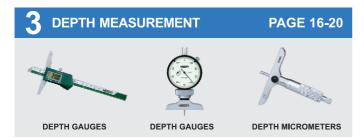


MEASURING INSTRUMENTS

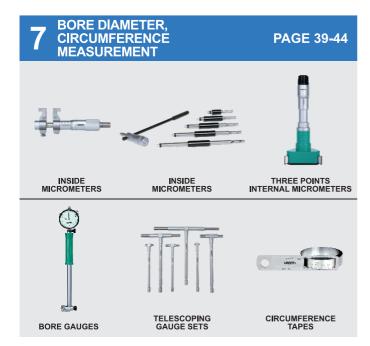
MINI CATALOGUE NO. 26

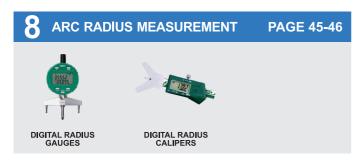




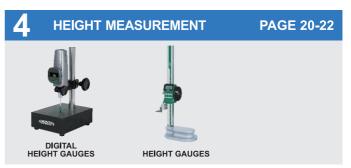


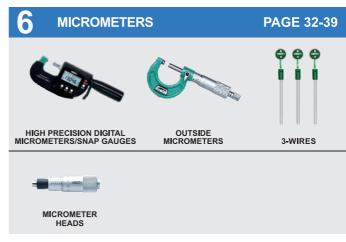




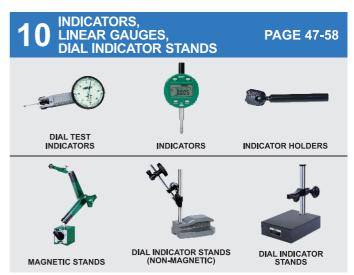














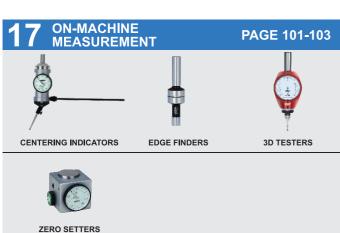










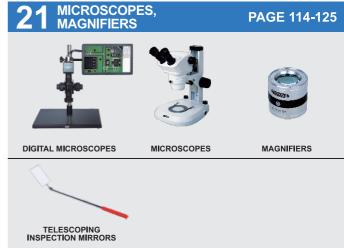










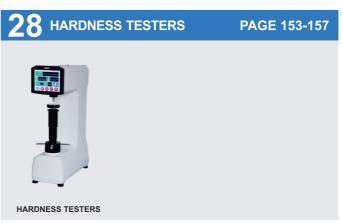




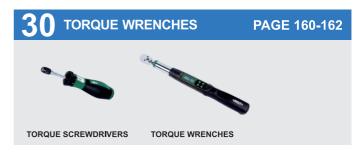


















WIRELESS DATA TRANSMISSION SYSTEM (ZIGBEE)

- Through wireless transmission, the readings of measuring tools 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)

Transmitter

- Connecting to digital measuring tools such as calipers, micrometers and indicators CR2032 battery



Code	Description	Transmitter	Connecting with measuring tool	Transmit data
7315-25	transmitter for digital calipers	button signal light	button signal light	 Press the button of the transmitter Data is transmitted once, the signal light of the transmitter flashes once
7315-22	transmitter for large digital calipers	button signal light	signal light button	 Press the button of the transmitter Data is transmitted once, the signal light of the transmitter flashes once
7315-31	transmitter for digital micrometers		"data" button signal light	 Press the "data" button of digital micrometer Data is transmitted once, the signal light on the digital micrometer flashes once
7315-50M	transmitter for digital indicators	button signal light	signal light button	Press the button of the transmitter Data is transmitted once, the signal light of the transmitter flashes once
7315-51B	transmitter for bore gauges	button signal light	"DATA" button signal light button	 Press the "DATA" button of digital indicator, can also press the button of the transmitter Data is transmitted once, the signal light on digital indicator flashes once
				To be continued



Continued from previous page

Receiver (keyboard signal)

- For computers and mobile phones
- Recognized as HID keyboard device, the transmitted data 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.
- 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		
7315-7	type-C port—	multichannel receiver	connected with 6 transmitters, each
7315-8	micro USB port	munichanner receiver	channel has status indicator
7315-9	lightning port		

Receiver (text format, virtual com port)

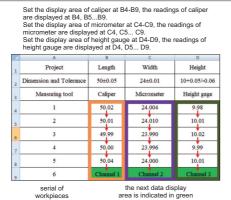
- For computers with windows system
- Text format virtual com port, converted to keyboard format with supplied software
- Supplied with EXCEL directional input software
- Measurement data can be transmitted to excel, word, txt etc. and any software which receives keyboard signal

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

EXCEL directional input software

- Supplied with 7315-2 receiver
- The readings of 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



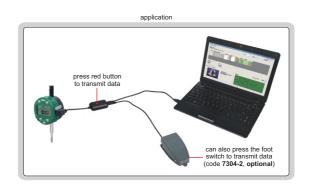
_	Excel directional inp	out software (incl	uded in 7315-2), a	pplication exa	mple 2
	Set the display area of the readings of microm Set the display area of the readings of caliper a Set the display area of the readings of depth g	eter are displaye caliper at D4-D9, are displayed at l depth gauge at E	d at B4, C4, B5, C D4, D5 D9. E4-E9,	5 B9, C9.	o the right,
1	A	В	С	D	E
1	Project	External diameter1	External diameter2	Length	Depth
2	Dimension and Tolerance	Ф23+0.01/-0.02	Ф21+0.01/-0.02	50±0.04	28±0.05
3	Measuring tool	Micrometer	Micrometer	Caliper	Depth gag
4	1	23.010	21.008	49.98	28.01
5	2	23.010	21.000	49.98	27.98
6	3	22.999	21.000	50	28
7	4	23.007	20.998	50	28
8	5	23.000	20.985	50.01	28.01
9	6	23.008	Channel 1	Channel 2	Channel 3
serial of the next data display workpieces area is indicated in green					



DATA OUTPUT CABLES (TEXT FORMAT, VIRTUAL COM PORT)



7305-40M

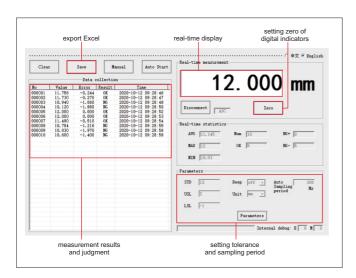


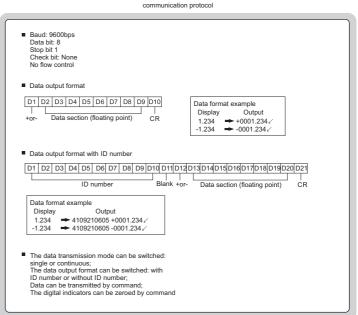
Continuous transmit (can be switched to single transmit)

Code	Description	Plug to measuring tool	Plug to computer	Connecting with measuring tool	Transmit data
7305-40M	cable for digital indicators (length 2.5m)			for 2108, 2138, 2139 series digital indicators	Continuous transmit is controlled in software Single transmit: Press the "DATA" button of digital indicator, can also press the button of the transmit box, or press the foot switch Data is transmitted once, the signal light of the transmit box flashes once, at the same time, the signal light on digital indicator flashes once Note: long press button to zero the digital indicators; software of data transmit is included Continuous transmit is controlled in software Single transmit: Press the button of the transmit box, or press the foot switch Data is transmitted once, the signal light of the transmit box flashes once Note: long press button to zero the digital indicators; software of data transmit is included

Software

- Real-time display
- Tolerance setting, automatic judgment, out-of-tolerance alarm
- Real time statistics: max, min, average, Go/No-Go number
- Can save results as Excel







IP67 WATERPROOF DIGITAL CALIPERS

INSPECTION

- Accuracy: ±0.03mmIP67 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

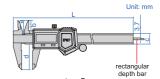
							(1111111)
Code	Range	Туре	L	а	b	С	d
1118-150B*	0-150mm/0-6"	В	236	21	16	16	40
1118-200B*	0-200mm/0-8"	В	286	24	19	16	50
1118-300B*	0-300mm/0-12"	В	400	25	20.5	16	60
1118-150R*	0-150mm/0-6"	R	236	21	16	16	40

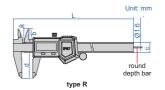
^{*}Supplied with manufacturer inspection certificate

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









1118-150B

1118-150R

WIRELESS DIGITAL CALIPERS (ZIGBEE)



- Non waterproof
- Built-in wireless data transmission module, Zigbee signal
- Transmission distance is 10 meter (under the condition of no obstruction and no electromagnetic interference)
- Accuracy: ±0.03mmResolution: 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	L	а	b	С	d
1113-150 *	0-150mm/0-6"	236	21	16	16	40
1113-200 *	0-200mm/0-8"	286	24	19	16	50
1113-300*	0-300mm/0-12"	400	25	20.5	16	60

^{*}Supplied with manufacturer inspection certificate

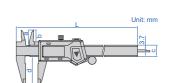


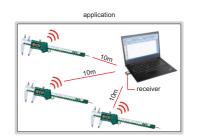
ATTENTION: THE WORKING LIFE OF A BATTERY IS ABOUT 3-5 MONTHS



1113-150







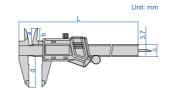
DIGITAL CALIPERS



ATTENTION: NO DATA OUTPUT



- Non waterproof
- 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



							(mm)
Code	Range	Accuracy	L	а	b	С	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

^{*}Supplied with manufacturer inspection certificate

DIGITAL CALIPERS (STANDARD TYPE)





POPULAR MODEL





- 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 receiver is needed, 7302-21)



^{*}Supplied with manufacturer inspection certificate



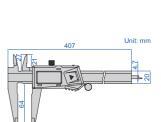
HEAVY DUTY 300mm DIGITAL CALIPER

- Non waterproof
- 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** receiver is needed, **7302-22**)

Code	Range	Accuracy
1196-300 [*]	0-300mm/0-12"	±0.03mm

^{*}Supplied with manufacturer inspection certificate





DIGITAL CALIPER WITH ROUND DEPTH BAR

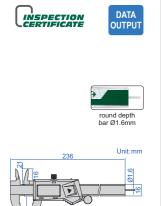
- Non waterproof
- Resolution: 0.01mm/0.0005"
 Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data outputMeet DIN862
- Made of stainless steel
- Optional accessory: data output cable (code 7315-21 receiver is needed, 7302-21)

Code	Range	Accuracy
1119-150*	0-150mm/0-6"	±0.03mm

^{*}Supplied with manufacturer inspection certificate



1119-150



DATA

OUTPUT

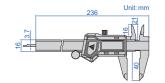
LEFT HAND DIGITAL CALIPER

- Non waterproof
- Designed for left handed usersResolution: 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 receiver is needed, 7302-22)

Code	Range	Accuracy
1130-150*	0-150mm/0-6"	±0.03mm

^{*}Supplied with manufacturer inspection certificate





INSPECTION CERTIFICATE

INSPECTION CERTIFICATE

DIGITAL CALIPER WITH CERAMIC TIPPED JAWS

- Non waterproof
- 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, made of stainless steel
- Meet DIN862
- Optional accessory: data output cable (code **7315-21** receiver is needed, **7302-21**)

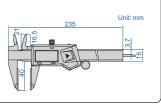
Code	Range	Accuracy
1193-150*	0-150mm/0-6"	±0.03mm

^{*}Supplied with manufacturer inspection certificate



1193-150







DIGITAL CALIPERS WITH CARBIDE TIPPED JAWS

- Non waterproof
- 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





L	Unit: mi
	3.7

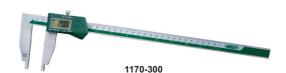
⁽code **7315-21** receiver is needed, **7302-21**)

Code	Range	L	а	b	d	Remark
1110-150A *	0-150mm/0-6"	236	21	16	40	carbide tipped upper and lower jaws
1110-150B *	0-150mm/0-6"	236	21	16	40	carbide tipped lower jaws
1110-200B *	0-200mm/0-8"	286	24	19	50	carbide tipped lower jaws
1110-300B *	0-300mm/0-12"	400	25	20.5	60	carbide tipped lower jaws

*Supplied with manufacturer inspection certificate

DIGITAL CALIPERS

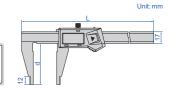
- Non waterproof
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code 7315-21 receiver is needed, 7302-21)



(mm)





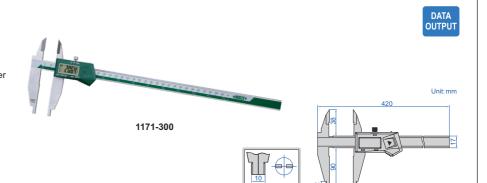


DATA OUTPUT

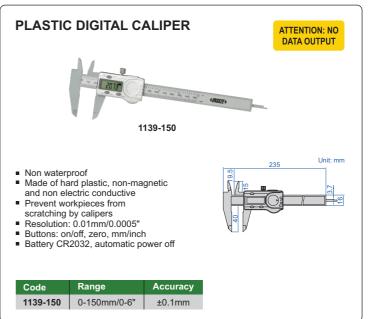
DIGITAL CALIPER

- Non waterproof
- 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 receiver is needed, 7302-21)

Code	Range	Accuracy
1171-300	0-300mm/0-12"	±0.06mm









DIAL CALIPERS

- Shockproof dial indicatorMade of stainless steel

Dial indicator graduation: 0.02mm

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

Dial indicator graduation: 0.01mm

Plat maloator graduation: 0.0 mm									
Code	Range	Accuracy	L	а	b	С	d	D	t
1311-150A*	0-150mm	±0.03mm	235	21	16.5	16	40	Ø39	6.5
1311-200A*	0-200mm	±0.03mm	288	24	19	16	48	Ø39	6.5
1311-300A*	0-300mm	±0.03mm	410	28	22	20	62	Ø44.5	7.5

^{*}Supplied with manufacturer inspection certificate



DIAL CALIPERS WITH CARBIDE TIPPED JAWS

Accuracy

±0.05mm

±0.05mm

±0.07mm

±0.11mm

18

18

24

21

21

28

90

90

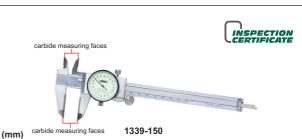
150

150

- Shockproof dial indicator
- Dial indicator graduation: 0.02mm
 Carbide tipped jaws for inside and outside measurements
- Made of stainless steel

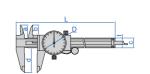
Code	Range	Accuracy	L	а	b	С	d	D	t
1339-150 *	0-150mm	±0.03mm	235	21	16.5	16	40	Ø39	6.5
1339-200 *	0-200mm	±0.03mm	288	24	19	16	48	Ø39	6.5
1339-300 *	0-300mm	±0.03mm	410	28	22	20	62	Ø44.5	7.5

*Supplied with manufacturer inspection certificate





SHOCK PROOF



DIAL CALIPERS

- Shockproof dial indicator
- Dial indicator graduation: 0.02mm

Range

0-500mm

0-600mm

0-1000mm

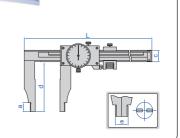
0-1500mm

Made of stainless steel



1316-500

(mm)



MINI VERNIER CALIPERS

■ Meet DIN862

1316-500

1316-600

1316-1000

1316-1500

- Made of stainless steel
- Satin chrome plated reading surface

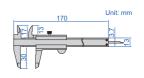
Code	Range	Graduation	Accuracy
1204-70	0-70mm	0.05mm	±0.05mm

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







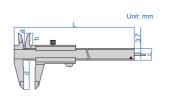




VERNIER CALIPERS

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







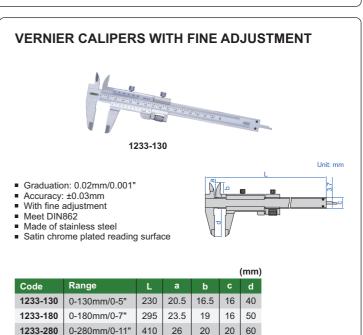
Graduation 0.05mm/1/128"								
Code	Range	Accuracy	L	а	b	С	d	
1205-150S	0-150mm/0-6"	±0.05mm	235	20.5	15.5	16	40	
1205-200S	0-200mm/0-8"	±0.05mm	290	23.5	19	17	50	
1205-300S	0-300mm/0-12"	±0.05mm	414	27.5	22	20	64	

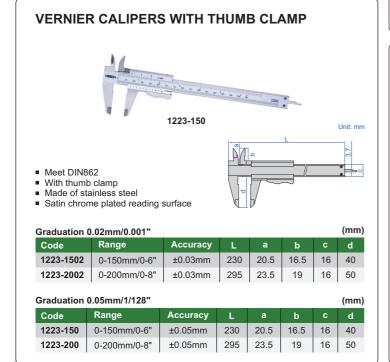
Graduation 0.05mm							
Code	Range	Accuracy	L	а	b	С	d
1205-1503S	0-150mm	±0.05mm	235	20.5	15.5	16	40
1205-2003S	0-200mm	±0.05mm	290	23.5	19	17	50
1205-3003S	0-300mm	±0.05mm	414	27.5	22	20	64
			•				

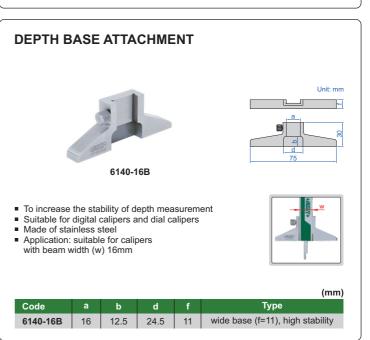
Graduation 0.02mm/0.001" (n									
Code	Range	Accuracy	L	а	b	С	d		
1205-1502S	0-150mm/0-6"	±0.03mm	235	20.5	15.5	16	40		
1205-2002S	0-200mm/0-8"	±0.03mm	290	23.5	19	17	50		
1205-3002S	0-300mm/0-12"	±0.03mm	414	27.5	22	20	64		

Graduation 0.02mm									
Code	Range	Accuracy	L	а	b	С	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 CALIPER WITH ROUND DEPTH BAR 1202-150 Graduation 0.05mm/1/128" Round depth bar Meet DIN862 Made of stainless steel Satin chrome plated reading surface Code Range Accuracy 1202-150 0-150mm/0-6" ±0.05mm











6144





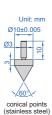




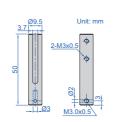
Code 6144

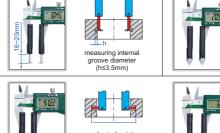
■ Suitable for 0-150mm/0-6" and 0-200mm/0-8" digital calipers (thickness of lower jaws≤3.7mm)





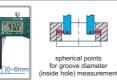
















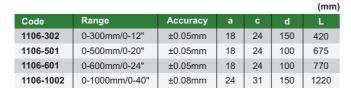
DIGITAL CALIPERS

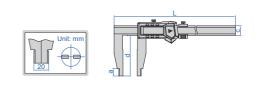
- Non waterproof
- Resolution: 0.01mm/0.0005"
- Button function: on/off, zero, mm/inch, ABS, data preset
 Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (code 7315-22 receiver is needed, 7302-22)





DATA OUTPUT





DIGITAL CALIPERS

- Non waterproof
- 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 receiver is needed, 7302-22)

							(mm)
Code	Range	Accuracy	а	b	С	d	L
1136-501	0-500mm/0-20"	±0.05mm	18	45	24	100	675
1136-601	0-600mm/0-24"	±0.05mm	18	45	24	100	770
1136-1002	0-1000mm/0-40"	±0.08mm	24	60	31	150	1220

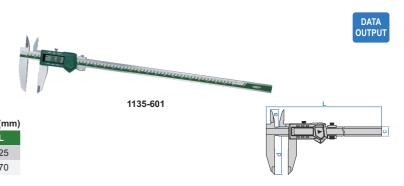


DIGITAL CALIPERS

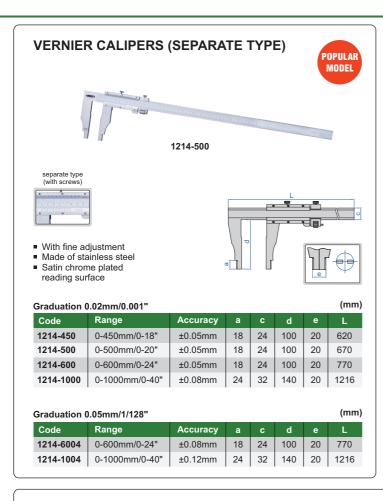
- Non waterproof
- Resolution: 0.01mm/0.0005"
- Button function: on/off, zero, mm/inch, ABS, data preset
 Battery CR2032, data output
 Made of stainless steel

- Optional accessory: data output cable (code 7315-22 receiver is needed, 7302-22)

						(mm)
Code	Range	Accuracy	а	С	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





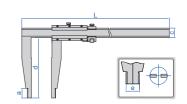


LONG JAW VERNIER CALIPERS (SEPARATE TYPE)

1215-1032



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



Graduation 0.02mm/0.001"							(mm)
Code	Range	Accuracy	а	С	d	е	L
1215-392	0-300mm/0-12"	±0.05mm	10	17	90	10	410
1215-322	0-300mm/0-12"	±0.05mm	18	24	150	20	470
1215-532	0-500mm/0-20"	±0.06mm	18	24	200	20	670
1215-622	0-600mm/0-24"	±0.06mm	18	24	150	20	770
1215-1032	0-1000mm/0-40"	±0.08mm	24	32	200	20	1220

DIGITAL CALIPER WITH INTERCHANGEABLE POINTS





Non waterproof

turn on power Battery CR2032 Data output Made of stainless steel



Supplied with 3 pairs of points and zero setting block for external measurement

Optional accessory: points, data output cable (code 7315-21 receiver is needed, 7302-21)

Resolution: 0.01mm/0.0005" ■ Buttons: on/off, set, mm/inch, preset (+, -) Automatic power off, move the digital unit to

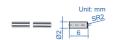




1526-200



short spherical points (included)



long spherical/flat points (included)

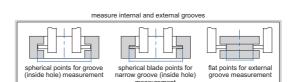


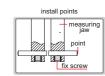
spherical blade points (included)





Unit: mm





Code
1526-200

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



Continued from previous page

Depth stop (optional)

Code 6143

Code

1526-T101



6143







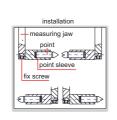


Point sleeve (optional)





T101



Ball points (optional)



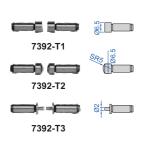
7391-T5

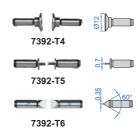


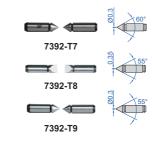
*It is necessary to use point sleeve (code 1526-T101) for these points **Range of 1526-200 after installing the points and point sleeve

Code	Ball dia. (D)	Range **
7391-T3 *	SØ2.0mm	75-275mm/3.0-10.8" (internal) 0-146mm/0-5.7" (external)
7391-T4 *	SØ2.5mm	76-276mm/3.0-10.8" (internal) 0-145mm/0-5.7" (external)
7391-T5 *	SØ3.0mm	77-277mm/3.0-10.9" (internal) 0-144mm/0-5.6" (external)
7391-T6*	SØ3.5mm	78-278mm/3.1-10.9" (internal) 0-143mm/0-5.6" (external)
7391-T7 *	SØ4.0mm	79-279mm/3.1-10.9" (internal) 0-142mm/0-5.6" (external)
7391-T8 *	SØ4.5mm	80-280mm/3.2-11.0" (internal) 0-141mm/0-5.5" (external)
7391-T9 *	SØ5.0mm	81-281mm/3.2-11.0" (internal) 0-140mm/0-5.5" (external)
7391-T10 *	SØ6.0mm	83-283mm/3.3-11.1" (internal) 0-138mm/0-5.4" (external)

Multifunctional points (optional)







Code	Туре
7392-T1*	flat
7392-T2*	spherical
7392-T3*	spline
7392-T4*	disk
7392-T5*	blade
7392-T6*	knife-edge
7392-T7*	point
7392-T8*	knife-edge
7392-T9*	point

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

Range **

66-266mm/2.6-10.5" (internal), 0-155mm/0-6.1" (external)

Screw thread points (optional)









nternal thread (60° thread angle

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			

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

External thread (60° thread angle)

External tillead	External tilleda (ee tilleda diigie)				
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				

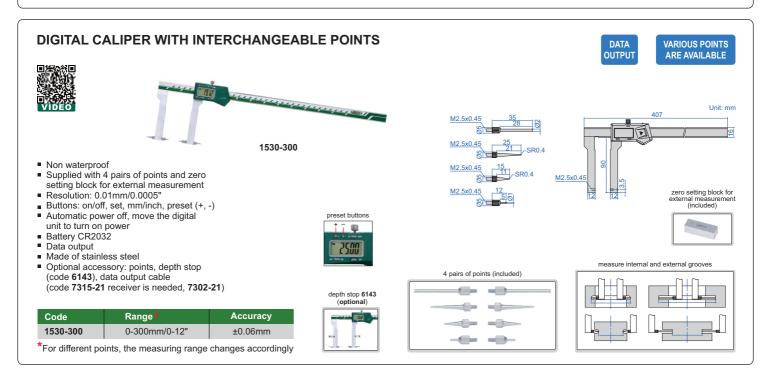
Range *** 66-266mm/2.6-10.5" (internal) 0-155mm/0-6.1" (external)

^{**}Range of **1526-200** after installing the points and point sleeve

^{**}Range of **1526-200** after installing the points and point sleeve



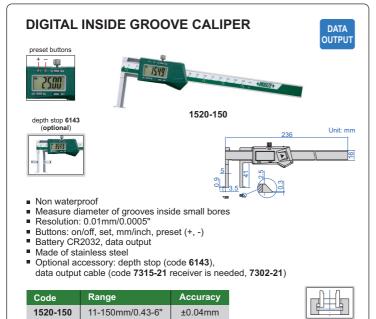
DIGITAL CALIPER WITH INTERCHANGEABLE POINTS OUTPUT short spherical/flat points (included) 1124-300A long spherical/flat points (included) SR2 depth stop 6143 (optional) preset buttons 1 short spherical blade points (included) 1124-300A SR2 measure internal and external grooves install points long spherical blade points (included) zero setting block for measuring jaw external measure (included) point flat points for external groove measurement fix screv Non waterproof Accuracy Application Supplied with 4 pairs of points and zero Range setting block for external measurement 24-324mm/1-12.7" (internal) short spherical/ spherical points for grooves inside hole (small hole) Resolution: 0.01mm/0.0005" ±0.04mm 0-288mm/0-11.3" (external) flat points for external grooves flat points Buttons: on/off, set, mm/inch, preset (+, -) Automatic power off, move the digital unit 40-340mm/1.5-13.3" (internal) long spherical/ spherical points for grooves inside hole (large hole) to turn on power ±0.04mm 0-272mm/0-10.7" (external) flat points flat points for external grooves Battery CR2032 Data output 24-324mm/1-12.7" (internal) 0-288mm/0-11.3" (external) short spherical ±0.04mm for narrow grooves inside hole (small hole) Made of stainless steel blade points Optional accessory: points (code 1526-T101, 7392, 7391, 7381, 7321), long spherical 40-340mm/1.5-13.3" (internal) ±0.04mm for narrow grooves inside hole (large hole) depth stop (code 6143), data output 0-272mm/0-10.7" (external) blade points cable (code 7315-21 receiver is needed, 7302-21) Ball points 7391*(optional) Multifunctional points 7392* (optional) ale et e et Screw thread points 7381*, 7321* (optional)

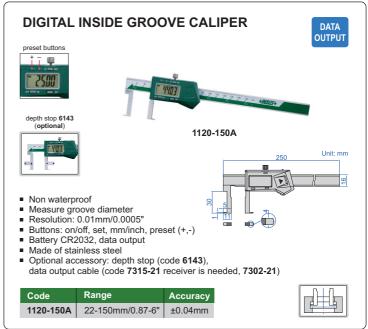


 $\Rightarrow \blacksquare$

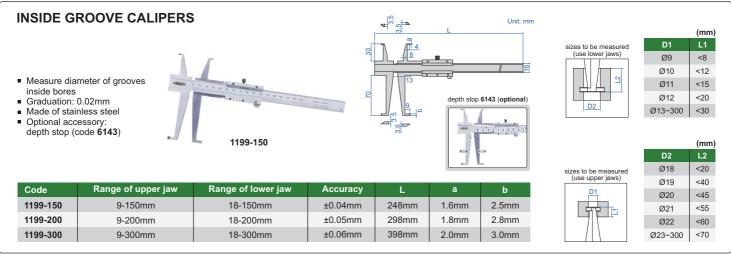
*It is necessary to use point sleeve (code 1526-T101) for these points

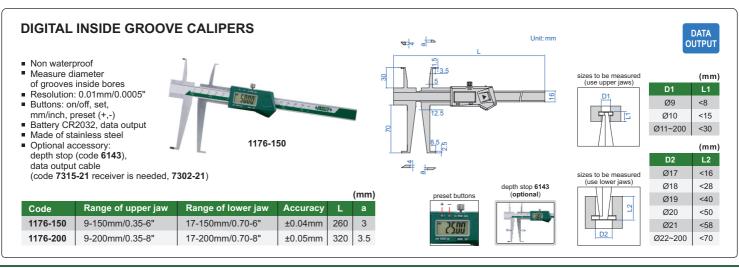




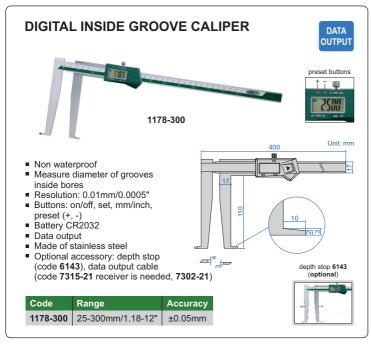


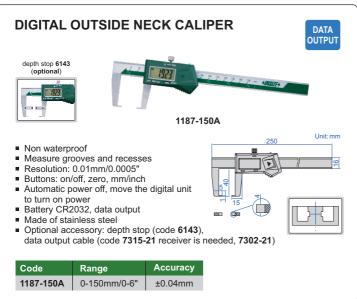


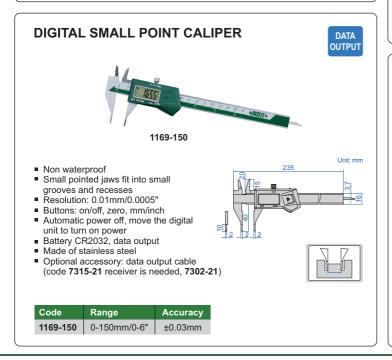


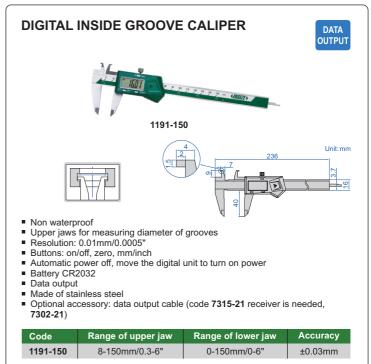


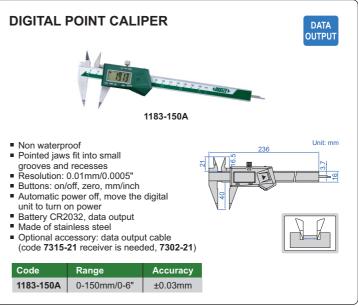


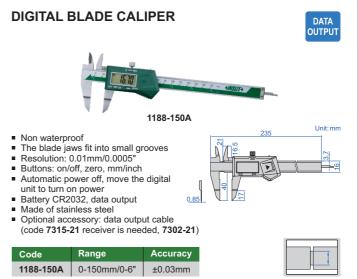












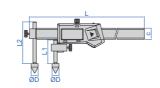


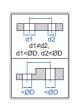
DIGITAL OFFSET CENTERLINE CALIPERS



- Non waterproof
- 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







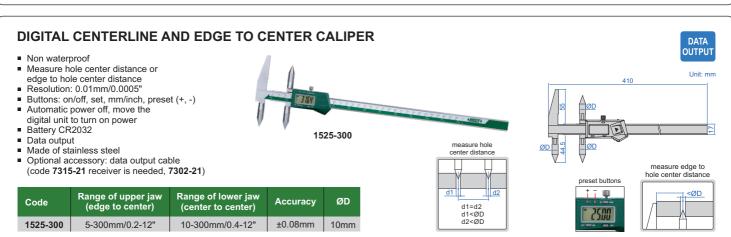
OUTPUT

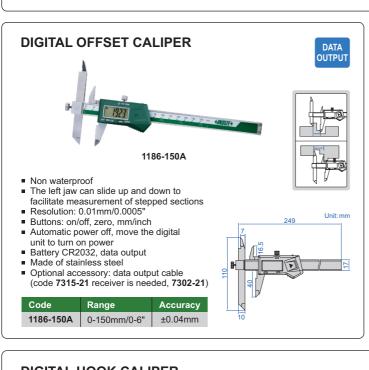
With data interface (data output cable code 7315-21 receiver is needed, 7302-21, optional)

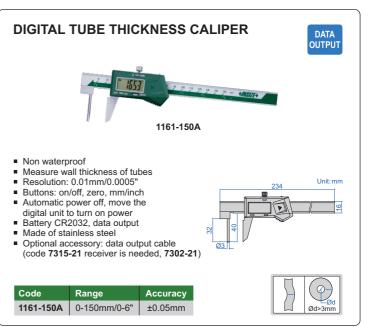
Code	Range	Accuracy	С	ØD	L1	L2	L
1192-150A	10-150mm/0.4-6"	±0.05mm	16mm	10mm	46mm	79mm	236mm
1192-300A	10-300mm /0.4-12"	±0.09mm	16mm	10mm	46mm	79mm	396mm

With data interface (data output cable code 7315-22 receiver is needed, 7302-22, optional)

Code	Range	Accuracy	С	ØD	L1	L2	L
1192-500A	20-500mm/0.8-20"	±0.09mm	24mm	20mm	70mm	110mm	683mm











DIGITAL CALIPER WITH LARGE MEASURING FACES



of wire ropes

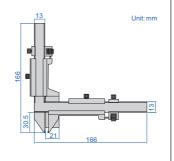
- Non waterproof
- Measure diameter of wire ropes, and thickness of soft materials like rubber, sponge, etc.
 ■ Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional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

(code **7315-21** receiver is needed, **7302-21**)



GEAR TOOTH VERNIER CALIPER





1281-M26A

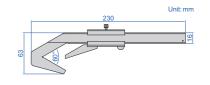
- Graduation: 0.02mm
- Total accuracy: ±0.04mm
- Carbide tips
- Measure the tooth thickness by positioning the tooth height (for tooth height>1mm)
- Made of stainless steel
- Satin chrome plated reading surface

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

V SHAPE VERNIER CALIPER



- 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

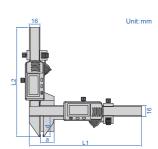


Code	Range	Graduation	Accuracy
1273-403	Ø4-40mm	0.05mm	±0.05mm

DIGITAL GEAR TOOTH CALIPERS

ATTENTION: NO **DATA OUTPUT**





- Non waterproof
- 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



ATTENTION: NO

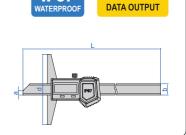
						(
Code	Range	Total accuracy	L1	L2	а	d
1181-M25A	M1-25mm	±0.04mm	170	165.5	21	30.5
1181-M50A	M5-50mm	±0.04mm	220	190	50.5	55

IP67 WATERPROOF DIGITAL DEPTH GAUGES

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

						(mm)
Code	Range	Accuracy	L	а	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





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

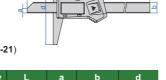
IP67

DIGITAL DEPTH GAUGES (STANDARD TYPE)

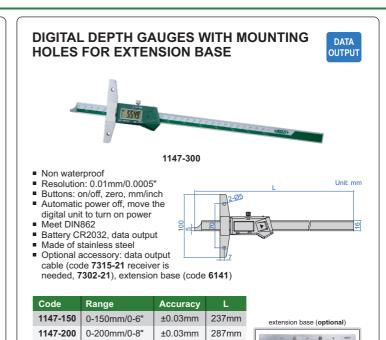


1141-150A

- Non waterproof
- 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 receiver is needed, 7302-21)



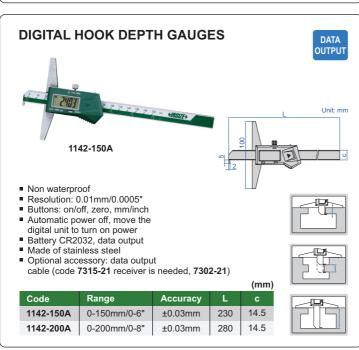
Code	Range	Accuracy	L	а	b	d
1141-150A	0-150mm/0-6"	±0.03mm	230mm	6mm	14.5mm	100mm
1141-200A	0-200mm/0-8"	±0.03mm	280mm	6mm	14.5mm	100mm
1141-300A	0-300mm/0-12"	±0.03mm	380mm	6mm	14.5mm	150mm

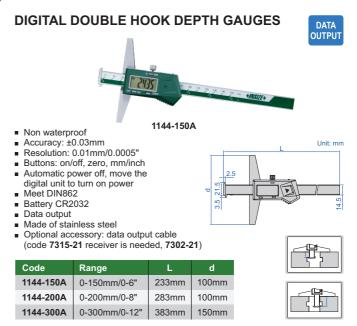


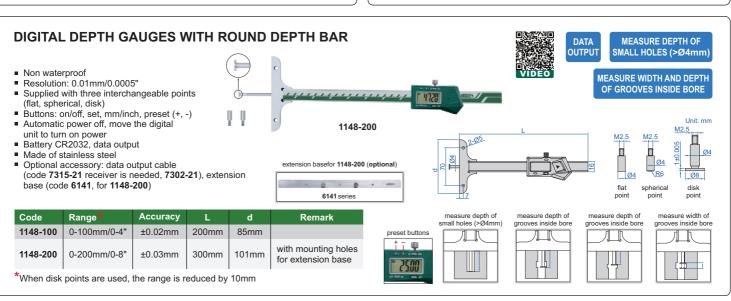
±0.03mm

403mm

6141 series



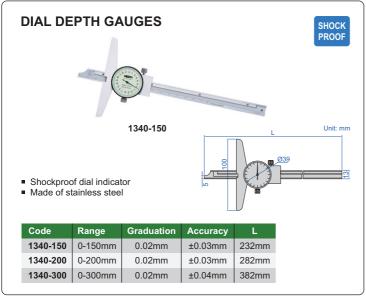


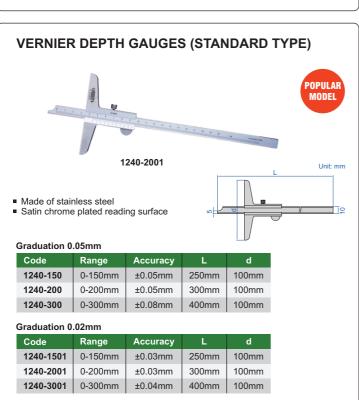


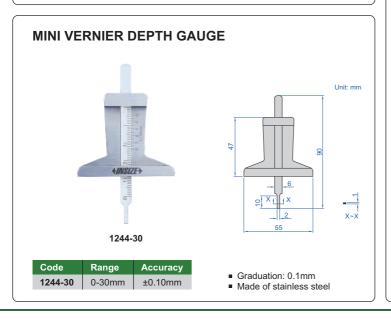
1147-300

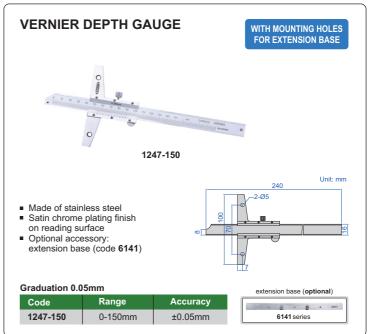
0-300mm/0-12"

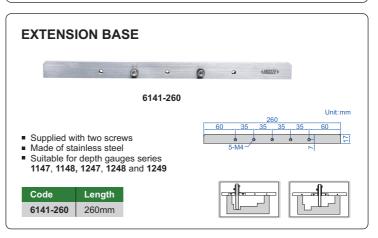


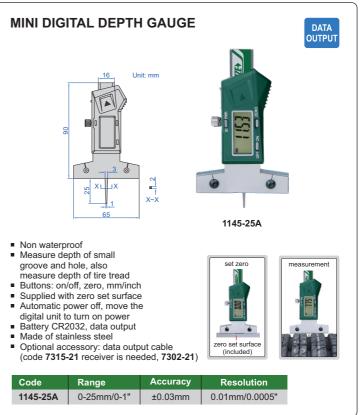












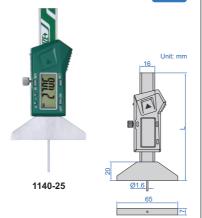


MINI DIGITAL DEPTH GAUGES WITH **ROUND BAR**



- Non waterproof
- Measure depth of small groove and hole
- 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** receiver is needed, **7302-21**)

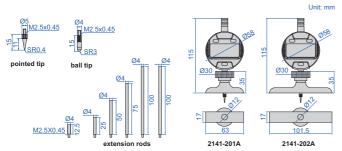




DATA

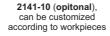
DIGITAL DEPTH GAUGES





- Digital indicator stroke: 12.7mm/0.5"
- Digital indicator resolution: 0.01mm/0.0005"
- Button function: on/off, zero, mm/inch, ABS, data preset, change measuring direction
- CR2032 battery, data ouput
 Automatic power off (time is adjustable)
- 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 receiver is needed, 7302-40M), granite extension holder (code 2141-10)





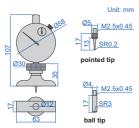


Code	Range	Accuracy	Base
2141-201A	0-300mm/0-12"	±20µm	63x17mm
2141-202A	0-300mm/0-12"	±20µm	101.5x17mm



Code

DIAL DEPTH GAUGE





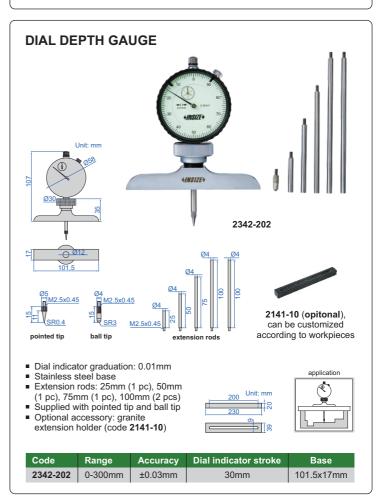
Stainless steel baseSupplied with pointed tip and ball tip

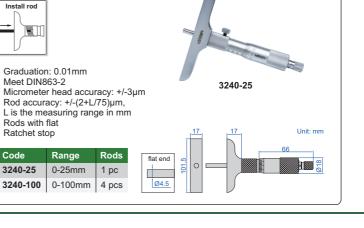
DEPTH MICROMETERS



2341-101A

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







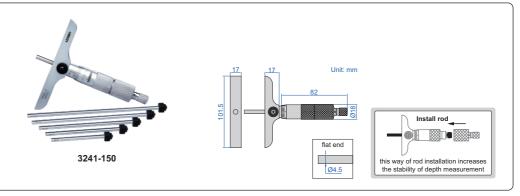
DATA OUTPUT

DATA **OUTPUT**

DEPTH MICROMETERS

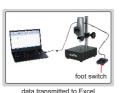
- Meet DIN863-2
- Micrometer head accuracy: +/-3µm
- Rod accuracy: +/- (2+L/75) µm, L is the measuring range in mm
- Rods with flat end
- Ratchet stop

Code	Code Range		Graduation
	0-150mm		0.01mm
3241-300	0-300mm	12 pcs	0.01mm



DIGITAL HEIGHT GAUGE

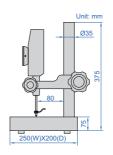


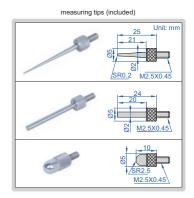


without softwar



1157-501







■ Measuring force: 0.8~1.2N

- Power supply: 5V/1A (adapter or charge pal)
 Buttons: on/off, zero, mm/inch, max/min/max-min
- High response speed (5000mm/s)
- High brightness LED display

3835363
68065
≥369 25
回 物学剂
VIDE

Daga	

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				

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

DIGITAL HEIGHT GAUGES









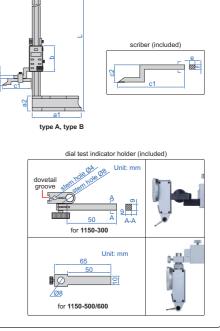


- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch, ABS/INC, data hold, TOL, set
- ABS/INC is for absolute and incremental measurement
 TOL is for tolerance measurement
- Carbide tipped scriber
- Made of stainless steel (except the base)
- LR44 battery, data output
 Supplied with dial test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





													(mm)
Code	Range	Type	Accuracy	L	a1	a2	b	c1	c2	с3	d	е	f
1150-300	0-300mm/0-12"	Α	±0.04mm	485	138	45	95	80	30	10	28	9	9
1150-500	0-500mm/0-20"	В	±0.06mm	720	180	55	95	103	25	12	30	10	12
1150-600	0-600mm/0-24"	В	±0.06mm	820	180	55	95	103	25	12	30	10	12





DIGITAL HEIGHT GAUGES WITH DRIVING WHEEL

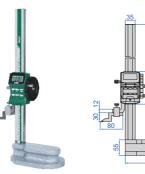




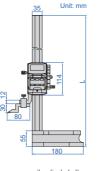
- Non waterproofResolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch, preset (+, -), ABS/INC
 Automatic power off, move the digital unit to turn on power
- Carbide tipped scriber
- Made of stainless steel
 Battery CR2032, data output
 Supplied with dust cover
- With dial test indicator holder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

Code	Range	Accuracy	L
1156-300*	0-300mm/0-12"	±0.03mm	515mm
1156-600 *	0-600mm/0-24"	±0.05mm	815mm

^{*}Supplied with manufacturer inspection certificate













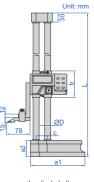


dial test indicator holder (included)



DIGITAL HEIGHT GAUGES













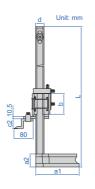




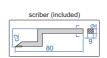
- Non waterproof
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch, data hold, ABS/INC, preset
 ABS/INC is for absolute and incremental measurement
- Automatic power off, move the digital unit to turn on power
- Carbide tipped scriber
- Made of stainless steelBattery CR2032, data output
- 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 receiver is needed), data output cable (code 7302-1151, keyboard format)

(mm) Range Accuracy Code a2 ØD 1151-300A 0-300mm/0-12" ±0.04mm 475 135 43 84 33 15 810 1151-600A 0-600mm/0-24" 180 54 88 38 20 ±0.05mm

VERNIER HEIGHT GAUGES











- 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)

(mm)

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



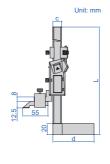
MINI DIGITAL HEIGHT GAUGES

- Non waterproof
- 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 **7315-21** receiver is needed, **7302-21**), dial test indicator holder (code **7151-CL1**)

Code	Range	Accuracy	L	С	d
1154-150	0-150mm/0-6"	±0.03mm	280mm	16mm	75mm
1154-200	0-200mm/0-8"	±0.03mm	340mm	20mm	90mm





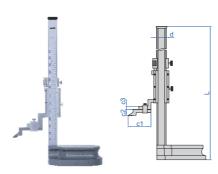




VERNIER HEIGHT GAUGES (BASIC TYPE)

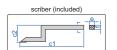


- Carbide tipped scriber
- Made of stainless steel (except the base)
- Satin chrome plated scale
- With dial test indicator holder
- Supplied with dust cover

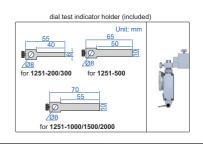








									(mm)
Code	Range	Accuracy	L	c1	с2	с3	d	е	f
1251-200	0-200mm/0-8"	±0.03mm	370	76	25	10	23	6	8
1251-300	0-300mm/0-12"	±0.04mm	470	76	25	10	23	6	8
1251-500	0-500mm/0-20"	±0.05mm	720	105	25	12	30	10	12
1251-1000	0-1000mm/0-40"	±0.07mm	1275	110	39	15	50	10	15
1251-1500	0-1500mm/0-60"	±0.11mm	1790	110	39	15	50	10	15
1251-2000	0-2000mm/0-80"	±0.14mm	2290	110	39	15	50	10	15

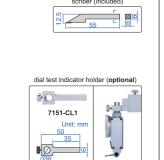


MINI VERNIER HEIGHT GAUGE

- 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)





