



2016

MEASURING INSTRUMENTS

NO. E19



DIGITAL CALIPER (HIGH PRECISION)



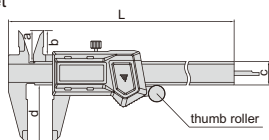
1103-150

DATA
OUTPUT

ABSOLUTE
SYSTEM

HIGH
PRECISION

- Absolute system
- Resolution: 0.01mm/0.0005"
- Buttons: mm/inch, ABS/REL, on/off, origin set
- Battery CR2032, automatic power off
- After automatic power off, move the digital unit to turn on power
- Data output
- Meet DIN862
- Made of stainless steel
- Optional accessory: data output system



Code	Range	Accuracy	Thumb roller	L	a	b	c	d
1103-150*	0-150mm/0-6"	±0.02mm	with	234	21	16.5	16	40
1103-200*	0-200mm/0-8"	±0.02mm	with	286	24	19	16	50
1103-300*	0-300mm/0-12"	±0.03mm	with	390	26	21.5	16	60
1103-150W*	0-150mm/0-6"	±0.02mm	without	234	21	16.5	16	40
1103-200W*	0-200mm/0-8"	±0.02mm	without	286	24	19	16	50
1103-300W*	0-300mm/0-12"	±0.03mm	without	390	26	21.5	16	60

*Supplied with manufacturer inspection certificate

WATERPROOF DIGITAL CALIPER

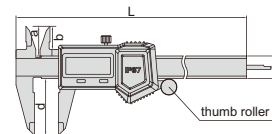


1118-150B

IT IS NECESSARY TO SET
ZERO AFTER POWER ON EACH TIME

IP67
WATERPROOF

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



Code	Range	Accuracy	Thumb roller	L	a	b	c	d
1118-150B*	0-150mm/0-6"	±0.03mm	with	236	21	16	16	40
1118-200B*	0-200mm/0-8"	±0.03mm	with	286	24	19	16	50
1118-300B*	0-300mm/0-12"	±0.03mm	with	400	25	20.5	17	60
1118-150BW*	0-150mm/0-6"	±0.03mm	without	236	21	16	16	40
1118-200BW*	0-200mm/0-8"	±0.03mm	without	286	24	19	16	50
1118-300BW*	0-300mm/0-12"	±0.03mm	without	400	25	20.5	17	60

*Supplied with manufacturer inspection certificate

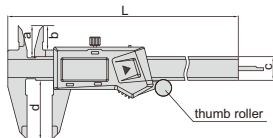
DIGITAL CALIPER (STANDARD MODEL)



1108-150

DATA
OUTPUT

- 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 system



Code	Range	Accuracy	Thumb roller	L	a	b	c	d
1108-150*	0-150mm/0-6"	±0.03mm	with	236	21	16	16	40
1108-200*	0-200mm/0-8"	±0.03mm	with	286	24	19	16	50
1108-300*	0-300mm/0-12"	±0.03mm	with	400	25	20.5	17	60
1108-150W*	0-150mm/0-6"	±0.03mm	without	236	21	16	16	40
1108-200W*	0-200mm/0-8"	±0.03mm	without	286	24	19	16	50
1108-300W*	0-300mm/0-12"	±0.03mm	without	400	25	20.5	17	60

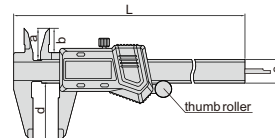
*Supplied with manufacturer inspection certificate

DIGITAL CALIPER



1114-150A

- Zinc alloy house 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



Code	Range	Accuracy	Thumb roller	L	a	b	c	d
1114-150A*	0-150mm/0-6"	±0.03mm	with	236	21	16	16	40
1114-200A*	0-200mm/0-8"	±0.03mm	with	286	24	19	16	50
1114-300A*	0-300mm/0-12"	±0.03mm	with	400	25	20.5	17	60
1114-150AW*	0-150mm/0-6"	±0.03mm	without	236	21	16	16	40
1114-200AW*	0-200mm/0-8"	±0.03mm	without	286	24	19	16	50
1114-300AW*	0-300mm/0-12"	±0.03mm	without	400	25	20.5	17	60

*Supplied with manufacturer inspection certificate

DIGITAL CALIPER WITH ROUND DEPTH BAR



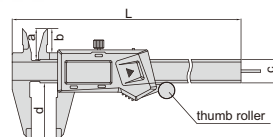
1119-150

DATA
OUTPUT

- 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 system



round depth bar Ø1.6mm



Code	Range	Accuracy	Thumb roller	L	a	b	c	d
1119-150*	0-150mm/0-6"	±0.03mm	with	236	21	16	16	40
1119-150W*	0-150mm/0-6"	±0.03mm	without	236	21	16	16	40

*Supplied with manufacturer inspection certificate

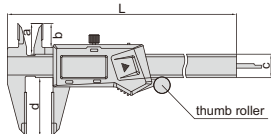
DIGITAL CALIPER WITH CARBIDE TIPPED JAWS



1110-150A

DATA
OUTPUT

- Carbide tipped jaws for inside and outside measurements
- 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 system



Code	Range	Accuracy	Thumb roller	L	a	b	c	d
1110-150A*	0-150mm/0-6"	±0.03mm	with	236	21	16	16	40
1110-200A*	0-200mm/0-8"	±0.03mm	with	286	24	19	16	50
1110-300A*	0-300mm/0-12"	±0.03mm	with	400	25	20.5	17	60
1110-150AW*	0-150mm/0-6"	±0.03mm	without	236	21	16	16	40
1110-200AW*	0-200mm/0-8"	±0.03mm	without	286	24	19	16	50
1110-300AW*	0-300mm/0-12"	±0.03mm	without	400	25	20.5	17	60

*Supplied with manufacturer inspection certificate

DIGITAL CALIPER WITH CERAMIC TIPPED JAWS



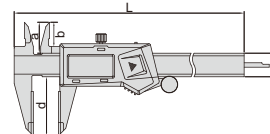
1193-150

DATA
OUTPUT



ceramic tipped jaws

- Ceramic tipped jaws for outside measurement, extremely wear-resistant, non-magnetic, non-conductive
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output system



Code	Range	Accuracy	Thumb roller	L	a	b	c	d
1193-150*	0-150mm/0-6"	±0.03mm	with	235	21	16.5	16	40
1193-200*	0-200mm/0-8"	±0.03mm	with	297	24	20	16	50
1193-300*	0-300mm/0-12"	±0.03mm	with	390	26	21.5	16	60
1193-150W*	0-150mm/0-6"	±0.03mm	without	235	21	16.5	16	40
1193-200W*	0-200mm/0-8"	±0.03mm	without	297	24	20	16	50
1193-300W*	0-300mm/0-12"	±0.03mm	without	390	26	21.5	16	60

*Supplied with manufacturer inspection certificate

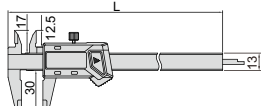
MINI DIGITAL CALIPER



1111-100A

Unit: mm

- Resolution: 0.01mm/0.0005"
- Buttons: zero, mm/inch, on/off
- Automatic power off, move the digital unit to turn on power
- Battery SR44 or LR44
- Meet DIN862
- Made of stainless steel



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

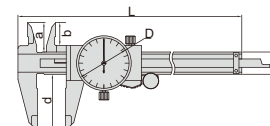
DIAL CALIPER



1312-150A

SHOCK
PROOF

- Shockproof dial indicator
- Made of stainless steel



Code	Range	Accuracy	L	a	b	c	d	D
1312-150A*	0-150mm	±0.03mm	235	21	16.5	16	40	Ø39
1312-200A*	0-200mm	±0.03mm	288	24	19	16	48	Ø39
1312-300A*	0-300mm	±0.04mm	410	28	22	20	62	Ø44.5

Code	Range	Accuracy	L	a	b	c	d	D
1311-150A*	0-150mm	±0.03mm	235	21	16.5	16	40	Ø39
1311-200A*	0-200mm	±0.03mm	288	24	19	16	48	Ø39
1311-300A*	0-300mm	±0.04mm	410	28	22	20	62	Ø44.5

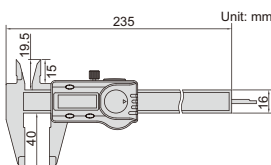
*Supplied with manufacturer inspection certificate

PLASTIC DIGITAL CALIPER



1139-150

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



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

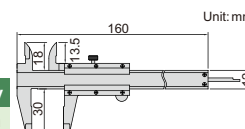
MINI VERNIER CALIPER



1201-1003

Unit: mm

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



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

VERNIER CALIPER

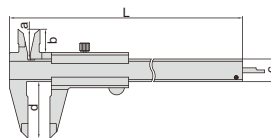


1205-150S

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

Graduation 0.05mm/1/128"

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



Graduation 0.02mm

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

Graduation 0.02mm/0.001"

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

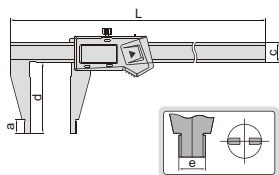
DIGITAL CALIPER

DATA
OUTPUT



1170-300

- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output system



Code	Range	Accuracy	a	c	d	e	L
1170-200	0-200mm/0-8"	±0.03mm	12	17	60	10	320
1170-306	0-300mm/0-12"	±0.04mm	12	17	60	10	420
1170-300	0-300mm/0-12"	±0.04mm	12	17	90	10	420

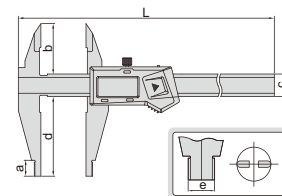
DIGITAL CALIPER

DATA
OUTPUT



1171-300

- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output system



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

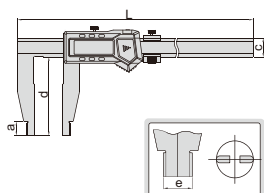
DIGITAL CALIPER

DATA
OUTPUT



1106-601

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



Code	Range	Accuracy	a	c	d	e	L
1106-601	0-600mm/0-24"	±0.05mm	18	24	100	20	770
1106-1002	0-1000mm/0-40"	±0.08mm	24	31	150	20	1220

Sizes available up to 2000mm

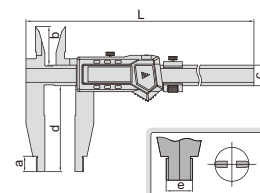
DIGITAL CALIPER

DATA
OUTPUT



1136-501

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



Code	Range	Accuracy	a	b	c	d	e	L
1136-501	0-500mm/0-20"	±0.05mm	18	45	24	100	20	675
1136-1002	0-1000mm/0-40"	±0.08mm	24	60	31	150	20	1220

Sizes available up to 2000mm

VERNIER CALIPER (SOLID TYPE)



1236-614

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

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

VERNIER CALIPER



1214-600

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

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

Sizes available up to 2000mm

VERNIER CALIPER (SOLID TYPE)



1208-614

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

Code	Range	Accuracy	a	c	d	e	L
1208-394	0-300mm/0-12"	±0.07mm	12	20	90	10	410
1208-614	0-600mm/0-24"	±0.08mm	18	24	100	20	770
1208-1024	0-1000mm/0-40"	±0.12mm	24	31	150	20	1230

Sizes available up to 2000mm

LONG JAW VERNIER CALIPER



1215-1032

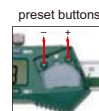
- Graduation: 0.02mm/0.001"
- With fine adjustment
- Made of stainless steel
- Satin chrome plated reading surface

Code	Range	Accuracy	a	c	d	e	L
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

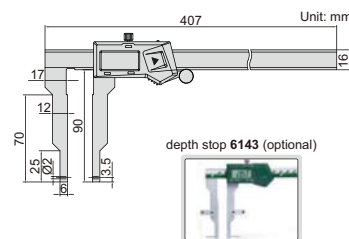
DIGITAL CALIPER WITH INTERCHANGEABLE POINTS CODE 1124-300A



1124-300A



DATA OUTPUT



Multifunctional points 7392 (optional)



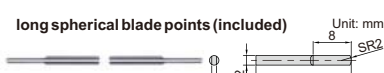
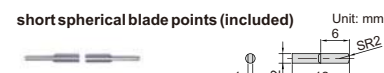
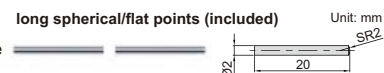
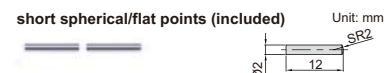
Ball points 7391 (optional)



Screw thread points 7381, 7321 (optional)



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



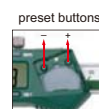
Point	Range	Accuracy	Application
short spherical/flat points	24-324mm/1-12.7" (internal) 0-288mm/0-11.3" (external)	±0.04mm	spherical points for grooves inside hole (small hole) flat points for external grooves
long spherical/flat points	40-340mm/1.5-13.3" (internal) 0-272mm/0-10.7" (external)	±0.04mm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

DIGITAL INSIDE GROOVE CALIPER

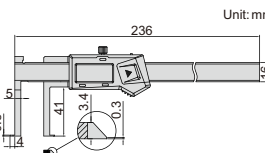


1520-150

DATA OUTPUT



- Measure diameter of grooves inside small bores
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output system



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

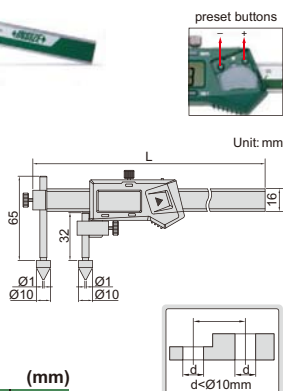
DIGITAL OFFSET CENTERLINE CALIPER

DATA
OUTPUT



1192-150A

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



Code	Range	Accuracy	L (mm)
1192-150A	10-150mm	±0.05mm	236
1192-200A	10-200mm	±0.07mm	286
1192-300A	10-300mm	±0.09mm	396

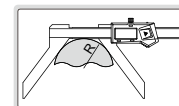
DIGITAL ARC RADIUS CALIPER

DATA
OUTPUT



1189-150B

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



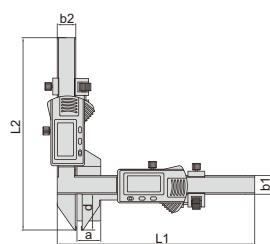
Code	Range (R)	Accuracy	L (mm)	c (mm)	d (mm)
1189-150B	5-150mm/0.2-6"	±0.05mm	263	16	65
1189-200B	5-200mm/0.2-8"	±0.07mm	313	16	85

DIGITAL GEAR TOOTH CALIPER

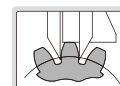
DATA
OUTPUT



1181-M25A



- Resolution: 0.01mm/0.0005"
- Carbide tips
- Buttons: zero, on/off, mm/inch
- Battery SR44 or LR44
- Data output
- Made of stainless steel
- Optional accessory: data output system



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

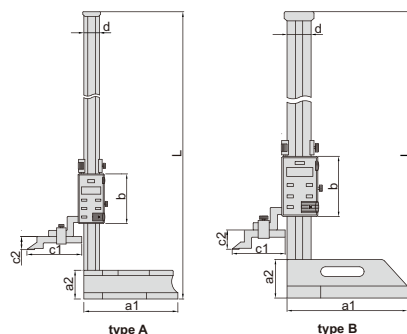
DIGITAL HEIGHT GAGE

DATA
OUTPUT

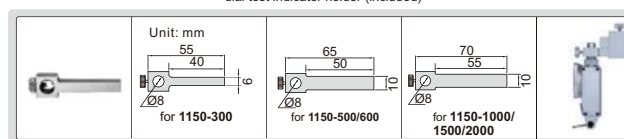


1150-500

1150-1000



dial test indicator holder (included)



- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch, ABS/INC, data hold, TOL, set
- ABS/INC is for absolute and incremental measurement
- TOL is for tolerance measurement
- Carbide tipped scriber
- Made of stainless steel (except the base)
- SR44 or LR44 battery
- Data output
- Supplied with dial test indicator holder
- Optional accessory: data output system (code 7301-SPC5)

data output cable

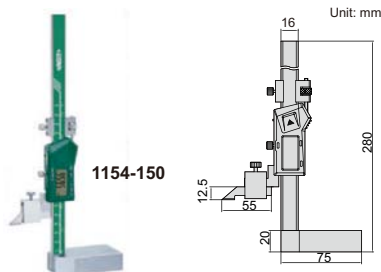


7301-SPC5

Code	Range	Type	Accuracy	L (mm)	a1 (mm)	a2 (mm)	b (mm)	c1 (mm)	c2 (mm)	d (mm)
1150-300	0-300mm/0-12"	A	±0.04mm	470	135	45	80	76	25	23
1150-500	0-500mm/0-20"	A	±0.05mm	720	180	55	95	103	25	30
1150-600	0-600mm/0-24"	A	±0.05mm	820	180	55	95	103	25	30
1150-1000	0-1000mm/0-40"	B	±0.07mm	1275	250	80	125	110	39	50

Sizes available up to 2000mm

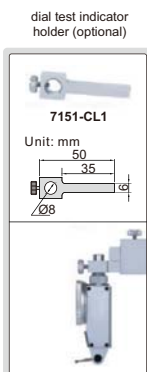
DIGITAL HEIGHT GAGE



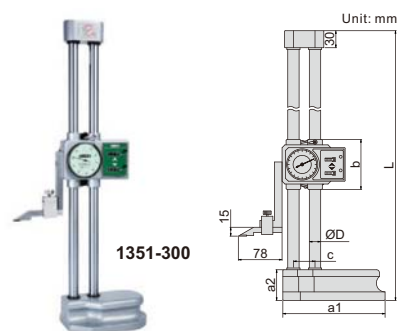
DATA OUTPUT

- Resolution: 0.01mm/0.0005"
- 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 system, dial test indicator holder (code **7151-CL1**)

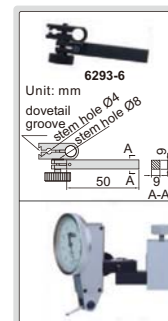
Code	Range	Accuracy
1154-150	0-150mm/0-6"	±0.03mm



DIAL HEIGHT GAGE



dial test indicator
holder (optional)



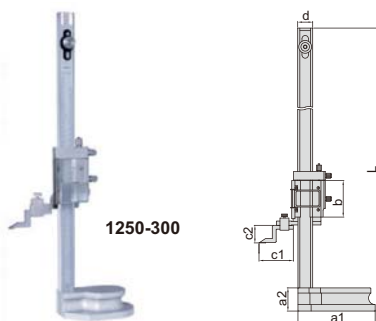
- Dial indicator graduation: 0.01mm
- One counter reads in the plus direction and another in the minus direction, so incremental measurement can be made in either direction
- Carbide tipped scriber
- Made of stainless steel (except the base)
- With driving wheel
- Optional accessory: dial test indicator holder (code **6293-6**)



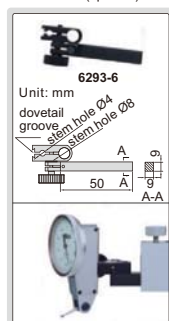
								(mm)
Code	Range	Accuracy	L	a1	a2	b	c	ØD
1351-300	0-300mm	±0.04mm	475	135	43	84	33	15

Sizes available up to 600mm

VERNIER HEIGHT GAGE



dial test indicator
holder (optional)

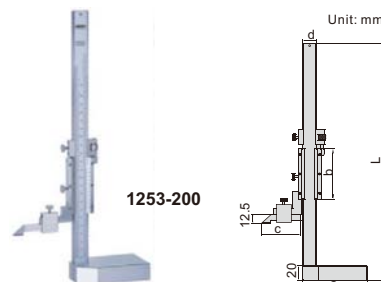


- Graduation: 0.02mm/0.001"
- Adjustable main scale to set zero
- Carbide tipped scribe
- Made of stainless steel (except the base)
- Satin chrome plated scale
- Supplied with magnifier
- With fine adjustment
- Optional accessory: dial test indicator holder (code **6293-6**), not suitable for **1250-1000**

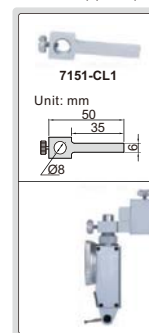
(mm)									
Code	Range	Accuracy	L	a1	a2	b	c1	c2	d
1250-300	0-300mm/0-12"	±0.04mm	545	135	43	75	80	30	28
1250-600	0-600mm/0-24"	±0.05mm	870	180	54	85	80	41	35

Sizes available up to 1000mm

VERNIER HEIGHT GAGE



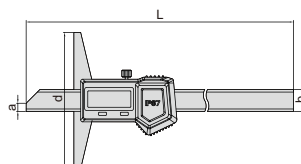
dial test indicator
holder (optional)



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

							(mm)
Code	Range	Accuracy	L	a	b	c	d
1253-200	0-200mm/0-8"	±0.03mm	325	90	70	55	20

WATERPROOF DIGITAL DEPTH GAGE



IT IS NECESSARY TO SET
ZERO AFTER POWER ON EACH TIME

IP67
WATERPROOF

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

(mm)						
Code	Range	Accuracy	L	a	b	d
1149-150	0-150mm/0-6"	±0.03mm	240	6	16	100
1149-200	0-200mm/0-8"	±0.03mm	290	6	16	100
1149-300	0-300mm/0-12"	±0.04mm	390	6	16	150

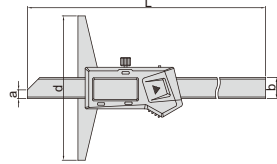
DIGITAL DEPTH GAGE

DATA
OUTPUT



1141-150A

- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output system



(mm)

Code	Range	Accuracy	L	a	b	d
1141-150A	0-150mm/0-6"	±0.03mm	230	6	14.5	100
1141-200A	0-200mm/0-8"	±0.03mm	280	6	14.5	100
1141-300A	0-300mm/0-12"	±0.04mm	380	6	14.5	150

Sizes available up to 500mm

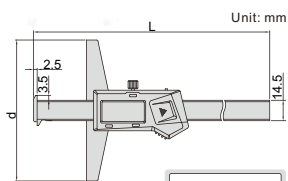
DIGITAL DOUBLE HOOK DEPTH GAGE

DATA
OUTPUT



1144-150A

- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output system



(mm)

Code	Range	Accuracy	L	d
1144-150A	0-150mm/0-6"	±0.03mm	233	100
1144-200A	0-200mm/0-8"	±0.03mm	283	100
1144-300A	0-300mm/0-12"	±0.04mm	383	150

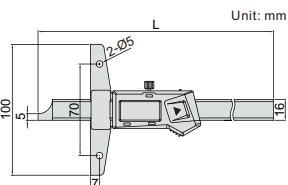
DIGITAL DEPTH GAGE

DATA
OUTPUT



1147-300

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



(mm)

Code	Range	Accuracy	L
1147-150	0-150mm/0-6"	±0.03mm	237
1147-200	0-200mm/0-8"	±0.03mm	287
1147-300	0-300mm/0-12"	±0.04mm	403

extension base (optional)



DIGITAL DEPTH GAGE WITH ROUND DEPTH BAR

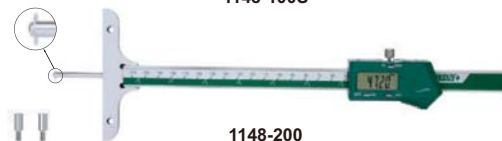
DATA
OUTPUT

MEASURE DEPTH OF
SMALL HOLES (>Ø4mm)

MEASURE WIDTH AND DEPTH
OF GROOVES INSIDE BORE



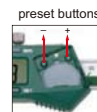
1148-100S



1148-200



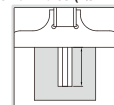
1148-120



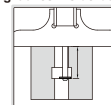
one-hand use of 1148-120



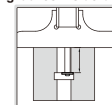
measure depth of
small holes (>Ø4mm)



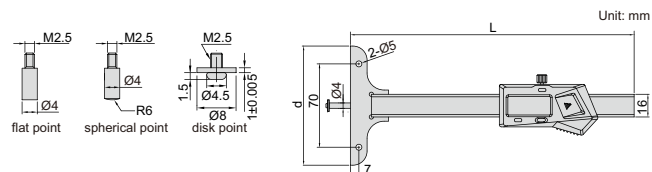
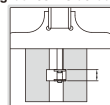
measure depth of
grooves inside bore



measure depth of
grooves inside bore



measure width of
grooves inside bore



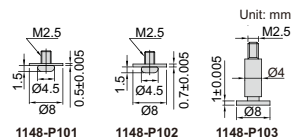
Unit: mm

- Resolution: 0.01mm/0.0005"
- Supplied with three interchangeable points (flat, spherical, disk)
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output system, disk points (see below table), extension base (code 6141, for 1148-120 and 1148-200)

extension base for 1148-120
and 1148-200 (optional)



1148-P101(optional) 1148-P103(optional)



Unit: mm

OPTIONAL DISK POINTS

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

(mm)

Code	Range*	Accuracy	L	d	Remark
1148-100S	0-100mm/0-4"	±0.02mm	200	45	
1148-100	0-100mm/0-4"	±0.02mm	200	85	
1148-120	0-120mm/0-4.7"	±0.03mm	300	101	one-hand use, with clamp holes for extension base
1148-200	0-200mm/0-8"	±0.03mm	300	101	with clamp holes for extension base

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

VERNIER DEPTH GAGE



1240-200

- Made of stainless steel
- Satin chrome plated reading surface

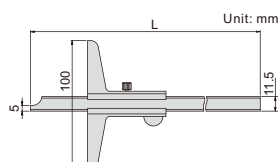
Graduation 0.02mm (mm)

Code	Range	Accuracy	L
1240-1501	0-150mm	±0.03mm	245
1240-2001	0-200mm	±0.03mm	282
1240-3001	0-300mm	±0.04mm	382

Graduation 0.05mm (mm)

Code	Range	Accuracy	L
1240-150	0-150mm	±0.05mm	245
1240-200	0-200mm	±0.05mm	282
1240-300	0-300mm	±0.08mm	382

Sizes available up to 500mm

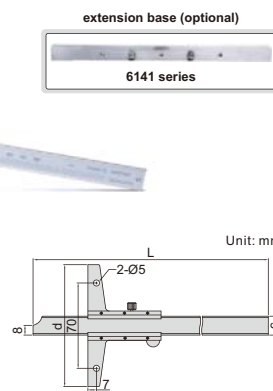


VERNIER DEPTH GAGE



1247-200

- Made of stainless steel
- Satin chrome plating finish on reading surface
- Optional accessory: extension base (code 6141)

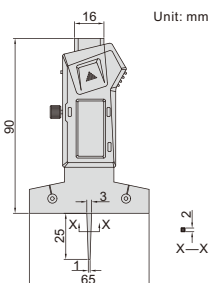


Code	Range	Graduation	Accuracy	L	c	d
1247-1501	0-150mm	0.02mm	±0.03mm	240	16	100
1247-2001	0-200mm	0.02mm	±0.03mm	290	16	100
1247-3001	0-300mm	0.02mm	±0.04mm	390	16	100
1247-6001	0-600mm	0.02mm	±0.05mm	704	18	150
1247-1001	0-1000mm	0.02mm	±0.07mm	1124	18	200
1247-150	0-150mm	0.05mm	±0.05mm	240	16	100
1247-200	0-200mm	0.05mm	±0.05mm	290	16	100
1247-300	0-300mm	0.05mm	±0.08mm	390	16	100
1247-600	0-600mm	0.05mm	±0.10mm	704	18	150
1247-1000	0-1000mm	0.05mm	±0.15mm	1124	18	200

DIGITAL DEPTH GAGE



1145-25A



DATA
OUTPUT

- Measure depth of small groove and hole, also measure depth of tire tread
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Supplied with zero set surface
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output system

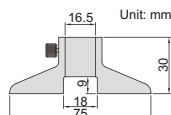
Code	Range	Accuracy
1145-25A	0-25mm/0-1"	±0.03mm



