40°C
Power supply	3×AA batteries
Dimension	180×71×29.9mm
Weight	145g

reflection sticker (included)

STANDARD DELIVERY

Main unit	1 pc
Reflection sticker	3 pcs
Battery (AA)	3 pcs

CONTACT/NON-CONTACT TACHOMETER
CODE 9225-405

VIDEO

- 2 measuring method, contact and non-contact
- Can measure rotary speed and line speed
- Automatically save the maximum value, minimum value and the last value, 500 data can be stored during continuous measurement
- Automatic power off

cone cavity head (included)

small cone head (included)

wheel with 0.1m perimeter (included)

cone head (included)

clamping sleeve (included)

reflection sticker (included)

SPECIFICATION

Measuring method		Non-contact	Contact
Measuring range	rotary speed	2.5~99999RPM	0.5~19999RPM
	line speed	—	0.05~500m/min
Resolution	rotary speed	0.1RPM (range 2.5~999.9RPM) 1RPM (range 1000~99999RPM)	0.1RPM (range 0.5~999.9RPM) 1RPM (range 1000~19999RPM)
	line speed	—	0.01m/min (range 0.05~99.99m/min) 0.1m/min (range 100~500m/min)
Accuracy	rotary speed	±(0.05%n+1d)RPM n is rotary speed, d is resolution	±(0.4%n+1d)RPM (n<300RPM) ±(0.05%n+1d)RPM (n≥300RPM) n is rotary speed, d is resolution
	line speed	—	±(1%+1d)m/min d is resolution
Laser power		Class 3R, 3mW~4mW	—
Sampling time		0.6s (above 100RPM)	
Measuring distance		50~500mm	—
Operation temperature		0~40°C	
Power supply		3×AA batteries	
Dimension		206×71×36mm	
Weight		170g	

STANDARD DELIVERY

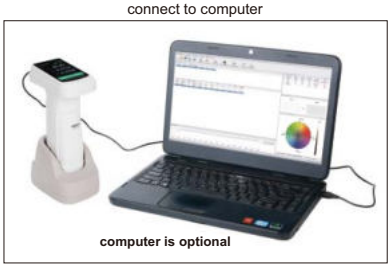
Main unit	1 pc
Reflection sticker	3 pcs
Wheel with 0.1m perimeter	1 pc
Clamping sleeve	1 pc
Cone head	1 pc
Small cone head	1 pc
Cone cavity head	1 pc
Battery (AA)	3 pcs

SPECTROPHOTOMETER
CODE 5701-D40

THREE KINDS OF APERTURE | MATCHING COLOR CARD QUICKLY | GRATING SPECTROPHOTOMETRIC | DATA OUTPUT

VIDEO

connect to computer



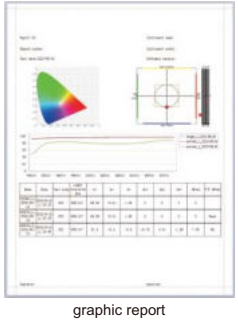
measurement

- Conforms with CIE No.15, ISO7724-1, ASTM E1164 and DIN5033 Teil7 standards
- 3.5"IPS full color screen
- Use long life and low power consumption combined LED light source, include UV and exclude UV measurement
- Camera locating function, switchable 11mm/6mm/1×3mm aperture
- Large capacity storage space, over 20,000 measurement data
- Two standard observer angles, a variety of illuminant, a variety of color indexes, conforms with a variety of standard colorimetric data
- Measure sample spectra, accurate Lab data, can be used in color matching and accurate color transmission

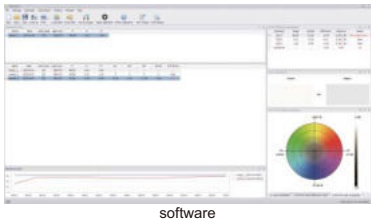
white calibration cavity (included)

software (included), test can be controlled from the software, display test data, report

text report



graphic report



software

SPECIFICATION

Optical geometry		D/8 (diffused illumination/8° direction reception) SCI+SCE (specular component included+specular component excluded)
Integrating sphere size		Ø40mm
Light source		LED (full band balanced LED) +UV
Spectrophotometric mode		grating
Sensor		dual optical path high precise CMOS array sensor
Wavelength range		400~700nm
Wavelength interval		10nm
Reflectance measurement range		0~200%
Reflectance resolution		0.01%
Display resolution		0.01
Illumination area/Aperture		MAV:Ø11mm; SAV:Ø6mm; MINI:1×3mm
Color space		CIE-Lab, CIE-LCh, HunterLab, CIE Luv, XYZ, Yxy, RGB
Color difference formula		ΔE*ab, ΔE*cmc, ΔE*94, ΔE*00
Other colorimetric index		Whiteness (ASTM E313-00, ASTM E313-73, CIE/ISO, AATCC, Hunter, Taube Berger Stensby),Yellowness (ASTM D1925, ASTM 313-00, ASTM E313-73), Blackness (My, dM), Color fastness, Tint (ASTM E313-73) Color density CMYK (A, T, E, M), Milm, Munsell, Opacity, Color strength
Observer angle		2°/10°
Illuminant		A, B, C, D50, D55, D65, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, CWF, U30, U35, DLF, NBF, TI83, TI84,Id50, Id65, LED-B1, LED-B2, LED-B3, LED-B4, LED-B5, LED-BH1, LED-RGB1, LED-V1, LED-V2
Measuring time		about 1.5s
Repeatability	spectral reflectance	within 0.08% of standard deviation
	colorimetric values	ΔE*ab≤0.025 (after whiteboard correction, measuring the whiteboard 30 times at 5s interval)
Inter-instrument error		ΔE*ab≤0.25 (BCRA series II, average value of 12 color plates)
Output		USB, Bluetooth
Light source lifetime		10 years, more than 1 million times measurements
Battery		3.7V/3000mAh, rechargeable 8,000 times continuous tests
Dimension		95×129×231mm
Weight		750g

STANDARD DELIVERY

Main unit	1 pc
White calibration cavity	1 pc
Measuring aperture	3 pcs
USB cable	1 pc
USB disk	1 pc
AC/DC adapter	1 pc

COLORIMETER (BASIC TYPE)
CODE 5700-LS35

VIDEO

- Conforms with CIE 15, CIE S 005, ISO 7724-1 and ISO 13655 standards
- 3.5-inch IPS display and capacity touch panel
- Contains multiple color cards and can match the closest color code quickly
- QC testing function, can set color difference threshold
- Able to store 1000 colors and 1000 color comparison
- 3.7V/4000mAh battery, 10000 continuous measurements

SPECIFICATION

Illumination geometry	D/8, specular component include (SCI)
Illumination light source	full spectrum LED light source
Measurement conditions	light source D65, field of view 10°
Measuring time	about 1s
Color space	CIE Lab, Luv, LCh, Yxy, CMYK, RGB, Hex
Color difference formula	ΔE*ab, ΔE*uv, ΔE*94, ΔE*cmc (2:1) , ΔE*cmc (1:1) , ΔE*00
Repeatability	standard deviation ΔE*ab is within 0.03 (measurement condition: the average value of 30 measurements on the whiteboard at an interval of 3s after calibration)
Charging interface	USB (Type-C)
Dimension	86×63×158mm
Weight	245g

STANDARD DELIVERY

Main unit	1 pc
White calibration cavity	1 pc
USB cable	1 pc
AC/DC adapter	1 pc
Cleaning cloth	1 pc
Locating plate	1 pc

white calibration cavity
(included)

60° GLOSS METER
CODE ISQ-DG6

VIDEO

- To test the gloss of coating, such as painting, varnish, printing ink, etc.
- To test the material surfaces, such as metal, granite, ceramic, plastic, paper, etc.
- According to ISO 2813, ASTM D2457, ASTM D523
- Automatic power off

base with calibration block
(included)

SPECIFICATION

Incidence angle	60°
Measuring range	0~150GU
Resolution	0.1GU
Accuracy	±1.2GU
Repeatability	0.4GU
Zero set error	0.2GU
Measuring area	20×10mm
Output	bluetooth
Power supply	1×1.5V AA battery
Dimension	123×38×65mm
Weight	300g

connect mobile phone via bluetooth
(only Android system)

operate and output data by mobile phone

STANDARD DELIVERY

Main unit	1 pc
Base with calibration block	1 pc
Spare calibration block	1 pc

20°/60°/85° GLOSS METER
CODE ISQ-DG8

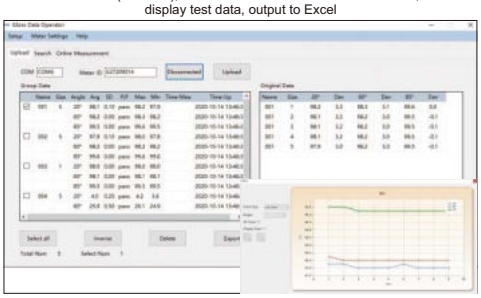
CAN BE OPERATED BY COMPUTERS OR MOBILE PHONES

DATA OUTPUT | BLUETOOTH

- To test the gloss of coating, such as painting, varnish, printing ink, etc.
- To test the material surfaces, such as metal, granite, ceramic, plastic, paper, etc.
- According to ISO 2813, ASTM D2457, ASTM D523
- Memory of 10000 measurement results for browsing and output
- Automatic power off

base with calibration block (included)

software (included), test can be controlled from the software, display test data, output to Excel



VIDEO

software CD (included)

connect to mobile phone via bluetooth (only Android system)

operate and output data by mobile phone

SPECIFICATION

Incidence angle	20°	60°	85°
Measuring range	0~2000GU	0~1000GU	0~160GU
Resolution	0.1GU (range≤119.9GU)		
	1GU (range>119.9GU)		
Accuracy	±1.5GU (range≤119.9GU)		
	±1.5% (range>119.9GU)		
Repeatability	0.2GU (range≤119.9GU)		
	0.2% (range>119.9GU)		
Zero set error	0.2GU		
Measuring area	10×9mm	16×9mm	39×5mm
Output	USB and bluetooth		
Power supply	1×1.5V AA battery		
Dimension	155×48×75mm		
Weight	400g		

connect to computer via bluetooth or USB cable

STANDARD DELIVERY

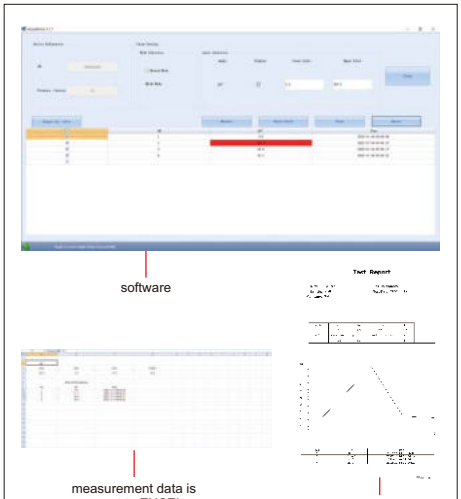
Main unit	1 pc
Base with calibration block	1 pc
Software and USB cable	1 pc
Bluetooth receiver	1 pc

60° GLOSS METER (BASIC TYPE)
CODE 5702-DG6

VIDEO

- To test the gloss of coating, such as painting, varnish, printing ink, etc.
- To test the material surfaces, such as metal, granite, ceramic, plastic, paper, etc.
- According to ISO 2813, ISO 7668, ASTM D523, ASTM D2457, DIN 67530
- Automatic judgement after setting high and low limits
- Automatic power off

software (included) , test can be controlled from the software, display test data and report



SPECIFICATION

Incidence angle	60°
Measuring range	0~200GU
Resolution	0.1GU
Accuracy	±1.5GU (range<120GU) ±1.5% (range≥120GU)
Repeatability	0.2GU (range<120GU) 0.2% (range≥120GU)
Zero error	0.1GU
Measuring area	20×10mm
Power supply	rechargeable battery
Data port	USB
Dimension	135×45×75mm
Weight	237g

base with calibration block (included)

STANDARD DELIVERY

Main unit	1 pc
Base with calibration block	1 pc
U disk	1 pc
AC/DC adapter	1 pc
USB data cable	1 pc
Cleaning cloth	1 pc

VIBRATION PEN
CODE 9720-199

VIDEO

- Measure vibration of motors, fans, pumps, compressors and machine tools to prevent mechanical failure
- Small size, light weight, low energy consumption, easy operation, easy to carry
- One key control
- Automatic power off

STANDARD DELIVERY

Main unit	1 pc
LR44 battery	2 pcs

SPECIFICATION

Code	9720-199
Measured parameter	speed
Measuring range	0.1~199.9mm/s
Frequency	10Hz~1KHz
Accuracy	±(5%±2)mm/s
Operation temperature	0°C~40°C
Operation humidity	<85%
Power supply	2×LR44 batteries (for 10 hours wroking)
Dimension	150x22x18mm
Weight	55g

VIBRATION PEN (THREE PARAMETERS)
CODE 0020-A199

- Acceleration, velocity and displacement can be tested
- Automatic power off

STANDARD DELIVERY

Main unit	1 pc
LR44 battery	2 pcs

SPECIFICATION

Parameter	acceleration	velocity	displacement
Measuring range	0.01~199.9m/s^2 (peak value)	0.01~199.9mm/s (virtual value)	0.001~1.999mm (peak~peak value)
Frequency	10Hz~1kHz	10Hz~1kHz	10Hz~500Hz
Frequency response	±5% (≥20Hz) -20%~+10% (<20Hz)		
Linearity	±(5%+2unit)		
Indeterminacy of sensitivity	≤3%		
Operation temperature	0°C~40°C/32°F~104°F		
Operation humidity	<85%		
Power supply	2×LR44 battery (for 10 hours working)		
Dimension	150x22x18mm		
Weight	55g		

DIGITAL REFRACTOMETER
CODE ISQ-DRM31

VIDEO

SUITABLE FOR WATER BASED COOLANT

- Quickly measure the concentration of coolant
- Two measurement modes: single measurement and automatic average multiple measurement
- Two units: brix and refractive index
- Refer to the refraction factor of coolant, for example:
  the refraction factor of grinding emulsion is 2.1, the reading value is 6%, so the actual concentration is (2.1×6%)=12.6%
- Automatic power off

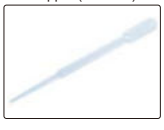
SPECIFICATION

Measuring range	0~50% (1.3330~1.4200RI)
Accuracy	±0.2% (±0.0003RI)
Resolution	0.1% (0.0001RI)
Power supply	1×AAA battery
Dimension	121×58×25mm
Weight	90g

STANDARD DELIVERY

Main unit	1 pc
Dropper	1 pc
Battery (AAA)	1 pc

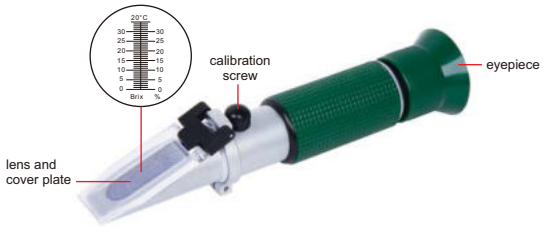
dropper (included)



PORTABLE REFRACTOMETER
CODE ISQ-RM30

VIDEO

SUITABLE FOR WATER BASED COOLANT



- Quickly measure the concentration of coolant
- Refer to the refraction factor of coolant, for example:
  the refraction factor of grinding emulsion is 2.1, the reading value is 6%, so the actual concentration is (2.1×6%)=12.6%

SPECIFICATION

Measuring range	0~32%
Graduation	0.2%
Dimension	27×40×160mm
Weight	175g

DIGITAL STOPWATCH
CODE DSW-A010

- Split time, total time and continuous time can be displayed
- 10 groups of results can be read out from memory after resetting
- Scroll back and forth to read out the memory digits
- The fastest, slowest and average time can be displayed
- Able to record the split times (00-199)

SPECIFICATION

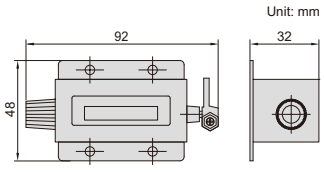
Measuring range		0~9 hour, 59 minutes, 59.99 seconds
Resolution		0.01s
Accuracy		±0.5s
Function	memory	10 groups
	timer	up to 10 hours
	time	12-hour or 24-hour time display, alarm can be set
Power supply		LR44 battery
Screen dimension		33.6×13.6mm
Dimension		76×63×16mm (metal case)

STANDARD DELIVERY

Main unit	1 pc
String	1 pc

STROKE COUNTER
CODE 7600-6

- Accumulate and record the number of mechanical movements
- Rotate back to zero



SPECIFICATION

Code	Number of digits	Range
7600-6	6	0-999999

DIGITAL VOLTAGE TESTER
CODE 9721-250

- Direct AC test (contact): 12-250V two way display: voltage displays on LCD screen and neon lamp lights up (when voltage>80V)
- Induction AC test (non-contact): 12-250V to detect power source or recognize the phase line, ground line and break point
- Direct DC test (contact): 6-36V instant sense and display
- Work without battery
- Tester tip: CRV material

SPECIFICATION

Range	AC: 12-250V; DC: 6-36V
Neon lamp life	30000 times
Dimension	133×21×19mm
Weight	22g

VIDEO

VOLTAGE TESTER
CODE 9722-250

- Tester tip: CRV material

SPECIFICATION

Range	AC: 100-250V
Neon lamp life	30000 times
Dimension	145×Ø15mm
Weight	21g

AC PHASE AND VOLTAGE DETECTOR
CODE 9723-400

VIDEO

9723-400

- Non-contact detection of phase sequence, high and low voltage, wire distinction
- Low battery indication
- Auto power off
- Flashlight

SPECIFICATION

Phase sequence detection	screen display clockwise or counterclockwise
High and low voltage detection	beep: slow~fast backlight: green~red analog bar: low~high
Wire distinction	green backlight indicates neutral wire red backlight indicates live wire
Power supply	2×1.5V AAA batteries
Dimension	157×27×23mm
Weight	32g

PEN-TYPE DIGITAL MULTIMETER
CODE 9241-ML200

VIDEO

- Auto/manual ranging
- Maximum mode
- Data hold
- Low battery display
- Auto power off
- Safety rating: CAT III 600V

probe (included)

SPECIFICATION

Function	Range	Resolution	Accuracy
DC Voltage	200mV/2V/20V/200V/600V	0.1mV/1mV/10mV/0.1V/1V	±(0.7%+2)
AC Voltage	200mV/2V/20V/200V	0.1mV/1mV/10mV/0.1V	±(0.8%+3)
	600V	1V	±(1.0%+3)
DC Current	20mA/200mA	10μA/0.1mA	±(1.5%+3)
AC Current	20mA/200mA	10μA/0.1mA	±(2.0%+3)
Resistance	200Ω	0.1Ω	±(1.0%+3)
	2kΩ/20kΩ/200kΩ/2MΩ	1Ω/10Ω/0.1kΩ/1kΩ	±(1.0%+1)
	20MΩ	10kΩ	±(1.0%+5)
Logic level test	<1.5V (green LED on) 1.5~3.5V (green & red LED off) >3.5V (red LED on)		
Diode	open circuit voltage 1.5V		
Continuity buzzer	<50Ω		
Power supply	2×1.5V AAA batteries		

clips (included)