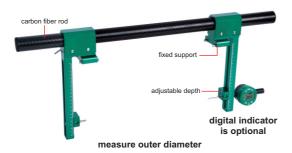


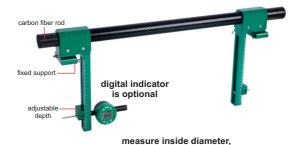
Code	Range	Accuracy
1253-200	0-200mm/0-8"	±0.03mm

Unit: mm



CARBON FIBER COMPARISON GAUGES

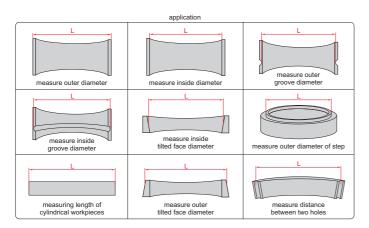




- Measure outer diameter, inside diameter, holes distance and cylindrical workpiece length

minimum diameter is 220mm 2931-D1000B

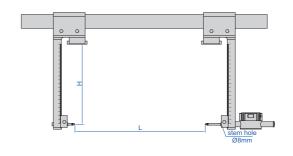
Carbon fiber rods, light weight, not easy to deform, no temperature expand
 Optional accessory: cylinder gauge blocks (code 4001), digital indicators (code 2138-25SP/2139-25SP/2103-25SP/2104-25SP)





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





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
2931-D5000A	5000mm	0-100mm	25µm	4.4kg
2931-D5000B	5000mm	0-200mm	40µm	4.7kg
2931-D5000C	5000mm	0-300mm	70μm	5.0kg
2931-D6000A	6000mm	0-100mm	28µm	8.4kg
2931-D6000B	6000mm	0-200mm	50μm	8.8kg
2931-D6000C	6000mm	0-300mm	80µm	9.2kg
2931-D7000A	7000mm	0-100mm	30µm	9.2kg
2931-D7000B	7000mm	0-200mm	55µm	9.6kg
2931-D7000C	7000mm	0-300mm	100µm	10kg
2931-D8000A	8000mm	0-100mm	32µm	10kg
2931-D8000B	8000mm	0-200mm	60µm	10.4kg
2931-D8000C	8000mm	0-300mm	110µm	10.8kg
2931-D9000A	9000mm	0-100mm	35µm	10.7kg
2931-D9000B	9000mm	0-200mm	70µm	11.1kg
2931-D9000C	9000mm	0-300mm	120µm	11.5kg

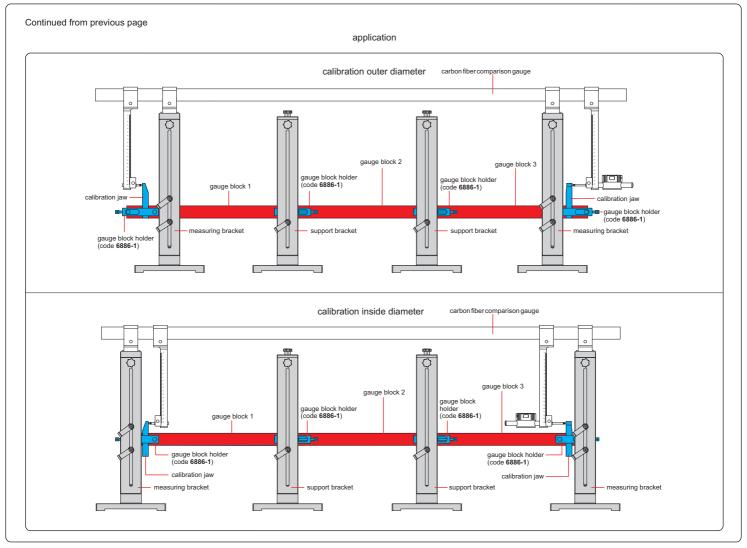
Calibration bracket (optional)

Code	Remark
2931-J□□□□	can be customized according to carbon fiber comparison gauges,in cluding 2 measuring brackets and multiple support brackets to support gauge blocks

Calibration jaw (optional, supplied in pair)

Code	Remark
2931-F	made of carbide





COMPARISON GAUGES digital indicator is optional measure external diameter 2252-110 +INSIZE+ digital indicator is optional

measure internal diameter 2252-220

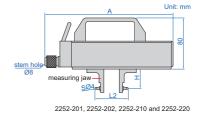
Measure external diameter, internal diameter and over-pin diameter of gears Total range of movable point: 8mm, effective range of movable point: ±2mm Optional accessory: digital indicator (code 2138-10F), gauge block grade 1

(4101-B series)

Unit: mm



CUSTOMIZABLE MEASURING JAWS AND POINTS



Measure external diameter

Code	Range of external diameter (L1)	Accuracy*	Repeatability	A	н
2252-101	25-90mm/1-3.54"	±5µm	1µm	195mm	40mm
2252-102	25-140mm/1-5.51"	±5µm	1µm	245mm	40mm
2252-110	25-90mm/1-3.54"	±5µm	2µm	195mm	70mm
2252-120	25-140mm/1-5.51"	±5µm	2µm	245mm	70mm

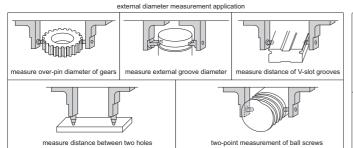
Measure internal diameter

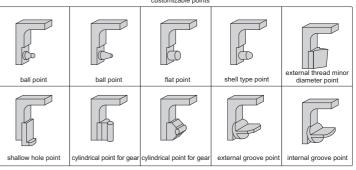
Code	Range of internal diameter (L2)	Accuracy *	Repeatability	A	н
2252-201	42-105mm/1.65-4.13"	±5µm	1µm	195mm	40mm
2252-202	42-160mm/1.65-6.30"	±5µm	1µm	245mm	40mm
2252-210	42-105mm/1.65-4.13"	±5µm	2µm	195mm	70mm
2252-220	42-160mm/1.65-6.30"	±5µm	2µm	245mm	70mm

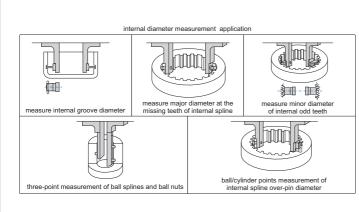
*Within ±2mm effective range

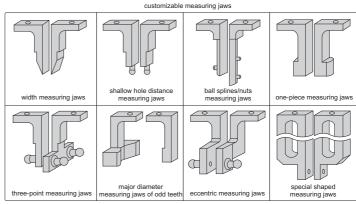


Continued from previous page









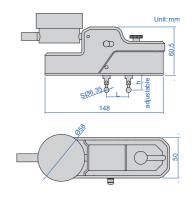
DIGITAL INTERNAL MEASURING GAUGE





- Measure internal dimensions
- Resolution: 0.001mm/0.00005"
- Accuracy: 5µm
- Repeatability: 1µm Movable point stroke: 5mm/0.02"
- Point height is adjustable, h=2-25mm
- CR2032 battery, automatic power off (time is adjustable)
- Data output





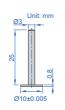
2932-451

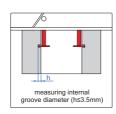
Code	Measuring range (L) *	Indicator	Data output cable (optional)
2932-451	24-50mm/0.95-2"	With transmission button and signal light; Reading in digital and analog; Display can be rotated by 320°; Button function: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement, max./min./TIR measurement, tolerance Go and No-Go display	7315-51 receiver is needed, 7302-40M

^{*} The measuring range will change accordingly for different measuring points

Disk points (optional, supplied in pair)



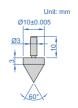


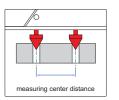


Code	Measuring range	Material
2932-S101	30-55mm/1.2-2.2"	stainless steel

Conical points (optional, supplied in pair)

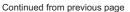




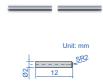


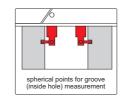
Code	Measuring range	Material
2932-S102	20-45mm/0.8-1.8"	stainless steel





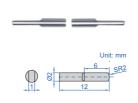
Spherical points (optional, supplied in pair)

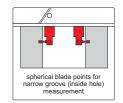




Code	Measuring range	Material
2932-S103	30-60mm/1.2-2.4"	stainless steel

Spherical blade points (optional, supplied in pair)





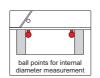
Code	Measuring range	Material
2932-S104	30-60mm/1.2-2.4"	stainless steel

Ball points (optional, supplied in pair)



1527-T104





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

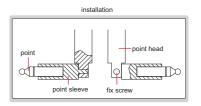
Point sleeve (optional, supplied in pair)



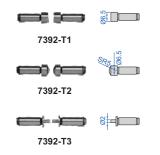
Code

1526-T101





Multifunctional points (optional, supplied in pair)





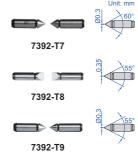




Code	Туре
7392-T4*	disk
7392-T5*	blade
7392-T6*	knife-edge



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



measuring range
80-105mm/3.2-4.2"
**After installing points and point sleeve

Screw thread points (optional, supplied in pair)

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

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





Measuring range 80-105mm/3.2-4.2"

**After installing points and point sleeve

Ball points (optional, supplied in pair)

Code	Ball dia. (D)
7391-T2*	SØ1.5mm
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



Measuring range 80-105mm/3.2-4.2"

**After installing points and point sleeve

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



DIGITAL EXTERNAL MEASURING GAUGE

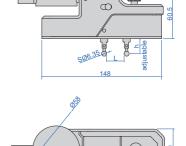




- Measure external dimensionsResolution: 0.001mm/0.00005"

- Resolution: 0.00 mm/0.00005
 Accuracy: 5µm
 Repeatability: 1µm
 Movable point stroke: 5mm/0.02"
 Point height is adjustable, h=2-25mm
 CR2032 battery, automatic power off (time is adjustable)
- Data output





DATA OUTPUT

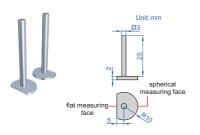
Unit: mm

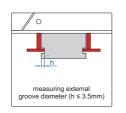
	Data output cable (optional)
ıl light;	

Code	Measuring range (L)*	Indicator	Data output cable (optional)
2934-401	13-38mm/0.51-1.5"	With transmission button and signal light; Reading in digital and analog; Display can be rotated by 320°; Button function: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement, max./min./TIR measurement, tolerance Go and No-Go display	7315-51 receiver is needed, 7302-40M

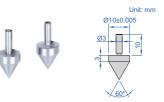
^{*}The measuring range will change accordingly for different measuring points

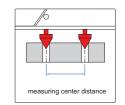
Disk points (optional, supplied in pair)





Conical points (optional, supplied in pa
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Code	Measuring range	Material
2932-S102	20-45mm/0.8-1.8"	stainless steel

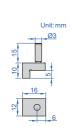
Flat shoulder points (optional, supplied in pair)

Measuring range



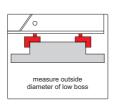
Code

2934-S101



10-35mm/0.4-1.4" stainless steel

Material

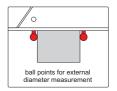


Code	Measuring range	Material
2934-S102	30-55mm/1.2-2.2"	stainless steel

Ball points (optional, supplied in pair)







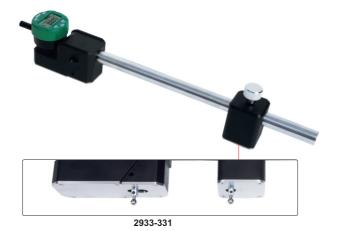
Code	Diameter (D)	Accuracy of diameter	Material
1527-T102	1/8" (Ø3.175mm)	±0.005mm	stainless steel
1527-T103	3/16" (Ø4.7625mm)	±0.005mm	stainless steel
1527-T104	1/4" (Ø6.35mm)	±0.005mm	stainless steel
1527-T105	3/8" (Ø9.525mm)	±0.005mm	stainless steel
1527-T106	1/2" (Ø12.7mm)	±0.005mm	stainless steel

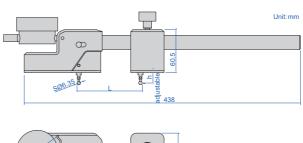


LARGE RANGE DIGITAL INTERNAL MEASURING GAUGE











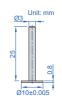
Code	Measuring range (L) *	Indicator	Data output cable (optional)
2933-331	48-330mm/1.89-13"	With transmission button and signal light; Reading in digital and analog; Display can be rotated by 320°; Button function: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement, max./min./TIR measurement, tolerance Go and No-Go display	7315-51 receiver is needed, 7302-40M

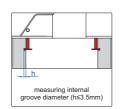
- Measure internal dimensions
- Resolution: 0.001mm/0.00005"
 Accuracy: 5µm
 Repeatability: 1µm
 Movable point stroke: 5mm/0.02"

- Point height is adjustable, h=2-25mm
- CR2032 battery, automatic power off (time is adjustable)
 Data output

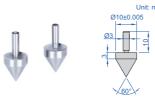
Disk points (optional, supplied in pair)

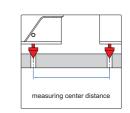






Conical po	ints (optic	onal, suppli	ed in pair)
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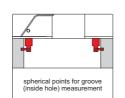


Code	Measuring range	Material
2932-S102	42-320mm/1.65-12.6"	stainless steel

2932-S101 52-330mm/2.05-13" stainless steel

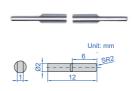
Spherical points (optional, supplied in pair)

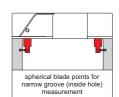




Code	Measuring range	Material
2932-S103	55-330mm/2.16-13"	stainless steel

Spherical blade points (optional, supplied in pair)





Code	Measuring range	Material
2932-S104	55-330mm/2.16-13"	stainless steel

^{*}The measuring range will change accordingly for different measuring points

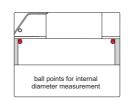


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Ball points (optional, supplied in pair)







1527-T104

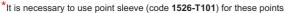
Code	Diameter (D)	Accuracy of diameter	Material
1527-T102	1/8" (Ø3.175mm)	±0.005mm	stainless steel
1527-T103	3/16" (Ø4.7625mm)	±0.005mm	stainless steel
1527-T104	1/4" (Ø6.35mm)	±0.005mm	stainless steel
1527-T105	3/8" (Ø9.525mm)	±0.005mm	stainless steel
1527-T106	1/2" (Ø12.7mm)	±0.005mm	stainless steel

Point sleeve (optional, supplied in pair) Unit: mm installation point sleeve fix screw 1526-T101

Screw thread points (optional, supplied in pair)

Internal thread (60° thread angle)

internal tilleau (ou tilleau aligie)		
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	
+		









Measuring range 100-370mm/3.94-14.5"

**After installing points and point sleeve

Multifunctional points (optional, supplied in pair)

Code	Туре
7392-T1 *	flat
7392-T2 *	spherical
7392-T3 *	spline
7392-T4 *	disk
7392-T5 *	blade
7392-T6 *	knife-edge
7392-T7 *	point
7392-T8 *	knife-edge
7392-T9 *	point
*It is necess	arv to use noi

sleeve (code **1526-T101**) for these points

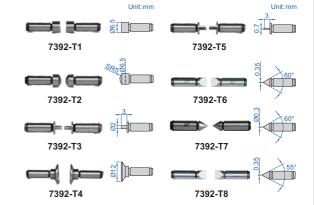


Measuring range 100-370mm/3.94-14.5" **After installing points and

point sleeve





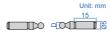


Ball points (optional, supplied in pair)

Ball dia. (D)







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

Measuring range * 100-370mm/3.94-14.5"

**After installing points and point sleeve

7391-T2 * SØ1.5mm SØ2.0mm 7391-T3 * 7391-T4* SØ2.5mm

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

Code

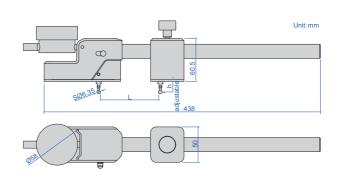


LARGE RANGE DIGITAL EXTERNAL MEASURING GAUGE









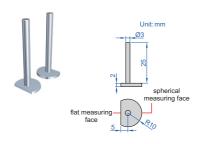
2935-321

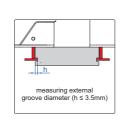
Code	Measuring range (L) *	Indicator	Data output cable (optional)
2935-321	35-320mm/1.4-12.6"	With transmission button and signal light; Reading in digital and analog; Display can be rotated by 320°; Button function: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement, max./min./TIR measurement, tolerance Go and No-Go display	7315-51 receiver is needed, 7302-40M
*The measuring range will change accordingly for different measuring points			

- Measure internal dimensions
- Resolution: 0.001mm/0.00005"

- Accuracy: 5µm
 Repeatability: 1µm
 Movable point stroke: 5mm/0.02"
 Point height is adjustable, h=2-25mm
 CR2032 battery, automatic power off (time is adjustable)
- Data output

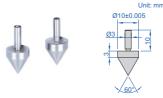
Disk points (optional, supplied in pair)

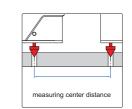




Code	Measuring range	Material
2934-S101	32-320mm/1.26-12.6"	stainless steel

Conical points (optional, supplied in pair)

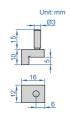


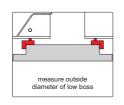


Code	Measuring range	Material
2932-S102	42-320mm/1.65-12.6"	stainless steel

Flat shoulder points (optional, supplied in pair)

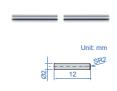


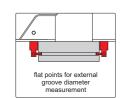




Code	Measuring range	Material
2934-S102	52-320mm/2.05-12.6"	stainless steel

Spherical points (optional, supplied in pair)





Code	Measuring range	Material
2932-S103	30-320mm/1.2-12.6"	stainless steel

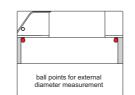


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Ball points (optional, supplied in pair)





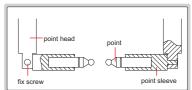


Code	Diameter (D)	Accuracy of diameter	Material
1527-T102	1/8" (Ø3.175mm)	±0.005mm	stainless steel
1527-T103	3/16" (Ø4.7625mm)	±0.005mm	stainless steel
1527-T104	1/4" (Ø6.35mm)	±0.005mm	stainless steel
1527-T105	3/8" (Ø9.525mm)	±0.005mm	stainless steel
1527-T106	1/2" (Ø12.7mm)	±0.005mm	stainless steel

Unit: mm

Point sleeve (optional, supplied in pair) Unit: mm

Code 1526-T101



Screw thread points (optional, supplied in pair)

Internal thread (60° thread angle)

internal tineda (ee tineda diigie)		
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

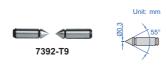


Measuring range *0-300mm/0-11.8"

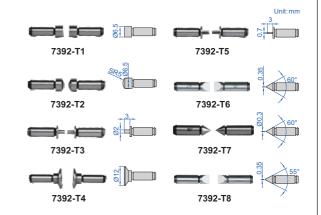
Multifunctional points (optional, supplied in pair)

Code	Туре
7392-T1 *	flat
7392-T2 *	spherical
7392-T3 *	spline
7392-T4 *	disk
7392-T5 *	blade
7392-T6 *	knife-edge
7392-T7 *	point
7392-T8 *	knife-edge
7392-T9 *	point
*	

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



Measuring range ***
0-300mm/0-11.8"



Ball points (optional, supplied in pair)



Ball dia. (D)

Code	Ball dia. (D)
7391-T5 *	SØ3.0mm
7391-T6 *	SØ3.5mm
7391-T7 *	SØ4.0mm

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

Unit: mm

Measuring range ***
0-300mm/0-11.8"

**After installing points and point sleeve

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

^{**}After installing points and point sleeve

^{**}After installing points and point sleeve

Code
 Ball dia. (D)

 7391-T2 *
 SØ1.5mm

 7391-T3 *
 SØ2.0mm

 7391-T4 *
 SØ2.5mm



HIGH PRECISION DIGITAL MICROMETER/SNAP GAUGE

NON-ROTATING

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

INSPECTION CERTIFICATE



IP65 WATERPROO MEASUREMENT ACCURACY IS NOT AFFECTED BY THE USE OF SLEEVE ABSOLUTE ENCODER, THE ORIGINAL DATA REMAINS AFTER POWER OFF

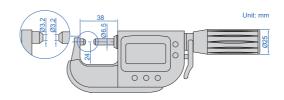
ATTENTION: RECHARGEABLE BATTERY, FOR 24 HOURS CONTINUOUS WORKING

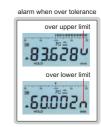


- Absolute encoder, the original data remains after power off
- Accuracy: ±0.5µm, repeatability: 0.3µm Resolution: 0.0001mm/0.00001"
- One turn of sleeve makes 10mm spindle feed
- Measurement accuracy is not affected by the use of sleeve
- Press the fork, the spindle retracts 3mm
- Carbide spindle and anvil
- Measuring force 5-10N
- Button function: data output, tolerance, data preset, data hold, measuring direction change, max./min./TIR, power off time, on/off, zero, mm/inch
- Power: rechargeable battery, for 24 hours continuous working



3359-25





With data interface

Optional accessory:

wireless transmitter, code 7315-3350 receiver is needed data output cable (keyboard format), code 7302-3350

Code	Range	Measu	ring faces	
Code	Range	flatness	parallelism	
3359-25*	0-25mm/0-1"	0.3µm	0.6µm	

^{*}Supplied with manufacturer inspection certificate

DIGITAL MICROMETERS/SNAP GAUGES (BASIC TYPE)



DATA OUTPUT SPINDLE

ONE TURN OF SLEEVE MAKES 10MM SPINDLE FEED,

ATTENTION: RECHARGEABLE BATTERY, FOR 24 HOURS CONTINUOUS WORKING









NON-ROTATING

IP65

WATERPROOF

PRESS THE FORK, THE SPINDLE RETRACTS 3MM

MEASUREMENT ACCURACY IS NOT

AFFECTED BY THE USE OF SLEEVE



Resolution: 0.001mm/0.00005"

One turn of sleeve makes 10mm spindle feed

Measurement accuracy is not affected by the use of sleeve

Press the fork, the spindle retracts 3mm

Carbide spindle and anvil

Measuring force 5-10N

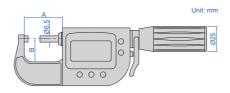
Button function: data output, tolerance, data preset, data hold, measuring direction change, max./min./TIR, power off time, on/off, zero, mm/inch

Supplied with gauge blocks for zero setting (except 0-25mm/0-1")

Power: rechargeable battery, for 24 hours continuous working



3358-25



With data interface

Optional accessory:

wireless transmitter, code 7315-3350 receiver is needed data output cable (keyboard format), code 7302-3350

0.4.	B		Daniel de la Ultra	Measu	ring faces		_
Code	Range	Accuracy	Repeatability	flatness	parallelism	Α	В
3358-25 *	0-25mm/0-1"	2µm	1µm	0.5µm	1.2µm	38mm	24mm
3358-50 *	25-50mm/1-2"	2µm	1µm	0.5µm	1.2µm	64mm	32.5mm
3358-75 *	50-75mm/2-3"	3µm	1µm	0.5µm	1.8µm	89mm	46mm
3358-100 *	75-100mm/3-4"	3µm	1µm	0.5µm	1.8µm	114mm	60mm

^{*}Supplied with manufacturer inspection certificate







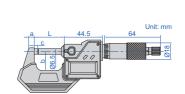




WATERPROOF DIGITAL OUTSIDE MICROMETERS (WITH DATA OUTPUT)

- 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 7315-31 receiver is needed, 7302-31)





INSPECTION CERTIFICATE

POPULAR

MODEL

IP65

3101-25A (mm)

Code	Range	Accuracy	L	а	b	С
3101-25A*	0-25mm/0-1"	±2µm	34.5	6	25	3
3101-50A*	25-50mm/1-2"	±2µm	59.5	8	32	3
3101-75A*	50-75mm/2-3"	±3µm	84.5	8	44.5	3
3101-100A*	75-100mm/3-4"	±3µm	109.5	8	57	3

^{*}Supplied with manufacturer inspection certificate



INSPECTION CERTIFICATE

WATERPROOF DIGITAL OUTSIDE MICROMETERS (WITHOUT DATA OUTPUT)

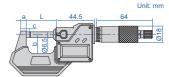
- Resolution 0.001mm/0.00005"
- IP65 dust/waterproof
- Button function: on/off, set, mm/inch, ABS/INC
- No data output
- Automatic power off
- Carbide measuring faces
- Ratchet stop
- Supplied with spherical anvil
- Setting standards are included (except 0-25mm/0-1")





IP65

WATERPROOF



ATTENTION: NO

DATA OUTPUT

ATTENTION: NO

DATA OUTPUT



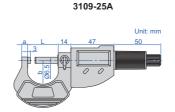
DIGITAL OUTSIDE MICROMETERS (BASIC TYPE, WITHOUT DATA OUTPUT)

- 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")

					()
Code	Range	Accuracy	L	а	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
3109-175A	150-175mm/6-7"	±4µm	182	21	104
3109-200A	175-200mm/7-8"	±4µm	207	21	117
.					

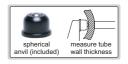
^{*}Supplied with manufacturer inspection certificate







INSPECTION CERTIFICATE





⁽mm) Code Range Accuracy а 3108-25A* 0-25mm/0-1" 34.5 6 25 3 3108-50A 25-50mm/1-2" $\pm 2\mu m$ 8 32 3 3108-75A* 50-75mm/2-3" ±3µm 84.5 8 44.5 3 75-100mm/3-4" 3 3108-100A ±3µm 109.5 8 57 3108-125A 100-125mm/4-5" ±3µm 135 10 70 3 125-150mm/5-6" 10 3 3108-150A ±3µm 160.5 82 3108-175A 150-175mm/6-7" ±4µm 186 12 94.5 5.5 3108-200A 175-200mm/7-8" 211.5 12 107 5.5 ±4µm

^{*}Supplied with manufacturer inspection certificate



OUTSIDE MICROMETERS



3203-25A

- Graduation: metric 0.01mm 0.0001' inch
- Carbide measuring faces
- Meet DIN863-1

Code 3203-25A*

3203-50A

3203-75A*

3203-100A*

3203-125A

3203-150A

3203-175A

3203-200A

3203-225A

3203-250A

3203-275A

3203-300A

Supplied with setting standards (except 0-25mm and 0-1")

0-25mm

25-50mm

50-75mm

75-100mm

100-125mm

125-150mm

150-175mm

175-200mm

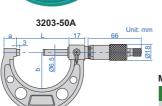
200-225mm

225-250mm

250-275mm

275-300mm

Metric (ratchet stop type)



(mm)

28

38

49

60

73

85

104

117

130

142

155

168

9

14

15

15

16.5

16.5

19.4

19.4

19.4

19.4

19.4

19.4









3203-3006A

Metric micrometer set (ratchet stop type)

POPULAF MODEL

Code	Range	Micrometers Included	Packaging
3203-753A*	0-75mm	3203-25A, 3203-50A, 3203-75A	blow mould case
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
3203-3012A	0-300mm	3203-25A, 3203-50A, 3203-75A, 3203-100A, 3203-125A, 3203-150A 3203-175A, 3203-200A, 3203-225A, 3203-250A, 3203-275A, 3203-300A	aluminum box

Inch (ratchet stop type)

Code	Range	Accuracy	L	а	b
		Accuracy		а	
3203-1A*	0-1"	±0.0001"	1.260"	0.354"	1.102"
3203-2A *	1-2"	±0.0001"	2.244"	0.551"	1.496"
3203-3A*	2-3"	±0.0001"	3.228"	0.591"	1.929"
3203-4A *	3-4"	±0.00015"	4.213"	0.591"	2.362"
3203-5A *	4-5"	±0.00015"	5.236"	0.650"	2.874"
3203-6A *	5-6"	±0.00015"	6.220"	0.650"	3.346"
3203-7A	6-7"	±0.0002"	7.205"	0.764"	4.094"
3203-8A	7-8"	±0.0002"	8.228"	0.764"	4.606"
3203-9A	8-9"	±0.0002"	9.213"	0.764"	5.118"
3203-10A	9-10"	±0.00025"	10.236"	0.764"	5.591"
3203-11A	10-11"	±0.00025"	11.220"	0.764"	6.102"
3203-12A	11-12"	±0.00025"	12.205"	0.764"	6.614"

Accuracy

±2µm

±2µm

±2µm

±3µm

±3µm

±3µm

±4µm

±4µm

±4µm

±5µm

±5µm

±5µm

32

57

82

107

133

158

183

209

234

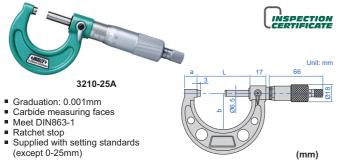
260

285

310

nch micrometer set (ratchet stop type)					
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		
3203-126A	6-12"	3203-7A, 3203-8A, 3203-9A, 3203-10A, 3203-11A, 3203-12A	aluminum box		
3203-1212A	0-12"	3203-1A, 3203-2A, 3203-3A, 3203-4A, 3203-5A, 3203-6A, 3203-7A, 3203-8A, 3203-9A, 3203-10A, 3203-11A, 3203-12A	aluminum box		

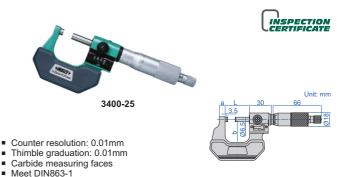
1µm GRADUATION OUTSIDE MICROMETERS



Code	Range	Accuracy	L	а	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

*Supplied with manufacturer inspection certificate

OUTSIDE MICROMETER WITH COUNTER



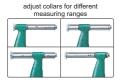
- Ratchet stop

Code	Range	Accuracy	L	а	b
3400-25 *	0-25mm	4µm	32mm	6mm	26mm

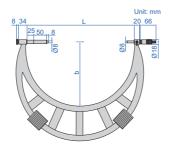
^{*}Supplied with manufacturer inspection certificate

^{*}Supplied with manufacturer inspection certificate

OUTSIDE MICROMETERS WITH EXTENSION ANVIL COLLAR



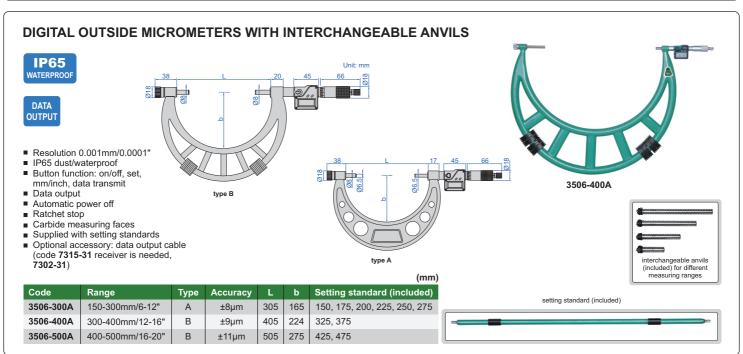
- Graduation: 0.01mm
- Adjust collars for different measuring ranges
- Ratchet stop
- Carbide measuring facesSupplied with setting standards



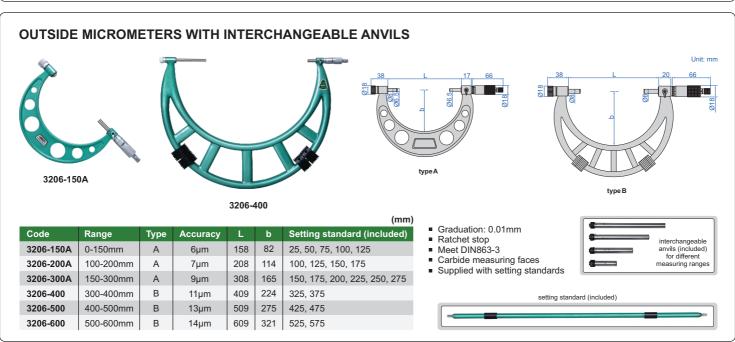


setting standard (included)

					()
Code	Range	Accuracy	L	b	Setting standard (included)
3205-400	300-400mm	11µm	410	250	325, 375
3205-500	400-500mm	13µm	510	295	425, 475
3205-600	500-600mm	14µm	610	345	525, 575
3203-000	300-00011111	ιτμιιι	010	040	323, 373



(mm)





Unit: mm

50

INDICATING MICROMETER

■ Meet DIN863-3

- Dial indicator: range ±0.04mm,
- Graduation 0.001mm, accuracy 0.001mm
- Carbide measuring faces
- Optional accessory: gauge blocks grade 0 (4101-A series), for zero setting

Code	Micrometer head range	Micrometer head accuracy	Micrometer head graduation
3332-25	0-25mm	4µm	0.002mm

ATTENTION: SETTING STANDARDS ARE NOT INCLUDED



3332-25

3-WIRES



CUSTOMIZABLE DIAMETER Ød





- Ød≤0.3mm, made of alloy steel, hardness HRC60; Ød>0.3mm, made of carbide, hardness HRA90
- Diameter accuracy: ±0.5µm
- Cylindricity: ±0.5µm
- Supplied with manufacturer inspection certificate



2.5mm

3.0mm

3.5mm

4mm, 4.5mm

5mm, 5.5mm, 6mm

1.350mm

1.650mm

2.050mm

2.550mm

3 200mm

7394-77A *Made of alloy steel

7394-73A

7394-74A

7394-75A

7394-76A

SCREW THREAD MICROMETER

NON-ROTATING **SPINDLE**

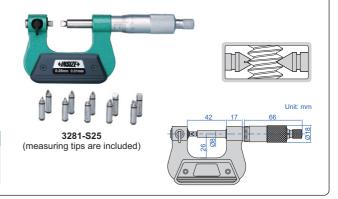
- Measure pitch diameter of screw threads
- Graduation 0.01mm
- Non-rotating spindle
- Ratchet stop
- Optional accessary: 55° setting standards

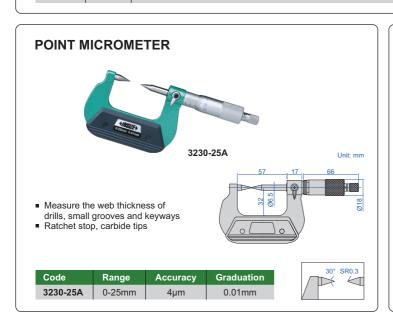
55°	E 55°
55° setting stan	dards (optional)

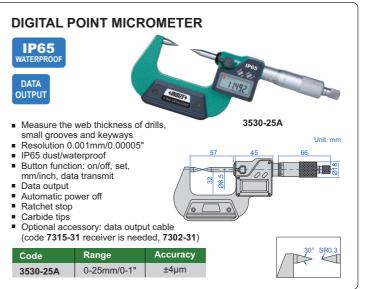
accuracy of	micr	ome	ters	with	tips

Disab	Range		
Pitch	0-25mm		
0.4~0.5mm	±0.01mm		

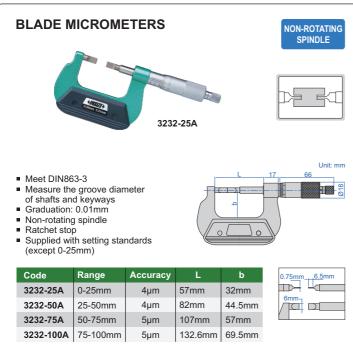
Code	Range	Measuring tips (included)
3281-S25	0-25mm	6 pairs of measuring tips: metric and unified thread (60° thread angle) 0.4-0.5mm/64-48TPI, 0.6-0.9mm/44-28TPI, 1-1.75mm/24-14TPI, 2-3mm/13-9TPI, 3.5-5mm/8-5TPI, 5.5-7mm/4.5-3.5TPI

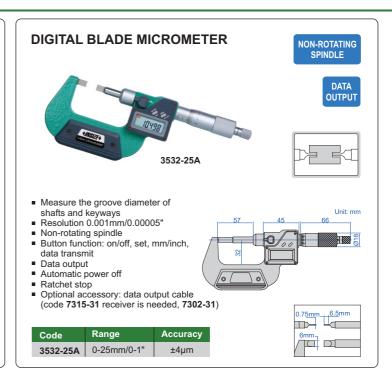


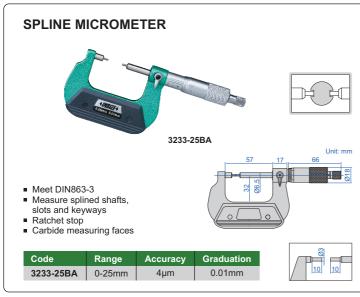


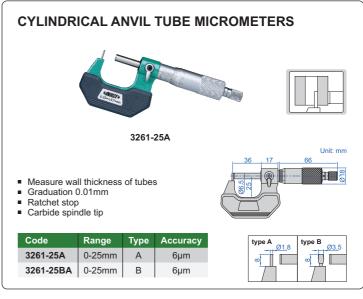


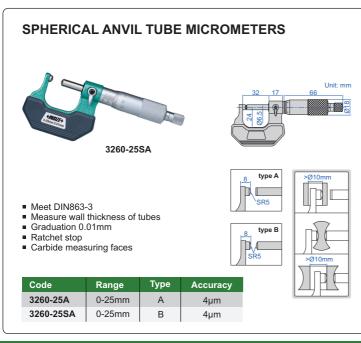


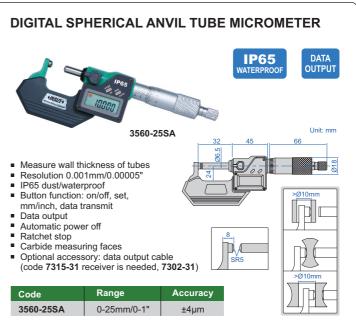




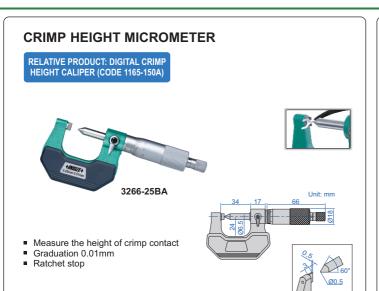












Range

JAW TYPE MICROMETER

Non-rotating spindle

Range

0-25mm

Ratchet stop

3283-25A

Code

3283-25A

Accuracy

4µm

Graduation

0.01mm

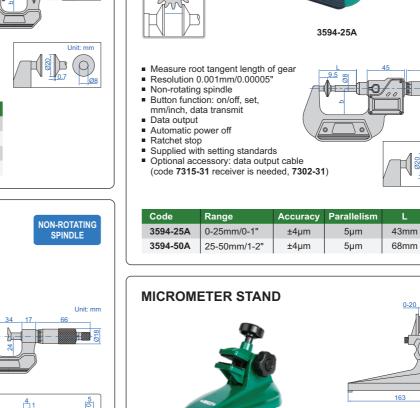
Accuracy

4µm

DIGITAL CRIMP HEIGHT MICROMETER DATA RELATIVE PRODUCT: DIGITAL CRIMP IP65 OUTPUT **HEIGHT CALIPER (CODE 1165-150A)** WATERPROOF 3566-25BA Unit: mm Measure the height of crimp contactResolution 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 7315-31 receiver is needed, 7302-31) \<u>Ø0.5</u> **3566-25BA** 0-25mm/0-1" ±4µm

DIGITAL NON-ROTATING SPINDLE DISK





Code

6301

MICROMETERS

NON-ROTATING

SPINDLE

DATA

OUTPU1

1 8

Unit: mm

Ω,

b

32mm

44.5mm

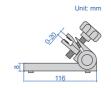
Unit: mm

0-20



MICROMETER STAND





6300

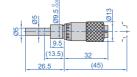
 Suitable for outside micrometers up to 100mm

Code 6300



MICROMETER HEAD





- Meet DIN863-2
- Graduation 0.01mm

Code	Range	Stem	Spindle tip	Accuracy	
6386-13W	0-13mm	plain	flat	3µm	

MICROMETER HEAD



Unit: mm

- Meet DIN863-2
- Graduation 0.01mm
- Accuracy 3µm

Code	Range	Stem	Spindle tip		
6387-15W	0-15mm	plain	flat		

DIGITAL INSIDE MICROMETER (ECONOMIC TYPE)



- 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 7315-31 receiver is needed, 7302-31)





Code Range		Setting ring	Accuracy	Resolution	
3520-30	5-30mm/0.2-1.2"	5mm	±5µm	0.001mm/0.00005"	

MICROMETER SETTING STANDARDS





(mm)

6310-100

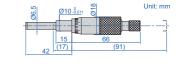
C240.2E			
6310-25	25	±1.5μm	Ø7
6310-50	50	±2µm	Ø7
6310-75	75	±2.5μm	Ø7
6310-100	100	±3µm	Ø8

MICROMETER HEAD



6381-25W

- Meet DIN863-2
- Graduation 0.01mm
- Ratchet stop

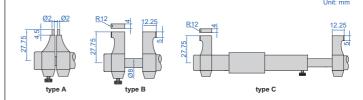


Code	ode Range		Spindle tip	Accuracy
6381-25W	0-25mm	plain	flat (carbide)	3µm

INSIDE MICROMETERS (ECONOMIC TYPE)

ATTENTION: LOW PARALLELISM OF TWO MEASURING FACES





micrometer stand with clamp (optional)

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



Code	Range	Type	Setting ring	Accuracy
3220-30	5-30mm	Α	5mm (included)	7µm
3220-50	25-50mm	В	25mm (included)	8µm
3220-75	50-75mm	В	50mm (optional)	9µm
3220-100	75-100mm	С	75mm (optional)	10µm



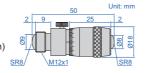
TUBULAR INSIDE MICROMETERS



3222-150

- Micrometer head: 50-63mmTravel 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

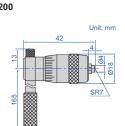


Code	Range	Extension rods		
3222-150	50-150mm	13mm, 25mm, 50mm		
3222-300	50-300mm	13mm, 25mm, 50mm (2 pcs), 100mm		
3222-500	50-500mm	13mm, 25mm, 50mm (2 pcs), 100mm, 200mm		
3222-600	50-600mm	13mm, 25mm, 50mm, 100mm, 150mm, 200mm		
3222-1000 50-1000mm		13mm, 25mm, 50mm (2 pcs), 100mm, 200mm (2 pcs),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

TUBULAR INSIDE MICROMETERS







- Graduation: 0.01mm

■ Accuracy: (6+L/50)µm

L=maximum measuring length (mm)

Optional accessary: setting ring (code 6312), gauge block accessory (code 6881), cylinder gauge block (code 4001), caliper/height gauge checker (code 6884)

Code	Range	Travel of micrometer head	Extension rods		
3221-200	50-200mm	13mm	6 pcs		
3221-300	50-300mm	13mm	10 pcs		

THREE POINTS INTERNAL **MICROMETERS**



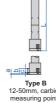
- Meet DIN863-4
- 6-12mm: graduation 0.001mm, 12-100mm: graduation 0.005mm
- Ratchet stop
- Optional accessory: micrometer stand and clamp (code 6301 and 6301-2)



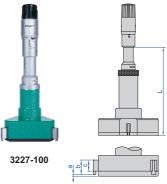
3227-8



3227-16







Type C 50-100mm, carbide measuring points three points

Individual

Individual	ndividual (mm)							(mm)	
Code	Range	Туре	Accuracy	Setting ring (included)	Extension rod (included)	L	а	b	С
3227-8 *	6-8mm	Α	4µm	Ø6	100	54.5	1.5	2.5	_
3227-10 [*]	8-10mm	Α	4µm	Ø8	100	54.5	1.5	2.5	-
3227-12 *	10-12mm	Α	4µm	Ø10	100	54.5	1.5	2.5	_
3227-16 [*]	12-16mm	В	4µm	Ø16	150	80	0.5	6	4.5
3227-20 [*]	16-20mm	В	4µm	Ø16	150	80	0.5	6	4.5
3227-25 [*]	20-25mm	В	4µm	Ø25	150	90	0.5	8	6
3227-30 *	25-30mm	В	4µm	Ø25	150	90	0.5	8	6
3227-40*	30-40mm	В	4µm	Ø40	150	97	0.5	14	12
3227-50 *	40-50mm	В	5µm	Ø40	150	97	0.5	14	12
3227-63 [*]	50-63mm	С	5µm	Ø62	150	114	0.5	17.5	14.5
3227-75*	62-75mm	С	5µm	Ø62	150	114	0.5	17.5	14.5
3227-88 *	75-88mm	С	5µm	Ø87	150	114	0.5	17.5	14.5
3227-100*	87-100mm	С	5µm	Ø87	150	114	0.5	17.5	14.5



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





micrometer stand with clamp (optional)





3227-504



DIGITAL THREE POINTS INTERNAL MICROMETERS



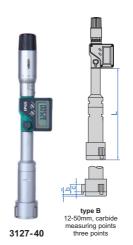


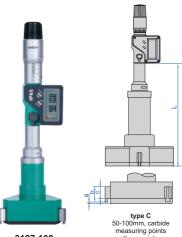




- IP65 dust/waterproof Buttons: on/off, set, mm/inch, data transmit
- Data output
- Automatic power off
- Ratchet stop
- Optional accessary: data output cable (code 7315-31 receiver is needed, 7302-31), micrometer stand and clamp (code 6301 and 6301-2)







3127-100 three points

	iν			

Set Code 3127-123 * 3127-202 *

3127-504*

Individual									(mm)
Code	Range	Туре	Accuracy	Setting ring	Extension rod (included)	L	а	b	С
3127-8*	6-8mm/0.24-0.31"	А	4µm	Ø6 (included)	100	57	1.5	2.5	_
3127-10*	8-10mm/0.31-0.39"	А	4µm	Ø8 (included)	100	57	1.5	2.5	_
3127-12 [*]	10-12mm/0.39-0.47"	А	4µm	Ø10 (included)	100	57	1.5	2.5	_
3127-16*	12-16mm/0.47-0.63"	В	4µm	Ø16 (included)	150	99	0.5	6	4.5
3127-20*	16-20mm/0.63-0.79"	В	4µm	Ø16 (included)	150	99	0.5	6	4.5
3127-25*	20-25mm/0.79-0.98"	В	4µm	Ø25 (included)	150	105	0.5	8	6
3127-30*	25-30mm/0.98-1.18"	В	4µm	Ø25 (included)	150	105	0.5	8	6
3127-40*	30-40mm/1.18-1.57"	В	4µm	Ø40 (included)	150	110	0.5	14	12
3127-50*	40-50mm/1.57-1.97"	В	5µm	Ø40 (included)	150	110	0.5	14	12
3127-63*	50-63mm/1.97-2.48"	С	5µm	Ø62 (included)	150	127	0.5	17.5	14.5
3127-75*	62-75mm/2.44-2.95"	С	5µm	Ø62 (included)	150	127	0.5	17.5	14.5
3127-88*	75-88mm/2.95-3.46"	С	5µm	Ø87 (included)	150	127	0.5	17.5	14.5
3127-100*	87-100mm/3.43-3.94"	С	5µm	Ø87 (included)	150	127	0.5	17.5	14.5

20-25mm, 25-30mm, 30-40mm, 40-50mm

50-100mm/1.97-3.94" | 50-63mm, 62-75mm, 75-88mm, 87-100mm | Ø62mm, Ø87mm



setting ring (included)





Range	Micrometers included	Setting ring (included)	Extension rod (included)
6-12mm/0.24-0.47"	6-8mm, 8-10mm, 10-12mm	Ø6mm, Ø8mm, Ø10mm	100mm
12-20mm/0.47-0.79"	12-16mm, 16-20mm	Ø16mm	150mm

Ø25mm, Ø40mm

20-50mm/0.79-1.97"



3127-202

150mm

150mm

PISTOL GRIP THREE POINTS BORE GAUGES INSPECTION CERTIFICATE Unit: mm hole 3 type A 6-12mm, steel stem b digital indicator is optional measuring points 2124-8 type B 12-50mm, carbide digital indicator is optional digital indicator measuring points type C 50-100mm, carbide measuring points is optional 2124-25 2124-100 To be continued

^{*}Supplied with manufacturer inspection certificate



Continued from previous page

Individual

Accuracy (without digital indicator) Setting ring (included) Extension rod Code Range Туре h c (included) 2124-8 * Ø6mm 50 2.5 6-8mm Α 100mm 1.5 4µm 2124-10 * 8-10mm 100mm 50 2.5 Α 4µm Ø8mm 1.5 2124-12* 10-12mm Α Ø10mm 100mm 50 1.5 2.5 4µm 2124-16 * 150mm 12-16mm R Ø16mm 65 0.5 45 4µm 6 2124-20 * 150mm 16-20mm В 65 0.5 6 4.5 $4\mu m$ Ø16mm 2124-25 * 20-25mm В Ø25mm 91 0.5 4µm 150mm 8 6 2124-30 * 91 0.5 6 25-30mm В $4\mu m$ Ø25mm 150mm 8 2124-40 * 30-40mm В 4µm Ø40mm 150mm 97 0.5 14 12 2124-50 * 40-50mm В 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 * С 62-75mm 5µm Ø62mm 150mm 112 0.5 17.5 14.5 2124-88 * 75-88mm С 5µm Ø87mm 150mm 112 0.5 17.5 14.5 2124-100 * 87-100mm С 5µm Ø87mm 150mm 112 0.5 17.5 14.5 Optional accessory: digital indicators (code **2103-10F**, resolution 0.001mm/0.00005"), setting rings (code 6312)