DEPTH BASE ATTACHMENT



6140



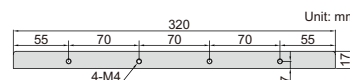
- To increase the stability of depth measurement
- Suitable for 0-150mm and 0-200mm of vernier calipers, digital calipers and dial calipers with beam width of 16mm
- Made of stainless steel

Code
6140

EXTENSION BASE

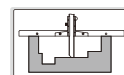
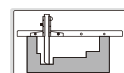


6141-320



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

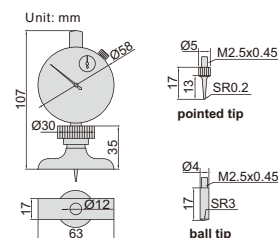
Code	Length
6141-320	320mm



DIAL DEPTH GAGE



2341-101A



- Dial indicator stroke: 10mm
- Dial indicator graduation: 0.01mm
- Stainless steel base
- Supplied with pointed tip and ball tip

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

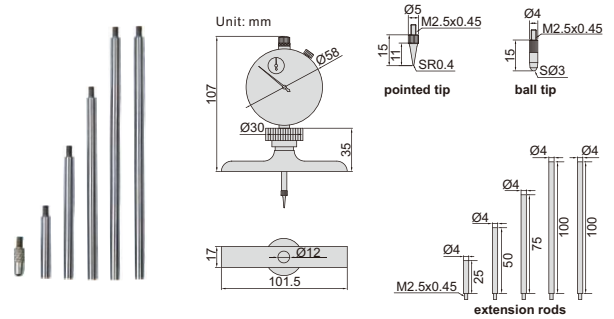
DIAL DEPTH GAGE

- Dial indicator stroke: 30mm
- Dial indicator graduation: 0.01mm
- Stainless steel base
- Extension rods: 25mm (1pc), 50mm (1pc), 75mm (1pc), 100mm (2pcs)
- Supplied with pointed tip and ball tip

Code	Range	Accuracy
2342-202	0-300mm	±0.03mm



2342-202



DIGITAL DEPTH GAGE

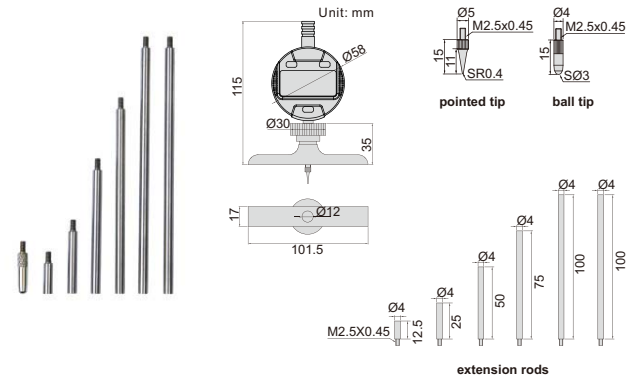
DATA
OUTPUT

- 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, automatic power off
- Data output
- Stainless steel base
- Extension rods: 12.5mm (1pc), 25mm (1pc), 50mm (1pc), 75mm (1pc), 100mm (2pcs)
- Supplied with pointed tip and ball tip
- Optional accessory: data output system

Code	Range	Accuracy
2141-202A	0-300mm/0-12"	±0.02mm



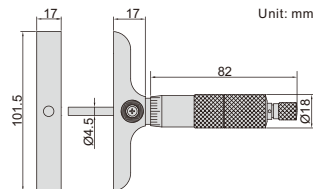
2141-202A



DEPTH MICROMETER

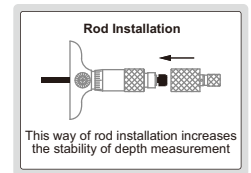


3241-100



- Graduation: 0.01mm
- Micrometer head accuracy: $\pm 3\mu\text{m}$
- Rod accuracy: $\pm (2 + L/75)\mu\text{m}$, L is the measuring range in mm
- Rods with flat end
- Ratchet stop

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

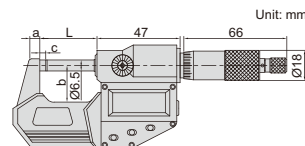


METRIC DIGITAL OUTSIDE MICROMETER

IP54
WATERPROOF



3108-25A



- Resolution: 0.001mm
- IP54 dust/waterproof
- Button function: on/off, set, ABS/INC
- Without data output
- SR44 or LR44 battery, automatic power off
- Carbide measuring faces
- Ratchet stop
- Supplied with spherical anvil
- Setting standards are included (except 0-25mm)



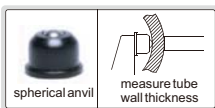
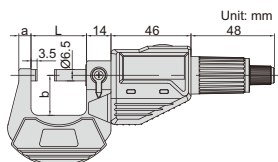
Code	Range	Accuracy	L	a	b	c
3108-25A*	0-25mm	±2μm	32.5	6	24	3
3108-50A*	25-50mm	±2μm	57.5	8	32	3
3108-75A*	50-75mm	±3μm	82.5	8	44.5	3
3108-100A*	75-100mm	±3μm	107.5	8	57	3

* Supplied with manufacturer inspection certificate
- Sizes available up to 200mm

DIGITAL OUTSIDE MICROMETER



3109-25B



- Resolution: 0.001mm/0.00005"
- Button function: on/off, set, mm/inch, ABS/INC
- Data output
- Battery CR2032, automatic power off
- Carbide measuring faces
- Ratchet friction thimble
- Supplied with spherical anvil
- Setting standards are included (except 0-25mm/0-1")
- Optional accessory: data output system

DATA
OUTPUT

Code	Range	Accuracy	L	a	b
3109-25B*	0-25mm/0-1"	±2μm	31.5	7	23
3109-50B*	25-50mm/1-2"	±2μm	57	8.7	32
3109-75B*	50-75mm/2-3"	±3μm	82.5	7.5	44
3109-100B*	75-100mm/3-4"	±3μm	106.5	8.2	56

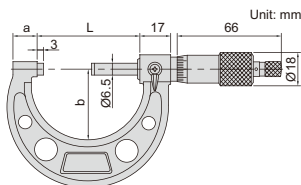
*Supplied with manufacturer inspection certificate

OUTSIDE MICROMETER



3203-50A

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



3203-25A

Code	Range	Accuracy	L	a	b
3203-25A*	0-25mm	4μm	32	9	28
3203-50A*	25-50mm	4μm	57	14	38
3203-75A*	50-75mm	5μm	82	15	49
3203-100A*	75-100mm	5μm	107	15	60
3203-125A	100-125mm	6μm	133	16.5	73
3203-150A	125-150mm	6μm	158	16.5	85
3203-175A	150-175mm	7μm	183	19.4	104
3203-200A	175-200mm	7μm	209	19.4	117
3203-225A	200-225mm	8μm	234	19.4	130
3203-250A	225-250mm	8μm	260	19.4	142
3203-275A	250-275mm	9μm	285	19.4	155
3203-300A	275-300mm	9μm	310	19.4	168

*Supplied with manufacturer inspection certificate

set

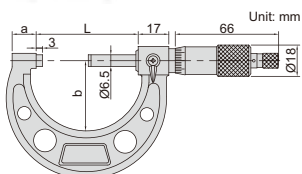
Code	Range	Micrometers included
3203-1004A*	0-100mm	3203-25A, 3203-50A, 3203-75A, 3203-100A
3203-1506A	0-150mm	3203-25A, 3203-50A, 3203-75A, 3203-100A, 3203-125A, 3203-150A
3203-3012A	0-300mm	3203-25A, 3203-50A, 3203-75A, 3203-100A, 3203-125A, 3203-150A, 3203-175A, 3203-200A, 3203-225A, 3203-250A, 3203-275A, 3203-300A

1μm GRADUATION OUTSIDE MICROMETER



3210-25A

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



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

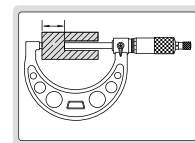
*Supplied with manufacturer inspection certificate

- Sizes available up to 200mm

LONG SPINDLE OUTSIDE MICROMETER

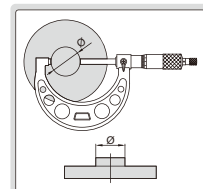


3209-25



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

Code	Range	Accuracy	L	a	b
3209-25	0-25mm	4μm	57	14	38
3209-50	25-50mm	4μm	82	15	49
3209-75	50-75mm	5μm	107	15	60
3209-100	75-100mm	5μm	133	16.5	73



SCREW THREAD MICROMETER

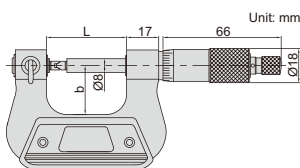
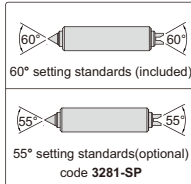
NON-ROTATING
SPINDLE

measuring tips are not included



3281-25A

- Measure pitch diameter of screw threads
- Graduation: 0.01mm
- Non-rotating spindle
- Ratchet stop
- Supplied with 60° setting standards (except 0-25mm)
- Optional accessory: 55° setting standards (code 3281-SP), measuring tips (code 7381)



(mm)

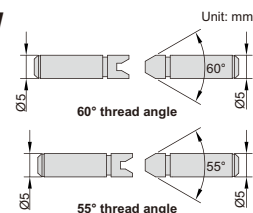
Code	Range	Micrometer head accuracy	Measuring tips accuracy	L	b
3281-25A	0-25mm	4μm	8μm	42	26
3281-50A	25-50mm	4μm	8μm	67	38

Sizes available up to 200mm

MEASURING TIPS FOR SCREW THREAD MICROMETER



7381-T11



Metric and unified thread (60° thread angle)

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

Whitworth thread (55° thread angle)

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

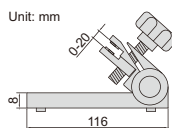
MICROMETER STAND



6300

Code
6300

- Suitable for micrometers up to 100mm



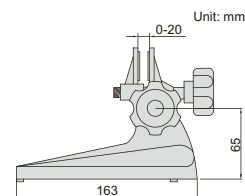
MICROMETER STAND



6301

Code
6301

- Suitable for micrometers up to 100mm

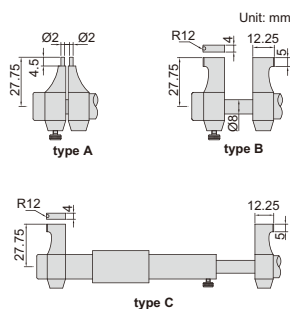


INSIDE MICROMETER



3220-50

- Graduation: 0.01mm
- Ratchet stop
- Carbide measuring faces
- Optional accessory: setting ring (code 6312)



Code	Range	Type	Setting ring	Accuracy
3220-30	5-30mm	A	5mm	7μm
3220-50	25-50mm	B	25mm	8μm
3220-75	50-75mm	B	—	8μm
3220-100	75-100mm	C	—	8μm
3220-125	100-125mm	C	—	9μm
3220-150	125-150mm	C	—	9μm

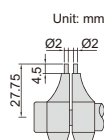
Sizes available up to 300mm

DIGITAL INSIDE MICROMETER



3520-30

DATA
OUTPUT



- Resolution: 0.001mm/0.00005"
- Button function: on/off, set, mm/inch, ABS/INC, data output
- Data output
- SR44 or LR44 battery, automatic power off
- Ratchet stop
- Carbide measuring faces
- Optional accessory: data output system, setting ring (code 6312)

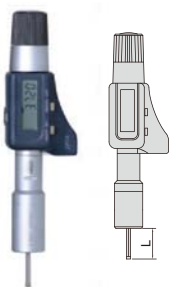
Code	Range	Setting ring	Accuracy
3520-30	5-30mm/0.2-1.2"	5mm	±5μm

Sizes available up to 100mm

DIGITAL THREE POINTS INTERNAL MICROMETER

DATA
OUTPUT

IP54
WATERPROOF



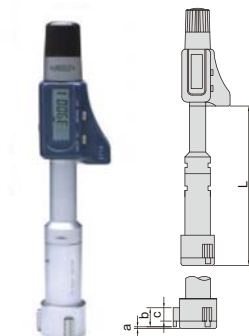
Type A
3-6mm, carbide points
two points

3127-4



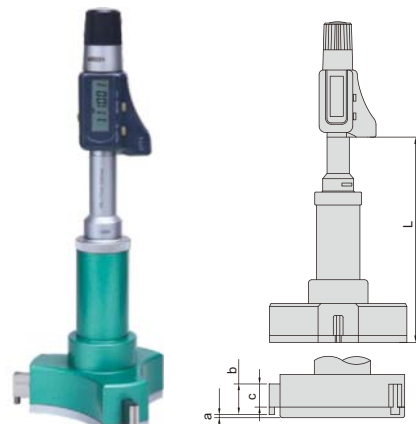
Type B
6-12mm, steel points
three points

3127-12



Type C
12-100mm, carbide points
three points

3127-40



Type D
100-300mm, carbide points
three points

3127-125

- Resolution: 0.001mm/0.00005"
- IP54 dust/waterproof
- Buttons: on/off, set, mm/inch, ABS/INC
- Data output
- SR44 or LR44 battery, automatic power off
- Ratchet stop
- Optional accessory: data output system, setting ring (code 6312)

setting ring



3-100mm: included
100-300mm: optional

extension rod



3-6mm: optional
6-300mm: included

interchangeable jaws



100-300mm: have two sets
of interchangeable jaws

Individual

Code	Range	Type	Accuracy	Setting ring (included)	Extension rod (included)	L	a	b	c
3127-4 *	3-4mm/0.12-0.16"	A	4μm	Ø4mm	—	22.5	—	—	—
3127-5 *	4-5mm/0.16-0.20"	A	4μm	Ø5mm	—	22.5	—	—	—
3127-6 *	5-6mm/0.20-0.24"	A	4μm	Ø6mm	—	22.5	—	—	—
3127-8 *	6-8mm/0.24-0.31"	B	4μm	Ø6mm	100mm	54.5	1.5	2.5	—
3127-10 *	8-10mm/0.31-0.39"	B	4μm	Ø8mm	100mm	54.5	1.5	2.5	—
3127-12 *	10-12mm/0.39-0.47"	B	4μm	Ø10mm	100mm	54.5	1.5	2.5	—
3127-16 *	12-16mm/0.47-0.63"	C	4μm	Ø16mm	150mm	80	0.5	6	4.5
3127-20 *	16-20mm/0.63-0.79"	C	4μm	Ø16mm	150mm	80	0.5	6	4.5
3127-25 *	20-25mm/0.79-0.98"	C	4μm	Ø25mm	150mm	90	0.5	8	6
3127-30 *	25-30mm/0.98-1.18"	C	4μm	Ø25mm	150mm	90	0.5	8	6
3127-40 *	30-40mm/1.18-1.57"	C	4μm	Ø40mm	150mm	97	0.5	14	12
3127-50 *	40-50mm/1.57-1.97"	C	5μm	Ø40mm	150mm	97	0.5	14	12
3127-63 *	50-63mm/1.97-2.48"	D	5μm	Ø62mm	150mm	114	0.5	17.5	14.5
3127-75 *	62-75mm/2.44-2.95"	D	5μm	Ø62mm	150mm	114	0.5	17.5	14.5
3127-88 *	75-88mm/2.95-3.46"	D	5μm	Ø87mm	150mm	114	0.5	17.5	14.5
3127-100 *	87-100mm/3.43-3.94"	D	5μm	Ø87mm	150mm	114	0.5	17.5	14.5
3127-125 *	100-125mm/3.94-4.92"	D	5μm	—	150mm	150	0.5	19.5	14.5
3127-150 *	125-150mm/4.92-5.91"	D	5μm	—	150mm	150	0.5	19.5	14.5

Set

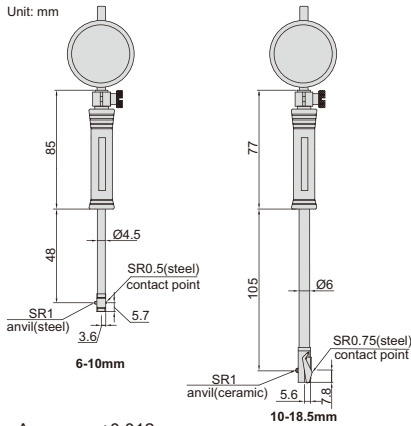
Code	Range	Micrometers (included)	Setting ring (included)	Extension rod (included)
3127-363 *	3-6mm/0.12-0.24"	3-4mm, 4-5mm, 5-6mm	Ø4mm, Ø5mm, Ø6mm	—
3127-123 *	6-12mm/0.24-0.47"	6-8mm, 8-10mm, 10-12mm	Ø6mm, Ø8mm, Ø10mm	100mm
3127-202 *	12-20mm/0.47-0.79"	12-16mm, 16-20mm	Ø16mm	150mm
3127-504 *	20-50mm/0.79-1.97"	20-25mm, 25-30mm, 30-40mm, 40-50mm	Ø25mm, Ø40mm	150mm
3127-1004 *	50-100mm/1.97-3.94"	50-63mm, 62-75mm, 75-88mm, 87-100mm	Ø62mm, Ø87mm	150mm

* Supplied with manufacturer inspection certificate

- Sizes available up to 300mm

BORE GAGE FOR SMALL HOLES

Unit: mm



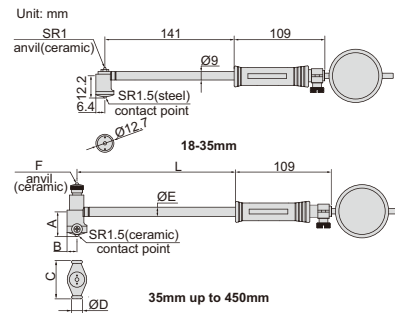
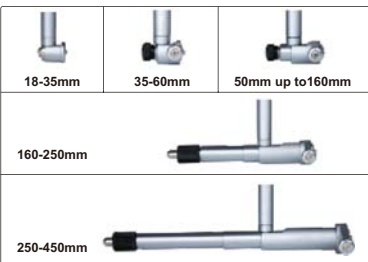
2852-10

- Accuracy: $\pm 0.012\text{mm}$
- Repeatability: 0.003mm
- Optional accessory: setting ring (code 6312)

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



BORE GAGE



2322-160A

Range	A	B	C	ØD	ØE	F	L
35-60mm	12.2	6.4	27	13	12.8	SR2	141
50-100mm	26	9	27	13	12.8	SR2	141
50-160mm	26	9	35	13	12.8	SR2	141
100-160mm	26	9	35	13	12.8	SR2	141
160-250mm	56.5	13	74.5	15	12.8	SR2	241
250-450mm	86.5	15	101.5	15	14.5	SR2.5	241

- Optional accessory: setting ring (code 6312), long handle (code 7351)

Code	Range	Indicator	Accuracy	Repeatability
2322-35A	18-35mm	dial indicator, range 10mm, graduation 0.01mm (code 2308-10FA)	$\pm 0.015\text{mm}$	0.003mm
2322-60A	35-60mm		$\pm 0.018\text{mm}$	0.003mm
2322-100A	50-100mm		$\pm 0.018\text{mm}$	0.003mm
2322-160A	50-160mm		$\pm 0.018\text{mm}$	0.003mm
2322-250A	160-250mm		$\pm 0.018\text{mm}$	0.003mm
2322-450A	250-450mm		$\pm 0.018\text{mm}$	0.003mm

ANVIL FOR BORE GAGES



- For 2852, 2152, 2322, 2122, 2824, 2125, 2827, 2127, 2129

7350-160

Code	Applicable bore gages	Material of measuring face	Quantity per set	Measuring range of anvil (mm)
7350-10	6-10mm	steel	9pcs	6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10
7350-18	10-18.5mm	ceramic	9pcs	10, 11, 12, 13, 14, 15, 16, 17, 18
7350-35	18-35mm	ceramic	9pcs	18, 20, 22, 24, 26, 28, 30, 32, 34
7350-60	35-60mm	ceramic	6pcs	35, 40, 45, 50, 55, 60
7350-160	50-160mm	ceramic	12pcs	50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105
7350-250	160-250mm	ceramic	5pcs	160, 170, 180, 190, 200
7350-450	250-450mm	ceramic	5pcs	250, 260, 270, 280, 290

SETTING RING

- For zero setting of inside micrometers, three points internal micrometers and bore gages
- The size marked on the setting ring is checked at the direction of the marking line
- Deviation (difference between the ordered size and the size marked on the setting ring when supplied):
 $\text{Ø}3\text{-}100\text{mm}$: $\pm 3\mu\text{m}$
 $\text{Ø}100\text{-}300\text{mm}$: $\pm 5\mu\text{m}$

For example, the ordered size is $\text{Ø}10.125\text{mm}$, the size marked on the setting ring when supplied may be $\text{Ø}10.128\text{mm}$

- Cylindricity:
 $\text{Ø}3\text{-}100\text{mm}$: $1\mu\text{m}$
 $\text{Ø}100\text{-}250\text{mm}$: $2\mu\text{m}$
 $\text{Ø}250\text{-}300\text{mm}$: $2.5\mu\text{m}$
- Roundness:
 $\text{Ø}3\text{-}100\text{mm}$: $1\mu\text{m}$
 $\text{Ø}100\text{-}250\text{mm}$: $2\mu\text{m}$
 $\text{Ø}250\text{-}300\text{mm}$: $2.5\mu\text{m}$



6312-20

CAN SUPPLY CUSTOM SETTING RING FROM $\text{Ø}10.000\text{MM}$ TO $\text{Ø}300.000\text{MM}$, FOR EXAMPLE, $\text{Ø}17.085\text{MM}$

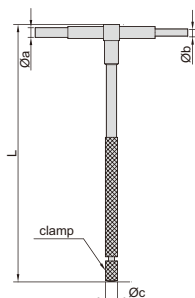
Code	Nominal size	Code	Nominal size	Code	Nominal size
6312-3*	Ø3mm	6312-26*	Ø26mm	6312-49*	Ø49mm
6312-4*	Ø4mm	6312-27*	Ø27mm	6312-50*	Ø50mm
6312-5*	Ø5mm	6312-28*	Ø28mm	6312-55*	Ø55mm
6312-6*	Ø6mm	6312-29*	Ø29mm	6312-60*	Ø60mm
6312-7*	Ø7mm	6312-30*	Ø30mm	6312-62*	Ø62mm
6312-8*	Ø8mm	6312-31*	Ø31mm	6312-65*	Ø65mm
6312-9*	Ø9mm	6312-32*	Ø32mm	6312-70*	Ø70mm
6312-10*	Ø10mm	6312-33*	Ø33mm	6312-75*	Ø75mm
6312-11*	Ø11mm	6312-34*	Ø34mm	6312-80*	Ø80mm
6312-12*	Ø12mm	6312-35*	Ø35mm	6312-85*	Ø85mm
6312-13*	Ø13mm	6312-36*	Ø36mm	6312-87*	Ø87mm
6312-14*	Ø14mm	6312-37*	Ø37mm	6312-90*	Ø90mm
6312-15*	Ø15mm	6312-38*	Ø38mm	6312-95*	Ø95mm
6312-16*	Ø16mm	6312-39*	Ø39mm	6312-100*	Ø100mm
6312-17*	Ø17mm	6312-40*	Ø40mm	6312-125*	Ø125mm
6312-18*	Ø18mm	6312-41*	Ø41mm	6312-150*	Ø150mm
6312-19*	Ø19mm	6312-42*	Ø42mm	6312-175*	Ø175mm
6312-20*	Ø20mm	6312-43*	Ø43mm	6312-200*	Ø200mm
6312-21*	Ø21mm	6312-44*	Ø44mm	6312-225*	Ø225mm
6312-22*	Ø22mm	6312-45*	Ø45mm	6312-250*	Ø250mm
6312-23*	Ø23mm	6312-46*	Ø46mm	6312-275*	Ø275mm
6312-24*	Ø24mm	6312-47*	Ø47mm	6312-300*	Ø300mm
6312-25*	Ø25mm	6312-48*	Ø48mm		

* Supplied with manufacturer inspection certificate

TELESCOPING GAGE SET

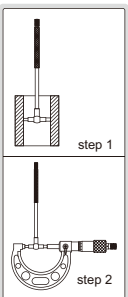


4206-1



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

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

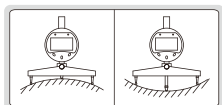
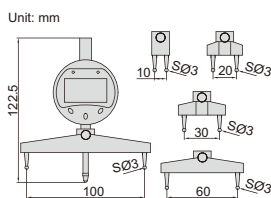


Code	Total range	Gages included
4206-1	8-150mm	8-12.7mm, 12.7-19mm, 19-32mm, 32-54mm, 54-90mm, 90-150mm

DIGITAL RADIUS GAGE



2183



- Measure radius of internal and external arcs
- Supplied with 5 jaws for different sizes of arc
- Battery CR2032

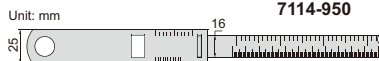
Code	Range of radius(R)	Resolution	Accuracy(mm)
2183	5-700mm/0.2-27.5"	0.005mm/0.00005"	±0.01R*

*R is the radius to be measured

CIRCUMFERENCE TAPE



7114-950



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

Code	Circumference range	Diameter range	Accuracy	
			Circumference	Diameter
7114-950	60-950mm	Ø20-300mm	±1.5mm	±0.5mm
7114-2200	940-2200mm	Ø300-700mm	±1.5mm	±0.5mm
7114-3460	2190-3460mm	Ø700-1100mm	±1.5mm	±0.5mm

BASIC MODEL

DIGITAL INDICATOR

DATA OUTPUT



2103-10

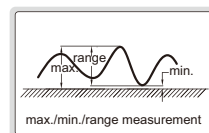
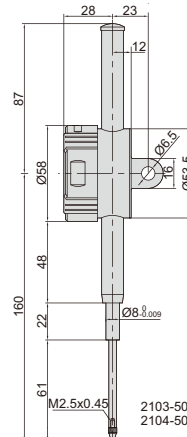
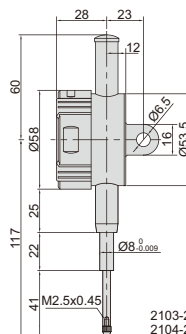
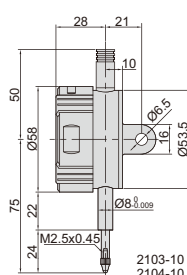


2104-25



2103-50

Unit: mm



- Reading in digit and analog
- Display can be rotated by 320°
- Button function: tolerance Go and No-Go display, data preset, measuring direction change, max./min./range measurement, inch/metric conversion, absolute/incremental measurement
- CR2032 battery, automatic power off
- Data output
- Optional accessory: data output system, backs, contact points

Resolution 0.001mm/0.00005"

Code	Range	Accuracy	Hysteresis	Remark
2103-10*	12.7mm/0.5"	5µm	2µm	lug back
2103-25*	25.4mm/1"	5µm	3µm	lug back
2103-50*	50.8mm/2"	6µm	3µm	lug back
2103-10F*	12.7mm/0.5"	5µm	2µm	flat back
2103-25F*	25.4mm/1"	5µm	3µm	flat back
2103-50F*	50.8mm/2"	6µm	3µm	flat back