STANDARD DELIVERY

Main unit	1 pc
Probe	1 pc
Clip	2 pcs
1.5V battery	2 pcs

SMART DIGITAL MULTIMETER
CODE 9247-190

VIDEO

- Automatically identify test mode for AC voltage/DC voltage/resistance/continuity
- Non-connection AC voltage detection, and judge the strength by light and buzzer
- Self-calibration when power on to ensure accuracy
- LIVE firewire recognition
- Display backlight
- True RMS
- Data hold
- Low battery display
- Automatic power off
- Safety rating: CAT III 600V

probes (included)

STANDARD DELIVERY

Main unit	1 pc
Probe	2 pcs
Battery (CR2032)	2 pcs

SPECIFICATION

Function	Range	Resolution	Accuracy
DC Voltage	60mV/600mV/6V/60V/600V	0.01mV/0.1mV/0.001V/0.01V/0.1V	±(0.5%+3)
AC Voltage	60mV/600mV/6V/60V/600V	0.01mV/0.1mV/0.001V/0.01V/0.1V	±(1.0%+3)
DC Current	6000μA/60mA/600mA	1μA/0.01mA/0.1mA	±(1.2%+5)
AC Current	6000μA/60mA/600mA	1μA/0.01mA/0.1mA	±(1.5%+5)
Resistance	600Ω/6kΩ/60kΩ/600kΩ	0.1Ω/0.001kΩ/0.01kΩ/0.1kΩ	±(1.0%+5)
	6MΩ/60MΩ	0.001MΩ/0.01MΩ	±(1.5%+3)
Capacitance	6nF/60nF/600nF/6μF/60μF/600μF	0.001nF/0.01nF/0.1nF/0.001μF/0.01μF/0.1μF	±(4.0%+5)
	6mF/60mF	0.001mF/0.01mF	±(5.0%+5)
Frequency	10Hz/100Hz/1000Hz/10kHz/100kHz/1000kHz	0.001Hz/0.01Hz/0.1Hz/0.001kHz/0.01kHz/0.1kHz	±(1.0%+5)
	10MHz	0.001MHz	±(3.0%+5)
Duty	1~99%	0.1%	±(3.0%+5)
Diode measurement	open circuit voltage 2.0V		
Continuity measurement	<50Ω		
Power	2×3V CR2032 batteries		
Dimension (LxWxH)	133×68×18mm		
Weight	178g		

DIGITAL MULTIMETER (WITH JACK INDICATOR LIGHT)
CODE 9246-180

VIDEO

- Jack indicator light: jacks flash green to indicate the corresponding jacks for probes
- Non-connection AC voltage detection and judge the strength by light and buzzer
- Self-calibration when power on to ensure accuracy
- LIVE firewire recognition
- Double color backlight (orange backlight prompts high voltage or current: the orange backlight automatically lights up when voltage is higher than 80V or the current is higher than 1A)
- Large range capacitance meter 100mF
- True RMS
- Battery test function
- Max/Min mode
- Data hold
- Low battery display
- Automatic power off
- Safety rating: CAT III 1000V, CAT IV 600V

probes (included)

STANDARD DELIVERY

Main unit	1 pc
Probe	2 pcs
Battery (AA)	2 pcs

SPECIFICATION

Function	Range	Resolution	Accuracy
DC Voltage	600mV/6V/60V/600V/1000V	0.1mV/0.001V/0.01V/0.1V/1V	±(0.5%+3)
AC Voltage	6V/60V/600V/750V	0.001V/0.01V/0.1V/1V	±(0.8%+5)
DC Current	60μA/60mA/600mA/10A	0.01μA/0.01mA/0.1mA/0.01A	±(1.2%+3)
AC Current	60mA/600mA/10A	0.01mA/0.1mA/0.01A	±(1.5%+3)
Resistance	600Ω/6kΩ/60kΩ/600kΩ	0.1Ω/0.001kΩ/0.01kΩ/0.1kΩ	±(1.0%+3)
	6MΩ/60MΩ	0.001MΩ/0.01MΩ	±(1.5%+3)
Capacitance	10nF/100nF/1000nF/10μF/100μF/1000μF	0.001nF/0.01nF/0.1nF/0.001μF/0.01μF/0.1μF	±(4.0%+5)
	10mF/100mF	0.001mF/0.01mF	±(5.0%+5)
Frequency	10Hz/100Hz/1000Hz/10kHz/100kHz/1000kHz	0.001Hz/0.01Hz/0.1Hz/0.001kHz/0.01kHz/0.1kHz	±(1.0%+3)
	10MHz	0.001MHz	±(3.0%+3)
Duty	1~99%	0.1%	±(3.0%+3)
Diode measurement	forward DC current 2.5mA, reverse DC voltage 3.0V		
Continuity measurement	<30Ω		
Power	2x1.5V AA batteries		
Dimension (LxWxH)	188×88×50mm		
Weight	424g		

DIGITAL MULTIMETER
CODE 9242-ML100

VIDEO

SPECIFICATION

Function	Range	Resolution	Accuracy
DC Voltage	200mV/2V/20V/200V	0.1mV/1mV/10mV/0.1V	±(0.5%+3)
	600V	1V	±(0.8%+5)
AC Voltage	200V/600V	0.1V/1V	±(1.2%+10)
DC Current	200μA/2mA	0.1μA/1μA	±(1.0%+3)
	20mA	10μA	±(1.0%+5)
	200mA	0.1mA	±(1.5%+5)
	10A	10mA	±(3.0%+10)
Resistance	200Ω	0.1Ω	±(0.8%+5)
	2kΩ/20kΩ/200kΩ	1Ω/10Ω/0.1kΩ	±(0.8%+2)
	2MΩ	1kΩ	±(1.0%+5)
Diode	open circuit voltage 3.0V		
Continuity buzzer	<70±30Ω		
Transistor hFE	measuring range 0~1000		
Power supply	1×9V 6F22/NEDA 1604 battery		

- Data hold
- Display backlight
- Low battery display
- Safety rating: CAT II 600V

probes (included)

STANDARD DELIVERY

Main unit	1 pc
Probe	2 pcs
9V battery	1 pc

PORTABLE CONDUCTIVITY/TDS METER
CODE 0411-0200

VIDEO

IP65 WATERPROOF

- Reading mode: auto-read and continuous-read
- Automatic/manual temperature compensation
- Auto-hold feature senses and locks the measurement endpoint
- Cell constant is settable
- 1 point calibration with standard recognition
- Data capacity up to 200 sets for each parameter
- IP65 dust/waterproof
- Auto power off

wristband (included)

standard solution (included)

SPECIFICATION

Conductivity	range	0.00μS/cm~200mS/cm
	resolution	0.01μS/cm minimum
	accuracy	±1.0%FS
	reference temperature	25°C/77°F
	calibration point	1
	standard recognition	84μS/cm, 1413μS/cm, 12.88mS/cm
TDS	range	0.00mg/L~300g/L
	resolution	0.01mg/L minimum
	accuracy	±1.0%FS
Temperature	range	-5~110°C/23~230°F
	resolution	0.1°C/0.2°F
	accuracy	±0.2°C/±0.4°F
Input		electrode with 5-pin aviation connector
Power supply		rechargeable battery
Dimension		80×225×35mm
Weight		400g

STANDARD DELIVERY

Main unit	1 pc
Electrode	1 pc
Electrode holder	2 pcs
Wristband	1 pc
Silicone rubber case	1 pc
AC/DC adapter and charging cable	1 pc
Standard solution	1 bottle

PORTABLE pH METER
CODE 0431-0018

VIDEO

IP65 WATERPROOF

- Reading mode: auto-read and continuous-read
- Automatic/manual temperature compensation
- Auto-hold feature senses and locks the measurement endpoint
- 1 or 2 points calibration with standard recognition
- Data capacity up to 200 sets for each parameter
- IP65 dust/waterproof
- Auto power off

standard solution (included)

KCL powder (included)

wristband (included)

SPECIFICATION

pH	range	-2.00~18.00pH
	resolution	0.01pH
	accuracy	±0.01pH
	calibration point	1 or 2
	standard recognition	NIST pH buffers: 4.01, 7.00, 10.01
Voltage	range	-1999~1999mV
	resolution	1mV
	accuracy	±0.1%FS
Temperature	range	-5~110°C/23~230°F
	resolution	0.1°C/0.2°F
	accuracy	±0.2°C/±0.4°F
Inputs		pH electrode: BNC (Q9)
		temp. probe: 4-pin aviation connector
Power supply		rechargeable battery
Dimension		80×225×35mm
Weight		400g

STANDARD DELIVERY

Main unit	1 pc
Electrode	1 pc
Electrode holder	2 pcs
Wristband	1 pc
Silicone rubber case	1 pc
AC/DC adapter and charging cable	1 pc
Standard solution	3 bottles
KCL powder	1 bottle

BOURDON TUBE PRESSURE GAGES (LIQUID FILLED)

CAN BE CUSTOMIZED

- Stainless steel case and bezel, copper alloy internals
- Shock-proof and pulse-proof
- Suitable for pneumatic system, hydraulic system and compressed air system

5201-63B2Y10

SPECIFICATION

Accuracy class	1.6
Ambient temperature	-20~60°C
Medium temperature	≤60°C

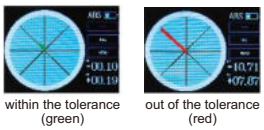
Dial size	Ø63mm		
Process connection	1/4BSP	1/4ZG	1/4NPT
Connector location	Bottom	Bottom	Bottom
Range (0~10bar/0~150psi)	5201-63B2Y10	5201-63Z2Y10	5201-63N2Y10

DIGITAL LEVEL CODE ISE-2DT

DATA OUTPUT

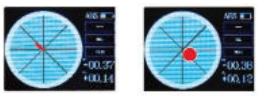
VIDEO

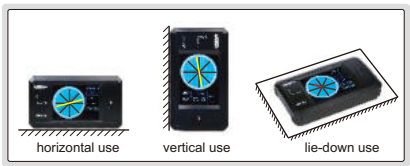
- Color LCD, touch panel
- X-Y axis measurement
- Set the tolerance and the display is shown in different colors



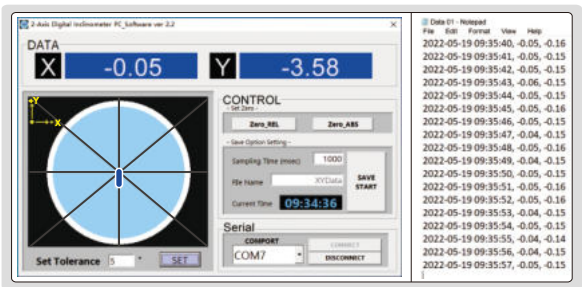
within the tolerance (green) — out of the tolerance (red)

- To show the incline with line or bubble





PC software (**optional**), send data to txt



SPECIFICATION

Measuring range	±30°
Resolution	0.1°, 0.01°, 0.1mm/m
Accuracy	±0.03° (range 0~3°) ±0.05° (range >3°)
Power supply	rechargeable battery
Dimension	115×66×25mm
Weight	224g

STANDARD DELIVERY

Main unit	1 pc
USB cable	1 pc

OPTIONAL ACCESSORY

Software	ISE-2DT-SOFTWARE

DIGITAL LEVEL AND SLOPE METER

WORKING TEMPERATURE -5°C~50°C

IP67 WATERPROOF

ABSOLUTE LEVEL

BACKLIGHT

BUZZER ALARM AT 0° AND 90°

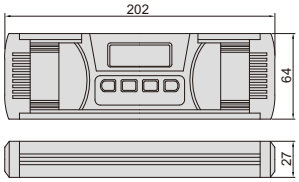
VIDEO

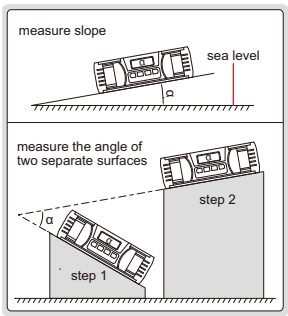
2175-360

- IP67 dust/waterproof
- Used as level and slope meter
- Aluminum frame, shock absorbing rubber end caps
- Magnetic bottom with V-groove for shafts
- The sea level is permanently set inside the chip, zero setting is not needed when batteries are replaced
- Buttons: ON/OFF, backlight/buzzer alarm, absolute and incremental measurement, unit (mm/m, %, °), HOLD (keep the reading)
- Three AAA batteries, automatic power off

Code	Range	Resolution	Accuracy
2175-360	0-360° (90°x4)	0.05° (=0.873mm/m)	at 0°: ±0.05°; at others: ±0.1°

Unit: mm





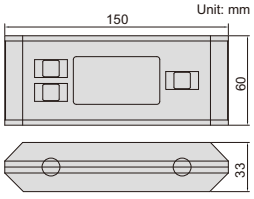
DIGITAL LEVEL AND SLOPE METER

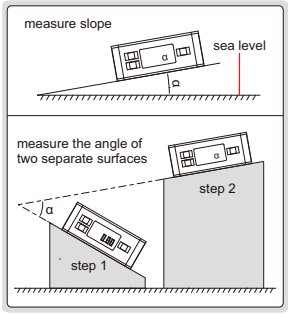
WORKING TEMPERATURE -5°C ~ 50°C | IP54 WATERPROOF | ABSOLUTE LEVEL | BACKLIGHT | BUZZER ALARM AT 0° AND 90°

VIDEO

2179-360

- IP54 dust/waterproof
- Used as level and slope meter
- Aluminum frame
- Magnetic bottom with V-groove for shafts
- The sea level is permanently set inside the chip, zero setting is not needed when battery is replaced
- Buttons: ON/OFF, absolute and incremental measurement, keep the reading, buzzer alarm, unit (mm/m, %, in/ft),conversion, backlight
- Two AAA batteries, automatic power off





Code	Range	Resolution	Accuracy
2179-360	0-360° (90°x4)	0.05° (=0.873mm/m)	at 0° and 90°: ±0.1°; at others: ±0.2°

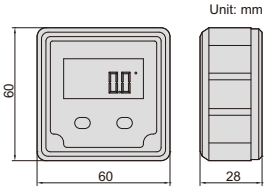
DIGITAL LEVEL AND SLOPE METER

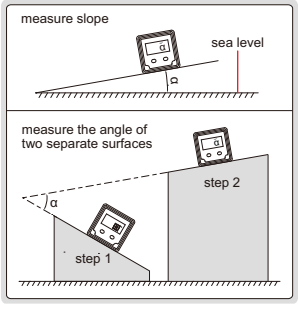
ABSOLUTE LEVEL | WORKING TEMPERATURE -5°C~50°C | BACKLIGHT | DISPLAY FLIPS OVER WHEN THE BOTTOM FACES UP | MAGNETIC BOTTOM

VIDEO

2170-1

- Used as level and slope meter
- Aluminum frame, magnetic bottom
- The display flips over when the bottom faces up
- The backlight is on automatically when in use, and automatically off in 15 seconds after use
- The sea level is permanently set inside the chip, zero setting is not needed when battery is replaced
- Buttons: ON/OFF, ZERO, absolute and incremental measurement
- One AAA battery, automatic power off in 5 minutes



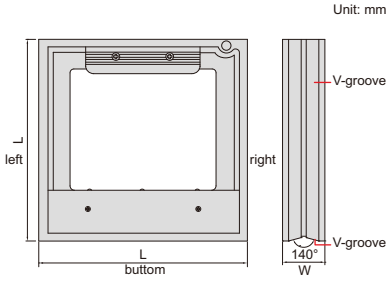


Code	Range	Resolution	Accuracy
2170-1	4x90°	0.1° (= 1.745 mm/m)	at 0°and 90°: ±0.1°; at others: ±0.2°

FRAME LEVELS

VIDEO

- V-groove on bottom and left for shafts (shafts dia. 15~68mm)
- With transverse vial



4902-200

Code		Size (LxL)	W
Sensitivity 0.02mm/m (=0.001°)	Sensitivity 0.05mm/m (=0.0029°)		
4902-150	4902-C150	150x150mm	40mm
4902-200	4902-C200	200x200mm	40mm
4902-300	4902-C300	300x300mm	45mm

BLOCK LEVELS

VIDEO

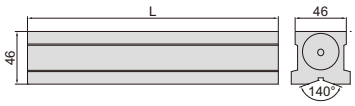
4903-200A

- V-groove on bottom for shafts (shafts dia. 15~68mm)
- With transverse vial

(mm)

Code		Length (L)
Sensitivity 0.02mm/m (=0.001°)	Sensitivity 0.05mm/m (=0.0029°)	
4903-150A	4903-C150	150
4903-200A	4903-C200	200
4903-300A	4903-C300	300

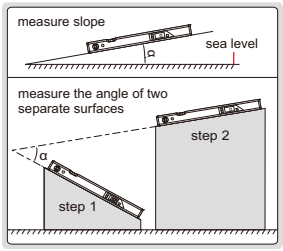
Unit: mm



DIGITAL LEVELS AND SLOPE METERS

WORKING TEMPERATURE 0°C ~ 50°C | BACKLIGHT | ABSOLUTE LEVEL

VIDEO

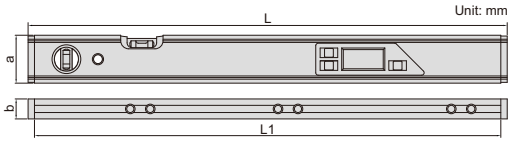


4910-400

4910-600

- With transverse and longitudinal vials
- Used as level and slope meter
- Aluminum frame, magnetic bottom
- The sea level is permanently set inside the chip, zero setting is not needed when batteries are replaced
- Buttons: ON/OFF, absolute and incremental measurement, keep the reading, buzzer alarm (not for **4910-400**), unit (mm/m, %, in/ft), conversion (not for **4910-400**), backlight
- The display flips over when the bottom faces up
- Two AAA batteries, automatic power off

Unit: mm



Code	Range	Resolution	Accuracy	Remark	L	L1	a	b
4910-400	0~360° (90°×4)	angle: 0.1°; slope: 1mm/m	±0.2°	both angle and slope are displayed	416mm	400mm	50mm	21mm
4910-600	0~360° (90°×4)	at 0° and 90°: 0.05° (=0.8725mm/m); at others: 0.1° (=1.745mm/m)	at 0° and 90°: ±0.1°; at others : ±0.2°	at 0° and 90° buzzer alarms	600mm	585mm	60mm	25mm

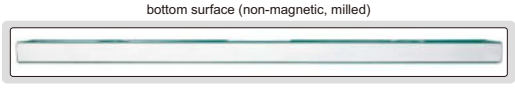
ALUMINUM ALLOY LEVELS

LIFETIME WARRANTY VIALS

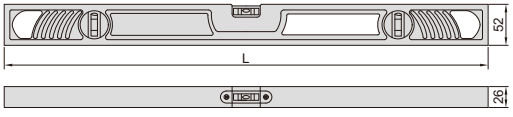
- Accuracy: 0.5mm/m
- Top and bottom working surfaces
- Shock-proof and UV-proof vials
- Die casting aluminum alloy frame
- Zero position of horizontal vial can be set
- One graduation of horizontal vial is 2% slope
- Working temperature: -15°C~55°C