(mm)

setting ring (included)



extension rod (included)



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

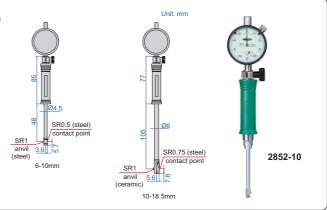
BORE GAUGES FOR SMALL HOLES (WITH DIAL INDICATOR)

ATTENTION: NOT SUITABLE FOR 0.001MM DIAL INDICATORS

- Accuracy: ±0.012mm
- Repeatability: 0.003mm
- Optional accessory: setting ring (code 6312), bore gauge setter

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





BORE GAUGES (WITH DIAL INDICATOR)

ATTENTION: NOT SUITABLE FOR 0.001MM DIAL INDICATORS





(mm)

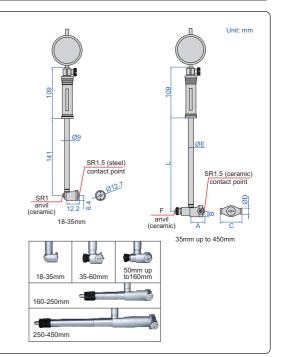
- Repeatability: 0.003mm
- Optional accessory: setting ring (code 6312), long handle (code 7351), bore gauge setter

							(,
Range	Α	В	С	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
160-250mm	56.5	13	74.5	15	14.5	SR2	241
250-450mm	86.5	15	101.5	15	14.5	SR2.5	241

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







^{*}Supplied with manufacturer inspection certificate



BORE GAUGE SETS (WITH DIAL INDICATOR)

ATTENTION: NOT SUITABLE FOR 0.001MM DIAL INDICATORS

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





Code	Range	Indicator	Bore gauges included	Accuracy
2824-S160	35-160mm	dial indicator,	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	code 2308-10FA , range 10mm, graduation 0.01mm	18-35mm 35-60mm (dial indicator is not included) 50-160mm (dial indicator is not included)	18-35mm ±0.015mm 35-60mm ±0.018mm 50-160mm ±0.018mm



ANVILS FOR BORE GAUGES

For bore gauges 2852, 2152, 2322, 2122, 2127, 2724, 2825, 2126, 2824, 2853, 2153 and 2827

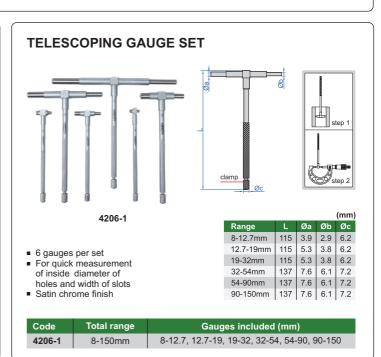


Code	Applicable bore gauges	Material of measuring face	Quantity per set	Measuring range of anvil (mm)
7350-10	6-10mm	steel	9 pcs	6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10
7350-18	10-18.5mm	ceramic	9 pcs	10, 11, 12, 13, 14, 15, 16, 17, 18
7350-35	18-35mm	ceramic	9 pcs	18, 20, 22, 24, 26, 28, 30, 32, 34
7350-60	35-60mm	ceramic	6 pcs	35, 40, 45, 50, 55, 60
7350-160	50-160mm	ceramic	12 pcs	50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105

BORE GAUGE SETTER application Vertical and horizontal use ■ To be used with gauge blocks With gauge block set 7353-160 horizontal use Repeatability Code Range 7353-160 0-160mm 1.2µm Gauge block set for 7353-160 Blocks per set Size (mm) gauge blocks (included) 1.005 1 pc 1.01-1.09 0.01 0.1 9 pcs 9 pcs 1.1-1.9 1-9 10-30 grade 2 (ISO3650) 9 pcs 3 pcs 1 pc 33 10 50 100

Code 4208-1

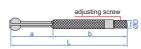
3-13mm





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

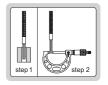
				(mm)
Range	L	а	b	ØD
3-5mm	76	24	52	5
5-7.5mm	79	27	52	5
7.5-10mm	88	30	58	6
10-13mm	91	34	58	6



tal	range		Gauges included	
		L		

3-5mm, 5-7.5mm, 7.5-10mm, 10-13mm





4208-1



DIAMETER METERS

- Measure diameter of pipes, trees, tires, etc.
- Made of stainless steel





Standard type

Code	Diameter range	Graduation	Accuracy
7135-35 *	Ø20-35mm	0.05mm	±0.05mm
7135-55 *	Ø30-55mm	0.05mm	±0.05mm
7135-125	Ø50-125mm	0.01mm	±0.05mm
7135-225	Ø100-225mm	0.01mm	±0.05mm
7135-375	Ø200-375mm	0.01mm	±0.05mm
7135-525	Ø350-525mm	0.01mm	±0.05mm
7135-725	Ø500-725mm	0.01mm	±0.06mm
7135-925	Ø700-925mm	0.01mm	±0.06mm
7135-1125	Ø900-1125mm	0.02mm	±0.06mm
7135-1325	Ø1100-1325mm	0.02mm	±0.08mm
7135-1525	Ø1300-1525mm	0.02mm	±0.08mm
7135-1725	Ø1500-1725mm	0.02mm	±0.08mm
7135-1925	Ø1700-1925mm	0.02mm	±0.08mm
7135-2125	Ø1900-2125mm	0.02mm	±0.08mm
7135-2325	Ø2100-2325mm	0.02mm	±0.10mm
7135-2525	Ø2300-2525mm	0.02mm	±0.10mm
7135-2750	Ø2500-2750mm	0.02mm	±0.10mm
7135-3000	Ø2750-3000mm	0.02mm	±0.10mm
7135-3250	Ø3000-3250mm	0.02mm	±0.15mm
7135-3500	Ø3250-3500mm	0.02mm	±0.15mm

^{*} The thickness of code **7135-35** and **7135-55** is 0.10mm, while the thickness of other codes is 0.25mm

7135-525

Code	Diameter range	Graduation	Accuracy	
7135-3750	Ø3500-3750mm	0.02mm	±0.15mm	
7135-4000	135-4000 Ø3750-4000mm		±0.20mm	
7135-4250	Ø4000-4250mm	0.02mm	±0.20mm	
7135-4500	Ø4250-4500mm	0.02mm	±0.20mm	
7135-4750	Ø4500-4750mm	0.02mm	±0.20mm	
7135-5000	Ø4750-5000mm	0.02mm	±0.20mm	
7135-5250	Ø5000-5250mm	0.02mm	±0.005%L**	
7135-5500	Ø5250-5500mm	0.02mm	±0.005%L**	
7135-5750	Ø5500-5750mm	0.02mm	±0.005%L**	
7135-6000	Ø5750-6000mm	0.02mm	±0.005%L**	
7135-6250	Ø6000-6250mm	0.02mm	±0.005%L**	
7135-6500	Ø6250-6500mm	0.02mm	±0.005%L**	
7135-6750	Ø6500-6750mm	0.02mm	±0.005%L**	
7135-7000	Ø6750-7000mm	0.02mm	±0.005%L**	
7135-7250	Ø7000-7250mm	0.02mm	±0.005%L**	
7135-7500	Ø7250-7500mm	0.02mm	±0.005%L**	
7135-7750	Ø7500-7750mm	0.02mm	±0.005%L**	
7135-8000	Ø7750-8000mm	0.02mm	±0.005%L**	
7135-8250	Ø8000-8250mm	0.02mm	±0.005%L**	

^{**} L is the actual measured value (unit: mm)

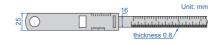
CIRCUMFERENCE METERS (ECONOMIC TYPE)

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

Code	Code Circumference		Accuracy		
Code	range	range	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	



7114-950



thickness 0.25 Unit: mm



CIRCUMFERENCE METERS

- Measure diameter and circumference of pipes, trees, tires, etc.
- Made of stainless steel

Code	Circumference	Diameter range	Cuaduatian	Accuracy		
Code	range	Diameter range	Graduation	circumference	diameter	
7136-940	160-940mm	Ø50-300mm	0.1mm	±0.30mm	±0.10mm	
7136-1880	940-1880mm	Ø300-600mm	0.1mm	±0.30mm	±0.10mm	
7136-2830	1880-2830mm	Ø600-900mm	0.1mm	±0.30mm	±0.10mm	
7136-3770	2830-3770mm	Ø900-1200mm	0.1mm	±0.30mm	±0.10mm	
7136-4710	3770-4710mm	Ø1200-1500mm	0.1mm	±0.30mm	±0.10mm	
7136-5650	4710-5650mm	Ø1500-1800mm	0.1mm	±0.30mm	±0.10mm	
7136-6600	5650-6600mm	Ø1800-2100mm	0.1mm	±0.30mm	±0.10mm	
7136-7540	6600-7540mm	Ø2100-2400mm	0.1mm	±0.30mm	±0.10mm	
7136-8480	7540-8480mm	Ø2400-2700mm	0.1mm	±0.30mm	±0.10mm	
7136-9430	8480-9430mm	Ø2700-3000mm	0.1mm	±0.30mm	±0.10mm	

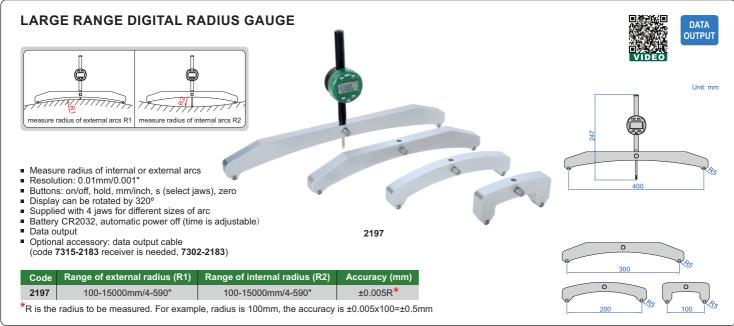


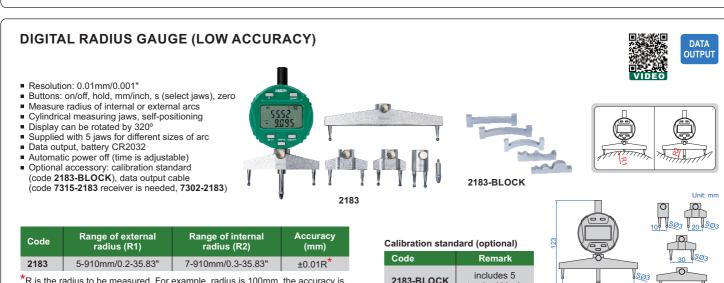


7136-1880



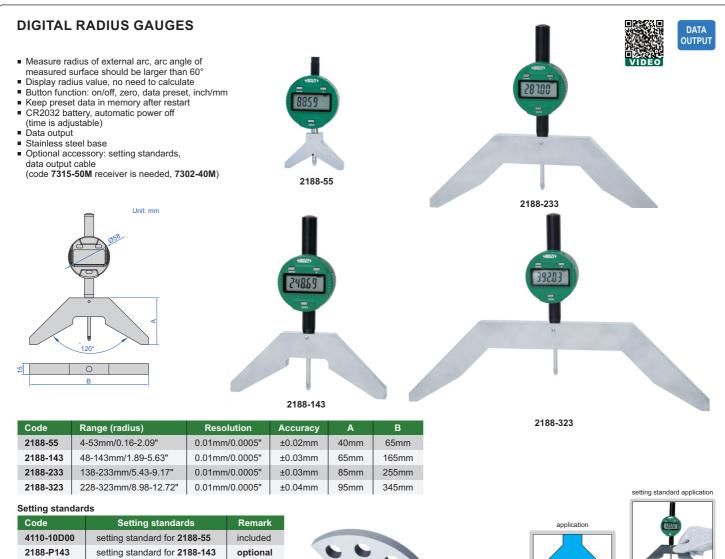












2188-P143

DIGITAL RADIUS CALIPERS

setting standard for 2188-233

setting standard for 2188-323

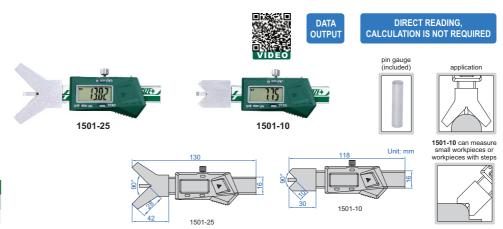
Non waterproof

2188-P233

2188-P323

- Measure radius of external arc, arc angle of measured surface should be larger than 90° 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
- Supplied with pin gauge for zero setting
- Dptional accessory: data output cable (code 7315-21 receiver is needed, 7302-21)

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



CHAMFER GAUGE

- Accuracy: ±0.25mm
- To measure internal and external chamfers
- Made of stainless steel

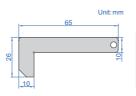
Code	Graduation
4844-1	0.5mm



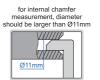
optional

optional

optional











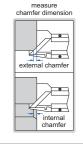
CHAMFER GAUGES

- Measure 30°/45°/60° 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	45°	7mm
1267-63	0-10mm	30°	8mm
1267-66	0-10mm	60°	7mm







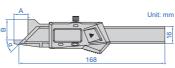
DATA OUTPUT

DIGITAL CHAMFER GAUGES

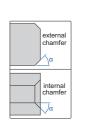
- Non waterproof
- Measure 30°/45°/60° chamfer dimension
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (code 7315-21 receiver is needed, 7302-21)

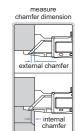


1180-6



-	
	for internal chamfer measurement, diameter should be larger than ØD
	ØD





Code	Range	Accuracy	Chamfer (α)	Α	В	ØD
1180-6	0-10mm/0-0.39"	±0.06mm	45°	15mm	22mm	7mm
1180-63	0-10mm/0-0.39"	±0.06mm	30°	15mm	22mm	8mm
1180-66	0-10mm/0-0.39"	±0.06mm	60°	14mm	21mm	7mm

DIGITAL CHAMFER GAUGES

- Non waterproof
- Measure 45° chamfer length
 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
- Supplied with pin gauge for zero setting
- Optional accessory: data output cable (code **7315-21** receiver is needed, **7302-21**)

Code	Range	Accuracy
1537-20	0-20mm/0-0.787"	±0.05mm
1537-8	0-8mm/0-0.315"	±0.05mm

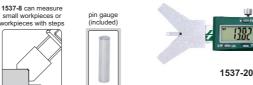


measure 45° chamfe

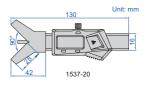
ATTENTION: CHAMFER OF HOLES CANNOT BE MEASURED

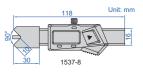
DIRECT READING, **CALCULATION IS NOT REQUIRED**

DATA OUTPUT









JEWELED BEARING

POPULAR

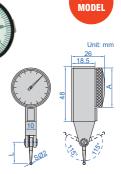
DIAL TEST INDICATORS

- Meet DIN2270 (except 2380-02, 2381-02, 2381-021)
- Jeweled bearing
- Carbide contact point
- Two measuring directions
- Anti magnetic body Supplied with two clamps: diameter Ø4mm and Ø8mm
- Optional accessory: styli

							(mm)
Code	Range	Graduation	Accuracy	Hysteresis	Dial reading	Α	L
2380-08*	0.8mm	0.01mm	13µm	3µm	0-40-0	Ø30	13.5
2381-08*	0.8mm	0.01mm	13µm	3µm	0-40-0	Ø37	13.5
2380-02*	0.2mm	0.002mm	6µm	2µm	0-100-0	Ø30	12.5
2381-02*	0.2mm	0.002mm	6µm	2µm	0-100-0	Ø37	12.5
2381-021*	0.2mm	0.001mm	6µm	2µm	0-100-0	Ø37	12.5

^{*}Supplied with manufacturer inspection certificate

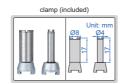




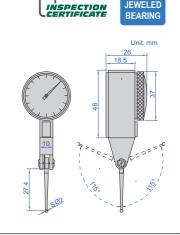


LONG STYLUS DIAL TEST INDICATOR

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



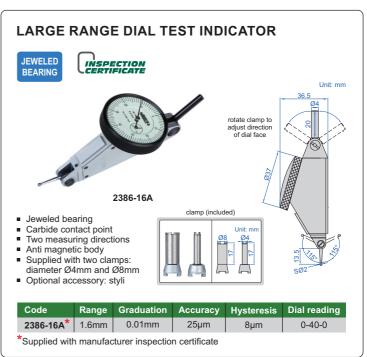


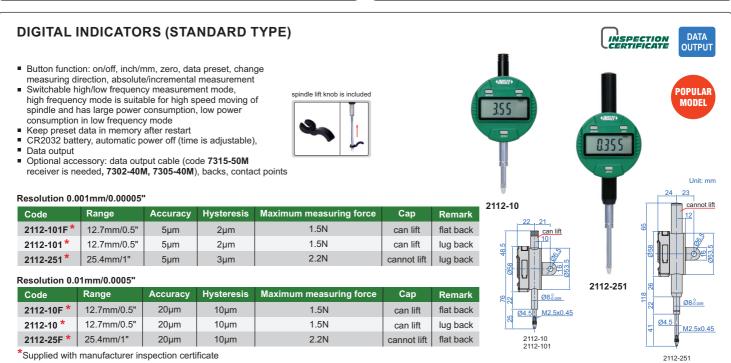


Code	Range	Graduation	Accuracy	Hysteresis	Dial reading
2383-08A*	0.8mm	0.01mm	13µm	3µm	0-40-0

^{*}Supplied with manufacturer inspection certificate

VERTICAL TYPE DIAL TEST INDICATOR JEWELED INSPECTION CERTIFICATE **BEARING** clamp (included) Unit: mm Ø37 Meet DIN2270 2398-08 Jeweled bearing Carbide contact point Two measuring directions Anti magnetic body Supplied with two clamps: diameter Ø4mm and Ø8mm Optional accessory: styli Accuracy Range Dial reading Code Graduation Hysteresis **2398-08*** 0.8mm 0.01mm 13µm 3µm 0-40-0 *Supplied with manufacturer inspection certificate







DIGITAL INDICATORS (ADVANCED TYPE)

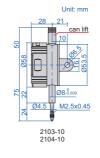






- Reading in digital and analog
- Display can be rotated by 320°
 Button function: tolerance Go and No-Go display, data preset, measuring direction change, max./min./TIR measurement, inch/metric conversion, absolute/incremental measurement Keep preset data and tolerance data in memory after restart
-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













analog pointer



alarm when over tolerance



Resolution 0.001mm/0.00005"

Code	Range	Accuracy	Hysteresis	Maximum measuring force	Сар	Remark
2103-10F*	12.7mm/0.5"	5µm	2µm	1.5N	can lift	flat back
2103-10 *	12.7mm/0.5"	5µm	2µm	1.5N	can lift	lug back

Resolution 0.01mm/0.0005"

Code	Range	Accuracy	Hysteresis	Maximum measuring force	Сар	Remark
2104-10F*	12.7mm/0.5"	20µm	10µm	1.5N	can lift	flat back
2104-10 *	12.7mm/0.5"	20µm	10µm	1.5N	can lift	lug back

^{*}Supplied with manufacturer inspection certificate

BLUETOOTH HIGH PRECISION DIGITAL INDICATORS







BUILT-IN BLUETOOTH ATTENTION: RECHARGEABLE BATTERY, FOR 30 HOURS CONTINUOUS WORKING

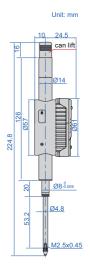
COLOR DISPLAY
LARGE CHARACTERS WITH BACKLIGHT

ABSOLUTE ENCODER, THE ORIGINAL DATA REMAINS AFTER POWER OFF







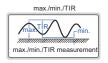


- IP54 dust/waterproof (when cap is lifted, no dust/waterproof)
- Color display, large characters with backlight
 Absolute encoder, the original data remains after power off
 Automatic power off
- Display can be rotated by 270°
- Adjustable resolution: 0.0005mm/0.00002" 0.001mm/0.00005"
- Button function: on/off, zero setting, data preset, tolerance Go and
 No-Go display,data hold, mm/inch, measuring direction change, blue tooth, max./min./TIR, adjust resolution, absolute/incremental
- measurement, data output

 Android and iPhone APP, USB type-C cable are included
 Power: rechargeable Li-battery, for 30 hours continuous working (bluetooth transmission reduce working hours)

alarm in red when over tolerance





To be continued



Continued from previous page

Code	Range	Accuracy	Hysteresis	Maximum measuring force	Сар	Remark
2135-10*	12.7mm/0-0.5"	2µm	1.5µm	1.5N	can lift	flat back
2135-25*	25.4mm/0-1"	2µm	1.5µm	1.8N	can lift	flat back
2135-50*	50.8mm/0-2"	4µm	2µm	2.3N	can lift	flat back





*Supplied with manufacturer inspection certificate

Data output

Data output with bluetooth	keyboard format	data can be transmitted to Excel, Word, txt and other files	single and continuous transmission (the fastest data output is 15 pcs per 10s)
(transmission distance is 10 meters)	virtual com port	data can be transmitted to Android and iPhone APP	real-time data display, data can be transmitted and exported to EXCEL
Data output with USB cable (cable length 1.8 meters)	keyboard format	data can be transmitted to Excel, Word, txt and other files	single and continuous transmission (the fastest data output is 40 pcs per 10s)
(Cable length 1.0 meters)	virtual com port ai	nd 485 data output can be customized	



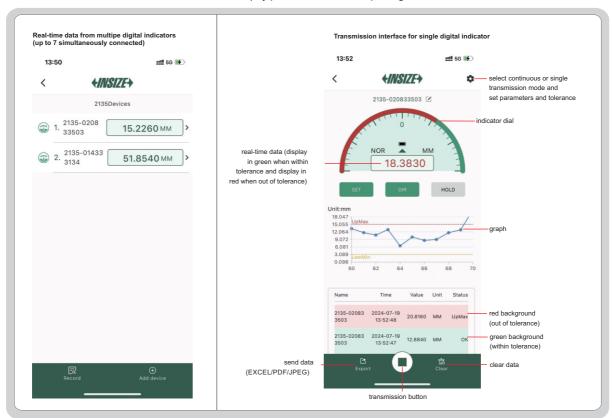




data output with bluetooth (included)

Data output with USB cable (included)

Android and iPhone APP (included), can choose real-time display (continuous transmission) or single transmission





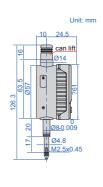
HIGH PRECISION DIGITAL INDICATORS

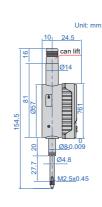
ATTENTION: RECHARGEABLE BATTERY, FOR 30 HOURS CONTINUOUS WORKING

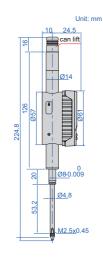


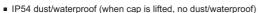
ABSOLUTE ENCODER, THE ORIGINAL DATA REMAINS AFTER POWER OFF











- Absolute encoder, the original data remains after power off
- Automatic power off

- Reading in digital and analog
 Display can be rotated by 270°
 Button function: on/off, zero setting, data preset, tolerance Go and No-Go display,data hold, mm/inch, measuring direction change,
- max./min./TIR, absolute/incremental measurement, data output

 Data output with USB cable (keyboard format), cable length 1.8 meters, single and continuous transmission (the fastest data output is 40 pcs per 10s)
- Power: rechargeable battery, for 30 hours continuous working

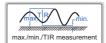








max./min./TIR





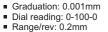


Resolution 0.0005mm/0.00002"

Code	Range	Accuracy	Hysteresis	Maximum measuring force	сар	Remark
2136-10*	0-12.7mm/0-0.5"	2µm	1.5µm	1.5N	can lift	flat back
2136-25*	0-25.4mm/0-1"	2µm	1.5µm	1.8N	can lift	flat back
2136-50*	0-50.8mm/0-2"	4µm	2µm	2.3N	can lift	flat back

^{*}Supplied with manufacturer inspection certificate

PRECISION DIAL INDICATORS



Jeweled bearing

Supplied with limit pointers and bezel clamp

Optional accessory: backs, contact points

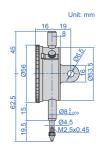


2313-1A

Code	Range	Accuracy	Hysteresis	Maximum measuring force	Сар	Remark		
2313-1FA*	1mm	5µm	2µm	2N	cannot lift	flatback		
2313-1A [*]	1mm	5µm	2µm	2N	cannot lift	lug back		
*Supplied with manufacturer inspection certificate								









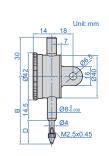
INSPECTION

COMPACT DIAL INDICATORS

- Graduation: 0.01mm
- Range/rev: 0.5mm
- Dial reading: 0-50Meet DIN878
- Jeweled bearing
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs, contact points



2311-5



								(mm)
Code	Range	Accuracy	Hysteresis	Remark	Maximum measuring force	Сар	В	D
2311-3F *	3mm	12µm	3µm	flat back	1.5N	can lift	46	10.5
2311-5F *	5mm	14µm	3µm	flat back	1.5N	can lift	48	12.5
2311-3*	3mm	12µm	3µm	lug back	1.5N	can lift	46	10.5
2311-5*	5mm	14µm	3µm	lug back	1.5N	can lift	48	12.5

^{*}Supplied with manufacturer inspection certificate

DIAL INDICATORS (STANDARD TYPE)



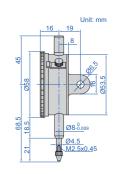
INSPECTION CERTIFICATE



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



2308-10A



Code	Range	Accuracy	Hysteresis	Range/rev	Maximum measuring force	Сар	Remark
2308-10FA*	10mm	17µm	3µm	1mm	1.5N	can lift	flat back
2308-5A *	5mm	14µm	3µm	1mm	1.5N	can lift	lug back
2308-10A *	10mm	17µm	3µm	1mm	1.5N	can lift	lug back

^{*}Supplied with manufacturer inspection certificate

DIAL INDICATORS (BASIC TYPE)



- Accuracy: 17µm
 Dial reading: 0-100
- Meet DIN878
- Jeweled bearing
 Supplied with limit hands and bezel clamp
 Packed in carton box
- Optional accessory: backs, contact points



2301-10

Wild I	
17 20 Unit: mm	
Ø88000 Ø4.5 Ø2.5x0.45	

carton box

POPULAR MODEL

Code	Range	Hysteresis	Maximum measuring force	Сар	Remark
2301-10F *	10mm	3µm	1.5N	can lift	flat back
2301-10 *	10mm	3µm	1.5N	can lift	lug back with spare flat back

^{*}Supplied with manufacturer inspection certificate



SHOCKPROOF DIAL INDICATORS

- Graduation: 0.01mm

- Range/rev: 1mm
 Accuracy: 17µm
 Dial reading: 0-100
 Meet DIN878
- Shockproof
- Jeweled bearingSupplied with lim
- Supplied with limit pointers and bezel clamp
 Optional accessory: backs, contact points



2314-10A

Code	Range	Hysteresis	Maximum measuring force	Cap	Remark
2314-10FA*	10mm	3µm	1.5N	can lift	flat back
2314-10A*	10mm	3µm	1.5N	can lift	lug back

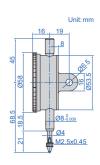
^{*}Supplied with manufacturer inspection certificate



INSPECTION CERTIFICATE





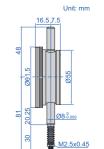


WATERPROOF DIAL INDICATOR

- Meet DIN878IP54 dust/waterproof
- With limit pointers
- Optional accessory: backs, contact points



2324-10FA



IP54

Code	Range	Graduation	Accuracy	Hysteresis	Range/rev	Dial reading	Maximum measuring force	Сар	Remark
2324-10FA*	10mm	0.01mm	17µm	3µm	1mm	0-100	1.5N	cannot lift	flat back

^{*}Supplied with manufacturer inspection certificate

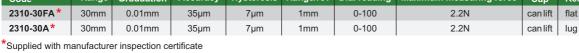
DIAL INDICATORS (LONG STROKE)

- Supplied with limit pointers and bezel clampOptional accessory: backs, contact points



2310-30A

Code	Range	Graduation	Accuracy	Hysteresis	Range/rev	Dial reading	Maximum measuring force	Сар	Remark
2310-30FA*	30mm	0.01mm	35µm	7µm	1mm	0-100	2.2N	can lift	flat back
2310-30A*	30mm	0.01mm	35µm	7µm	1mm	0-100	2.2N	can lift	lug back





DIAL INDICATOR (LONG STROKE, BASIC TYPE)





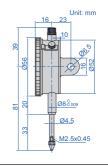
- Lug back with spare flat back
- Supplied with limit pointers and bezel clamp
- Packed in carton box
- Optional accessory: backs, contact points



2302-25

Code	Range	Graduation	Accuracy	Hysteresis	Range/rev	Dial reading	Сар	Remark
2302-25*	25mm	0.01mm	35µm	7µm	1mm	0-100	can lift	flat back





*Supplied with manufacturer inspection certificate



DIAL INDICATORS (GRADUATION 0.1mm)

- Graduation: 0.1mm
- Range/rev: 10mm
- Dial reading: 0-10
- Maximum measuring force: 2.0N
- Supplied with limit pointers and bezel clamp

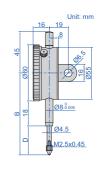
Optional accessory: backs, contact points

							(mm)
Code	Range	Accuracy	Hysteresis	Remark	Сар	В	D
2318-10F	10mm	40µm	20µm	flat back	can lift	70	20
2318-10	10mm	40µm	20µm	lug back	can lift	70	20
2318-30	30mm	60µm	20µm	lug back	can lift	90	40



2.5N

3.2N



can lift | flat back with spare lug back

can lift | flat back with spare lug back

DIAL INDICATORS (LONG STROKE) INSPECTION CERTIFICATE **JEWELED** SHOCK **BEARING PROOF** Shockproof Jeweled bearing Supplied with limit pointers Unit: mm Optional accessory: backs, contact points stem clamp Ø10mm for 2309-100D Ø6.5 back of type B 2309-50 Ø5 Ø5 2309-50 108.3 57.7 126.2 39.5 Ø8 2309-100D В 167.6 207.8 108 60.8 Ø10 type B type A Dial reading Maximum measuring force Range Accuracy Hysteresis Range/rev Сар Code Graduation Type Remark

0-100

0-100

Note: 1) 2309-100D can only be used vertically

0.01mm

0.01mm

50mm

100mm

2309-50*

2309-100D

2) 2309-100D is supplied with stem clamp Ø10mm for magnetic stands (code 6200-60, 6201-60, 6202-80, 6202-100)

8µm

9µm

1_{mm}

1mm

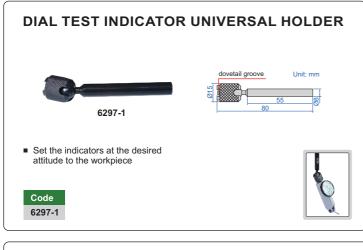
40µm

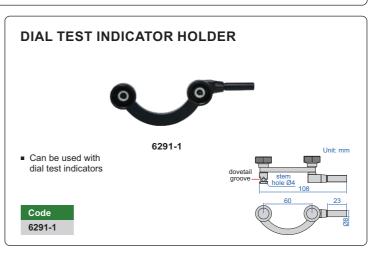
50µm

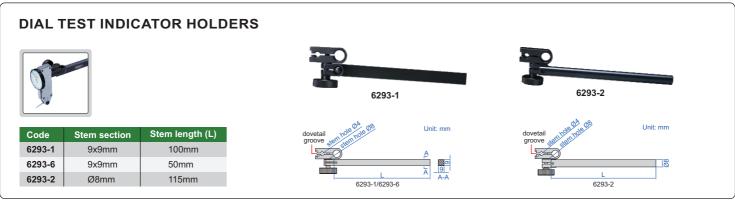
Α

В

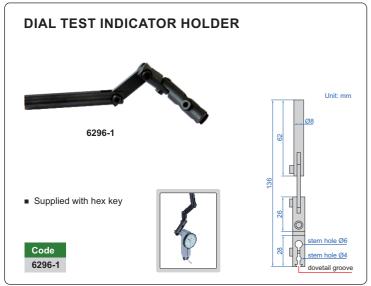
^{*}Supplied with manufacturer inspection certificate

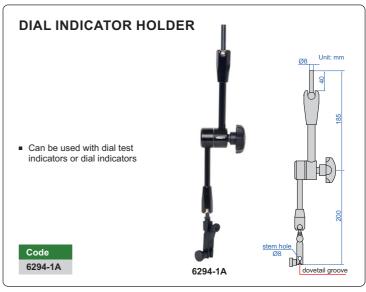


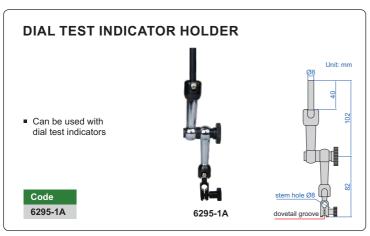


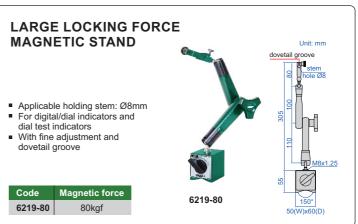


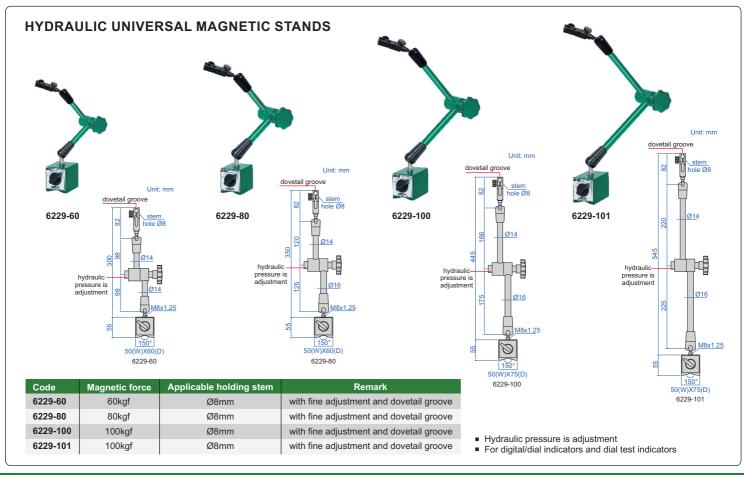




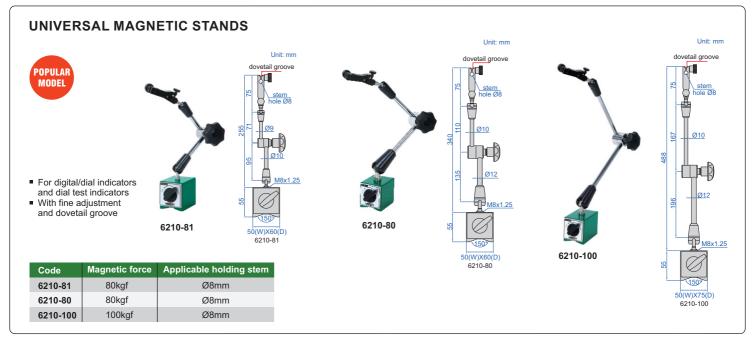


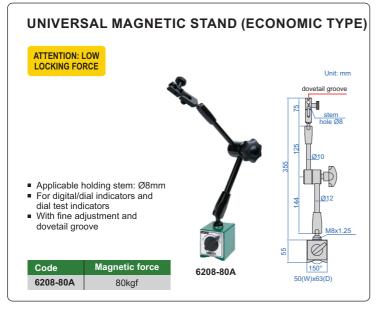


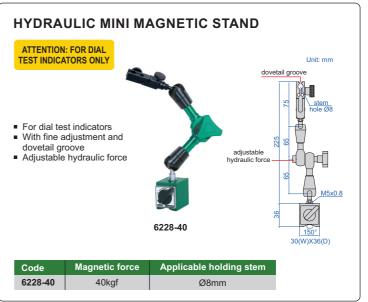


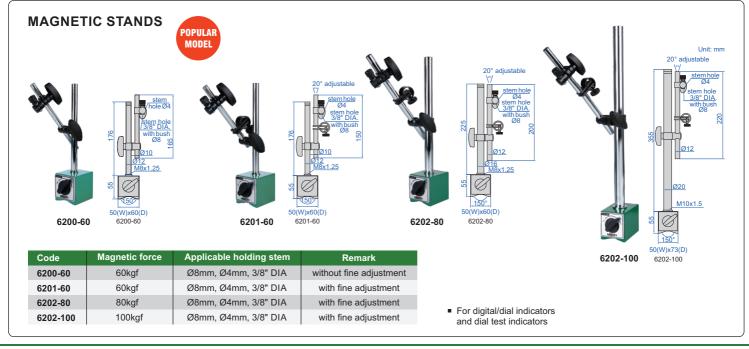




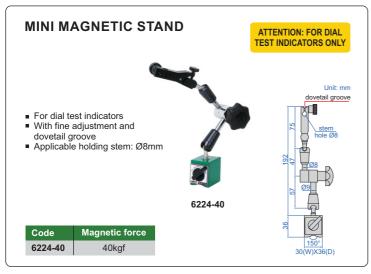


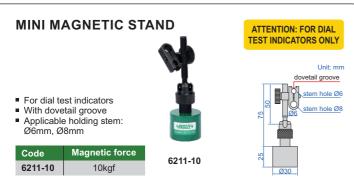


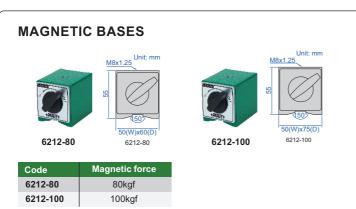




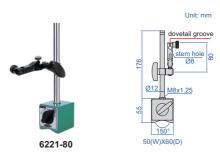
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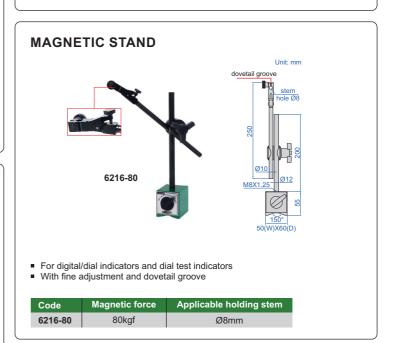


MAGNETIC STAND (FOR 0.001MM DIAL AND DIAL TEST INDICATORS)



- Applicable holding stem: Ø8mm
- For 0.001mm and 0.01mm dial and dial test indicators
- With fine adjustment and dovetail groove

Code	Magnetic force
6221-80	80kgf



DIAL INDICATOR STAND (NON-MAGNETIC)



- 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
6226-60	Ø8mm, Ø4mm, 3/8" DIA	with fine adjustment



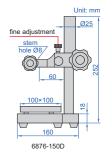
DIAL INDICATOR STANDS

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





6876-150D



6876-150

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)

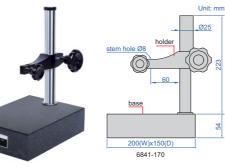


Code

6841-170

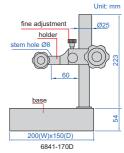
6841-170D

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





6841-170D



6841-170

Remark
without fine adjustment
with fine adjustment, fine adjustment range 3mm

INTERNAL DIAL CALIPER GAUGES

Base

flatness 2.5µm

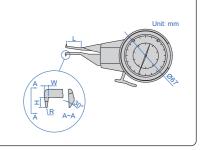
flatness 2.5µm

■ Graduation: 0.01mm ■ Accuracy: ±0.03mm

					(mm)
Code	Range	L	н	w	R
2222-15	5-15mm	20	2	1.5	R0.3
2222-25	5-25mm	35	1.5	1.0	R0.3
2222-301	10-30mm	55	5.5	2.5	R0.5



2222-15



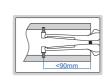
INTERNAL DIAL CALIPER GAUGE WITH **INTERCHANGEABLE POINTS**

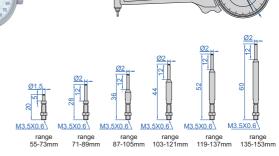


- Dial indicator range: 2mm
- Supplied with 6 pairs of points

Code	Range	Graduation	Accuracy
2223-153	55-153mm	0.01mm	±0.02mm



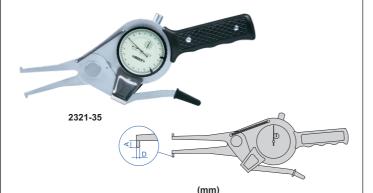




Unit: mm



INTERNAL DIAL CALIPER GAUGES



				()
Code	Range	L	Α	D
2321-35	15-35mm	50	3	Ø3
2321-AL35	15-35mm	200	3	Ø3
2321-55	35-55mm	80	6	Ø3
2321-AL55	35-55mm	250	8	Ø3
2321-75	55-75mm	90	8	Ø3
2321-AL75	55-75mm	250	8	Ø3
2321-95	75-95mm	100	8	Ø3
2321-115	95-115mm	120	10	Ø3.2
2321-135	115-135mm	120	10	Ø3.2



- Graduation: 0.01mm
- Accuracy: ±0.04mm
- Carbide measuring tips

EXTERNAL DIAL CALIPER GAUGES 2332-20 ■ Carbide measuring tips (mm) Range Graduation 2332-20 0-20mm 0.01mm <60 ±0.04mm 2332-40 20-40mm 0.01mm ±0.04mm <60 2332-60 40-60mm 0.01mm ±0.04mm <55 2332-80 60-80mm 0.01mm ±0.04mm <55 2332-100 80-100mm 0.01mm ±0.04mm <55



- 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 receiver is needed, 7305-50M,7302-50M)

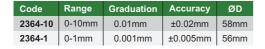
Code	Range	Resolution	Accuracy
2871-10	0-10mm/0-0.4"	0.01mm/0.0005"	±0.02mm
2871-101	0-10mm/0-0.4"	0.001mm/0.00005"	±0.005mm

THICKNESS GAUGES measuring tips and anvils can be custom-made 2365-10 type A Ø10 Ø10

Code	Range	Graduation	Accuracy	Type
2365-10	0-10mm	0.01mm	±0.02mm	А
2365-20	0-20mm	0.01mm	±0.03mm	А
2365-10B	0-10mm	0.01mm	±0.02mm	В
2365-20B	0-20mm	0.01mm	±0.03mm	В

THICKNESS GAUGES

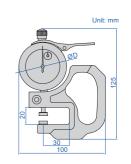








2364-1



2364-10



THICKNESS GAUGE



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



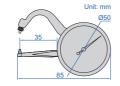
2361-10

SUITABLE FOR **JEWELLERY**



THICKNESS GAUGE





Code	Range	Graduation	Accuracy
2862-101	0-10mm	0.05mm	±0.1mm



THICKNESS GAUGE

- Graduation: 0.01mm
- Stainless steel spindle tip and anvil





Code	Range	Accuracy
2363-10	0-10mm	±0.03mm

HIGH PRECISION DIGITAL THICKNESS GAUGES

MEASURING TIPS AND ANVILS CAN BE CUSTOM-MADE

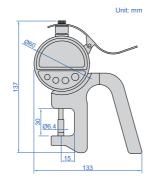
ABSOLUTE ENCODER, THE ORIGINAL DATA REMAINS AFTER POWER OFF

DATA **OUTPUT**

ATTENTION: RECHARGEABLE BATTERY, FOR 12 HOURS CONTINUOUS WORKING







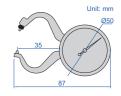
- Absolute encoder, the original data remains after power off
 Button function: on/off, zero, tolerance, absolute/incremental measurement, max./min./TIR, data preset, mm/inch, data output, data hold
- Measuring force: 0.5-1N
- Reading in digital and analog
- Power: rechargeable battery, for 12 hours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

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

THICKNESS GAUGE







Code	Range	Graduation	Accuracy
2863-10	0-10mm	0.05mm	+0.1mm

DIAL SNAP GAUGES (ECONOMIC TYPE)

ATTENTION: SETTING STANDARDS ARE NOT INCLUDED

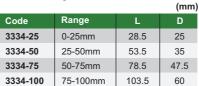


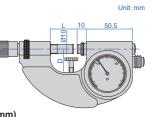


3334-25

- Quick measurement 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:

gauge blocks grade 0 (**4101-A** series), for zero setting



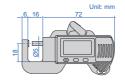




DIGITAL SNAP GAUGE

ATTENTION: NO DATA OUTPUT

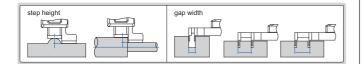




Code	Range	Resolution	Accuracy
2166-12	0-12mm/0-0.5"	0.01mm/0.0005"	±0.03mm

STEP AND GAP GAUGE





- Non waterproof
- Resolution: 0.01mm/0.0005"

 Measure step height and gap width

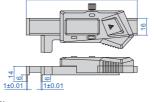
 Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power

 Battery CR2032

 Data output

 Made of stainless steel

- Supplied with zero setting block
- Optional accessory: data output cable (code 7315-21 receiver is needed, 7302-21)





Code	Range	Accuracy
2168-12	0-12.7mm/0-0.5"	±0.03mm
2100-12	0-12.711111/0-0.0	20.0011111

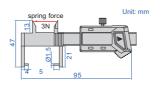


DIGITAL 3-PURPOSE SNAP GAUGE



SUITABLE FOR **JEWELLERY**





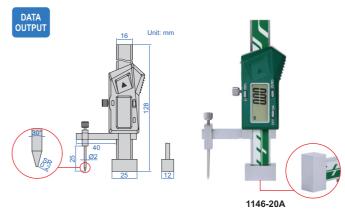


- Non waterproofResolution: 0.01mm/0.0005"
- Buttons: zero, mm/inch, on/off
- Battery LR44
- Made of stainless steel

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



MINI DIGITAL HEIGHT GAUGE



- Non waterproof
- 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** receiver is needed, **7302-21**)

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

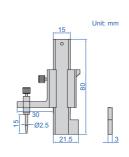


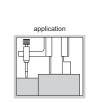
MINI VERNIER HEIGHT GAUGE

- Measure height difference of two surfacesGraduation: 0.05mm
- Made of stainless steel
- Satin chrome plated reading surface

Code	Range	Accuracy
1246-10	0~±10mm	±0.05mm

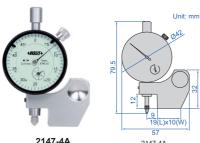


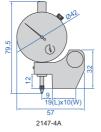




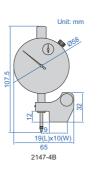


DIAL HEIGHT GAUGES

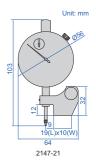












■ Measure height difference of two surfaces

Code	Range	Dial indicator stroke	Dial indicator graduation	Accuracy
2147-4A	0~±5mm (adjustable)	5mm	0.01mm	±0.014mm
2147-4B	0~±5mm	10mm	0.01mm	±0.017mm
2147-21	0~±2mm (adjustable)	2mm	0.001mm	±0.006mm



DIGITAL HEIGHT GAUGES













- Measure height difference of two surfaces
 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 receiver is needed, 7302-40M)

Code	Range (adjustable)	Digital indicator stroke	Digital indicator resolution	Accuracy
2146-4A	0~4mm/0~0.16" (sinked)	12.7mm/0.5"	0.01mm/0.0005"	±0.02mm
2146-41A	0~12.7mm/0~0.5" (raised)	12.7mm/0.5"	0.001mm/0.00005"	±0.005mm
2146-4B	0~4mm/0~0.16" (sinked)	5mm/0.2"	0.01mm/0.0005"	±0.02mm
2146-41B	0~5mm/0~0.2" (raised)	5mm/0.2"	0.001mm/0.00005"	±0.005mm

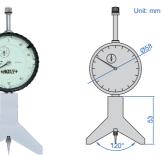
2189-30

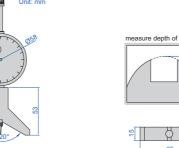
DIAL KEYWAY DEPTH GAUGE

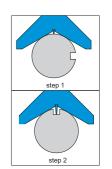
- Graduation: 0.01mm
- Measure keyway depth of cylindrical workpieces with diameter Ø10-100mm
- Stainless steel basePointed tip











Code	Range	Accuracy
2189-30	0-30mm	±0.03mm



STEEL GAUGE BLOCK SETS



Dimension:	. (mm)
Size (L)	W	Н
0.5≤L≤10	9	30
L>10	9	35

- Made of alloy steel
- Meet ISO3650
- Gauge blocks ≥125mm have
- clamping holes

 Supplied with manufacturer inspection certificate



6 3
4100-232

inspection certificate				100-252	
Blocks	Gauge bl	ocks included	Code		
per set	Size (mm)	Step (mm)	Quantity	Grade 1	Grade 2
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
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	4100-187	4100-287
83	0.5 1 1.005 1.01-1.49 1.5-1.9 2-9.5 10-100	0.01 0.1 0.5 10	1 1 1 49 5 16	4100-183	4100-283