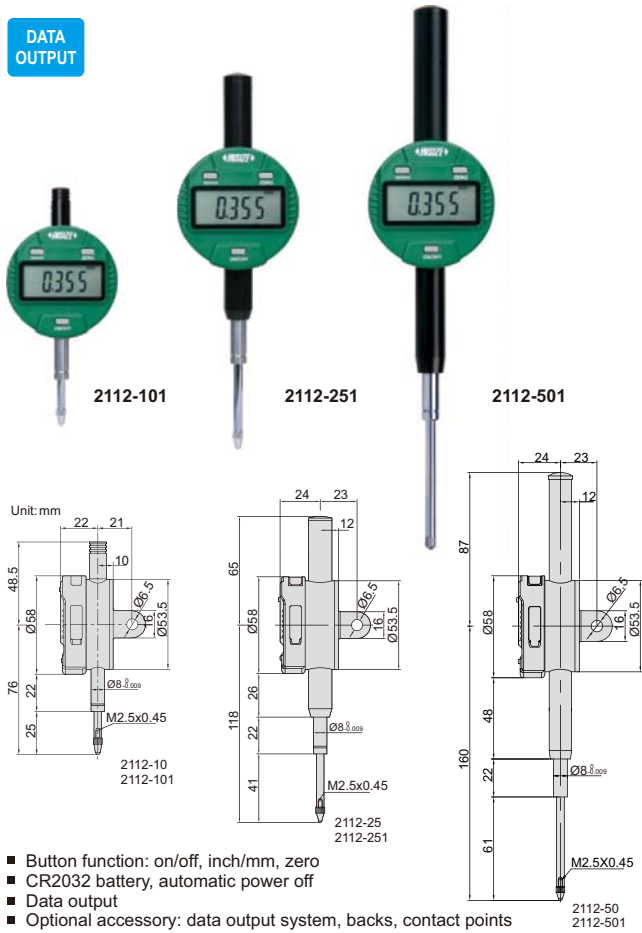
Resolution 0.01mm/0.0005"

Code	Range	Accuracy	Hysteresis	Remark
2104-10*	12.7mm/0.5"	20µm	10µm	lug back
2104-25*	25.4mm/1"	20µm	10µm	lug back
2104-50*	50.8mm/2"	30µm	10µm	lug back
2104-10F*	12.7mm/0.5"	20µm	10µm	flat back
2104-25F*	25.4mm/1"	20µm	10µm	flat back
2104-50F*	50.8mm/2"	30µm	10µm	flat back

*Supplied with manufacturer inspection certificate

DIGITAL INDICATOR

DATA
OUTPUT



- Button function: on/off, inch/mm, zero
- CR2032 battery, automatic power off
- Data output
- Optional accessory: data output system, backs, contact points

Resolution 0.001mm/0.00005"

Code	Range	Accuracy	Hysteresis	Remark
2112-101*	12.7mm/0.5"	5μm	2μm	lug back
2112-251*	25.4mm/1"	5μm	3μm	lug back
2112-501*	50.8mm/2"	6μm	3μm	lug back
2112-101F*	12.7mm/0.5"	5μm	2μm	flat back
2112-251F*	25.4mm/1"	5μm	3μm	flat back
2112-501F*	50.8mm/2"	6μm	3μm	flat back

Resolution 0.01mm/0.0005"

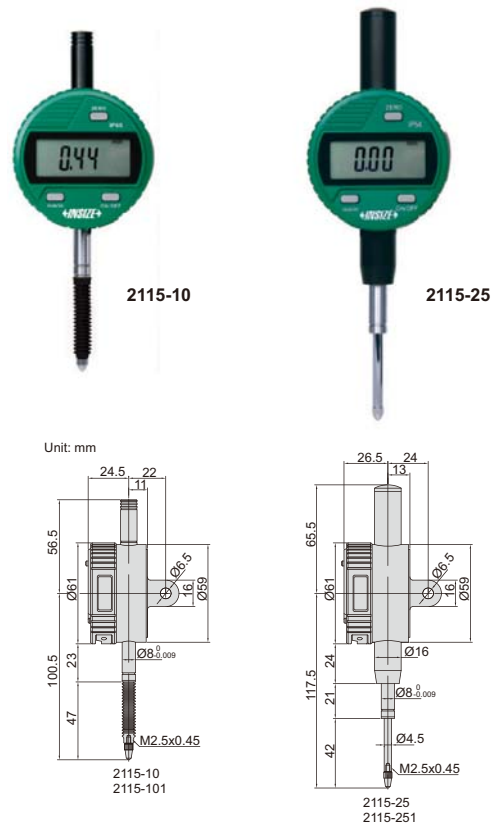
Code	Range	Accuracy	Hysteresis	Remark
2112-10*	12.7mm/0.5"	20μm	10μm	lug back
2112-25*	25.4mm/1"	20μm	10μm	lug back
2112-50*	50.8mm/2"	30μm	10μm	lug back
2112-10F*	12.7mm/0.5"	20μm	10μm	flat back
2112-25F*	25.4mm/1"	20μm	10μm	flat back
2112-50F*	50.8mm/2"	30μm	10μm	flat back

*Supplied with manufacturer inspection certificate

WATERPROOF DIGITAL INDICATOR

DATA
OUTPUT

WATERPROOF



- Dust/waterproof
- Button function: on/off, zero, mm/inch
- CR2032 battery, automatic power off
- Data output
- Optional accessory: data output system, backs, contact points

Resolution 0.001mm/0.00005"

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

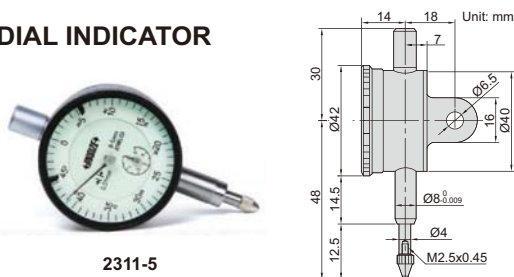
Resolution 0.01mm/0.0005"

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

*Supplied with manufacturer inspection certificate

COMPACT DIAL INDICATOR

JEWELLED
BEARING



2311-5

- Graduation: 0.01mm
- Jeweled bearing
- Supplied with limit pointers
- Optional accessory: backs, contact points

Code	Range	Accuracy	Hysteresis	Range/rev	Dial reading	Remark
2311-5*	5mm	16μm	3μm	0.5mm	0-50	lug back
2311-5F*	5mm	16μm	3μm	0.5mm	0-50	flat back

*Supplied with manufacturer inspection certificate

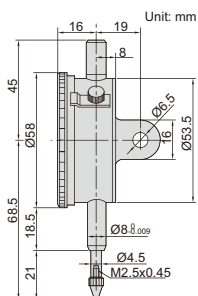
DIAL INDICATOR

JEWELLED BEARING



2308-10A

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



Code	Range	Accuracy	Hysteresis	Range/rev	Remark
2308-3A*	3mm	14µm	3µm	1mm	lug back
2308-5A*	5mm	16µm	3µm	1mm	lug back
2308-10A*	10mm	17µm	3µm	1mm	lug back
2308-3FA*	3mm	14µm	3µm	1mm	flat back
2308-5FA*	5mm	16µm	3µm	1mm	flat back
2308-10FA*	10mm	17µm	3µm	1mm	flat back

* Supplied with manufacturer inspection certificate

SHOCKPROOF DIAL INDICATOR

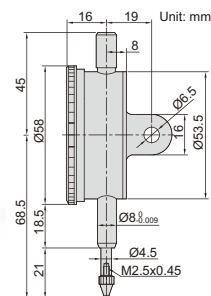
SHOCK PROOF

JEWELLED BEARING



2314-10A

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



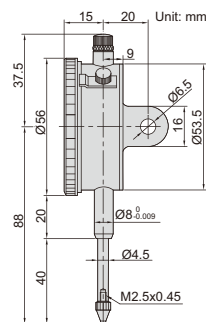
Code	Range	Accuracy	Hysteresis	Range/rev	Remark
2314-10A*	10mm	20µm	3µm	1mm	lug back
2314-10FA*	10mm	20µm	3µm	1mm	flat back

* Supplied with manufacturer inspection certificate

DIAL INDICATOR



2310-30A



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

Code	Range	Accuracy	Hysteresis	Range/rev	Remark
2310-30A*	30mm	35µm	7µm	1mm	lug back
2310-30FA*	30mm	35µm	7µm	1mm	flat back

* Supplied with manufacturer inspection certificate

DIAL INDICATOR

JEWELLED BEARING

SHOCK PROOF



2309-50

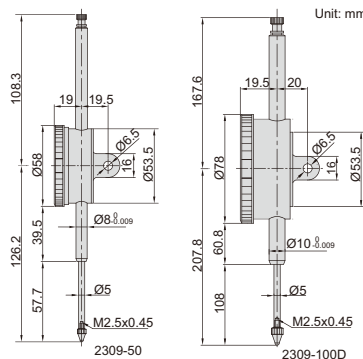
- Graduation: 0.01mm
- Shockproof
- Jeweled bearing
- Supplied with limit pointers
- Optional accessory: backs, contact points

Code	Range	Accuracy	Hysteresis	Range/rev	Dial reading	Remark
2309-50*	50mm	40µm	8µm	1mm	0-100	flat back with spare lug back
2309-100D	100mm	50µm	9µm	1mm	0-100	flat back with spare lug back

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

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

* Supplied with manufacturer inspection certificate



back of 2309-100D



stem clamp Ø10mm of 2309-100D

WATERPROOF DIAL INDICATOR

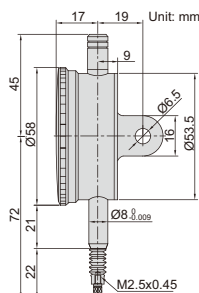
IP54 WATERPROOF

JEWELLED BEARING



2324-10

- Graduation: 0.01mm
- Dial reading 0-100
- IP54 dust/waterproof
- Jeweled bearing



Code	Range	Accuracy	Hysteresis	Range/rev	Remark
2324-10*	10mm	17µm	3µm	1mm	lug back
2324-10F*	10mm	17µm	3µm	1mm	flat back

* Supplied with manufacturer inspection certificate

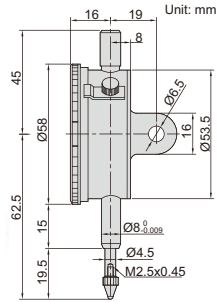
PRECISION DIAL INDICATOR

JEWELLED BEARING



2313-1A

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



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

*Supplied with manufacturer inspection certificate

ONE REVOLUTION DIAL INDICATOR

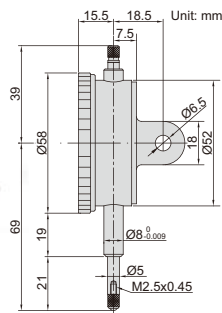


SHOCK PROOF



2882-08

- Graduation: 0.01mm
- Dial reading 40-0-40
- Eliminate the possibility of reading errors due to miscounting
- Shockproof
- Free stroke: 7mm
- With limit pointers
- Optional accessory: backs, contact points



Code	Range	Accuracy	Hysteresis	Range/rev	Remark
2882-08*	0.8mm	9µm	3µm	1mm	lug back
2882-08F*	0.8mm	9µm	3µm	1mm	flat back

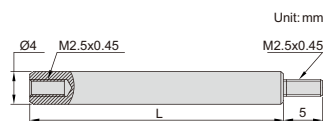
*Supplied with manufacturer inspection certificate

EXTENSION ROD



6282-2001

Code	Material	L (mm)
6282-2001	steel	10
6282-2002	steel	15
6282-2003	steel	20
6282-2004	steel	25
6282-2005	steel	30
6282-2009	steel	50
6282-2014	steel	75
6282-2017	steel	100

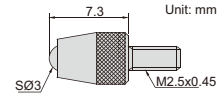


CONTACT POINT



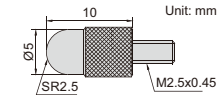
6282-0101

Code	Material of measuring face
6282-0101	carbide



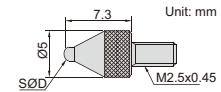
6282-0203

Code	Material of measuring face
6282-0203	steel



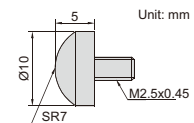
6282-0302

Code	Material of measuring face	SØD (mm)
6282-0302	carbide	1.5
6282-0305	carbide	4



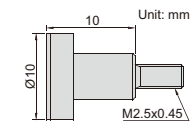
6282-0401

Code	Material of measuring face
6282-0401	steel



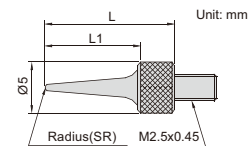
6282-1201

Code	Material of measuring face
6282-1201	steel



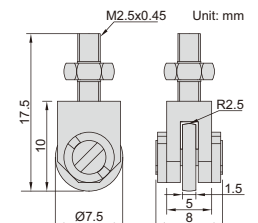
6282-1601

Code	Material of measuring face	L1 (mm)	L (mm)	SR (mm)
6282-1601	steel	11	15	0.4
6282-1602	steel	13	17	0.2



6282-1901

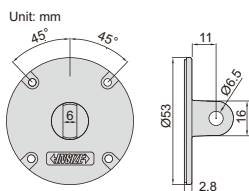
Code	Material of measuring face
6282-1901	steel



LUG BACK



7330-L2



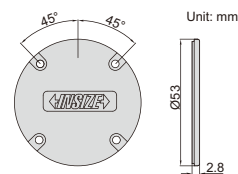
Code	For digital/dial indicators
7330-L2	2308
	2309 (except 2309-30, 2309-30F)
	2310
	2313
	2314
	2329-10
	2801
	2802

Code	For digital/dial indicators
7330-L5	2103
	2104
	2108
	2109
	2112
	2113
	2115

FLAT BACK



7330-F2



Code	For digital/dial indicators
7330-F2	2308
	2309 (except 2309-30, 2309-30F)
	2310
	2313
	2314
	2329-10
	2801
	2802

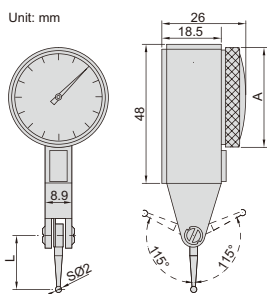
Code	For digital/dial indicators
7330-F5	2103
	2104
	2108
	2109
	2112
	2113
	2115

DIAL TEST INDICATOR

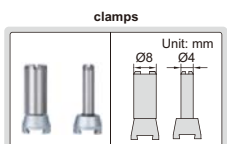
JEWELLED BEARING



2380-08



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



(mm)

Code	Graduation	Range	Accuracy	Hysteresis	Dial reading	A	L
2380-08*	0.01mm	0.8mm	13µm	3µm	0-40-0	Ø30	16.5
2381-08*	0.01mm	0.8mm	13µm	3µm	0-40-0	Ø37.5	16.5
2380-02*	0.002mm	0.2mm	6µm	2µm	0-100-0	Ø30	16
2381-02*	0.002mm	0.2mm	6µm	2µm	0-100-0	Ø37.5	16

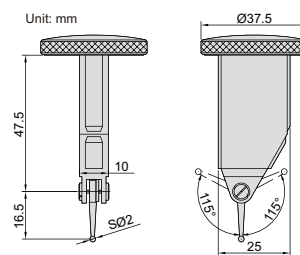
*Supplied with manufacturer inspection certificate

BACK PLUNGER TYPE DIAL TEST INDICATOR

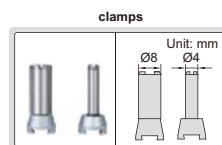
JEWELLED BEARING



2398-08



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



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

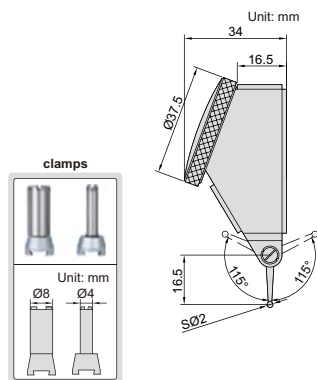
*Supplied with manufacturer inspection certificate

DIAL TEST INDICATOR

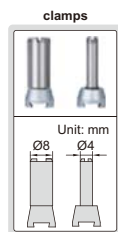
JEWELLED BEARING



2399-08



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



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

*Supplied with manufacturer inspection certificate

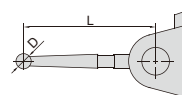
STYLI FOR DIAL TEST INDICATORS

(mm)

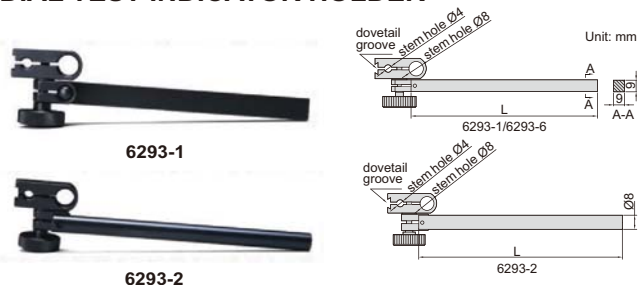
Code	For dial test indicator	Material of contact point	L	D
6284-1		steel	16.5	SØ1
6284-3	2380-08	carbide	16.5	SØ2
6284-4	2398-08	ruby	16.5	SØ2
6284-8	2399-08	carbide	16.5	SØ3
6284-21		steel	16	SØ1
6284-22	2380-02	carbide	16	SØ2
6284-23	2381-02	carbide	16	SØ3
6284-44		carbide	15.3	SØ0.4
6284-41	2880-02	carbide	15.3	SØ1
6284-42	2880-02R	carbide	15.3	SØ2
6284-45	2895-08	carbide	15.3	SØ2
6284-43	2897-02	ruby	15.3	SØ2
6284-51	2898-08	carbide	15.3	SØ3
6284-52		carbide	38.2	SØ1
6284-55	2896-05	carbide	38.2	SØ2
6284-53	2899-05	ruby	38.2	SØ2
6284-71		carbide	38.2	SØ3
	2391-08	carbide	14.8	SØ2



6284-3



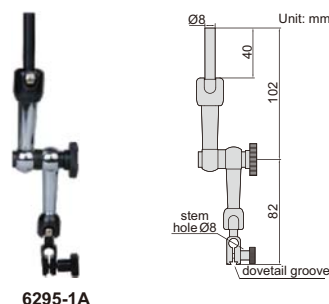
DIAL TEST INDICATOR HOLDER



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



DIAL TEST INDICATOR CENTERING HOLDER



Code
6295-1A

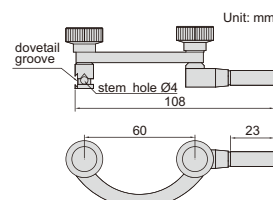
- Center cylinders or holes on machine tools
- Can be used with dial test indicators



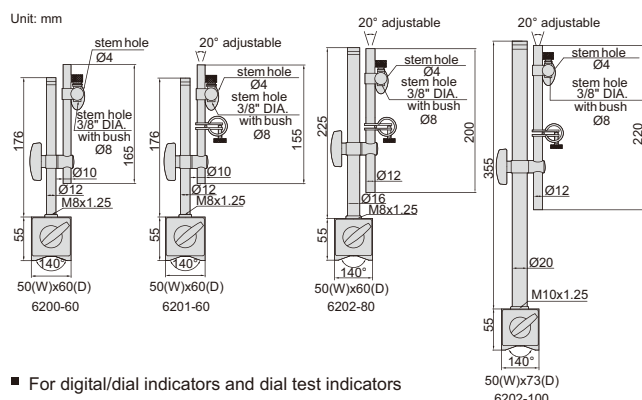
DIAL TEST INDICATOR CENTERING HOLDER

Code
6291-1

- Center cylinders or holes on machine tools



MAGNETIC STAND



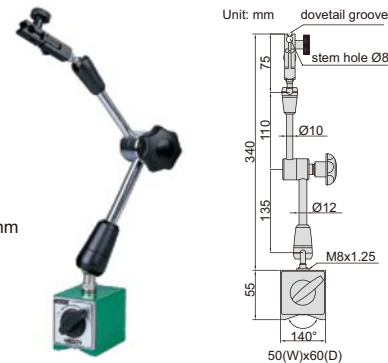
- For digital/dial indicators and dial test indicators

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

UNIVERSAL MAGNETIC STAND

- For digital/dial indicators and dial test indicators
- Applicable holding stem: Ø8mm
- With fine adjustment and dovetail groove

Code	Magnetic force
6210-80	80kgf

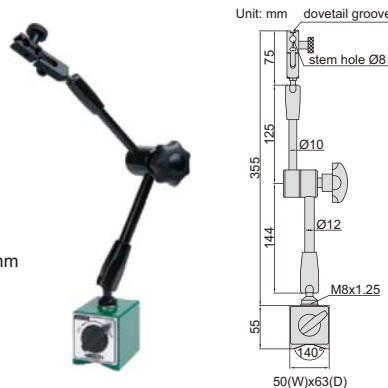


UNIVERSAL MAGNETIC STAND

LOW LOCK FORCE

- For digital/dial indicators and dial test indicators
- Applicable holding stem: Ø8mm
- With fine adjustment and dovetail groove

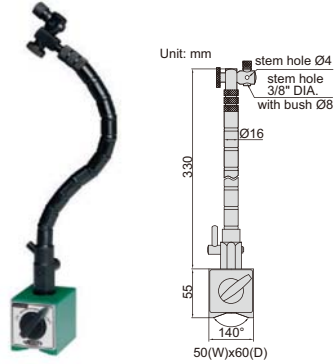
Code	Magnetic force
6208-80A	80kgf



FLEX ARM MAGNETIC STAND

- For dial test indicators
- Applicable holding stem: Ø8mm, Ø4mm, 3/8" DIA.

Code	Magnetic force
6207-80A	80kgf

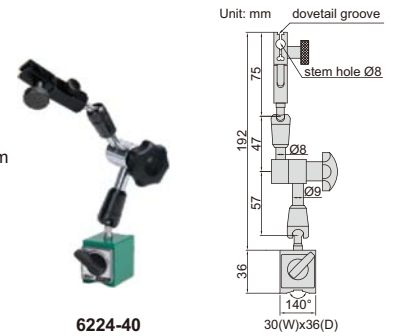


6207-80A

MINI MAGNETIC STAND

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

Code	Magnetic force
6224-40	40kgf

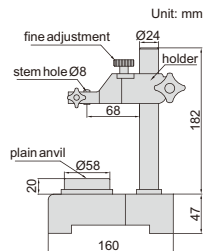


6224-40

DIAL GAGE STAND



6862-1002



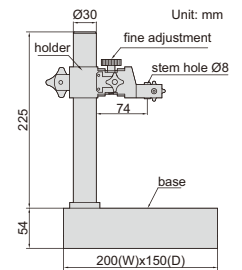
- Vertical travel of holder: 100mm
- Fine adjustment range: 2mm
- Applicable holding stem: Ø8mm

Code	Anvil
6862-1002	plain, flatness 1.5µm, hardness HRC60±2

GRANITE COMPARATOR STAND



6866-150

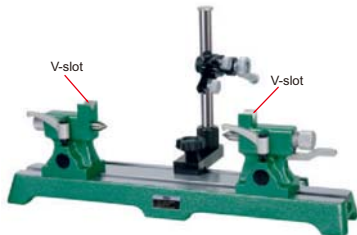


- Vertical travel of holder: 150mm
- Fine adjustment range: 2mm

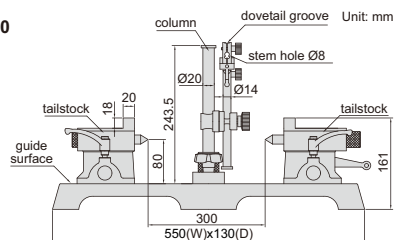
Code	Applicable holding stem	Base
6866-150	Ø8mm	flatness 2.5µm

BENCH CENTER

V-SLOT FOR
CYLINDER Ø5-Ø33MM



4782-300



- Hardened cast-iron guide surface
- Movable column
- Distance between two centers: 300mm

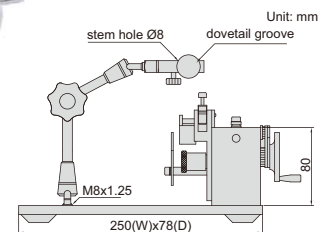
(mm)

Code	Accuracy	Center height	Taper of center
4782-300	0.025mm	80	MT1

CONCENTRICITY GAGE

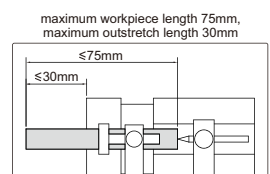


4789-1

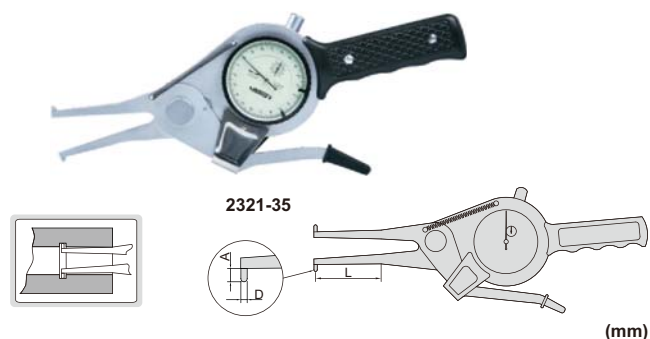


- Accuracy 2µm
- Optional accessory: dial test indicator, mini magnetic stand (code 6224-40)

Code	Applicable diameter
4789-1	Ø3.5mm-25mm



INTERNAL DIAL CALIPER GAGE



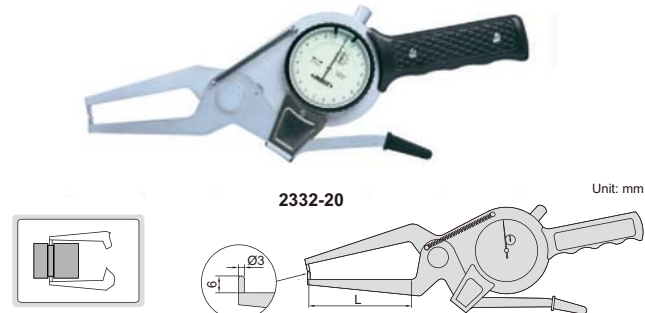
2321-35

(mm)

Code	Range	Graduation	Accuracy	L	A	D
2321-35	15-35mm	0.01mm	±0.04mm	50	3	Ø3
2321-55	35-55mm	0.01mm	±0.04mm	80	6	Ø3

Sizes available up to 135mm

EXTERNAL DIAL CALIPER GAGE



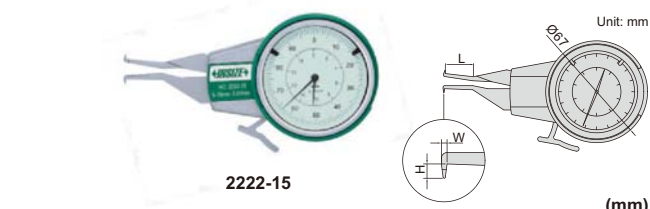
2332-20

Unit: mm

Code	Range	Graduation	Accuracy	L
2332-20	0-20mm	0.01mm	±0.04mm	60

Sizes available up to 100mm

INTERNAL DIAL CALIPER GAGE

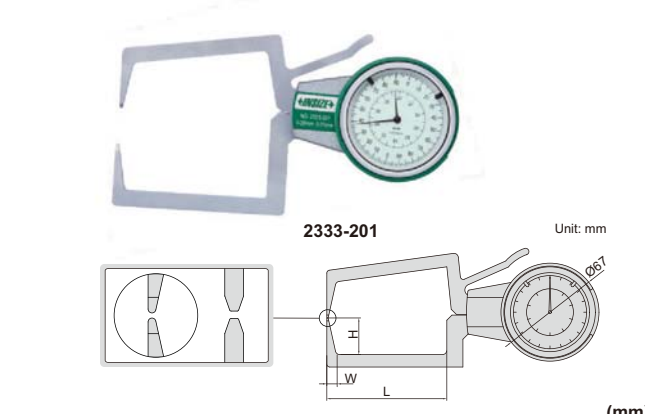


2222-15

(mm)

Code	Range	Graduation	Accuracy	L	H	W
2222-15	5-15mm	0.01mm	±0.02mm	20	1.5	1.5
2222-25	5-25mm	0.01mm	±0.03mm	35	1.5	1.5
2222-301	10-30mm	0.01mm	±0.03mm	55	5.0	2.6
2222-401	20-40mm	0.01mm	±0.03mm	80	6.0	3.0
2222-501	30-50mm	0.01mm	±0.03mm	80	8.0	3.0
2222-60	40-60mm	0.01mm	±0.03mm	80	8.0	3.0