4911-600

Code	Length (L)
4911-600	600mm
4911-800	800mm



Unit: mm



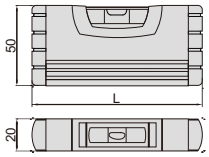
HANDY LEVEL

LIFETIME WARRANTY VIALS

MAGNETIC BASE

4912-100

Unit: mm



packaging

- Shockproof vials
- Magnetic base
- Shock absorbing rubber end caps
- Working temperature: -15˚C~55˚C

magnetic base surface

Code	Size (L)	Accuracy
4912-100	100mm	0.5mm/m

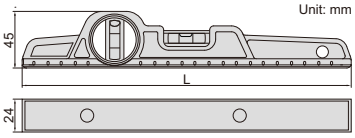
CAST ALUMINUM LEVEL

LIFETIME WARRANTY VIALS

MAGNETIC BASE

4913-250

Unit: mm



magnetic bottom surface (milled)

packaging

- Shockproof horizontal and vertical vials
- Magnetic base
- Working temperature: -15˚C~55˚C
- Cast aluminum body

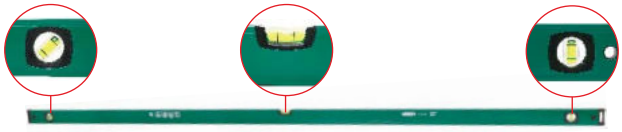
Code	Size (L)	Accuracy
4913-250	250mm	0.5mm/m

ALUMINUM LEVELS

LIFETIME WARRANTY VIALS

MAGNETIC BASE

4914-600

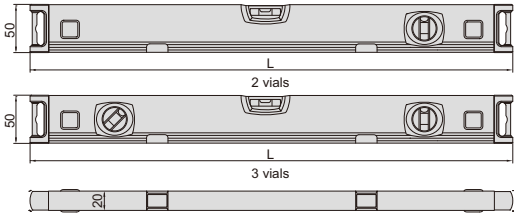


4914-2000

- Accuracy: 0.5mm/m
- Shockproof horizontal and vertical vials
- Magnetic base
- Shock absorbing rubber end caps
- Working temperature: -15˚C~55˚C

magnetic bottom surface (milled)

Unit: mm



Code	Size (L)	Number of vials
4914-300	300mm	2
4914-600	600mm	2
4914-800	800mm	2
4914-1000	1000mm	2
4914-1200	1200mm	2
4914-2000	2000mm	3

ALUMINUM ALLOY LEVELS (WITH ROTARY VIAL)

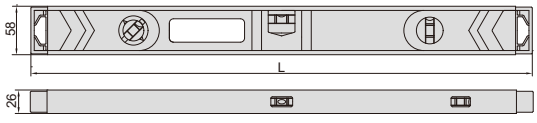
LIFETIME WARRANTY VIALS

- Shockproof and UV-proof vials
- Horizontal, vertical and rotary vials
- Rotary vial, range: 0°~360°, graduation: 5°
- Plumb window
- Shock absorbing rubber end caps
- Working temperature: -15°C~55°C

VIDEO

4920-600

Unit: mm



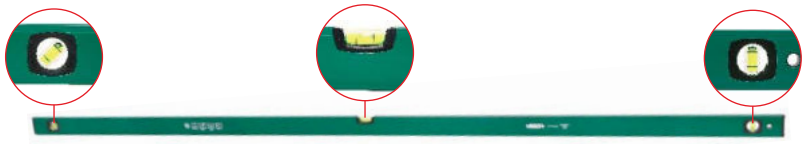
Code	Length (L)	Accuracy
4920-400	400mm	0.5mm/m
4920-600	600mm	0.5mm/m
4920-800	800mm	0.5mm/m
4920-900	900mm	0.5mm/m
4920-1000	1000mm	0.5mm/m
4920-1200	1200mm	0.5mm/m

ALUMINUM ALLOY LEVELS (BASIC TYPE)

LIFETIME WARRANTY VIALS

MAGNETIC BASE

4918-300

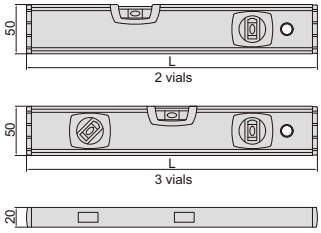


4918-2000

- Accuracy: 1mm/m
- Shock-proof and UV-proof vials
- Magnetic base
- Shock absorbing rubber end caps
- Working temperature: -15°C~55°C

magnetic bottom surface

Unit: mm



Code	Size (L)	Number of vials
4918-300	300mm	2
4918-600	600mm	2
4918-800	800mm	2
4918-1000	1000mm	2
4918-1200	1200mm	2
4918-2000	2000mm	3

CROSS-LINE LASER LEVEL CODE 4917-30

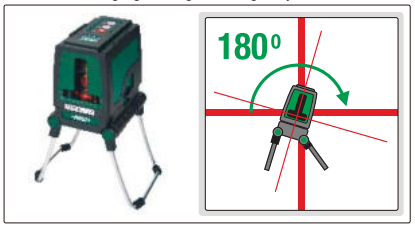
VIDEO

IP54 WATERPROOF

AUDIBLE AND VISUAL WARNING WHEN OUT OF ±3°

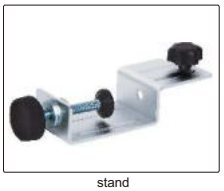
- Red horizontal and vertical cross laser lines
- Self-leveling within ±3°, self-leveling time within 4s, "out of ±3°" audible and visual warning
- Folding legs for angle and height adjustment
- Outdoor use with the detector (code **4917-DETECTOR**)

folding legs for angle and height adjustment



application examples

outdoor detector (**optional**)



stand
(included with outdoor detector)

SPECIFICATION

Laser line width	2±0.5mm (within 5m)
Laser type	630~660nm, class II, <1mW
Beam angle	120±0.5°
Self-leveling range	±3°
Working distance	indoor: 30m, outdoor: 50m with detector (**optional**)
Accuracy	0.2mm/m
Operation temperature	-10~40°C
Power supply	3×AA batteries, for 3 hours operation
Dimension	100×82×104mm
Weight	620g

STANDARD DELIVERY

Main unit	1 pc
1/4" to 5/8" tripod adaptor	1 pc
Battery (AA)	3 pcs

OPTIONAL ACCESSORY

Outdoor detector	4917-DETECTOR

OUTDOOR DETECTOR (OPTIONAL)

Detecting distance	horizontal 1~50m, vertical 1~30m
Detecting accuracy*	high accuracy ±1.5mm, low accuracy ±2.5mm
Power supply	9V battery
Dimension	168×58×30mm
Weight	140g (battery included)

*Use high accuracy detection mode within 15m, use low accuracy detection mode over 15m

MOTORIZED DIGITAL ROCKWELL HARDNESS TESTER

FORCE LOADING BY ELECTRIC MOTOR (WITHOUT WEIGHTS)

DATA OUTPUT

INSPECTION CERTIFICATE

VIDEO

automatic testing

elevate the stage by hand to let the workpiece touch the indenter protection cover, press "start" to start testing automatically, the preliminary and main test force are loaded automatically

ISH-RSR400

Ø60mm flat anvil (included)

Ø150mm flat anvil (included)

level (included)

V-type anvil (included) for cylinders with diameter Ø4~60mm

small V-type anvil (**optional**) for cylinders with diameter Ø2~4mm

touch pen (included)

desk (**optional**)

- Automatic testing, the preliminary and main test force are loaded automatically
- LCD touch screen, easy operation
- Convert to other Rockwell scales, HV or HB automatically
- Tolerance testing
- Insert USB flash disk, save the testing results as Excel
- Self-correcting the hardness value for curved workpieces
- Force loading by electric motor (without weights)
- The test force is selected automatically according to hardness scale
- According to ISO 6508

SPECIFICATION

Code		**ISH-RSR400**
Type		Rockwell
Hardness scale	**with standard indenters**	HRA, HRB, HRC, HRD, HRF, HRG
	with optional indenters	HRE, HRH, HRK, HRL, HRM, HRP, HRR, HRS, HRV
Preliminary test force		98N/10kgf for Rockwell
Test force		588N (60kg), 980N (100kg), 1471N (150kg)
Stage elevation		manual
Load control		automatic (load/dwell/unload)
Load dwell time		0~60 second
Resolution		0.1HR
Output		USB
Max. workpiece height		220mm
Max. testing width		200mm (from the center of indenter to the wall of main body)
Power supply		220V, 50/60Hz
Dimension		510×260×780mm
Weight		70kg

STANDARD DELIVERY

Main unit	1 pc
Ø63mm flat anvil	1 pc
Ø150mm flat anvil	1 pc
V-type anvil	1 pc
Diamond indenter	1 pc
Ø1.5875mm carbide ball indenter	1 pc
Hardness test block HRB88~95	1 pc
Hardness test block HRC60~65	1 pc
Hardness test block HRC20~30	1 pc
USB flash disk (8G)	1 pc
Level	1 pc
Touch pen	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

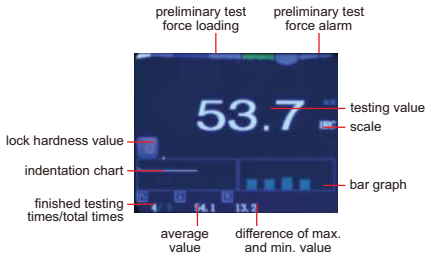
Hardness test block HRB88~100	**HDT-B-HRB**
Hardness test block HRC60~70	**HDT-B-HRC3**
Hardness test block HRC20~30	**HDT-B-HRC1**
Hardness test block 78~88HR15N	**HDT-B-HR15N2**
Hardness test block 55~73HR30N	**HDT-B-HR30N2**
Hardness test block 73~82HR30T	**HDT-B-HR30T**
Small V-type anvil	**ISH-SMALLANVIL**
Desk	**HDT-DESK**

MOTORIZED DIGITAL ROCKWELL HARDNESS TESTER
CODE ISH-MRD200

INSPECTION CERTIFICATE

DATA OUTPUT

VIDEO



- Tolerance testing
- Set testing times (2~10) to have average value and the difference of max. and min. value
- Convert to other Rockwell scales, HV or HB
- Memory of 500 testing values for browsing and output
- Testing value can be sent to wireless printer automatically
- Calibration function compensates the testing value for high accuracy
- The hardness value of soft materials like plastic is not stable, the lock function can obtain the value automatically
- Display unit is automatic power off
- According to ISO 6508

software CD (included)

SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD, HRF, HRG (with standard indenters)
	HRE, HRH, HRK (with optional indenter)
Preliminary test force	98N
Test force	588N, 980N, 1471N
Stage elevation	manual
Load control	automatic (load/dwell/unload)
Load dwell time	1~99 second
Resolution	0.1HR
Output	wireless and USB
Memory	500
Max. workpiece height	170mm
Max. testing width	165mm (from the center of indenter to the wall of main body)
Power supply of the display unit	built-in rechargeable battery
Power supply	220V, 50/60Hz
Dimension	520×160×700mm
Weight	60kg

Ø60mm flat anvil (included)

Ø150mm flat anvil (included)

wireless printer (**optional**)

small V-type anvil (**optional**) for cylinders with diameter Ø2~4mm

V-type anvil (included) for cylinders with diameter Ø4~60mm

desk (**optional**)

STANDARD DELIVERY

Main unit	1 pc
Ø60mm flat anvil	1 pc
Ø150mm flat anvil	1 pc
V-type anvil	1 pc
Diamond indenter	1 pc
Ø1.5875mm carbide ball indenter	1 pc
Hardness test block HRB88~95	1 pc
Hardness test block HRC60~65	1 pc
Hardness test block HRC20~30	1 pc
Anti-dust cover	1 pc
Software and USB cable	1 pc
AC/DC adapter	1 pc

OPTIONAL ACCESSORY

Wireless printer	ISH-DS-PRINTER
Ø3.175mm carbide ball indenter	ISH-EHK-INDENTER
Hardness test block HRB88~100	HDT-B-HRB
Hardness test block HRC60~70	HDT-B-HRC3
Hardness test block HRC20~30	HDT-B-HRC1
Small V-type anvil	ISH-SMALLANVIL
Desk	HDT-DESK

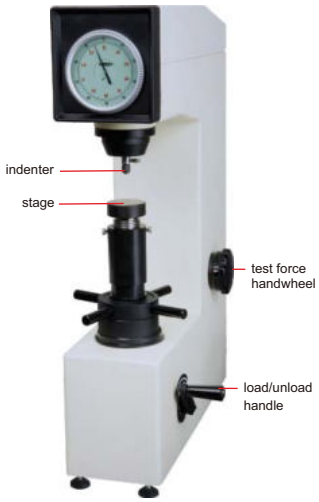
MANUAL ROCKWELL HARDNESS TESTER
CODE ISH-R150

VIDEO

INSPECTION CERTIFICATE

SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD, HRF, HRG
Preliminary test force	98N
Test force	588N, 980N, 1471N
Display	analogue
Stage elevation	manual
Load control	manual
Min. reading	0.5HR
Max. workpiece height	170mm
Max. testing width	165mm (from the center of indenter to the wall of main body)
Dimension	520×160×700mm
Weight	60kg



desk (**optional**)

Ø60mm flat anvil (included)

Ø150mm flat anvil (included)

V-type anvil (included) for cylinders with diameter Ø4~60mm

small V-type anvil (**optional**) for cylinders with diameter Ø2~4mm

- According to ISO 6508

STANDARD DELIVERY

Main unit	1 pc
Ø60mm flat anvil	1 pc
Ø150mm flat anvil	1 pc
V-type anvil	1 pc
Diamond indenter	1 pc
Ø1.5875mm carbide ball indenter	1 pc
Hardness test block HRB88~95	1 pc
Hardness test block HRC60~65	1 pc
Hardness test block HRC20~30	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Hardness test block HRB88~100	HDT-B-HRB
Hardness test block HRC60~70	HDT-B-HRC3
Hardness test block HRC20~30	HDT-B-HRC1
Small V-type anvil	ISH-SMALLANVIL
Desk	HDT-DESK

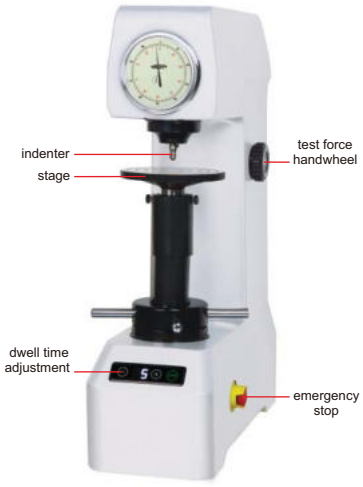
MOTORIZED ROCKWELL HARDNESS TESTER (BASIC TYPE)
CODE HDT-RA151

VIDEO

INSPECTION CERTIFICATE

SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD, HRF, HRG
Preliminary test force	98N
Test force	588N, 980N, 1471N
Display	analogue
Stage elevation	manual
Load control	automatic (load/dwell/unload)
Load dwell time	1~60 second
Min. reading	0.5HR
Max. workpiece height	170mm
Max. testing width	165mm (from the center of indenter to the wall of main body)
Power supply	220V, 50/60Hz
Dimension	520×225×640mm
Weight	65kg



level (included)

Ø150mm flat anvil (included)

Ø58mm flat anvil (included)

V-type anvil (included) for cylinders with diameter Ø4~60mm

small V-type anvil (**optional**) for cylinders with diameter Ø2~4mm

desk (**optional**)

- According to ISO 6508

STANDARD DELIVERY

Main unit	1 pc
Ø58mm flat anvil	1 pc
Ø150mm flat anvil	1 pc
V-type anvil	1 pc
Diamond indenter	1 pc
Ø1.5875mm steel ball indenter	1 pc
Level	1 pc
Hardness test block HRA80~88	1 pc
Hardness test block HRB85~95	1 pc
Hardness test block HRC20~30	1 pc
Hardness test block HRC35~55	1 pc
Hardness test block HRC60~70	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Hardness test block HRA80~84	HDT-B-HRA
Hardness test block HRB88~100	HDT-B-HRB
Hardness test block HRC20~30	HDT-B-HRC1
Hardness test block HRC35~55	HDT-B-HRC2
Hardness test block HRC60~70	HDT-B-HRC3
Small V-type anvil	ISH-SMALLANVIL
Desk	HDT-DESK

MANUAL ROCKWELL HARDNESS TESTER (BASIC TYPE) CODE HDT-RW160

INSPECTION CERTIFICATE

VIDEO

desk (**optional**)

level (included)

Ø58mm flat anvil (included)

small V-type anvil (**optional**) for cylinders with diameter Ø2~4mm

Ø150mm flat anvil (included)

V-type anvil (included) for cylinders with diameter Ø4~60mm

- According to ISO 6508

OPTIONAL ACCESSORY

Hardness test block HRA80~84	HDT-B-HRA
Hardness test block HRB88~100	HDT-B-HRB
Hardness test block HRC20~30	HDT-B-HRC1
Hardness test block HRC35~55	HDT-B-HRC2
Hardness test block HRC60~70	HDT-B-HRC3
Small V-type anvil	ISH-SMALLANVIL
Desk	HDT-DESK

SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD, HRF, HRG
Preliminary test force	98N (10kg)
Test force	588N (60kg), 980N (100kg), 1471N (150kg)
Display	analogue
Stage elevation	manual
Load control	manual
Min. reading	0.5HR
Max. workpiece height	170mm
Max. testing width	135mm (from the center of indenter to the wall of main body)
Dimension	466×238×630mm
Weight	70kg

STANDARD DELIVERY

Main unit	1 pc
Ø58mm flat anvil	1 pc
Ø150mm flat anvil	1 pc
V-type anvil	1 pc
Diamond indenter	1 pc
Ø1.5875mm steel ball indenter	1 pc
Ø1.5875mm steel ball	5 pcs
Level	1 pc
Hardness test block HRA80~88	1 pc
Hardness test block HRB85~95	1 pc
Hardness test block HRC20~30	1 pc
Hardness test block HRC35~55	1 pc
Hardness test block HRC60~70	1 pc
Anti-dust cover	1 pc

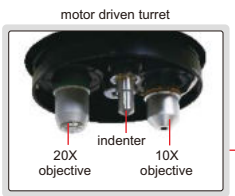
DIGITAL VICKERS HARDNESS TESTER CODE HDT-VD50A

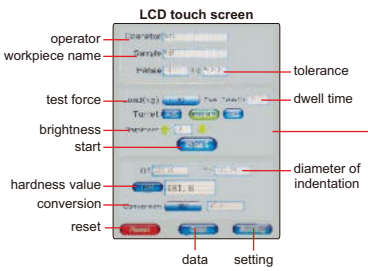
VIDEO

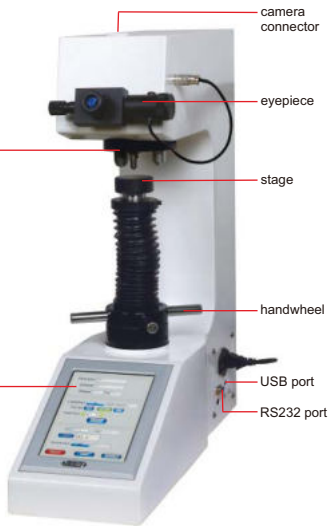
FORCE LOADING BY ELECTRIC MOTOR (WITHOUT WEIGHTS)

INSPECTION CERTIFICATE

- LCD touch screen, easy operation
- Insert USB flash disk, save the test results as Excel
- Converted to HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
- Force loading by electric motor, without weights
- According to ISO 6507