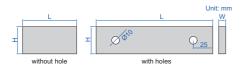
Unit: mm L≥125 L<125 000 with holes without hole

INSPECTION CERTIFICATE

Blocks	Gauge bl	ocks included	l in set	Co	de
per set	Size (mm)	Step (mm)	Quantity	Grade 1	Grade 2
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	4100-147	4100-247
34	1.0005 1.001-1.009 1.01-1.09 1.1-1.9 1-5	0.001 0.01 0.1 1	1 9 9 9 5	4100-134	4100-234
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	4100-132	4100-232

STEEL INDIVIDUAL GAUGE BLOCKS







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





Dimension:	(1	mm)
Size (L)	W	Н
0.5≤L≤10mm	9	30
L>10mm	9	35



4101-C200

Grade 0	(mm)
Code	Size
4101-A1	1
4101-A10	10
4101-A100	100

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

Grade 2

INSPECTION CERTIFICATE

(mm)

Grade 1	(mm)	Grade 1	(mm)	Grade 1	(mm)	Grade 1	(mm)	Grade 1	(mm)
Code	Size	Code	Size	Code	Size	Code	Size	Code	Size
4101-BD5	0.5	4101-B1D12	1.12	4101-B1D4	1.4	4101-B5	5	4101-B22	22
4101-B1	1	4101-B1D15	1.15	4101-B1D42	1.42	4101-B5D5	5.5	4101-B23	23
4101-B1D001	1.001	4101-B1D16	1.16	4101-B1D43	1.43	4101-B6	6	4101-B25	25
4101-B1D002	1.002	4101-B1D18	1.18	4101-B1D45	1.45	4101-B7	7	4101-B30	30
4101-B1D003	1.003	4101-B1D19	1.19	4101-B1D46	1.46	4101-B7D5	7.5	4101-B35	35
4101-B1D004	1.004	4101-B1D2	1.2	4101-B1D47	1.47	4101-B8	8	4101-B40	40
4101-B1D005	1.005	4101-B1D21	1.21	4101-B1D48	1.48	4101-B8D5	8.5	4101-B45	45
4101-B1D006	1.006	4101-B1D22	1.22	4101-B1D49	1.49	4101-B9	9	4101-B50	50
4101-B1D009	1.009	4101-B1D24	1.24	4101-B1D5	1.5	4101-B9D5	9.5	4101-B60	60
4101-B1D01	1.01	4101-B1D25	1.25	4101-B1D6	1.6	4101-B10	10	4101-B70	70
4101-B1D02	1.02	4101-B1D26	1.26	4101-B1D7	1.7	4101-B11	11	4101-B75	75
4101-B1D03	1.03	4101-B1D27	1.27	4101-B1D8	1.8	4101-B12	12	4101-B80	80
4101-B1D04	1.04	4101-B1D3	1.3	4101-B1D9	1.9	4101-B13	13	4101-B90	90
4101-B1D05	1.05	4101-B1D32	1.32	4101-B2	2	4101-B14	14	4101-B100	100
4101-B1D06	1.06	4101-B1D33	1.33	4101-B2D5	2.5	4101-B15	15	4101-B125	125
4101-B1D07	1.07	4101-B1D34	1.34	4101-B3	3	4101-B16	16	4101-B131D4	131.4
4101-B1D08	1.08	4101-B1D35	1.35	4101-B3D5	3.5	4101-B18	18	4101-B150	150
4101-B1D09	1.09	4101-B1D36	1.36	4101-B4	4	4101-B20	20		
4101-B1D1	1.1	4101-B1D37	1.37	4101-B4D5	4.5	4101-B21	21		



MICROMETER INSPECTION GAUGE 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)

Code	Material	Gauge 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

POPULAR

MODEL

STEEL PIN GAUGE SETS

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





4166-10

Code	Diameter Ød (mm)	Step	Pin gauges 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 gauges per set
4166-411	1.0, 1.1, 1.2, 5.0	0.1mm	41
4166-511	5.0, 5.1, 5.2, *** 10.0	0.1mm	51

CALIPER INSPECTION GAUGE BLOCK AND RING GAUGE SETS



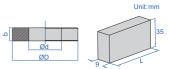


4176-30

Setting ring sizes:

Diameter (Ød) *	b	ØD
Ø10mm	8mm	32mm
Ø25mm	14mm	53mm

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



- Gauge blocks meet ISO3650
 Ring gauges meet DIN2250-1:2008
 Supplied with manufacturer inspection certificate

Grade of gauge blocks: 2

(mm)

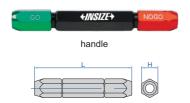
Code	Material	Gauge blocks included in set (L)	Ring gauges included in set (Ød)	Applicable calipers
4176-30	alloy steel	30, 41.3, 131.4	10, 25	0-150

Grade of gauge blocks: 1

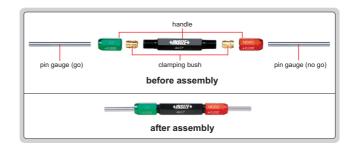
	J J.				(111111)
	Code	Material	Gauge blocks included in set (L)	Ring gauges included in set (Ød)	Applicable calipers
ĺ	4176-301	alloy steel	30, 41.3, 131.4	10, 25	0-150



PIN GAUGE HANDLES (OPERATED WITH WRENCH)



- 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







aluminum clamping bush (7.14~24.80mm)

,		
m	m	1

Code	Applicable pin gauge diameter		Including		
Code	Applicable pill gauge diameter	handle	clamping bush (mm)	Н	L
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)	7	57
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)	7	57
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)	9	73
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)	9	73
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)	14	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)	14	79
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)	19	91
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)	19	91
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)	22	106
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)	22	106
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)	24	115
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)	24	115
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)	27	118
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)	27	118
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)	32	133

PIN GAUGE HANDLES (OPERATED WITHOUT WRENCH)

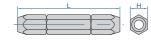
- Operated without wrench
- Made of aluminum
 Pin gauges can be installed

Code	Applicable pin gauge diameter	Н	L
7342-M0	0.3-1.5mm/0.011-0.049"	10mm	112mm
7342-M1	1.51-6.35mm/0.050-0.250"	24mm	131mm
7342-M2	6.36-12.70mm/0.251-0.500"	32mm	152mm
7342-M3	12.71-15.88mm/0.501-0.625"	37mm	152mm
7342-M4	15.89-19.00mm/0.626-0.750"	37mm	152mm
7342-M5	19.01-21.13mm/0.751-0.832"	40mm	158mm
7342-M6	21.14-23.27mm/0.833-0.916"	40mm	158mm
7342-M7	23.28-25.4mm/0.917-1.000"	40mm	158mm



7342-M1



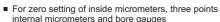




SETTING RINGS

INSPECTION

CAN SUPPLY CUSTOM SETTING RINGS FROM Ø1.50MM TO Ø400.00MM, FOR EXAMPLE, Ø17.08MM

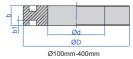


- To Zero setting of mixed mixed mixed mixed points internal micrometers and bore gauges
 The size marked on the setting ring is checked at the direction of the marking line
 Size difference (difference between the ordered size and the size marked on the setting ring when supplied): For example, the ordered size is Ø10.12mm, the size marked on the setting ring when supplied may be Ø10.130mm









Diameter d **	b	ØD	Size difference	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

±10.0µm

±10.0µm

For example Ø3-5mm means Ø3mm <diameter <="" d<="" th=""><th>Ø5mm</th></diameter>	Ø5mm
---	------

140mm

160mm

24mm

Ø80-90

Ø90-100 24mm

Diameter d ***	b	b1	ØD	Size difference	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

Coue	3126
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

1.0µm

1.0µm

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

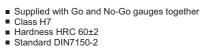


PLAIN PLUG GAUGES

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

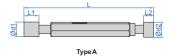


4124-12



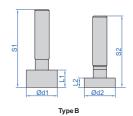








Type B



Size tolerance of H7 (m								
Diameter Ød	Туре	Size tolerance of Go gauge (µm)	Size tolerance of No-Go gauge (µm)	L1	L2	L	S1, S2	
≥2, ≤3	А	+0.5 / +2.5	+9 / +11	6.5	4.5	62	-	
>3, ≤6	Α	+0.75 / +3.25	+10.75 / +13.25	8	6	74	_	
>6, ≤10	Α	+0.75 / +3.25	+13.75 / +16.25	10	7	87	-	
>10, ≤14	Α	+1 / +4	+16.5 / +19.5	12	8	99	_	
>14, ≤18	Α	+1 / +4	+16.5 / +19.5	14	10	114	-	
>18, ≤24	Α	+1 / +5	+19 / +23	16	12	132	_	
>24, ≤30	А	+1 / +5	+19 / +23	18	14	136	_	
>30, ≤40	Α	+1.5 / +5.5	+23 / +27	20	15	155	_	
>40, ≤50	А	+1.5 / +5.5	+23 / +27	25	18	169	-	
>50, ≤65	В	+1.5 / +6.5	+27.5 / +32.5	30	18	-	164, 152	
>65, ≤80	В	+1.5 / +6.5	+27.5 / +32.5	35	25	-	169, 159	
>80, ≤100	В	+2 / +8	+32 / +38	35	25	_	169, 159	

Code	Diameter	Туре	Code	Diameter	Туре
4124-2	2mm	Α	4124-14	14mm	Α
4124-3	3mm	Α	4124-15	15mm	Α
4124-4	4mm	Α	4124-16	16mm	Α
4124-5	5mm	Α	4124-17	17mm	Α
4124-6	6mm	Α	4124-18	18mm	Α
4124-7	7mm	Α	4124-19	19mm	Α
4124-8	8mm	Α	4124-20	20mm	Α
4124-9	9mm	Α	4124-21	21mm	Α
4124-10	10mm	Α	4124-22	22mm	Α
4124-11	11mm	Α	4124-23	23mm	Α
4124-12	12mm	Α	4124-24	24mm	Α
4124-13	13mm	Α	4124-25	25mm	Α

Code	Diameter	Туре	Code	Diameter	Туре	Code	Diameter	Type
4124-26	26mm	Α	4124-38	38mm	Α	4124-50	50mm	Α
4124-27	27mm	Α	4124-39	39mm	Α	4124-52	52mm	В
4124-28	28mm	Α	4124-40	40mm	Α	4124-55	55mm	В
4124-29	29mm	Α	4124-41	41mm	Α	4124-60	60mm	В
4124-30	30mm	Α	4124-42	42mm	Α	4124-65	65mm	В
4124-31	31mm	Α	4124-43	43mm	Α	4124-70	70mm	В
4124-32	32mm	Α	4124-44	44mm	Α	4124-75	75mm	В
4124-33	33mm	Α	4124-45	45mm	Α	4124-80	80mm	В
4124-34	34mm	Α	4124-46	46mm	Α	4124-85	85mm	В
4124-35	35mm	Α	4124-47	47mm	Α	4124-90	90mm	В
4124-36	36mm	Α	4124-48	48mm	Α	4124-95	95mm	В
4124-37	37mm	Α	4124-49	49mm	Α	4124-100	100mm	В



CERAMIC MEASURING BALLS





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



METRIC THREAD PLUG GAUGES

WARNING: LIFE TIME IS LIMITED, CAN BE USED ABOUT 2000 TIMES



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

4130-10

Individual

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	-	4130-1H
M1.2	0.25	4130-1D2	4130-1D2G	4130-1D2H
M1.4	0.3	4130-1D4	-	4130-1D4H
M1.6	0.35	4130-1D6	4130-1D6G	4130-1D6H
M1.7	0.35	4130-1D7	-	-
M1.8	0.35	4130-1D8	4130-1D8G	4130-1D8H
M2	0.4	4130-2	4130-2G	4130-2H
M2.2	0.45	4130-2D2	4130-2D2G	4130-2D2H
M2.3	0.4	4130-2D3	4130-2D3G	-
M2.5	0.45	4130-2D5	4130-2D5G	4130-2D5H
M2.6	0.45	4130-2D6	4130-2D6G	-
M3	0.5	4130-3	4130-3G	4130-3H
M3.5	0.6	4130-3D5	4130-3D5G	4130-3D5H
M4	0.7	4130-4	4130-4G	4130-4H
M4.5	0.75	4130-4D5	4130-4D5G	4130-4D5H
M5	0.8	4130-5	4130-5G	4130-5H
M6	1	4130-6	4130-6G	4130-6H
M7	1	4130-7	4130-7G	4130-7H
M8	1.25	4130-8	4130-8G	4130-8H
M9	1.25	4130-9	4130-9G	4130-9H
M10	1.5	4130-10	4130-10G	4130-10H
M11	1.5	4130-11	4130-11G	4130-11H
M12	1.75	4130-12	4130-12G	4130-12H
M14	2	4130-14	4130-14G	4130-14H
M16	2	4130-16	4130-16G	4130-16H
M18	2.5	4130-18	4130-18G	4130-18H
M20	2.5	4130-20	4130-20G	4130-20H
M22	2.5	4130-22	4130-22G	-
M24	3	4130-24	4130-24G	-
M27	3	4130-27	4130-27G	-
M30	3.5	4130-30	4130-30G	-
M33	3.5	4130-33	4130-33G	-
M36	4	4130-36	4130-36G	4130-36H
M39	4	4130-39	4130-39G	-
M42	4.5	4130-42	-	-
M45	4.5	4130-45	-	-
M48	5	4130-48	-	-
M52	5	4130-52	4130-52G	-
M56	5.5	4130-56	-	-
M60	5.5	4130-60	-	_

Set (class 6H)

(• • /
Code	Thread plug gauges included (mm)
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 GAUGES

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



4139-20G

INSPECTION CERTIFICATE

WARNING: LIFE TIME IS LIMITED, CAN BE USED ABOUT 2000 TIMES

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

		Code (413	39)		Code (4139)			Code (4139)						
Nominal diameter	Pitch	Class 6H	Class 6G	Class 4H	Nominal diameter	Pitch	Class 6H	Class 6G	Class 4H	Nominal diameter	Pitch	Class 6H	Class 6G	Class 4H
M1	0.2	-1A	-	-		0.5	-15G	-15GG	-	M29	1	-29P	-29PG	-29PH
M1.2	0.2	-1D2A	-	-	M15	1	-15P	-15PG	-15PH		0.5	-30G	-	-
M1.4	0.2	-1D4A	-	-		1.5	-15R	-15RG	-15RH		0.75	-30L	-	-
M1.6	0.2	-1D6A	-1D6AG	-		0.5	-16G	-16GG	-	M30	1	-30P	-30PG	-30PH
M1.8	0.2	-1D8A	-	-	M16	1	-16P	-16PG	-16PH		1.5	-30R	-30RG	-30RH
M2	0.2	-2A	-2AG	-		1.25	-16Q	-	-		2	-30T	-30TG	-30TH
	0.25	-2B	-2BG	-2BH		1.5	-16R	-16RG	-16RH		3	-30V	-	-
	0.2	-2D5A	-	-		0.5	-17G	-17GG	47011	M31	0.5	-31G	-	-
M2.5	0.25	-2D5B	-	-2D5BH	M17	1 1	-17P	-17PG	-17PH		0.75	-31L	-	-
	0.35	-2D5D	-	-		1.5	-17R	-17RG	-17RH		0.5	-32G	-	-
M3	0.25	-3B	-	-3BH		0.5	-18G	-18GG	- -18PH		0.75	-32L	-	-
	0.35	-3D	-	-3DH	N440	1	-18P	-18PG		M32	1 1	-32P	-32PG	-32PH
M2 E	0.25	-3D5B -3D5D	-	3DEDH	M18	1.25	-18Q	4000	- -18RH		1.5	-32R	-32RG	-32RH
M3.5	0.35	-3D5G	-	-3D5DH		1.5 2	-18R	-18RG -18TG	-18TH		2	-32T	-32TG	-32TH
	0.5 0.25	-3D3G -4B	-	-		0.5	-18T -19G		-10111		0.5	-33G	-	-
M4	0.25	-4D		-4DH	M19	1	-19G -19P	- -19PG	-19PH		0.75	-33L	-	-
IVI	0.55	-4G	-4GG	-4GH	10119	1.5	-19F -19R	-19FG	-19RH	M33	1 1	-33P	-33PG	-33PH
	0.35	-4D5D	-400	-4GH			-19K -20G	-20GG	-20GH		1.5	-33R	-33RG	-33RH
M4.5	0.55	-4D5G	-4D5GG	_		0.5	-20G -20P	-20GG -20PG	-20PH		2	-33T	-33TG	-33TH
	0.25	-4D3G -5B	-40366	-	M20	1.25	-20P -20Q	-20FG	-		3	-33V	-	-
M5	0.25	-5D	_	_	IVIZU	1.5	-20Q -20R	-20RG	-20RH		0.75	-34L	2400	24011
IVIO	0.55	-5G	-5GG	-5GH		2	-20K -20T	-20KG -20TG	-20TH	M34	1 1	-34P	-34PG	-34PH
M5.5	0.5	-5D5G	-366	-		0.5	-201 -21G	-2010	-		1.5	-34R	-34RG	-34RH
101.5	0.25	-6B	-6BG	-	M21 H	1	-21G -21P	-21PG	-21PH			-34T	-	-
M6	0.25	-6D	-050			1.5	-21F	-21FG	-		0.75	-35L	- -35PG	-35PH
IVIO	0.5	-6G	-6GG	-6GH		0.5	-21K	-	-	M35	1.5	-35P	-35RG	-35RH
M6.5	0.5	-6D5G	-	-		1	-22P	-22PG	-22PH		2	-35R -35T	-33KG	-55KH
1410.0	0.35	-7D	-	-		1.25	-22Q	-	-	M36	0.75	-36L	-	-
M7	0.5	-7G	-7GG	_	IVIZZ	1.5	-22R	-22RG	-22RH		1	-36P	-36PG	-36PH
M7.5	0.5	-7D5G	-	-		2	-22T	-22TG	-22TH		1.5	-36R	-36RG	-36RH
	0.35	-8D	-	-		0.5	-23G	-	-	WIOO	2	-36T	-36TG	-36TH
M8	0.5	-8G	-8GG	-8GH	M23	1	-23P	-23PG	-23PH		3	-36V	-5010	-50111
	1	-8P	-8PG	-8PH		0.5	-24G	-	-	M37	0.75	-37L	-	-
M8.5	0.5	-8D5G	-			1	-24P	-24PG	-24PH	WO	0.75	-38L	-	-
	0.35	-9D	-	-	M24	1.25	-24Q		-		1	-38P	-38PG	-38PH
	0.5	-9G	-9GG	-		1.5	-24R	-24RG	-24RH	M38	1.5	-38R	-38RG	-38RH
M9	0.75	-9L	-9LG	-9LH		2	-24T	-24TG	-24TH		2	-38T	-38TG	-38TH
	1	-9P	-9PG	-9PH		0.5	-25G	-	-		0.75	-39L	-	-
	0.35	-10D	-	-		1	-25P	-25PG	-25PH		1	-39P	-	-
	0.5	-10G	-10GG	-10GH	M25	1.5	-25R	-25RG	-25RH	M39	1.5	-39R	_	-
M10	1	-10P	-10PG	-10PH		2	-25T	-25TG	-25TH		2	-39T	-39TG	-39TH
	1.25	-10Q	-10QG	-10QH		0.5	-26G	-	-		3	-39V	-	-
	0.5	-11G	-11GG	-11GH		1	-26P	-26PG	-26PH		0.75	-40L	-	-
M11	1	-11P	-11PG	-11PH	M26	1.5	-26R	-26RG	-26RH		1	-40P	-40PG	-40PH
	0.5	-12G	-12GG	-12GH		2	-26T	-26TG	-26TH	M40	1.5	-40R	-40RG	-40RH
146	1	-12P	-12PG	-12PH		0.5	-27G	-	-		2	-40T	-40TG	-40TH
M12	1.25	-12Q	-12QG	-12QH	1407	1	-27P	-27PG	-27PH		3	-40V	-	-
	1.5	-12R	-12RG	-12RH	M27	1.5	-27R	-27RG	-27RH		1	-42P	-	-
	0.5	-13G	-	-13GH		2	-27T	-27TG	-27TH		1.5	-42R	-42RG	-
M13	1	-13P	-13PG	-13PH		0.5	-28G	-	-	M42	2	-42T	-	-
	1.5	-13R	-	-		1	-28P	-28PG	-28PH		3	-42V	-42VG	-
	0.5	-14G	-14GG	-14GH	M28	1.5	-28R	-28RG	-28RH		1	-45P	-	-
	1	-14P	-14PG	-14PH		2	-28T	-28TG	-28TH	M45	1.5	-45R	-45RG	-
M14	1.25	-14Q	-14QG	-14QH		0.5	-29G	-	-	141 40	2	-45T		
	1.20				M29									



Continued from previous page

	Code (4139)						Code (41	39)			Code (4139)			
Nominal diameter	Pitch	Class 6H	Class 6G	Class 4H	Nominal diameter	Pitch	Class 6H	Class 6G	Class 4H	Nominal diameter	Pitch	Class 6H	Class 6G	Class 4H
M45	3	-45V	-	-		1.5	-52R	-	-	M56	3	-56V	-	-
	1	-48P	-	-	M52	2	-52T	-	-	IVIO	4	-56X	-	-
M48	1.5	-48R	-	-		3	-52V	-	-	MEO	1.5	-58R	-	-
IVI 4 0	2	-48T	-	-	MEE	4	-52X	-	-	M58	3	-58V	-	-
	3	-48V	-	-	M55	1.5	-55R	-	-		1	-60P	-	-
	1	-	-50PG	-		2	-55T	-55TG	-		1.5	-60R	-	-
M50	1.5	-50R	-	-	MEC	1	-56P	-	-	M60	2	-60T	-	-
	2	-50T	-	-	M56	1.5	-56R	-	-		3	-60V	-	-
M52	1	-52P	-	-		2	-56T	-	-		4	-60X	-	-

METRIC THREAD RING GAUGES

- Standard ISO1502Supplied with manufacturer inspection certificate



4120-16



INSPECTION CERTIFICATE

WARNING: LIFE TIME IS LIMITED, CAN BE USED ABOUT 2000 TIMES

4120-16N

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

Individual

Siza (mm)				(Code		
Size (mm)	'	Cla	ss 6g	Cla	ss 6e	Clas	s 6h
Nominal diameter	Pitch	GO	NOGO	GO	NOGO	GO	NOGO
M2	0.4	4120-2	4120-2N	4120-2E	4120-2EN	4120-2H	4120-2HN
M2.2	0.45	4120-2D2	4120-2D2N	4120-2D2E	4120-2D2EN	4120-2D2H	4120-2D2HN
M2.3	0.4	4120-2D3	4120-2D3N	-	-	-	-
M2.5	0.45	4120-2D5	4120-2D5N	4120-2D5E	4120-2D5EN	4120-2D5H	4120-2D5HN
M2.6	0.45	4120-2D6	4120-2D6N	-	-	-	-
M3	0.5	4120-3	4120-3N	4120-3E	4120-3EN	4120-3H	4120-3HN
M3.5	0.6	4120-3D5	4120-3D5N	4120-3D5E	4120-3D5EN	4120-3D5H	4120-3D5HN
M4	0.7	4120-4	4120-4N	4120-4E	4120-4EN	4120-4H	4120-4HN
M4.5	0.75	4120-4D5	4120-4D5N	4120-4D5E	4120-4D5EN	4120-4D5H	4120-4D5HN
M5	0.8	4120-5	4120-5N	4120-5E	4120-5EN	4120-5H	4120-5HN
M6	1	4120-6	4120-6N	4120-6E	4120-6EN	4120-6H	4120-6HN
M7	1	4120-7	4120-7N	4120-7E	4120-7EN	4120-7H	4120-7HN
M8	1.25	4120-8	4120-8N	4120-8E	4120-8EN	4120-8H	4120-8HN
M9	1.25	4120-9	4120-9N	4120-9E	4120-9EN	4120-9H	4120-9HN
M10	1.5	4120-10	4120-10N	4120-10E	4120-10EN	4120-10H	4120-10HN
M11	1.5	4120-11	4120-11N	4120-11E	4120-11EN	4120-11H	4120-11HN
M12	1.75	4120-12	4120-12N	4120-12E	4120-12EN	4120-12H	4120-12HN
M14	2	4120-14	4120-14N	4120-14E	4120-14EN	4120-14H	4120-14HN
M16	2	4120-16	4120-16N	4120-16E	4120-16EN	4120-16H	4120-16HN
M18	2.5	4120-18	4120-18N	4120-18E	4120-18EN	4120-18H	4120-18HN
M20	2.5	4120-20	4120-20N	4120-20E	4120-20EN	4120-20H	4120-20HN
M22	2.5	4120-22	4120-22N	4120-22E	4120-22EN	4120-22H	4120-22HN
M24	3	4120-24	4120-24N	4120-24E	4120-24EN	4120-24H	4120-24HN
M27	3	4120-27	4120-27N	4120-27E	4120-27EN	4120-27H	4120-27HN
M30	3.5	4120-30	4120-30N	4120-30E	4120-30EN	4120-30H	4120-30HN
M33	3.5	4120-33	4120-33N	4120-33E	4120-33EN	4120-33H	4120-33HN
M36	4	4120-36	4120-36N	4120-36E	4120-36EN	4120-36H	4120-36HN
M39	4	4120-39	4120-39N	4120-39E	4120-39EN	4120-39H	4120-39HN
M42	4.5	4120-42	4120-42N	-	-	4120-42H	4120-42HN
M45	4.5	4120-45	4120-45N	_	-	4120-45H	4120-45HN
M48	5	4120-48	4120-48N	-	-	4120-48H	4120-48HN
M52	5	4120-52	4120-52N	-	-	4120-52H	4120-52HN
M56	5.5	4120-56	4120-56N	-	-	-	-
M60	5.5	4120-60	4120-60N	-	-	_	_

Go ring gauge set (class 6g)

Code	Thread ring gauges included
4120-S7	$\begin{array}{l} M3x0.5 \ (\textbf{4120-3}), \ M4x0.7 \ (\textbf{4120-4}), \ M5x0.8 \ (\textbf{4120-5}), \ M6x1 \ (\textbf{4120-6}), \\ M8x1.25 \ (\textbf{4120-8}), \ M10x1.5 \ (\textbf{4120-10}), \ M12x1.75 \ (\textbf{4120-12}) \end{array}$

No Go ring gauge set (class 6g)

Code	Thread ring gauges 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 GAUGES

INSPECTION CERTIFICATE

- Standard ISO1502Supplied with manufacturer inspection certificate



4129-9P



WARNING: LIFE TIME IS LIMITED, CAN BE USED ABOUT 2000 TIMES

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

Size (mm))			Cod	e (4129)		
		Cla	ss 6g	Cla	ss 6e	Clas	ss 6h
Nominal diameter Pitch		GO	NOGO	GO	NOGO	GO	NOGO
M3	0.35	-3D	-3DN	-3DE	-3DEN	-3DH	-3DHN
M3.5	0.35	-3D5D	-3D5DN	-	-	-3D5DH	-3D5DHN
1010.0	0.35	-3D5G	-3D5GN	-	-	-	-
M4	0.5	-4G	-4GN	-4GE	-4GEN	-4GH	-4GHN
M4.5	0.5	-4D5G	-4D5GN	-4D5GE	-4D5GEN	-	-
M5	0.5	-5G	-5GN	-5GE	-5GEN	-5GH	-5GHN
M5.5	0.5	-5D5G	-5D5GN	-5D5GE	-	-	-
M6	0.5	-6G	-6GN	-6GE	-6GEN	-6GH	-6GHN
IVIO	0.75	-6L	-6LN	-6LE	-6LEN	-6LH	-6LHN
M6.5	0.5	-6D5G	-6D5GN	-	-	-	-
147	0.5	-7G	-7GN	-7GE	-7GEN	-7GH	-7GHN
M7	0.75	-7L	-7LN	-7LE	-7LEN	-7LH	-7LHN
M7.5	0.5	-7D5G	-7D5GN	-	-	-	-
	0.5	-8G	-8GN	-8GE	-8GEN	-8GH	-8GHN
M8	0.75	-8L	-8LN	-8LE	-8LEN	-8LH	-8LHN
	1	-8P	-8PN	-8PE	-8PEN	-8PH	-8PHN
M8.5	0.5	-8D5G	-8D5GN	-	-	-	_
	0.5	-9G	-9GN	-9GE	-9GEN	-9GH	-9GHN
M9	0.75	-9L	-9LN	-9LE	-9LEN	-9LH	-9LHN
1410	1	-9P	-9PN	-9PE	-9PEN	-9PH	-9PHN
	0.5	-10G	-10GN	-31 L	-10GEN	-31 11 -10GH	-10GHN
	0.75	-10L	-10UN	-10GE	-10GEN	-10UH	-10CHN
M10							
	1	-10P	-10PN	-10PE	-10PEN	-10PH	-10PHN
	1.25	-10Q	-10QN	-10QE	-10QEN	-10QH	-10QHN
	0.5	-11G	-11GN	-11GE	-11GEN	-11GH	-11GHN
M11	0.75	-11L	-11LN	-11LE	-11LEN	-11LH	-11LHN
	1	-11P	-11PN	-11PE	-11PEN	-11PH	-11PHN
	0.5	-12G	-12GN	-12GE	-12GEN	-12GH	-12GHN
	0.75	-12L	-12LN	-12LE	-12LEN	-12LH	-12LHN
M12	1	-12P	-12PN	-12PE	-12PEN	-12PH	-12PHN
	1.25	-12Q	-12QN	-12QE	-12QEN	-12QH	-12QHN
	1.5	-12R	-12RN	-12RE	-12REN	-12RH	-12RHN
	0.5	-13G	-13GN	-13GE	-13GEN	-13GH	-13GHN
M13	0.75	-13L	-13LN	-13LE	-13LEN	-13LH	-13LHN
WITO	1	-13P	-13PN	-13PE	-13PEN	-13PH	-13PHN
	1.5	-13R	-13RN	-13RE	-13REN	-13RH	-13RHN
	0.5	-14G	-14GN	-14GE	-14GEN	-14GH	-14GHN
	0.75	-14L	-14LN	-14LE	-14LEN	-14LH	-14LHN
M14	1	-14P	-14PN	-14PE	-14PEN	-14PH	-14PHN
	1.25	-14Q	-14QN	-14QE	-14QEN	-14QH	-14QHN
	1.5	-14R	-14RN	-14RE	-14REN	-14RH	-14RHN
	0.5	-15G	-15GN	-15GE	-15GEN	-15GH	-15GHN
	0.75	-15L	-15LN	-15LE	-15LEN	-15LH	-15LHN
M15	1	-15P	-15PN	-15PE	-15PEN	-15PH	-15PHN
	1.5	-15R	-15RN	-15RE	-15REN	-15RH	-15RHN
	0.5	-16G	-16GN	-16GE	-16GEN	-16GH	-16GHN
	0.75	-16L	-16LN	-16LE	-16LEN	-16LH	-16LHN
M16	1	-16P	-16PN	-16PE	-16PEN	-16PH	-16PHN
	1.25	-16Q	-16QN	-	-	-	-
	1.5	-16R	-16RN	-16RE	-16REN	-16RH	-16RHN
			-17GN	-17GE	-17GEN		-17GHN
	0.5	-17G				-17GH	
M17	0.75	-17L	-17LN	-17LE	-17LEN	-17LH	-17LHN
	1	-17P	-17PN	-17PE	-17PEN	-17PH	-17PHN
	1.5	-17R	-17RN	-17RE	-17REN	-17RH	-17RHN

C i ()				Cod	e (4129)		
Size (mm)		Cla	ss 6g	Cla	ss 6e	Clas	ss 6h
Nominal diameter	Pitch	GO	NOGO	GO	NOGO	GO	NOGO
	0.5	-18G	-18GN	-	-	-18GH	-18GHN
	0.75	-18L	-18LN	-18LE	-18LEN	-18LH	-18LHN
M18	1	-18P	-18PN	-18PE	-18PEN	-18PH	-18PHN
WITO	1.25	-18Q	-18QN	-	-	-18QH	-18QHN
	1.5	-18R	-18RN	-18RE	-18REN	-18RH	-18RHN
	2	-18T	-18TN	-18TE	-18TEN	-18TH	-18THN
	0.5	-19G	-19GN	-	-	-19GH	-19GHN
M19	0.75	-19L	-19LN	-19LE	-19LEN	-19LH	-19LHN
	1	-19P	-19PN	-19PE	-19PEN	-19PH	-19PHN
	1.5	-19R	-19RN	-	-	-	-
	0.5	-20G	-20GN	-	-	-20GH	-20GHN
	0.75	-20L	-20LN	-20LE	-20LEN	-20LH	-20LHN
M20	1	-20P	-20PN	-20PE	-20PEN	-20PH	-20PHN
	1.25	-20Q	-20QN	-	-	-20QH	-20QHN
	1.5	-20R	-20RN	-20RE	-20REN	-20RH	-20RHN
	2	-20T	-20TN	-20TE	-20TEN	-20TH	-20THN
	0.75	-21L	-21LN	-21LE	-21LEN	-	-
M21	1	-21P	-21PN	-21PE	-21PEN	-21PH	-21PHN
	1.5	-21R	-21RN	-	-	-	-
	0.75	-22L	-22LN	-	-	-	-
	1	-22P	-22PN	-22PE	-22PEN	-22PH	-22PHN
M22	1.25	-22Q	-22QN	-	-	-	-
	1.5	-22R	-22RN	-22RE	-22REN	-22RH	-22RHN
	2	-22T	-22TN	-22TE	-22TEN	-22TH	-22THN
M23	0.75	-23L	-23LN	-	-	-	-
	1	-23P	-23PN	-23PE	-23PEN	-23PH	-23PHN
	0.75	-24L	-24LN	-	- 24DEN	-24LH	-24LHN
M24	1 1.25	-24P -24Q	-24PN -24QN	-24PE -24QE	-24PEN	-24PH	-24PHN
IVIZ4	1.25	-24Q -24R	-24QN -24RN	-24QE -24RE	-24QEN -24REN	- -24RH	-24RHN
	2	-24T	-24TN	-24TE	-24TEN	-24TH	-24THN
	0.75	-25L	-241N	-241E	-241EN	-241H	-241HN -25LHN
	1	-25P	-25EN	-25PE	-25PEN	-25PH	-25PHN
M25	1.5	-25R	-25RN	-25RE	-25REN	-25RH	-25RHN
	2	-25T	-25TN	-25TE	-25TEN	-25TH	-25THN
	0.75	-26L	-26LN	-	-	-26LH	-26LHN
	1	-26P	-26PN	-26PE	-26PEN	-26PH	-26PHN
M26	1.5	-26R	-26RN	-26RE	-26REN	-26RH	-26RHN
	2	-26T	-26TN	-26TE	-26TEN	-26TH	-26THN
	0.75	-27L	-27LN	-	-	-	-
1.05	1	-27P	-27PN	-27PE	-27PEN	-27PH	-27PHN
M27	1.5	-27R	-27RN	-27RE	-27REN	-27RH	-27RHN
	2	-27T	-27TN	-27TE	-27TEN	-27TH	-27THN
	0.75	-28L	-28LN	-	-	-	-
MOO	1	-28P	-28PN	-28PE	-28PEN	-28PH	-28PHN
M28	1.5	-28R	-28RN	-28RE	-28REN	-28RH	-28RHN
	2	-28T	-28TN	-28TE	-28TEN	-28TH	-28THN
M29	0.75	-29L	-29LN	-	-	-	-
IVIZ9	1	-29P	-29PN	-	-	-	-
	0.75	-30L	-30LN	-30LE	-30LEN	-30LH	-30LHN
M30	1	-30P	-30PN	-30PE	-30PEN	-30PH	-30PHN
IVIOU	1.5	-30R	-30RN	-30RE	-30REN	-30RH	-30RHN
	2	-30T	-30TN	-30TE	-30TEN	-30TH	-30THN
						To b	e continued



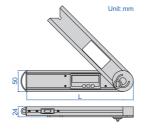
Continued from previous page

Size (mm)		Code (4129)						
Size (IIIII)		Class 6g		Class 6e		Class 6h		
Nominal diameter	Pitch	GO	NOGO	GO	NOGO	GO	NOGO	
M30	3	-30V	-30VN	-	-	-	-	
M31	0.75	-31L	-31LN	-	-	-	-	
	0.75	-32L	-32LN	-	-	-	-	
M32	1	-32P	-32PN	-32PE	-32PEN	-32PH	-32PHN	
IVIOZ	1.5	-32R	-32RN	-32RE	-32REN	-32RH	-32RHN	
	2	-32T	-32TN	-32TE	-32TEN	-32TH	-32THN	
	0.75	-33L	-33LN	-	-	-	-	
	1	-33P	-33PN	-33PE	-33PEN	-33PH	-33PHN	
M33	1.5	-33R	-33RN	-33RE	-33REN	-33RH	-33RHN	
	2	-33T	-33TN	-33TE	-33TEN	-33TH	-33THN	
	3	-33V	-33VN	-	-	-	-	
	1	-34P	-34PN	-34PE	-34PEN	-34PH	-34PHN	
M34	1.5	-34R	-34RN	-34RE	-34REN	-34RH	-34RHN	
	2	-34T	-34TN	-	-	-	-	
	1	-35P	-35PN	-35PE	-35PEN	-35PH	-35PHN	
M35	1.5	-35R	-35RN	-35RE	-35REN	-35RH	-35RHN	
	2	-35T	-35TN	-	-	-	-	
	1	-36P	-36PN	-36PE	-36PEN	-36PH	-36PHN	
	1.5	-36R	-36RN	-36RE	-36REN	-36RH	-36RHN	
M36	2	-36T	-36TN	-36TE	-36TEN	-36TH	-36THN	
	3	-36V	-36VN	-	-	-36VH	-36VHN	
	1	-38P	-38PN	-38PE	-38PEN	-38PH	-38PHN	
M38	1.5	-38R	-38RN	-38RE	-38REN	-38RH	-38RHN	
	2	-38T	-38TN	-38TE	-38TEN	-38TH	-38THN	
	1	-39P	-39PN	-	-	-	-	
	1.5	-39R	-39RN	-39RE	-39REN	-39RH	-39RHN	
M39	2	-39T	-39TN	-39TE	-39TEN	-39TH	-39THN	
	3	-39V	-39VN	-	-	-	-	
	1.5	-40R	-40RN	-40RE	-40REN	-40RH	-40RHN	
M40	2	-40T	-40TN	-40TE	-40TEN	-40TH	-40THN	
	3	-40V	-40VN	-	-	-	-	
M42	1.5	-42R	-42RN	-42RE	-42REN	-42RH	-42RHN	

O: ()	Sizo (mm)		Code (4129)						
Size (mm)	Size (IIIII)		Class 6g		Class 6e		ss 6h		
Nominal diameter	Pitch	GO	NOGO	GO	NOGO	GO	NOGO		
M42	2	-42T	-42TN	-42TE	-42TEN	-42TH	-42THN		
IVITZ	3	-42V	-42VN	-	-	-	-		
	1.5	-45R	-45RN	-45RE	-45REN	-45RH	-45RHN		
M45	2	-45T	-45TN	-45TE	-45TEN	-45TH	-45THN		
	3	-45V	-45VN	-45VE	-	-	-		
	1.5	-48R	-48RN	-48RE	-48REN	-48RH	-48RHN		
M48	2	-48T	-48TN	-48TE	-48TEN	-48TH	-48THN		
	3	-48V	-48VN	-	-	-48VH	-48VHN		
	1.5	-50R	-50RN	-50RE	-50REN	-50RH	-50RHN		
M50	2	-50T	-50TN	-50TE	-50TEN	-50TH	-50THN		
	3	-50V	-50VN	-	-	-	-		
	1.5	-52R	-52RN	-52RE	-52REN	-52RH	-52RHN		
M52	2	-52T	-52TN	-52TE	-52TEN	-52TH	-52THN		
IVIJZ	3	-52V	-52VN	-	-	-52VH	-52VHN		
	4	-52X	-52XN	-	-	-	-		
	1.5	-55R	-55RN	-55RE	-55REN	-55RH	-55RHN		
M55	2	-55T	-55TN	-55TE	-55TEN	-55TH	-55THN		
IVIOO	3	-55V	-55VN	-	-	-	-		
	4	-55X	-55XN	-	-	-	-		
	1.5	-56R	-56RN	-56RE	-56REN	-56RH	-56RHN		
M56	2	-56T	-56TN	-56TE	-56TEN	-56TH	-56THN		
IVIO	3	-56V	-56VN	-	-	-56VH	-56VHN		
	4	-56X	-56XN	-	-	-	-		
	1.5	-58R	-58RN	-58RE	-58REN	-58RH	-58RHN		
	2	-58T	-58TN	-58TE	-58TEN	-58TH	-58THN		
M58	3	-58V	-58VN	-	-	-	-		
	4	-58X	-58XN	-	-	-	-		
	1.5	-60R	-60RN	-60RE	-60REN	-60RH	-60RHN		
	2	-60T	-60TN	-60TE	-60TEN	-60TH	-60THN		
M60	3	-60V	-60VN	-	-	-	-		
	4	-60X	-60XN	-	-	-	-		

DIGITAL PROTRACTOR

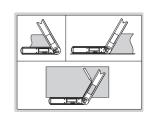




- Buttons: on/off, hold (keep the reading), zero, ABS (absolute and incremental measurement)
 Fix the locking screw at 4 positions for different measuring ranges: 0°~225°, -225°~0°, -45°~180°, -180°~45°
 Remove the locking screw for 360° range
 With level vial
 Battery CR2032
 Automatic power off

Code	Size (L)	Range	Resolution	Accuracy
2171-250	250mm	0-360°	0.05°	±0.15°



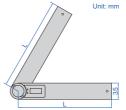


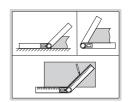


DIGITAL PROTRACTORS

- Accuracy: ±0.3°
- 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

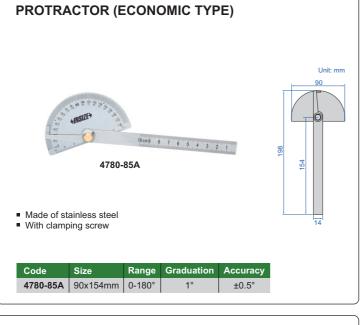


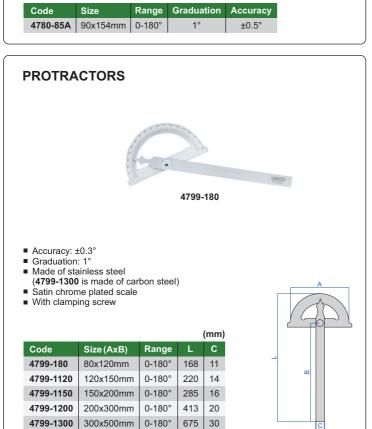


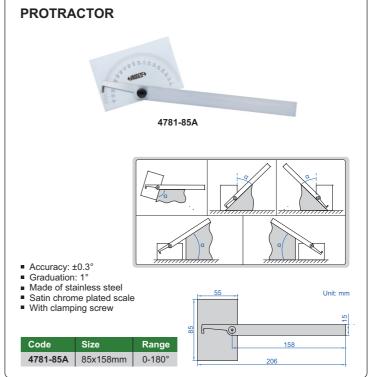


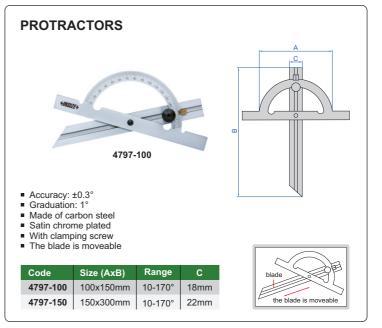
Code	Size (L)	Range	Resolution
2176-200	200mm	0-360°	0.1°
2176-300	300mm	0-360°	0.1°

PROTRACTOR (ECONOMIC TYPE) Unit: mm 10cm9 8 7 6 5 4 3 2 1 4780-85A Made of stainless steel With clamping screw Range **4780-85A** | 90x154mm | 0-180°





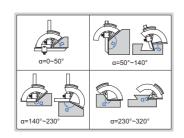


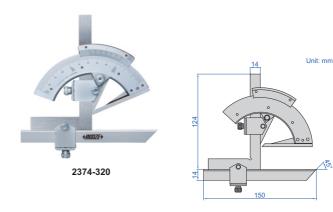


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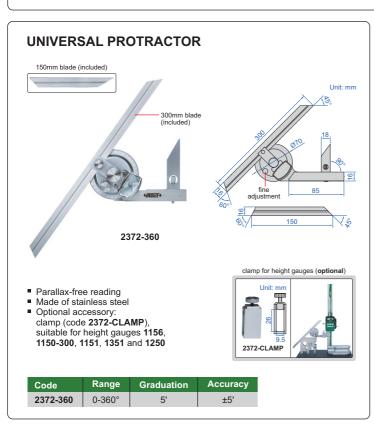
PROTRACTOR

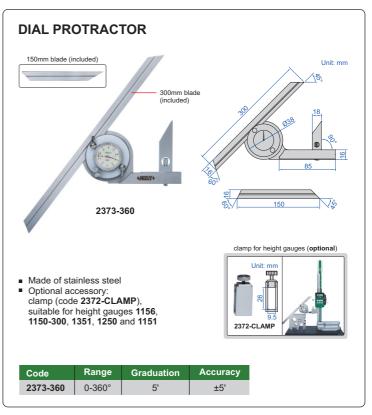
- Made of stainless steel
- Satin chrome plated scale

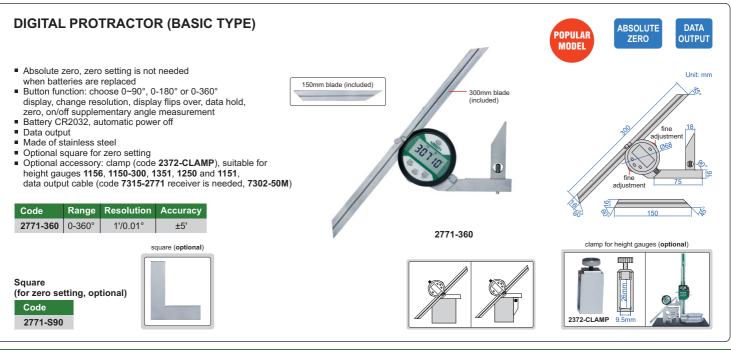




Code	Range	Graduation	Accuracy
2374-320	0-320°	2'	±2'



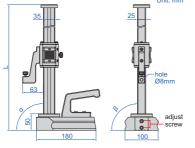








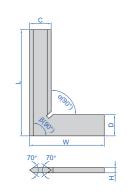
Optional accessory: dial test indicators (graduation: 1μm or 2μm)



Code	Range (H)	Perpendicularity (α)	Side perpendicularity (β)	L
4770-300	0-300mm	3µm	10µm	460mm

90° BEVELED EDGE SQUARES





- Satin chrome plating
 Beveled edges for inside and outside measurements
 Made of hardened stainless steel

DIN875 grade 00

(mm)

Cada	Cina (LudA)	Squareness		С	D	н
Code	Size (LxW)	Inside (α)	Outside (β)	L.	יי	
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

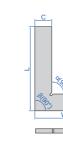
DIN875 grade 0

(mm)

0 - 1 -	0: (1340)	Squareness			D	
Code	Size (LxW)	Inside (α)	Outside (β)	С	ט	Н
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
4790-2500	250x165mm	9µm	10µm	35	35	7
4790-3000	300x200mm	10µm	11µm	40	40	8

90° FLAT EDGE SQUARES





stainless steel

DIN875 grade 1

(mm)

Code	Size (LxW)	Squareness		С	D	н
Code	Size (LXVV)	Inside (α)	Outside (β)	U	ט	"
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	7
4791-2501	250x165mm	21µm	23µm	35	35	7
4791-3001	300x200mm	23µm	25µm	40	40	8

DIN875 grade 0

■ Made of hardened

Code	Sizo (Lv/M)	Squa	reness	С	D	н
Code	Code Size (LxW)	Inside (α)	Outside (β)		, L	"
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 2

(mm)

(mm)