EXTERNAL DIAL CALIPER GAGE

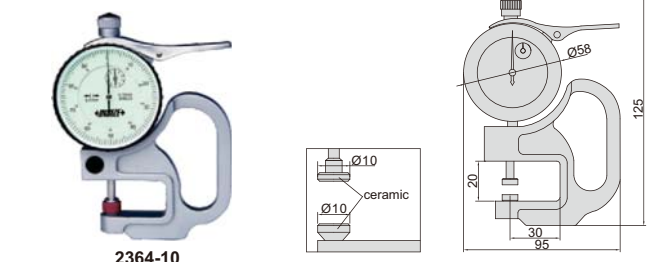


2333-201

Unit: mm

Code	Range	Graduation	Accuracy	L	H	W
2333-201	0-20mm	0.01mm	±0.03mm	80	25	6.5
2333-301	10-30mm	0.01mm	±0.03mm	80	25	6.5
2333-401	20-40mm	0.01mm	±0.03mm	80	25	6.5
2333-501	30-50mm	0.01mm	±0.03mm	80	25	6.5
2333-601	40-60mm	0.01mm	±0.03mm	80	25	6.5

THICKNESS GAGE



2364-10

Code	Range	Graduation	Accuracy
2364-10	0-10mm	0.01mm	±0.02mm

DIGITAL THICKNESS GAGE



2871-101

- Ceramic spindle tip and anvil
- Buttons: on/off, zero, mm/inch
- Battery CR2032, automatic power off
- Data output
- Optional accessory: data output system

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 GAGE



2862-101

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

STEP AND GAP GAGE

- Measure step height and gap 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
- Supplied with zero setting block
- Optional accessory: data output system

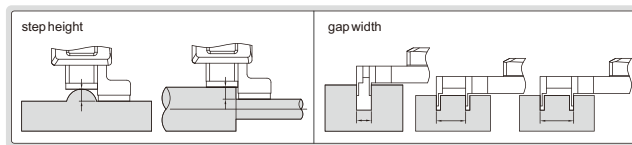
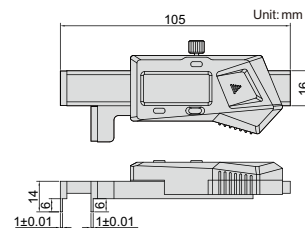


front

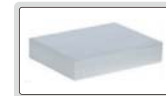
2168-12

back

DATA
OUTPUT



zero setting block



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

STEEL GAGE BLOCK SET

Blocks per set	Blocks included in set			Code		
	Size(mm)	Step(mm)	Quantity	Grade 0	Grade 1	Grade 2
87	1.001-1.009	0.001	9	4100-87	4100-187	4100-287
	1.01-1.49	0.01	49			
	0.5-9.5	0.5	19			
	10-100	10	10			
83	0.5	0.01	1	4100-83	4100-183	4100-283
	1		1			
	1.005		1			
	1.01-1.49		49			
	1.5-1.9		5			
	2-9.5		16			
47	10-100	10	10	4100-47	4100-147	4100-247
	1.005	0.01	1			
	1.01-1.19		19			
	1.2-1.9		8			
32	1-9		9	4100-32	4100-132	4100-232
	10-100		10			
	1.005		1			
	1.01-1.09		9			
	1.1-1.9		9			
	1-9		9			
32	10-30		3			
	50		1			



4100-87

- Made of alloy steel
- Meet ISO3650
- Supplied with inspection certificate

GAGE BLOCK ACCESSORY

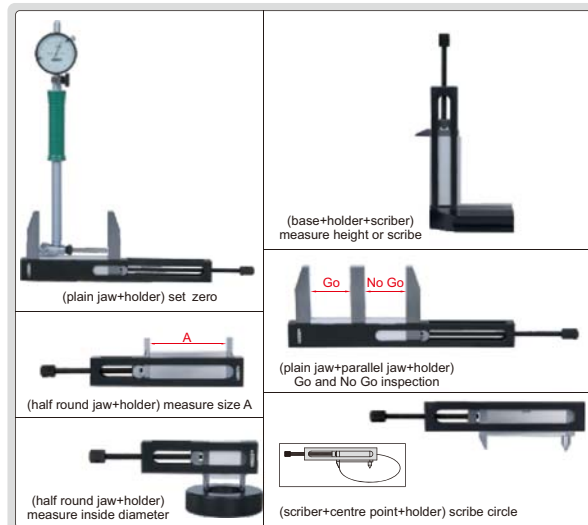


6881-S17

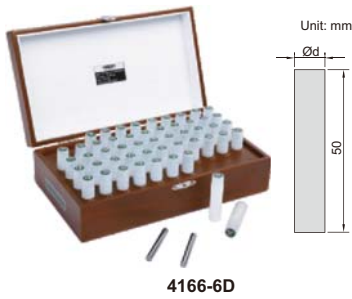
holder, 0-25mm (code 6881-A1)	1pc
holder, 0-50mm (code 6881-A2)	1pc
holder, 50-100mm (code 6881-A3)	1pc
holder, 100-200mm (code 6881-A4)	1pc
holder, 200-300mm (code 6881-A5)	1pc
base (code 6881-B)	1pc
plain jaw (code 6881-C)	1pair
parallel jaw (code 6881-D)	1pc
half round jaw, 2.5mm (code 6881-E1)	1pair
half round jaw, 5.0mm (code 6881-E2)	1pair
half round jaw, 6.0mm (code 6881-E3)	1pair
scriber (code 6881-F)	1pc
centre point (code 6881-G)	1pc

Code	Mark
6881-S17	17pcs (including the below items)

application



PIN GAGE SET



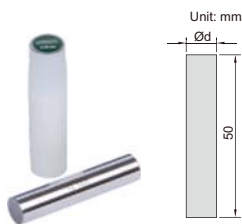
4166-6D

- Made of alloy steel
- Hardness HRC62-65
- Diameter accuracy: $\pm 1\mu\text{m}$

Code	Diameter Ød(mm)	Step	Pin gages 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

Code	Diameter Ød(mm)	Step	Pin gages per set	Code	Diameter Ød(mm)	Step	Pin gages per set
4166-0D	0.20, 0.21, 0.22, ... 0.50	0.01mm	31	4166-10D	10.00, 10.01, 10.02, ... 10.50	0.01mm	51
4166-1	0.50, 0.51, 0.52, ... 1.00	0.01mm	51	4166-11	10.50, 10.51, 10.52, ... 11.00	0.01mm	51
4166-1D	1.00, 1.01, 1.02, ... 1.50	0.01mm	51	4166-11D	11.00, 11.01, 11.02, ... 11.50	0.01mm	51
4166-2	1.50, 1.51, 1.52, ... 2.00	0.01mm	51	4166-12	11.50, 11.51, 11.52, ... 12.00	0.01mm	51
4166-2D	2.00, 2.01, 2.02, ... 2.50	0.01mm	51	4166-12D	12.00, 12.01, 12.02, ... 12.50	0.01mm	51
4166-3	2.50, 2.51, 2.52, ... 3.00	0.01mm	51	4166-13	12.50, 12.51, 12.52, ... 13.00	0.01mm	51
4166-3D	3.00, 3.01, 3.02, ... 3.50	0.01mm	51	4166-13D	13.00, 13.01, 13.02, ... 13.50	0.01mm	51
4166-4	3.50, 3.51, 3.52, ... 4.00	0.01mm	51	4166-14	13.50, 13.51, 13.52, ... 14.00	0.01mm	51
4166-4D	4.00, 4.01, 4.02, ... 4.50	0.01mm	51	4166-14D	14.00, 14.01, 14.02, ... 14.50	0.01mm	51
4166-5	4.50, 4.51, 4.52, ... 5.00	0.01mm	51	4166-15	14.50, 14.51, 14.52, ... 15.00	0.01mm	51
4166-5D	5.00, 5.01, 5.02, ... 5.50	0.01mm	51	4166-15D	15.00, 15.01, 15.02, ... 15.50	0.01mm	51
4166-6	5.50, 5.51, 5.52, ... 6.00	0.01mm	51	4166-16	15.50, 15.51, 15.52, ... 16.00	0.01mm	51
4166-6D	6.00, 6.01, 6.02, ... 6.50	0.01mm	51	4166-16D	16.00, 16.01, 16.02, ... 16.50	0.01mm	51
4166-7	6.50, 6.51, 6.52, ... 7.00	0.01mm	51	4166-17	16.50, 16.51, 16.52, ... 17.00	0.01mm	51
4166-7D	7.00, 7.01, 7.02, ... 7.50	0.01mm	51	4166-17D	17.00, 17.01, 17.02, ... 17.50	0.01mm	51
4166-8	7.50, 7.51, 7.52, ... 8.00	0.01mm	51	4166-18	17.50, 17.51, 17.52, ... 18.00	0.01mm	51
4166-8D	8.00, 8.01, 8.02, ... 8.50	0.01mm	51	4166-18D	18.00, 18.01, 18.02, ... 18.50	0.01mm	51
4166-9	8.50, 8.51, 8.52, ... 9.00	0.01mm	51	4166-19	18.50, 18.51, 18.52, ... 19.00	0.01mm	51
4166-9D	9.00, 9.01, 9.02, ... 9.50	0.01mm	51	4166-19D	19.00, 19.01, 19.02, ... 19.50	0.01mm	51
4166-10	9.50, 9.51, 9.52, ... 10.00	0.01mm	51	4166-20	19.50, 19.51, 19.52, ... 20.00	0.01mm	51

INDIVIDUAL PIN GAGE



4110-9D98

- Diameter range: $\varnothing 0.20 \sim \varnothing 20.00\text{mm}$
- Diameter accuracy: $\pm 1\mu\text{m}$
- Made of alloy steel
- Hardness HRC62-65
- Optional accessory: wooden box

Ordering examples:

Diameter	Code
0.21mm	4110-0D21
5.56mm	4110-5D56
16.00mm	4110-16D00
Note : "D" stands for "."	

Code
4110-xxxx

Dimensione Ød (mm)	Dimensione Ød (mm)
0.20, 0.21, 0.22, 0.23, ... 1.00	10.01, 10.02, 10.03, 10.04, ... 11.00
1.01, 1.02, 1.03, 1.04, ... 2.00	11.01, 11.02, 11.03, 11.04, ... 12.00
2.01, 2.02, 2.03, 2.04, ... 3.00	12.01, 12.02, 12.03, 12.04, ... 13.00
3.01, 3.02, 3.03, 3.04, ... 4.00	13.01, 13.02, 13.03, 13.04, ... 14.00
4.01, 4.02, 4.03, 4.04, ... 5.00	14.01, 14.02, 14.03, 14.04, ... 15.00
5.01, 5.02, 5.03, 5.04, ... 6.00	15.01, 15.02, 15.03, 15.04, ... 16.00
6.01, 6.02, 6.03, 6.04, ... 7.00	16.01, 16.02, 16.03, 16.04, ... 17.00
7.01, 7.02, 7.03, 7.04, ... 8.00	17.01, 17.02, 17.03, 17.04, ... 18.00
8.01, 8.02, 8.03, 8.04, ... 9.00	18.01, 18.02, 18.03, 18.04, ... 19.00
9.01, 9.02, 9.03, 9.04, ... 10.00	19.01, 19.02, 19.03, 19.04, ... 20.00

THREAD RING GAGE

BASIC
MODEL

- Go and No-Go gages are supplied separately
- Class 6g
- Standard ISO1502

Code Go	Code No Go	Size (mm)
4120-2*	4120-2N*	M2x0.4
4120-2D2*	4120-2D2N*	M2.2x0.45
4120-2D5*	4120-2D5N*	M2.5x0.45
4120-3*	4120-3N*	M3x0.5
4120-3D5*	4120-3D5N*	M3.5x0.6
4120-4*	4120-4N*	M4x0.7
4120-5*	4120-5N*	M5x0.8
4120-6*	4120-6N*	M6x1
4120-7*	4120-7N*	M7x1
4120-8*	4120-8N*	M8x1.25
4120-9*	4120-9N*	M9x1.25

Code Go	Code No Go	Size (mm)
4120-10*	4120-10N*	M10x1.5
4120-11*	4120-11N*	M11x1.5
4120-12*	4120-12N*	M12x1.75
4120-14*	4120-14N*	M14x2
4120-16*	4120-16N*	M16x2
4120-18*	4120-18N*	M18x2.5
4120-20*	4120-20N*	M20x2.5
4120-22*	4120-22N*	M22x2.5
4120-24*	4120-24N*	M24x3
4120-27*	4120-27N*	M27x3
4120-30*	4120-30N*	M30x3.5

Code Go	Code No Go	Size (mm)
4120-33*	4120-33N*	M33x3.5
4120-36*	4120-36N*	M36x4
4120-39*	4120-39N*	M39x4
4120-42*	4120-42N*	M42x4.5
4120-45*	4120-45N*	M45x4.5
4120-48*	4120-48N*	M48x5
4120-52*	4120-52N*	M52x5
4120-56*	4120-56N*	M56x5.5
4120-60*	4120-60N*	M60x5.5



4120-16



4120-16N

* Supplied with manufacturer inspection certificate

THREAD PLUG GAGE

- Supplied with Go and No-Go gages together
- Class 6H
- Standard ISO1502



4130-10

BASIC
MODEL

Code	Size (mm)	Code	Size (mm)	Code	Size (mm)	Code	Size (mm)	Code	Size (mm)
4130-2*	M2x0.4	4130-6*	M6x1	4130-14*	M14x2	4130-30*	M30x3.5	4130-52*	M52x5
4130-2D2*	M2.2x0.45	4130-7*	M7x1	4130-16*	M16x2	4130-33*	M33x3.5	4130-56*	M56x5.5
4130-2D5*	M2.5x0.45	4130-8*	M8x1.25	4130-18*	M18x2.5	4130-36*	M36x4	4130-60*	M60x5.5
4130-3*	M3x0.5	4130-9*	M9x1.25	4130-20*	M20x2.5	4130-39*	M39x4		
4130-3D5*	M3.5x0.6	4130-10*	M10x1.5	4130-22*	M22x2.5	4130-42*	M42x4.5		
4130-4*	M4x0.7	4130-11*	M11x1.5	4130-24*	M24x3	4130-45*	M45x4.5		
4130-5*	M5x0.8	4130-12*	M12x1.75	4130-27*	M27x3	4130-48*	M48x5		

*Supplied with manufacturer inspection certificate

PLAIN PLUG GAGE

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



4124-10

Code	Dimensione Ød	Code	Dimensione Ød	Code	Dimensione Ød	Code	Dimensione Ød
4124-6	6mm	4124-20	20mm	4124-34	34mm	4124-48	48mm
4124-7	7mm	4124-21	21mm	4124-35	35mm	4124-49	49mm
4124-8	8mm	4124-22	22mm	4124-36	36mm	4124-50	50mm
4124-9	9mm	4124-23	23mm	4124-37	37mm	4124-52	52mm
4124-10	10mm	4124-24	24mm	4124-38	38mm	4124-55	55mm
4124-11	11mm	4124-25	25mm	4124-39	39mm	4124-60	60mm
4124-12	12mm	4124-26	26mm	4124-40	40mm	4124-65	65mm
4124-13	13mm	4124-27	27mm	4124-41	41mm	4124-70	70mm
4124-14	14mm	4124-28	28mm	4124-42	42mm	4124-75	75mm
4124-15	15mm	4124-29	29mm	4124-43	43mm	4124-80	80mm
4124-16	16mm	4124-30	30mm	4124-44	44mm	4124-85	85mm
4124-17	17mm	4124-31	31mm	4124-45	45mm	4124-90	90mm
4124-18	18mm	4124-32	32mm	4124-46	46mm	4124-95	95mm
4124-19	19mm	4124-33	33mm	4124-47	47mm	4124-100	100mm

CUSTOM SIZES

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

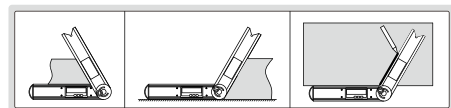
Size tolerance of H7

Diameter Ød (mm)	Size tolerance of Go gage (mm)	Size tolerance of No-Go gage (mm)
6	+0.0013 ~ +0.0027	+0.0106 ~ +0.012
>6, ≤10	+0.0015 ~ +0.0033	+0.0132 ~ +0.015
>10, ≤18	+0.0018 ~ +0.0038	+0.0160 ~ +0.018
>18, ≤30	+0.0023 ~ +0.0046	+0.0186 ~ +0.021
>30, ≤50	+0.0023 ~ +0.0055	+0.0220 ~ +0.025
>50, ≤80	+0.0028 ~ +0.0064	+0.0264 ~ +0.030
>80, ≤100	+0.0032 ~ +0.0075	+0.0308 ~ +0.035

DIGITAL PROTRACTOR



2171-250

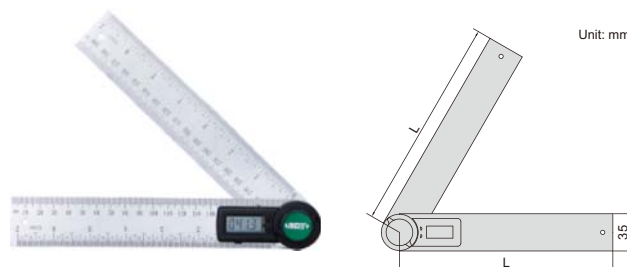


- Buttons: ON/OFF, HOLD (keep the reading), ZERO, ABS (absolute and incremental measurement)
- Fix the locking screw at 4 positions for different measuring ranges: 0°~225°; -225°~0°; -45°~180°; -180°~45°
- Remove the locking screw for 360° range
- With level vial
- Battery CR2032
- Automatic power off



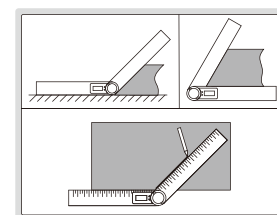
Code	Size (L)	Range	Resolution	Accuracy
2171-250	250mm	0 - 360°	0.05°	±0.15°

DIGITAL PROTRACTOR



2176-200

- Buttons: ON/OFF, ZERO
- With clamping screw to lock the blades
- Graduation of blade: 1mm and 1/32"
- CR2032 battery
- Automatic power off



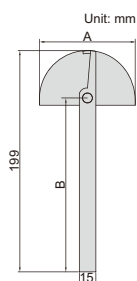
Code	Size (L)	Range	Resolution	Accuracy
2176-200	200mm	0 - 360°	0.1°	±0.3°
2176-300	300mm	0 - 360°	0.1°	±0.3°

PROTRACTOR



4780-85

- Made of stainless steel
- Satin chrome plated scale
- With clamping screw



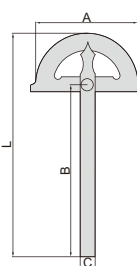
Code	Size (AxB)	Range	Graduation	Accuracy
4780-85	85x150mm	0 - 180°	1°	±0.3°

PROTRACTOR



4799-180

- Graduation: 1°
- Made of stainless steel
- Satin chrome plated scale
- With clamping screw



Code	Size (AxB)	Range	Accuracy	L (mm)	C (mm)
4799-180	80x120mm	0 - 180°	±0.3°	168	11
4799-1120	120x150mm	0 - 180°	±0.3°	220	14
4799-1150	150x200mm	0 - 180°	±0.3°	285	16
4799-1200	200x300mm	0 - 180°	±0.3°	413	20

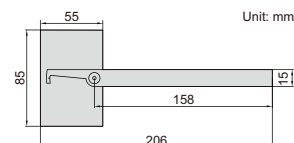
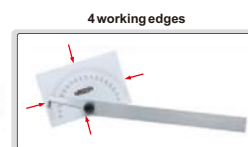
Sizes available up to 300x500mm

PROTRACTOR



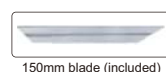
4781-85

- Graduation: 1°
- Accuracy: ±0.3°
- Made of stainless steel
- Satin chrome plated scale
- With clamping screw



Code	Size	Range
4781-85	85x158mm	0 - 180°

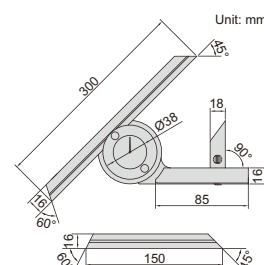
DIAL PROTRACTOR



150mm blade (included)



2373-360



- Made of stainless steel
- Optional accessory: clamp (code 2372-CLAMP), suitable for height gages 1151 and 1351



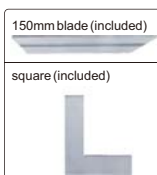
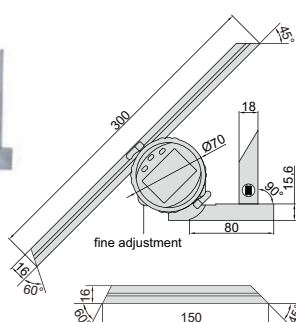
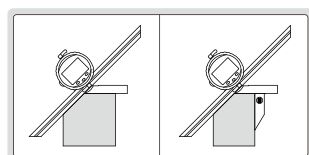
Code	Range	Graduation	Accuracy
2373-360	0 - 360°	5'	±5'

DIGITAL PROTRACTOR

DATA OUTPUT



2172-360A



- Display in degree (for example 32.655°) and degree/minute/second (for example 32°39'30")
- SET button: preset the reading; change measuring direction
- MODE button: choose 0-90°, 0-180° or 0-360° display
- ZERO/ON/OFF button: zero and power on/off
- Battery CR2032; automatic power off
- Data output
- Supplied with square to set 90°
- Made of stainless steel
- Optional accessory: data output system

Code	Range	Resolution	Accuracy
2172-360A	0 - 360°	10"/0.005°	±5'

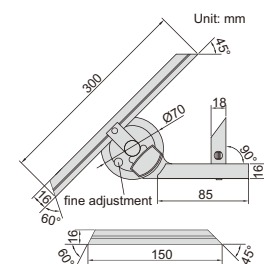
UNIVERSAL PROTRACTOR



150mm blade (included)



2372-360

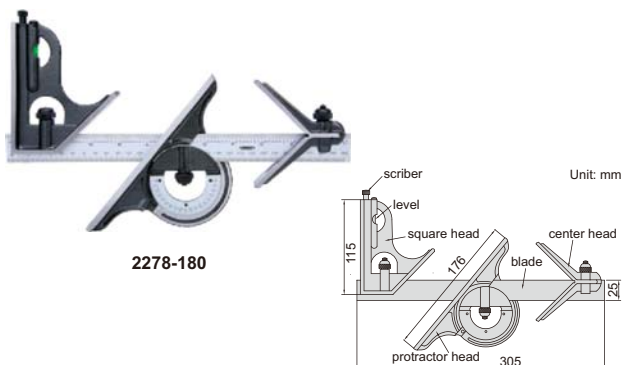


- Parallax-free reading
- Made of stainless steel
- Optional accessory: clamp (code 2372-CLAMP), suitable for height gages 1151 and 1351

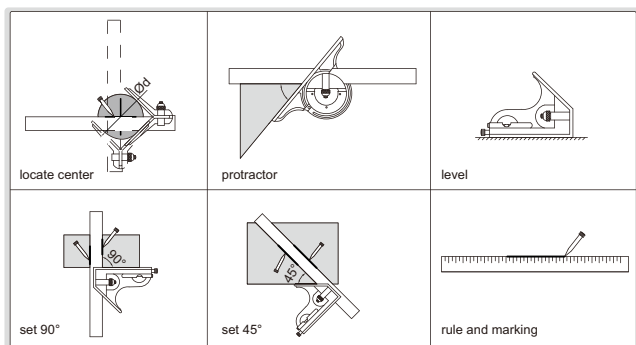


Code	Range	Graduation	Accuracy
2372-360	0 - 360°	5'	±5'

COMBINATION SQUARE SET



2278-180

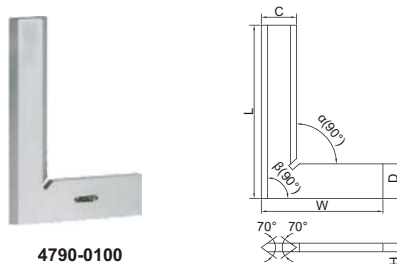


- Center head:
To locate center of cylinder with diameter ($\varnothing d$): 30 - 100mm
Accuracy: $\pm 0.15\text{mm}$
- Protractor head:
To set the blade at desired angle to an edge of a workpiece, and can be used to measure angles
Range: 0-180°
Accuracy: $\pm 7\text{min.}$
- Square head:
To set the blade at 90° or 45° to an edge of a workpiece
Accuracy: $\pm 8\text{min}$ for 90° square, $\pm 10\text{min}$ for 45° square
- Blade:
Range: 300mm/12",
Graduation: 0.5mm and 1/32" on front face, 1mm and 1/64" on back face
- Optional accessory: rigid rule (code 7113)

Code
2278-180

90° BEVELED EDGE SQUARE

- DIN875 grade 00
- Satin chrome plating
- Beveled edges for inside and outside measurement
- Made of hardened stainless steel



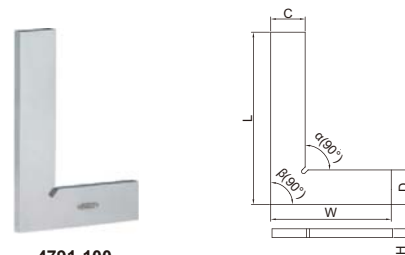
4790-0100

Code	Size (LxW)	Squareness		C	D	H
		Inside (α)	Outside (β)			
4790-050	50x40mm	2.4 μm	2.5 μm	13	13	4
4790-075	75x50mm	2.6 μm	2.8 μm	15	15	4
4790-0100	100x70mm	2.8 μm	3.0 μm	20	20	5
4790-0150	150x100mm	3.2 μm	3.5 μm	30	30	6
4790-0200	200x130mm	3.7 μm	4.0 μm	34	34	7

Sizes available up to 300x200mm

90° FLAT EDGE SQUARE

- DIN875 grade 0
- Made of hardened stainless steel



4791-100

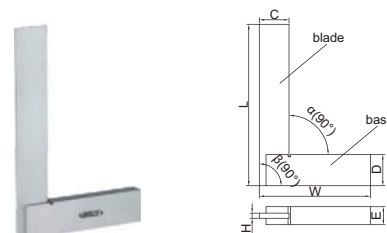
Code	Size (LxW)	Squareness		(mm)		
		Inside (α)	Outside (β)	C	D	H
4791-100	100x70mm	7 μm	7 μm	20	20	5
4791-150	150x100mm	7 μm	8 μm	30	30	6

Sizes available up to 300x200mm

MACHINIST SQUARE WITH WIDE BASE

LOW ACCURACY

- Economic model
- DIN875 grade 2
- Made of carbon steel, no anti-rust treatment, not hardened



4707-100

Code	Size (LxW)	Squareness		(mm)			
		Inside (α)	Outside (β)	C	D	H	E
4707-100	100x70mm	28 μm	30 μm	19	19	3	12
4707-150	150x100mm	33 μm	35 μm	25	25	3	16
4707-200	200x130mm	37 μm	40 μm	30	32	4	16
4707-300	300x200mm	47 μm	50 μm	32	32	4	19

Sizes available up to 1000x550mm

STRAIGHT EDGE



4700-150

- DIN874
- Satin chrome plating
- Beveled edge
- Made of hardened stainless steel

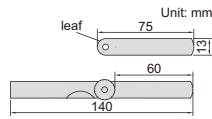
Code	Size (L)	Straightness	(mm)	
			W	H
4700-100	100mm	2.4 μm	5	25
4700-150	150mm	2.6 μm	6	30
4700-200	200mm	2.8 μm	6	30
4700-300	300mm	3.2 μm	8	40