SPECIFICATION

Test force	0.5, 1, 2, 2.5, 3, 5, 10, 15, 20, 30, 40, 50kgf
Range	8~2900HV
Load control	automatic (load/dwell/unload)
Load dwell time	1~99 second
Eyepiece	10X
Objective	10X, 20X
Total magnification	100X, 200X
Length measurement resolution	0.01μm
Data output	USB flash disk
Max. workpiece height	180mm
Max. testing width	160mm (from the center of indenter to the wall of main body)
Power supply	220V, 50/60Hz
Dimension	580x190x700mm
Weight	55kg

OPTIONAL ACCESSORY

Hardness test block 400~500HV10	HDT-B-HV10D
Hardness test block 400~500HV30	HDT-B-HV30D
Measuring system	HDT-VS530

STANDARD DELIVERY

Main unit	1 pc
10X, 20X objective	1 pc of each
Vickers indenter	1 pc
Ø58mm flat anvil	1 pc
Ø150mm flat anvil	1 pc
V-type anvil	1 pc
Hardness test block 400~500HV10	1 pc
Hardness test block 400~500HV30	1 pc
USB flash disk	1 pc
Level	1 pc
Touch pen	1 pc
Anti-dust cover	1 pc

level (included)

Ø150mm flat anvil (included)

Ø58mm flat anvil (included)

V-type anvil (included)

DIGITAL MICRO-VICKERS HARDNESS TESTERS

INSPECTION CERTIFICATE

VIDEO

HDT-MV290

vice (included)

slice holder (included)

cylinder holder (included)

- Measure hardness of thin or small workpieces
- Converted to HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
- Motor driven turret to switch between indenter and objective lens automatically
- Calibrated according to standard hardness blocks or length scales
- Test result can be sent to Word or Excel
- According to ISO 6507

SPECIFICATION

Code	HDT-MV290	HDT-MV290S
	Manual switch of test force	Motorized switch of test force
Test force	0.098N (10gf), 0.245N (25gf), 0.49N (50gf), 0.98N (100gf), 1.96N (200gf), 2.94N (300gf), 4.9N (500gf), 9.8N (1kgf)	
Vickers scales	HV0.01, HV0.025, HV0.05, HV0.1, HV0.2, HV0.3, HV0.5, Hv1	
Range	8HV~2900HV	
Length measurement resolution	0.01μm	
Objective/indenter switch	motor driven turret	
Stage lifting	manual	
Load control	automatic (load/dwell/unload)	
Load dwell time	1~99 second	
Objective	10X, 40X	
Eyepiece	10X	
Total magnification	100X (for measurement or observation), 400X (for measurement)	
Max. workpiece height	100mm	
Max. testing width	130mm (from the center of indenter to the wall of main body)	
X-Y stage	dimensions: 100×100mm, travel range: 25×25mm	
Data output	built-in printer, Rs232	
Power supply	220V, 50/60Hz	
Dimension	540×260×650mm	
Weight	50kg	

STANDARD DELIVERY

Main unit	1 pc
10X, 40X objective	1 pc of each
Micro Vickers indenter	1 pc
Hardness test block 400~500HV0.2	1 pc
Hardness test block 700~750HV1	1 pc
Level	1 pc
Touch pen	1 pc
Slice holder	1 pc
Vice	1 pc
Cylinder holder	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Hardness test block 400~500HV0.2	HDT-B-HV02C
Hardness test block 700~750HV1	HDT-B-HV1F
Measuring system	HDT-VS530

MOTORIZED DIGITAL BRINELL HARDNESS TESTER

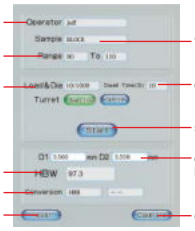
AUTOMATIC TESTING, AUTOMATIC TEST FORCE LOADING

FORCE LOADING BY ELECTRIC MOTOR (WITHOUT WEIGHTS)

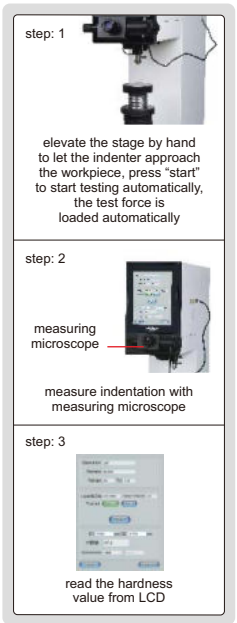
VIDEO

INSPECTION CERTIFICATE

LCD touch screen



ISHB-D300



- Automatic testing, automatic test force loading
- LCD touch screen, easy operation
- Measure indentation by measuring microscope then read the hardness value from LCD
- Tolerance testing
- Insert USB flash disk, save the test results as Excel
- Converted to HRA, HRB, HRC, HRD, HRF, HV, HB, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
- Force loading by electric motor, without weights
- According to ISO 6506

Ø80mm flat anvil (included)

Ø200mm flat anvil (included)

V-type anvil (included)

touch pen (included)

desk (**optional**)

SPECIFICATION

Code		**ISHB-D300**
Turret rotation		automatic
Range		8~650HBW
Reading mode		directly read from LCD
Test force		62.5, 100, 125, 187.5, 250, 500, 750, 1000, 1500, 3000kgf
Max. workpiece height		200mm
Max. testing width		155mm (from the center of indenter to the wall of main body)
Stage elevation		manual
Load control		automatic (load/dwell/unload)
Load dwell time		5~60 second
Measuring microscope	**magnification**	20X
	resolution	0.625μm
Power supply		220V, 50/60Hz
Dimension		550x210x750mm
Weight		110kg

STANDARD DELIVERY

Main unit	1 pc
Ø80mm flat anvil	1 pc
Ø200mm flat anvil	1 pc
V-type anvil	1 pc
Ø2.5mm carbide ball indenter	1 pc
Ø5mm carbide ball indenter	1 pc
Ø10mm carbide ball indenter	1 pc
Hardness test block 150~250HBW2.5/187.5	1 pc
Hardness test block 75~125HBW10/1000	1 pc
Hardness test block 175~250HBW10/3000	1 pc
USB flash disk (8G)	1 pc
Touch pen	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Hardness test block 200~300HBW2.5/187.5	**HDT-B-HB25A2**
Hardness test block 90~200HBW10/1000	**HDT-B-HB10C1**
Hardness test block 200~300HBW10/3000	**HDT-B-HB10A2**
Brinell indentation measuring system	**ISHB-MSA**
Desk	**HDT-DESK**

DIGITAL BRINELL/ROCKWELL/VICKERS HARDNESS TESTER
CODE HDT-BRV130

VIDEO

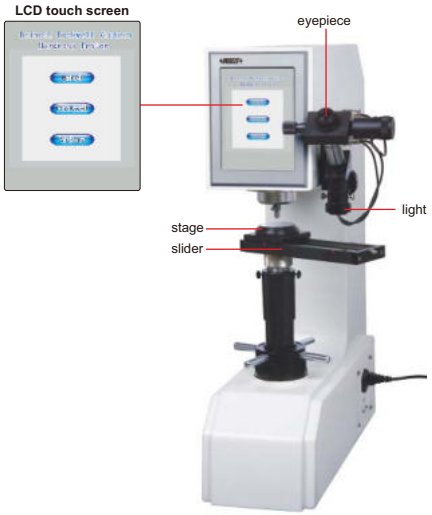
FORCE LOADING BY ELECTRIC MOTOR (WITHOUT WEIGHTS)

INSPECTION CERTIFICATE

- According to ISO 6506, ISO 6507, ISO 6508
- Force loading by electric motor (without weights)

SPECIFICATION

Brinell test load	49N (5kgf), 98N (10kgf), 153N (15.625kgf), 294N (30kgf), 306N (31.25kgf), 613N (62.5kgf), 980N (100kgf), 1226N (125kgf), 1839N (187.5kgf)
Brinell scales	HBW1/5, HBW2.5/62.5, HBW1/10, HBW2.5/15.625, HBW1/30, HBW2.5/31.25, HBW2.5/62.5, HBW10/100, HBW5/125, HBW2.5/187.5
Brinell resolution	0.1HBW
Rockwell test load	98N (10kgf) preload 588 (60kgf), 980 (100kgf), 1471N (150kgf) total load
Rockwell scales	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HRL, HRM, HRP, HRR, HRS, HRV
Rockwell resolution	0.1HR
Vickers test load	49N (5kgf), 98N (10kgf), 196N (20kgf), 294N (30kgf), 392N (40kgf), 490N (50kgf), 588N (60kgf), 784N (80kgf), 980N (100kgf), 1176N (120kgf)
Vickers scales	HV5, HV10, HV20, HV30, HV40, HV50, HV60, HV80, HV100, HV120
Vickers resolution	0.1HV
Objective	2.5X/5X
Magnification of microscope	Brinell: 37.5X, Vickers: 75X
Hardness test range	Brinell: 8~650HBW, Rockwell: 20~100HR, Vickers: 8~2900HV
Max. workpiece height	Rockwell: 220mm, Brinell and Vickers: 150mm
Max. testing width	200mm (from the center of indenter to the wall of main body)
Data output	USB flash disk
Power supply	220V, 50/60Hz
Dimension	560×350×800mm
Weight	70kg



Ø60mm flat anvil for Rockwell (included)

Ø60mm flat anvil for Vickers and Brinell (included)

V-type anvil for Rockwell (included), for cylinders with diameter Ø4~60mm

small V-type anvil for Rockwell (**optional**), for cylinders with diameter Ø2~4mm

Ø150mm flat anvil for Rockwell (included)

desk (**optional**)

STANDARD DELIVERY

Main unit	1 pc
Vickers diamond indenter	1 pc
Rockwell diamond indenter	1 pc
Ø1.5875mm Rockwell indenter	1 pc
Ø2.5mm Brinell indenter	1 pc
Ø5mm Brinell indenter	1 pc
Ø60mm flat anvil for Rockwell	1 pc
Ø150mm flat anvil for Rockwell	1 pc
V-type anvil for Rockwell	1 pc
Ø60mm flat anvil for Vickers and Brinell	1 pc
Hardness test block HRB88~95	1 pc
Hardness test block HRC60~65	1 pc
Hardness test block HRC20~30	1 pc
Hardness test block 400~500HV30	1 pc
Hardness test block 180~300HBW2.5/187.5	1 pc
Level	1 pc
USB flash disk	1 pc
Touch pen	1 pc
Anti-dust cover	1 pc

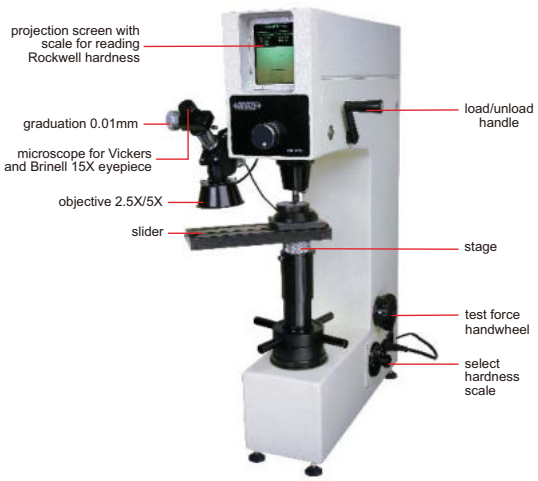
OPTIONAL ACCESSORY

Hardness test block HRB88~100	HDT-B-HRB
Hardness test block HRC60~70	HDT-B-HRC3
Hardness test block HRC20~30	HDT-B-HRC1
Hardness test block 400-500HV30	HDT-B-HV30D
Hardness test block 200-300HBW2.5/187.5	HDT-B-HB25A2
Small V-type anvil for Rockwell	ISH-SMALLANVIL
Desk	HDT-DESK

BRINELL/ROCKWELL/VICKERS HARDNESS TESTER
CODE ISH-BRV

INSPECTION CERTIFICATE

VIDEO



- According to ISO 6506, ISO 6507, ISO 6508

Ø60mm flat anvil for Rockwell (included)

Ø150mm flat anvil for Rockwell (included)

Ø60mm flat anvil for Vickers and Brinell (included)

V-type anvil for Rockwell (included), for cylinders with diameter Ø4~60mm

V-type anvil for Vickers and Brinell (included)

small V-type anvil for Rockwell (**optional**), for cylinders with diameter Ø2~4mm

desk (**optional**)

SPECIFICATION

Rockwell test load	98N preload, 588, 980, 1471N total load
Min. Rockwell reading	0.5HR
Brinell test load	306, 613, 1839N
Vickers test load	294N
Stage elevation	manual
Load control	manual
Magnification of microscope	37.5X/75X
Max. workpiece height	180mm
Max. testing width	200mm (from the center of indenter to the wall of main body)
Power supply	220V, 50/60Hz
Dimension	546×300×767mm
Weight	90kg

STANDARD DELIVERY

Main unit	1 pc
Ø1.5875mm carbide ball indenter	1 pc
Diamond Rockwell indenter	1 pc
Ø5mm Brinell indenter	1 pc
Ø2.5mm Brinell indenter	1 pc
Vickers indenter	1 pc
Ø60mm flat anvil for Rockwell	1 pc
Ø150mm flat anvil for Rockwell	1 pc
V-type anvil for Rockwell	1 pc
Ø60mm flat anvil for Vickers and Brinell	1 pc
V-type anvil for Vickers and Brinell	1 pc
Hardness test block HRB88~95	1 pc
Hardness test block HRC60~65	1 pc
Hardness test block HRC20~30	1 pc
Hardness test block 400~500HV30	1 pc
Hardness test block 180~300HBW2.5/187.5	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Hardness test block HRB88~100	**HDT-B-HRB**
Hardness test block HRC60~70	**HDT-B-HRC3**
Hardness test block HRC20~30	**HDT-B-HRC1**
Hardness test block 400-500HV30	**HDT-B-HV30D**
Hardness test block 200-3000HBW2.5/187.5	**HDT-B-HB25A2**
Small V-type anvil for Rockwell	**ISH-SMALLANVIL**
Desk	**HDT-DESK**

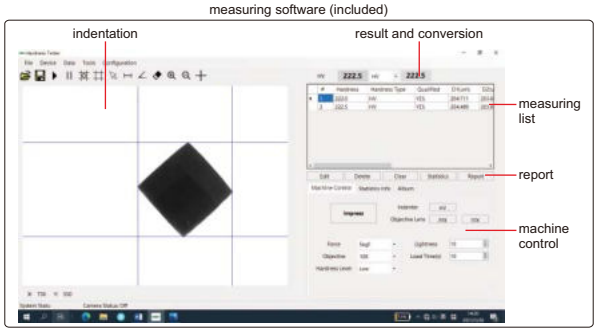
VICKERS HARDNESS MEASURING SYSTEM
CODE HDT-VS530

software CD
(included)

measure the indentation sizes automatically or manually, and hardness tester can be controlled by software

C-mount

measuring software (included)



- Suitable for digital Vickers hardness tester **HDT-VD** series and **HDT-MV** series
- Connected to computer USB port
- Measure the indentation sizes automatically or manually
- Multiple measurements to have average value, max. value, min. value and variance
- Convert to HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
- Hardness tester can be controlled by software
- Measurement result can be sent to Word, Excel or CSV

SPECIFICATION

Sensor	1/2.5" CMOS
Pixel	5M (resolution 2592×1944)
Hardness measurement resolution	0.1HV
Length measurement resolution	0.001μm
Test force	1, 2, 2.5, 3, 5, 10, 15, 20, 30, 40, 50kgf
Dimension	30×30×40mm
Weight	50g

STANDARD DELIVERY

Main unit	1 pc
Software and USB cable	1 pc
Rs232 cable	1 pc
USB dongle	1 pc
Camera adapter	1 set

camera adapter (included)

PORTABLE LEEB HARDNESS TESTER
CODE ISH-PHB

VIDEO

INSPECTION CERTIFICATE

- Based on Leeb (HLD), converted to Vickers (HV), Brinell (HB), Rockwell (HRC and HRB), Shore (HS) and tensile strength (MPa)
- Memory of 99 measurement values for browsing
- Set measurement times (1~9) to have average value
- Connected with printer via bluetooth
- Automatic power off
- According to ASTM A 956

hardness test block D
(included)

small support ring
(included)

wireless printer
(**optional**)

SPECIFICATION

Min. reading	1HLD, 1HV, 1HB, 0.1HRC, 0.1HRB, 1HS, 1MPa	
Accuracy	±6HLD (when HLD=800)	
Display	Leeb (HLD), converted hardness, material, impact direction, test times, average value, date	
Output	bluetooth	
Applicable workpiece	minimum weight	5kg
		2kg (on solid support)
		0.1kg(coupled on plate)
	minimum thickness: 5mm	
	minimum radius of curved surface: 30mm	
	maximum roughness (Ra): 1.6μm	
Power supply	3×AAA batteries	
Dimension	150×84×28mm	
Weight	200g	

STANDARD DELIVERY

Main unit	1 pc
Impact device D	1 pc
Hardness test block D	1 pc
Small support ring	1 pc
Cleaning brush	1 pc

OPTIONAL ACCESSORY

Wireless printer	**ISH-DS-PRINTER**
Couplant	**ISH-COUPLANT**
Support rings	refer to details
Hardness test block D	**HDT-B-HLD3**

PORTABLE LEEB HARDNESS TESTERS (BASIC TYPE)

INSPECTION CERTIFICATE

VIDEO

large font display | statistics display

HDT-LP200

small support ring (included)

hardness test block D (included)

wireless printer (included in **HDT-LP200B**)

- Can change probes
- Dual-coil probe for high accuracy
- Universal testing angle, no need to set impact direction
- Based on Leeb (HLD), converted to Vickers (HV), Brinell (HB), Rockwell (HRC, HRA and HRB), Shore (HS) and tensile strength (SGM)
- Dual value display, shows both Leeb and converted hardness
- Large LCD display with backlight
- Can choose large font display and statistics display
- Automatically calculate maximum, minimum and average value
- Save 300 data
- Operation temperature: -10°C~45°C
- According to ASTM A956, DIN 50156, GB/T 17394

SPECIFICATION

Code	HDT-LP200	HDT-LP200B
Printer	not included	included
Output	–	bluetooth
Resolution	1HLD/1HV/1HB/0.1HRC/0.1HRB/0.1HRA/0.1HS/1SGM	
Accuracy	±6HLD (when HLD=800)	
Measuring range	HL 100-960/HRC 0.9-79.2/HRB 1-140/HB 1-1878/HV 1-1698/ HS 0.5-1370/HRA 1-88.5/SGM (rm) 1-6599N/mm²	
Power supply	2xAA battery	
Dimension	127×67×30mm	
Weight	240g	

STANDARD DELIVERY

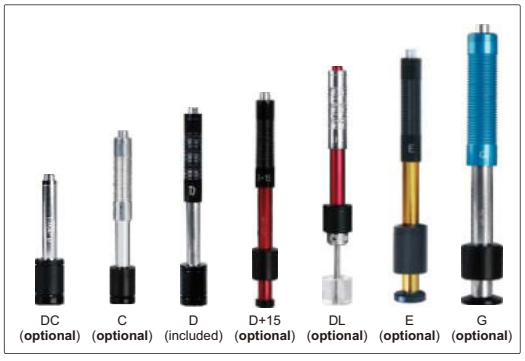
Main unit	1 pc
Hardness test block D	1 pc
Small support ring	1 pc
Cleaning brush	1 pc
Impact device D	1 pc
Printer (inclded in HDT-LP200B)	1 pc

OPTIONAL ACCESSORY

Impact device DC	HDT-LP200-DC
Impact device C	HDT-LP200-C
Impact device D+15	HDT-LP200-D15
Impact device DL	HDT-LP200-DL
Impact device E*	HDT-LP200-E
Impact device G	HDT-LP200-G
Hardness test block D**	HDT-B-HLD3
Hardness test block G**	HDT-B-HLG2
Support rings	refer to details

*Impact device E (**HDT-LP200-E**) must be purchased together with the main unit.