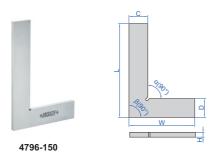
Direct o grade 2					()
Sizo (LyM)	Squa	_	n	н	
ode Size (LxW)	Inside (α)	Outside (β)	٠	U	
50x40mm	24µm	25µm	15	15	4
75x50mm	26µm	28µm	15	15	4
100x70mm	28µm	30µm	20	20	5
150x100mm	33µm	35µm	30	30	6
200x130mm	38µm	40µm	30	30	7
250x165mm	43µm	45µm	35	35	7
300x200mm	47µm	50µm	40	40	8
	50x40mm 75x50mm 100x70mm 150x100mm 200x130mm 250x165mm	Size (LxW) Squate 50x40mm 24μm 75x50mm 26μm 100x70mm 28μm 150x100mm 33μm 200x130mm 38μm 250x165mm 43μm	Squareness Inside (α) Outside (β) 50x40mm 24μm 25μm 75x50mm 26μm 28μm 100x70mm 28μm 30μm 150x100mm 33μm 35μm 200x130mm 38μm 40μm 250x165mm 43μm 45μm	Squareness C Inside (α) Outside (β) C 50x40mm 24μm 25μm 15 75x50mm 26μm 28μm 15 100x70mm 28μm 30μm 20 150x100mm 33μm 35μm 30 200x130mm 38μm 40μm 30 250x165mm 43μm 45μm 35	Squareness C D 50x40mm 24μm 25μm 15 15 75x50mm 26μm 28μm 15 15 100x70mm 28μm 30μm 20 20 150x100mm 33μm 35μm 30 30 200x130mm 38μm 40μm 30 30 250x165mm 43μm 45μm 35 35



MACHINIST SQUARES (ECONOMIC TYPE)

ATTENTION: NO ANTI-RUST TREATMENT, NOT HARDEND

(mm)



Squareness Code Size (LxW) С Inside (α) Outside (β) 25µm 4796-50 50×30mm 12 24µm 12 3 4796-75 75×50mm 16 3 26um 28um 16 4796-100 100×70mm 30µm 5 28µm 19 19 4796-125 125×80mm 22 5 30µm 33µm 22 4796-150 150×100mm $33 \mu m$ 35µm 25 25 6 4796-200 38µm 40µm 200×130mm 25 25 6 4796-250 250×165mm 43µm 25 25 6 45µm 300×200mm 4796-300 50µm 30 30 6 $47 \mu m$ 4796-350 350×200mm $51 \mu m$ 55µm 38 38 6 4796-400 400×200mm 38 9 56µm 60µm 38 4796-450 38 9 450×250mm 58µm 65µm 38 4796-500 38 9 500×300mm $69 \mu m$ 70µm 38

- DIN875 grade 2
- Made of carbon steel, no anti-rust treatment, not hardend

90° FLAT EDGE SQUARES WITH WIDE BASE



hardened steel	- MET-	W W
	4793-100	ш

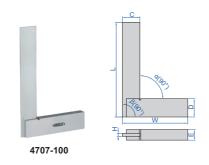
DIN875 grade	0						(mm
Codo	Code Size (LxW)	Squa	С	D	н	Е	
Code	Size (LXVV)	Inside (α)	Outside (β)	٠	,	"	-
4793-50	50x40mm	6µm	6µm	15	15	4	13
4793-75	75x50mm	6µm	7µm	15	15	4	15
4793-100	100x70mm	7µm	7µm	20	20	5	20
4793-150	150x100mm	7µm	8µm	30	30	6	30
4793-200	200x130mm	8µm	9µm	30	30	7	30
4793-250	250x165mm	9µm	10µm	35	35	7	35
4793-300	300x200mm	10µm	11µm	40	40	8	40

DIN875 grade 1 (mr									
Code	Size (LxW)	Squa	Squareness			н	Е		
Code	Size (LXVV)	Inside (α)	Outside (β)	С	D		_		
4793-501	50x40mm	12µm	13µm	15	15	4	13		
4793-751	75x50mm	13µm	14µm	15	15	4	15		
4793-1001	100x70mm	14µm	15µm	20	20	5	20		
4793-1501	150x100mm	16µm	18µm	30	30	6	30		
4793-2001	200x130mm	19µm	20µm	30	30	7	30		
4793-2501	250x165mm	21µm	23µm	35	35	7	35		
4793-3001	300x200mm	23µm	25µm	40	40	8	40		

DIN875 grade 2 (m								
Sizo (LVM)	Size (LxW)		C	n		Е		
Size (LXVV)			·	, D	"	-		
50x40mm	24µm	25µm	15	15	4	13		
75x50mm	26µm	28µm	15	15	4	15		
100x70mm	28µm	30µm	20	20	5	20		
150x100mm	33µm	35µm	30	30	6	30		
200x130mm	38µm	40µm	30	30	7	30		
250x165mm	43µm	45µm	35	35	7	35		
300x200mm	47µm	50µm	40	40	8	40		
	50x40mm 75x50mm 100x70mm 150x100mm 200x130mm 250x165mm	Size (LxW) Squate 50x40mm 24μm 75x50mm 26μm 100x70mm 28μm 150x100mm 33μm 200x130mm 38μm 250x165mm 43μm	Squareness Size (LxW) Squareness Inside (α) Outside (β) 50x40mm 24μm 25μm 75x50mm 26μm 28μm 100x70mm 28μm 30μm 150x100mm 33μm 35μm 200x130mm 38μm 40μm 250x165mm 43μm 45μm	Squareness C Inside (α) Outside (β) C 50x40mm 24μm 25μm 15 75x50mm 26μm 28μm 15 100x70mm 28μm 30μm 20 150x100mm 33μm 35μm 30 200x130mm 38μm 40μm 30 250x165mm 43μm 45μm 35	Size (LxW) Squaress C D 50x40mm 24μm 25μm 15 15 75x50mm 26μm 28μm 15 15 100x70mm 28μm 30μm 20 20 150x100mm 33μm 35μm 30 30 200x130mm 38μm 40μm 30 30 250x165mm 43μm 45μm 35 35	Size (LxW) Squareness C D H 50x40mm 24μm 25μm 15 15 4 75x50mm 26μm 28μm 15 15 4 100x70mm 28μm 30μm 20 20 5 150x100mm 33μm 35μm 30 6 200x130mm 38μm 40μm 30 30 7 250x165mm 43μm 45μm 35 35 7		

MACHINIST SQUARES WITH WIDE BASE (ECONOMIC TYPE)

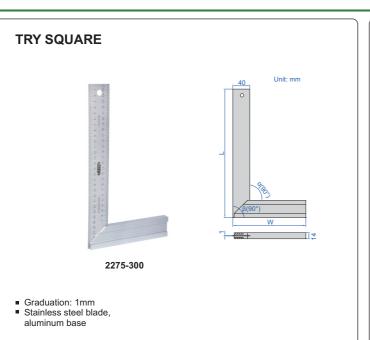
ATTENTION: NO ANTI-RUST TREATMENT, NOT HARDEND



- DIN875 grade 2
- Made of carbon steel, no anti-rust treatment, not hardend

							(mm)
Code	Size (LxW)	Squa	reness	С	D	н	Е
Code	OIZC (EXVI)	Inside (α)	Outside (β)	٠			-
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





Squareness

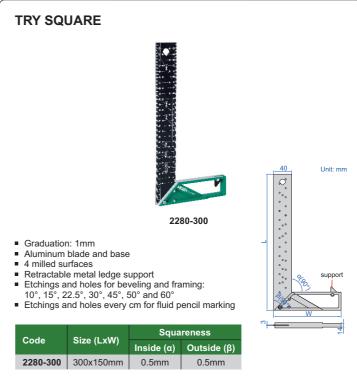
Inside (α) Outside (β)

0.5mm

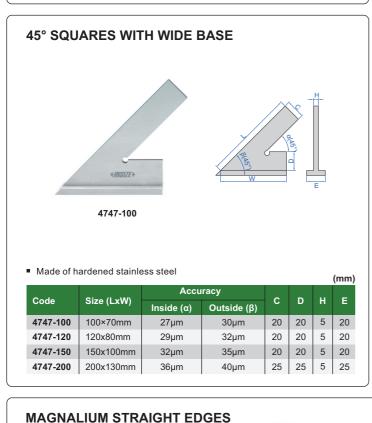
Code

Size (LxW)

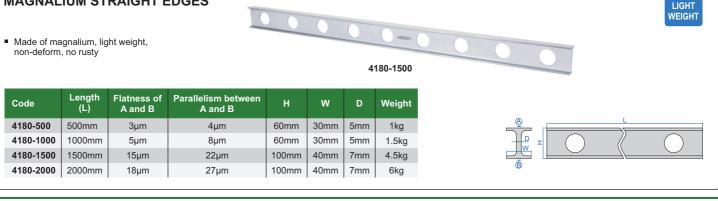
2275-300 | 300x170mm |



STRAIGHT EDGES



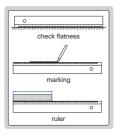




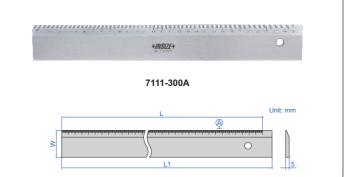


STRAIGHT EDGES

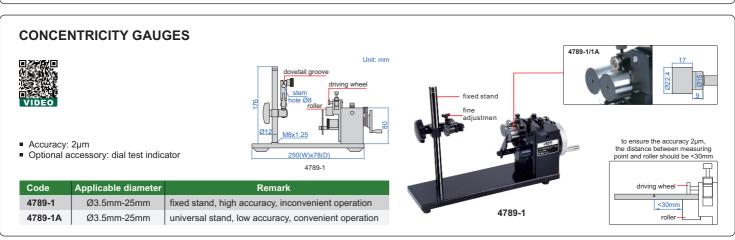
- Check flatness and straightness, as well as for marking
- Graduation on the beveled edge Made of hardened tool steel
- Chrome plated
- Graduation:1mm

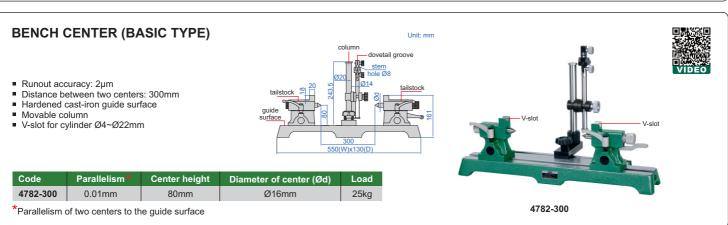


Code	Range (L)	Straightness of A	L1	w
7111-300A	300mm	0.02mm	310mm	40mm
7111-500A	500mm	0.03mm	510mm	40mm
7111-1000A	1000mm	0.04mm	1010mm	50mm





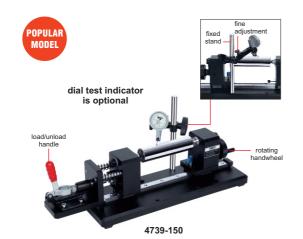




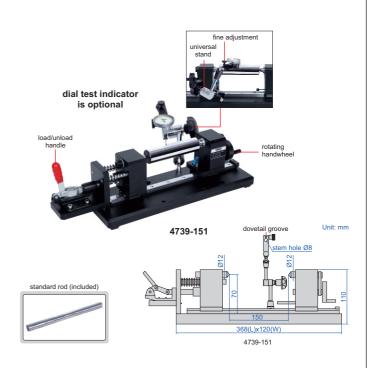


BENCH CENTERS





- Quick positioning, suitable for mass measurement
 Suitable for cylinders with outside diameter Ø3-140mm or inside diameter Ø1-12mm
- Supplied with standard rod to verify accuracy
 Optional accessory: dial test indicators



Code	Center height	Distance between two centers	Runout accuracy	Weight	Load	Remark
4739-150	70mm	150mm	2µm	6.5kg	15kg	fixed stand, high accuracy, inconvenient operation
4739-151	70mm	150mm	2µm	6.5kg	15kg	universal stand, low accuracy, convenient operation

BENCH CENTERS



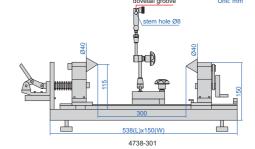






- Quick positioning, suitable for mass measurement
- Suitable for cylinders with outside diameter Ø3-180mm or inside diameter Ø1-40mm
 Supplied with standard rod to verify accuracy
- Optional accessory: dial test indicators





Code	Center height	Distance between two centers	Runout accuracy	Weight	Load	Remark
4738-300	90mm	300mm	2µm	15kg	20kg	fixed stand, high accuracy, inconvenient operation
4738-301	90mm	300mm	2µm	15kg	20kg	universal stand, low accuracy, convenient operation

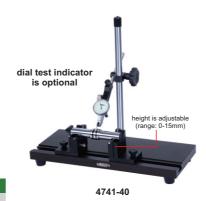


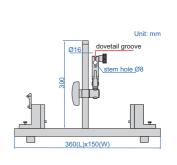
BENCH CENTER



- Accuracy: 2µm
 Quick positioning, suitable for mass measurement
- Optional accessory: dial test indicators (code 2880-02, 2880-02R)

Code	Stem hole	Diameter range	Workpiece length
4741-40	Ø8mm	Ø3-40mm	15-300mm



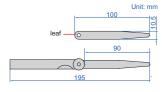


FEELER GAUGES

- 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
4602-28	0.05-1.00mm	0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.11, 0.12, 0.13, 0.14, 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	28
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 GAUGE

Code

4601-25

- 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

	Unit: mm
75	
leaf O.	3
)
)
140	

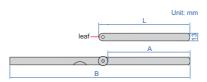
Thousand the part of the part	
Thickness of leaves included (mm)	Quantity of leaves
0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00	25



4601-25

LONG FEELER GAUGES

- Range: 0.05-1.00mmMade 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	L	Α	В
4605-13	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	150mm	135mm	295mm
4605-131		13	200mm	185mm	395mm
4605-132		13	300mm	285mm	590mm
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	150mm	135mm	295mm
4605-201		20	200mm	185mm	395mm
4605-202		20	300mm	285mm	590mm



4605-20

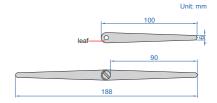


PLASTIC FEELER GAUGES

■ Accuracy: ±0.04mm (thickness of leaves: 0.25mm) ±0.05mm (thickness of leaves: 0.5mm) ±0.08mm (thickness of leaves: ≥1mm)



4623-2

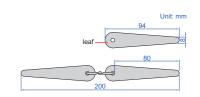


Code	Range	Thickness of leaves included	Quantity of leaves
4623-2	0.25-2.00mm	2.00mm (0.078"), 1.00mm (0.039"), 0.50mm (0.020"), 0.50mm (0.020"), 0.50mm (0.020"), 0.25mm (0.010"), 0.25mm (0.010"), 1.00mm (0.039"), 2.00mm (0.078"), 1.00mm (0.039"), 2.00mm (0.078"), 1.00mm (0.039"),	13
4623-5	0.25-5.00mm	1.00mm (0.039"), 0.25mm (0.010"), 0.50mm (0.020"), 1.50mm (0.059"), 2.00mm (0.078"), 2.50mm (0.098"), 3.00mm (0.118"), 3.50mm (0.138"), 4.00mm (0.157"), 4.50mm (0.177"), 5.00mm (0.196")	11

PLASTIC FEELER GAUGE

■ Accuracy: ±0.02mm (thickness of leaves: 0.05-0.1mm) ±0.03mm (thickness of leaves: 0.15-0.6mm) ±0.04mm (thickness of leaves: ≥0.7mm)





Code	Range	Thickness of leaves included (mm)	Quantity of leaves
4624-1D5	0.05-1.5mm	0.05, 0.1, 0.15, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.1, 1.2, 1.3, 1.4, 1.5	17

FEELER GAUGE STOCKS

- Used as shims to accurately set spacing

 Made of hardened alloy steel

- Length 300mmWidth 13mm10 pcs per package





Code	Thickness (T)	Accuracy
4622-02	0.02mm	±3µm
4622-03	0.03mm	±3µm
4622-04	0.04mm	±3µm
4622-05	0.05mm	±3µm
4622-06	0.06mm	±3µm
4622-07	0.07mm	±4µm
4622-08	0.08mm	±4µm
4622-09	0.09mm	±4µm
4622-10	0.10mm	±4µm
4622-12	0.12mm	±5µm

Code	Thickness (T)	Accuracy
4622-15	0.15mm	±5µm
4622-18	0.18mm	±6µm
4622-20	0.20mm	±6µm
4622-25	0.25mm	±6µm
4622-30	0.30mm	±7µm
4622-35	0.35mm	±7µm
4622-40	0.40mm	±8µm
4622-45	0.45mm	±8µm
4622-50	0.50mm	±9µm
4622-55	0.55mm	±9µm

Code	Thickness (T)	Accuracy
4622-60	0.60mm	±9µm
4622-65	0.65mm	±9µm
4622-70	0.70mm	±12µm
4622-75	0.75mm	±12µm
4622-80	0.80mm	±13µm
4622-85	0.85mm	±13µm
4622-90	0.90mm	±14µm
4622-95	0.95mm	±14µm
4622-100	1.00mm	±16µm



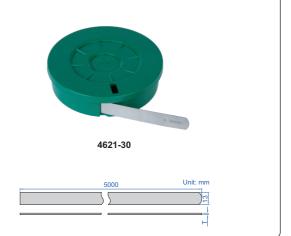


FEELER GAUGE ROLLS

- Used as shims to accurately set spacing
 Made of hardened alloy steel
 Length 5m
 Width 13mm

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

Code	Thickness (T)	Accuracy
4621-10	0.10mm	±5µm
4621-15	0.15mm	±6µm
4621-20	0.20mm	±8µm
4621-25	0.25mm	±9µm
4621-30	0.30mm	±9µm
4621-40	0.40mm	±12µm
4621-50	0.50mm	±14µm
4621-100	1.00mm	±24µm



PITCH GAUGES

- Identify the pitch of screw threadMade of medium carbon steel





4820-122

Metric 60° screw

Code	Range	Pitch of leaves included (mm)	Quantity of leaves
4820-122	0.4-7.0mm	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, 7	22
4820-124	0.25-7.0mm	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, 7	24
4820-1241	0.25-6.0mm	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, 6	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

Whitworth 55° screw

Code	Range	Pitch of leaves included	Quantity of leaves
4820-330	4-42TPI	4, 4-1/2, 5, 5-1/2, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 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	0.25-6.0mm	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	
4620-452	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	52	
4920 450	0.4-7.0mm	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	50	
4820-450	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	50	

Metric 60° and Unified 60° screw

Code	Range	Pitch of leaves included	Quantity of leaves
	0.4-7.0mm	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	
4820-552	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	52

PITCH GAUGE

- Accuracy: ±0.07mm
 Check the pitch of screw thread
 Made of medium carbon steel



4824-12

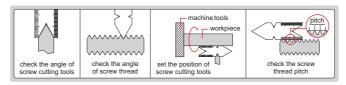
Code	Range	Thread type	Pitch of leaves included	Quantity of leaves
4824-12	2-20mm	Tr30°	2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 16, 20mm	12





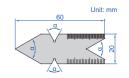
CENTER GAUGES

- 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
4810-602	UNIFIED 60°	60°	14ths and 20ths on front side, 24ths and 32ths on back side
4810-55	WHITWORTH 55°	55°	14ths and 20ths on front side, 24ths and 32ths on back side





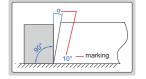
ANGLE GAUGE

- Accuracy: ±30'
- To check complementary angles
 Made of stainless steel



4806-20

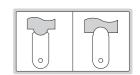
Co	ode	Range (α)	Angle of leaves included	Quantity of leaves
48	06-20	1°-45°	1°, 2°, 3°, 4°, 5°, 6°, 7°, 8°, 9°, 10°, 12°, 14°,16°, 18°, 20°, 25°, 30°, 35°, 40°, 45°	20



RADIUS GAUGES

■ Made of medium 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 GAUGES









■ 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
4802-51	51-60mm	51, 52, 53, 54, 55, 56, 57, 58, 59, 60	10
4802-61	61-70mm	61, 62, 63, 64, 65, 66, 67, 68, 69, 70	10
4802-71	71 -80mm	71, 72, 73, 74, 75, 76, 77, 78, 79, 80	10
4802-81	81-90mm	81, 82, 83, 84, 85, 86, 87, 88, 89, 90	10
4802-91	91-100mm	91, 92, 93, 94, 95, 96, 97, 98, 99, 100	10

RADIUS GAUGE SET





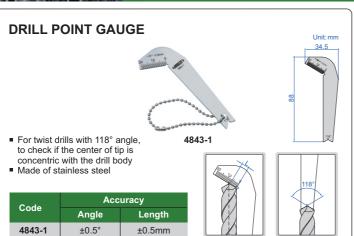
- Each piece has 3 concave and 2 convex gaging surfaces

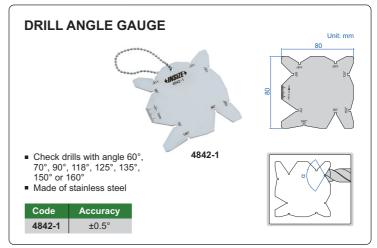
 Supplied with handle
- Made of medium carbon steel

4804-26

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







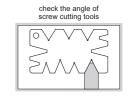
ANGLE GAUGE

- Accuracy: ±10'
- Made of stainless steel

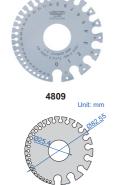
Code	Range
4854-1	29°, 30°, 40°, 45°, 50°, 55°, 60°







U.S. STANDARD SHEET METAL GAUGE



■ For gaging sheet metal,

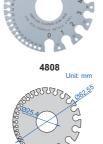
Hardened to HRC50-57

plate iron and steel

7.938mm/0.3125" 0 7.144mm/0.2813" 2 6.747mm/0.2656" 3 6.350mm/0.2500" 5.953mm/0.2344" 5.556mm/0.2188" 6 5.159mm/0.2031" 7 4.763mm/0.1875" 8 4.366mm/0.1719" 3.969mm/0.1563" 9 3.572mm/0.1406" 11 3.175mm/0.1250" 12 2.778mm/0.1094" 13 2.381mm/0.0938" 1.984mm/0.0781" 14 15 1.786mm/0.0703" 16 1.588mm/0.0625" 1.429mm/0.0563" 17

19 1.111mm/0.0438" 20 0.953mm/0.0375" 21 0.873mm/0.0344" 22 0.794mm/0.0281" 24 0.635mm/0.0250" 25 0.556mm/0.0219" 26 0.476mm/0.0188" 27 0.437mm/0.0172" 28 0.397mm/0.0156" 29 0.357mm/0.0141" 30 0.318mm/0.0125" 31 0.278mm/0.0109" 32 0.258mm/0.0102" 33 0.238mm/0.0094" 34 0.218mm/0.0086" 35 0.198mm/0.0078"		
19 1.111mm/0.0438" 20 0.953mm/0.0375" 21 0.873mm/0.0344" 22 0.794mm/0.0313" 23 0.714mm/0.0281" 24 0.635mm/0.0250" 25 0.556mm/0.0219" 26 0.476mm/0.0188" 27 0.437mm/0.0172" 28 0.397mm/0.0156" 29 0.357mm/0.0141" 30 0.318mm/0.0125" 31 0.278mm/0.0109" 32 0.258mm/0.0102" 33 0.238mm/0.0094" 34 0.218mm/0.0086" 35 0.198mm/0.0075"	No.	W
20 0.953mm/0.0375" 21 0.873mm/0.0344" 22 0.794mm/0.0313" 23 0.714mm/0.0281" 24 0.635mm/0.0250" 25 0.556mm/0.0219" 26 0.476mm/0.0188" 27 0.437mm/0.0172" 28 0.397mm/0.0156" 29 0.357mm/0.0141" 30 0.318mm/0.0125" 31 0.278mm/0.0102" 32 0.258mm/0.0102" 33 0.238mm/0.0094" 34 0.218mm/0.0086" 35 0.198mm/0.0078"	18	1.270mm/0.0500"
21 0.873mm/0.0344" 22 0.794mm/0.0313" 23 0.714mm/0.0281" 24 0.635mm/0.0250" 25 0.556mm/0.0219" 26 0.476mm/0.0188" 27 0.437mm/0.0172" 28 0.397mm/0.0156" 29 0.357mm/0.0141" 30 0.318mm/0.0125" 31 0.278mm/0.0102" 32 0.258mm/0.0094" 34 0.218mm/0.0086" 35 0.198mm/0.0078"	19	1.111mm/0.0438"
22 0.794mm/0.0313" 23 0.714mm/0.0281" 24 0.635mm/0.0250" 25 0.556mm/0.0219" 26 0.476mm/0.0188" 27 0.437mm/0.0172" 28 0.397mm/0.0156" 29 0.357mm/0.0141" 30 0.318mm/0.0125" 31 0.278mm/0.0102" 32 0.258mm/0.0102" 33 0.238mm/0.0094" 34 0.218mm/0.0086" 35 0.198mm/0.0078"	20	0.953mm/0.0375"
23 0.714mm/0.0281" 24 0.635mm/0.0250" 25 0.556mm/0.0219" 26 0.476mm/0.0188" 27 0.437mm/0.0172" 28 0.397mm/0.0156" 29 0.357mm/0.0141" 30 0.318mm/0.0125" 31 0.278mm/0.0102" 32 0.258mm/0.0102" 34 0.218mm/0.0086" 35 0.198mm/0.0078"	21	0.873mm/0.0344"
24 0.635mm/0.0250" 25 0.556mm/0.0219" 26 0.476mm/0.0188" 27 0.437mm/0.0172" 28 0.397mm/0.0156" 29 0.357mm/0.0141" 30 0.318mm/0.0125" 31 0.278mm/0.0102" 32 0.258mm/0.0102" 34 0.218mm/0.0086" 35 0.198mm/0.0078"	22	0.794mm/0.0313"
25 0.556mm/0.0219" 26 0.476mm/0.0218" 27 0.437mm/0.0172" 28 0.397mm/0.0156" 29 0.357mm/0.0141" 30 0.318mm/0.0125" 31 0.278mm/0.0102" 32 0.258mm/0.0102" 34 0.218mm/0.0086" 35 0.198mm/0.0078"	23	0.714mm/0.0281"
26 0.476mm/0.0188" 27 0.437mm/0.0172" 28 0.397mm/0.0156" 29 0.357mm/0.0141" 30 0.318mm/0.0125" 31 0.278mm/0.0102" 32 0.258mm/0.0102" 34 0.218mm/0.0086" 35 0.198mm/0.0078"	24	0.635mm/0.0250"
27 0.437mm/0.0172" 28 0.397mm/0.0156" 29 0.357mm/0.0141" 30 0.318mm/0.0125" 31 0.278mm/0.0102" 32 0.258mm/0.0102" 33 0.238mm/0.0094" 34 0.218mm/0.0086" 35 0.198mm/0.0078"	25	0.556mm/0.0219"
28 0.397mm/0.0156" 29 0.357mm/0.0141" 30 0.318mm/0.0125" 31 0.278mm/0.0109" 32 0.258mm/0.0102" 33 0.238mm/0.0094" 34 0.218mm/0.0086" 35 0.198mm/0.0078"	26	0.476mm/0.0188"
29 0.357mm/0.0141" 30 0.318mm/0.0125" 31 0.278mm/0.0102" 32 0.258mm/0.0102" 33 0.238mm/0.0094" 34 0.218mm/0.0086" 35 0.198mm/0.0078"	27	0.437mm/0.0172"
30 0.318mm/0.0125" 31 0.278mm/0.0102" 32 0.258mm/0.0102" 33 0.238mm/0.0094" 34 0.218mm/0.0086" 35 0.198mm/0.0078"	28	0.397mm/0.0156"
31 0.278mm/0.0109" 32 0.258mm/0.0102" 33 0.238mm/0.0094" 34 0.218mm/0.0086" 35 0.198mm/0.0078"	29	0.357mm/0.0141"
32 0.258mm/0.0102" 33 0.238mm/0.0094" 34 0.218mm/0.0086" 35 0.198mm/0.0078"	30	0.318mm/0.0125"
33 0.238mm/0.0094" 34 0.218mm/0.0086" 35 0.198mm/0.0078"	31	0.278mm/0.0109"
34 0.218mm/0.0086" 35 0.198mm/0.0078"	32	0.258mm/0.0102"
35 0.198mm/0.0078"	33	0.238mm/0.0094"
0.10011111/0.0010	34	0.218mm/0.0086"
36 0.179mm/0.0070"	35	0.198mm/0.0078"
	36	0.179mm/0.0070"

AMERICAN STANDARD WIRE GAUGE



7.350mm/0.2893" 2 6.540mm/0.2576" 3 5.830mm/0.2294" 5.190mm/0.2043" 4 4.620mm/0.1819" 4.110mm/0.1620" 6 7 3.670mm/0.1443" 8 3.260mm/0.1285" 2.910mm/0.1144" 9 10 2.590mm/0.1019" 2.300mm/0.0907" 11 12 | 2.050mm/0.0808" 13 1.820mm/0.0720" 1.630mm/0.0641" 14 For gaging non-ferrous 15 1.450mm/0.0571" 16 | 1.290mm/0.0508" such as copper, brass 17 1.150mm/0.0453"

0 8.250mm/0.3249"

No.	W
18	1.020mm/0.0403"
19	0.912mm/0.0359"
20	0.813mm/0.0320"
21	0.724mm/0.0285"
22	0.643mm/0.0253"
23	0.574mm/0.0226"
24	0.511mm/0.0201"
25	0.440mm/0.0179"
26	0.404mm/0.0159"
27	0.361mm/0.0142"
28	0.320mm/0.0126"
29	0.287mm/0.0113"
30	0.254mm/0.0100"
31	0.226mm/0.0089"
32	0.203mm/0.0080"
33	0.180mm/0.0071"
34	0.160mm/0.0063"
35	0.142mm/0.0056"
36	0.127mm/0.0050"

Hardened to HRC50-57

wire and metals

and aluminum

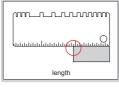
Code	Range
4808	0-36 (8.250-0.127mm/0.3249-0.0050")

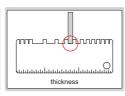
THICKNESS GAUGE

Range

0-36 (7.938-0.179mm/0.3125-0.0070")

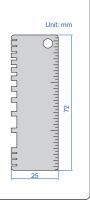
Made of stainless steel





Code	Measurement	Range	Graduation	Accuracy
4853-1	length	0-2 3/4"	1/16"	1/32"
		24GA. (0.0239"), 22GA. (0.0299"), 20GA. (0.0359")		±0.002"
	thickness	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"







DIGITAL TAPER SLOT GAUGES

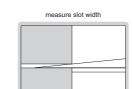


DIRECT READING, **CALCULATION IS NOT REQUIRED**

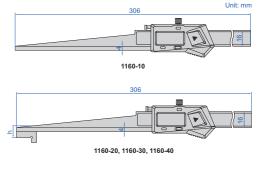


- Non waterproofMeasuring opening, slot width
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21** receiver is needed,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

Code	Range	Accuracy	h
1160-10	0.2-10mm/0.01-0.39"	±0.03mm	_
1160-20	10-20mm/0.39-0.79"	±0.05mm	10mm
1160-30	20-30mm/0.79-1.18"	±0.05mm	20mm
1160-40	30-40mm/1.18-1.58"	±0.05mm	30mm



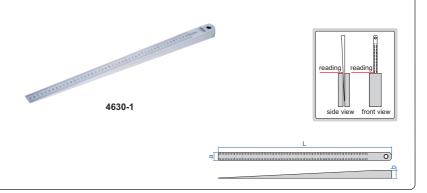
1160-10



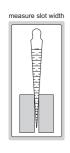
TAPER SLOT GAUGES

- For quick measurement of slot width
- Satin chrome plated reading surface
- Made of stainless steel

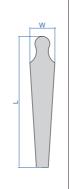
						(mm)
Code	Range	Graduation	Accuracy	L	а	b
4630-3	0.4-6mm	0.05mm	±0.04mm	164	12.5	6.5
4630-1	0.5-10mm	0.05mm	±0.07mm	220	10	10.5
4630-2	0.5-15mm	0.1mm	±0.08mm	184	12.5	16.5



TAPER GAUGES







4833-2

- Graduation: 0.1mm
- Measure opening, slot width, hole diameter, etc.
- Diameter correction table on the back (only for 4833-1, 4833-2)
- Made of stainless steel

				(mm)
Code	Range	Accuracy	L	W
4833-1	0.8-15mm	±0.05mm	146	17
4833-2	15-30mm	±0.05mm	159	30.4
4833-3	30-45mm	±0.05mm	166	45.4
4833-4	45-60mm	±0.05mm	170	60.5



when measuring diameter of holes, correction on reading is needed due to the thickness of taper gauge for example, when reading A is 14.96mm, diameter ØD is 15mm.

■ Made of stainless steel

4837-1 1-29mm

Code

Range

Graduation

0.05mm



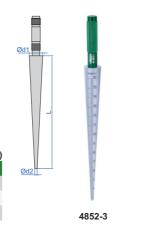
when measuring diameter of holes, correction on reading is needed due to the thickness of taper gauge for example, when reading A is 14.96mm, diameter ØD is 15mm.



TAPER BORE GAUGES

- Graduation: 0.1mm
- Accuracy: ±0.05mm
- Quick measurement of bore diameter
- Hardened steel, HRC50-58Satin chrome plated surface





SMALL TAPER BORE GAUGE 4855-5 Quick measurement of small bore diameter Hardened working face Supplied with protection cap Range Graduation Accuracy

±0.03mm

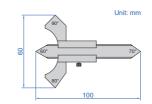
WELDING GAUGE

- Made of stainless steel
- Satin chrome plated reading surface



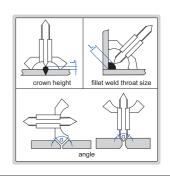
4830

Code	Measurement	Range	Graduation	Accuracy
	crown height	0-8mm	0.1mm	±0.1mm
4830	fillet weld throat size	0-20mm	0.1mm	±0.3mm
	angle	60°, 70°, 80°, 90°	_	±1°



0.01mm

4855-5 0.1-5mm



DIGITAL WELDING GAUGE

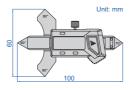
ATTENTION: NO DATA OUTPUT

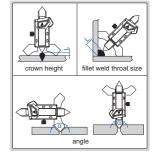
- Non waterproof
- Buttons: zero, mm/inch, on/off
- Battery LR44
- Made of stainless steel



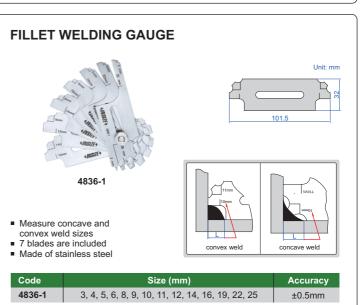
4831-20A

Code	Measurement	Range	Resolution	Accuracy
	crown height	0-7mm	0.01mm/0.0005"	±0.03mm
4831-20A	fillet weld throat size	0-20mm	0.01mm/0.0005"	±0.1mm
	angle	60°, 70°, 80°, 90°	_	±1°





FILLET WELDING GAUGE 4832-1 Accuracy: ±0.5mmMade of stainless steel Sizes marked on both faces Code Throat size Leg length 4, 5, 6, 7, 8, 9, 10, 12mm 4832-1 4, 6, 7.5, 10, 12, 14, 16, 18mm





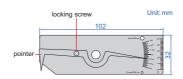
WELDING GAUGE

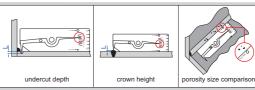
- Pointer can be locked for later reference
- Made of stainless steel



4834-1

Code	Measurement	Range	Graduation	Accuracy
	undercut depth	0-6mm	0.5mm	±0.5mm
4834-1	crown height	0-6mm	0.5mm	±0.5mm
4034-1	porosity size comparison	1.5mm, 3mm	_	±0.2mm
	amount of porosity per 25mm	25mm	1mm	_







WELDING GAUGE



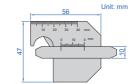


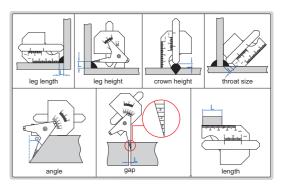
tin chrome plated surface front

Made of stainless steelSatin chrome plated surface

6832-1



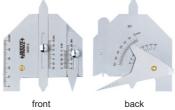




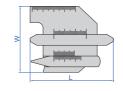
WELDING GAUGES





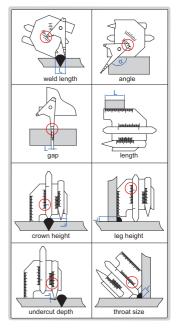


front bac 4838-2



Made of stainless steel

Measurement	Code 4838-1		Code 4838-2			
Weasurement	Range	Graduation	Accuracy	Range	Graduation	Accuracy
crown height	0-10mm	1mm	±0.5mm	0-15mm	1mm	±0.5mm
leg height	0-14mm	1mm	±0.5mm	0-15mm	1mm	±0.5mm
undercut depth	0-5mm	0.05mm	±0.05mm	0-5mm	0.05mm	±0.05mm
throatsize	0-13mm	1mm	±0.5mm	0-13mm	1mm	±0.5mm
weld length	0-40mm	1mm	±1mm	0-60mm	1mm	±1mm
angle	90°-150°	5°	±1°	80°-160°	5°	±1°
gap	0.5-5mm	1mm	±0.5mm	1-6mm	1mm	±0.5mm
length	0-40mm	1mm	±0.5mm	0-50mm	1mm	±0.5mm
LxW		62x77mm			99x84mm	





WELDING GAUGE



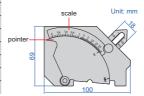


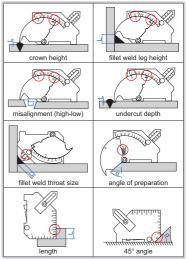


back

- Adjustable scale to compensate pointer wearMade of stainless steel

Code	Measurement	Range	Graduation	Accuracy
	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
4835-1	undercut depth	0-2mm (0-1/8")	1mm (1/16")	±0.5mm
4033-1	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°



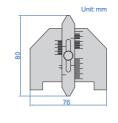


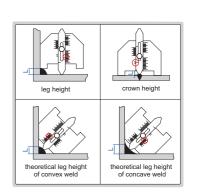
WELDING GAUGE

- Accuracy: ±0.5mmMade of stainless steel

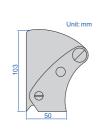
Code	Measurement	Range	Graduation
	leg height	0-20mm	1mm
	crown height	0-3mm	_
4851-1	theoretical leg height of convex weld	0-20mm	1mm
	theoretical leg height of concave weld	0-20mm	1mm





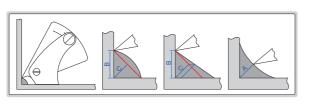


WELDING GAUGE



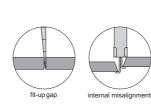


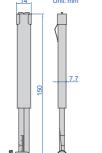
■ Made of stainless steel



Code	Graduation	Accuracy
4840-1	0.2mm	±0.3mm

PIPE WELDING GAUGE







■ Made of stainless steel

4841-1

Code	Measurement	Range	Graduation	Accuracy
4841-1	internal misalignment	0-30mm	1mm	±0.5mm
	fit-up gap	0.7-4mm	0.1mm	±0.1mm



PIPE WELDING GAUGE

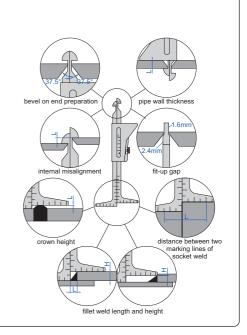
■ Made of stainless steel

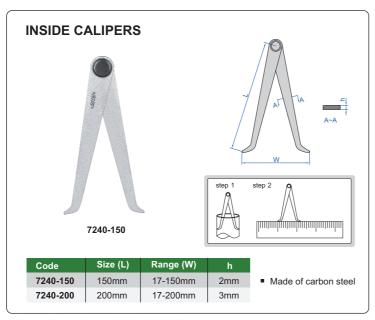


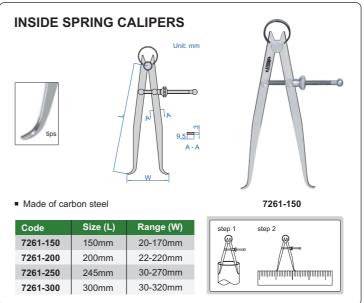


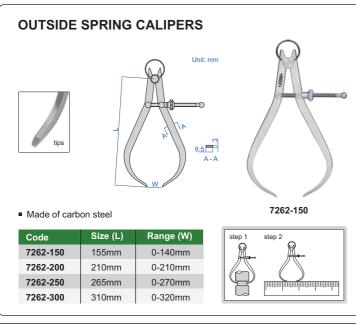
4839-1

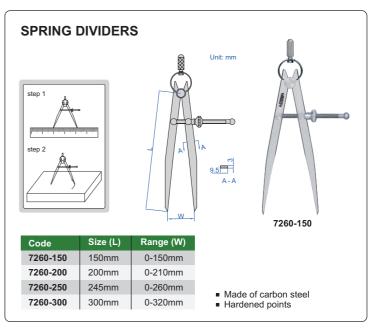
Code	Measurement	Range	Graduation	Accuracy
	bevel on end preparation	37.5°	_	±1°
	pipe wall thickness	0-45mm (0~1-3/4")	1mm (1/16")	±0.5mm
	internal misalignment	0-35mm (0~1-3/8")	1mm (1/32")	±0.5mm
4839-1	fit-up gap	1.6mm, 2.4mm	_	±0.1mm
4039-1	crown height	0-35mm (0~1-3/8")	1mm (1/32")	±0.5mm
	distance 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











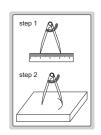


DIVIDERS

- Made of carbon steelHardened points

				(mm)
Code	Size (L)	Range (W)	а	b
7247-150	150mm	0-140mm	8.5	7
7247-200	200mm	0-190mm	10	7
7247-300	300mm	0-290mm	12	7





WIRELESS DIGITAL MEASURING TAPES + LASER DISTANCE METERS







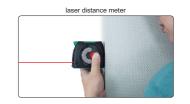
- Built-in bluetooth transmission
 Display with backlight
 Automatic power off: laser 30s, main unit 180s
 Can work continuously for 5 hours
 Can store 50 groups of measurement data

SPECIFICATION

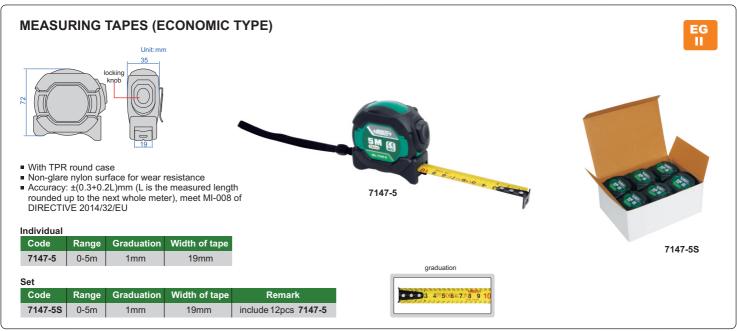
Code		9563-C40 9563-C60				
Output		bluetooth(data can be transmitted to APP)				
	range	5m				
Digital	resolution	0.001m				
measuring	accuracy	±1.5mm				
tape	blade width	19mm				
	horizontal stand-out	≥1.8m				
	range	40m	60m			
	resolution	0.001m				
Laser distance	accuracy	±(3+D/20)mm, D: measured distance, unit: m				
meter	units	m, ft, in, ft+in				
	laser type	630~670nm, <1mW, class 2				
	measurement function	single, continuous, area, volume, pythagoras measurement				
Operation to	emperature	0~40°C				
Storage ten	perature	-10~60°C				
Power supply		built-in rechargeable lithium battery				
Dimension	(L×W×H)	95×74×56mm				
Weight		313g				

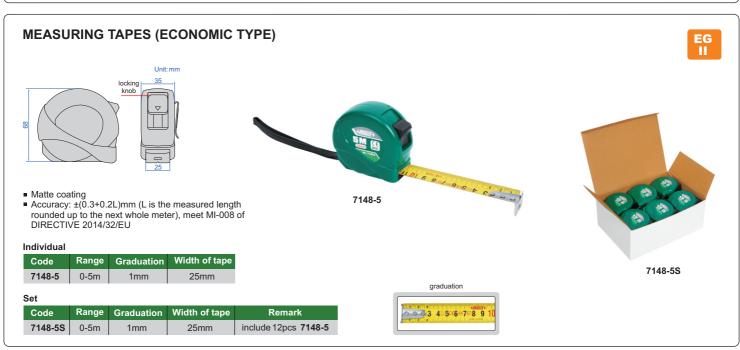


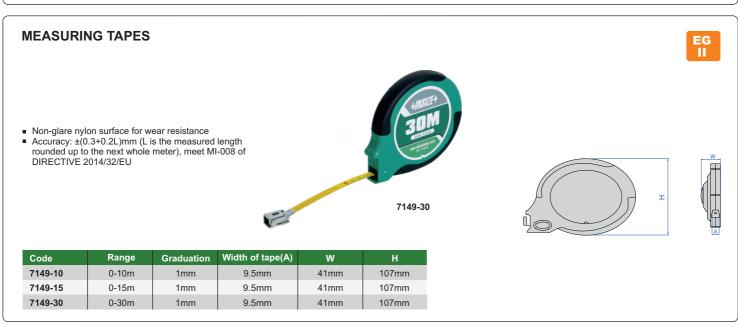














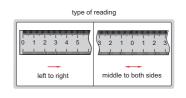
SELF ADHESIVE MEASURING ROLLS

- Self adhesive backSteel tape, non-glare coating, wear resistance

self adhesive back







and the second s	Unit: mm
	12.5

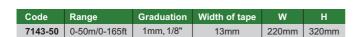


Code	Range (L)	Graduation	Accuracy	Type of reading
7139-50	50-0-50cm	1mm	±0.2mm	middle to both sides
7139-100	0-100cm	1mm	±0.4mm	left to right

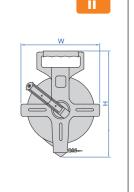
LONG MEASURING TAPE

- High tensile strength fibreglass tape
 Nylon coating tape, wear resistance
 Accuracy: ±(0.3+0.2L)mm (L is the measured length rounded up to the next whole meter), meet MI-008 of DIRECTIVE 2014/32/EU

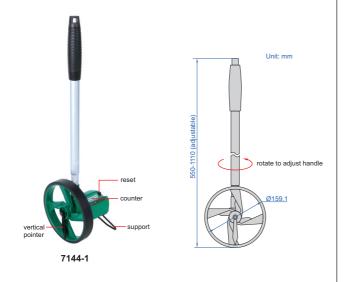
graduation











- ABS plastic frame, wear-resistant PU tireThree-section adjustable handle

Code	Range	Resolution
7144-1	0.1-9999.9m	0.1m

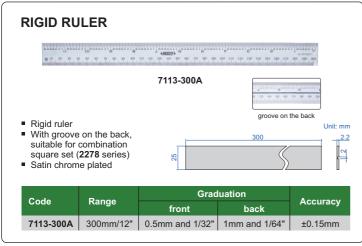
MEASURING WHEEL

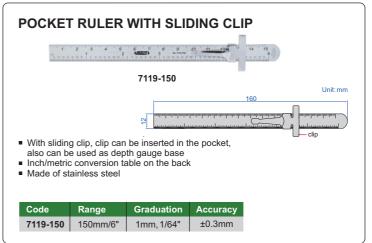


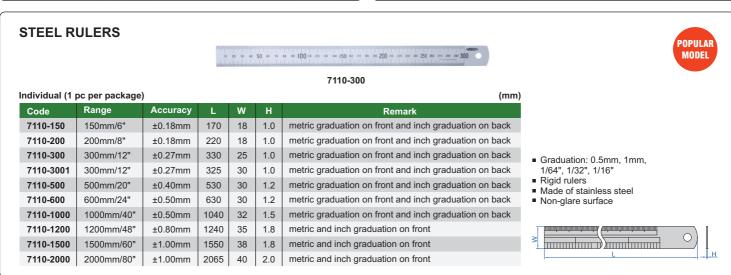
- ABS plastic frame, wear-resistant PU tire
 Two-section foldable handle

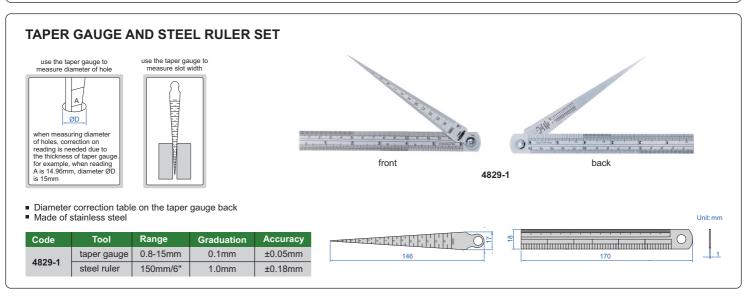
Code	Range	Resolution
7145-1	0.1-9999.9m	0.1m















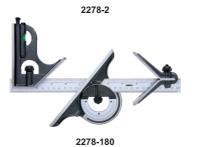
COMBINATION SQUARE SETS (CLOSE TYPE PROTRACTOR)

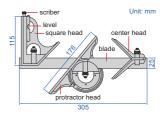
- Center head (made of cast iron): to locate center of cylinder with diameter (Ød): 30-100mm accuracy: ±0.15mm
- Protractor head (made of cast iron): to set the blade at desired angle to an edge of a workpiece, and can be used to measure angles
 range: 0-180°, accuracy: ±20min.