Sizes available up to 500mm

FEELER GAGE



4601-25



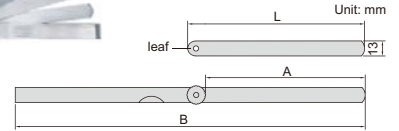
- Made of hardened alloy steel
- Meet DIN2275
- Accuracy: $\pm(3+T/80)$ μm , 'T' is the thickness of leaves in μm

Code	Range	Thickness of leaves included (mm)	Quantity of leaves
4601-25	0.04-1.00mm	0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00	25

LONG FEELER GAGE



4605-20



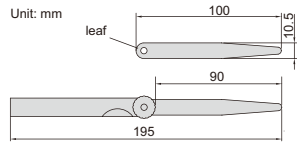
- Made of hardened alloy steel
- Meet DIN2275
- Accuracy: $\pm(3+T/80)$ μm , 'T' is the thickness of leaves in μm

Code	Range	Thickness of leaves included (mm)	Quantity of leaves	(mm)		
				L	A	B
4605-20	0.05-1.00mm	0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50,	20	150	135	295
4605-201	0.05-1.00mm	0.55, 0.60, 0.65, 0.70, 0.75,	20	200	185	395
4605-202	0.05-1.00mm	0.80, 0.85, 0.90, 0.95, 1.00	20	300	285	590

FEELER GAGE



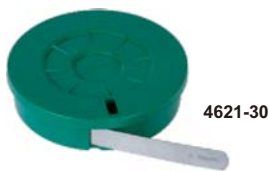
4602-20



- Made of hardened alloy steel
- Meet DIN2275
- Accuracy: $\pm(3+T/80)$ μm , 'T' is the thickness of leaves in μm

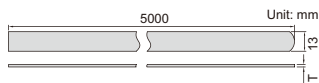
Code	Range	Thickness of leaves included (mm)	Quantity of leaves
4602-17	0.02-1.00mm	0.02, 0.03, 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.15, 0.20, 0.25, 0.30, 0.40, 0.50, 0.75, 1.00	17
4602-20	0.05-1.00mm	0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00	20
4602-32	0.03-1.00mm	0.03, 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.13, 0.15, 0.18, 0.20, 0.23, 0.25, 0.28, 0.30, 0.33, 0.35, 0.38, 0.40, 0.45, 0.50, 0.55, 0.60, 0.63, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 1.00	32

FEELER GAGE TAPE



4621-30

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



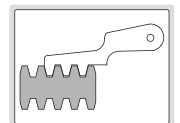
Code	Thickness (T)	Accuracy	Code	Thickness (T)	Accuracy	Code	Thickness (T)	Accuracy
4621-02	0.02mm	$\pm 4\mu\text{m}$	4621-15	0.15mm	$\pm 6\mu\text{m}$	4621-60	0.60mm	$\pm 14\mu\text{m}$
4621-03	0.03mm	$\pm 4\mu\text{m}$	4621-18	0.18mm	$\pm 7\mu\text{m}$	4621-65	0.65mm	$\pm 14\mu\text{m}$
4621-04	0.04mm	$\pm 4\mu\text{m}$	4621-20	0.20mm	$\pm 8\mu\text{m}$	4621-70	0.70mm	$\pm 17\mu\text{m}$
4621-05	0.05mm	$\pm 4\mu\text{m}$	4621-25	0.25mm	$\pm 9\mu\text{m}$	4621-75	0.75mm	$\pm 17\mu\text{m}$
4621-06	0.06mm	$\pm 4\mu\text{m}$	4621-30	0.30mm	$\pm 9\mu\text{m}$	4621-80	0.80mm	$\pm 19\mu\text{m}$
4621-07	0.07mm	$\pm 5\mu\text{m}$	4621-35	0.35mm	$\pm 11\mu\text{m}$	4621-85	0.85mm	$\pm 19\mu\text{m}$
4621-08	0.08mm	$\pm 5\mu\text{m}$	4621-40	0.40mm	$\pm 12\mu\text{m}$	4621-90	0.90mm	$\pm 22\mu\text{m}$
4621-09	0.09mm	$\pm 5\mu\text{m}$	4621-45	0.45mm	$\pm 12\mu\text{m}$	4621-95	0.95mm	$\pm 22\mu\text{m}$
4621-10	0.10mm	$\pm 5\mu\text{m}$	4621-50	0.50mm	$\pm 14\mu\text{m}$	4621-100	1.00mm	$\pm 24\mu\text{m}$
4621-12	0.12mm	$\pm 5\mu\text{m}$	4621-55	0.55mm	$\pm 14\mu\text{m}$			

PITCH GAGE



4824-12

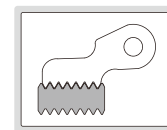
- Check the pitch of screw thread
- Accuracy: $\pm 0.07\text{mm}$



Code	Range	Thread type	Pitch of leaves included	Quantity of leaves
4824-12	2-20mm	Tr 30°	2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 16, 20mm	12

PITCH GAGE

- Check the pitch of screw thread
- Accuracy: $\pm 0.07\text{mm}$



4820-124

Metric 60° screw

Code	Range	Pitch of leaves included	Quantity of leaves
4820-124	0.25-7mm	0.25, 0.3, 0.35, 0.4, 0.5, 0.7, 0.75, 0.8, 0.9, 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7mm	24

Unified 60° screw

Code	Range	Pitch of leaves included	Quantity of leaves
4820-230	4-42TPI	4, 4-1/2, 5, 5-1/2, 6, 7, 8, 9, 10, 11, 11-1/2, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42TPI	30

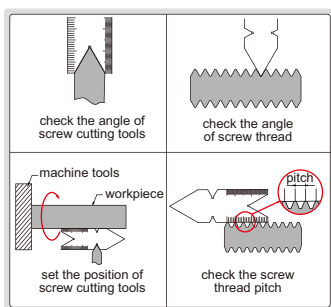
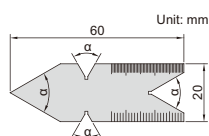
Metric 60° and Whitworth 55° screw

Code	Range	Pitch of leaves included	Quantity of leaves
4820-452	0.25-6mm 4-62TPI	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 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

CENTER GAGE



4810-601



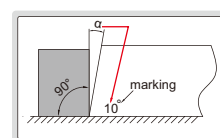
- To check and set screw cutting tools, and check the angle and pitch of screw thread
- Angle accuracy: $\pm 30\text{min}$.

Code	Thread type	Angle (α)	Graduation
4810-601	METRIC 60°	60°	0.5mm and 1mm
4810-55	WHITWORTH 55°	55°	14ths and 20ths on front side, 24ths and 32ths on back side

ANGLE GAGE



4806-20

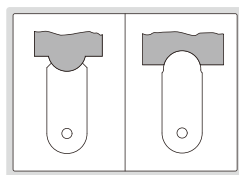


Code	Range	Angle of leaves included	Quantity of leaves	Accuracy
4806-20	1° - 45°	1°, 2°, 3°, 4°, 5°, 6°, 7°, 8°, 9°, 10°, 12°, 14°, 16°, 18°, 20°, 25°, 30°, 35°, 40°, 45°	20	$\pm 30'$

RADIUS GAGE

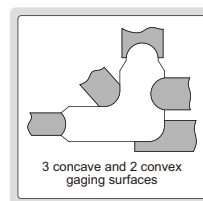


4801-17



Code	Range	Radius of leaves included (mm)	Quantity of leaves (internal+external)	Accuracy
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	$\pm 0.03\text{mm}$
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	$\pm 0.035\text{mm}$
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	$\pm 0.042\text{mm}$

RADIUS GAGE SET



- Each piece has 3 concave and 2 convex gaging surfaces
- Supplied with handle



4804-26

Code	Range	Radius of leaves included (mm)	Quantity of leaves	Accuracy
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	$\pm 0.05\text{mm}$

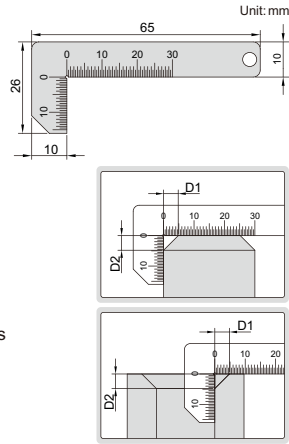
CHAMFER GAGE



4844-1

- To measure internal and external chamfers
- Made of stainless steel

Code	Graduation	Accuracy
4844-1	0.5mm	±0.25mm



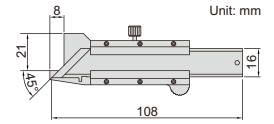
CHAMFER GAGE



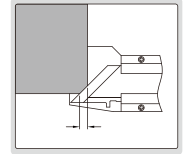
1267-6

- Measure 45° chamfer dimension
- Graduation 0.02mm
- Made of stainless steel
- Satin chrome plated reading surface

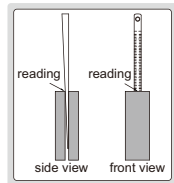
Code	Range	Accuracy
1267-6	0-6mm	±0.06mm



measure 45° chamfer dimension



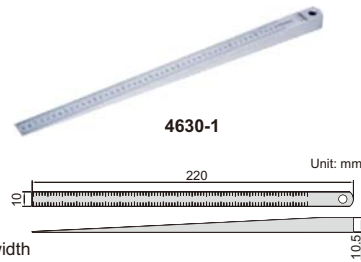
TAPER GAGE



4630-1

- For quick measurement of gap width
- Stain chrome plated reading surface
- Made of stainless steel

Code	Range	Graduation	Accuracy
4630-1	0.5-10mm	0.05mm	±0.07mm

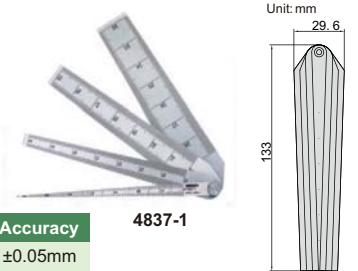


TAPER GAGE SET

- Include 4pcs (1-8mm, 8-15mm, 15-22mm, 22-29mm)
- Measure opening, slot width, hole size, etc.
- Made of stainless steel

Code	Range	Graduation	Accuracy
4837-1	1-29mm	0.05mm	±0.05mm

4837-1



TAPER GAGE



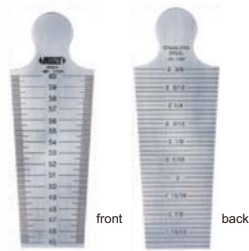
4833-1



4833-2



4833-3

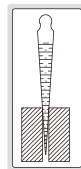
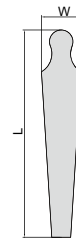


4833-4

- Measure opening, slot width, hole size, etc.
- Made of stainless steel

(mm)

Code	Range	Graduation	Accuracy	L	W
4833-1	0.8-15mm (1/32"-5/8")	0.1mm (1/64")	±0.1mm(.004")	146	17
4833-2	15-30mm (5/8"-1-3/16")	0.1mm (1/64")	±0.1mm(.004")	159	30.4
4833-3	30-45mm (1-3/16"-1-3/4")	0.1mm (1/64")	±0.1mm(.004")	166	45.4
4833-4	45-60mm (1-13/16"-2-3/8")	0.1mm (1/64")	±0.1mm(.004")	170	60.5



WELDING GAGE



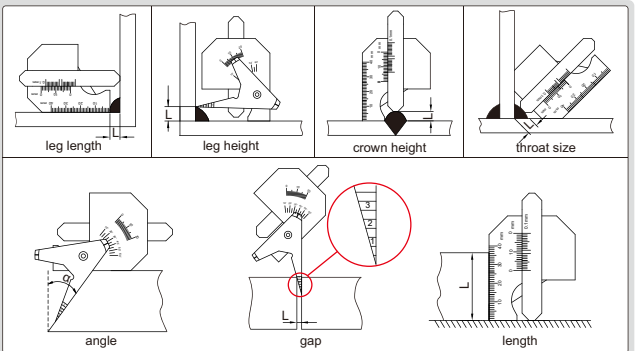
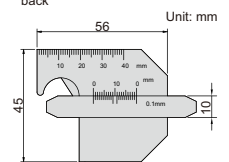
front



back

6832-1

- Made of stainless steel
- Stain chrome plated surface



Code	Measurement	Range	Graduation	Accuracy
6832-1	leg length	0-10mm	0.1mm	±0.1mm
	leg height	0-20mm	1mm	±0.5mm
	crown height	0-10mm	0.1mm	±0.1mm
	throat size	0-10mm	0.1mm	±0.1mm
	angle	0°- 60°	5°	±1°
	gap	1-3.5mm	0.5mm	±0.5mm
	length	0-40mm	1mm	±0.5mm

WELDING GAGE

- Adjustable scale to compensate pointer wear
- Made of stainless steel

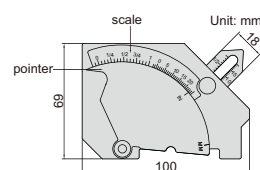


front

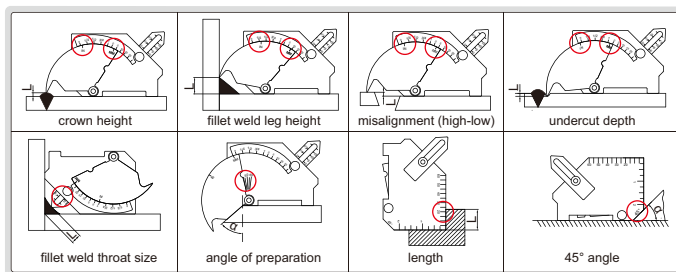
4835-1



back



Code	Measurement	Range	Graduation	Accuracy
4835-1	crown height	0-25mm (0-1")	1mm (1/16")	±0.5mm
	fillet weld leg height	0-25mm (0-1")	1mm (1/16")	±0.5mm
	misalignment (high-low)	0-25mm (0-1")	1mm (1/16")	±0.5mm
	undercut depth	0-2mm (0-1/8")	1mm (1/16")	±0.5mm
	fillet weld throat size	0-20mm (0-3/4")	1mm (1/16")	±0.5mm
	angle of preparation	0°- 60°	5°	±1°
	length	0-60mm (0-2")	1mm (1/16")	±0.5mm
	45° angle	—	—	±1°



PIPE WELDING GAGE

- Made of stainless steel

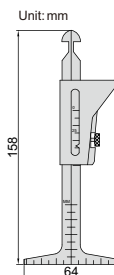


front

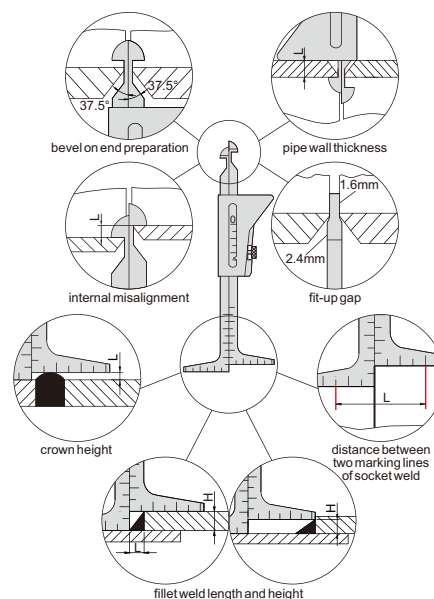
4839-1



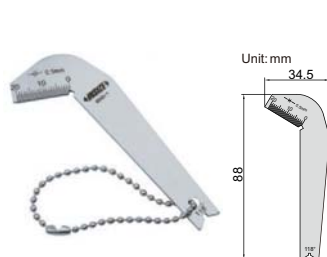
back



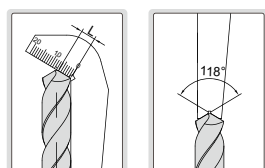
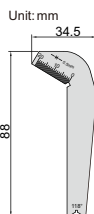
Code	Measurement	Range	Graduation	Accuracy
4839-1	bevel on end preparation	37.5°	—	±1°
	pipe wall thickness	0 - 45mm (0 - 1-3/4")	1mm (1/16")	±0.5mm
	internal misalignment	0 - 35mm (0 - 1-3/8")	1mm (1/32")	±0.5mm
	fit-up gap	1.6mm, 2.4mm	—	±0.1mm
	crown height	0 - 35mm (0 - 1-3/8")	1mm (1/32")	±0.5mm
	distance between two marking lines of socket weld	0 - 60mm (0 - 2-3/8")	1mm (1/16")	±0.5mm
	fillet weld length	0 - 30mm (0 - 1-1/4")	1mm (1/16")	±0.5mm
	fillet weld height	0 - 35mm (0 - 1-3/8")	1mm (1/32")	±0.5mm



DRILL POINT GAGE



4843-1



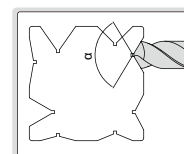
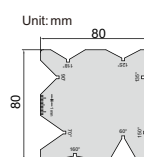
- For twist drills with 118° angle, to check if the center of tip is concentric with the drill body
- Made of stainless steel

Code	Accuracy	
	Angle	Length
4843-1	±0.5°	±0.05mm

DRILL ANGLE GAGE



4842-1



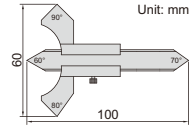
- Check drills with angle 60°, 70°, 90°, 118°, 125°, 135°, 150° or 160°
- Made of stainless steel

Code	Accuracy
4842-1	±0.5°

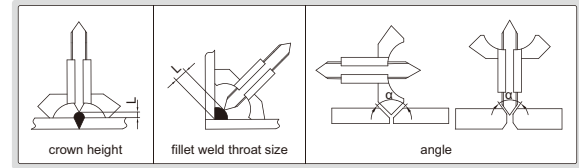
WELDING GAGE



4830



- Made of stainless steel
- Stain chrome plated reading surface

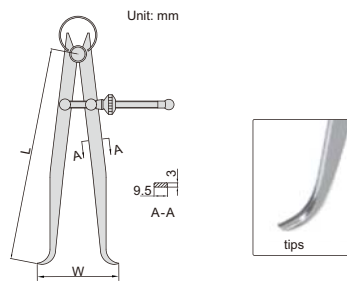


Code	Measurement	Range	Graduation	Accuracy
4830	crown height	0-8mm	0.1mm	±0.1mm
	fillet weld throat size	0-20mm	0.1mm	±0.3mm
	angle	60°, 70°, 80°, 90°	—	±1°

INSIDE SPRING CALIPER

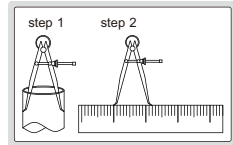


7261-150



- Made of carbon steel

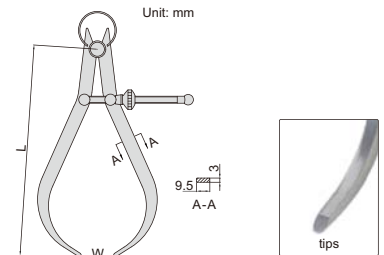
Code	Size(L)	Range(W)
7261-150	150mm	20 - 170mm
7261-200	200mm	22 - 220mm
7261-250	245mm	30 - 270mm
7261-300	300mm	30 - 320mm



OUTSIDE SPRING CALIPER

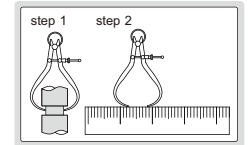


7262-150



- Made of carbon steel

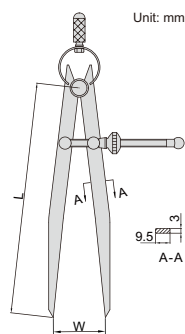
Code	Size(L)	Range(W)
7262-150	155mm	0 - 140mm
7262-200	210mm	0 - 210mm
7262-250	265mm	0 - 270mm
7262-300	310mm	0 - 320mm



SPRING DIVIDER

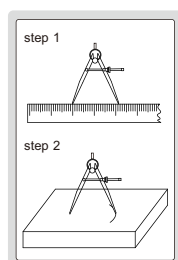


7260-150



- Made of carbon steel
- Hardened points

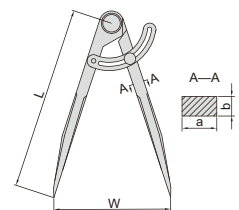
Code	Size(L)	Range(W)
7260-150	150mm	0 - 150mm
7260-200	200mm	0 - 210mm
7260-250	245mm	0 - 260mm
7260-300	300mm	0 - 320mm



DIVIDER

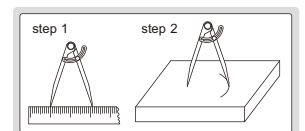


7247-150



- Made of carbon steel
- Hardened points

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



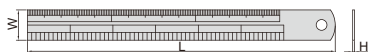
STEEL RULE

BASIC MODEL



7110-300

- Graduation: 0.5mm, 1mm, 1/64", 1/32", 1/16"
- Semi-flexible rules
- Made of stainless steel
- Non-glare surface



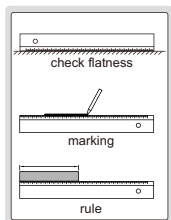
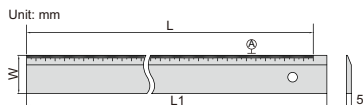
(mm)						
Code	Range	Accuracy	L	W	H	Remark
7110-150	150mm/6"	±0.08mm	170	18	1.0	graduation on front and back
7110-200	200mm/8"	±0.08mm	220	18	1.0	graduation on front and back
7110-300	300mm/12"	±0.11mm	330	25	1.0	graduation on front and back
7110-500	500mm/20"	±0.14mm	530	30	1.2	graduation on front and back
7110-600	600mm/24"	±0.15mm	630	30	1.2	graduation on front and back
7110-1000	1000mm/40"	±0.20mm	1040	32	1.5	graduation on front and back
7110-1500	1500mm/60"	±0.35mm	1550	38	1.8	graduation on front

Sizes available up to 2000mm

STRAIGHT EDGE



7111-300A



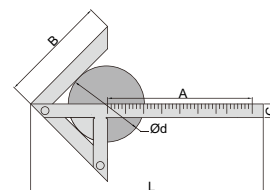
- Check flatness and straightness, as well as for marking
- Graduation on the beveled edge
- Made of hardened tool steel
- Chrome plated

Code	Range (L)	Straightness of A	L1	W
7111-300A	300mm	0.02mm	320mm	40mm
7111-1000A	1000mm	0.04mm	1020mm	50mm

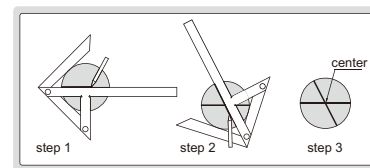
CENTER MARKING GAGE



7205-100



- Marking the center of round plates and shafts
- Made of stainless steel
- Satin chrome plated

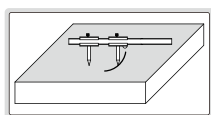
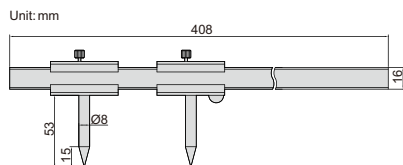


(mm)					
Code	Size (AxB)	Diameter of shafts (Ød)	Accuracy	C	L
7205-100	100X70mm	4-90mm	±0.15mm	12	153
7205-150	150x130mm	4-190mm	±0.15mm	15	245
7205-200	200x150mm	6-220mm	±0.15mm	15	310

SCRIBER CALIPER



7203-300A



- Made of stainless steel
- Satin chrome plated reading surface
- Hardened scriber tips

Code	Range	Graduation	Accuracy
7203-300A	51-300mm	0.1mm	±0.1mm

SCRIBER



7230



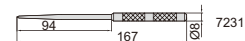
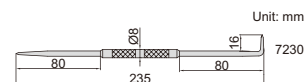
7231



7232

- Nickel plated

Code	Tip
7230	hardened tips
7231	hardened tip
7232	carbide tip



GRANITE SURFACE PLATE



6900-132

- Made of granite, free from deterioration or dimensional change over time, minimal changes in dimension due to temperature changes
- Meet DIN876, grade 00 is for inspection room or lab, grade 0 is for workshop
- Optional accessory: stand for granite surface plate (code 6902), jack for granite surface plate (code 6903)



Grade 0

Code	Size (LxWxH)	Flatness	Weight	Load weight
6900-042*	400x250x60mm	5.9µm	18kg	100kg
6900-044*	400x400x60mm	6.3µm	29kg	120kg
6900-064*	630x400x80mm	7.0µm	60kg	130kg
6900-085*	800x500x100mm	7.8µm	120kg	200kg

*Supplied with manufacturer inspection certificate

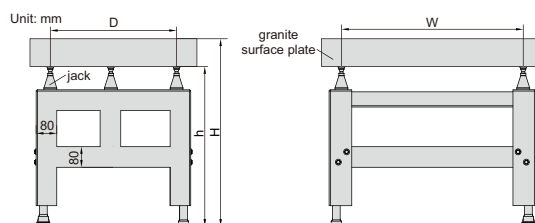
STAND FOR GRANITE SURFACE PLATE

CUSTOM-MADE
H=1M(INCLUDING PLATE) IS AVAILABLE



6902-64A

- For medium size granite surface plates
- Adjusting range of jacks: 25mm
- One foot on the bottom is adjustable



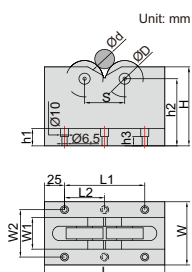
Code	For granite surface plate	W	D	H (with granite surface plates)	h (without granite surface plates)
6902-64A	630x400x80mm(code 6900-064 and 6900-164)	352	224	755-780	675-700
6902-85A	800x500x100mm(code 6900-085 and 6900-185)	448	280	755-780	655-680

ROLLER BEARING V-BLOCK SET

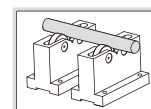


6888-1

- Two V-blocks per set
- Workpieces don't get damaged due to bearings
- Suitable for heavy workpieces
- Parallelism of bearings to bottom (when two V-blocks are closed): 12µm



Code	W1	W2	h1	h2	h3	L1	L2	S
6888-1	22	44	20	85	12	100	—	60
6888-2	40	60	22	85	12	100	—	50
6888-3	60	80	30	124	20	180	90	120

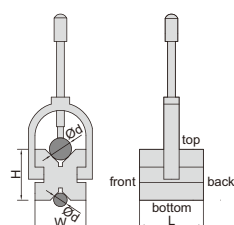


Code	Size (LxWxH)	Diameter of bearings(ØD)	Range of shafts (Ød)	Load capacity
6888-1	150x60x100mm	42mm	25 - 70mm	500kg
6888-2	150x80x100mm	47mm	5 - 55mm	1000kg
6888-3	230x100x150mm	72mm	70 - 200mm	1000kg

V-BLOCK SET

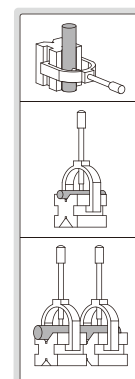


6896-11



- Hold cylindrical workpieces for inspection and machining
- Two V-blocks per set
- Hardened to HRC60±2
- V groove on the top for large shafts
- V groove on the bottom for small shafts
- Parallelism of V grooves to top and bottom sides: 5µm
- Squareness of V grooves to front and back sides: 5µm
- Height difference of a matched pair: 5µm

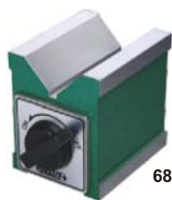
Code	Size (LxWxH)	Range of shafts (Ød)
6896-11	50x40x40mm	5-30mm
6896-12	80x63x63mm	7-63mm
6896-13	100x80x80mm	7-80mm