Hardness test block G (HDT-B-HLG2**) is for impact device G (**HDT-LP200-G**).
Hardness test block D (**HDT-B-HLD3**) is for all others impact devices.


DC (optional) | C (optional) | D (included) | D+15 (optional) | DL (optional) | E (optional) | G (optional)

APPLICABLE WORKPIECE

Impact device		DC	C	D	D+15	DL	E	G
Application		inner wall of small space	small or thin workpiece, coating layer	general use	deep groove	narrow slot or small hole	very hard material	casting or forging workpiece
Maximum roughness of workpiece (Ra)		2μm	0.4μm	2μm	2μm	2μm	2μm	7μm
Minimum weight of workpiece	direct measurement	5kg	1.5kg	5kg	5kg	5kg	5kg	15kg
	on solid support	2kg	0.5kg	2kg	2kg	2kg	2kg	5kg
	coupled on plate	0.05kg	0.02kg	0.05kg	0.1kg	0.05kg	0.05kg	0.5kg
Minimum thickness of workpiece		3mm	1mm	3mm	3mm	3mm	3mm	10mm

PORTABLE LEEB HARDNESS TESTER (HIGH ACCURACY)
CODE HDT-L410

DATA OUTPUT | HIGH ACCURACY | DL PROBE IS OPTIONAL

INSPECTION CERTIFICATE

- Metal housing
- HD TFT 320×320 display
- Impact device D
- Based on Leeb (HLD), converted to Vickers (HV), Brinell (HB), Rockwell (HRC, HRA and HRB), Shore (HS) and tensile strength (SGM)
- Four display modes
- Automatic direction correction
- Tolerance testing
- Automatic power off, automatic calculation of statistics
- Dual value display, shows both Leeb and other conversion values
- 31 files can be saved, each containing 100 measurement data
- Connected to PC software via USB or Bluetooth 2.0
- Connected with printer via Bluetooth
- Operation temperature: -20°C~70°C
- According to ASTM A956, DIN 50156, GB/T 17394

VIDEO

software CD (included)

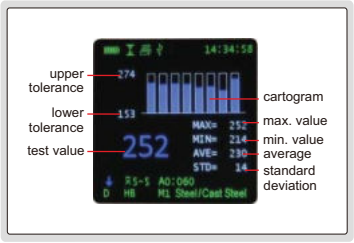
DL probe can be installed (**optional**)

small support ring (included)

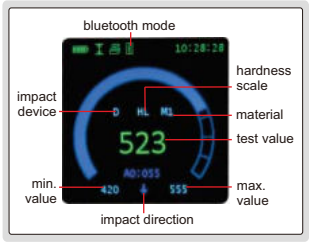
hardness test block D (included)

wireless printer (**optional**)

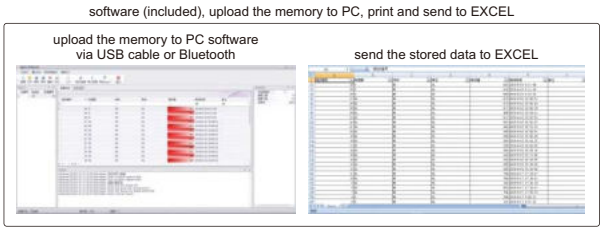
histogram display



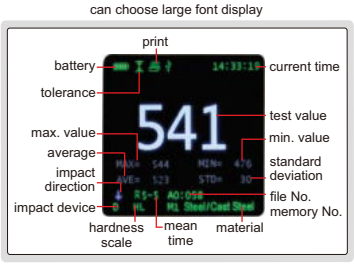
dynamic ring display



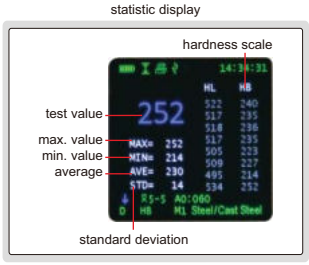
software (included), upload the memory to PC, print and send to EXCEL



can choose large font display



statistic display



SPECIFICATION

Resolution	1HLD, 1HV, 1HB, 0.1HRC, 0.1HRB, 0.1HRA, 0.1HS, 1SGM	
Accuracy	±4HLD (when HLD=800)	
Output	USB and bluetooth	
Applicable workpiece	minimum weight	5kg (direct measurement)
		2kg (on solid support)
		0.05kg (coupled on plate)
	minimum thickness: 5mm	
	minimum radius of curved surface: 30mm	
	maximum roughness (Ra): 2μm	
Power supply	built-in 3.7V rechargeable battery	
Dimension	148×44×22mm	
Weight	115g	

STANDARD DELIVERY

Main unit	1 pc
Hardness test block D	1 pc
Small support ring	1 pc
Cleaning brush	1 pc
AC/DC adapter	1 pc
Software disc and USB cable	1 pc

OPTIONAL ACCESSORY

Printer	**HDT-L410-PRINTER**
Support rings	**ISH-PH-SP9**
Hardness test block D	**HDT-B-HLD3**
DL probe	**HDT-L410-DL**

PORTABLE LEEB HARDNESS TESTER (BASIC TYPE)
CODE HDT-L411

INSPECTION CERTIFICATE

DATA OUTPUT

software CD (included)

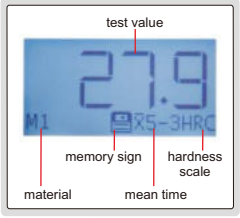
small support ring (included)

hardness test block D (included)

VIDEO

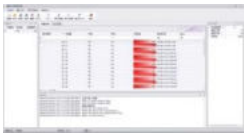
- Impact device D
- Universal testing angle, no need to set impact direction
- Dual-coil probe, high accuracy
- Based on Leeb (HLD), converted to Vickers (HV), Brinell (HB), Rockwell (HRC, HRA and HRB), Shore (HS) and tensile strength (SGM)
- Dual value display, shows both Leeb and converted hardness
- High contrast digital LCD display
- Can choose large font display
- Automatically calculate maximum, minimum, average value
- Connected to PC via USB
- Save 999 data
- Operation temperature: -20°C~45°C
- According to ASTM A956, DIN 50156, GB/T 17394

can choose large font display

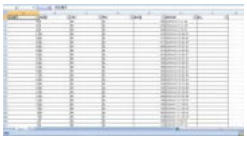


software (included), upload the memory to PC, print and send to EXCEL

upload the memory to PC software via USB cable



send the stored data to EXCEL



SPECIFICATION

Resolution	1HLD, 1HV, 1HB, 0.1HRC, 0.1HRB, 0.1HRA, 0.1HS, 1SGM	
Accuracy	±6HLD (when HLD=800)	
Output	USB	
Measuring range	HL100-960, HRC1-74.7, HRB1.2-140, HB28-1027, HV45-1230,HS4-112, HRA7-88.5, SGM (rm) 118-3315N/mm²	
Applicable workpiece	minimum weight	5kg (direct measurement)
		2kg (on solid support)
		0.05kg (coupled on plate)
	minimum thickness: 5mm	
	minimum radius of curved surface: 30mm	
	maximum roughness (Ra): 2μm	
Power supply	1xAAA battery	
Dimension	148×45×21mm	
Weight	105g	

STANDARD DELIVERY

Main unit	1 pc
Hardness test block D	1 pc
Cleaning brush	1 pc
AAA battery	1 pc
Small support ring	1 pc
Software disc and USB cable	1 pc

OPTIONAL ACCESSORY

Support rings	ISH-PH-SP9
Hardness test block D	HDT-B-HLD3

ALUMINUM HARDNESS TESTER

VIDEO

- To measure the hardness of soft metal such as aluminum alloy, copper, brass, soft steel, etc.
- According to ASTM B647-84 (2000)

ISHW-L20

SPECIFICATION

Code	ISHW-L20
Application	for aluminum alloy general use
Thickness requirement of flat workpiece	0.6~6mm
Internal diameter requirement of tube workpiece	>Ø10mm
Wall thickness requirement of tube workpiece	0.6~6mm
Hardness range	0~20HW
Min. reading	1HW
Accuracy	±0.5HW (at 5~17HW)
Dimension	205x30x85mm
Weight	500g

STANDARD DELIVERY

Main unit	1 pc
Spare indenter	1 pc
Hardness test block	1 pc
Wrench	1 pc

BARCOL HARDNESS TESTER
CODE ISHB-B300

VIDEO

- To measure the hardness of workpieces made of pure aluminum, aluminum alloy, fiber reinforced plastic, hard plastic, etc.
- According to ASTM B648-00, ASTM D2853-07

SPECIFICATION

Hardness range	0~100HBa (equal to 25~150HBW)
Min. reading	1HBa
Accuracy	±2HBa (at 42~52HBa) ±1HBa (at 84~88HBa)
Min. workpiece thickness	0.8mm
Dimension	142×65×90mm
Weight	500g

STANDARD DELIVERY

Main unit	1 pc
Spare indenter	2 pcs
Hardness test block	2 pcs
Wrench	1 pc

DIGITAL SHORE DUROMETERS

VIDEO

DATA OUTPUT

- According to ISO868, ISO7619, ASTM D 2240
- Average and peak (max.) mode
- Dwell time is adjustable
- Tolerance testing
- 500 memories
- Wireless connection to printer
- Handhold use or work with test stand (code **ISH-DS-STANDA**)
- Automatic power off

blunt taper indenter — ISH-DSA

sharp point indenter — ISH-DSD

software CD (included)

calibration block (included)

printer (**optinal**)

SPECIFICATION

Code	ISH-DSA	ISH-DSD
Unit	Shore A	Shore D
Test material	soft plastic, soft rubber, etc.	hard plastic, hard rubber, etc.
Measuring range*	0~100HA	0~100HD
Resolution	0.1HA	0.1HD
Accuracy	±1HA	±1HD
Indenter protrusion	2.5mm	
Output	wireless and USB	
Power supply	built-in rechargeable battery	
Dimension	153x50x29mm	
Weight	170g	

*Use **ISH-DSD** when measuring result is higher than 90HA
Use **ISH-DSA** when measuring result is lower than 20HD

STANDARD DELIVERY

Main unit	1 pc
Calibration block	1 pc
Software and USB cable	1 pc
AC/DC adapter	1 pc

OPTIONAL ACCESSORY

Printer	ISH-DS-PRINTER
Test stand	ISH-DS-STAND

TEST STAND FOR DIGITAL SHORE DUROMETERS
CODE ISH-DS-STANDA

- For digital shore durometers (code **ISH-DSA** and **ISH-DSD**)
- Can perform repeatable hardness measurement due to fewer possibilities of human error or measurement variations
- Special structure for stable loading
- Weight block A is for **ISH-DSA**, weight block D is for **ISH-DSD**

weight block D (**optional**) for **ISH-DSD**

SPECIFICATION

Stage diameter	Ø115mm
Max. workpiece height	45mm
Max. testing width	63mm (from test point to the column)
Dimension	Ø195×370mm
Weight	5.61kg

STANDARD DELIVERY

Test stand	1 pc
Weight block A (for ISH-DSA)	1 pc

OPTIONAL ACCESSORY

Weight block D (for ISH-DSD)	ISH-DS-W4

SHORE DUROMETERS

calibration block (**optional**)

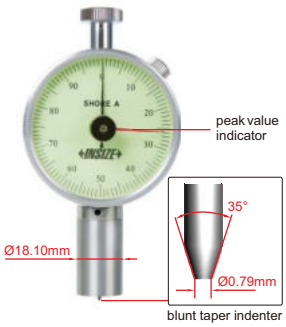
- According to ISO868, ISO7619, ASTM D 2240
- With peak value indicator
- Optional accessory:
  test stand **ISH-STAC** and **ISH-STD**

VIDEO

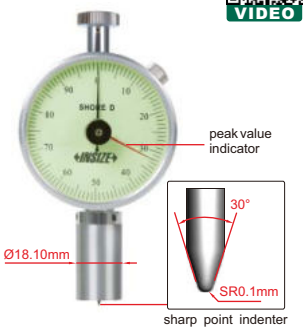
SPECIFICATION

Code	ISH-SAM	ISH-SDM
Scale	Shore A	Shore D
Application	natural rubber, soft elastomer, etc.	hard elastomer, plastic, hard rubber, etc.
Measuring range*	10~90HA	20~90HD
Graduation	1HA	1HD
Indenter protrusion	2.5mm	
Dimension	115x60x25mm	
Net weight	160g	

*Use **ISH-SDM** when measuring result is higher than 90HA
Use **ISH-SAM** when measuring result is lower than 20HD



ISH-SAM



ISH-SDM

OPTIONAL ACCESSORY

Calibration block	ISH-DS-BLOCK

TEST STAND FOR SHORE DUROMETER

VIDEO

- For shore durometers (code **ISH-SAM** and **ISH-SDM**)
- Perform repeatable hardness measurement due to fewer possibilities of human error or measurement variations

ISH-STAC

SPECIFICATION

Code	ISH-STAC
Applicable durometer	ISH-SAM
Stage diameter	Ø100mm
Max. workpiece height	75mm
Max. testing width	65mm (from test point to the column)
Weight block	1kg

DIGITAL FORCE GAGES

DATA OUTPUT

INSPECTION CERTIFICATE

VIDEO

- Push and pull test
- Units: lbf, ozf, N, gf, kgf
- 500 memories
- Automatic power off
- Metal case
- LCD display with backlight
- The display flips over when the bottom faces up
- Overload alarm

software CD (included)

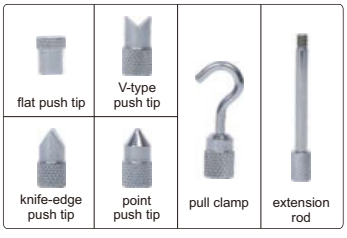
printer (**optional**)

ISF-1DF100

SPECIFICATION

Code	ISF-1DF10	ISF-1DF50	ISF-1DF100	ISF-1DF500	ISF-1DF1000
Load capacity (N)	10	50	100	500	1000
Resolution (N)	0.01	0.01	0.1	0.1	1
Accuracy	±0.3% (of load capacity)				
Measuring mode	tracking, peak (max.), tolerance testing				
Power supply	built-in rechargeable battery				
Dimension	150×73×33mm				
Weight	450g				

accessory (included)



STANDARD DELIVERY

Main unit	1 pc
AC/DC adapter	1 pc
Software and USB cable	1 pc
Push/pull accessory	6 pcs (flat push tip, V-type push tip, knife-edge push tip, point push tip, pull clamp, extension rod)

OPTIONAL ACCESSORY

Printer	ISF-DF-PRINTER
Test stand	ISF-MT1K

DIGITAL FORCE GAGES (HIGH ACCURACY)

INSPECTION CERTIFICATE

DATA OUTPUT

VIDEO

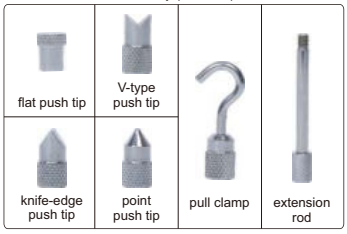
ISF-DF100A

- Push and pull test
- Peak (max.) and tracking mode
- Units: mN, N, gf, kgf, ozf, lbf
- Tolerance testing
- 1000 memories
- Automatic power off
- Metal case, touch buttons
- LCD display with backlight
- The display flips over when the bottom faces up
- Overload alarm
- Keyboard signal, can be transmitted to Excel

printer (**optional**)

software CD (included)

accessory (included)



SPECIFICATION

Code	ISF-DF50A	ISF-DF100A	ISF-DF200A	ISF-DF500A	ISF-DF1KA
Type	internal sensor				
Load capacity (N)	50	100	200	500	1000
Resolution (N)	0.005	0.01	0.05	0.05	0.1
Accuracy	±0.2% (of load capacity)				
Power supply	built-in rechargeable battery				

STANDARD DELIVERY

Main unit	1 pc
AC/DC adapter	1 pc
Software and USB cable	1 pc
Push/pull accessory	6 pcs (flat push tip, V-type push tip, knife-edge push tip, point push tip, pull clamp, extension rod)

OPTIONAL ACCESSORY

Printer	ISF-DF-PRINTER
Test stand	ISF-MT1K

TEST STAND FOR DIGITAL FORCE GAGE CODE ISF-MT1K

VIDEO

- For digital force gages (code **ISF-1DF□□** and **ISF-DF□□**)
- To be used in vertical and horizontal orientation

SPECIFICATION

Load capacity	1000N
Travel	200mm (3mm vertical movement per revolution of handwheel)
Dimension	196x250x446mm
Weight	13kg

OPTIONAL ACCESSORY

Digital scale (range: 200mm, resolution: 0.01mm/0.0005")	ISF-MT1K-SCALE

force gage is optional

horizontal orientation test

digital scale (**optional**)

FORCE GAGES

VIDEO

- Push and pull test
- Peak (max.) or tracking mode

ISF-F500

SPECIFICATION

Code		ISF-F10	ISF-F20	ISF-F30	ISF-F50	ISF-F100	ISF-F200	ISF-F300	ISF-F500
Capacity	N	10	20	30	50	100	200	300	500
	kgf	1	2	3	5	10	20	30	50
Graduation	N	0.05	0.1	0.2	0.25	0.5	1	2	2.5
Accuracy		±1% (of load capacity)							

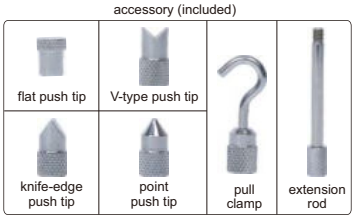
STANDARD DELIVERY

Main unit	1 pc
Push tip	4 pcs (flat, V type, knife-edge, point)
Pull clamp	1 pc
Extension rod	1 pc

OPTIONAL ACCESSORY

Test stand	ISF-MT500

accessory (included)



TEST STAND FOR FORCE GAGE
CODE ISF-MT500

VIDEO

- For force gages (code **ISF-F□□□**)
- To be used in vertical and horizontal orientation

horizontal orientation test

force gage is optional

SPECIFICATION

Load capacity	500N
Travel	150mm (3mm vertical movement per revolution of handwheel)
Dimension	160×240×460mm
Weight	12kg

MANUAL HORIZONTAL TEST STAND FOR FORCE GAGES

VIDEO

ATTENTION: ONLY FOR PULL TEST

force gage is optional

- For pull test with force gages

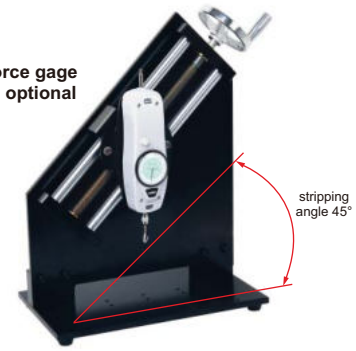
SPECIFICATION

Code	**ISF-H20D**
Apply to	digital force gages (code **ISF-1DF□□□** and **ISF-DF□□□**)
Load capacity	500N
Travel	60mm
Dimension	450×185×170mm
Weight	9kg