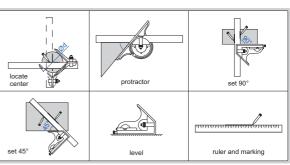
 Square head (made of cast iron):
- to set the blade at 90° or 45° to an edge of a workpiece accuracy: ±8min for 90° square, ±10min for 45° square
- Blade (made of stainless steel): range: 300mm/12", graduation: 0.5mm and 1/32" on front face, 1mm and1/64" on back face
- Optional accessory: rigid ruler (code 7113)

Code	Remark
2278-2	2-piece set
2278-180	4-piece set









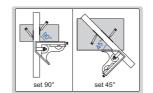
COMBINATION SQUARE (ECONOMIC TYPE)

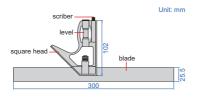


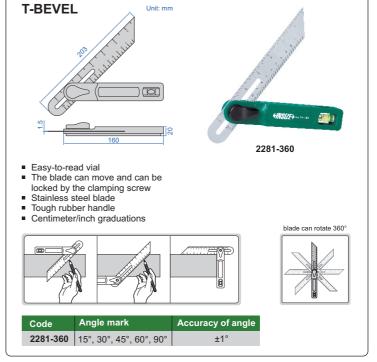
2276-300

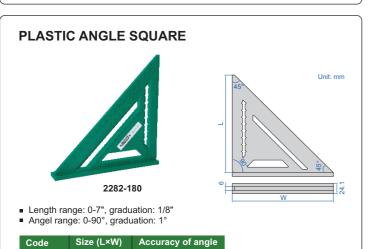
- Square head (made of zinc): set the blade at 90° or 45° to an edge of a workpiece accuracy: ±0.5°
- Blade (made of stainless steel): range: 300mm/12", graduation: 1mm and 1/32" on front face, 1mm and 1/16" on back face



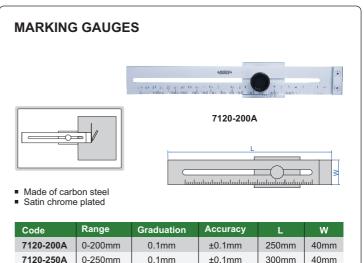








±0.3°



0.1mm

0.1mm

7120-300A

0-300mm

±0.1mm

±0.1mm

40mm

40mm

350mm

2282-180 | 180×185mm



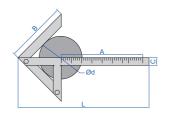
CENTER MARKING GAUGES

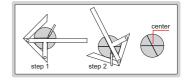
- Accuracy: ±0.15mm
- Marking the center of round plates and shafts

 Made of stainless steel
- Satin chrome plated









Code	Size (AxB)	Diameter of shafts (Ød)	С	L
7205-100	100x70mm	4-90mm	12mm	153mm
7205-200	200x150mm	6-220mm	15mm	310mm

PRECISION SCREWDRIVER SET CODE ISGF-0901



ISGF-0901

- 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) Dial indicator, range 10mm, graduation 0.01mm (code 2308-10A)
- 2) Magnetic stand (code 6201-60)



Code 5024

5024

4-PIECE MEASURING TOOL SET

- - 1) Vernier caliper, range 0-150mm/0-6" graduation 0.05mm/1/128" (code 1205-150S)
- 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 ruler, 150mm/6" (code 7110-150)

Code 5041



13-PIECE MEASURING TOOL SET

- 1) Digital caliper, range 0-150mm/0-6", resolution 0.01mm/0.0005" (code 1108-150)
- 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**)

- 7) Magnetic stand (code **4799-180**)
 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, 20 pcs (code **4602-20**)

- 9) 90° beveled edge square, 100x70mm, grade 0 (code 4790-1000)
- 10) Scriber (code **7230**)
- 11) Steel ruler, 150mm/6" (code **7110-150**) 12) Depth base attachment (code **6140**)
- 13) Zero setting bar for depth base attachment



Code 5013



GRANITE SURFACE PLATES

CUSTOM-MADE SUPPLY SPECIAL SIZES ACCORDING TO CUSTOMER'S REQUEST

- 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 laboration of the change of
- Meet Diffyor, grade 0 is for inspection for lab, grade 0 is for workshop
 Optional accessory: stand for granite surface plate (code 6902), jack for granite surface plate (code 6903)







Physical characteristics of granite

,	
Shore hardness	94HS
Flexural strength	28MPa
Compressive strength	236MPa
Elastic modulus	9.88x10⁴MPa
Poisson's ratio	0.33
Volume density	3000kg/m ³
Water absorption rate	0.05%
Linear expansion coefficient	6x10 ⁻⁶ /°C

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

^{*}Supplied with manufacturer inspection certificate

Grade 0

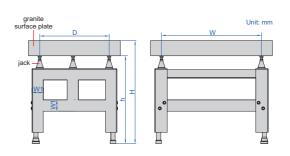
0.440				
Code	Size (LxWxH)	Flatness	Weight (kg)	Max. load (kg)
6900-032 *	300x200x60mm	5.4µm	11	60
6900-042 *	400x250x60mm	5.9µm	18	100
6900-044 *	400x400x60mm	6.3µm	29	120
6900-053 *	500x315x70mm	6.4µm	33	120
6900-064 *	630x400x80mm	7.0µm	60	130
6900-066 *	630x630x100mm	7.6µm	119	150
6900-085 *	800x500x100mm	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

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)	W1
6902-64A	630x400x80mm (code 6900-064 and 6900-164)	352	224	775-800	695-720	80
6902-66A	630x630x100mm (code 6900-066 and 6900-166)	352	352	775-800	675-700	80
6902-85A	800x500x100mm (code 6900-085 and 6900-185)	448	280	775-800	675-700	80
6902-106A	1000x630x140mm (code 6900-0106 and 6900-1106)	560	352	755-780	615-640	80
6902-107A	1000x750x150mm (code 6900-0107 and 6900-1107)	560	420	755-780	605-630	80
6902-101A	1000x1000x150mm (code 6900-0101 and 6900-1101)	560	560	755-780	605-630	80
6902-128A	1200x800x160mm (code 6900-0128 and 6900-1128)	672	448	755-780	595-620	80
6902-161A	1600x1000x180mm (code 6900-0161 and 6900-1161)	896	560	755-780	575-600	100

High stands (mm)

Code	For granite surface plate	W	D	H (with granite surface plate)	h (without granite surface plate)	W1
6902-64H	630x400x80mm (code 6900-064 and 6900-164)	352	224	1000-1025	920-945	80
6902-66H	630x630x100mm (code 6900-066 and 6900-166)	352	352	1000-1025	900-925	80
6902-85H	800x500x100mm (code 6900-085 and 6900-185)	448	280	1000-1025	900-925	80
6902-106H	1000x630x140mm (code 6900-0106 and 6900-1106)	560	352	1000-1025	860-885	80
6902-107H	1000x750x150mm (code 6900-0107 and 6900-1107)	560	420	1000-1025	850-875	80
6902-101H	1000x1000x150mm (code 6900-0101 and 6900-1101)	560	560	1000-1025	850-875	80
6902-128H	1200x800x160mm (code 6900-0128 and 6900-1128)	672	448	1000-1025	840-865	80
6902-161H	1600x1000x180mm (code 6900-0161 and 6900-1161)	896	560	1000-1025	820-845	100



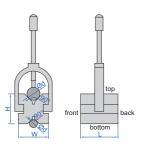
V-BLOCK SETS

- 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)



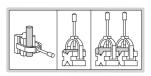




6896-10

6896-11

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

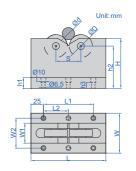


ROLLER BEARING V-BLOCK SETS

- 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

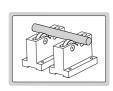






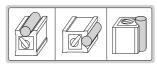
								(mm)
Code	W1	W2	h1	h2	h3	L1	L2	S
6888-1								
6888-2	40	60	22	85	12	100	-	50
6888-3	60	80	30	124	20	180	90	120

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



MAGNETIC V-BLOCK (ECONOMIC TYPE)

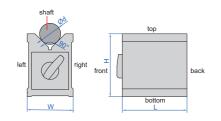
ATTENTION: NOT HARDENED ATTENTION: NOT SUITABLE FOR STEEL OR IRON SURFACES, OTHERWISE THE MAGNETIC FORCE WILL BE REDUCED



- Hold cylindrical workpieces for inspection and machining
- Supplied in single piece
- Not hardenedNot suitable for steel or iron surfaces, otherwise the magnetic force will be reduced



6890-702



Code	Size (LxWxH)	Range of shafts (Ød)	Magnetic force	Parallelism of V groove to top, bottom, left and right sides	Squareness of V groove to back side
6890-702	70x60x73mm	6-44mm	56kgf	10µm	10µm



MAGNETIC V-BLOCKS (ECONOMIC TYPE)

ATTENTION: NOT SUITABLE FOR STEEL OR IRON SURFACES, OTHERWISE THE MAGNETIC FORCE WILL BE REDUCED

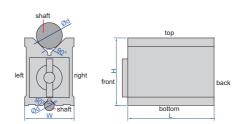
> ATTENTION: NOT HARDENED

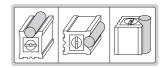
- Parallelism of V grooves to top, bottom, left, right side: 10µm
- Squareness of V grooves to back side: 10µm
- Hold cylindrical workpieces for inspection
- and machining

 Not hardened
- V groove on the top for large shafts
- V groove on the bottom for small shafts
- Not suitable for steel or iron surfaces, otherwise the magnetic force will be reduced



6801-1201





Magnetic force Range of shafts (Ød) Code Size (LxWxH) 64kgf 6801-1201 80x70x95mm 6-67mm 80kgf 6801-1202 100x70x95mm 6-67mm 6801-1203 120x70x95mm 6-67mm 96kgf

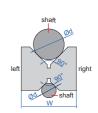
MAGNETIC INDUCTION V-BLOCK SET

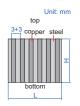
- Hold cylindrical workpieces for
- inspection and machining To be used on magnetic chucks
- Two V-blocks per set
- V groove on the top for large shafts
- V groove on the bottom for small shafts
 Hardness HRB70
- Copper magnetic strips



6878-1







Code	Size (LxWxH)	Range of shafts (Ød)	Pole pitch	Parallelism of both V grooves to top and bottom sides	Height difference of a matched pair
6878-1	52×58×46mm	6-56mm	3+3mm	10μm	10µm



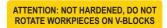
MAGNETIC V-BLOCK SETS

- Hold cylindrical workpieces for inspection, not suitable for machining due to low magnetic force
- Two V-blocks per setHardness HRB70



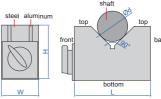
6891-1

Code	Size (LxWxH)	Range of shafts (Ød)	Magnetic force	Parallelism of V groove to bottom and back sides	Height difference of a matched pair
6891-1	70x40x50mm	6-46mm	8kgf	10µm	10μm
6891-3	150x50x100mm	6-125mm	14kgf	10µm	10µm



ATTENTION: LOW MAGNETIC FORCE





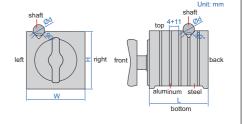


MAGNETIC SQUARE WITH V GROOVE

ATTENTION: NOT HARDENED, DO NOT ROTATE WORKPIECES ON V-BLOCKS

- Hold flat and cylindrical workpieces for inspection and machining
- Magnetic force on top, left, right and V grooves
 Parallelism and squareness of top, bottom, left, right and back: 20µm
- Parallelism and squareness of V grooves to top, bottom, left, right and back: 20µm





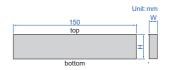
6539-100

	Code Size (L×W×H)	Cino (I v\A/vLI)	Magnetic force of	V grooves	Magnetic force of top, le	eft and right sides	Range of
		Size (LAWARI)	on granite surface plate	on cast iron plate	on granite surface plate	on cast iron plate	shafts (Ød)
	6539-100	100×100×100mm	30kgf	25kgf	50kgf	30kgf	5-30mm

PARALLEL SET

- Parallelism between top and bottom: 5µm Height difference of a matched pair: 5µm
- Hardened to HRC55-60
- Made of alloy tool steel





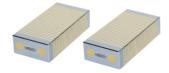
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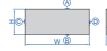
Code	Parallels per set	Thickness (W)	Height (H)
6533-144	14 pairs	10	14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 35, 40, 45, 50

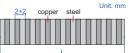
MAGNETIC INDUCTION PARALLEL SET

ATTENTION: **NOT HARDENED**

- To be used on magnetic chucksTwo parallels per set
- Hardness HRB70
- Copper magnetic strips

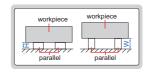






6879-1

Code	Size (LxWxH)	Pole pitch	Parallelism between A and B	Parallelism between C and D	Height difference of a matched pair
6879-1	100x50x25mm	2+2mm	10µm	10µm	10µm



ANGLE PLATE SETS

- Accuracy: ±20 seconds
- For angle set-up in tooling, production and inspection
- Hardness HRC52

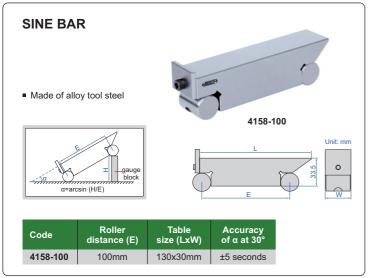


4006-12

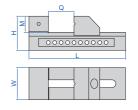
Code	Angle plates included	Angle α
4006-10	10 pcs	1°, 2°, 3°, 4°, 5°, 10°, 15°, 20°, 25°, 30°
4006-12	12 pcs	1/4°, 1/2°, 1°, 2°, 3°, 4°, 5°, 10°, 15°, 20°, 25°, 30°







QUICK MOVING PRECISION VISES

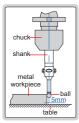




- 6526-85
- Parallelism: 5µm/100mm ■ Squareness: 5µm/100mm
- Made of alloy steelHardness HRC58-60

Code	Jaw opening (Q)	Jaw width (W)	L	Н	M
6526-20	0-20mm	25mm	65mm	29mm	9.3mm
6526-40	0-40mm	38mm	100mm	48mm	23mm
6526-65	0-65mm	50mm	135mm	50mm	25mm
6526-85	0-85mm	63mm	170mm	63mm	32mm
6526-100	0-100mm	73mm	185mm	70mm	35mm
6526-1001	0-100mm	80mm	195mm	80mm	40mm
6526-125	0-125mm	88mm	230mm	80mm	40mm
6526-1251	0-125mm	100mm	240mm	90mm	45mm
6526-160	0-160mm	125mm	280mm	100mm	50mm
6526-175	0-175mm	150mm	300mm	100mm	50mm
6526-208	0-208mm	200mm	350mm	110mm	55mm

ELECTRONIC EDGE FINDERS





- 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

PRECISION VISES

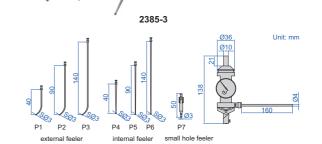




- Parallelism: 5µm/100mm ■ Squareness: 5µm/100mm ■ Made of alloy steel
- Hardness HRC58-60

Code	Jaw opening (Q)	Jaw width (W)	L	Н	М
6520-36	0-36mm	38mm	115mm	48mm	25mm
6520-67	0-67mm	50mm	150mm	50mm	25mm
6520-87	0-87mm	63mm	185mm	63mm	32mm
6520-102	0-102mm	73mm	205mm	70mm	35mm
6520-1021	0-102mm	80mm	215mm	80mm	40mm
6520-127	0-127mm	88mm	245mm	80mm	40mm
6520-1271	0-127mm	100mm	255mm	90mm	45mm
6520-162	0-162mm	125mm	295mm	100mm	50mm
6520-175	0-175mm	150mm	315mm	100mm	50mm
6520-200	0-200mm	200mm	350mm	110mm	55mm





- Provides quick and accurate centering in boring and milling set-up

 Maximum speed is recommended
- not to exceed 800RPM





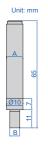
Feeler	Measuring diameter	Accuracy
P1	Ø0-60mm	0.015mm
P2	Ø0-160mm	0.02mm
P3	Ø0-250mm	0.03mm
P4	Ø3.2-80mm	0.015mm
P5	Ø3.2-180mm	0.02mm
P6	Ø3.2-280mm	0.03mm
P7	Ø0-2.8mm	0.015mm

Ø3.2-280mm	0.03mm	
Ø0-2.8mm	0.015mm	(pmg)
		internal feeler

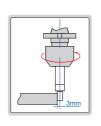




EDGE FINDER





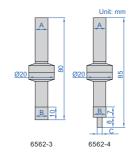


- Hardened shank and contact point

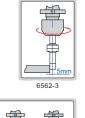
 Suitable for machine
- speed 400-600rpm

Code	Shank (A)	Contact ball (B)	Accuracy
6567-1	Ø10mm	Ø6mm	8µm

EDGE FINDERS









6562-4

- Hardened shank and contact pointSuitable 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

3D TESTER ♦///S/ZE→ PLUS MADE IN EUROPE

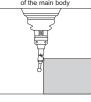




WHEN USING STANDARD PROBE, READING SHOWS MOVEMENT VALUE OF PROBE.
WHEN USING EXTENDED PROBE, READING DOES NOT SHOW MOVEMENT VALUE OF PROBE

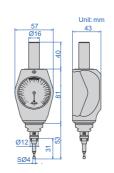


if the probe is pressed too much, the probe breaks at the breaking point, in order to prevent damage of the main body

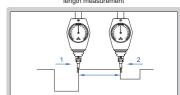




2840-3D







- Shockproof, IP67 dust/waterproof
 Mainly used for milling machines and CNC machine tools
 determine coordinate point on workpieces

 - 2. find center of holes
- 3. adjust and position workpieces
- Can be used to measure length and depth
 When using standard probe, reading shows movement value of probe, for example, if probe moves 0.05mm, reading changes 0.05mm (5 graduations). When using extended probe, reading does not show movement value of probe
- Large working range on three axes (X, Y, Z), which avoids damage of probes due to collision by mistake

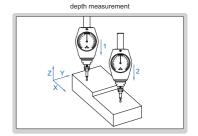
Code	e Range Graduation		Repeatability at zero (one direction)	X, Y, Z range
2840-3D	±1.0mm	0.01mm	±0.01mm	6mm

PROBE (optional)

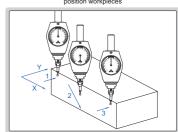
Code	Description	L	D	
2840-N1	standard probe	31mm	SØ4mm	
2840-N2	extended probe	56.6mm	SØ6mm	







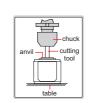
position workpieces

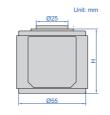




DIGITAL ZERO SETTER

- 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





DATA

OUTPUT

lie-down use

the bottom has 4 thread mounting holes

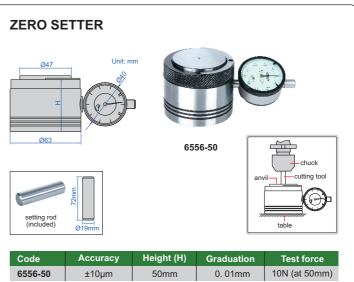
© Date 51- Netected Field Printer Level Hupp Field Edit Florest Level Hupp 2022-05-19 0935-810, -0.05, -0.16 2022-05-19 0935-814, -0.05, -0.15 2022-05-19 0935-814, -0.05, -0.15 2022-05-19 0935-814, -0.05, -0.15 2022-05-19 0935-814, -0.05, -0.15 2022-05-19 0935-814, -0.05, -0.16 2022-05-19 0935-814, -0.05, -0.16 2022-05-19 0935-814, -0.05, -0.16 2022-05-19 0935-814, -0.05, -0.16 2022-05-19 0935-814, -0.05, -0.16 2022-05-19 0935-814, -0.05, -0.16 2022-05-19 0935-814, -0.05, -0.16 2022-05-19 0935-854, -0.05, -0.16 2022-05-19 0935-854, -0.05, -0.15 2022-05-19 0935-854, -0.05, -0.15 2022-05-19 0935-854, -0.05, -0.15 2022-05-19 0935-854, -0.05, -0.15 2022-05-19 0935-854, -0.05, -0.15 2022-05-19 0935-854, -0.05, -0.15 2022-05-19 0935-855, -0.06, -0.15 2022-05-19 0935-855, -0.06, -0.15 2022-05-19 0935-855, -0.06, -0.15 2022-05-19 0935-855, -0.06, -0.15 2022-05-19 0935-855, -0.06, -0.15 2022-05-19 0935-855, -0.06, -0.15 2022-05-19 0935-855, -0.06, -0.15 2022-05-19 0935-857, -0.05, -0.15 2022-05-19 0935-857, -0.05, -0.15 2022-05-19 0935-857, -0.05, -0.15 2022-05-19 0935-857, -0.05, -0.15 2022-05-19 0935-857, -0.05, -0.15 2022-05-19 0935-857, -0.05, -0.15 2022-05-19 0935-857, -0.05, -0.15 2022-05-19 0935-857, -0.05, -0.15 2022-05-19 0935-857, -0.05, -0.15 2022-05-19 0935-857, -0.05, -0.15 2022-05-19 0935-857, -0.05, -0.15 2022-05-19 0935-857, -0.05, -0.15 2022-05-19 0935-857, -0.05, -0.15 2022-05-19 0935-857, -0.05, -0.15 2022-05-19 0935-857, -0.05, -0.15 2022-05-19 0935-857, -0.05, -0.15 2022-05-19 0935-857, -0.05, -0.15 2022-05-19 0935-857, -0.05, -0.15 2022-05-19 0935-857, -0.05, -0.15 2022-05-19 0935-57, -0.05, -0.15 2022-05-19 0935-57, -0.05, -0.15 2022-05-19 0935-57, -0.05, -0.15 2022-05-19 0935-57, -0.05, -0.15 2022-05-19 0935-57, -0.05, -0.15 2022-05-19 0935-57, -0.05, -0.15 2022-05-19 0935-57, -0.05, -0.15 2022-05-19 0935-57, -0.05, -0.15 2022-05-19 0935-57, -0.05, -0.15 2022-05-19 0935-57, -0.05, -0.15 2022-05-19 0935-57, -0.05, -0.15 2022-05-19 0935-57, -0.05, -0.15 2022-05-19 0935-57, -0.05, -0.15 2022-05-19 0

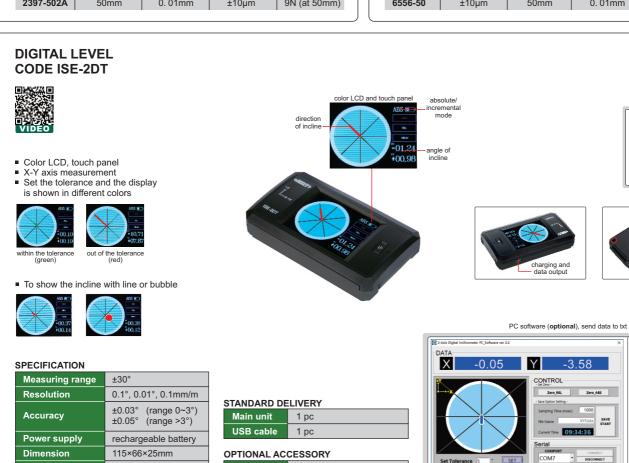
IP65

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 Unit: mn Ø31.5 2397-502A 0 ■ Magnetic base Height (H) Accuracy Graduation Code Test force 2397-502A 0.01mm ±10µm 9N (at 50mm) 50mm





ISE-2DT-SOFTWARE

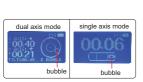
Software

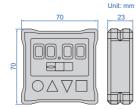
Weight

224g



DUAI AXIS DIGITAL LEVEL AND GYRO ANGLE METER





- Single axis/double axis level and slope meter, gyro technique can measure the angle between two planes in any direction
- Hard plastic case, with V-shaped grooves, four magnetic sides
- Display flips over when the bottom faces up
- Audible alarm when out of limit
- Buttons: POWER, ZERO, HOLD, display unit (°, mm/m, %), MENU
- Rechargeable Li-ion battery 3.7V, operation time is 40 hours
- Automatic power off in 30 minutes
- Data output
- Android and iPhone APP are included
- Optional accessory: wired data transmission (code **2199-A01**), bluetooth (code 2199-A02), transmission distance is 10 meters (under the condition of no obstruction and no electromagnetic iterference)

Code	Range	Resolution	Accuracy
2199-1	single axis level: 4x90° dual axis level: ±40°	0.01°	at 0° and 20°: ±0.08° at 20° and 70°: ±0.15° at 70° and 90°: ±0.08°
	gyro angle meter: 360°	0.1°	±0.5°

2199-1

M4 threaded holes on the back for fixing

AUDIBLE ALARM WHEN OUT OF LIMIT DISPLAY FLIPS OVER WHEN THE BOTTOM FACES UP

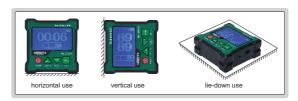
ATTENTION: HARD PLASTIC CASE

DATA **OUTPUT** **BACKLIGHT**

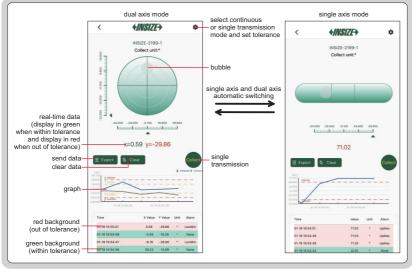
measurement of angle between two planes in any direction (gyro technique)



place the angle meter at the first position, press "angle" button, rotate to another position (rotation speed<90 $^{\circ}$ /s), LCD shows the angle α



Android and iPhone APP (included), can choose real-time display (continuous transmission) or single transmission









wired data transmission connect to mobile phone via bluetooth (optional)



connect to computer via wired data transmission

DIGITAL LEVEL AND SLOPE METER

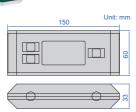


- IP54 dust/waterproof
- Used as level and slope meter
- Aluminum frame
- Magnetic bottom with V-groove for shafts
- The sea level is permanently set inside the chip, zero setting is not needed when battery is replaced
- Buttons: ON/OFF, absolute and incremental measurement, keep the reading, buzzer alarm, unit (mm/m, %, in/ft), conversion, backlight
- Two AAA batteries, automatic power off

Code	Range	Resolution	Accuracy
2179-360	0-360°	0.05°; 1mm/m;	at 0° and 90°: ±0.1°,
	(90°x4)	0.125in/ft	at others: ±0.2°









BACKLIGHT

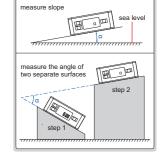
WORKING TEMPERATURE

-5°C ~ 50°C





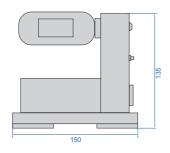
BUZZER ALARM AT 0° AND 90°

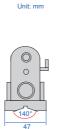




ELECTRONIC LEVELS (BUILT-IN BLUETOOTH)











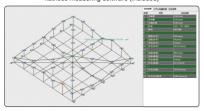
- Built-in bluetooth, can be connected to computers, transmission distance is 50m
- The LCD can be rotated for easy observation in
- different directions
- Designed with handle for easy access
 V-groove on bottom for shafts (shafts dia. 21-133mm)
 Supplied with measuring software
 Optional accessory: bridge plate (code 4952-01)



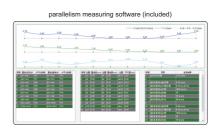


300mm bridge plate (optional)

flatness measuring software (included)







SPECIFICATION

Code	4952-150		4952-150L		
Resolution (adjustable)	0.01mm/m (2") 0.001mm/m (0.2")		0.01mm/m (2")	0.005mm/m (1")	
Range	0~5mm/m 0~0.5mm/m		0~5mm/m 0~2.5mm/m		
Accuracy	±(1+Ax2%) Δ*				
Repeatability	0.01mm/m 0.001mm/m 0.005mm/m				
Response time	<3s <10s		<3s <5s		
Power supply	1 x 21700 Li-ion battery, for 50h continuous working				
Weight	1.8kg				

^{*} A is the measured value, Δ is the resolution

STANDARD DELIVERY

Main unit	1 pc
Wireless receiver	1 pc
Control box	1 pc
Measuring software	1 pc
Charger	1 pc

DIGITAL LEVEL AND SLOPE METER

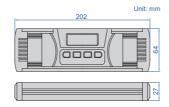


- IP67 dust/waterproof
- Used as level and slope meter
- Aluminum frame, shock absorbing rubber end caps
- Magnetic bottom with V-groove for shafts
- The sea level is permanently set inside the chip, zero setting is not needed when batteries are replaced

 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°; 1mm/m	at 0°: ±0.05°; at others: ±0.1°





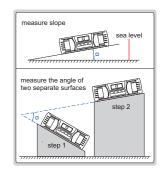






BUZZER ALARM AT 0° AND 90°







DIGITAL LEVEL AND SLOPE METER



Used as level and slope meter

Range

4x90°

- 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

Resolution

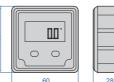
0.1°

(=1.745 mm/m)



at 0° and 90°: ±0.1°,

at others: ±0.2°





ABSOLUTE

LEVEL

MAGNETIC

воттом

POPULAR

MODEL

Unit: mm

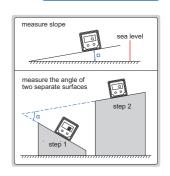


WORKING TEMPERATURE

WORKING TEMPERATURE

BACKLIGHT

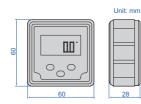
DISPLAY FLIPS OVER WHEN THE BOTTOM FACES UP



BLUETOOTH DIGITAL LEVEL AND SLOPE METER



2170-1

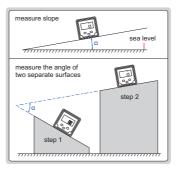


- Used as level and slope meter
- Aluminum frame
- Magnetic bottom
- The display flips over when the bottom faces up
- The backlight is on automatically when in use, and automatically off in 15 seconds after use
- The sea level is permanently set inside the chip, zero setting is not needed when battery is replaced
- Buttons: ON/OFF, ZERO, HOLD, absolute and incremental measurement
- Built-in bluetooth, transmission distance is 15 meters (under the condition of no obstruction and no electromagnetic interference). Android and iPhone APP are included
- One AAA battery, automatic power off in 5 minutes

Code	Range	Resolution	Accuracy
2198-2	4x90°	0.1° (=1.745mm/m)	at 0° and 90°: ±0.1°; at others: ±0.2°



2198-2

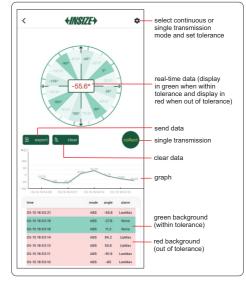


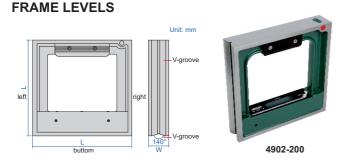




ABSOLUTE LEVEL

Android and iPhone APP (included), can choose real-time display (continuous transmission) or single transmission





- V-groove on bottom and left for shafts (shafts dia. 15~68mm)
- With transverse vial

Sensitivity 0.02mm/m (=0.001°)

Code	Size (LxL)	W	
4902-150	150x150mm	40mm	
4902-200	200x200mm	40mm	
4902-300	300x300mm	45mm	

Sensitivity 0.05mm/m (=0.0029°)

Code	Size (LxL)	W	
4902-C150	150x150mm	40mm	
4902-C200	200x200mm	40mm	
4902-C300	300x300mm	45mm	



sitivity 0.02mm/m (=0.001°)	Sensitivity 0.05mm/m (=0.0029°)

Code	Length (L)
4903-150A	150mm
4903-200A	200mm
4903-300A	300mm

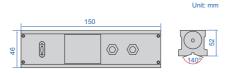
Sens

Code	Length (L)	
4903-C150	150mm	
4903-C200	200mm	
4903-C300	300mm	



ELECTRONIC BLOCK LEVEL





- Button function: power switch, zero, data save, ABS/REF
- 8 sets of measuring data can be saved on the LCD
- V-groove on bottom for shafts (shafts dia. 14~75mm)
- With transverse vial
- Li-ion battery power supply, for 30h continuous working
- Supplied with li-ion battery charger



Code	Range	Resolution	Accuracy	Repeatability	Response time	Weight
4950-1	±5mm/m (±0.286°)	0.01mm/m (0.001°)	±(1+Ax2%) Δ*	0.01mm/m	<3s	1.1kg

^{*}A is the measured value, Δ is the resolution

DIGITAL LEVELS AND SLOPE METERS



WORKING TEMPERATURE $0^{\circ}\text{C} \sim 50^{\circ}\text{C}$



ABSOLUTE LEVEL

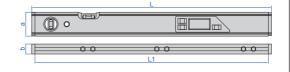


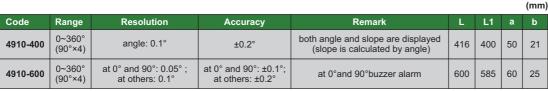


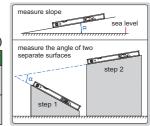
- With transverse and longitudinal vials
- Used as level and slope meter
- Aluminum frame, magnetic bottom
- The sea level is permanently set inside the chip, zero setting is not needed
- when batteries are replaced

 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







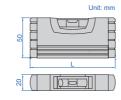


HANDY LEVEL

- Shockproof vials
- Magnetic base
- Shock absorbing rubber end caps
- Working temperature: 15°C~55°C

Code	Size (L)	Accuracy
4912-100	100mm	0.5mm/m

















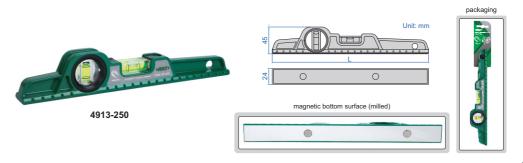


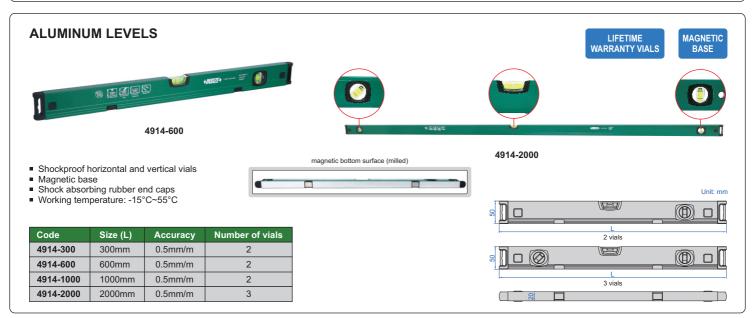


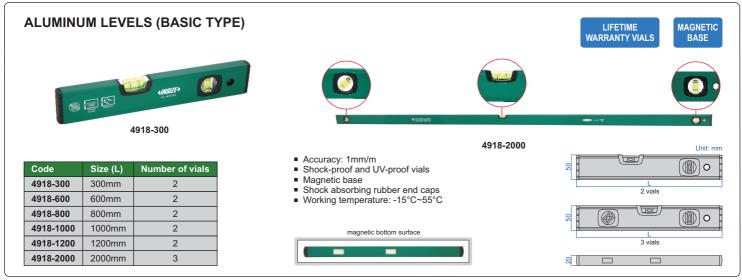
LIFETIME WARRANTY VIALS

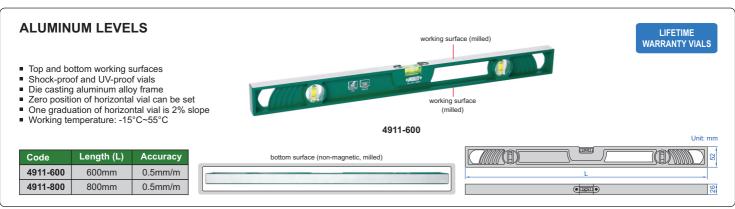
- Shockproof horizontal and vertical vials
- Magnetic base
- Working temperature: 15°C~55°C
- Cast aluminum body













SELF-LEVELING ROTARY LASER CODE GRL-L340

IP65 WATERPROOF

INDICATOR FLASHING WHEN OUT OF ±5°



- Applicable fields: construction, decoration, pipeline and equipment installation
- Green laser beam rotates 360° horizontally or vertically
- Self-leveling range ±5° on both X and Y planes Alarm when inclination is out of ±5°
- ±5° leveling range for manual mode on both X and Y planes
- 5 variable speeds 0-600rpm 6 scan modes

- Plumb up and plumb down dots
- Remote control for long distance Power supply: AC or DC





Tripod(included)













remote controller (included)

beam finder glasses (included)

SPECIFICATION

Working range		indoor 50m, outdoor 300m (with detector)	
Self leveling range		±5°	
Horizontal/vert	ical beam accuracy	±0.1mm/m	
Main laser type		520~540nm, class 2, <1mW	
Auxiliary laser	type	645~655nm, class 2, <1mW	
Rotating speed	Rotating speed 0/60/120/300/600rpm		
Scanning range)	0/10/45/90/180/360°	
Setting slope		X axis: ±5°, Y axis: ±5°	
Operation temp	erature	-20~50°C	
Maximum remo	ximum remote control distance 20m		
	remote controller	2×1.5V AAA batteries	
Power supply main unit		NI-MH batteries or 4×1.5V C batteries	
detector		1x9V battery	
Dimension		210×210×213mm	
Weight		2.5kg	





working with detector

STANDARD DELIVERY

OTANDARD DELIVERT	
Main unit (including NI-MH batteries)	1 pc
C battery and bracket	1 set
Detector	1 pc
Remote controller	1 pc
Beam finder glasses	1 pc
Laser target	1 pc
Power adapter	1 pc
AAA battery	2 pcs
9V battery	1 pc

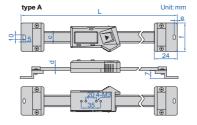
DIGITAL HORIZONTAL SCALES

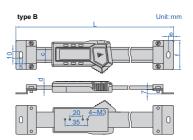




7101-300A



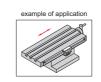


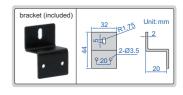


7101-400A

- Non waterproofResolution: 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	Туре	Accuracy	L	С	d	е	f	Data output cable (optional)
7101-100A	100mm	А	±0.02mm	215	16	4	6	36	7315-21 receiver is needed, 7302-21, 7305-21
7101-150A	150mm	Α	±0.03mm	265	16	4	6	36	7315-21 receiver is needed, 7302-21, 7305-21
7101-200A	200mm	Α	±0.03mm	315	16	4	6	36	7315-21 receiver is needed, 7302-21, 7305-21
7101-300A	300mm	Α	±0.04mm	445	16	4	6	36	7315-21 receiver is needed, 7302-21, 7305-21
7101-400A	400mm	В	±0.05mm	590	24	5.5	8	45	7315-22 receiver is needed, 7302-22, 7305-22
7101-500A	500mm	В	±0.05mm	690	24	5.5	8	45	7315-22 receiver is needed, 7302-22, 7305-22
7101-600A	600mm	В	±0.08mm	790	24	5.5	8	45	7315-22 receiver is needed, 7302-22, 7305-22
7101-800A	800mm	В	±0.10mm	990	24	5.5	8	45	7315-22 receiver is needed, 7302-22, 7305-22
7101-1000A	1000mm	В	±0.10mm	1240	31	10.5	10	60	7315-22 receiver is needed, 7302-22, 7305-22

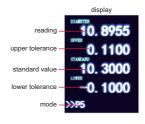


LASER SCAN MICROMETERS



- Measure outer diameter, ellipticity,
- measure outer trainerer, empirity, 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, PLC, control box













measure external diameter

measure ellipticity and run-out

SPECIFICATION

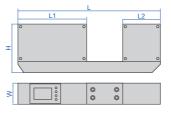
OI LOII IOATION					
Code	LDM-030	LDM-065			
Measuring range	0.1~30mm	0.5~65mm			
Resolution	0.01/0.1/1/10/100µm selectable				
25°C accuracy	±(0.5+10%D)µm, D is measuring	diameter in mm			
Repeatability	±(0.3+5%D)µm, D is measuring of	±(0.3+5%D)µm, D is measuring diameter in mm			
Laser wave length	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			

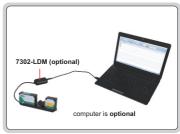




connect to control box (optional)

Dimension		(mm)
Code	LDM-030	LDM-065
L	351	469
W	52	52
Н	120	146
L1	170	203
L2	95	131





keyboard signal, can be transmitted to Excel

STANDARD DELIVERY

Main unit	1 pc
V-block	1 pc
AC/DC adapter	1 pc
RS485 cable	1 pc

OPTIONAL ACCESSORY

OF HORAL ACCEDEDICT				
Data output cable	7302-LDM			
Calibration gauge	custom made			
Control box	custom made			



QUICK MEASUREMENT SYSTEM (WITH STITCHING) **CODE QMS-A220**

SMALL VIEW FIELD SUITABLE FOR SMALL SIZES SUCH AS THREADS, CHAMFERS, ETC

- One or more workpieces can be
- measured by one step operation Place workpieces at any position
- Focus and measure automatically
- Measurement of 999+dimensions and 200+workpieces Suitable for small and medium-size
- parts with high precision requirements





SPECIFICATION

Optical lens			
Wide View field: Ø25mm View field range wide view field small view field 93×62mm 20×16mm Measurement range 200×200mm 130×130mm Measurement without stitching ±3µm ① ±1µm ②			
View field range 93×62mm 20×16mm Measurement range 200×200mm 130×130mm Measurement without stitching ±3µm ① ±1µm ②			
93×62mm 20×16mm Measurement range 200×200mm 130×130mm Measurement without stitching ±3μm ① ±1μm ②			
Measurement without stitching ±3μm ① ±1μm ②			
accuracy with stitching ±(5+0.02L)µm ③ ±(3+0.02L)µm ④			
Repeatability without stitching ±1µm ±0.5µm			
with stitching ±2µm ±1.5µm			
Max. weight of workpiece 5kg			
Measurement time <2s			
Measurement data 2D measurement			
Power supply 220V, 50Hz, 600W			
back light telecentric illuminator, green light			
Illumination system ring light 4-zone circular white high light circular (directional) low-angle green light (eletric)			
coaxial light (optional) vertical illuminator, white light	vertical illuminator, white light		
Environmental requirement temperature: 20°C±2°C, relative humidity: 30%~80%, vibration: <0.002g, less that	ın 15Hz		
Dimension (L×W×H) 532×480×766mm			
Weight 50kg	50kg		



rotary table (optional)

- * The optimum temperature is 20°C±1°C

 ① Within 80×64mm, on focal position and environment temperature at 20°C±1°C

 ② Within 20×16mm, on focal position and environment temperature at 20°C±1°C
- Within 180×180mm, on focal position, environment temperature at 20°C±1°C, and workpiece is less than 2kg, L is the travel of stage
 Within 117×117mm, on focal position, environment temperature at 20°C±1°C, and workpiece is less than 2kg, L is the travel of stage

OPTIONAL ACCESSORY

STANDARD DELIVERY				
Main unit 1 pc				
Computer	1 pc			
Software	1 pc			

Coaxial light illumination	QMS-23-A3	
Data transmission function of software	QMS-23-D1	
CAD import function of software	QMS-23-C1	
Foot-switch	QMS-43-FS1	
11.6" LCD	QMS-23-B1 (must be installed in factory)	
Rotary table	QMS-43-RT1 (must be installed in factory	



11.6" LCD (optional)

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.







magnification of selected points

measuring

VISION MEASURING SYSTEMS (MANUAL TYPE)









X/Y/Z axis light controller

probe (optional), includes Ø2mm and Ø3mm styli, Ø25mm calibration ball, measuring accuracy is 10µm

SPECIFICATION

Code	ISD-V150A	ISD-V250A		
Measuring range (X×Y×Z)	150×100×150mm	250×150×150mm		
Stage size	354×228mm	450×280mm		
Glass stage size	210×160mm	306×196mm		
Resolution of X/Y/Z axis	0.5µm			
Accuracy of X/Y axis	≤(2.5+L/100)µm (L is the	e measuring length in mm)		
Repeatability of X/Y axis	2μm			
Objective	0.7X~4.5X (zoom)			
Working distance	92mm			
Magnification	29X~184X (on 21.5" 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			
Weight	100kg	120kg		

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

real-time image



lens with coaxial light (optional, must be installed in factory)

OPTIONAL ACCESSORY

0.5X auxiliary objective	code: ISD-V-OB05X working distance: 175mm magnification: 14.5~92X (on 21.5" monitor)
2X auxiliary objective	code: ISD-V-OB2X working distance: 36mm magnification: 58~368X (on 21.5" 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
Office software	code 7313-OFFICE

SOFTWARE

- Operation system: Windows 7/10
- Language: English
- Dimension measuring tools:







circle















open curve



closed curve



distance angle



focus plane (image)







Geometric measuring tools:





parallelism



squareness



angularity



concentricity



coaxiality (probe)



■ Measuring and element construct methods:



■ Sent to CAD, EXCEL, WORD



EXCEL



■ Contour scanning:

■ Profile detection: +INSIZE+

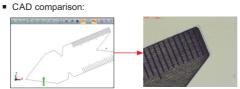


■ Edge-detection:



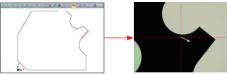






import CAD drawing, then compare with real-time image

CAD measuring:



import CAD drawing, set the datum, establish coordinate system, then the software will automatically measure



CNC VISION MEASURING SYSTEMS





magnification of selected points

measuring graphic

X/Y/Z axis light controller





software flash disk (included)

- 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

SPECIFICATION

Code (manual z	oom lens)	ISD-V220CNCA	ISD-V270CNCA	
Measuring range (X×Y×Z)		220×120×150mm	270×170×150mm	
Stage size		450×280mm	500×330mm	
Glass stage siz	е	306×196mm	350×250mm	
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)		ı)		
Repeatability of	f X/Y axis	2µm		
Objective		0.7X~4.5X (zoom)		
Working distan	ce	92mm		
Magnification		33.0X~208.6X (with manual zoom lens, on 24" monitor); 31.9X~188.7X (with motorized zoom lens, on 24" monitor)		
Camera		giga-bit network camera		
Illumination	surface	coaxial light, programmable segmented ring light		
mummation	contour	adjustable LED light		
View field (diag	onal length)	1.5~10.8mm		
Max. height of v	workpiece	150mm		
Max. weight of	workpiece	30kg		
Operation syste	em	Windows 7/8/10		
Drive method		automatic		
Power supply		220V, 50/60Hz		
Dimension (L×V	Dimension (L×W×H) 760×600×900mm 760×600×900mm		760×600×900mm	
Weight 146kg 168kg		168kg		

desk (optional)





probe (**optional**), includes Ø2mm and Ø3mm styli, Ø25mm calibration ball, measuring accuracy is 10µm

STANDARD DELIVERY

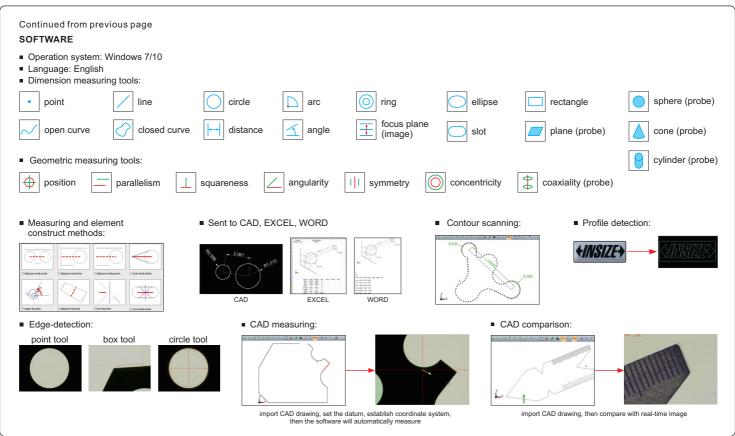
OTATION DELIVER.	
Main unit	1 pc
Software	1 pc
Computer	1 pc
24" display	1 pc
Len with coaxial light	1 pc
Controller	1 pc
Calibration glass chart	1 pc
Laser positioner	1 pc
Clay	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

OF HONAL ACCESSORT		
0.5X auxiliary objective	code: ISD-V-OB05X, working distance: 175mm magnification: 16.5~104.3X (with manual zoom lens, on 24" monitor), 16.0~94.4X (with motorized 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), 63.8~377.4X (with motorized 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	