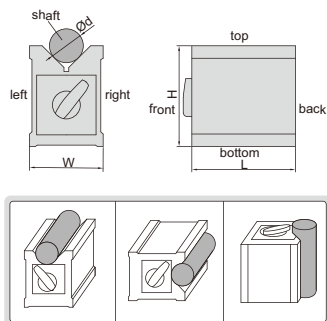
MAGNETIC V-BLOCK

NOT HARDENED

NOT SUITABLE FOR STEEL
OR IRON SURFACE



6890-702



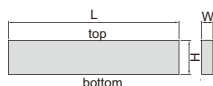
- Hold cylindrical workpieces for inspection and machining
- Supplied in single piece
- Not hardened
- Not suitable for steel or iron surface
- Parallelism of V groove to top, bottom, left and right sides: 10µm
- Squareness of V groove to back side: 10µm

Code	Size (LxWxH)	Range of shafts (Ød)	Magnetic force
6890-702	70x60x73mm	6-44mm	56kgf

PARALLEL SET



6533-144



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

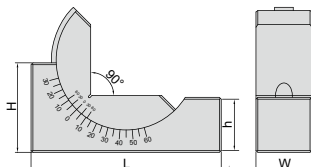
(mm)

Code	Parallels per set	Length (L)	Thickness (W)	Height (H)
6533-144	14 pairs	150	10	14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 35, 40, 45, 50

ADJUSTABLE ANGLE BLOCK



6535-30



- Made of hardened tool steel
- With locking screw

Code	Size (LxWxH)	h	Adjustable angle	Graduation of angle	Accuracy of angle
6535-25	75x25x36mm	25mm	30° ~ 0° ~ 60°	10'	10'
6535-30	102x30x49mm	30mm	30° ~ 0° ~ 60°	10'	10'

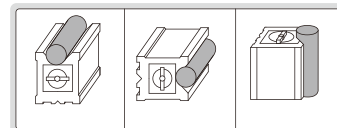
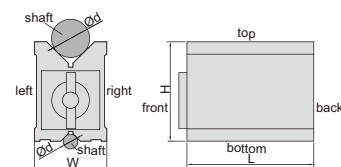
MAGNETIC V-BLOCK

NOT HARDENED

NOT SUITABLE FOR STEEL
OR IRON SURFACE



6801-1202



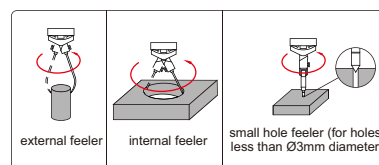
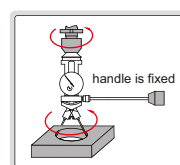
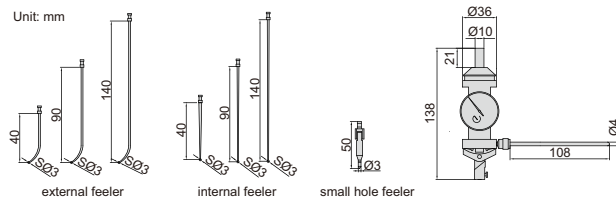
- Hold cylindrical workpieces for inspection and machining
- Supplied in single piece
- Not hardened
- V groove on the top for large shafts
- V groove on the bottom for small shafts
- Not suitable for steel or iron surface
- Parallelism of both V grooves to top, bottom, left, right side: 10µm
- Squareness of both V grooves to back side: 10µm

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

CENTERING INDICATOR



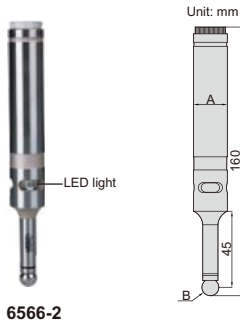
2385-3



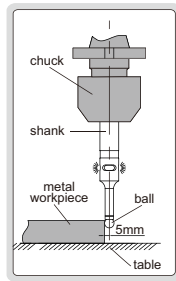
- Provides quick and accurate centering in boring and milling set-up

Code
2385-3

ELECTRONIC EDGE FINDER



6566-2



- The shank is electrically conducted to the metal workpiece through the chuck and table, the LED lights up 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	23AE, 12Vx1pc

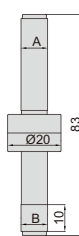
EDGE FINDER



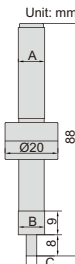
6562-3



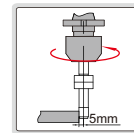
6562-4



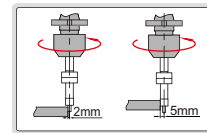
6562-3



6562-4



6562-3



6562-4

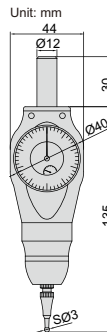
- Hardened shank and contact point

Code	Shank (A)	Contact point (B)	Contact point (C)	Accuracy
6562-3	Ø10mm	Ø10mm	—	5µm
6562-4	Ø10mm	Ø10mm	Ø4mm	5µm

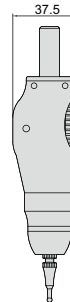
3D TESTER



2842-3D



2842-N1



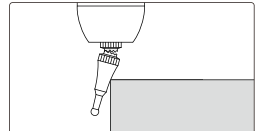
2842-N2

COMPACT DESIGN

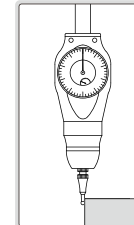
ANTI MAGNETIC CARBIDE CONTACT POINT



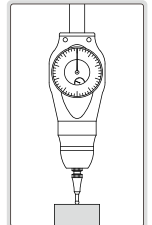
If probe tip is pressed too much, the probe breaks at the breaking point, in order to prevent damage of main body



radial setting



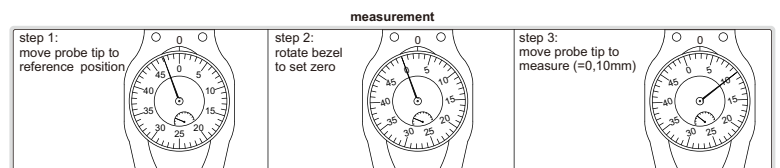
axial setting



Code	Range	Graduation
2842-3D	1.5mm	0.01mm

■ Optional accessory (mm)

Code	Name	L	D
2842-N1	standard probe	27	SØ3
2842-N2	long probe	62	SØ6



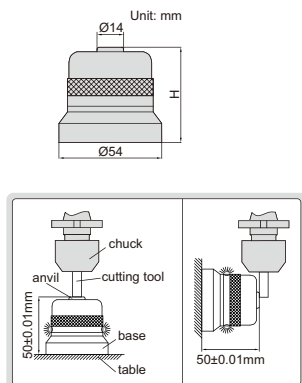
ELECTRONIC ZERO SETTER

HIGH
FORCE



6550-50A

- The base is electrically conducted to the cutting tools through the table and chuck, the LED lights up when the cutting tool touches the anvil
- Magnetic base
- Battery LR44 or SR44



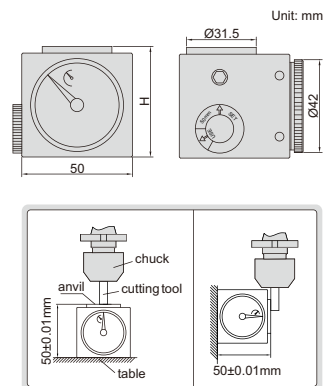
Code	Height (H)	Accuracy	Force
6550-50A	50mm	±10µm	27N (at 49mm)

ZERO SETTER



2397-502A

- Magnetic base

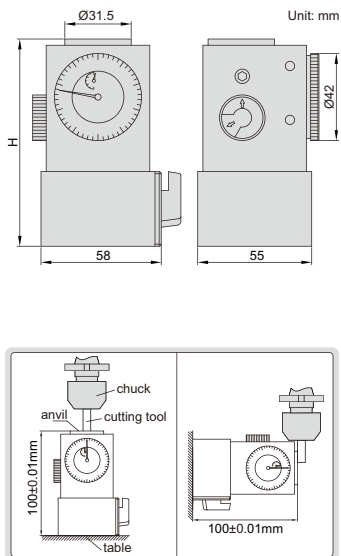


Code	Height (H)	Accuracy	Force
2397-502A	50mm	±10µm	9N (at 100mm)

ZERO SETTER



2394-100A



- Magnetic base with on-off switch

Code	Height (H)	Accuracy	Force
2394-100A	100mm	±10µm	9N (at 50mm)

4-PIECE MEASURING TOOL SET

- Includes:
 - 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) 90° beveled edge square 100x70mm, grade 0 (code 4790-1000)
 - 4) Steel rule, 150mm/6" (code 7110-150)



5042

Code
5042

2-PIECE MEASURING TOOL SET

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



5024

Code
5024

6-PIECE MEASURING TOOL SET

- Includes:
 - 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) 90° beveled edge square, 100x70mm grade 00 (code 4790-0100)
 - 4) Straight edge, 100mm (code 4700-100)
 - 5) Spring divider, 150mm (code 7260-150)
 - 6) Steel rule, 200mm/8" (code 7110-200)



5062

Code
5062

13-PIECE MEASURING TOOL SET

Includes:

- 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**)
- 5) Protractor, range 0-180°, graduation 1° (code **4799-180**)
- 6) Pitch gage, range 0.25-7mm, 24pcs, metric 60° thread (code **4820-124**)
- 7) Radius gage, range 1-7mm (code **4801-17**)
- 8) Feeler gage, range 0.05-1.00mm, 20pcs (code **4602-20**)
- 9) 90° beveled edge square, 100x70mm, grade 0 (code **4790-1000**)
- 10) Scriber (code **7230**)
- 11) Steel rule, 150mm/6" (code **7110-150**)
- 12) Depth base attachment (code **6140**)
- 13) Zero setting bar



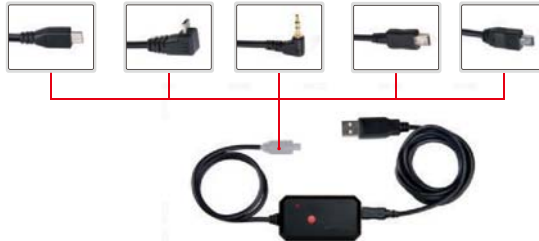
5013

Code

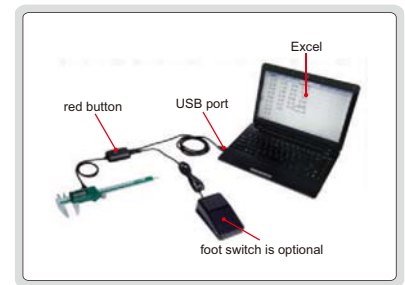
5013

DATA OUTPUT CABLE

7302-SPC5A 7302-SPC5B 7302-SPC2A 7302-SPC3A 7302-SPC4



7304-2



- Connect to USB port of computer
- Without software, data can be input as keyboard signal to Excel, Word, etc.
- Press the red button or foot switch (optional) to input data

Code	Description	Remark
7302-SPC5A	cable (length 2.5m)	for digital calipers and digital depth gages
7302-SPC5B	cable (length 2.5m)	for digital calipers and digital depth gages
7302-SPC2A	cable (length 2.5m)	for digital micrometers
7302-SPC3A	cable (length 2.5m)	for digital indicators digital protractor
7302-SPC4	cable (length 2.5m)	for digital calipers 1103 series
7304-2	foot switch with cable (length 1.5m)	optional

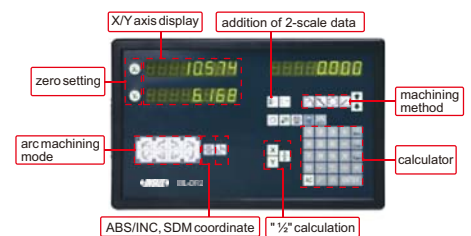
COUNTER

SPECIFICATION

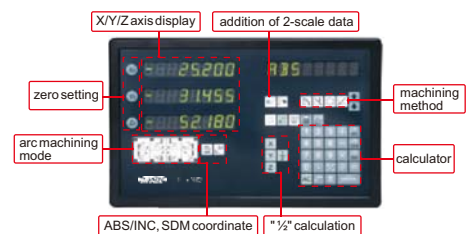
Code	ISL-DR2	ISL-DR3
Application	two-axis	three-axis
Scale input ports	2	3
Resolution	0.05μm, 0.1μm, 0.2μm, 0.5μm, 1μm, 2μm, 5μm, 10μm, 20μm, 50μm	
Functions	addition of 2-scale data, linearity error compensation, smoothing, RS232C interface unit, BCD code out, zero setting, preset, resolution setting, counting direction setting, inch/mm conversion, ABS/INC conversion, expansion/contraction coefficient setting, "1/2" calculation, detecting RI, bolt-hole circle machining, ramp circle machining	
Dimension	295x185x45mm	
Weight	1.45kg	

STANDARD DELIVERY

Main unit	1pc
Mounting bracket	1pc
Ground cable	1pc
RS232C cable	1pc
Software CD for RS232C	1pc



ISL-DR2



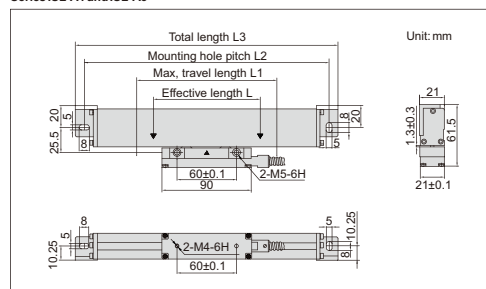
ISL-DR3

LINEAR SCALE

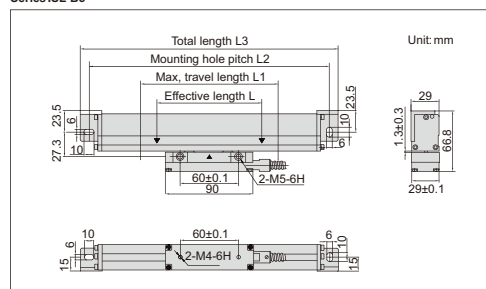


ISL-A1-300

Series ISL-A1 and ISL-A5



Series ISL-B5



Effective length (L)	Code		
	Series ISL-A1	Series ISL-A5	Series ISL-B5
50mm	ISL-A1-50	ISL-A5-50	ISL-B5-50
100mm	ISL-A1-100	ISL-A5-100	ISL-B5-100
150mm	ISL-A1-150	ISL-A5-150	ISL-B5-150
200mm	ISL-A1-200	ISL-A5-200	ISL-B5-200
250mm	ISL-A1-250	ISL-A5-250	ISL-B5-250
300mm	ISL-A1-300	ISL-A5-300	ISL-B5-300
350mm	ISL-A1-350	ISL-A5-350	ISL-B5-350
400mm	ISL-A1-400	ISL-A5-400	ISL-B5-400
450mm	ISL-A1-450	ISL-A5-450	ISL-B5-450
500mm	ISL-A1-500	ISL-A5-500	ISL-B5-500
550mm	ISL-A1-550	ISL-A5-550	ISL-B5-550
600mm	ISL-A1-600	ISL-A5-600	ISL-B5-600
650mm	ISL-A1-650	ISL-A5-650	ISL-B5-650
700mm	ISL-A1-700	ISL-A5-700	ISL-B5-700
750mm	ISL-A1-750	ISL-A5-750	ISL-B5-750

Effective length (L)	Code		
	Series ISL-A1	Series ISL-A5	Series ISL-B5
800mm	ISL-A1-800	ISL-A5-800	ISL-B5-800
850mm	ISL-A1-850	ISL-A5-850	ISL-B5-850
900mm	ISL-A1-900	ISL-A5-900	ISL-B5-900
950mm	ISL-A1-950	ISL-A5-950	ISL-B5-950
1000mm	ISL-A1-1000	ISL-A5-1000	ISL-B5-1000
1100mm			ISL-B5-1100
1200mm			ISL-B5-1200
1300mm			ISL-B5-1300
1400mm			ISL-B5-1400
1500mm			ISL-B5-1500
1600mm			ISL-B5-1600
1700mm			ISL-B5-1700
1800mm			ISL-B5-1800
1900mm			ISL-B5-1900
2000mm			ISL-B5-2000

SPECIFICATION

	Series ISL-A1		Series ISL-A5		Series ISL-B5	
L1 (mm)	L+30(L<950)	L+50(L≥950)	L+30(L<950)	L+50(L≥950)	L+30(L<950)	L+50(L≥950)
L2 (mm)	L+132(L<950)	L+152(L≥950)	L+132(L<950)	L+152(L≥950)	L+136(L<950)	L+156(L≥950)
L3 (mm)	L+149(L<950)	L+169(L≥950)	L+149(L<950)	L+169(L≥950)	L+154(L<950)	L+174(L≥950)
Resolution	1μm		5μm		5μm	
Max. response speed	50m/min		90m/min		60m/min	
Scale grating pitch	20μm					
Scale reference point pitch	50mm					
Accuracy	±(5+5L/1000)μm L is the effective length in mm					
Cable length	3.5m(L: 50-950mm)		5m(L: 1000-1500mm)		10m(L: 1600-2000mm)	

STANDARD DELIVERY

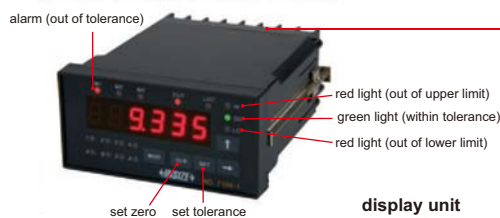
Main Unit	1pc
'L' shape support	1pc
Anti-dust cover	1pc
Plain base	1pc (for L ≥ 1500mm)

LINEAR GAGE AND DISPLAY UNIT

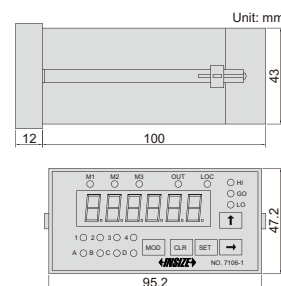
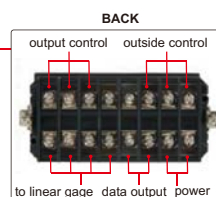
LINEAR GAGE
IP65
WATERPROOF



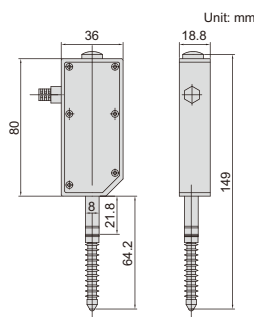
linear gage



display unit
7106-1



- Linear gage: shock-proof, water proof, dust proof, suitable for high speed movement, long working life
- Display unit: set tolerance and make judgment (out of upper limit, within tolerance, out of lower limit), output the judgment to control outside devices, set zero and hold reading from outside



LINEAR GAGE SPECIFICATION

Code	7106-11	7106-12
Measuring range	12mm	12mm
Resolution	0.01mm	0.001mm
Accuracy	20μm	5μm
Hysteresis	10μm	2μm
Measuring principle	capacity system	
Voltage	5V	
Sampling frequency	100 times/sec.	
Working life	ten million times	
Dust/waterproof	IP65	
Measuring force	1.5N	
Cable length	2m	
Data output	four-core wire	

DISPLAY UNIT SPECIFICATION

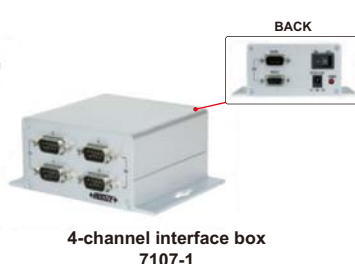
Code	7106-1
Display	6 digits
Quantity of linear gages to be connected	1pc
Tolerance	set tolerance and make judgment with alarm and lights (out of upper limit, within tolerance, out of lower limit)
Output control	output the tolerance judgment (out of upper tolerance, within tolerance, out of lower tolerance) to control outside devices
Outside control	control the display units from outside (set zero, hold reading)
Data output	connect to PC
Power supply	DC 9~24V

MULTI LINEAR GAGE SYSTEM

LINEAR GAGE
IP65
WATERPROOF



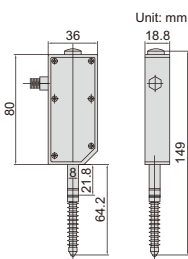
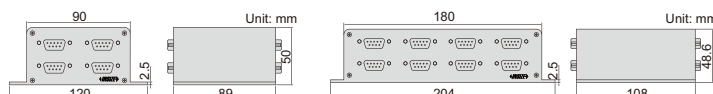
linear gage



4-channel interface box
7107-1



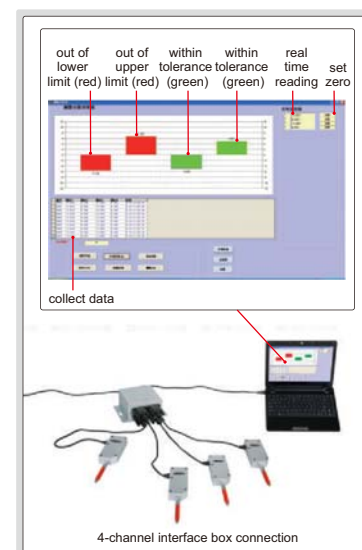
8-channel interface box
7107-2



LINEAR GAGE SPECIFICATION

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

- Software is supplied with interface boxes. In the software, it is possible to set tolerance of each channel and show judgment (red when out of tolerance, green when within tolerance), set zero, collect data manually or automatically (time is adjustable), output data to Excel, print report



INTERFACE BOX SPECIFICATION

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

PROFILE PROJECTOR CODE ISP-Z3015*

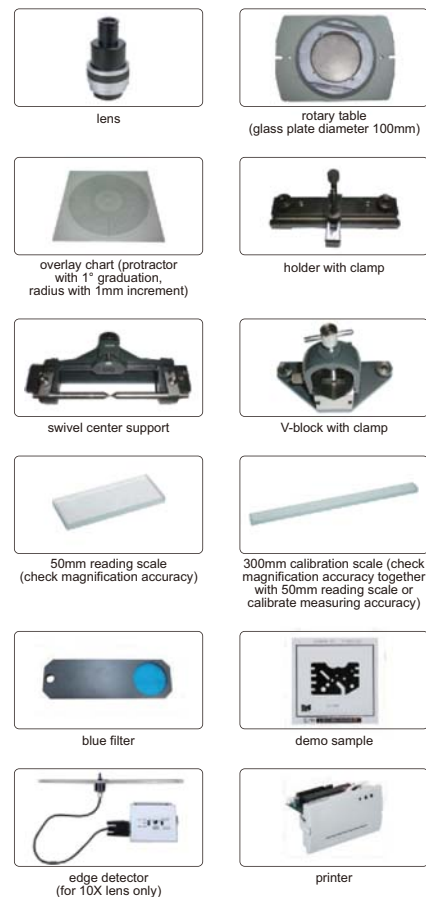


SPECIFICATION

Projector screen		diameter: Ø300mm			
		rotation range: 0°~360°, resolution: 1" or 0.01°			
		reference lines: cross-hairs			
Lens	magnification	10X (included)	20X (optional)	50X (optional)	100X (optional)
	view field	Ø30mm	Ø15mm	Ø6mm	Ø3mm
	working distance	77.7mm	44.3mm	38.4mm	25.3mm
Max. workpiece height		90mm	90mm	90mm	90mm
Magnification accuracy		±0.08%			
Image		erect image			
Stage	metal stage size	340x152mm			
	glass stage size	196x96mm			
	X-Y stage travel	range: 150x50mm			
		resolution: 0.5µm			
		accuracy: (4+L/25)µm L is the measuring length in mm			
	Z (focus) travel range	90mm			
max. load capacity	4kg				
Illumination		contour illumination: 24V/150W halogen lamp, brightness is adjustable			
		surface illumination: 24V/150W halogen lamp			
Data processing unit	display	X-Y stage travel, screen rotation			
	output	RS232C			
	function	 measure coordinate of point			
		 measure coordinate of line			
		 measure center coordinate, radius of circle with three points			
		 measure distance between two objects			
		 measure angle with four points or two lines			
		 set origin of coordinate			
		 coordinate transform			
 set midpoint of coordinate					
Dimension (L×W×H)		550x770x1100mm			
Weight		135kg			

*Supplied with manufacturer inspection certificate

OPTIONAL ACCESSORY



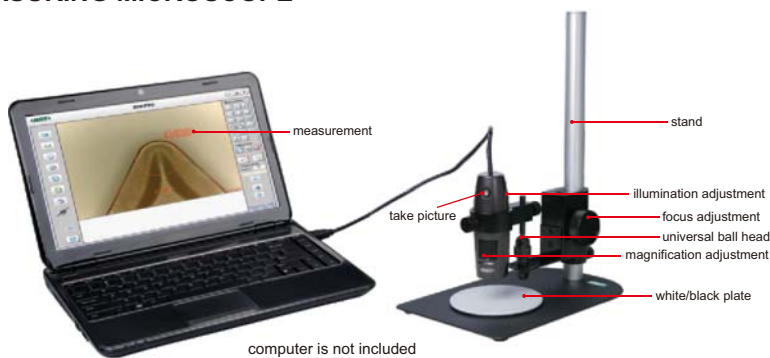
STANDARD DELIVERY

Main unit	1pc
10X lens with half-reflection mirror and oblique illuminator mirror	1pc
Overlay chart clip	4pcs
Anti-dust cover	1pc
Foot-switch	1pc

OPTIONAL ACCESSORY

20X lens with half-reflection mirror and oblique illuminator mirror	ISP-Z3015-LENS20X
50X lens with half-reflection mirror	ISP-Z3015-LENS50X
100X lens with half-reflection mirror	ISP-Z3015-LENS100X
Rotary table	ISP-Z3015-TABLE
Overlay chart	ISP-Z3015-CHART
Holder with clamp	ISP-Z3015-HOLDER
Swivel center support	ISP-Z3015-SUPPORT
V-block with clamp	ISP-Z3015-VBLOCK
50mm reading scale	ISP-Z3015-SCALE50
300mm calibration scale	ISP-Z3015-RULE
Blue filter	ISP-Z3015-FILTER
Demo sample	ISP-Z3015-DEMO
Edge detector (for 10X lens only)	ISP-Z3015-EDGE
Printer	ISP-Z3015-PRINTER

DIGITAL MEASURING MICROSCOPE

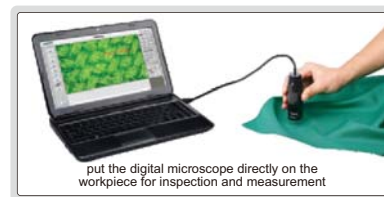


- Can take pictures and videos
- Supplied with software

ISM-PM200SB

SPECIFICATION

Code	ISM-PM200SB	ISM-PM600SB	ISM-PM160LA
Magnification	10X ~ 200X	450X ~ 600X	35X ~ 160X
Type	short focus distance	short focus distance	long focus distance
Focus support	included	not included	not included
Calibration rule	graduation 0.1and1mm	graduation 0.1mm	graduation 0.1and1mm
Pixel	2M (resolution: 1600x1200)		
Illumination	built-in adjustable LED		
Power supply	USB 2.0 cable (voltage required: 5±0.1V)		



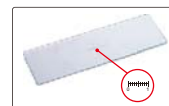
universal stand



focus support



calibration rule
(graduation 1mm)



calibration rule
(graduation 0.1mm)

MAGNIFICATION, FOCUS DISTANCE, VIEW FIELD AND ACCURACY

ISM-PM200SB			
Magnification	Focus distance	View field	Accuracy
50X	21mm	8.1x6.4mm	30μm
100X	13mm	3.9x3.1mm	15μm
150X	16mm	2.6x2.1mm	10μm
200X	19mm	1.8x1.5mm	8μm

ISM-PM600SB			
Magnification	Focus distance	View field	Accuracy
450X	1.4mm	0.85x0.67mm	6μm
500X	5.5mm	0.76x0.61mm	6μm
550X	8.6mm	0.69x0.55mm	5μm
600X	11.5mm	0.63x0.51mm	5μm

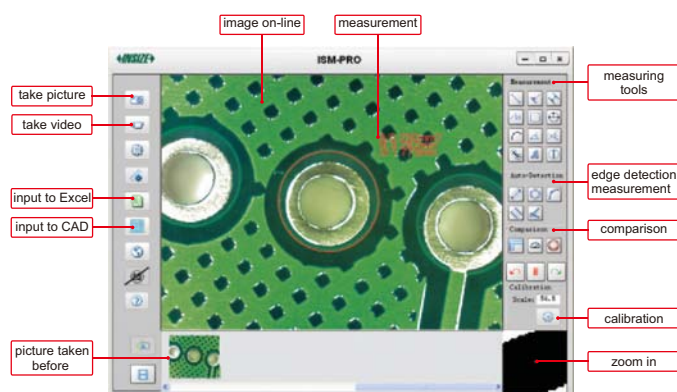
ISM-PM160LA			
Magnification	Focus distance	View field	Accuracy
50X	62mm	8.1x6.4mm	30μm
100X	45mm	3.9x3.1mm	15μm
160X	50mm	2.4x1.9mm	10μm

SOFTWARE FOR DIGITAL MEASURING MICROSCOPE

- **Language:** English, Japanese, Korean, German, Turkey, Portuguese, Chinese
- **Operation system:** Windows 7/8/XP/ Vista
- **Measurement tools:**
 - measure length of line or distance between two points
 - measure distance between point and line
 - measure distance between two parallel lines
 - measure area of rectangle
 - measure radius, girth and area of circle
 - measure distance between two circles
 - measure angle with three points
 - measure angle with two lines

■ Edge detection measurement:

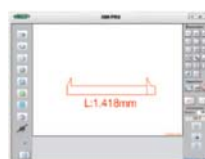
- detect line automatically, and calculate length
- detect arc automatically, and calculate radius, angle and arc length
- detect two lines automatically, and calculate angle
- detect circle automatically, and calculate radius, girth and area
- detect two parallel lines automatically, and calculate distance



■ Comparison:

Create line, angle or circle with desired size, to compare with workpieces.