MANUAL STRIPPING FORCE TEST STAND

VIDEO

force gage is optional



- For stripping force test with force gages

SPECIFICATION

Code	**ISF-P30D**
Apply to	digital force gages (code **ISF-1DF□□□** and **ISF-DF□□□**)
Load capacity	500N
Horizontal travel	170mm
Dimension	420×215×480mm
Weight	22kg

MOTORIZED VERTICAL TEST STAND
CODE ISF-RV61

VIDEO

- For digital force gages (code **ISF-1DF□□□** and **ISF-DF□□□**)
- Push and pull test
- Automatic and manual test
- Programmable automatic operation (automatic cycle)
- Four operation modes: displacement cycle (D cycle), force cycle (F cycle), demo (teaching & playback) mode and positioning mode
- Alarm indications: stroke overrange alarm, force overrange alarm, motor block alarm

digital force gage is optional

SPECIFICATION

Load capacity	650N (250lbf, 65kg)
Max. travel	220mm
Resolution of displacement	0.01mm
Accuracy of displacement	±0.3mm
Range of adjustable speed	30~720mm/min
Resolution of speed	1mm/min
Accuracy of speed	±2%
Data output	USB, RS232
Work temperature and relative humidity	10~40°C, 10%~80%RH
Power supply	100~230V
Dimension	340×180×630mm
Weight	15.5kg

STANDARD DELIVERY

Test stand	1 pc
AC/DC adapter	1 pc
MD8 cable (for force gages)	1 pc
Software and USB cable	1 pc

MOTORIZED HORIZONTAL TEST STAND
CODE ISF-RH62

VIDEO

- For digital force gages (code **ISF-1DF□□□** and **ISF-DF□□□**)
- Push and pull test
- Automatic and manual test
- Programmable automatic operation (automatic cycle)
- Four operation modes: displacement cycle (D cycle), force cycle (F cycle), demo (teaching & playback) mode and positioning mode
- Alarm indications: stroke overrange alarm, force overrange alarm, motor block alarm

digital force gage is optional

SPECIFICATION

Load capacity	650N (250lbf, 65kg)
Max. travel	220mm
Resolution of displacement	0.01mm
Accuracy of displacement	±0.3mm
Range of adjustable speed	30~720mm/min
Resolution of speed	1mm/min
Accuracy of speed	±2%
Data output	USB, RS232
Work temperature and relative humidity	10~40°C, 10%~80%RH
Power supply	100~230V
Dimension	671×120×278mm
Weight	13kg

STANDARD DELIVERY

Test stand	1 pc
AC/DC adapter	1 pc
MD8 cable (for force gages)	1 pc
Software and USB cable	1 pc

DIGITAL SPRING TESTERS

DATA OUTPUT

VIDEO

- Peak hold and automatic release function
- Set upper and lower limits, red and green indicator and buzzer alarm
- Automatic conversion of three units: N, kgf, lbf
- Built in printer
- Automatic power off

ISF-S500

SPECIFICATION

Code	**ISF-S50**	**ISF-S100**	**ISF-S200**	**ISF-S300**	**ISF-S500**
Maximum load	50N	100N	200N	300N	500N
Resolution	0.01N	0.02N	0.05N	0.1N	0.1N
Range of digital scale	95mm				
Resolution of digital scale	0.01mm				
Disk diameter	Ø49mm				
Maximum free length of spring	95mm				
Measuring range of force	5%~100% (maximum load)				
Accuracy of force	±1% (maximum load)				
Data output	RS232				
Power supply	220V, 50/60Hz				
Dimension	300×235×620mm				
Weight	17.3kg	19.1kg	19.1kg	19.1kg	20.8kg

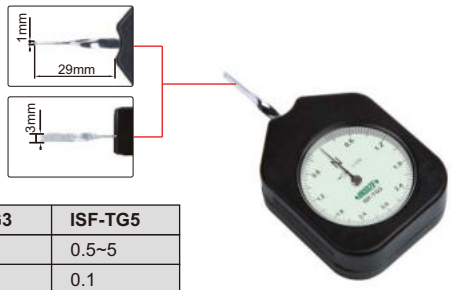
STANDARD DELIVERY

Main unit	1 pc

DIAL TENSION GAGES

- Clockwise and counter-clockwise use
- For electronic and precision mechanical industry, such as test the contact pressure of relay, adjust the tension or compression of spring

VIDEO



ISF-TG3

SPECIFICATION (Unit: N)

Code	ISF-TGD1	ISF-TGD3	ISF-TGD5	ISF-TG1	ISF-TG1D5	ISF-TG3	ISF-TG5
Range (N)	0.01~0.1	0.03~0.3	0.05~0.5	0.1~1	0.15~1.5	0.3~3	0.5~5
Graduation (N)	0.002	0.005	0.01	0.02	0.025	0.05	0.1
Accuracy	±2% (full scale)						
Dimension (L×W×H)	90×47×19mm						
Weight	60g						

SPECIFICATION (Unit: gf)

Code	ISF-TG10	ISF-TG30	ISF-TG50	ISF-TG100	ISF-TG150	ISF-TG300	ISF-TG500
Range (gf)	1~10	3~30	5~50	10~100	15~150	30~300	50~500
Graduation (gf)	0.2	0.5	1	2	2.5	5	10
Accuracy	±2% (full scale)						
Dimension (L×W×H)	90×47×19mm						
Weight	60g						

DIGITAL TORQUE TESTERS

ATTENTION: NOT SUITABLE FOR ELECTRIC WRENCHES, IMPACT WRENCHES OR PNEUMATIC WRENCHES

- Test torque wrenches, torque screwdrivers and other torque tools
- Clockwise operation
- Peak, track and first peak working modes
- Tolerance testing
- LED indicator for target torque alarm:
  – Green LED light on when the value is within tolerance;
  – Red LED light on when the value is above the high tolerance
- Power off automatically in 2 minutes without any operations

IST-04TT350
type A

IST-04TT815
type B

SPECIFICATION

Code	IST-04TT5	IST-04TT28	IST-04TT68	IST-04TT350	IST-04TT815	IST-04TT1000
Type	A				B	
Range	0.5~5N.m	2.8~28N.m	6.8~68N.m	35~350N.m	81.5~815N.m	100~1000N.m
Accuracy	±1% (clockwise)					
Resolution	0.001N.m	0.01N.m	0.01N.m	0.1N.m	0.1N.m	1N.m
Unit	N.m, in.lb, ft.lb, kg.cm					N.m, ft.lb
Square socket/hex driver	1/4"	3/8"	3/8"	1/2"	27mm	27mm
Power supply	DC					
Weight	0.75kg	0.75kg	1.1kg	1.1kg	5.1kg	5.1kg

VIDEO

STANDARD DELIVERY

Main unit	1 pc
AC/DC adapter	1 pc

TORQUE SCREWDRIVERS

ATTENTION: CLOCKWISE OPERATION ONLY

T-bar wrench
(for **IST-MG250**, **IST-MG360**, **IST-MG600**)

IST-MG100

SPECIFICATION

Code	IST-MG100	IST-MG250	IST-MG360	IST-MG600
Range (clockwise)	20~100cN.m	50~250cN.m	60~360cN.m	1.0~6.0N.m
Graduation	2cN.m	5cN.m	5cN.m	0.1N.m
Head	1/4" hex socket			
Accuracy	±6%			
Length	172mm			
Weight	0.26kg			

STANDARD DELIVERY

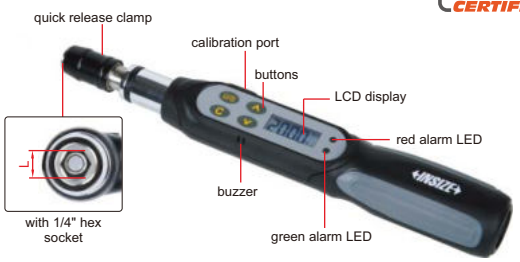
Torque screwdriver	1 pc
T-bar wrench (for IST-MG250, IST-MG360, IST-MG600)	1 pc

DIGITAL TORQUE SCREWDRIVERS

VIDEO

INSPECTION CERTIFICATE

- Clockwise and counter-clockwise operation
- Unit: cN.m, in.lb, kg.cm
- Peak and track working modes
- Target torque value can be set, with audible and visible alarm:
  - Green LED light on and buzzer sounds when target torque value is 90%~100% of target torque
  - Red LED light on and buzzer sounds when target torque value is reached
- Power off automatically in 5 minutes without any operations



IST-SD200

SPECIFICATION

Code		IST-SD50	IST-SD200
Range		10~50cN.m	40~200cN.m
Accuracy	clockwise	±3%	±2.5%
	counter-clockwise	±4%	±3.5%
Resolution		0.1cN.m	0.1cN.m
Size of hex socket (L)		1/4"	1/4"
Power supply		1xAAA battery	
Length		193mm	203mm
Weight		190g	200g

STANDARD DELIVERY

Torque screwdriver	1 pc
Phillips screwdriver bits	1 pc
Hex screwdriver bits	1 pc

OPTIONAL ACCESSORY

Calibration cable	IST-SD-CABLE

hex screwdriver bits (included)

phillips screwdriver bits (included)

DIGITAL TORQUE WRENCHES

OPTIONAL ACCURACY:
CLOCKWISE: ±1%
COUNTER-CLOCKWISE: ±2%
ONLY FOR RANGE FOR 6~850N.m

INSPECTION CERTIFICATE

- Clockwise and counter-clockwise operation
- Unit: N.m, in.lb, ft.lb, kg.cm
- Peak and track working modes
- Target torque value can be set, with audible and visible alarm:
  - Green LED light on and buzzer sounds when torque value is 90%~100% of target torque
  - Both green and red LED light on and buzzer sounds when target torque value is reached
- Power off automatically in 5 minutes without any operations
- Non-slip grip handle
- With damp record
- With overload record (once the torque reaches 110% of the maximum range)

IST-W135A

VIDEO

SPECIFICATION

Code	Range	Accuracy	Resolution	Square driver (L)	Power supply	Length	Weight
IST-W30A	6~30N.m	clockwise: ±2% counter-clockwise: ±3%	0.01N.m	1/4"	2×AA batteries	390mm	830g
IST-W135A	27~135N.m		0.1N.m	3/8"		415mm	950g
IST-W200A	40~200N.m		0.1N.m	1/2"		530mm	1.4kg
IST-W340A	68~340N.m		0.1N.m	1/2"		650mm	1.6kg
IST-W500A	100~500N.m	clockwise: ±2.5% counter-clockwise: ±3.5%	0.1N.m	3/4"		950mm	2.1kg
IST-W850A	170~850N.m		0.1N.m	3/4"		1220mm	2.55kg
IST-W1200A	240~1200N.m		1N.m	1"		1800mm	13kg
IST-W1500A	300~1500N.m		1N.m	1"		1800mm	13kg
IST-W2000A	400~2000N.m		1N.m	1"		1800mm	14kg

OPTIONAL ACCESSORY

Calibration cable	IST-W-CABLE

TORQUE WRENCHES

INSPECTION CERTIFICATE

ATTENTION: CLOCKWISE OPERATION ONLY

- According to DIN ISO 6789, ASME B107.300
- All-metal construction,sturdy and durable

IST-9WM335

SPECIFICATION

Code	IST-9WM30	IST-9WM60	IST-9WM100	IST-9WM200	IST-9WM335	IST-9WM500	IST-9WM800	IST-9WM1000
Range (clockwise)	6~30N.m	10~60N.m	20~100N.m	40~200N.m	65~335N.m	100~500N.m	160~800N.m	200~1000N.m
Accuracy	±6% (<10N.m) ±4% (≥10N.m)	±4%	±4%	±4%	±4%	±4%	±4%	±4%
Graduation	0.2N.m	0.25N.m	0.5N.m	1N.m	1N.m	2.5N.m	4N.m	5N.m
Square driver (D)	3/8"	3/8"	1/2"	1/2"	1/2"	3/4"	3/4"	3/4"
Length	318mm	388mm	443mm	468mm	528mm	855mm	1055mm	1055mm
Weight	820g	960g	1040g	1160g	1300g	5000g	5900g	5900g

INTERCHANGEABLE HEAD TORQUE WRENCHES

ATTENTION: CLOCKWISE OPERATION ONLY

INSPECTION CERTIFICATE

IST-11WM200

- According to DIN ISO 6789, ASME B107.300
- All-metal construction,sturdy and durable

SPECIFICATION

Code	Range (clockwise)	Accuracy	Graduation	Socket size (A×B)	Length	Weight
IST-11WM12	2.5~12N.m	±6% (<10N.m) ±4% (≥10N.m)	0.05N.m	12×9mm	284mm	580g
IST-11WM30	6.0~30N.m	±6% (<10N.m) ±4% (≥10N.m)	0.1N.m	12×9mm	303mm	720g
IST-11WM60	10~60N.m	±4%	0.5N.m	12×9mm	372mm	860g
IST-11WM125	25~125N.m	±4%	0.5N.m	12×9mm	427mm	940g
IST-11WM200	40~200N.m	±4%	1N.m	18×14mm	460mm	1060g
IST-11WM335	65~335N.m	±4%	1N.m	18×14mm	520mm	1200g

RATCHET HEAD (optional)

Code	Square driver	Applicable wrenches
IST-11WM-R1	1/4"	IST-11WM12 IST-11WM30
IST-11WM-R2	3/8"	IST-11WM12 IST-11WM30 IST-11WM60 IST-11WM125
IST-11WM-R3	1/2"	IST-11WM200 IST-11WM335
IST-11WM-R4*	3/4"	IST-11WM200 IST-11WM335

OPEN END HEAD (optional)

Code	Open size	Applicable wrenches
IST-11WM-K8	8mm	IST-11WM12 IST-11WM30 IST-11WM60 IST-11WM125
IST-11WM-K10	10mm	
IST-11WM-K13	13mm	
IST-11WM-K14	14mm	
IST-11WM-K15	15mm	
IST-11WM-K17	17mm	
IST-11WM-K19*	19mm	
IST-11WM-K13A	13mm	IST-11WM200 IST-11WM335
IST-11WM-K14A	14mm	
IST-11WM-K15A	15mm	
IST-11WM-K17A	17mm	
IST-11WM-K19A	19mm	
IST-11WM-K22A	22mm	
IST-11WM-K24A	24mm	
IST-11WM-K27A*	27mm	
IST-11WM-K30A*	30mm	
IST-11WM-K32A*	32mm	

*Torque value needs to be corrected with those heads

BOX END HEAD (optional)

Code	Open size	Applicable wrenches
IST-11WM-M8	8mm	IST-11WM12 IST-11WM30 IST-11WM60 IST-11WM125
IST-11WM-M10	10mm	
IST-11WM-M13	13mm	
IST-11WM-M14	14mm	
IST-11WM-M15	15mm	
IST-11WM-M17	17mm	
IST-11WM-M19	19mm	
IST-11WM-M13A	13mm	IST-11WM200 IST-11WM335
IST-11WM-M14A	14mm	
IST-11WM-M15A	15mm	
IST-11WM-M17A	17mm	
IST-11WM-M19A	19mm	
IST-11WM-M22A	22mm	
IST-11WM-M24A	24mm	
IST-11WM-M27A	27mm	
IST-11WM-M30A	30mm	
IST-11WM-M32A	32mm	

MECHANICAL TORQUE WRENCHES (DIGITAL SETTING)

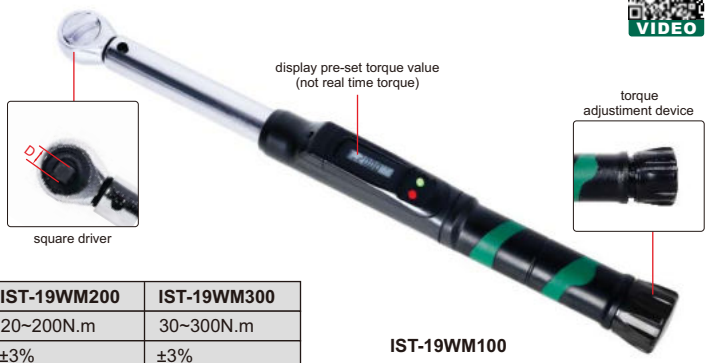
INSPECTION CERTIFICATE

VIDEO

ATTENTION: CLOCKWISE OPERATION ONLY

ATTENTION: DISPLAY PRE-SET TORQUE VALUE (NOT REAL TIME TORQUE)

- Unit: N.m, in.lb, ft.lb, kg.cm
- Mechanical "click" torque wrench, the pre-set torque value is shown on the display



IST-19WM100

SPECIFICATION

Code	IST-19WM60	IST-19WM100	IST-19WM140	IST-19WM200	IST-19WM300
Range (clockwise)	6~60N.m	10~100N.m	14~140N.m	20~200N.m	30~300N.m
Accuracy	±3%	±3%	±3%	±3%	±3%
Graduation	0.1N.m	0.1N.m	0.1N.m	0.1N.m	0.1N.m
Square driver (D)	3/8"	3/8"	1/2"	1/2"	1/2"
Length	382mm	450mm	481mm	520mm	585mm
Weight	1.3kg	1.4kg	1.45kg	1.6kg	1.8kg

PRESET TORQUE WRENCHES

ATTENTION: CLOCKWISE OPERATION ONLY

- Torque is preset, to prevent adjustment by mistake during use
- The torque is set at the factory before delivery. Customers can also set the torque with torque adjustment tool (**IST-PW-TOOL**, optional) and digital torque testers (**IST-TT□□□**, optional)
- Clockwise operation only

IST-PW60

SPECIFICATION

Code	IST-PW12	IST-PW20	IST-PW30	IST-PW60	IST-PW125	IST-PW200
Adjustable range*	2.5~12N.m	4~20N.m	6~30N.m	10~60N.m	25~125N.m	40~200N.m
Accuracy	±3%	±3%	±3%	±3%	±3%	±3%
Square driver (D)	1/4"	1/4"	3/8"	3/8"	3/8"	1/2"
Length	184mm	184mm	214mm	255mm	366mm	457mm
Weight	450g	450g	500g	560g	790g	1200g

Code	IST-PW340	IST-PW500	IST-PW650	IST-PW800	IST-PW1000A	IST-PW1000B
Adjustable range*	65~340N.m	100~500N.m	150~650N.m	160~800N.m	200~1000N.m	200~1000N.m
Accuracy	±3%	±3%	±4%	±4%	±4%	±4%
Square driver (D)	1/2"	3/4"	3/4"	3/4"	3/4"	1"
Length	691mm	910mm	910mm	1037mm	1265mm	1265mm
Weight	1960g	2800g	2800g	5000g	6000g	6000g

*Adjust to a fixed torque value according to customer requirements before delivery

torque adjustment tool (**optional**)

OPTIONAL ACCESSORY

Torque adjustment tool	IST-PW-TOOL

DIAL TORQUE WRENCHES

INSPECTION CERTIFICATE

- Clockwise and counter-clockwise operation
- According to DIN ISO 6789, ASME B107.300