To be continued

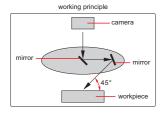






SUITABLE TO CHECK CONVEX OBJECTS AND WALL OF HOLES

TAKE PICTURES AND VIDEOS

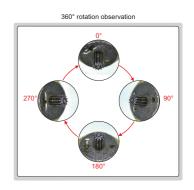


SPECIFICATION

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



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





AUTO FOCUS DIGITAL MICROSCOPE (LARGE VIEW FIELD)



MEASUREMENT

CAN BE CONNECTED TO PC AND TV AT THE SAME TIME

AUTO FOCUS



- Auto focus cameraTake pictures and videos
- Can be connected to TV (HDMI port) and computer (RJ45 port) at the same time
- Built-in measuring software for TV
 Measuring software for computers is included
 Automatic exposure and white balance
- Brightness, contrast ratio, gain are adjustable
- Display cross hair (blue/green/red /yellow/black/brown colors)

USB port TV is optional (HDMI port) USB port 0 HDMI port 0 built-in lens computer (optional, RJ45 port) 0 connect to computer through cable to save pictures (software for computer is included)

SPECIFICATION

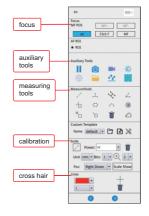
Code	5302-AF105 (standard type)
Pixel	2M
Resolution	1920×1080
Magnification	1.4X~25.8X (on 28" TV)
Sensor	1/2.8" CMOS
Auto focus distance	100mm~∞
Output	HDMI, RJ45
Frame rate	HDMI: 60fps, RJ45: 50fps
Power supply	power adapter
Dimension (L×W×H)	500×280×410mm
Weight	17kg

STANDARD DELIVERY		
Main unit (with stand)	1 pc	
LED illumination	1 pc	
16G USB flash disk	1 pc	
Mouse	1 pc	
HDMI cable (for TV)	1 pc	
Network cable (for computer)	1 pc	
Switch	1 pc	
Software for computer	1 pc	
Power adapter	2 pcs	

VIEW FIELD

VIEW FIELD		
Focus distance	Adjustable magnification (on 28" TV)	View field
100mm	3.9~25.8X	24×14~168×91mm
150mm	2.6~20X	30×17~240×128mm
200mm	2.1~17X	37×20~315×170mm
250mm	1.7~14.7X	42×24~385×210mm
270mm	1.4~14X	43×25~415×225mm

TV SOFTWARE (INCLUDED)



OPTIONAL ACCESSORY

·	
28" 4K TV	5302-AF-TV28
32" 4K TV	5302-AF-TV32
Computer	5302-AF-COMPUTER
Controller	5302-AF-CONTROLLER

MEASURING ACCURACY

Optical magnification	Measuring accruacy
2X	±0.1mm
4X	±0.1mm
6X	±0.04mm
8X	±0.02mm
14X	±0.02mm
1	±0.02mm



DIGITAL MEASURING MICROSCOPE

MEASUREMENT

BUILT-IN SOFTWARE WITHOUT COMPUTER

TAKE PICTURES



- 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





ISM-DL301 (with contour illumination)

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	2 pcs

OPTIONAL ACCESSORY

1X camera adapter	ISM-DL-CA1X	
2X auxiliary objective	ISM-DL-OB2X	
X-Y glass stage (travel: 100×86mm)	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)	
4٧	magnification	15~100X	30~200X
1X (included)	focus distance	70±2mm	70±2mm
view filed	16×11~2.5×1.6mm	7.8×5.3~1.2×0.8mm	
ov	magnification	30~200X	60~400X
(optional) focus distance view field	29±2mm	29±2mm	
	view field	7.8×5.3~1.2×0.8mm	3.8×2.7~0.6×0.4mm



16G USB flash disk (included)









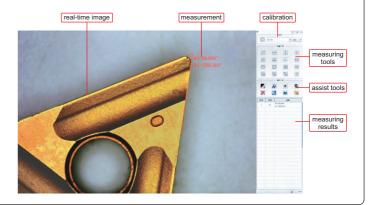
1X auxiliary objective (included)



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 (BASIC TYPE) CODE 5318-MD60

- 1080P high-definition image
- Built-in software without computer, operated by mouse
- Take pictures, save to USB flash disk
- Measurement results can be sent to Excel
- Brightness, contrast ratio, gain are adjustable

SPECIFICATION

Magnification	12.5X~80X
Sensor	1/2.8" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Measuring accuracy	±0.02mm
Lines	cross lines, scale lines (number, color and position of lines are adjustable)
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	380×260×350mm
Weight	4.5kg

MAGNIFICATION AND VIEW FIELD

MAGNIFICATION AND VIEW FIELD		
Auxiliary objective	Specification	Camera adapter
		0.5X (included)
0.5X (optional)	magnification	6.2~40X
	view field	47×26~7.4×4mm
1X (included)	magnification	12.5~80X
	view field	23.5×13~3.7×2mm
2X (optional)	magnification	25~160X
	view field	11.8×6.5~1.8×1mm

OPTIONAL ACCESSORY

0.5X auxiliary objective	5318-OB05X
2X auxiliary objective	5318-OB2X



STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
White/black plate	1 pc
Glass calibration ruler	1 pc
16G USB flash disk	1 pc
Mouse	1 pc
HDMI cable	1 pc
Power adapter	3 pcs



PICTURES

MEASUREMENT

glass calibration rule



white/black plate (included)



16G USB flash disk

MEASURING SOFTWARE (INCLUDED)



DIGITAL MEASURING MICROSCOPE (BASIC TYPE) CODE 5307-ID100A

■ Electronic magnification feedback lens: when the objective lens magnification is changed manually, the software automatically selects the corresponding

- knob adjustment and software adjustment
- operated by mouse
- Take pictures, save to USB flash disk
- Measuring results can be sent to Excel

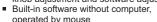
BUILT-IN SOFTWARE WITHOUT COMPUTER **ELECTRONIC MAGNIFICATION** FEEDBACK LENS

BUILT-IN SOFTWARE

WITHOUT COMPUTER











SPECIFICATION

of Edit Idation		
Sensor	1/2" CMOS	
Pixel	2M	
Resolution	1920×1080	
Magnification	12~77X	
Focus distance	65mm	
View field	3.2x1.8-20.9x11.7mm	
Max workpiece height	60mm	
Frame rate	60fps	
Output	USB/HDMI	
Power supply	power adapter	
Dimension (L×W×H)	260x320x500mm	
Weight	5.2kg	

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

MACHIEICATION AND MEASURING ACCURACY

MAGNIFICATION AND MEASURING ACCURACT		
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



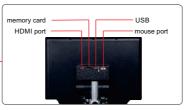
MINI DIGITAL MICROSCOPE (ECONOMIC TYPE) CODE 5311-M710

TAKE PICTURES AND VIDEOS

BUILT-IN LITHIUM BATTERY



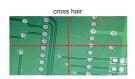


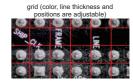












SPECIFICATION

	4000 000	
Display resolution	1280×800	
Sensor	1/3" CMOS	
Pixel	13M	
Single pixel size	1.12umx1.12um	
Frame rate	60fps/30fps	
Magnification	6.5X-60X	
View field	3.6x2-33x18.5mm	
White balance	auto/manual (10 levels RGB)/calibration	
Exposure control	AE lock/exposure compensation (10 levels)	
Image control	contrast/saturation/sharpness (10 levels)	
Record media	memory card (128G Max)	
Output	HDMI	
Power supply	power adapter	
Dimension(L×W×H)	180x200x360mm	
Weight	1.3kg	

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
- A distance between 2 lines
- point-line distance
- // distance between parallel lines
- distance between line and first parallel line
- o center distance of concentric circle
- o radius of a 2-point circle
- radius of a 3-point circle

center distance of 2 circles

o radius of a circle

+ cross line

double cross line

angle

arc

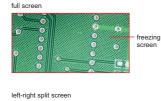


STANDARD DELIVERY

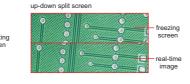
Main unit	1 pc
USB cable	1 pc
HDMI cable	1 pc
IR remote controller	1 pc
32G memory card and holder	1 pc
Plastic calibration ruler	1 pc
Power adapter	1 pc

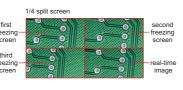
Screen freezing:

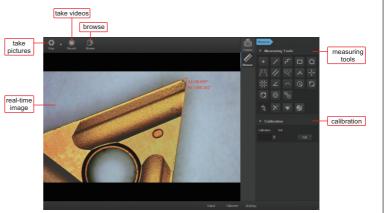
freezing screen



real-time image





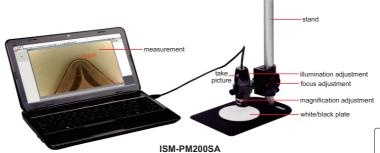




DIGITAL MEASURING MICROSCOPES (ECONOMIC TYPE)



- Can take pictures and videos
- Supplied with software
- Calibration rulers (graduation 0.1 and 1mm) are included
- With focus support



computer is optional



software flash disk (included)



SPECIFICATION

SFECIFICATION		
Code	ISM-PM200SA	ISM-PM200SB
Magnification	10X~200X	10X~200X
Stand	standard	universal
Pixel	2M (resolution: 1600×1200)	
llumination	built-in adjustable LED	
Power supply	USB 2.0 cable (voltage required: 5±0.1V)	

MAGNIFICATION, FOCUS DISTANCE, VIEW FIELD AND ACCURACY

installing to the contract of			
Magnification	Focus distance	View field (mm)	Accuracy
50X	22mm	9.6×7.1mm	30µm
100X	14mm	4.8×3.6mm	15µm
150X	14mm	3.3×2.5mm	10µm
200X	19mm	2.3×1.8mm	8µm





filter (optional)

OPTIONAL ACCESSORY

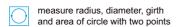
Green filter	ISM-PM-GREEN
Yellow filter	ISM-PM-YELLOW
Blue filter	ISM-PM-BLUE

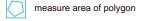
STANDAER DELIVERY

Main unit	1 pc
USB flash disk	1 pc

SOFTWARE

- Language: English, Japanese, Ukrainian, German, French, Italian, Spanish, Chinese
- Operation system: Windows 7/8/XP/Vista
- Measuring tools:





measure distance between two circles
measure distance between two parallel lines

measure angle with two lines

measure distance between point and line

measure radius of arc

measure radius of circle
measure length

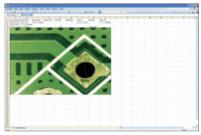
of continuous line
measure angle with
three points

measure radius, girth and area of circle

A add text

take video sent to Excel measuring tools calibration picture taken before real-time image measurement zoom in

Data is sent to Excel:





LED ring light (optional)

ZOOM STEREO MICROSCOPE (STANDARD TYPE) CODE ISM-ZS50



SPECIFICATION

Optical tube	binocular	
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



OPTIONAL ACCESSORY

Auxiliary	0.5X	ISM-ZS50-OB05X*
objective	2X	ISM-ZS50-OB2X
	10X dividing eyepiece (graduation 0.1mm/div.)	ISM-ZS50-EPD10X
Eyepiece	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-ZS200-ADAPTER

^{*0.5}X auxiliary objective must be used with ISM-ZS200-ADAPTER

ZOOM STEREO MICROSCOPE (WITH UNIVERSAL STAND) CODE 5106-M50

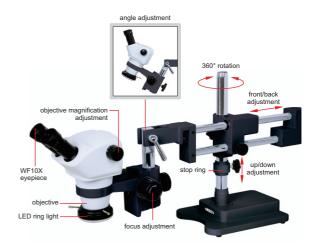


SPECIFICATION

or Edit ICATION	
Optical tube	binocular
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
WF10X eyepiece	2 pcs
LED ring light	1 pc
Anti-dust cover	1 pc



OPTIONAL ACCESSORY

Auxiliary	0.5X	ISM-ZS50-OB05X*
objective	2X	ISM-ZS50-OB2X
	10X dividing eyepiece (0.1mm/div.)	ISM-ZS50-EPD10X
Eyepiece	WF15X (view field: Ø16mm)	ISM-ZS50-EP15X
	WF20X (view field: Ø12mm)	ISM-ZS50-EP20X
Adapter sl	eeve	ISM-ZS30-ADAPTER

^{*0.5}X auxiliary objective must be used with ISM-ZS30-ADAPTER



ZOOM STEREO MICROSCOPE (BASIC TYPE) CODE ISM-ZS30



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

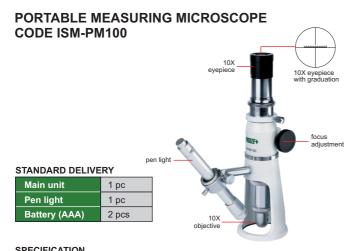
Main unit	1 pc
WF10X eyepiece	2 pcs
Ø95mm glass plate	1 pc
Ø95mm white/black plate	1 pc
Anti-dust cover	1 pc



OPTIONAL ACCESSORY

	0.5X	ISM-ZS30-OB05X*
Auxiliary	0.63X	ISM-ZS30-OB06X*
objective	0.75X	ISM-ZS30-OB07X*
	2X	ISM-ZS30-OB2X
	10X dividing eyepiece (graduation 0.1mm/div.)	ISM-ZS30-EPD10X
Eyepiece	WF15X (view field: Ø16mm)	ISM-ZS50-EP15X
	WF20X (view field: Ø12mm)	ISM-ZS50-EP20X
LED ring I	ight	ISM-ZS-RL
Sleeve for	auxiliary objective	ISM-ZS30-ADAPTER
Digital car	nera	ISM-CM63
Camera a	dapter 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



SPECIFICATION

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

TABLE MAGNIFIER WITH ILLUMINATION **CODE 7517-3D**



- Four steps brightness adjustmentLED illumination,
- working life 20000h

 Resin lens



OI EOII IOATION		
Magnification	1.75X	
Diopter	3D	
Lens diameter	Ø125mm	
Illumination	power: 3W, illuminance: 260lm	
Power supply	power adapter 12V, 1A	





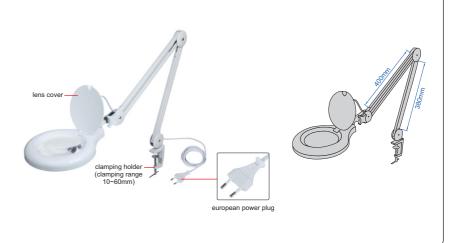
TABLE MAGNIFIER WITH ILLUMINATION **CODE 7516-5D**

■ 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	

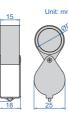


FOLDING MAGNIFIER

Glass lens



7511-8



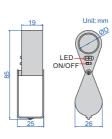


Code	Magnification	Lens diameter (ØD)
7511-8	10X	Ø21mm

FOLDING MAGNIFIER WITH ILLUMINATION

- Resin lens
- Powered by 3xLR927 batteries (included)







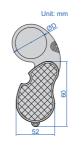


Code	Magnification	Lens diameter (ØD)
7515-10	10X	Ø21mm

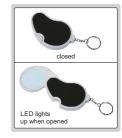
FOLDING MAGNIFIER WITH ILLUMINATION

- Resin lens
 Powered by 2xCR1620 batteries (included)
 LED lights up automatically when opened









Code	Magnification	Lens diameter (ØD)
7514-1	2.5X	Ø45mm

+INSIZE+

7513-4

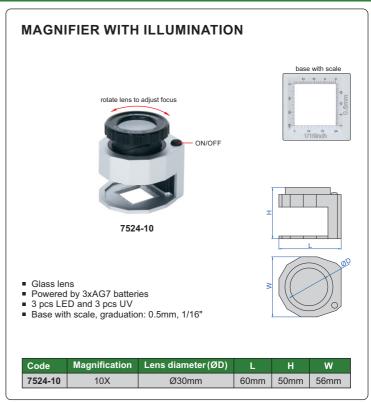
4X

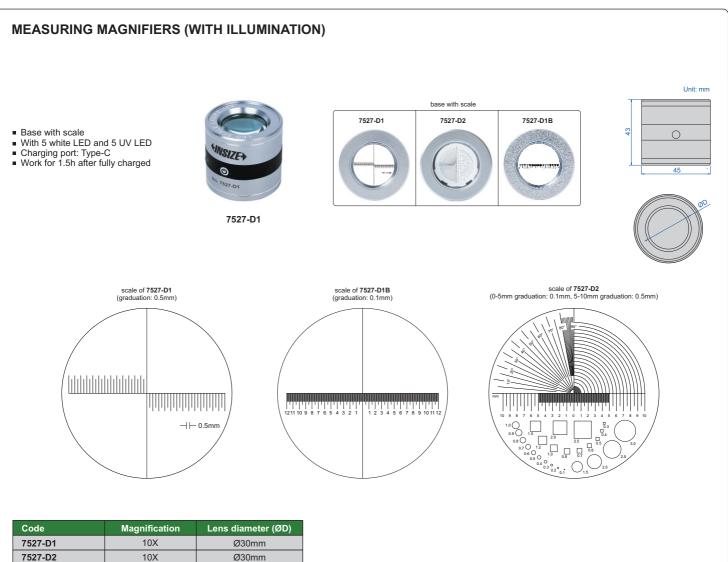


Ø50mm

145mm

90mm





7527-D1B

10X

Ø30mm



MAGNIFIER WITH TWO LENSES

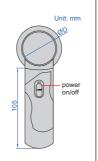


7522-610

■ Resin lens

752

- Interchangeable lenses
 Powered by 3 pcs AAA batteries (included)

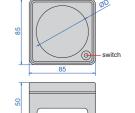




de	Lens number	Magnification	Lens diameter (ØD)	
2-610	2 pcs	6X	50mm	
		10X	37mm	

MAGNIFIER WITH ILLUMINATION





Unit: mm

- Glass lens
- With 4 white LED, three levels
- brightness adjustment
 Charging port: Type-C

Code	Magnification	Lens diameter (ØD)
7528-3	3X	Ø70mm

THREE WAYS MAGNIFIER WITH ILLUMINATION





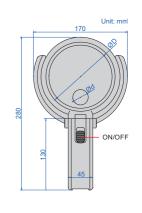


- Resin lens
- Powered by 2xAA batteries (included) or power adapter (110~240V, 50~60Hz)

Code	Magnification	Lens diameter (ØD/Ød)
7512-1	2X/4X	Ø120mm/Ø28mm

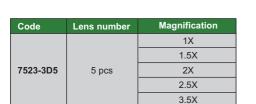






MAGNIFICATION GLASSES

- Resin lens
- Interchangeable lensesPowered by 3 pcs AAA
- batteries (included)





7523-3D5





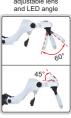








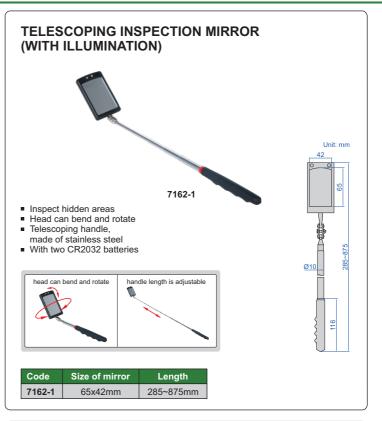


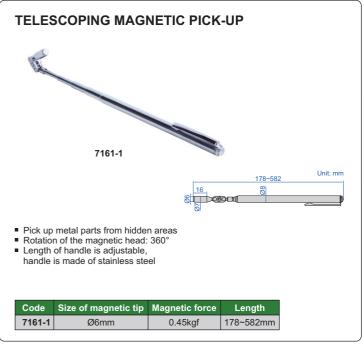




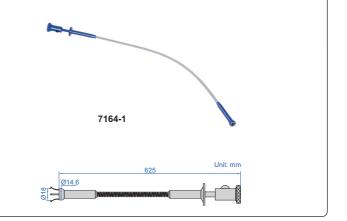














VIDEOSCOPES (WITH CABLE)





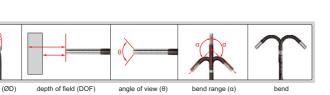






ISV-K-MAGNET (optional)









connect Android devices through WII

ISV-K-CLAMP (optional)

SPECIFICATION

diameter (ØD)

Code		ISV-K1810	ISV-K2410	ISV-K2810	ISV-K3915	ISV-K6015		
	diameter (ØD)	1.8mm	2.4mm	2.8mm	3.9mm	6.0mm		
	pixel	0.16M			0.92M			
	resolution	400×400			1280×720			
	depth of field	3-30mm	3-70mm	3-70mm	8-150mm	12-200mm		
	bending direction	two directions	two directions	four directions	four directions	four directions		
Lens	bending range (α)	±160°						
	angle of view (θ)	120°	120°					
	illumination	rear fiber	rear fiber					
	lens	sapphire glass lens						
	dust/waterproof	IP65			IP67			
	bend control	manual joystick						
Cable	length	1m	1m	1m	1.5m	1.5m		
Cable	type	tungsten wire weaved	tungsten wire weaved cable					
	display	5" high definition LCD						
	function	take pictures, take videos						
	file format	picture: JPG, video: MP4						
Main unit	image process	image zoom (1X, 2X, 3X, 4X)						
Main unit	image control	freeze, flip over, playback and analog ruler						
	memory	memory card						
	output	WIFI (only for Android OS), USB, HDMI						
	power supply	rechargeable lithium battery (working time ≥ 4 hours), 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

Temperature alarm	ISV-K-HTALARM (must be installed in factory, for ISV-K3915 and ISV-K6015)
Hook	ISV-K-HOOK (must be installed in factory, for ISV-K3915 and ISV-K6015)
Magnet	ISV-K-MAGNET (must be installed in factory, for ISV-K3915 and ISV-K6015)
Clamp	ISV-K-CLAMP



VIDEOSCOPES (BASIC TYPE)

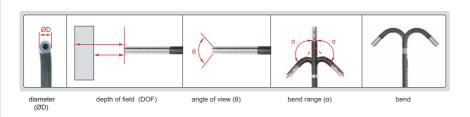




TUNGSTEN WIRE WEAVED CABLE BREAK AND WEAR RESISTANCE









WIFI real-time image transmission

SPECIFICATION

Code		ISV-J2810	ISV-J2815	ISV-J4010	ISV-J4030	ISV-J6010	ISV-J6030
	diameter (ØD)	2.8mm	2.8mm	4.0mm	4.0mm	6.0mm	6.0mm
	pixel	0.16M 1M					
	resolution	400×400 1280×720					
	depth of field	10~∞mm	10~∞mm	10~∞mm	10~∞mm	10~∞mm	10~∞mm
	bending direction	four directions	four directions	four directions	four directions	four directions	four directions
Lens	bending range (α)	±160°					
	angle of view (θ)	120°	120°				
	illumination	front LED					
	lens	sapphire glass lens IP67					
	dust/waterproof						
	bend control	manual joystick					
Cable	length	1m	1.5m	1m	3m	1m	3m
Cabic	type	wire weaved cable					
	display	5" HD screen (resolution: 1920×1080)					
	function	take pictures, take videos					
	file format	picture: JPG, video: MOV					
Main	image process	image zoom (1X, 2X, 3X, 4X, 5X)					
unit	image control	freeze, flip over, playback, analog ruler					
	memory	32G memory card WIFI (only for Android OS), USB, HDMI					
	output						
	power supply	rechargeable lithium battery (working time ≥ 4 hours), AC/DC adapter (for continuous working)					
Weight		1000g					

STANDARD DELIEVERY

Main unit	1 pc
32G SD card	1 pc
Card reader	1 pc
USB cable	1 pc
AC/DC adapter	1 pc

OPERATION ENVIRONMEN

SI EIGHTON EIGTINGIAMEN				
Main unit	-10~50°C, no preheat			
Operation temperature	-20~70°C			
Storage temperature	-20~60°C			
Relative humidity	maximum 90%, no condensation			



COATING THICKNESS GAUGE CODE 9501-1200

BLUETOOTH

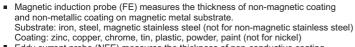
FOR MAGNETIC AND NON-MAGNETIC SUBSTRATES OUTPUT

POPULAR MODEL









- 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
- Data statistic, including average, variance, maximum and minimum values
 Data can be sent to Excel by connecting to computers via bluetooth or cable of receiver
 Support bluetooth printer
- Automatic power off



eddy current probe NFE (**optional**) with zero calibration block



magnetic induction probe FE90 for bores and grooves (optional)



calibration foils (included)







zero calibration block for FE (included)



receiver (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	Ø15mm	Ø7mm	Ø40mm	
Minimum curvature radius of convex workpiece	1.5mm	3mm	_	10mm	
Memory	600				
Output	USB				
Power supply	2×1.5V AA batteries				
Dimension	135×77×32mm				
Weight	172g				

STANDARD DELIVERY

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Main unit	1 pc
Magnetic induction probe (FE)	1 pc
Zero calibration block for FE probe	1 pc
Calibration foils (50/100/250/500/1000µm)	1 set
1.5V AA battery	2 pcs
Software and USB cable	1 pc

OPTIONAL ACCESSORY

Receiver	ISR-C300-RECEIVER
Cable of receiver	9501-1200-CABLE
Bluetooth printer	ISR-C002-PRINTER
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



COATING THICKNESS GAUGE (BASIC TYPE) CODE ISO-1200FN

FOR MAGNETIC AND **NON-MAGNETIC SUBSTRATES**



Fe zero calibration plate (included)



NFe zero calibration plate (included)



standard foil (included)



ruby contact point

STANDARD DELIVERY

STANDARD DELIVERT			
Main unit	1 pc		
Fe zero calibration plate	1 pc		
NFe zero calibration plate	1 pc		
Standard foil (100µm)	1 pc		
1.5V AAA battery	2 pcs		

- 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 recordsSmall and portable, easy for operation

SPECIFICATION

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	Fe	0.2mm
thickness	NFe	0.05mm
Minimum measuring ar	ea	Ø25mm
Minimum radius of	convex surface	5mm
curvature workpieces	concave surface	25mm
Unit		μm/mil
Power supply		2×1.5V AAA batteries
Main unit dimension		101×62×28mm
Probe dimension		71×26×22mm
Weight		114g

COATING THICKNESS GAUGE (BASIC TYPE) CODE ISO-1000FN

ruby contact point

FOR MAGNETIC AND **NON-MAGNETIC SUBSTRATES**



NFe zero calibration plate (included)



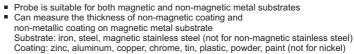
Fe zero calibration plate (included)



standard foil (included)

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 AAA battery	2 pcs	





- 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

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	Fe	0.2mm
thickness	NFe	0.05mm
Minimum measuring ar	ea	Ø25mm
Minimum radius of	convex surface	5mm
curvature workpieces	concave surface	25mm
Unit		μm/mil
Power supply		2×1.5V AAA batteries
Dimension		101×62×28mm
Weight		79g





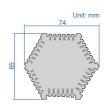


WET FILM GAUGE

■ Made of stainless steel

Code	Range	Accuracy	Thickness
4845-2	25-3000µm	25-100µm: ±5µm 100µm-3000µm: ±5%	1mm





4845-2

60° GLOSS METER (BASIC TYPE) **CODE 5702-DG6**

- To test the gloss of coating, such as painting, varnish, printing ink, etc.
 To test the material surfaces, such as
- To test the inaterial 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



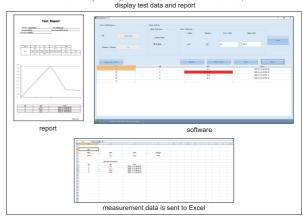


SPECIFICATION

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

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
•	

software (included), test can be controlled from the software,



COLORIMETER (BASIC TYPE) CODE 5700-LS35

- 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	







white calibration cavity (included)

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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



PEN-TYPE DIGITAL MULTIMETER **CODE 9241-ML200**

- Auto/manual ranging
- Maximum mode
- Data hold
- NCV detection Low battery indication Auto power off
- Auto power offSafety rating: CAT III 600V

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)
AC voltage	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)
	200Ω	0.1Ω	±(1.0%+3)
Resistance	2kΩ/20kΩ/200kΩ/2MΩ	1Ω/10Ω/0.1kΩ/1kΩ	±(1.0%+1)
	20ΜΩ	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		





test lead (included)



clips (included)

STANDARD DELIVERY

Main unit	1 pc
Test lead	1 pc
Clip	2 pcs
Battery (AAA)	2 pcs

SMART DIGITAL MULTIMETER CODE 9247-190

- Automatically identify test mode for AC voltage/DC voltage/resistance/continuity
 Non-connection AC voltage detection,
- Non-contraction not votage detection,
 and judge the strength by light and buzzer
 Self-calibration when power on to ensure accuracy
 LIVE firewire recognition
 Display with backlight
 True RMS measurement

- Data hold
 Low battery indication
 Auto power off
 Safety rating: CAT III 600V





test leads (included)

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)
Decistance	600Ω/6kΩ/60kΩ/600kΩ	0.1Ω/0.001kΩ/0.01kΩ/0.1kΩ	±(1.0%+5)
Resistance	6ΜΩ/60ΜΩ	0.001ΜΩ/0.01ΜΩ	±(1.5%+3)
Compositornos	6nF/60nF/600nF/6μF/60μF/600μF	0.001nF/0.01nF/0.1nF/0.001µF/0.01µF/0.1µF	±(4.0%+5)
Capacitance	6mF/60mF	0.001mF/0.01mF	±(5.0%+5)
_	10Hz/100Hz/1000Hz/10kHz/100kHz/1000kHz	0.001Hz/0.01Hz/0.1Hz/0.001kHz/0.01kHz/0.1kHz	±(1.0%+5)
Frequency	10MHz	0.001MHz	±(3.0%+5)
Duty cycle	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		

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Main unit	1 pc
Test lead	2 pcs
Battery (CR2032)	2 pcs



MINI DIGITAL MULTIMETER (BASIC TYPE) **CODE 9242-ML100A**

- Portable size with protective case
- 1999 counts digital display
- Data hold
 Display with backlight
 Low battery indication
- Auto power off
- Safety rating: CAT II 600V

SPECIFICATION

Function	Range	Resolution	Accuracy ("d" is the least reading)
	200.0mV	0.1mV	±(0.7%+3d)
DC Voltage	2000mV	1mV	±(0.5%+2d)
	20.00V/200.0V/600V	0.01V/0.1V/1V	±(0.7%+3d)
AC Voltage (40~400Hz)	200.0V/600V	0.1V/1V	±(1.2%+3d)
DC Current	200.0μA/200.0mA	0.1µA/0.1mA	±(1.0%+2d)
DC Current	10.00A	0.01A	±(1.2%+5d)
	200.0Ω	0.1Ω	±(1.0%+2d)
Resistance	2000Ω/20.00kΩ/200.0kΩ	1Ω/0.01kΩ/0.1kΩ	±(0.8%+2d)
	20.00ΜΩ	0.01ΜΩ	±(1.2%+3d)
Battery test	1.5V/9V/12V battery check		
Diode test	open circuit voltage: 2.1V DC		
Continuity check	<50Ω		
Power supply	2×1.5V AAA batteries		
Dimension (LxWxH)	134×77×47mm		
Weight	206g		









STANDARD DELIVERY

OTANDAND DELIVERY		
Main unit	1 pc	
Battery (AAA)	2 pcs	
Test lead	2 pcs	

DIGITAL MULTIMETER (WITH JACK INDICATOR LIGHT) CODE 9246-180

- Jack indicator light: jacks flash green to indicate the corresponding jacks for test leads NCV 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 measurement
- Battery test function Max/Min mode
- Data hold
- Low battery indication
- Auto power off Safety rating: CAT III 1000V, CAT IV 600V







test leads (included)

STANDARD DELIVERY

Main unit	1 pc
Test lead	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)
Resistance	6ΜΩ/60ΜΩ	0.001ΜΩ/0.01ΜΩ	±(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)
Сараспапсе	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)
riequency	10MHz	0.001MHz	±(3.0%+3)
Duty cycle	1~99% 0.1% ±(3.0°		±(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 AC/DC CLAMP METER CODE 9315-CF210



- 4000 counts display
- 28mm jaw opening
 NCV detection with light and sound alarm
- True RMS measurement
- Auto ranging REL (zero) function Data hold
- Polarity indication
- LCD screen with backlight Low battery indication
- Auto power off
- Safety rating: CAT III 300V/CAT II 600V







Main unit	1 pc
Battery (AAA)	2 pcs
Test lead	2 pcs

SPECIFICATION

Function	Range	Resolution	Accuracy ("d" is the least reading)
DC Current	40.00A/400.0A	0.01A/0.1A	±(2.0%+5d)
AC Current *	40.00A/400.0A	0.01A/0.1A	±(2.0%+5d)
DC Voltage	400.0mV	0.1mV	±(0.7%+3d)
DC voitage	4.000V/40.00V/400.0V/600V	0.001V/0.01V/0.1V/1V	±(0.5%+2d)
AC Voltage *	4.000V	0.001V	±(1.0%+5d)
Ao voltage	40.00V/400.0V/600V	0.01V/0.1V/1V	±(0.8%+5d)
AC Voltage frequency	10Hz~60kHz	0.01Hz~0.01kHz	±(0.5%+2d)
	400.0Ω	0.1Ω	±(1.0%+2d)
Resistance	4.000kΩ/40.00kΩ/400.0kΩ	0.001kΩ/0.01kΩ/0.1kΩ	±(0.8%+2d)
	4ΜΩ/40ΜΩ	0.001ΜΩ/0.01ΜΩ	±(2.5%+5d)
Capacitance	40.00nF/400.0nF/4.000μF/40.00μF/400.0μF	0.01nF/0.1nF/0.001µF/0.01µF/0.1µF	±(4.0%+5d)
Capacitance	4.000mF/40.00mF	0.001mF/0.01mF	±10.0%
Frequency	10Hz~10MHz	0.01Hz~0.01MHz	±(0.1%+4d)
Duty cycle	0.1%~99.0% 0.1%		±(3.0%+5d)
Diode test	open circuit voltage: 4V		
Continuity check	<30Ω		
Power supply	2×1.5V AAA batteries		
Dimension (LxWxH)	215×75×37mm		
Weight	235g		

AC PHASE AND VOLTAGE DETECTOR

*AC voltage/current frequency response: 45Hz~400Hz, true RMS display



CODE 9723-400



- Non-contact detection of phase sequence, high and low voltage, wire distinction
- Low battery indication
- Auto power off
- Flashlight

SPECIFICATION

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	

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 batteryTester tip: CRV material

SPECIFICATION

OI LOII ICATION	
Range	AC: 12-250V; DC: 6-36V
Neon lamp life	30000 times
Dimension	133×21×19mm
Weight	22g

The state of the s **VOLTAGE TESTER CODE 9722-250** ■ Tester tip: CRV material SPECIFICATION AC: 100-250V Range Neon lamp life 30000 times Dimension 145ר15mm Weight 21g



ULTRASONIC THICKNESS GAUGE (BASIC TYPE) CODE ISU-100D





- 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		0.1/0.01mm
Accuracy		±0.05mm (H<10mm) ±(0.05+H/1000)mm (10≤H<100mm) ±H/333mm (H≥100mm) H is the thickness to be measured in mm
Transducer	frequency	5MHz
ITAIISGUCEI	diameter (Ød)	10.8mm
Minimum size	e of pipes	20×1.2mm (diameter×wall thickness)
Velocity		1000-9999m/s
Operation temperature		main unit: -20~50°C transducer: -20~60°C
Measuring unit		mm/inch
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

CONTACT TACHOMETER CODE 9224-213

- 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

	rotary speed	0.5~19999RPM	
Measuring range	line speed	0.05~500m/min	
_ · · •	line length	0.05~99999m	
	rotary speed	0.1RPM (range 0.5~999.9RPM) 1RPM (range 1000~19999RPM)	
Resolution	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	



STANDARD DELIVERT	
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









small cone head (included)



cone head (included)



wheel with 0.1m perimeter (included)



NON-CONTACT TACHOMETER CODE 9223-120



- 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

STANDARD DELIVERY

Main unit	1 pc
Reflection sticker	3 pcs
Battery (AA)	3 pcs

CONTACT/NON-CONTACT TACHOMETER CODE 9225-405



- 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







wheel with 0.1m perimeter (included)



cone head (included)





SPECIFICATION

Measuring me	thod	Non-contact	Contact
Measuring	rotary speed	2.5~99999RPM	0.5~19999RPM
range	line speed	1	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)
Resolution	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 dis	tance	50~500mm —	
Operation tem	perature	0~40°C	
Power supply		3×AAbatteries	
Dimension		206×71×36mm	
Weight		170g	



ON MID, MID DELIVER.	
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



LASER DISTANCE METERS

- High accuracy models: 9561-50B, 9561-70B Low accuracy models: 9561-50B-F, 9561-70B-F
 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

SPECIFICATION

Code	9561-50B	9561-70B	9561-50B-F	9561-70B-F
Measuring range	0.2~50m	0.2~70m	0.2~50m	0.2~70m
Resolution	0.001m, .001ft, 1/16"			
Accuracy	±(3+D/20)mm D: measured distance, unit: m		±(5+D/20)mm D: measured distance, unit: m	
Laser type	630~670nm, class II, <1mW, red_laser			
Power supply	2×AAA batteries			
Dimension (L×W×H)	115×50×28mm			
Weight	95g			



9561-50B

2 pcs









volume

height measurement

BLUEBOOTH LASER DISTANCE METERS







9564-D50











height measurement (3)

Built-in bluetooth, transmission distance is 10 meters (no obstacles,no electromagnetic interference)

- Display with backlight
- With angle measurement function
- Distance, area, volume and height measurement Continuos measuring mode to track maximum and
- minimum value
- Unit: m, ft, in, ft+in
- Memory of 20 measurement values Automatic power off: laser 30s, main unit 180s

SPECIFICATION

Code	9564-D50	9564-D60
Measuring range	0.2~100m	0.2~120m
Resolution	0.001m, 0.001ft, 1	/32"
Accuracy	±(3+D/20)mm D: measured distance, unit: m	
Laser type	490~670nm, class II, <1mW	
Angle accuracy	±(0.4°+0.01°xT)T: operation temperature, unit; °C	
Power supply	3 x rechargeable batteries	
Operation temperature	0~40°C	
Dimension (L×W×H)	120×57×28mm	
Weight	125g	

STANDARD DELIVERY

O I A HO PART DE LIVE I CI		
Main unit	1 pc	
Battery (AAA)	3 pcs	

MINI LASER DISTANCE METER CODE 9565-E40

STANDARD DELIVERY Main unit Battery (AAA)













■ Built-in bluetooth, transmission distance is 10 meters (no obstacles, no electromagnetic interference)
■ Display with backlight

- Unit: m, ft, in, ft+in
- Distance, area, volume and height measurement
- Automatic power off: laser 30s, main unit 180s

SPECIFICATION

Measuring range	0.2~40m
Resolution	0.001m, 0.001ft, 1/16"
Accuracy	±(3+D/20)mm, D: measured distance, unit: m
Laser type	red laser, 630~670nm, class II, <1mW
Charging interface	USB (type-C)
Dimension	180×28×40mm
Weight	53g

Main unit	1 pc
USB charging cable	1 pc



PEN-TYPE CONDUCTIVITY/TDS/SALINITY TESTER **CODE 0412-EB32**



- Can measure the conductivity, TDS and salinity
 Suitable for water quality testing, aquaculture, food processing, scientific research, etc.
 The same series of electrodes can be replaced with each other
- Automatic temperature compensation
- With the stabilizing and locking functions of the reading
- Can be used normally in any environment with the background light
- Auto power off
- Protection level: IP67
- Lightweight, easy to carry and operate





IP67 waterproof



SPECIFICATION

	conductivity 0~200.0µS/cm, 0~2000µS/cm, 0~20.00mS/cm	
Measuring range	TDS 0~100.0ppm, 0~1000ppm, 0~10.00ppt	
weasuring range	salinity 0~10.00ppt	
	temperature 0~50°C	
	conductivity 0.1µS/cm, 1µS/cm, 0.01mS/cm	
Desclution	TDS 0.1ppm, 1ppm, 0.01ppt	
Resolution	salinity 0.01ppt	
	temperature 0.1°C	
Accuracy	conductivity ±1%FS	
Accuracy	temperature ±0.5°C	
Calibration mode	1~3 points	
Power supply	4×1.5V AAA batteries	
Dimension	178×40×40mm	
Weight	133g	

STANDARD DELIVERY

Main unit	1 pc
Standard solution	2 bottles
Test cup	2 pcs
1.5V AAA battery	4 pcs

PORTABLE CONDUCTIVITY/TDS METER CODE 0411-0200

- 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
- Point calibration with standard recognition
 Data capacity up to 200 sets for each parameter
 IP65 dust/waterproof
- Auto power off

electrode LCD with backlight





wristband (included)



SPECIFICATION

SPECIFICATION		
	range	0.00µS/cm~200mS/cm
	resolution	0.01µS/cm minimum
	electronic unit accuracy	±1.0%FS
Conductivity	measurement accuracy	±1.5%FS
	reference temperature	25°C/77°F
	calibration point	1
	standard recognition	84μS/cm, 1413μS/cm, 12.88mS/cm
	range	0.00mg/L~300g/L
TDS	resolution	0.01mg/L minimum
	accuracy	±1.0%FS
	range	-5~110°C/23~230°F
Temperature	resolution	0.1°C/0.2°F
	accuracy	±0.4°C/±0.7°F
Input		electrode with 5-pin aviation connector
Power supply		rechargeable battery
Dimension		80×225×35mm
Weight		400g

STANDARD DELIVERT	
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



PEN-TYPE pH TESTER CODE 0432-HB22

- 3 types of pH electrodes: bulb type, plane type and puncture type
 Suitable for water quality testing, sewage treatment, food and cosmetics testing, agriculture and scientific research, etc.
 Can measure the ORP, the same series of electrodes
- can be replaced with each other Automatic temperature compensation Alarm function: the red backlight displays alarm mode

- With the stabilizing and locking functions of the reading
- Protection level: IP67
- Can be used normally in any environment with three colors of backlight
- Auto power off
- Lightweight, easy to carry and operate





IP67 WATERPROOF

ORP "platinum needle electrode (optional)

SPECIFICATION

	-2.00~16.00pH	
Measuring range	temperature 0~50°C	
	ORP -1000mV~+1000mV	
	0.01pH	
Resolution	temperature 0.1°C	
	ORP 1mV	
	±0.02pH	
Accuracy	temperature ±0.5°C	
	ORP ±0.2%FS	
Calibration mode	1~3 points	
Standard solution	USA (pH buffers: 4.00, 7.00, 10.01) NIST (pH buffers: 4.01, 6.86, 9.18)	
Power supply	4×1.5V AAA batteries	
Dimension	178×40×40mm	
Weight	133g	

STANDARD DELIVERY

Main unit	1 pc
Standard solution	3 bottles (USA)
Test cup	3 pcs
KCI powder	1 bottle
1.5V AAA battery	4 pcs

OPTIONAL ACCESSORY

·	
pH plane type electrode	0432-HB-F
pH puncture type electrode	0432-HB-P
ORP electrode	0432-HB-O









PORTABLE pH METER CODE 0431-0018

- 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
- Auto power off

- IP65 dust/waterproof

SPECIFICATION		
	range	-2.00~18.00pH
	resolution	0.01pH
pН	electronic unit accuracy	±0.01pH
Pii	measurement accuracy	±0.02pH
calibration point		1 or 2
	standard recognition	NIST pH buffers: 4.01, 7.00, 10.01
	range	-1999~1999mV
Voltage	resolution	1mV
accuracy	±0.1%FS	
	range	-5~110°C/23~230°F
Temperature	resolution	0.1°C/0.2°F
accuracy		±0.4°C/±0.7°F
Inputs		pH electrode: BNC (Q9)
		temp. probe: 4-pin aviation connector
Power supply		rechargeable battery
Dimension		80×225×35mm
Weight		400g



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
KCI powder	1 bottle



WATER QUALITY TESTER CODE 0410-EA31

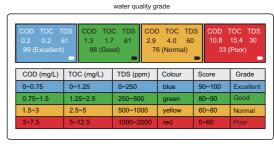
SPECIFICATION

	COD	0~50 mg/L
	TOC	0~50 mg/L
	Conductivity	0~4000 μS/cm
Measuring range	TDS	0~2000 ppm
	UV275	0~1 au/cm
	Temperature	0~50 °C
	COD	0.01 mg/L
	тос	0.01 mg/L
Resolution	Conductivity	1 μS/cm
Resolution	TDS	1 ppm
	UV275	0.001 au/cm
	Temperature	0.1 °C
	COD	0~5mg/L , ±0.5mg/L 5~50mg/L , ±10%
	тос	0~5mg/L , ±0.5mg/L 5~50mg/L , ±10%
Accuracy	Conductivity	±3.5%FS
	TDS	±3.5%FS
	UV275	0~0.1au/cm, ±0.01au/cm 0.1~1au/cm, ±10%
	Temperature	±1°C
Power supply		2×1.5V AAA batteries
Dimension		157×37×14mm
Weight		68g



- Suitable for measuring tap water, purified water, underground water, surface water (unpolluted) and other drinking water, to determine microorganisms and pesticide residues in water
- Use UV absorption method to measure COD, TOC, UV275 parameters of drinking water, and measure the conductivity to determine TDS of drinking water
 Can simultaneously measure 6 parameters: COD (chemical oxygen demand), TOC (total organic carbon), UV275 (ultraviolet wavelength 275nm), TDS (total dissolved solids), EC (electric conductivity), T (temperature) for comprehensive explaints of particle and the conductivity of evaluation of water quality

 With intelligent scoring feature: 4 colors backlight indicate 4 grades of water quality
- Automatic temperature compensation
- Probe protection level: IP67



STANDARD DELIVERY

Main unit	1pc
Pure water calibration cup	1pc

PORTABLE REFRACTOMETER **CODE ISQ-RM30**

- Quickly measure the concentration of coolant, sugar solution, juice and drinks
- 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 REFRACTOMETER CODE ISQ-DRM31

- Quickly measure the concentration of coolant, juice and drinks
- 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

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 DELIVERT	
Main unit	1 pc
Dropper	1 pc
Battery (AAA)	1 pc









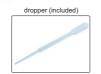
MINI DIGITAL REFRACTOMETER **CODE 5801-A55**

SUITABLE FOR WATER **BASED COOLANT**





- Quickly measure the concentration of coolant
- Automatic temperature compensation
- Brix and refractive index can be displayed
 Refer to the refraction coefficient of coolant, for example: the refraction coefficient 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	built-in 3.7V rechargeable lithium battery	
Dimension	147×46×27mm	
Weight	115g (including battery)	

STANDARD DELIVERY

Main unit	1 pc
Dropper	1 pc

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 hours, 59 minutes, 59.99 seconds	
Resolution		0.01s	
Accuracy ±0.5s		±0.5s	
	memory	10 groups	
Function	timer	up to 10 hours	
	time	12-hour or 24-hour time display, alarm can be set	
Power supp	Power supply LR44 battery		
Screen dimension		33.6×13.6mm	
Dimension		76×63×16mm (metal case)	

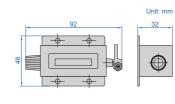
STANDARD DELIVERY

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

BOURDON TUBE PRESSURE GAUGES (LIQUID FILLED)

- Stainless steel case and bezel, copper alloy internals
- Shock-proof and pulse-proof
 Suitable for pneumatic systems, hydraulic systems and compressed air systems

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

SPECIFICATION

Accuracy class	1.6
Ambient temperature	-20~60°C
Medium temperature	≤60°C



5201-63B2Y10





DIGITAL MOISTURE METER CODE 9341-50







- Suitable for wood, smooth cement, Measure moisture, temperature and relative humidity
 Temperature type: ambient, dew point, wet bulb
 Maximum and minimum modes

- Automatic power off

SPECIFICATION

Measuring depth		0~50mm
Measuring range	moisture	0~60%
	temperature	-10~50°C/14~122°F
. 3	relative humidity	0~100%RH
	moisture	±2%
Accuracy	temperature	±2.0°C/±3.6°F
	relative humidity	±5%RH
	moisture	0.1%
Resolution	temperature	0.1°C/0.1°F
	relative humidity	0.1%RH
Sampling time		0.5s for moisture
		1s for temperature and relative humidity
Power supply		2×AAA batteries
Dimension		130×56×29mm
Weight		206g

No	moisture	0~60%
Measuring range	temperature	-10~50°C/14~122°F
_ · •	relative humidity	0~100%RH
	moisture	±2%
Accuracy	temperature	±2.0°C/±3.6°F
	relative humidity	±5%RH
	moisture	0.1%
Resolution	temperature	0.1°C/0.1°F
	relative humidity	0.1%RH
Sampling time		0.5s for moisture
		1s for temperature and relative humidity
Power supply		2×AAA batteries
Dimension		130×56×29mm
Weight		206g
Weight		206g

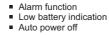
STANDARD DELIVERY

Main unit	1 pc
Battery (AAA)	2 pcs

INDUCTIVE MOISTURE METER CODE 0120-IM24









SPECIFICATION

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

O I A HO A HO DELIVER I		
Main unit	1 pc	
Battery	1 pc	

ANEMOMETER CODE 0110-1125

- Measure air velocity and temperatureMin/Max, data hold function
- Bluetooth 4.0
- Auto power off
 Supplied with APP for Apple and Android

SPECIFICATION

SPECIFICATION					
	Unit	Measuring range	Resolution	Accuracy	
	m/s	1.1~25.0	0.01	±(3%+0.3)	
Air velocity	km/h	4~90	0.1	±(3%+1)	
All velocity	ft/min	220~4920	1	±(3%+40)	
	MPH	2.5~56.0	0.1	. (00/ . 0 . 1)	
	knots	2.2~48.0	0.1	±(3%+0.4)	
Air temperature	°C	0~50	0.1	±2	
All temperature	°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				





Main unit	1 pc
Battery	1 pc



SOUND LEVEL METER (BASIC TYPE) CODE 0010-A35

App measurement





- Auto range selectionOver range indication
- Display backlight
- Min/Max, data hold function
- Bluetooth 4.0
- Auto power off
 Supplied with APP for Apple and Android

SPECIFICATION

Frequency	31.5Hz~8KHz
Measuring range	35dB~130dB
Accuracy	±3.0dB (ref 94dB@1kHz)
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

LIGHT METER (ECONOMIC 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	1~1999Lux	10~19990Lux	100~100000Lux
Resolution	1Lux	10Lux	100Lux
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

O I / A I I D D D D D D D D D D D D D D D D D	
Main unit	1 pc
Battery	1 pc

RADIATION DETECTOR CODE 0522-RF10

- Detect X ray, $*\beta$ ray, γ ray radiation Measure radiation dose rate in real-time and record cumulative dose at the same time, display real-time dose rate curve
- Adjustable dose rate alarm and dose alarm threshold Data stored in built-in memory will not lose after power off
- Particle sound switch
- LCD display with backlight
 Battery level display and low battery indication
 Language: English, Chinese

SPECIFICATION

Sensor	glass Geiger counter tube
Dose rate range	0.1μSv/h~10mSv/h
Dose range	0.00µSv~10Sv
Relative error	<10% (at 1mSv/h)
Sensitivity	>1cps/µSv/h (relative to ⁶⁰ Co)
Energy response	48keV~1.5MeV
Working environment	-10°C~50°C
Power supply	3×1.5V AAA batteries or USB-C
Power	<60mW
Dimension	116×60×33mm
Weight	145g

^{*}X ray radiation measurement is for reference only, cannot meet the energy response requirement.