- create line
- create angle
- create circle with tolerance

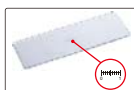


WiFi DIGITAL MEASURING MICROSCOPE CODE ISM-WF200

STAND (code: ISM-WSTD, optional)



calibration rule
(graduation 1mm)



calibration rule
(graduation 0.1mm)

- Maximum working distance is 5m under WiFi mode
- Can be connected to multiple iPads or computers at the same time under WiFi mode
- Can take pictures and videos
- Supplied with software

SPECIFICATION

Magnification	10X ~ 200X
Pixel	1.3M (resolution: 1280x1024)
Illumination	built-in adjustable LED
Power supply	built-in rechargeable battery

MAGNIFICATION, FOCUS DISTANCE, VIEW FIELD AND ACCURACY

Magnification	Focus distance	View field	Accuracy
50X	21mm	8.1x6.4mm	30μm
100X	13mm	3.9x3.1mm	15μm
150X	16mm	2.6x2.1mm	10μm
200X	19mm	1.8x1.5mm	8μm



STANDARD DELIVERY

Microscope	1pc
Base support	1pc
Focus support ring for 80X/150X	1pc
Focus support ring for 60X/200X	1pc
Calibration rule (graduation 0.1mm)	1pc
Calibration rule (graduation 1mm)	1pc
USB cable and software	1pc
AC/DC adapter	1pc

OPTIONAL ACCESSORY

Stand	ISM-WSTD
-------	----------



connected to iPad by WiFi



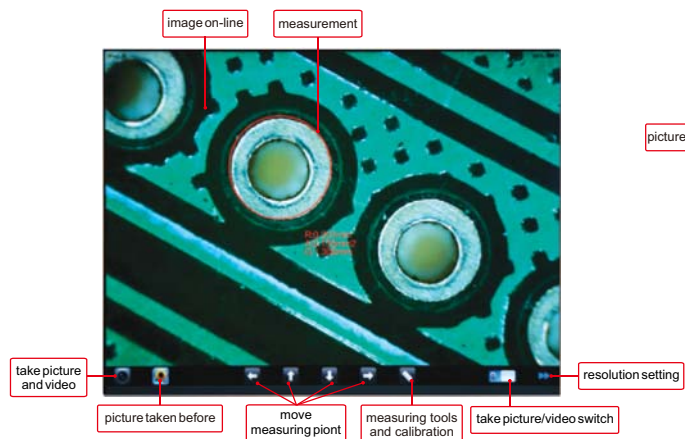
connected to computer by WiFi



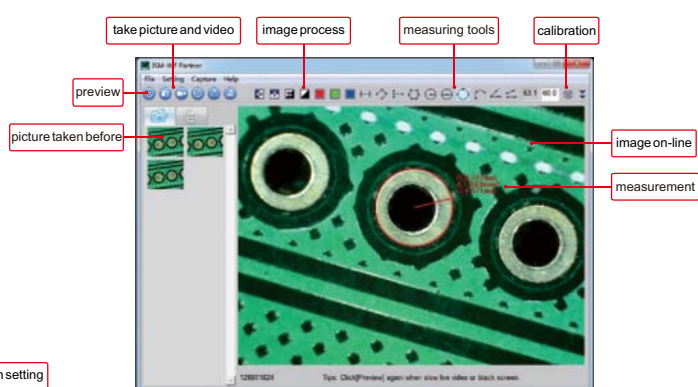
connected to computer by USB cable

SOFTWARE FOR WiFi DIGITAL MEASURING MICROSCOPE ISM-WF200

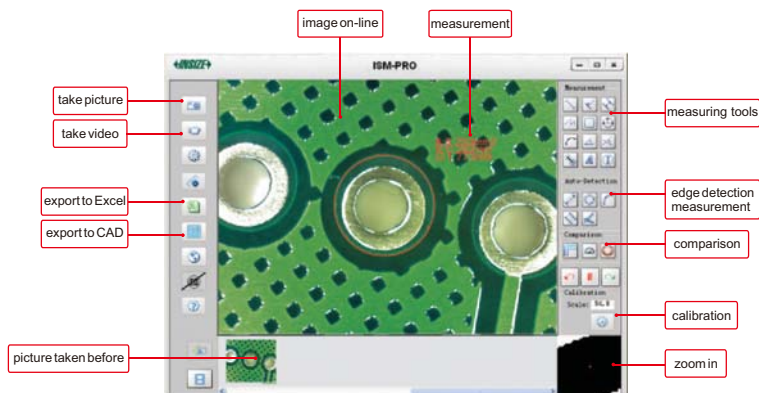
1 Software ISM-PAD (for iPad by WiFi)



2 Software ISM-WF Partner (for computer by WiFi)



3 Software ISM-PRO (for computer by USB cable)



TV DIGITAL MICROSCOPE

STAND (code: ISM-WSTD, optional)



ISM-TV200 (with wire)

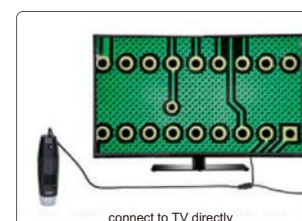


ISM-TV200W (wireless)

- Connect to TV directly
- For observation, cannot take pictures and videos

SPECIFICATION

Code	ISM-TV200	ISM-TV200W
Magnification	10X ~ 200X (on 17" TV)	10X ~ 200X (on 17" TV)
Type	with wire	wireless (maximum transmission distance 5m)
Focus	supplied with focus ring, stand (ISM-WSTD) is optional	
Pixel	0.35M	
Illumination	adjustable brightness LED	
Power supply	DC	built-in rechargeable battery



MAGNIFICATION, FOCUS, VIEW FIELD

ISM-TV200			ISM-TV200W		
Magnification	Focus distance	View field	Magnification	Focus distance	View field
50X	21mm	8.1x6.4mm	60X	19mm	6.9x5.2mm
100X	13mm	3.9x3.1mm	80X	16mm	5.0x3.8mm
150X	16mm	2.6x2.1mm	150X	16mm	2.6x2.1mm
200X	19mm	1.8x1.5mm	200X	19mm	1.8x1.5mm

ZOOM STEREO MICROSCOPE

SPECIFICATION

Code	ISM-ZS50	ISM-ZS50T
Optical tube	binocular	trinocular
Eyeiece (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	215mm	
Illumination	adjustable reflected and transmitted LED light	
Dimension (L×W×H)	290x260x480mm	
Weight	4.9kg	



ISM-ZS50

STANDARD DELIVERY

Main unit	1pc
WF10X eyepiece	2pcs
Ø100mm glass plate	1pc
Ø100mm white/black plate	1pc
Anti-dust cover	1pc

OPTIONAL ACCESSORY

Auxiliary objective	0.5X	ISM-ZS50-OB05X
	2X	ISM-ZS50-OB2X
Eyepiece	10X dividing eyepiece(0.1mm/div.)	ISM-ZS50-EPD10X
	WF15X (view field: Ø16mm)	ISM-ZS50-EP15X
	WF20X (view field: Ø12mm)	ISM-ZS50-EP20X
Digital camera		ISM-D500

PORTABLE MEASURING MICROSCOPE CODE ISM-PM100



SPECIFICATION

Total magnification	100X
Eyepiece	10X with graduation
Objective (achromatic)	10X (numerical aperture: 0.25)
Working distance	7mm
Focus range	30mm
Viewing field	Ø1.8mm
Graduation	0.01mm
Illumination	LED light
Diameter of base	Ø63mm
Height	210mm
Weight	650g

STANDARD DELIVERY

Main unit	1pc
Pen light	1pc
Battery (AAA)	2pcs

360° SWIVEL VIDEOSCOPE

STEEL WIRE WEAVED CABLE
RESISTANCE TO BREAK AND WEAR

NOTE: THE CABLE CAN BE BENT
BUT CAN'T BE SET AT A FIXED SHAPE

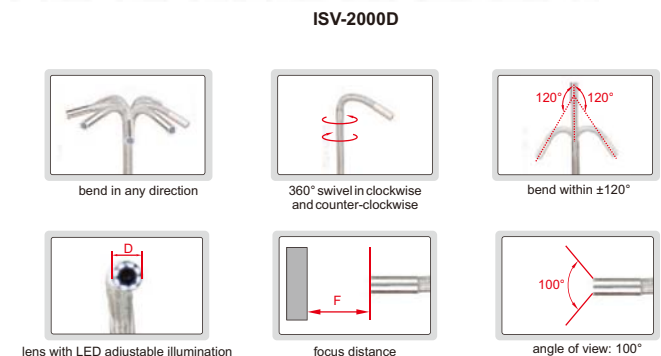
IP65
WATERPROOF

SPECIFICATION

Code		ISV-2000D	ISV-2001D	ISV-3000D	ISV-3001D
Lens	diameter(D)	6.5mm		4.5mm	
	focus distance(F)	15mm ~ ∞		8 ~ 80mm	
	illumination	8pcs LED		6pcs LED	
	pixel	0.35M			
	dust/waterproof	IP65			
Cable	length	1.5m	3m	1.5m	3m
	type	steel wire weaved cable			
Main unit	function	take picture, take video			
	file format	picture: JPG, video, AVI			
	image process	brightness, image quality zoom(1X, 2X, 3X, 4X, 5X)			
	memory	8G SD card			
	output	TV, USB			
	power supply	rechargeable battery (for 2 hours working)			
Weight		650g	800g	600g	700g

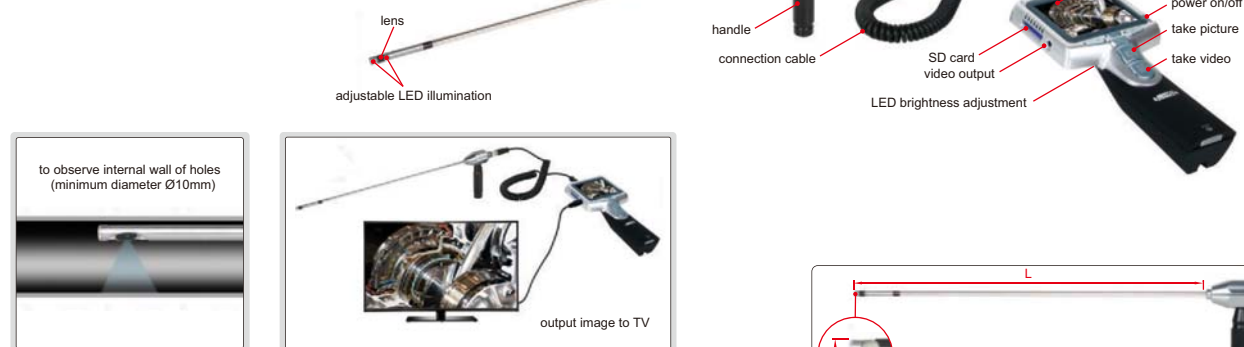
STANDARD DELIVERY

Main unit	1pc
Cable with lens	1pc
8G SD card	1pc
AC/DC adapter	1pc
Video output cable	1pc
USB cable	1pc



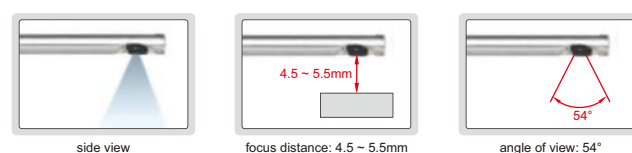
SIDE VIEW VIDEOSCOPE (RIGID) CODE ISV-RV

IP57
WATERPROOF



SPECIFICATION

Diameter (D)	5.5mm
Length (L)	350mm
Dust/waterproof probe	IP57
Pixel	0.3M
Resolution	640x480
Frame rate	30fps
Function	take picture, take video
File format	picture: JPG, video: AVI
Memory	2G SD card
Output	TV, USB
Power supply	rechargeable battery (for 3 hours working)
Weight	570g



STANDARD DELIVERY

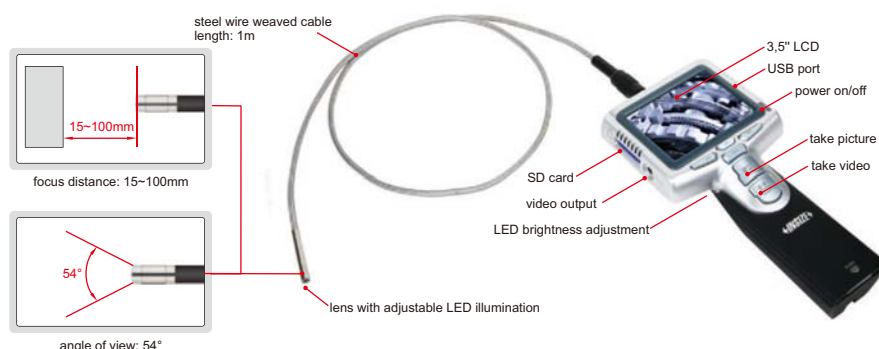
Main unit	1pc
2G SD card	1pc
AC/DC adapter	1pc
Video output cable	1pc
USB cable	1pc

VIDEOSCOPE CODE ISV-E10

STEEL WIRE WEAVED CABLE
RESISTANCE TO BREAK AND WEAR

OPTIONAL CABLE
LENGTH 3M, 5M AND 10M

**THE CABLE CAN BE BENT
BUT CAN'T BE SET AT A FIXED SHAPE**



SPECIFICATION

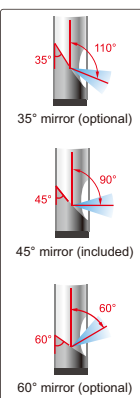
Lens	diameter	5.5mm
	pixel	0.3M
	resolution	640x480
	frame rate	30fps
Cable	length	1m
	type	steel wire weaved cable
Main unit	function	take picture, take video
	file format	picture: JPG, video: AVI
	image process	brightness, contrast, color saturation
	memory	2G SD card
	output	TV, USB
Weight	power supply	rechargeable battery (for 3 hours working)
		450g

STANDARD DELIVERY

Main unit	1pc
Cable with lens	1pc
2G SD card	1pc
45° mirror	1pc
AC/DC adapter	1pc
Video output cable	1pc
USB cable	1pc
Lens cleaning kit	1pc

OPTIONAL ACCESSORY

35° mirror	ISV-E55-M35
60° mirror	ISV-E55-M60



ROUGHNESS TESTER

DATA
OUTPUT



ISR-S300
(probe can't be changed)



ISR-S400
(probe can be changed)



transverse measurement

- Automatic probe leveling
- Language: English, French, German, Italian, Spanish, Portuguese
- 12 roughness parameters
- Can set tolerance
- Measuring range up to 400µm, can measure grit and shot blasting
- Traverse length up to 16mm
- The probe can be set at 90° or 270°, for transverse measurement
- Memory of maximum 100 results



measuring software(optional), can control the roughness tester;
display roughness values, profile and curve; data statistics



adjustable stand (included)



probe cover (included),
can put the small workpieces
directly on the probe for measurement

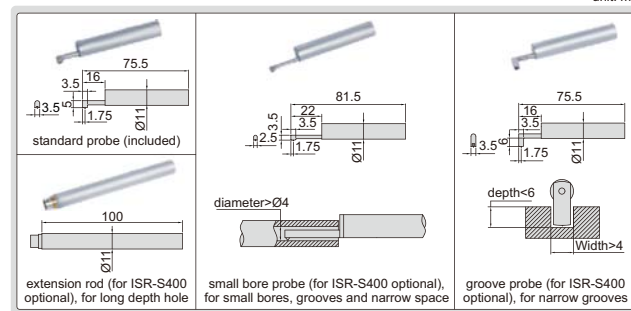


printer(optional), print measuring
results and roughness graphic



test stand (optional)

unit: mm



SPECIFICATION

Code	ISR-S300 (probe can't be changed)	ISR-S400 (probe can be changed)
Parameters	Ra, Rq, Rt, Rz, Rc, Rmax, Rsm, Rpc, Rmr, R, AR, Rx	
Range	Ra: 0 - 100µm, Rt: 0.05 - 400µm	
Accuracy	±3%	
Resolution (Ra)	0.001µm	
Probe	type	inductive
	stylus radius/angle	5µm/90°
	stylus material	diamond
Measuring force	0.75mN	
Measuring unit	µm/µin	
Cut off	0.25/0.8/2.5mm	
Number of cut-offs	1 to 5	
Traverse speed	1mm/s	
Memory	100 measurement results	
Output	USB	
Power	built-in rechargeable battery	
Dimension (L×W×H)	122x52x68mm	
Weight	650g	

STANDARD DELIVERY

Main unit	1pc
Standard probe	1pc
Calibration block	1pc
Adjustable stand	1pc
AC/DC adapter	1pc
Probe cover	1pc

OPTIONAL ACCESSORY

Probe (only for ISR-S400)	
Extension rod (only for ISR-S400)	ISR-S400-ER100
Printer	ISR-S400-PRINTER
USB cable and software	ISR-S-SOFTWARE
Test stand	ISR-S400-STAND

SURFACE ROUGHNESS SPECIMEN SET CODE ISR-CS130



Machining method	Roughness (Ra)	Roughness (Rz)	Quantity
Flat lapping	0.05, 0.1, 0.2µm	0.55, 1, 1.6µm	3pcs
	2, 4, 8µin		
Reaming	0.4, 0.8, 1.6µm	3, 6, 10µm	3pcs
	16, 32, 63µin		
Plain grinding	0.05, 0.1, 0.2, 0.4, 0.8, 1.6µm	0.55, 1, 1.6, 3, 6, 10µm	6pcs
	2, 4, 8, 16, 32, 63µin		
Horizontal milling	0.4, 0.8, 1.6, 3.2, 6.3, 12.5µm	2.5, 4, 8, 16, 32, 50µm	6pcs
	16, 32, 63, 125, 250, 500µin		
Vertical milling	0.4, 0.8, 1.6, 3.2, 6.3, 12.5µm	2.5, 4, 8, 16, 32, 50µm	6pcs
	16, 32, 63, 125, 250, 500µin		
Turning	0.4, 0.8, 1.6, 3.2, 6.3, 12.5µm	2.5, 4, 8, 16, 32, 50µm	6pcs
	16, 32, 63, 125, 250, 500µin		



- For checking, identifying and specifying the roughness by symbol
- Accuracy: +20% ~ -25%, Ra<0.1µm
Accuracy: +12% ~ -17%, Ra>0.1µm
- Meets ISO 2632
- Rust-proof, made of pure Nickel

SHOT AND GRIT BLASTING SURFACE ROUGHNESS SPECIMEN

- To check the roughness of steel surfaces which have been blast cleaned before painting
- Meets ISO 8503/1
- Rust-proof, made of pure Nickel



Code	Machining method	Roughness (Ra)	Roughness (Rz)	Quantity
ISR-CS017	Shot blasting	3.2, 8, 13, 18µm	19.2, 48, 78, 108µm	4pcs
ISR-CS018	Grit blasting	3.2, 10.5, 18, 25µm	19.2, 63, 108, 150µm	4pcs



ISR-CS017

SURFACE ROUGHNESS SPECIMEN

- For checking, identifying and specifying the roughness by symbol
- Accuracy: +20% ~ -25%, Ra<0.1µm
Accuracy: +12% ~ -17%, Ra>0.1µm
- Meets ISO 2632 (ISR-CS329 meets ISO 8503/1)
- Rust-proof, made of pure Nickel



ISR-CS315

Code	Machining method		Roughness (Ra)	Roughness (Rz)	Quantity
ISR-CS315	surface grinding		0.025, 0.05, 0.1, 0.2, 0.4, 0.8, 1.6, 3.2µm	0.29, 0.55, 0.91, 1.74, 2.6, 4.65, 7.87, 15.6µm	8pcs
ISR-CS316	cylindrical grinding		0.025, 0.05, 0.1, 0.2, 0.4, 0.8, 1.6, 3.2µm	0.3, 0.53, 0.88, 1.56, 2.64, 4.4, 7.71, 15.3µm	8pcs
ISR-CS317	flat lapping	criss-cross	0.025, 0.05, 0.1, 0.2µm	0.4, 0.6, 0.74, 1.26µm	4pcs
		parallel	0.025, 0.05, 0.1, 0.2µm	0.34, 0.56, 1.12, 1.5µm	4pcs
ISR-CS318	cylindrical lapping		0.025, 0.05, 0.1, 0.2µm	0.46, 0.54, 0.63, 1.23µm	4pcs
	superfinishing		0.025, 0.05, 0.1, 0.2µm	0.36, 0.7, 1, 1.4µm	4pcs
ISR-CS319	face turning		0.4, 0.8, 1.6, 3.2, 6.3, 12.5, 25, 50µm	1.92, 3.2, 6.15, 12.5, 23.7, 48.7, 102, 185µm	8pcs
ISR-CS320	cylindrical turning		0.4, 0.8, 1.6, 3.2, 6.3, 12.5, 25, 50µm	1.7, 3.2, 6.1, 12.2, 23.7, 47.5, 95, 190µm	8pcs
ISR-CS321	end milling		0.4, 0.8, 1.6, 3.2, 6.3, 12.5, 25, 50µm	1.92, 3.82, 6.45, 12.2, 25.2, 49.8, 92.6, 191µm	8pcs
ISR-CS322	reaming		0.4, 0.8, 1.6, 3.2µm	1.7, 3.2, 6.4, 12.8µm	4pcs
	drilling		1.6, 3.2, 6.3, 12.5µm	7.5, 15.5, 31, 60µm	4pcs
ISR-CS323	horizontal milling		0.4, 0.8, 1.6, 3.2, 6.3, 12.5, 25, 50µm	1.8, 3.68, 6.63, 12.8, 25.6, 53, 97.5, 197µm	8pcs
ISR-CS325	shaping (planing)		0.8, 1.6, 3.2, 6.3, 12.5, 25, 50, 100µm	3.84, 6.7, 12.2, 25.2, 48.7, 99.9, 190, 361µm	8pcs
ISR-CS326	linishing (belt sanding)		0.1, 0.2, 0.4, 0.8, 1.6, 3.2µm	0.9, 1.55, 3.37, 7.42, 18.5, 31µm	6pcs
ISR-CS328	vertical grinding		0.2, 0.4, 0.8, 1.6, 3.2, 6.3µm	1.1, 3.5, 6.15, 8.78, 22.19, 40.8µm	6pcs
ISR-CS329	grit blasting		3.2, 10.5, 18, 25µm	19.2, 63, 108, 150µm	4pcs
	shot blasting		3.2, 8, 13, 18µm	19.2, 48, 78, 108µm	4pcs
ISR-CS331	spark erosion (edm)		0.4, 0.8, 1.6, 3.2, 6.3, 12.5, 25, 50µm	2.5, 4.5, 7.2, 14.2, 24.7, 51.2, 105, 196µm	8pcs
ISR-CS333	hand filing		0.4, 0.8, 1.6, 3.2, 6.3µm	3, 5.6, 12.4, 22.5, 61µm	5pcs
ISR-CS334	castings		0.8, 1.6, 3.2, 6.3, 12.5, 25, 50µm	3.2, 8, 16, 32, 56, 112, 225µm	7pcs
ISR-CS335	honing		0.05, 0.1, 0.2, 0.4, 0.8, 1.6µm	0.31, 0.56, 1, 2, 4.2, 9µm	6pcs
ISR-CS336	polishing		0.0125, 0.025, 0.05, 0.1, 0.2µm	0.29, 0.35, 0.67, 0.72, 1.52µm	5pcs

COATING THICKNESS GAGE CODE ISO-2000FN



SUITABLE FOR SMALL SURFACES, CONCAVE
OR CONVEX SURFACES AFTER CALIBRATION

- Suitable for small surfaces, concave or convex surfaces after calibrated
- Magnetic induction probe (Fe) is to measure the thickness of non-magnetic coating on magnetic substrate
Substrate: iron, steel, magnetic stainless steel (does not include non-magnetic stainless steel)
Coating: zinc, copper, chrome-tin, plastic powder, paint (does not include nickel)
- Eddy current probe (NFe) is to 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



eddy current probe
NFe (optional)
ISO-2000FN-NFE



magnetic induction
probe Fe (optional)
ISO-2000FN-FE



main unit
ISO-2000FN



standard foil (included)

SPECIFICATION

Measuring range	magnetic induction probe (Fe)	0~2000μm
	eddy current probe (NFe)	0~800μm
Accuracy		±(1.5+2%L)μm L is measuring thickness in μm
		0.1μm (range<100μm)
		1μm (range 100~1000μm)
Resolution		10μm (range≥1000μm)
		1μm (range 0~1000μm)
Repeatability		10μm (range≥1000μm)
		1μm (range 0~1000μm)
Measuring mode		continuous or single
Calibration mode		four points calibration
Minimum substrate thickness		magnetic induction probe (Fe): 0.2mm; eddy current probe (NFe): 0.05mm
Minimum measuring area		5x5mm, calibration should be made on workpiece without coating, test stand (optional) is recommended in order to have same position for calibration and measurement
Power supply		2x1.5V AA batteries
Dimension of main unit		122x65x22mm
Weight of main unit		150g

STANDARD DELIVERY

Main unit	1pc
Zero calibration block for Fe probe	1pc
Zero calibration block for NFe probe	1pc
Standard foil	7pcs
Battery (AA)	2pcs

OPTIONAL ACCESSORY

Magnetic induction probe (Fe)	ISO-2000FN-FE
Eddy current probe (NFe)	ISO-2000FN-NFE
Test stand	ISO-2000FN-STAND

ULTRASONIC THICKNESS GAGE CODE ISU-200D*

- Measure the thickness from one side of object, suitable for pipe, tank, etc.
- Applicable material: metal, plastic, glass, nylon, resin, ceramic, rubber, ice
- Low and high limits with judgement
- Memory of maximum 500 readings

SPECIFICATION

Resolution	0.01mm (range<100mm)
	0.1mm (range≥100mm)
Accuracy	±0.05mm (range<10mm)
	±(0.01+0.5%H)mm (range≥10mm)
	H is the thickness to be measured in mm
Velocity	1000-9999m/s
Power supply	3 x AAA batteries
Dimension	151x70x24mm
Weight	200g