IST-DW70

SPECIFICATION

Code	IST-DW18	IST-DW35	IST-DW70	IST-DW140
Range	3.6~18N.m 30~150in.lb	7~35N.m 60~300in.lb	14~70N.m 120~600in.lb	28~140N.m 20~100ft.lb
Accuracy	±3%	±3%	±3%	±3%
Graduation	0.2N.m 2in.lb	0.5N.m 5in.lb	1N.m 10in.lb	2N.m 1ft.lb
Square driver (D)	3/8"	3/8"	3/8"	1/2"
Length	254mm	254mm	378mm	546mm
Weight	480g	480g	820g	1300g

ELECTRONIC BALANCES (0.1mg)

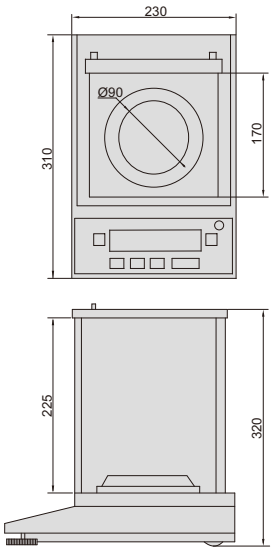
DATA OUTPUT

- Electromagnetic sensor
- Unit: g, ct, oz, lb
- Weighing, counting, taring
- Data output

calibration weight (included)

8304-120

Unit: mm



SPECIFICATION

Code	8304-120	8304-220
Maximum weighing	120g	220g
Minimum weighing	10mg	10mg
Resolution (d)	0.1mg	0.1mg
Verification interval (e)	1mg	1mg
Accuracy (m is load)	m≤50g: ±0.5mg; 50g<m≤120g: ±1mg	m≤50g: ±0.5mg; 50g<m≤200g: ±1mg; m>200g: ±1.5mg
Weighing pan size (Ød)	Ø90mm	
Operation temperature	10~30°C	
Operation humidity	20~85% RH	
Power supply	power adapter (12V/2A)	
Dimension (L×W×H)	230×310×320mm	

OPTIONAL ACCESSORY

RS232 cable	8304-CABLE
Printer	8304-PRINTER

ELECTRONIC BALANCES (1mg)

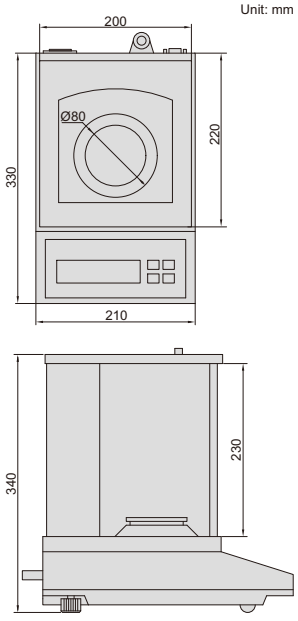
DATA OUTPUT

- Aluminum alloy shell, wind shield, three side glass sliding doors
- Electromagnetic balance sensor
- Unit: g, ct, ozt, oz, gn, dwt, mg
- Weighing, counting, taring
- Data output
- With a hook at the bottom

calibration weight (included)

8303-520

Unit: mm



SPECIFICATION

Code	8303-220	8303-320	8303-520	8303-620	8303-1020
Maximum weighing	220g	320g	520g	620g	1020g
Minimum weighing	20mg	20mg	100mg	100mg	100mg
Resolution (d)	1mg	1mg	1mg	1mg	1mg
Verification interval (e)	10mg	10mg	10mg	10mg	10mg
Accuracy	load capacity≤500g: ±5mg; load capacity>500g: ±10mg				
Weighing pan size (Ød)	Ø80mm				Ø120mm
Operation temperature	15~30°C		18~23°C		
Operation humidity	40%~80% RH		50%~70% RH		
Power supply	220V, 50/60Hz				
Dimension (L×W×H)	330×210×340mm				

OPTIONAL ACCESSORY

RS232 cable	8301-CABLE*
Printer	8303-PRINTER

*Used to connect with computers

ELECTRONIC BALANCES

DATA OUTPUT

- Automatic zero when power on
- Unit: g (gram), ct (carat), ozt (troy ounce)
- Weighing, counting, taring
- Overload alarm
- Data output

calibration weight
(included in **8301-300**, **8301-600** and **8301-1200**)

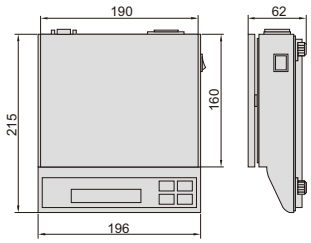
windshield
(included in **8301-300**, **8301-600** and **8301-1200**)

8301-3000

SPECIFICATION

Code	8301-300	8301-600	8301-1200	8301-3000	8301-6000
Maximum weighing	300g	600g	1200g	3000g	6000g
Minimum weighing	0.2g	0.2g	0.2g	2g	2g
Resolution (d)	0.01g	0.01g	0.01g	0.1g	0.1g
Verification interval (e)	0.1g	0.1g	0.1g	1g	1g
Accuracy (m is load)	m≤50g: ±0.05g; 50g<m≤200g: ±0.1g; m>200g: ±0.15g			m≤500g: ±0.5g; 500g<m≤2000g: ±1g; m>2000g: ±1.5g	
Weighing pan size	Ø135mm			190×160mm	
Operation temperature	0~40°C				
Operation humidity	≤80% RH				
Power supply	220V, 50/60Hz				
Dimension (L×W×H)	215×196×62mm				

Unit: mm



OPTIONAL ACCESSORY

RS232 cable	8301-CABLE

WEIGHING SCALES (ECONOMIC TYPE)

SPECIFICATION

Code	8003-3	8003-6	8003-10
Maximum weighing	3kg	6kg	10kg
Minimum weighing	0.4g	2.0g	20g
Resolution (d)	0.1g	0.5g	1g
Accuracy	±0.5g	±2.5g	±5g
Weighing pan size	157×157mm		
Working temperature	5~35°C		
Power supply	2×AAA batteries, power adapter		
Dimension (L×W)	160×225mm		

8003-3

- Unit: g, oz, ct, tl

WEIGHING SCALES (OIML CERTIFICATE)

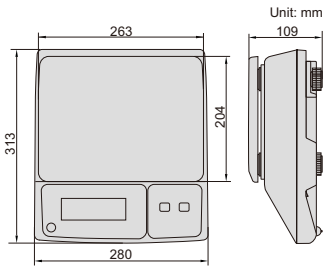
- LCD display, with backlight
- Zero-setting, subtracting tare value
- Overload alarm
- Automatic power off
- OIML certificate (No. 0200-NAWI-04601)

8002-30M

SPECIFICATION

Code	8002-6M	8002-15M	8002-30M
Maximum capacity	3/6kg	6/15kg	15/30kg
Minimum capacity	20g	40g	100g
Resolution (d)	1/2g	2/5g	5/10g
Verification interval (e)	2g	5g	10g
Accuracy (m is load)	m≤3kg: ±1g 3kg<m≤6kg: ±2g	m≤6kg: ±2g 6kg<m≤15kg: ±5g	m≤15kg: ±5g 15kg<m≤30kg: ±10g
Operation temperature	-10~40°C		
Power	rechargeable battery (6V/3.2Ah), power adapter (12V/500mA)		
Dimensions of pan	263×204mm		

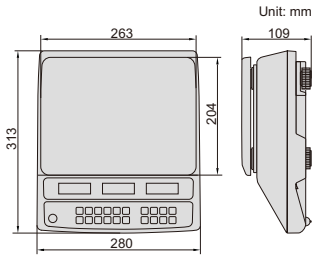
Unit: mm



COUNTING SCALES

- LCD display, with backlight
- Zero-setting, subtracting tare value, counting, accumulation, checking alarm
- Overload alarm
- Units: kg, g, lb, tj, hj, lb-oz

8101-30



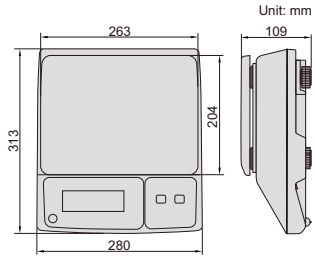
SPECIFICATION

Code	8101-6	8101-15	8101-30
Maximum weighing	6kg	15kg	30kg
Minimum weighing	4g	10g	20g
Resolution (d)	0.2g	0.5g	1g
Accuracy (m is load)	m≤1kg: ±1g 1kg<m≤4kg: ±2g m>4kg: ±3g	m≤2.5kg: ±2.5g 2.5kg<m≤10kg: ±5g m>10kg: ±7.5g	m≤5kg: ±5g 5kg<m≤20kg: ±10g m>20kg: ±15g
Operation temperature	-10~40°C		
Power	rechargeable battery (6V/3.2Ah), power adapter (12V/500mA)		
Dimensions of pan	263×204mm		

WEIGHING SCALES (HIGH PRECISION)

- LCD display, with backlight
- Zero-setting, subtracting tare value
- Overload alarm
- Automatic power off

8001-30



SPECIFICATION

Code	8001-6	8001-15	8001-30
Maximum weighing	6kg	15kg	30kg
Minimum weighing	4g	10g	20g
Resolution (d)	0.2g	0.5g	1g
Accuracy (m is load)	m≤1kg: ±1g 1kg<m≤4kg: ±2g m>4kg: ±3g	m≤2.5kg: ±2.5g 2.5kg<m≤10kg: ±5g m>10kg: ±7.5g	m≤5kg: ±5g 5kg<m≤20kg: ±10g m>20kg: ±15g
Units	kg, lb		
Operation temperature	-10~40°C		
Power	rechargeable battery (6V/3.2Ah), power adapter (12V/500mA)		
Dimensions of pan	263×204mm		

ELECTRONIC POCKET SCALE (ECONOMIC TYPE)

ATTENTION: LOW ACCURACY

- LCD display, with backlight
- Zero-setting, subtracting tare value, counting
- Overload alarm
- Automatic power off

8601-100

use of pan

SPECIFICATION

Code	8601-100
Maximum weighing	100g
Minimum weighing	0.1g
Resolution (d)	0.01g
Accuracy (m is load)	0.1g≤m≤1g: ±0.03g; 1g<m≤30g: ±0.05g 30g<m≤50g: ±0.07g; m>50g: ±0.14g
Units	g, oz, dwt, ozt
Dimension of pan	55×64mm
Dimension (L×W×H)	108×65×21mm
Operation temperature	-10~40°C
Power supply	2×AAA batteries

ELECTRONIC POCKET SCALE (ECONOMIC TYPE)

ATTENTION: LOW ACCURACY

- LCD display, with backlight
- Zero-setting, subtracting tare value, counting
- Overload alarm
- Automatic power off

8602-200

use of pan

SPECIFICATION

Code	8602-200
Maximum weighing	200g
Minimum weighing	0.2g
Resolution (d)	0.02g
Accuracy (m is load)	0.2g≤m≤2g: ±0.06g; 2g<m≤60g: ±0.1g 60g<m≤100g: ±0.14g; m>100g: ±0.28g
Units	g, oz, dwt, ozt
Dimension of pan	55×64mm
Dimension (L×W×H)	120×70×17mm
Operation temperature	-10~40°C
Power supply	2×CR2032 batteries

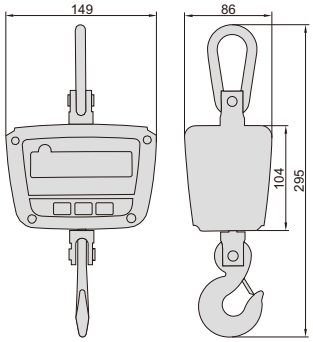
ELECTRONIC CRANE SCALES

IP65 WATERPROOF

8201-150KG

Remote controller (included)

Unit: mm



- Dust/waterproof level: IP65
- LED display, remote control
- Low voltage indicator
- Unit: kg, lb
- Automatic power off
- Overload alarm
- 360° safe rotary hook and shackle
- Aluminum alloy die casting case with high strength

SPECIFICATION

Code	8201-50KG	8201-150KG	8201-300KG
Maximum weighing	50kg	150kg	300kg
Minimum weighing	0.4kg	1.0kg	2.0kg
Resolution (d)	0.02kg/0.01kg	0.05kg/0.02kg	0.10kg/0.05kg
Verification interval (e)	0.02kg	0.05kg	0.10kg
Accuracy	±0.02kg	±0.05kg	±0.10kg
Operation temperature	-10~40°C		
Operation humidity	30%~90% RH		
Overload alarm	100%F.S.+9e		
Maximum safe load	125%F.S.		
Limited overload	400%F.S.		
Power supply	rechargeable battery 6V/3Ah (for 40 hours working)		
Stable reading time	≤8s		

STANDARD DELIVERY

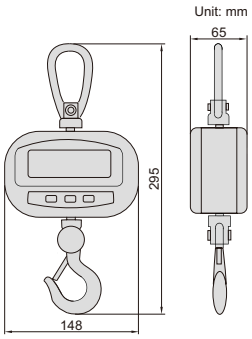
Main unit	1 pc
Remote controller	1 pc
Battery charger	1 pc

ELECTRONIC CRANE SCALES (BASIC TYPE)

8202-150KG

Remote controller (included)

Unit: mm



- LED display, remote control
- Low voltage indicator
- Unit: kg, lb
- Automatic power off
- Overload alarm
- 360° safe rotary hook and shackle
- Plastic case

SPECIFICATION

Code	8202-50KG	8202-150KG	8202-300KG
Maximum weighing	50kg	150kg	300kg
Minimum weighing	0.4kg	1.0kg	2.0kg
Resolution (d)	0.02kg/0.01kg	0.05kg/0.02kg	0.10kg/0.05kg
Verification interval (e)	0.02kg	0.05kg	0.10kg
Accuracy	±0.02kg	±0.05kg	±0.10kg
Operation temperature	-10~40°C		
Operation humidity	30%~90% RH		
Overload alarm	100%F.S.+9e		
Maximum safe load	125%F.S.		
Limited overload	400%F.S.		
Power supply	4×1.5V AA batteries (for 40 hours working)		
Stable reading time	≤8s		

STANDARD DELIVERY

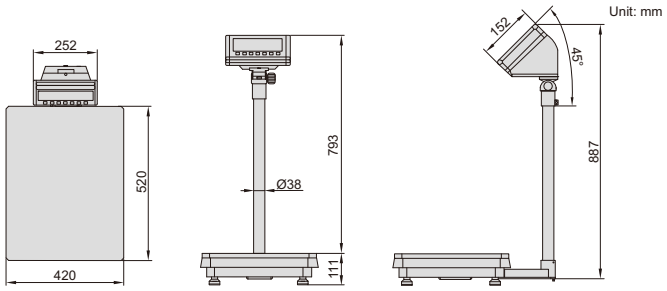
Main unit	1 pc
Remote controller	1 pc

PLATFORM SCALES

DATA OUTPUT

printer (**optional**)

8501-AL150



- LCD large screen display with LED backlight
- Weighing, overweight alarm, counting, keyboard lock, accumulating, auto zero and animal scale
- Units: kg, g, lb, oz

OPTIONAL ACCESSORY

Printer	**8001-PRINTER**

SPECIFICATION

Code	**8501-AL60**	**8501-AL150**	**8501-AL300**
Maximum weighing	60kg	150kg	300kg
Minimum weighing	100g	200g	400g
Resolution (d)	5g	10g	20g
Accuracy	±10g	±20g	±30g
Operation temperature	-10~40°C		
Material	platform: stainless steel, base: die-cast aluminum		
Dimension of platform	420×520mm		
Power	rechargeable lead acid battery (6V/4Ah)		
Output	RS232		
Weight	18.3kg		

WEIGHT SETS

INSPECTION CERTIFICATE

- Supplied with manufacturer inspection certificate

8910-200GM1

SPECIFICATION AND SHAPE

Weight	Specification				
	1mg~100g	1mg~200g	1mg~1kg	1mg~2kg	1mg~5kg
1mg	⬟	⬟	⬟	⬟	⬟
2mg	⬟ ⬟*	⬟ ⬟*	⬟ ⬟*	⬟ ⬟*	⬟ ⬟*
5mg	⬟	⬟	⬟	⬟	⬟
10mg	⬟	⬟	⬟	⬟	⬟
20mg	⬟ ⬟*	⬟ ⬟*	⬟ ⬟*	⬟ ⬟*	⬟ ⬟*
50mg	⬟	⬟	⬟	⬟	⬟
100mg	⬟	⬟	⬟	⬟	⬟
200mg	⬟ ⬟*	⬟ ⬟*	⬟ ⬟*	⬟ ⬟*	⬟ ⬟*
500mg	⬟	⬟	⬟	⬟	⬟
1g	▮	▮	▮	▮	▮
2g	▮ ▮*	▮ ▮*	▮ ▮*	▮ ▮*	▮ ▮*
5g	▮	▮	▮	▮	▮
10g	▮	▮	▮	▮	▮
20g	▮ ▮*	▮ ▮*	▮ ▮*	▮ ▮*	▮ ▮*
50g	▮	▮	▮	▮	▮
100g	▮	▮	▮	▮	▮
200g		▮ ▮*	▮ ▮*	▮ ▮*	▮ ▮*
500g			▮	▮	▮
1kg			▮	▮	▮
2kg				▮ ▮*	▮ ▮*
5kg					▮
Quantity	21 pcs	23 pcs	25 pcs	27 pcs	28 pcs
Total range	1mg~211.11g	1mg~611.11g	1mg~2111.11g	1mg~6111.11g	1mg~11111.11g

⬟ sheet ▮ cylinder

⬟* sheet, with mark ▮* cylinder, with mark

Code	Specification	Class and material
8910-100GM1	1mg~100g	M1 (304 stainless steel)
8910-200GM1	1mg~200g	M1 (304 stainless steel)
8910-1KGM1	1mg~1kg	M1 (304 stainless steel)
8910-2KGM1	1mg~2kg	M1 (304 stainless steel)
8910-5KGM1	1mg~5kg	M1 (304 stainless steel)

INCH PRODUCTS

DIAL CALIPERS

SHOCK PROOF

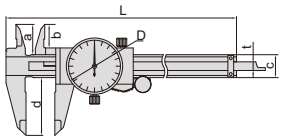
INSPECTION CERTIFICATE

1311-6

- Dial indicator graduation 0.001"
- Shockproof dial indicator
- Made of stainless steel

Code	Range	Accuracy	L	a	b	c	d	D	t
1311-6*	0-6"	±0.0015"	9.252"	0.827"	0.650"	0.630"	1.575"	1.535" DIA	0.256"
1311-8*	0-8"	±0.0020"	11.339"	0.945"	0.748"	0.630"	1.890"	1.535" DIA	0.256"
1311-12*	0-12"	±0.0020"	16.142"	1.102"	0.866"	0.787"	2.441"	1.752" DIA	0.295"

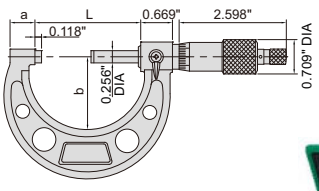
*Supplied with manufacturer inspection certificate



OUTSIDE MICROMETERS

INSPECTION CERTIFICATE

3203-2A



3203-44A

- Graduation 0.0001"
- Carbide measuring faces
- Ratchet stop type
- Supplied with setting standards (except 0-1")