STANDARD DELIVERY

1 pc Main unit



LIGHT METER (ECONOMIC TYPE) CODE 0131-A120

SPECIFICATION

Measuring range	0.1~199.9Lux	1~1999Lux	10~19990Lux	100~199900Lux
Resolution	0.1Lux	1Lux	10Lux	100Lux
Measuring range	0.01~19.99FC	0.1~199.9FC	1~1999FC	10~19990FC
Resolution	0.01FC	0.1FC	1FC	10FC
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

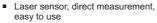


- Photosensor can rotate 90° clockwise and rotate 180° counterclockwise
- Build-in calibration filters ensure the accuracy when working in different colors
- Data hold functionLux/FC unit switch
- Low battery alarm

LASER BELT TENSION METER **CODE 5900-HZ18**

SPECIFICATION

of Edition Identition			
Measuring range		10~800Hz	
Input parameter range		maximum free belt length: 99.99m maximum belt weight: 9.999kg/m	
Accuracy		±5%	
Unit		N, lbf	
Measuring distance		3~20mm	
Operation temperature		10~50°C	
Power supply	,	4×1.5V AAA batteries	
Dimension main unit external sensor		178×72×34mm	
		124×21×12mm	
Weight		180g	



Two sensors: internal and external, external sensor is suitable for measurement in narrow spaces

Automatic power off

STANDARD DELIVERY

Main unit	1 pc
External sensor	1 pc



DC TESLAMETERS

STANDARD DELIVERY

- : : : : : : : : : : : : : : : : : : :	
Main unit	1 pc
Radial probe	1 pc
Battery (AA)	3 pcs



SPECIFICATION

Code	0501-MA01	0501-MA05
Range	2000mT	
Resolution	0.01mT (0~200mT) 0.1mT (200mT~2000mT)	
Accuray	±1.0%	±2.0% (≤1000mT) ±5.0% (1000mT~2000mT)
Temperature coefficient	±0.1%/K	
Zero drift	±0.5mT/h	
Interface	USB	
Power supply	3×1.5V AA batteries or USB	
Dimension (L×W×H)	165×90×40mm	
Weight	350g	

- Measure magnetic induction of DC magnetic field
- Directly display the N/S polarity of the measured magnetic field
 One-key zero function: eliminate the influence of zero drift before measurement
 Maximum value hold: record the maximum value of the changing magnetic field
- Unit switch between mT or G (1mT=10G)
- Auto ranging
 Built-in USB interface for data transmission
 Display with backlight
 Auto power off





(optional)

OPTIONAL ACCESSORY

OPTIONAL ACCESSORY		
Axial probe	0501-PA	
Magnetic shielding cavity	0501-SHIELD	
Standard magnet	0501-CT□□□, for verifying accuracy, not applicable for calibration (□□□ is DC magnetic field specification, 100~600mT customizable)	



DATA

OUTPUT



INFRARED THERMAL IMAGING CAMERA (BASIC TYPE) CODE 9132-T400









- IR/visible/laser indicator
 Trigger button for photo taking
 2-meter drop test, IP54 protection





SPECIFICATION

SPECIFICATION	IR resolution	120×90@17µm	
IR image	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 resolution	320×240, focus-free	
Visible camera	flashlight	yes	
	display	2.4 inch IPS technology TFT display	
lucana diamban	display resolution	320×240	
lmage display	image model	IR/visible/picture-in-picture	
	color palettes	6: white hot, iron red, hot iron, arctic, rainbow 1, rainbow 2	
	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)	
Temperature	measurement spot	center spot	
measurement	measurement area	3 (incl. max & min temp)	
	auto max & min spot tracking	yes	
	alarm	full screen max & min spot alarm	
	storage media	TF card (16G)	
Image storage	IR image format	full radiometric (JPG) (120x90)	
	visible image	yes, 320x240	
	USB	type-C, TF card slot	
Connections &	tripod interface	yes	
communications	mobile APP	yes	
	PC IR analysis software	yes	
	battery type	rechargeable li ion battery	
Power system	battery operation time	>5 hours	
	charging time	internal charge, ≤2.5 hours	
	operation temperature	-10~50°C	
	storage temperature	-40~70°C	
Environmental	protection	IP54, 2-meter drop test	
parameters	certification	CE/ROHS/FCC	
	dimension (LxWxH)	194×61.5×76mm	
	weight	350g	

Main unit	1 pc
Power supply adapter	1 pc
TYPE-C cable	1 pc
16G TF card	1 pc



INFRARED THERMOMETER (BASIC TYPE) CODE 0222-C520

- Unit: °C, °FAutomatic data holdMAX/MIN/AVG/DIF mode
- High and low alarm
- Adjustable emissivity
- Low battery display
 Over range indicator
 Automatic power off

SPECIFICATION

SPECIFICATION		
Temperature range	-50°C~500°C/-58°F~932°F	
Temperature accuracy	±(2°C+0.1°C/°C) (at -50°C~0°C), ±2.0°C or ±2% (at 0°C~500°C)	
remperature accuracy	±(4°F+0.1°F/°F) (at -58°F~32°F), ±4.0°F or ±2% (at 32°F~932°F)	
Temperature resolution	ture resolution 0.1°C/0.2°F	
Distance to spot size (D:S)	12:1	
Emissivity	0.10~1.00 (adjustable)	
Repeatability	±0.5°C or ±0.5%; ±1.0°F or ±0.5%	
Response time	≤500ms (95% of reading)	
Spectral response	8µm~14µm	
Diode laser	output<1mW, wavelength 630nm~670nm, class 2 laser product	
Power supply	2×AAA batteries, working time≥6h	
Automatic power off	about in 15 seconds	
Operation environment	temperature: 0°C~50°C/32°F~122°F; humidity: <90%RH (non-condensing)	
Storage environment	temperature: -20°C~60°C/-4°F~140°F; humidity: <90%RH (non-condensing)	
Dimension	148×85×46mm	
Weight	160g	



STANDARD DELIVERY

Main unit	1 pc
Battery (AAA)	2 pcs

INFRARED THERMOMETER (MEDIUM-HIGH TEMPERATURE TYPE) **CODE 0215-A900**

- Ambient temperature, dew point temperature and humidity detection
 Unit: °C, °F
 Circular laser sighting

- Display backlight

- Automatic power off
 Automatic data hold
 Adjustable emissivity
 High and low alarm





SPECIFICATION

	temperature range	-30°C~800°C/-22°F~1472°F
	temperature resolution	0.1°C
		0.1°F (-22°F~1000°F), other range 1°F
Infrared system	temperature accuracy	±3.0°C (at -30°C~20°C) ±(1% of reading+1)°C (at 20°C~450°C) ±(2% of reading)°C (at 450°C~800°C)
minarea system	distance to spot size (D:S)	20:1
	emissivity	adjustable 0.10~1.00
	response time	<150ms
	spectral response	8~14µm
	diode laser	output<1mW, wavelength 630~670nm class 2 laser product
	ambient temperature range	0°C~50°C/32°F~122°F
	dew point temperature range	0°C~50°C/32°F~122°F
	temperature resolution	0.1°C/0.1°F
Temperature and humidity system	temperature accuracy	±1.0°C/±1.8°F
	humidity range	0%RH~100%RH
	humidity resolution	0.1%RH
	humidity accuracy	±5%RH (20%RH~80%RH), other range ±7%RH
Automatic power off		about in 10 seconds
Power supply		1×9V battery
Dimension (H×W×D)		170×45×85mm
Weight		196g

Main unit	1pc
Battery	1рс



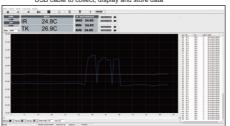
OUTPUT

INFRARED THERMOMETER (HIGH TEMPERATURE TYPE) CODE 0218-B610

computer software (included): connect to software via USB cable to collect, display and store data

- Unit: °C/°F
- MAX/MIN/AVG/DIF mode
- Trigger lock continuous measurement function Adjustable emissivity: 0.10~1.00
- 100 data storage
- High and low alarm

- Automatic data hold
 Low battery display
 Automatic power off
- Computer software is included









tripod (included)

K-type thermocouple (included)

SPECIFICATION

o o o		
	temperature range	-50°C~1850°C/-58°F~3362°F
	temperature accuracy	±(2%· t +3.0°C) (at-50°C~20°C); ±(1%·t+1.0°C) (at 20°C~500°C); ±1.5% (at 500°C~1000°C); ±2.0% (at 1000°C~1850°C)
	temperature resolution	0.1°C/°F (<1000°C/°F), 1°C/°F (≥1000°C/°F)
Infrared system	distance to spot size (D:S)	50:1
iiii areu systeiii	emissivity	0.10~1.00 (adjustable)
	repeatability	±1.5°C (at -50°C~20°C) ±0.5% or ±0.5°C (at 20°C~1850°C)
	response time	150ms
	spectral response	8~14μm
	diode laser	output<1mW, wavelength 630nm~670nm class 2 laser product
	temperature range	-50°C~1370°C/-58°F~2498°F
K-Type thermocouple system (electrical signal)	temperature accuracy	±(1.5%· t +3°C) (at -50°C~1000°C) ±(1.5%·t+2°C) (at 1000°C~1370°C)
(cicotifear signar)	temperature resolution	0.1°C/°F (<1000°C/°F), 1°C/°F (≥1000°C/°F)
	repeatability	±1.5%
Power supply		1×9V battery
Operation environment		temperature: 0°C~50°C humidity: 10%RH~90%RH (non-condensing)
Storage environment		temperature: -10°C~60°C humidity: <80%RH (non-condensing)
Dimension		204×155×52mm
Weight		315g

STANDARD DELIVERY

Main unit	1 pc
9V battery	1 pc
USB cable	1 pc
K-type thermocouple	1 pc
Tripod	1 pc

SPECIFICATION OF K-TYPE THERMOCOUPLE

Temperature range	-40°C~250°C
Temperature accuracy	±2.5°C
Length	1m

INFRARED AND PENETRATION THERMOMETER CODE 0321-IT42

SPECIFICATION

	temperature range	-15°C~280°C/5°F~536°F	
	temperature resolution	0.1°C/0.1°F	
	temperature accuracy	±3.0°C (at -15°C~20°C), other range ±(1%+1.0)°C	
Infrared system		±5.4°F (at 5°F~68°F), other range ±(1%+1.8)°F	
- ,	distance to spot size (D:S)	4:1	
	emissivity	0.95 (fixed)	
	spectral response	8~14µm	
	temperature range	-40°C~200°C/-40°F~392°F	
Penetration	temperature resolution	0.1°C/0.1°F	
system	temperature accuracy	±2.0°C (at -40°C~0°C), other range ±(1%+1.0)°C	
		±3.6°F (at -40°F~32°F), other range ±(1%+1.8)°F	
Repeatability		<1.0°C	
Measurement response time		<500ms	
Power supply		2×1.5V AAA batteries	
Dimension		140×39×24mm	
Weight		140g	



- Can measure the surface and inside temperature of objects
 Low battery display
- Display backlight

- High and low alarm
 Automatic data hold (infrared system)
 Automatic power off (infrared system)
 Unit: °C/°F

Main unit	1 pc
Battery (AAA)	2 pcs



DATA LOGGER FOR TEMPERATURE AND HUMIDITY (BUILT-IN SENSOR) CODE 0311-3070

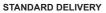




- Signal acquisition, display, storage, analysis function
- Low power consumption
- Built-in high-precision temperature and humidity sensor
- Software is included

SPECIFICATION

-30°C~70°C/-22°F~158°F
±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
0.1°C/0.2°F
0%RH~100%RH
±3%RH (at 10%RH~85%RH), other range ±5%RH
0.1%RH
10918
function: alarm when over high or low limit method: display+buzz+backlight
2s, 5s, 10s, 30s, 60s, 255s (adjustable)
2 seconds~24 hours (adjustable)
1~120 seconds (adjustable)
start immediately/delay start/timing start
full/FIFO/preset/timing end
random start/end with format YYMMDD HHMMSS
USB
CR2032
3.6V lithium battery (ER14505) or 5~24V DC
123×117×33mm
260g



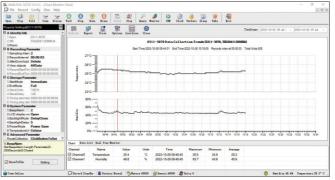
Main unit	1 pc
Software and USB cable	1 pc
Power adapter	1 pc
Time battery	1 pc
Lithium battery	1 pc





stand (included)

software (included), record and download data to PC software via USB cable



MINI TEMPERATURE AND HUMIDITY METER **CODE 0319-TH60**

- 3.5" LCD screen
- Temperature/humidity/time/comfort display
- Highest/lowest temperature and humidity memory function
 Unit: °C/°F



SPECIFICATION

Temperature range	0°C~55°C/32°F~131°F
Temperature resolution	0.1°C/0.1°F
Temperature accuracy	±0.5°C/±0.9°F
Humidity range	0%RH~99%RH (non-condensing)
Humidity resolution	1%RH
Humidity accuracy	±5%RH (at 10%RH~90%RH), other range ±7%RH
Power supply	2×3V CR2032 batteries
Dimension	88×70×12mm
Weight	62g

STANDARD DELIVERY

OTANDAND DELIVERY	
Main unit	1 pc
Battery (CR2032)	2 pcs

THERMOHYGROMETER (BASIC TYPE) **CODE 0316-TH62**

- Temperature/humidity/time display
- High and low alarm
- Low battery display
- Display backlight
- Environment comfort display



SPECIFICATION

Temperature range	-20°C~60°C
Temperature accuracy	±0.5°C (at 26°C~42°C), other range ±1.0°C
Temperature resolution	0.1°C
Humidity range	10%RH~99%RH (non-condensing)
Humidity accuracy	±5%RH (45%RH~79%RH), other range ±7%RH
Humidity resolution	0.1%RH
Sampling interval	3s
Power supply	2×AAA batteries
Dimension	117×94×23mm
Weight	149g

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Main unit	1 pc
Battery (AAA)	2 pcs



THERMOHYGROMETER (EXTERNAL SENSOR) **CODE 0313-TH48**

- External sensor, 3m cableTime/temperature/humidity display
- Temperature and humidity upper and lower limit alarm function Unit: °C/°F
- Low battery alarm

SPECIFICATION

SPECIFICATION	
Temperature range	-40°C~80°C/-40°F~176°F
Temperature accuracy	±0.5°C (at -20°C~60°C), ±1.0°C (at 60°C~80°C), ±2°C (at -40°C~-20°C),
	±2°F(at -20°F~176°F), ±3°F (at -40°F~-20°F)
Temperature	0.1°C (at -20°C~80°C), other range 1°C
resolution	0.1°F (at -20°F~100°F), other range 1°F
Humidity range	0%RH~99.9%RH
Humidity accuracy	±5%RH (at 10°C~60°C), other range ±7% ±5%RH (at 50°F~140°F), other range ±7%
Humidity resolution	0.1%RH
Sensitivity attenuation value	temperature: <0.1°C/year (<0.2°F/year) humidity: <1%RH/year
Sampling interval	5 seconds
Power supply	built-in rechargeable lithium battery (USB 5V charging) working time at least one month
Dimension	88×88×21mm
Weight	174g
Weight	174g



STANDARD DELIVERY

Main unit	1 pc
USB charging cable	1 pc

THERMOHYGROMETER (ECONOMIC TYPE) **CODE 0312-TH50**



- Environment comfort display: COMFORT, WET, DRY
 Time/temperature/humidity display
 Highest/lowest temperature and humidity memory function
- Alarm clock function
- Unit: °C, °F

SPECIFICATION

Temperature range	0°C~50°C/32°F~122°F
Temperature accuracy	±1.0°C (at 5°C~40°C), other range ±1.5°C
	±1.8°F (at 41°F~104°F), other range ±2.7°F
Temperature resolution	0.1°C/0.1°F
Humidity range	10%RH~90%RH
Humidity accuracy	±5%RH (at 40%RH~80%RH), other range ±8%RH
Humidity resolution	1%RH
Power supply	1×AAA1.5V battery
Dimension	108×60×15mm
Weight	74g

STANDARD DELIVERY

OTANDAND DELIVERY	
Main unit	1 pc
Battery	1 pc

K-TYPE THERMOCOUPLE THERMOMETER (ECONOMIC TYPE) **CODE 0320-K230**

- Contact K-type thermocouple
 Unit: °C/°F
 Data hold function

- Low battery displayDisplay backlight



SPECIFICATION

Temperature range	-50°C~200°C/-58°F~392°F
Temperature accuracy	±2.0°C/±3.6°F
Temperature resolution	0.1°C (at -50°C~199.9°C), 1°C (at -50°C~200°C)
	0.1°F (at -58°F~199.9°F), 1°F (at -58°F~392°F)
Sampling rate	2.5 times/sec
Power supply	3×3V CR2450 batteries (for 300 hours working)
Operation voltage	6.8V~10V
Dimension	149×76×34mm
Weight	220g

JIANDAND DELIVEN		
Main unit	1 pc	
Thermocouple (K-type)	1 pc	
CR2450 battery	3 pcs	



THERMOHYGROMETER CODE 0310-H26

- Measure humidity, ambient temperature, dew point temperature and wet dulb temperature
- Min/Max, data hold function
- Bluetooth 4.0
- Auto power off Supplied with APP for Apple and Android

SPECIFICATION

Function	Measuring range	Resolution	Accuracy
Ambient temperature	0°C~50°C 32°F~122°F		
Wet bulb temperature	0°C~50°C 32°F~122°F 0.1°C/0.1°F		±1.0°C/±1.8°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		







BUILT-IN

BLUETOOTH

STANDARD DELIVERY

Main unit	1 pc
Battery	1 pc

THERMOHYGROMETER CODE 0315-HT164

- /minimum display
 Unit: °C/°F

■ Real-time value/maximum

- Unit: C/F
 Display backlight
 Automatic power off
 Low battery display
 Over range indicator
 Built-in bluetooth, mobile APP is included

SPECIFICATION

Temperature range	-10°C~60°C
Temperature accuracy	±1.0°C
Temperature resolution	0.1°C
Humidity range	0%RH~99.9%RH
Humidity accuracy	±5.0%RH
Humidity resolution	0.1%RH
Sampling interval	1s
Power supply	3×AAA batteries, working time≥12h
Operation environment	temperature: 0°C~40°C
Operation environment	humidity: <90%RH (non-condensing)
Storage environment	temperature: -20°C~60°C
	humidity: <75%RH (non-condensing)
Dimension	137×55×28mm
Weight	102g





- : : : : : : : : : : : : : : : : : : :		
Main unit	1 pc	
Battery (AAA)	3 pcs	





ROUGHNESS TESTER CODE ISR-C002



- 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





CAN BE OPERATED BY MOBILE PHONES OR COMPUTERS

BLUETOOTH



software flash disk (included)



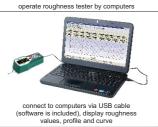








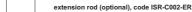
the maximum workpiece height is 310mm





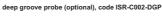
operate roughness tester by mobile phones

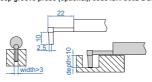




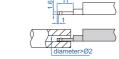










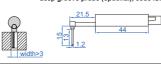


data can be sent to Excel by connecting to computer via bluetooth or SPC cable





deep groove probe (optional), code ISR-C002-DGP1





SPECIFICATION

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)
Accura	су	±10%
Resolu	tion (Ra)	0.001µm
	type	inductive
Probe	stylus radius/angle	5μm/90°
	stylus material	diamond
Measur	ring force	4mN
Measuring unit		μm/μin
Cut off		0.25/0.8/2.5mm
Numbe	r of cut-off	1 to 5
Moving	j 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

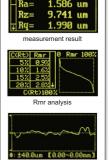
STANDARD DELIVERY

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





ROUGHNESS TESTER (SEPARABLE TYPE) CODE ISR-C300

CAN BE OPERATED BY MOBILE PHONES OR COMPUTERS TOUCH SCREEN





- 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

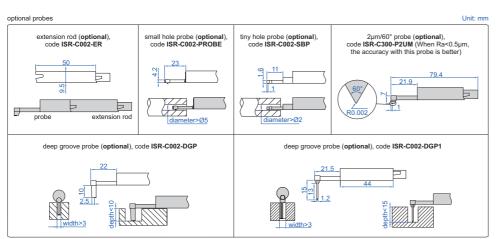
- Display roughness values, profile and curve
 Memory of maximum 100 data and waveform
 Built-in lithium battery, working time more than 50 hours
- Touch screen
- Automatic power off











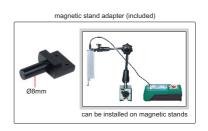


SPECIFICATION

-	SI EGII IGATION		
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	
runge	Z axis	320µm (-160µm~160µm)	
Accura	су	±10%	
Resolu	tion (Ra)	0.001µm	
	type	inductive	
Probe	stylus radius/angle	5μm/90°	
	stylus material	diamond	
Measuring force		4mN	
Measuring unit		μm/μin	
Cut off		0.25/0.8/2.5mm	
Numbe	r 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	









NOTE: Please check whether the adapter can fit your height gauges. When using INSIZE height gauges, please use the dial test indicator holder of height gauges

To be continued



Continued from previous page





STANDARD DELIVERY

Main unit	1 pc
Standard probe	1 pc
Calibration block and support	1 pc of each
Connecting cable (long and short)	1 pc of each
Magnetic stand adapter	1 pc
Adjustable stand	1 pc
Touch pen	1 pc
Software and USB cable	1 pc
AC/DC adapter	1 pc

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 gauge 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

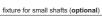


ROUGHNESS TESTER (BASIC TYPE) CODE ISR-C003

ATTENTION: THIS ROUGHNESS TESTER IS NOT SUITABLEFOR ROUGH TURNING, MILLING AND PLANING WORKPIECES



- Unit: μm, μin
- Automatic power off









SPECIFICATION

Parameters		Ra, Rz, Rq, Rt
Range		Ra, Rq: 0.05~15µm Rz, Rt: 0.1~50µm
Accurac	;y	±10%
Resolut	ion (Ra)	0.01µm
	type	piezoelectric
Probe	stylus radius/angle	10μm/90°
	stylus material	diamond
Measuri	Measuring force 5mN	
Measuri	ing unit	μm/μin
Cut off		0.25/0.8/2.5mm
Evaluat	ion 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
Dimens	ion (L×W×H)	106×70×24mm
Weight		200g

STANDARD DELIVERY

STANDARD DELIVERT	
Main unit	1 pc
Calibration block	1 pc
AC/DC adapter	1 pc

OPTIONAL ACCESSORY

Fixture for small shafts ISR-C003-FIXTURE

SURFACE ROUGHNESS SPECIMEN SET **CODE ISR-CS130-W**

♦///S/ZE→ PLUS MADE IN EUROPE

- For checking, identifying and specifying the roughness by symbol
- Rust-proof, made of pure Nickel

1	

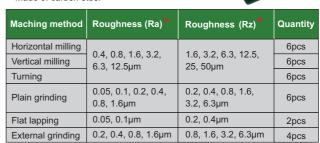
		_	
Machining method	Roughness (Ra) *	Roughness (Rz)*	Quantity
Flat lanning	0.05, 0.1, 0.2µm	0 FF 1 1 6	3 pcs
Flat lapping	2, 4, 8µin	0.55, 1, 1.6μm	
Deaming	0.4, 0.8, 1.6μm	2 6 10	2
Reaming	16, 32, 63µin	3, 6, 10µm	3 pcs
Diain suinding	0.05, 0.1, 0.2, 0.4, 0.8, 1.6μm	0.55, 1, 1.6, 3, 6, 10µm	6
Plain grinding	2, 4, 8, 16, 32, 63µin		6 pcs
Horizontal milling	0.4, 0.8, 1.6, 3.2, 6.3, 12.5µm	2.5, 4, 8, 16, 32,	6 200
Horizoniai milling	16, 32, 63, 125, 250, 500µin	50µm	6 pcs
Vertical milling	0.4, 0.8, 1.6, 3.2, 6.3, 12.5µm	2.5, 4, 8, 16, 32,	6 200
Vertical milling	16, 32, 63, 125, 250, 500µin	50µm	6 pcs
Turning	0.4, 0.8, 1.6, 3.2, 6.3, 12.5µm	2.5, 4, 8, 16, 32,	6 p.cc
running	16, 32, 63, 125, 250, 500µin	50µm	6 pcs

^{*}The actual value is the value to be calibrated

SURFACE ROUGHNESS SPECIMEN SET CODE ISR-CS2

ATTENTION: PLEASE APPLY ANTI-RUST OIL AFTER USE

- For checking, identifying and specifying he roughness by symbol
- Made of carbon steel



^{*}The actual value is the value to be calibrated



MOTORIZED DIGITAL ROCKWELL/SUPERFICIAL ROCKWELL HARDNESS TESTER **CODE HDT-RT151**

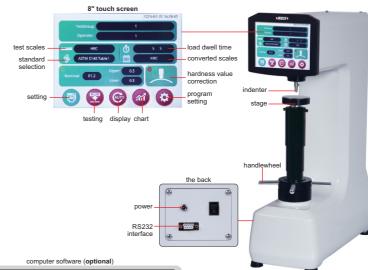
TOUCH **SCREEN** FORCE LOADING BY ELECTRIC MOTOR (WITHOUT WEIGHTS)

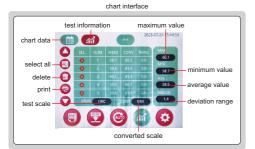


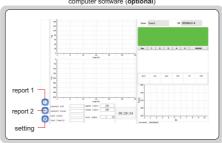




- Electronic loading test force, high accuracy of force value, and stable measurement value
- Touch screen operation and display, simple operation interface 15 types of Rockwell hardness scales can be tested
- Convertible to various hardness standards such as HB and HV
- 500 sets of storage
- With correction function, the hardness value can be corrected based on the size of the cylinders
- According to ISO 6508









Ø150mm flat anvil (included)





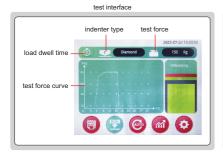
bluetooth printer (included)

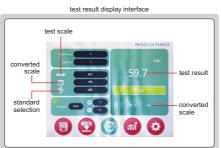
V-type anvil (included)





bluetooth receiver





SPECIFICATION

SPECIFICATION		
Measurement range		20~88HRA, 20~100HRB, 20~70HRC
	with indenter included	HRA, HRB, HRC, HRD, HRF, HRG
Hardness scale	with optional indenter	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		2~60 second
Resolution		0.1HR
Max. workpiece he	eight	230mm
Max. testing width		170mm
Power supply		100~240V, 50/60Hz
Dimension		475×200×700mm
Weight		70kg

STANDARD DELIVERY

Main unit	1 pc
Diamond indenter	1 pc
Ø1.5875mm carbide ball indenter	1 pc
Ø58mm flat anvil	1 pc
Ø150mm flat anvil	1 pc
V-type anvil	1 pc
Hardness test block HRC20~30	1 pc
Hardness test block HRC40~50	1 pc
Hardness test block HRC60~70	1 pc
Hardness test block HRBW80~100	1 pc
Hardness test block HRA80~90	1 pc
Bluetooth printer	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Hardness test block HRC20~30	HDT-B-HRC1
Hardness test block HRC35-55	HDT-B-HRC2
Hardness test block HRC60-70	HDT-B-HRC3
Hardness test block HRB88-100	HDT-B-HRB
Hardness test block HRA80~84	HDT-B-HRA
Bluetooth receiver and software	HDT-RT15-RECEIVER
Ø12.7mm carbide ball indenter	HDT-RT15-INDENTER1
Ø6.35mm carbide ball indenter	HDT-RT15-INDENTER2
Ø3.175mm carbide ball indenter	HDT-RT15-INDENTER3



MANUAL ROCKWELL HARDNESS TESTER (BASIC TYPE) **CODE HDT-RW160**







According to ISO 6508

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. workpiece depth	135mm (from the center of indenter to the wall of main body)
Dimension	466×238×630mm
Weight	70kg

OPTIONAL ACCESSORY

OF HOUSE ACCEPTORY	
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	HDT-RW160-SV
Desk	HDT-DESK





Ø58mm flat anvil (included)

Ø150mm flat anvil (included)





small V-type anvil (optional) for cylinders with diameter Ø2~4mm

V-type anvil (included) for cylinders with diameter Ø4~60mm





desk (optional)

level (included)

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

PORTABLE LEEB HARDNESS TESTER (BASIC TYPE) **CODE HDT-L411**



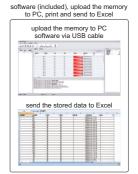




- Impact device D

- 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 sign



test value

hardness





hardness test block D (included)

software flash disk (included)

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 flash disk and USB cable	1 pc

OPTIONAL ACCESSORY	
Support rings	see details
Hardness test block D	HDT-R-HI D3

SPECIFICATION

Resolution Accuracy	1HLD, 1HV, 1HB, 0.	.1HRC, 0.1HRB, 0.1HRA, 0.1HS, 1SGM
Accuracy		, , , , , , , , , , , , , , , , , , , ,
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	
		5kg (direct measurement)
	minimum weight	2kg (on solid support)
Applicable		0.05kg (coupled on plate)
workpiece	minimum thickness: 5mm	
	minimum radius of o	curved surface: 30mm
	maximum roughness (Ra): 2µm	
Power supply	1xAAA battery	
Dimension	148×45×21mm	
Weight	105g	



PORTABLE LEEB HARDNESS TESTER (BASIC TYPE) **CODE HDT-LP200**

INSPECTION CERTIFICATE



- Can change probesDual-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, HRB), Shore (HSD) and tensile strength (σb)
 Dual value display, shows both Leeb and converted hardness
 Large LCD display with backlight

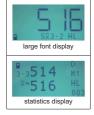
- Can choose large font display and statistics display
- Automatically calculate maximum, minimum and average value
- Save 300 data
- Operation temperature: -10°C~45°C
- According to ASTM A956, GB/T 17394











POPULAR

MODEL

Resolution	1HLD/1HV/1HB/0.1HRC/0.1HRB/0.1HSD/1σb			
Accuracy	±6HLD (when HLD=800)			
Measuring range	HL 170-960/HRC 17-70/HRB 13-109/HB 20-655/HV 80-940 /HSD 32-99.5/σb(rm) 255-2639N/mm²			
Power supply	2xAA batteries			
Dimension	135×77×32mm			
Weight	240g			

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 G	HDT-LP200-G
Hardness test block D ***	HDT-B-HLD3
Hardness test block G *	HDT-B-HLG2
Support rings	see details

- * 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 other impact devices

DC (optional) C (optional) D (included) D+15 (optional) DL (optional)

STANDARD DELIVERY

STANDARD DELIVERT		
Main unit	1 pc	
Hardness test block D	1 pc	
Small support ring	1 pc	
Cleaning brush	1 pc	
Impact device D	1 pc	

APPLICABLE WORKPIECE

Impact device		DC	С	D	D+15	DL	G
Application		inner wall of small space	small or thin workpiece, coating layer	general use	deep groove	narrow slot or small hole	casting or forging workpiece
Maximum roughness of workpiece (Ra)		2µm	0.4µm	2µm	2µm	2µm	7µm
\$81-1	direct measurement	5kg	1.5kg	5kg	5kg	5kg	15kg
Minimum weight of workpiece	on solid support	2kg	0.5kg	2kg	2kg	2kg	5kg
coupled on plate		0.05kg	0.02kg	0.05kg	0.1kg	0.05kg	0.5kg
Minimum thickness of workpiece		3mm	1mm	3mm	3mm	3mm	10mm



PORTABLE LEEB HARDNESS TESTER WITH WIRELESS PROBE **CODE HDT-WP201**





- Bluetooth digital probe
- Universal testing angle, no need to set impact direction
 Based on Leeb (HLD), converted to Vickers (HV), Brinell (HB), Rockwell (HRC, HRB), Shore (HSD) and tensile strength (σb)
 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







nall support ring (included)



hardness test block D (included)



bluetooth printer (optional)



SPECIFICATION

Resolution	1HLD/1HV/1HB/0.1HRC/0.1HRB/0.1HSD/1σb			
Accuracy	±6HLD (when HLD=800)			
Measuring range	HL 170-960/HRC 17-69/HRB 13-101.7/ HB 20-655/HV 80-940/HSD 32-99.5/σb (rm) 255-2180N/mm²			
Power supply	2xAA battery			
Dimension	135×77×32mm			
Weight	240g			

OPTIONAL ACCESSORY

Impact device DC	HDT-WL320-DCW
Impact device C	HDT-WL320-CW
Impact device DL	HDT-WL320-DLW
Impact device G	HDT-WL320-GW
Hardness test block D	HDT-B-HLD3**
Hardness test block G	HDT-B-HLG2*
Bluetooth printer	ISH-LP200-PRINTER
Support rings	ISH-PH-SP9

- *Hardness test block G (HDT-B-HLG2) is for probe G (HDT-WL320-GW)
 **Hardness test block D (HDT-B-HLD3) is for all others probes

DC C D DL G (optional) (optional) (included) (optional) (optional)

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

APPLICABLE WORKPIECE

Impact device		DC	С	D	DL	G
Application		inner wall of small space	small or thin workpiece, coating layer	general use	narrow slot or small hole	casting or forging workpiece
Maximum roughne	ess of workpiece (Ra)	2µm	0.4µm	2µm	2µm	7µm
Minimum weight of workpiece direct measurement on solid support coupled on plate		5kg	1.5kg	5kg	5kg	15kg
		2kg	0.5kg	2kg	2kg	5kg
		0.05kg	0.02kg	0.05kg	0.05kg	0.5kg
Minimum thickness of workpiece		3mm	1mm	3mm	3mm	10mm



ALUMINUM HARDNESS TESTERS (BASIC TYPE)



- To measure the hardness of soft metal such as aluminum alloy, copper, brass, soft steel, etc.

 • According to ASTM B647-10 (2016)



ISHW-H10

SPECIFICATION

Code	ISHW-H10	ISHW-H11	ISHW-H12	ISHW-H13	ISHW-H14	ISHW-H15		
Application	for aluminum alloy general use	for aluminum alloy thick workpiece	for aluminum alloy small tube	for hard aluminum alloy and hard brass	for soft brass and copper	for soft steel and cold-rolled steel		
Thickness requirement of flat workpiece	0.6~6mm	0.6~13mm	0.6~8mm	0.6~6mm	0.6~6mm	0.6~6mm		
Internal diameter requirement of tube workpiece	>Ø10mm	>Ø10mm	>Ø6mm	>Ø10mm	>Ø10mm	>Ø10mm		
Wall thickness requirement of tube workpiece	0.6~6mm	6~13mm (internal diameter Ø10~23.3mm 0.6~6mm (internal diameter >Ø23.3mm)	0.6~8mm	0.6~6mm	0.6~6mm	0.6~6mm		
Hardness range	0~20HW							
Min. reading	1HW	1HW						
Accuracy	±0.5HW (at 5~17HW)							
Dimension	205×30×95mm							
Weight	500g	500g						

STANDARD DELIVERY

TANDARD DELIVER		
Main unit	1 pc	
Spare indenter	1 pc	
Hardness test block	1 pc	
Wrench	1 pc	

SHORE DUROMETERS

- According to ISO868, ISO7619, ASTM D 2240
 With peak value indicator
 Optional accessory: test stand ISH-STAC and ISH-STD

SPECIFICATION

Code	ISH-SAM	ISH-SDM		
Scale	Shore A	Shore D		
Application	natural rubber, soft elastomer, etc.	hard rubber, plastic, hard elastomer, etc.		
Measuring range*	10~90HA	20~90HD		
Graduation	1HA	1HD		
Indenter protrusion	2.5mm			
Dimension	115x60x25mm			
Weight	160g			

^{*}Use ISH-SDM when measuring result is higher than 90HA Use ISH-SAM when measuring result is lower than 20HD

OPTIONAL ACCESSORY

ISH-DS-BLOCK Calibration block









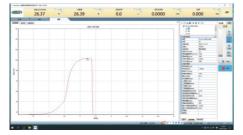




ELECTRONIC UNIVERSAL TESTING MACHINES



computer and software (included)



- For testing and researching the mechanical properties of metals, ceramics, plastics, rubber and composite materials
- For research and quality control of mechanical properties of materials for a wide range of products such as mechanical components, electronic components, food packaging materials, chemical fibres, films and new energy batteries





V-shaped jaws (included



flat jaws (included)

UTM-E50

SPECIFICATION

Code	UTM-E10	UTM-E50	UTM 5400	UTM-E300			
			UTM-E100				
Max. test force	10KN	50KN	100KN	300KN			
Accuracy class	0.5 class						
Accuracy of test force	±0.5% of indicated value						
Range of test force	0.2%~100%FS						
Resolution of test force	1/500000FS						
Crossbeam displacement accuracy	±0.5% of indicated value						
Crossbeam displacement resolution	0.025µm						
Range of speed adjustment	0.001~500mm/min						
Accuracy of crossbeam speed		±1% of the set value, (speed<0.5mm/min) ±0.1% of the set value, (speed≥0.5mm/min)					
Range of force control speed	0.005~5%FS/s	0.005~5%FS/s					
Accuracy of constant load force	±1% of the set value, (spee ±0.5% of the set value, (spee						
Compression fixture	Ø100mm	Ø100mm	Ø160mm	Ø150mm			
Wedge tension fixture	flat jaw: 0~7mm	flat jaw: 0~7mm					
Effective test width	440mm	440mm	600mm	600mm			
Vertical test space *	970mm	970mm	1250mm	1000mm			
Effective compression height *	700mm	700mm	700mm	600mm			
Dimension (W x D x H)	820×620×1880mm	820×620×1880mm	1070×855×2180mm	1070×920×2550mm			
Weight	350kg	350kg 350kg 1000kg 1500kg					
Power supply	AC 220V, 50Hz, 0.4kW~1kW AC380V, 3Ø, 50Hz, 2kW~5kW						

^{*}Can be customized according to test requirements

STANDARD DELIVERY

OTANDARD DELIVERY				
Main unit	1 pc			
Control box	1 pc			
Measuring software	1 pc			
Computer	1 pc			
Printer	1 pc			
Compression fixture	1 set			
Wedge tension fixture	1 set			

To be continued



Continued from previous page

SPECIFICATION OF LARGE DEFORMATION EXTENSOMETER (OPTIONAL)

Code	UTM-EY1 UTM-EY2				
Range of deformation	10~800mm				
Accuracy of deformation	±1%				
Resolution of deformation	0.01mm 0.004mm				
Type of blade	flat blade				
Range of clamp	thicknesses<10mm, width<30mm				

OPTIONAL ACCESSORY

TIONAL ACCESSORT				
Fixture	UTM-F series (customized, selection of specifications according to test requirements)			
Extensometer	UTM-EX series (customizable)			
Video extensometer	UTM-M series			
Large deformation extensometer	UTM-EY series (customizable)			
Security door	customized, available in plexiglass or wire mesh			



large deformation extensometer (optional)

DIGITAL FORCE GAUGES



- Push and pull testUnits: 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



ISF-1DF100

INSPECTION CERTIFICATE





flat push tip	V-type push tip	2	
	Λ		
knife-edge	noint	0.00	L











printer (optional)

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					

STANDARD DELIVERY

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



FORCE GAUGES



- Push and pull testPeak (max.) or tracking mode



ISF-F500



SPECIFICATION

SI Edit IOATION									
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 car	pacity)						

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

ISF-MT500 Test stand

TORQUE SCREWDRIVERS

ATTENTION: CLOCKWISE OPERATION ONLY



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	1/4" hex socket				
Accuracy	±6%	±6%				
Length	172mm					
Weight	0.26kg					



T-bar wrench (for IST-MG250, IST-MG360, IST-MG600)

Torque screwdriver	1 pc
T-bar wrench (for IST-MG250, IST-MG360, IST-MG600)	1 pc

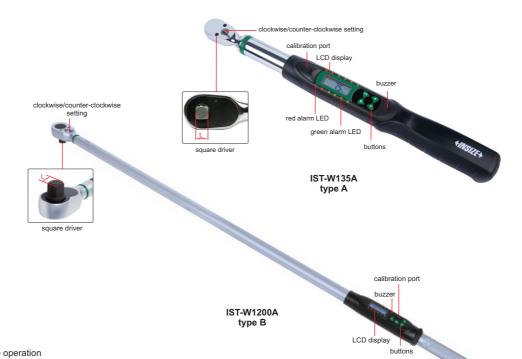


DIGITAL TORQUE WRENCHES





OPTIONAL ACCURACY: CLOCKWISE: ±1% COUNTER-CLOCKWISE: ±2% ONLY FOR RANGE 6~850N.m



- Ratchet head
- Clockwise and counter-clockwise operation

- Unit: N.m, in.lb, ft.lb, kg.cm
 Peak and track working mode
 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)

SPECIFICATION

Code	Туре	Range	Accuracy	Resolution	Square driver (L)	Power supply	Length	Weight
IST-W30A		6~30N.m		0.01N.m	1/4"		390mm	830g
IST-W135A	Α	27~135N.m 40~200N.m	clockwise: ±2% counter-clock wise: ±3%	0.1N.m	3/8"		415mm	950g
IST-W200A	A			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		0.1N.m	3/4"	2×AA batteries, for 110 hours working	1285mm	7kg
IST-W850A		170~850N.m		0.1N.m	3/4"		1295mm	6kg
IST-W1200A	В	240~1200N.m	clockwise: ±2.5% counter-clock wise: ±3.5%	1N.m	1"		1920mm	13kg
IST-W1500A		300~1500N.m	00d/10/ 0/00/ W/00. 10.0//	1N.m	1"		1920mm	13kg
IST-W2000A		400~2000N.m		1N.m	1"		1920mm	14kg

^{*}The accuracy of this code is not optional

OPTIONAL ACCESSORY

IST-W-CABLE Calibration cable



INSPECTION CERTIFICATE

TORQUE WRENCHES

ATTENTION: CLOCKWISE **OPERATION ONLY**



- Ratchet head
 According to DIN ISO 6789, ASME B107.300
 All-metal construction, sturdy and durable



IST-9WM335

SPECIFICATION

Code	IST-9WM20	IST-9WM30	IST-9WM60	IST-9WM100	IST-9WM125	IST-9WM200	IST-9WM335	IST-9WM500
Range (clockwise)	4~20N.m	6~30N.m	10~60N.m	20~100N.m	25~125N.m	40~200N.m	65~335N.m	100~500N.m
Accuracy	±3%	±3%	±3%	±3%	±3%	±3%	±3%	±3%
Graduation	0.1N.m	0.2N.m	0.5N.m	0.5N.m	0.5N.m	1N.m	1N.m	2.5N.m
Square driver (D)	1/4"	3/8"	3/8"	1/2"	1/2"	1/2"	1/2"	3/4"
Length	290mm	318mm	388mm	443mm	443mm	468mm	528mm	855mm
Weight	680g	820g	960g	1040g	1040g	1160g	1300g	5000g

ELECTRONIC BALANCES



- Automatic zero when power on
 Unit: g (gram), ct (carat), ozt (troy ounce)
 Weighing, counting, taring
 Overload alarm

- Data output



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 0.2		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;<br="">m>200g: ±0.15g</m≤200g:>			m≤500g: ±0.5g; 500g <m≤2000g: ±1g;<br="">m>2000g: ±1.5g</m≤2000g:>	
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				

OPTIONAL ACCESSORY

RS232 cable	8301-CABLE
Data output cable (keyboard format)	7302-8001
Wireless transmitter (receiver is needed)	7315-8301



Unit: mm 62

calibration weight (included in 8301-300, 8301-600 and 8301-1200)



windshield (included in 8301-300, 8301-600 and 8301-1200)



WEIGHING SCALES (HIGH PRECISION)

- LCD display, with backlight
 Zero-setting, subtracting tare value
 Overload alarm
 Automatic power off

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<br="">m>4kg: ±3g</m≤4kg:>	m≤2.5kg: ±2.5g 2.5kg <m≤10kg: ±5g<br="">m>10kg: ±7.5g</m≤10kg:>	m≤5kg: ±5g 5kg <m≤20kg: ±10g<br="">m>20kg: ±15g</m≤20kg:>		
Units	kg, lb				
Operation temperature	-10~40°C				
Power	rechargeable battery (6V/3.2Ah), power adapter (12V/500				
Dimensions of pan	263×204mm				



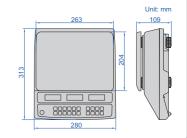
COUNTING SCALES

- LCD display, with backlight
 Zero-setting, subtracting tare value, counting, accumulation, checking alarm
 Overload alarm
- Units: kg, g, lb, tj, hj, lb-oz



SPECIFICATION

8101-6	8101-15	8101-30	
6kg	15kg	30kg	
4g	10g	20g	
0.2g	0.5g	1g	
m≤1kg: ±1g 1kg <m≤4kg: ±2g<br="">m>4kg: ±3g</m≤4kg:>	m≤2.5kg: ±2.5g 2.5kg <m≤10kg: ±5g<br="">m>10kg: ±7.5g</m≤10kg:>	m≤5kg: ±5g 5kg <m≤20kg: ±10g<br="">m>20kg: ±15g</m≤20kg:>	
-10~40°C			
rechargeable batter	y (6V/3.2Ah), power ada	pter (12V/500mA)	
263×204mm			
	6kg 4g 0.2g m≤1kg: ±1g 1kg <m≤4kg: m="" ±2g="">4kg: ±3g -10~40°C rechargeable batter</m≤4kg:>	6kg 15kg 4g 10g 0.2g 0.5g m≤1kg: ±1g 1kg <m≤4kg: m="" ±2g="">4kg: ±3g -10~40°C rechargeable battery (6V/3.2Ah), power ada</m≤4kg:>	



WEIGHING SCALES (ECONOMIC TYPE)

■ Unit: g, oz, ct, tl

SPECIFICATION

			i	
Code	8003-3	8003-6	8003-10	
Maximum weighing	3kg	6kg	10kg	
Minimum weighing	2g	10g	20g	
Resolution (d)	0.1g	0.5g	1g	
Accuracy	±0.5g	±2.5g	±5g	
Weighing pan size	157×157mm			
Operation temperature	5~35°C			
Power supply	2×AAA batteries, power adapter			
Dimension (L×W)	160×225mm			









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www.insize.com



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