Individual

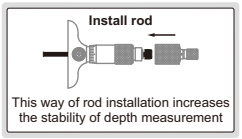
Code	Range	Accuracy	L	a	b
3203-1A*	0-1"	0.00015"	1.260"	0.354"	1.102"
3203-2A*	1-2"	0.00015"	2.244"	0.551"	1.496"
3203-3A*	2-3"	0.00020"	3.228"	0.591"	1.929"
3203-4A*	3-4"	0.00020"	4.213"	0.591"	2.362"
3203-5A*	4-5"	0.00025"	5.236"	0.650"	2.874"
3203-6A*	5-6"	0.00025"	6.220"	0.650"	3.346"

Set

Code	Range	Micrometers included	Packaging
3203-33A*	0-3"	3203-1A, 3203-2A, 3203-3A	blow mould case
3203-44A*	0-4"	3203-1A, 3203-2A, 3203-3A, 3203-4A	blow mould case
3203-66A*	0-6"	3203-1A, 3203-2A, 3203-3A, 3203-4A, 3203-5A, 3203-6A	blow mould case

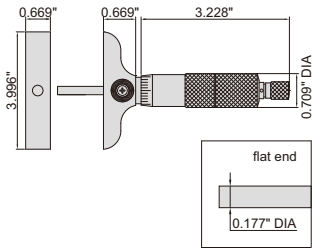
*Supplied with manufacturer inspection certificate

DEPTH MICROMETER



3241-6

- Graduation 0.001"
- Micrometer head accuracy: ±0.00012"
- Rod accuracy: ±[0.001+0.0005(L/3)]", L is the measuring range in inch
- Rods with flat end
- Ratchet stop

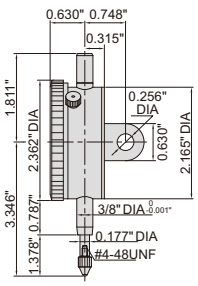


Code	Range	Rods
3241-6	0-6"	6 pcs

DIAL INDICATOR

INSPECTION CERTIFICATE

2307-1



- Meet ASME B89.1.10M-2001
- Graduation: 0.001"
- With lug back
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs, contact points

Code	Range	Accuracy		Range/rev	Dial reading
		First 2.5 rev	Overall		
2307-1*	1"	±0.001"	±0.002"	0.1"	0-100

*Supplied with manufacturer inspection certificate

INCH PRODUCTS

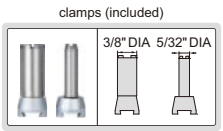
DIAL TEST INDICATOR

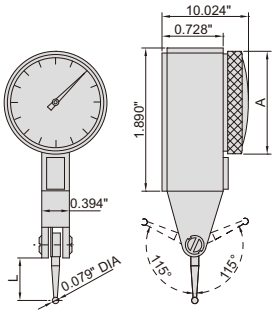
INSPECTION CERTIFICATE

JEWELED BEARING

- Jeweled bearing
- Carbide contact point
- Two measuring directions
- Anti magnetic body
- Supplied with two clamps: 5/32" DIA and 3/8" DIA
- Optional accessory: styli

2380-31



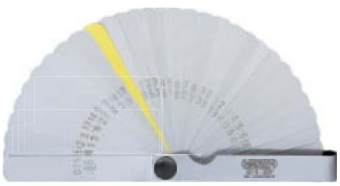


Code	Range	Graduation	Accuracy	Dial reading	A (DIA)	L
2380-31*	0.03"	0.001"	±0.001"	0-15-0	1.181"	0.50"

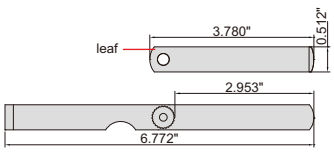
*Supplied with manufacturer inspection certificate

FEELER GAGE

- 0.010" is made of brass, others are made of hardened alloy steel
- Each blade is marked with inch/metric size



4608-31



Code	Range	Quantity of Leaves
4608-31	0.0015"~0.035"	32

Thickness of leaves included	Accuracy
0.010" (brass)	±0.00039"
0.0015", 0.002"	±0.0002"
0.0025", 0.003", 0.004", 0.005", 0.006", 0.007"	±0.00028"
0.008", 0.009"	±0.00035"
0.010", 0.011"	±0.00039"
0.012", 0.013"	±0.00047"
0.014", 0.015"	±0.00051"
0.016", 0.017"	±0.00055"
0.018", 0.019"	±0.00059"
0.020", 0.021"	±0.00067"
0.022", 0.023"	±0.00071"
0.024", 0.025", 0.026"	±0.00075"
0.028"	±0.00091"
0.030"	±0.00094"
0.032", 0.035"	±0.00102"

BORE GAGES

ATTENTION: NOT SUITABLE FOR 0.00005" OR 0.0001" DIAL INDICATORS

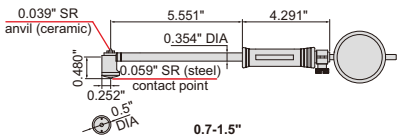
- Optional accessory:
  setting ring (code **6313**),
  long handle (code **7351**)
  bore gage setter (code **2395-400**)

With dial indicator

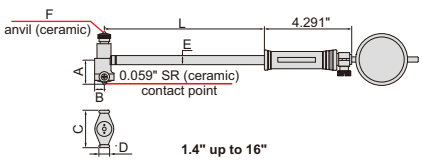
Code	Range	Indicator	Accuracy	Repeatability
2323-15	0.7-1.5"	dial indicator, range 0.25", graduation 0.0005"	±0.00075"	0.00015"
2323-24	1.4-2.4"		±0.0009"	0.00015"
2323-6	2-6"		±0.0009"	0.00015"
2323-10	6-10"		±0.0009"	0.00015"
2323-16	10-16"		±0.0009"	0.00015"

Range	A	B	C	D	E	F	L
1.4-2.4"	0.866"	0.354"	10.063"	0.512" DIA	0.504" DIA	0.079" R	5.551"
2-6"	10.024"	0.354"	1.378"	0.512" DIA	0.504" DIA	0.079" R	5.551"
6-10"	2.224"	0.512"	2.933"	0.591" DIA	0.504" DIA	0.079" R	9.488"
10-16"	3.406"	0.591"	3.996"	0.591" DIA	0.571" DIA	0.098" R	9.488"

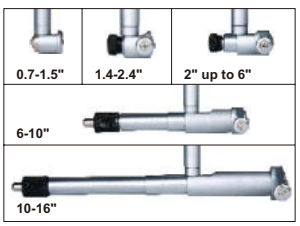
2323-6



0.7-1.5"



1.4" up to 16"



CODE NO. INDEX

CODE	PAGE
00	
0010	173
0020	178
01	
0110	171
0120	172
0130	171
0131	172
02	
0210	168
03	
0310	170
0311	170
04	
0411	182
0431	182
11	
1102	4
1103	4
1106	10
1108	5
1109	5
1110	6
1111	7
1113	3
1114	5
1118	4
1119	5
1120	16
1121	16
1122	21
1123	20
1124	15
1125	13
1128	18
1129	18
1130	6
1135	11
1136	11
1138	20
1139	7
1140	28
1141	26
1142	26
1143	26
1144	26
1145	28
1146	34
1147	26
1148	27
1149	25
1150	32
1151	32
1154	34
1155	30
1156	31
1157	31
1160	103
1161	22
1162	25
1165	23
1166	112
1167	25
1168	25
1169	19
1170	7
1171	7
1172	23
1176	17
1177	20
1178	18
1179	22
1180	102
1181	24
1183	19
1185	19
1186	21
1187	19
1188	19
1189	21
1191	18
1192	20
1193	6
1196	5
1199	17
12	
1201	8
1202	8
1203	8
1204	8
1205	9
1207	11
1208	12
1214	11
1215	12
1217	8
1223	9
1224	8
1236	11
1239	9
1240	28
1244	28
1250	33
1251	33
1253	33
1262	17
1267	102
1273	24
1275	111
1281	24
13	
1312	7
1340	27
1351	33
15	
1501	55
1520	16
1524	21
1525	21
1526	13~14
1527	22
1528	23
1530	15
1532	20
1533	23
1536	24
1537	102
1538	25
1539	24
1540	27
21	
2103	57
2104	57
2108	59
2112	57
2114	59
2115	59
2117	60
2118	60
2121	78
2122	51
2124	47
2126	52
2131	79
2132	79
2133	56
2138	58
2139	58
2140	56
2141	29
2144	99
2151	78
2152	52
2153	53
2164	80
2166	80
2168	81
2170	184
2171	94
2172	96
2174	94
2175	183
2176	94
2179	184
2182	82
2183	55
2184	80
2186	81
2187	81
2188	55
22	
2222	78
2223	78
2275	98
2276	111
2278	112
23	
2301	63
2302	64
2308	63
2309	65
2310	64
2311	63
2313	63
2314	63
2316	64
2322	51
2324	64
2328	64
2333	78
2341	29
2342	29

CODE NO. INDEX

CODE	PAGE
2343	29
2344	165
2361	80
2364	79
2372	96
2373	96
2374	95
2380	66
2381	66
2383	67
2385	120
2386	67
2394	122
2396	69
2397	122
2398	67
2399	66
24	
2480	67
27	
2771	96
28	
2824	53
2825	52
2828	53
2841	82
2852	52
2853	53
2862	80
2871	79
2872	80
2876	80
2878	75
2879	79
29	
2931	12
31	
3101	35
3108	35
3109	35
3127	48
3128	50
32	
3202	36
3203	36
3206	37
3210	36
3220	50

CODE	PAGE
3221	51
3222	51
3227	49
3228	49
3230	41
3232	41
3233	42
3234	43
3236	37
3238	45
3239	43
3241	30
3260	42
3261	42
3262	43
3266	41
3280	44
3281	39
3282	44
3283	45
3285	45
3287	38
3290	44
3291	40
3293	46
33	
3331	38
3332	38
3334	81
3350	34
35	
3506	37
3520	50
3521	50
3530	41
3532	41
3533	42
3534	43
3539	43
3540	30
3560	42
3561	42
3562	43
3565	35
3566	41
3580	44
3581	39
3583	45

CODE	PAGE
3590	44
3591	40
3594	45
40	
4006	118
41	
4100	82
4101	83
4108	84
4120	90
4121	92
4124	88
4129	91
4130	88
4131	92
4139	89
4141	97
4142	97
4143	118
4147	98
4155	119
4160	84
4166	85
4176	83
4180	99
4190	93
42	
4206	54
4208	54
4209	54
46	
4601	99
4602	100
4605	99
4621	100
4630	103
47	
4700	98
4707	98
4721	77
4725	76
4728	77
4747	98
4770	97
4771	77
4778	95
4779	95
4780	94

CODE	PAGE
4781	94
4782	77
4786	76
4789	76
4790	97
4791	97
4792	98
4793	98
4797	95
4799	95
48	
4801	101
4802	102
4803	108
4804	102
4808	108
4809	108
4810	101
4812	101
4820	101
4824	100
4830	104
4831	104
4832	104
4833	103
4834	104
4835	105
4836	104
4837	103
4838	105
4839	107
4840	106
4841	107
4842	109
4843	109
4844	102
4845	166
4846	106
4847	106
4848	104
4849	106
4850	106
4851	106
4852	103
4853	108
4854	109
4855	103
4860	100

CODE NO. INDEX

CODE	PAGE
49	
4902	184
4903	185
4910	185
4911	185
4912	186
4913	186
4914	186
4917	187
4918	187
4920	186
50	
5013	114
5022	113
5023	113
5024	113
5041	113
5042	113
5052	114
5063	114
5064	107
5071	107
5072	107
5091	114
51	
5101	150
5102	151
5103	150
5106	153
5107	151
52	
5201	183
53	
5301	144
5302	143
5307	146
5309	146
5311	147
5313	144
57	
5700	176
5701	175
5702	177
61	
6140	9
6141	28
6143	19
6144	10
6145	10
6146	10
62	
6200	70
6201	70
6202	70
6207	71
6208	69
6210	69
6211	71
6214	72
6216	71
6217	72
6221	71
6224	71
6225	72
6226	72
6227	73
6228	71
6229	70
6230	73
6272	71
6282	65~66
6284	68
6291	68
6293	68
6294	68
6295	68
6296	68
6297	68
6298	67
63	
6300	46
6301	46
6310	46
6312	87
6381	46
65	
6511	118
6520	119
6521	119
6526	120
6527	119
6531	117
6533	117
6534	118
6535	119
6547	119
6553	122
6556	122
6557	122
6562	121
6566	121
6567	121
6568	121
6572	121
6573	121
6582	120
6584	120
68	
6801	117
6805	115
6832	105
6841	73
6862	74
6863	74
6864	74
6865	75
6866	73
6867	73
6869	74
6876	73
6884	84
6887	116
6888	116
6889	116
6890	117
6896	115
6897	116
69	
6900	114
6902	115
6990	113
71	
7101	123
7106	61
7107	61~62
7110	111
7111	99
7114	55
7119	110
7120	111
7123	111
7130	62
7140	110
7142	110
7143	110
7144	110
7145	110
7160	159
7161	159
7162	159
7163	159
7164	160
72	
7202	112
7203	112
7205	112
7230	113
7231	113
7232	113
7247	109
7260	109
7261	109
7262	109
73	
7302	1
7304	3
7315	2~3
7330	66
7331	66
7332	66
7341	86
7342	86
7351	54
7353	54
7381	40
7382	38
7391	40
7394	39
75	
7511	157
7512	158
7513	158
7514	158
7515	157
7516	157
7517	157
7518	158
7520	157
7522	158
7523	159
7524	158
7525	156

CODE NO. INDEX

CODE	PAGE
7526	156
76	
7600	179
80	
8001	211
8002	210
8003	210
81	
8101	211
82	
8201	212
8202	212
83	
8301	210
8303	209
8304	209
85	
8501	213
86	
8601	211
8602	212
89	
8910	213
91	
9130	168
9132	169
92	
9223	174
9224	173
9225	174
9241	180
9242	181
9246	181
9247	180
93	
9353	173
9362	169
94	
9407	134
95	
9501	165
9561	168
97	
9720	178
9721	179
9722	179
9723	179
DSW	
DSW-A010	179
HDT	
HDT-BRV130	194
HDT-L410	198
HDT-L411	199
HDT-LP200	197
HDT-LP200B	197
HDT-MV290	192
HDT-MV290S	192
HDT-RA151	190
HDT-RW160	191
HDT-VD50A	191
HDT-VS530	196
ISD	
ISD-V150A	138~139
ISD-V250A	138~139
ISD-V300A	138~139
ISD-V220CNCA	139~140
ISD-VMM215	142~143
ISE	
ISE-2DT	183
ISF	
ISF-1DF□□□	201
ISF-DF□□□	202
ISF-F□□□	202
ISF-H20D	203
ISF-MT1K	202
ISF-MT500	203
ISF-P30D	203
ISF-RH62	204
ISF-RV61	203
ISF-S□□□	204
ISF-TG□□□	205
ISGF	
ISGF-0901	113
ISH	
ISH-BRV	195
ISH-DSA	200
ISH-DSD	200
ISH-DS-STANDA	200
ISH-MRD200	189
ISH-PHB	196
ISH-R150	190
ISH-RSR400	188
ISH-SAM	201
ISH-SDM	201
ISH-STAC	201
ISHB	
ISHB-B300	200
ISHB-D300	193
ISHW	
ISHW-L20	199
ISL	
ISL-A1-□□□	124
ISL-A5-□□□	124
ISL-B5-□□□	124
ISL-DR2	123
ISL-DR3	123
ISM	
ISM-CM63	155
ISM-DL301	145
ISM-PM100	156
ISM-PM200SA	148
ISM-WF200	149
ISM-ZS100	152
ISM-ZS100T	152
ISM-ZS200	152
ISM-ZS30	154
ISM-ZS50	153
ISM-ZS50T	153
ISM-ZS70-S	154
ISO	
ISO-1000FN	164
ISO-1200FN	164
ISO-8000FN	163
ISP	
ISP-Z3015	135~136
ISQ	
ISQ-DG6	176
ISQ-DG8	177
ISQ-DRM31	178
ISQ-RM30	178
ISR	
ISR-C002	127
ISR-C003	129
ISR-C300	128~129
ISR-CS130-W	129
IST	
IST-04TT□□□	205
IST-11WM□□□	207
IST-19WM□□□	208
IST-9WM□□□	206
IST-DW□□□	208
IST-MG□□□	205
IST-PW□□□	208
IST-SD200	206
IST-SD50	206
IST-W□□□	206
ISU	
ISU-100D	167
ISU-250C	167
ISU-720D	166
ISV	
ISV-E30	162
ISV-E40	162
ISV-K3915	160
ISV-K6015	160
ISV-P6	161
ISV-S106	161
ISY	
ISY-100	130~131
ISY-400	132
ISY-500	132
ISY-600	130
ISY-700	141
LDM	
LDM-030	133
LDM-065	133
QMS	
QMS-A110	137
RCT	
RCT-RA260	125
SPM	
SPM-1000	126
TLP	
TLP-300H	135
INCH PRODUCTS	
13	
1311	214
23	
2307	214
2323	215
2380	215
32	
3203	214
3241	214
46	
4608	215

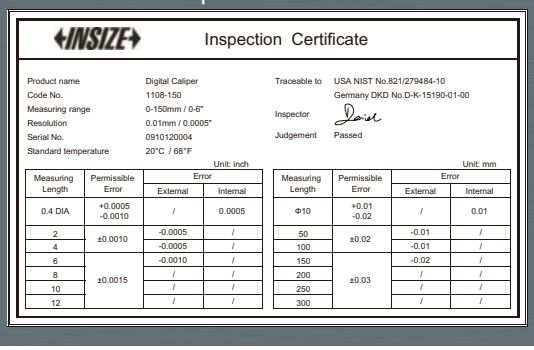
INSIZE EUROPE S.L.
Add: Plg. Ugaldeguren I P3-Hall 2
48170-Zamudio (Bizkaia) Spain
Tel: +34-94-4544308
E-mail: europe@insize.com
Website: www.insize-eu.com

INSIZE

www.insize-eu.com

INSPECTION CERTIFICATE

The products with this mark are supplied with manufacturer inspection certificate



INSIZE Inspection Certificate

Product name	Digital Caliper	Traceable to	USA NIST No.821/279484-10
Code No.	1108-150		Germany DKD No.D-K-15190-01-00
Measuring range	0-150mm / 0-6"	Inspector	
Resolution	0.01mm / 0.0005"		
Serial No.	0910120004	Judgement	Passed
Standard temperature	20°C / 68°F		

Unit: inch

Measuring Length	Permissible Error	Error	
		External	Internal
0.4 DIA	+0.0005 -0.0010	/	0.0005
2	±0.0010	-0.0005	/
4		-0.0005	/
6	±0.0015	-0.0010	/
8		/	/
10		/	/
12		/	/

Unit: mm

Measuring Length	Permissible Error	Error	
		External	Internal
Φ10	+0.01 -0.02	/	0.01
50	±0.02	-0.01	/
100		-0.01	/
150	±0.03	-0.02	/
200		/	/
250		/	/
300		/	/

VIDEO

Please scan QR code to watch the demo videos of products.

Obtain information about our complete line of product from our website or general catalogue

Distributed by:

We reserve the right to change or modify the design and specification of products in this catalogue without prior notice.