STANDARD DELIVERY

Main unit	1pc
Transducer ISU-200D-N05	1pc
Couplant	1 bottle
USB cable and software	1pc

OPTIONAL ACCESSORY

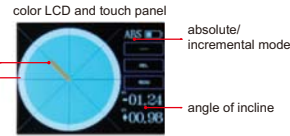
Transducer	ISU-200D-N02
	ISU-200D-N07
	ISU-200D-W05
	ISU-200D-HT5

SPECIFICATION OF TRANSDUCERS

Code	Frequency	Diameter (Ød)	Measuring range	Minimum size of pipe for measurement (diameter x wall thickness)	Applicable temperature	Application
ISU-200D-N05	5.0MHz	12mm	0.8-300mm	25x3mm	<60°C	general use
ISU-200D-N02	2.0MHz	17mm	2-400mm	30x4mm	<60°C	for casting steel
ISU-200D-N07	7.5MHz	8mm	0.75-40mm	15x1.2mm	<60°C	for thin material
ISU-200D-W05	5.0MHz	10mm	0.8-230mm	20x1.2mm	<60°C	for wall thickness
ISU-200D-HT5	3.0MHz	15mm	3-100mm	25x3mm	<300°C	for high temperature

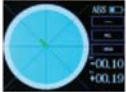
*Supplied with manufacturer inspection certificate

DIGITAL LEVEL CODE ISE-2DT



DATA
OUTPUT

- Color LCD, touch panel
- X-Y axis measurement
- Set the tolerance and the display is shown in different colors



within the tolerance (green)

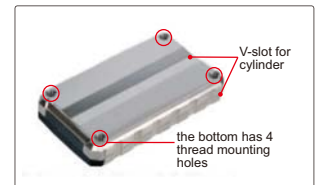


slightly out of the
tolerance (yellow)



seriously out of the
tolerance (red)

- To show the incline with line or bubble



SPECIFICATION

Measuring range	±30°
Resolution	0.01° (=0.174mm/m)
Accuracy	±0.03° (range 0~3°) ±0.05° (range >3°)
Power supply	rechargeable battery
Dimension	115x66x23mm
Weight	224g

STANDARD DELIVERY

Main unit	1pc
USB cable	1pc

OPTIONAL ACCESSORY

Software	ISE-2DT-SOFTWARE
----------	------------------



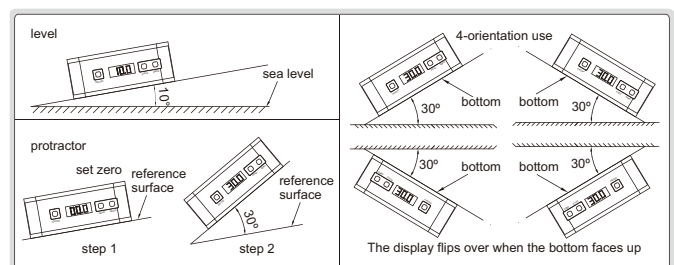
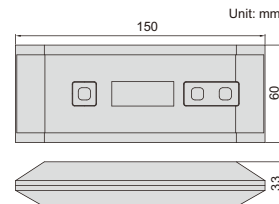
DIGITAL LEVEL AND PROTRACTOR



2173-360

- Resolution: 0.1° (= 1.745 mm/m)
- Aluminum frame
- Magnetic bottom with V-groove for shafts
- Zero setting can be made on any plain surfaces
- Buttons: ON/OFF, ZERO, HOLD (keep the reading)
- CR2032 battery
- Automatic power off

Code	Range	Accuracy
2173-360	0-360° (90°x4)	0° and 90°: ±0.1°, others: ±0.2°



DIGITAL LEVEL AND PROTRACTOR

BACKLIGHT

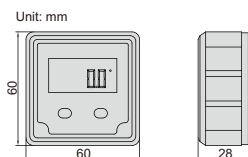
ABSOLUTE
LEVEL

MAGNETIC
BOTTOM

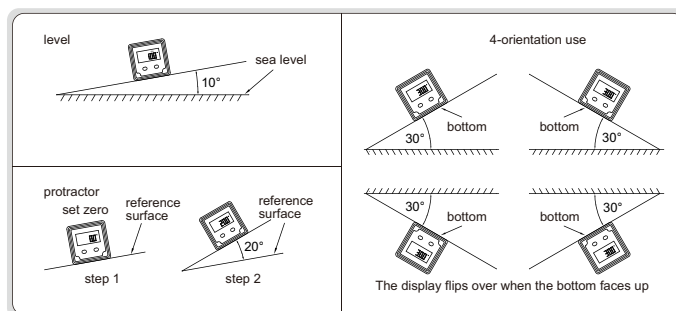
DISPLAY FLIPS OVER WHEN
THE BOTTOM FACES UP



2170-1



- 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 minutes after use
- The sea level is permanently set inside the chip, zero setting is not needed when battery is replaced
- Buttons: ON/OFF, ZERO, absolute and incremental measurement
- One AAA battery
- Automatic power off in 5 minutes



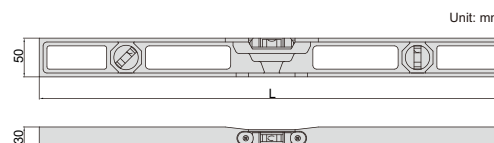
Code	Range	Resolution	Accuracy
2170-1	4x90°	0.1° (= 1.745 mm/m)	0° and 90°: ±0.1°; others: ±0.2°

ALUMINIUM ALLOY LEVEL



4911-600

- Die casting aluminium alloy frame
- With three vials: 180°, 90° and 45°
- Zero position of vial 180° can be set



Code	Length (L)	Accuracy
4911-400	400mm	0.75mm/m
4911-600	600mm	0.75mm/m
4911-800	800mm	0.75mm/m

DIGITAL LEVEL



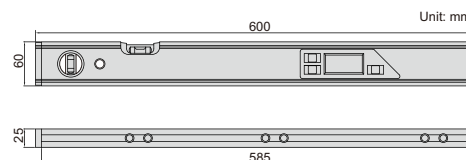
4910-600

BUZZER ALARM
AT 0° AND 90°

ABSOLUTE
LEVEL

BACKLIGHT

- With transverse and longitudinal vials
- Used as level and protractor
- 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, unit (mm/m, %, in/ft) conversion, backlight
- The display flips over when the bottom faces up
- Two AAA batteries
- Automatic power off



Code	Range	Resolution	Accuracy
4906-600	0-360° (90°x4)	0.1° (=1.745mm/m)	0° and 90°: ±0.1°, others: ±0.2°

MANUAL ROCKWELL HARDNESS TESTER CODE ISH-R150*

SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD, HRF, HRG
Preliminary test force	98N
Test force	588N, 980N, 1471N
Display	analogue
Stage elevation	manual
Load control	manual
Min. reading	0.5HR
Max. workpiece height	170mm
Max. workpiece depth	165mm (from the center of indenter)
Dimension	520x160x700mm
Weight	60kg

STANDARD DELIVERY

Main unit	1pc
Ø60mm flat anvil	1pc
Ø150mm flat anvil	1pc
V-type anvil	1pc
Diamond indenter	1pc
Ø1.5875mm carbide ball indenter	1pc
Hardness test block HRB85-95	1pc
Hardness test block HRC60-70	1pc
Hardness test block HRC20-30	1pc
Anti-dust cover	1pc

*Supplied with manufacturer inspection certificate



Ø60mm flat anvil



Ø150mm flat anvil



V-type anvil

BRINELL/ROCKWELL/VICKERS HARDNESS TESTER CODE ISH-BRV*

SPECIFICATION

Rockwell test load	98N preload, 588, 980, 1471N total load
Min. Rockwell reading	0.5HR
Brinell test load	306, 613, 1839N
Vickers test load	294N
Stage elevation	manual
Load control	manual
Magnification of microscope	37.5X/75X (selectable)
Max. workpiece height	180mm
Max. workpiece depth	200mm (from the center of indenter)
Dimension	546x300x767mm
Weight	90kg

STANDARD DELIVERY

Main unit	1pc
Ø1.5875mm carbide ball indenter	1pc
Diamond Rockwell indenter	1pc
Ø5mm Brinell indenter	1pc
Ø2.5mm Brinell indenter	1pc
Vickers indenter	1pc
Ø60mm flat anvil for Rockwell	1pc
Ø150mm flat anvil for Rockwell	1pc

*Supplied with manufacturer inspection certificate

projection screen with scale,
for reading Rockwell hardness



microscope for
Vickers and Brinell
15X eyepiece
graduation 0.01mm
objective 2.5X/5X

slider

stage

load/unload handle

test force dial

choose hardness scale



Ø60mm flat anvil
for Rockwell



Ø150mm flat anvil
for Rockwell



V-type anvil
for Rockwell



Ø60mm flat anvil
for Vickers and Brinell



V-type anvil
for Vickers and Brinell

V-anvil for Rockwell	1pc
Ø60mm flat anvil for Vickers and Brinell	1pc
V-type anvil for Vickers and Brinell	1pc
Rockwell test block HRC (high, low)	1pc of each
Rockwell test block HRB	1pc
Brinell test block	1pc
Vickers test block	1pc
Anti-dust cover	1pc

PORTABLE HARDNESS TESTER CODE ISH-SPHA*

- Based on Leeb(HL), converted to Vickers(HV), Brinell(HB), Rockwell(HRC and HRB), Shore(HS) and tensile strength(MPa)
- Connected with printer via bluetooth
- Connected with computer via USB port
- Up to 800 test results can be saved
- Low and high limits with judgement
- Touch screen operation, large display with backlight
- Language: English, Chinese, Italian, German, French and Portuguese
- Automatic power off
- According to ASTM A 956



DATA
OUTPUT



SPECIFICATION

Min. reading	1HL, 1HV, 1HB, 0.1HRC, 0.1HRB, 1HS, 1MPa
Accuracy	±6HL (when HL=800)
Display	Leeb(HL), converted hardness, material, impact direction, test times, average value, deviation, time
Output	bluetooth and USB
Power supply	built-in rechargeable battery
Dimension	135x83x24mm
Weight	350g

OPTIONAL ACCESSORY

Impact device DC	ISH-SPHA-DC
Impact device C	ISH-SPHA-C
Impact device D+15	ISH-SPHA-D15
Impact device DL	ISH-SPHA-DL

*Supplied with manufacturer inspection certificate

STANDARD DELIVERY

Main unit	1pc
Impact device D	1pc
Printer	1pc
Hardness test block (standard)	1pc
Small support ring	1pc
Cleaning brush	1pc
AC/DC adapter	1pc
USB cable and software disc	1pc of each
Pen for touch screen	1pc

Impact device G	ISH-SPHA-G
Hardness test block **	ISH-BHLG
Couplant	ISH-COUPPLANT
Support rings	

** Hardness test block (ISH-BHLG) is for impact device G (ISH-SPHA-G).
Hardness test block (standard) is for all others impact devices.

PORTABLE HARDNESS TESTER CODE ISH-PHB*

SPECIFICATION

Min. reading	1HLD, 1HV, 1HB, 0.1HRC, 0.1HRB, 1HS, 1MPa	
Accuracy	±6HLD (when HLD=800)	
Display	Leeb (HLD), converted hardness, material, impact direction, test times, average value, date	
Output	bluetooth	
Applicable workpiece	minimum weight	5kg
		2kg (on solid support)
		0.1kg (coupled on plate)
	minimum thickness: 5mm	
	minimum radius of curved surface: 11mm	
maximum roughness (Ra): 1.6µm		
Power supply	3×AAA batteries	
Dimension	150×84×28mm	
Weight	200g	



- Supplied with impact device D
- Set measurement times (1~9) to have average value
- Based on Leeb (HLD), converted to Vickers (HV), Brinell (HB), Rockwell (HRC and HRB), Shore (HS) and tensile strength (MPa)
- Memory of 99 measurement values for browsing
- Connected with printer via bluetooth
- Automatic power off
- According to ASTM A 956

APPLICABLE MATERIAL AND HARDNESS RANGE FOR IMPACT DEVICE D

Material	HLD	HV	HB	HRC	HRB	HS	Tensile strength (MPa)
Steel & cast steel	300-900	81-955	81-654	20-68	38-100	32-100	375-2639
Tool steel	300-840	80-898		20-67			
Stainless steel	300-800	85-802	85-655		46-101		
Cast iron	360-650		93-334				
Cast aluminum alloy	170-570		19-164		23-84		
Brass	200-550		40-173		13-95		
Bronze	300-700		60-290				
Copper	200-690		45-315				

*Supplied with manufacturer inspection certificate

STANDARD DELIVERY

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

OPTIONAL ACCESSORY

Wireless printer	ISH-DS-PRINTER
Couplant	ISH-COUPPLANT
Support rings	

ULTRASONIC HARDNESS TESTER CODE ISHU-460

DATA
OUTPUT

Application:

1. For steel, non-ferrous metal and alloy
2. Can test surface hardening layers (carburized, nitriding high frequency hardened, etc.) and plating (like chrome plating)
3. Suitable for thin wall or edge of workpieces
4. Suitable for small areas like arc, conical surface and other complex shapes
5. Suitable for small or light workpieces
6. Suitable for narrow spaces, like grooves and blind holes
7. Can test large workpieces at any direction
8. Suitable for rough surfaces



- Small test indentation
- Test force and time are not affected by the operator
- Quick test, only 2 seconds
- Memory of 1000 test results
- Automatic power off
- Anti-dust and waterproof

SPECIFICHE

Hardness scale		HV, HB, HRB, HRC, HS
Resolution		1HV, 1HB, 1HRB, 0.1HRC, 1HS
Accuracy	HB	±10HB
	HV	±15HV
	HRC	±2HRC
Minimum measuring area		Ø1mm
Data output		USB
Operating temperature		-20°C ~ +40°C
Power supply		built-in rechargeable battery
Dimension and weight of main unit		160×80×40mm, 315g

STANDARD DELIVERY

Main unit	1pc
Probe A	1pc
AC/DC adapter	1pc
USB cable and software	1pc

OPTIONAL ACCESSORY

Probe B	ISHU-460-B
Couplant	ISH-COUPPLANT



test flat surfaces (with the cover)



test cylinder surfaces
(use V-groove on the cover)

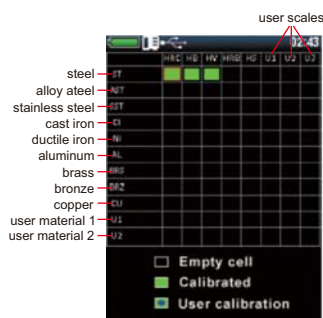


test narrow areas
(remove the cover)

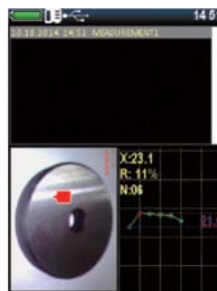
SPECIFICATION OF PROBE

Type	A (standard)	B (optional)
Measuring force	50N	10N (small force)
Application	general use	plating
Maximum roughness of workpiece (Ra)	2.5µm	1.5µm
Minimum weight of workpiece (direct measurement)	0.1kg*	0.1kg*
Minimum thickness of workpiece (direct measurement)	1mm*	1mm*
Minimum thickness of surface hardening layer or plating	0.1mm	0.03mm
Dimension and weight of probe	140×Ø37mm, 271g	145×Ø37mm, 271g

*If the weight or thickness of workpiece is less than required, the workpiece should be fixed or coupled on solid support



select the material and scale, use the corresponding standard hardness blocks or workpieces for calibration (calibration of HRC, HB and HV for steel are already made, calibration is needed before use other materials and scales)



can take a picture on the workpiece and get a report with testing result and picture, the report can be sent to computer



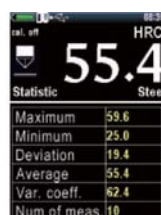
back



Graph display mode, show average value, relative range and test times



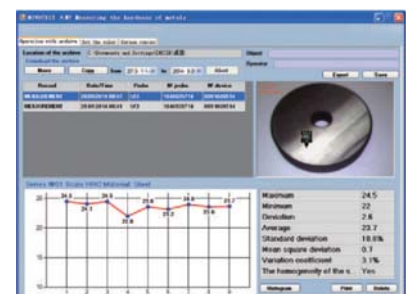
Histogram display mode, show average value, relative range and relative standard deviation



Statistics display mode, show maximum, minimum, deviation, average, relative range and test times



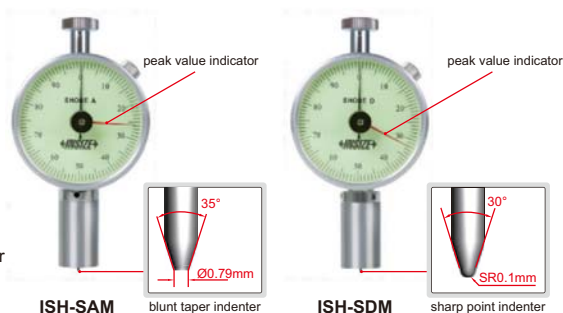
Smart display mode, can set tolerance, automatically reject the result when out of tolerance



software(included), can output data, get and print reports, screen capture, set screen colors of hardness tester

SHORE DUROMETER

- 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	nature rubber, soft elastomer, etc	hard rubber, plastic, hard elastomer, etc
Measuring range*	10~90HA	20~90HD
Graduation	1HA	1HD
Indenter protrusion	2.5mm	2.5mm
Dimension	115x60x25mm	
Weight	160g	

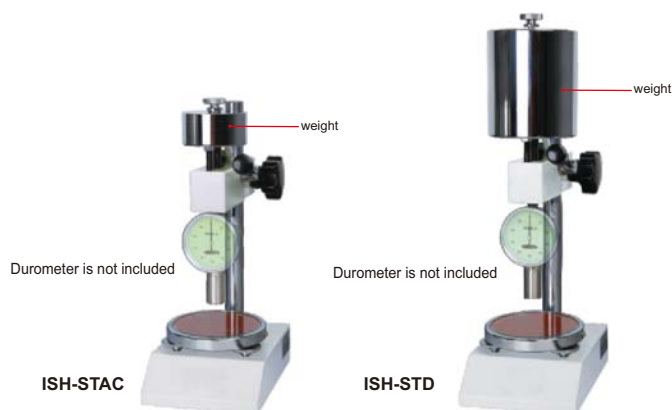
*Use **ISH-SDM** when measuring result is higher than 90HA
Use **ISH-SAM** when measuring result is lower than 20HD

TESTING STAND FOR SHORE DUROMETER

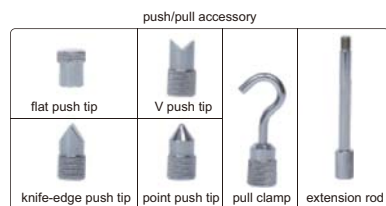
- Can perform repeatable hardness measurement due to fewer possibilities of human error or measurement variations

SPECIFICATION

Code	ISH-STAC	ISH-STD
Applicable durometer	ISH-SAM	ISH-SDM
Stage diameter	Ø100mm	Ø100mm
Maximum workpiece height	75mm	75mm
Mass of weight	1kg	5kg



DIGITAL FORCE GAGE



ISF-1DF100



printer (optional)

DATA
OUTPUT

- Push and pull test
- Units: N, gf, kgf, ozf, lbf
- 500 memories
- Automatic power off
- Metal case
- LCD display with backlight, can turn 180°
- Overload alarm

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.), low and high limits with judgement				
Power supply	built-in rechargeable battery				
Dimension	150×73×33mm				
Weight	450g				

STANDARD DELIVERY

Main unit	1pc
AC/DC adapter	1pc
USB cable and software	1pc
Push/pull accessory	6pcs (flat push tip, V push tip, knife-edge push tip, point push tip, pull clamp, extension rod)

OPTIONAL ACCESSORY

Printer	ISF-DF-PRINTER
---------	----------------

*Supplied with manufacturer inspection certificate

DIGITAL FORCE GAGE (HIGH RESOLUTION)

DATA
OUTPUT

- Push and pull test
- Peak (max.) and tracking mode
- Units: mN, N, gf, kgf, ozf, lbf
- Low and high limits with judgement
- 1000 memories
- Automatic power off
- Metal case, touch buttons
- LCD display with backlight, can automatically turn 180°
- Overload alarm



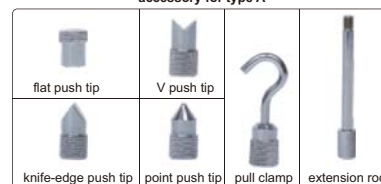
printer (optional)



ISF-DF100A
type A

ISF-DF5KA
type B

accessory for type A



accessory for type B



SPECIFICATION

Code	ISF-DF 5A*	ISF-DF 10A*	ISF-DF 20A*	ISF-DF 50A*	ISF-DF 100A*	ISF-DF 200A*	ISF-DF 500A*	ISF-DF 1KA*	ISF-DF 2KA*	ISF-DF 5KA*	ISF-DF 10KA*	ISF-DF 20KA*
Type	A (internal sensor)								B (external sensor)			
Load capacity (N)	5	10	20	50	100	200	500	1000	2000	5000	10000	20000
Resolution (N)	0.0005	0.001	0.005	0.005	0.01	0.05	0.05	0.1	1	1	10	10
Accuracy	±0.3% (of load capacity)											
Power supply	built-in rechargeable battery											

STANDARD DELIVERY

Code	ISF-DF 5A	ISF-DF 10A	ISF-DF 20A	ISF-DF 50A	ISF-DF 100A	ISF-DF 200A	ISF-DF 500A	ISF-DF 1KA	ISF-DF 2KA	ISF-DF 5KA	ISF-DF 10KA	ISF-DF 20KA
Main unit	1pc								1pc			
AC/DC adapter	1pc								1pc			
USB cable and software	1pc								1pc			
Push/pull accessory	6pcs (flat push tip, V push tip, knife-edge push tip, point push tip, pull clamp, extension rod)								4pcs (flat push tip, adapter, pull clamps)			

OPTIONAL ACCESSORY

Printer	ISF-DF-PRINTER
---------	----------------

* Supplied with manufacturer inspection certificate

TESTING STAND CODE ISF-MT1K

force gages are not included



horizontal orientation test

- For tensile and compress test with force gages (code ISF-1DFxx and ISF-DFxx)
- Can be used in vertical and horizontal orientation



digital scale (optional)

SPECIFICATION

Load capacity	1000N
Travel	200mm (3mm vertical movement per revolution of handwheel)
Dimension	196x250x446mm
Weight	13kg

OPTIONAL ACCESSORY

Digital scale (range: 200mm, resolution: 0.01mm/0.0005")	ISF-MT1K-SCALE
--	----------------

DIGITAL TORQUE WRENCH



IST-W135A

- 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 overload record (once the torque reaches 110% of the maximum range)
- Supplied with calibration certificate

SPECIFICHE

Code	Range	Accuracy	Resolution	Square driver (L)	Power supply	Length	Weight
IST-W30A*	6 ~ 30N.m	clockwise: $\pm 2\%$ counter-clockwise: $\pm 3\%$	0.01N.m	1/4"	2×AA batteries	390mm	830g
IST-W135A*	27 ~ 135N.m		0.1N.m	3/8"		415mm	950g
IST-W200A*	40 ~ 200N.m		0.1N.m	1/2"		530mm	1.4kg
IST-W340A*	68 ~ 340N.m		0.1N.m	1/2"		650mm	1.6kg
IST-W500A*	100 ~ 500N.m	clockwise: $\pm 2.5\%$ counter-clockwise: $\pm 3.5\%$	0.1N.m	3/4"		950mm	2.1kg
IST-W850A*	170 ~ 850N.m		0.1N.m	3/4"		1220mm	2.55kg
IST-W1200A*	240 ~ 1200N.m		1N.m	1"		1800mm	13kg
IST-W1500A*	300 ~ 1500N.m		1N.m	1"		1800mm	13kg
IST-W2000A*	400 ~ 2000N.m		1N.m	1"		1800mm	14kg

OPTIONAL ACCESSORY

Calibration cable	IST-W-CABLE
-------------------	-------------

*Supplied with manufacturer inspection certificate

TORQUE WRENCH

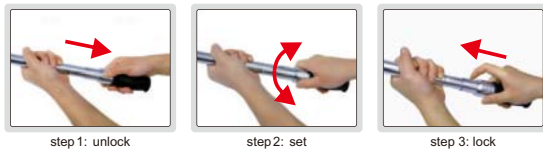
ACCURACY $\pm 3\%$

CLOCKWISE
OPERATION ONLY



IST-2WM100

Set torque:



■ According to DIN ISO 6789, ASME B107.300-2010

Code	IST-2WM25*	IST-2WM60*	IST-2WM100*	IST-2WM200*	IST-2WM340*	IST-2WM600*	IST-2WM800*
Range (clockwise)	5~25N.m	10~60N.m	20~100N.m	40~200N.m	60~340N.m	100~600N.m	150~800N.m
Accuracy	$\pm 3\%$	$\pm 3\%$	$\pm 3\%$	$\pm 3\%$	$\pm 3\%$	$\pm 3\%$	$\pm 3\%$
Graduation	0.2N.m	0.5N.m	0.5N.m	1N.m	2N.m	5N.m	5N.m
Square driver (D)	1/4"	3/8"	3/8"	1/2"	1/2"	3/4"	3/4"
Length	281mm	337mm	436mm	512mm	614mm	1050mm	1240mm
Weight	590g	760g	1320g	1580g	1800g	5030g	6110g

*Supplied with manufacturer inspection certificate

CODE NO. INDEX

CODE	DESCRIPTION	PAGE
11		
1103	Digital Caliper (High Precision)	1
1106	Digital Caliper	3
1108	Digital Caliper (Standard Model)	1
1110	Digital Caliper With Carbide Tipped Jaws	2
1111	Mini Digital Caliper	2
1114	Digital Caliper	1
1118	Waterproof Digital Caliper	1
1119	Digital Caliper With Round Depth Bar	1
1120	Digital Inside Groove Caliper	5
1121	Digital Inside Point Caliper	5
1124	Digital Caliper With Interchangeable Points	4
1136	Digital Caliper	3
1139	Plastic Digital Caliper	2
1141	Digital Depth Gage	8
1144	Digital Double Hook Depth Gage	8
1145	Digital Depth Gage	9
1147	Digital Depth Gage	8
1148	Digital Depth Gage With Round Depth Bar	8
1149	Waterproof Digital Depth Gage	7
1150	Digital Height Gage	6
1154	Digital Height Gage	7
1170	Digital Caliper	3
1171	Digital Caliper	3
1176	Digital Inside Groove Caliper	5
1177	Digital Back-Jaw Centerline Caliper	5
1178	Digital Inside Groove Caliper	5
1181	Digital Gear Tooth Caliper	6
1183	Digital Point Caliper	5
1189	Digital Arc Radius Caliper	6
1192	Digital Offset Centerline Caliper	6
1193	Digital Caliper With Ceramic Tipped Jaws	2
12		
1201	Mini Vernier Caliper	2
1205	Vernier Caliper	3
1208	Vernier Caliper (Solid Type)	4
1214	Vernier Caliper	4
1215	Long Jaw Vernier Caliper	4
1236	Vernier Caliper (Solid Type)	4
1240	Vernier Depth Gage	9
1247	Vernier Depth Gage	9
1250	Vernier Height Gage	7
1253	Vernier Height Gage	7
1267	Chamfer Gage	32
13		
1311	Dial Caliper	2
1312	Dial Caliper	2
1351	Dial Height Gage	7
15		
1520	Digital Inside Groove Caliper	4
21		
2103	Digital Indicator	17
2104	Digital Indicator	17
2112	Digital Indicator	18
2115	Waterproof Digital Indicator	18

CODE	DESCRIPTION	PAGE
2141	Digital Depth Gage	10
2168	Step And Gap Gage	25
2170	Digital Level And Protractor	53
2171	Digital Protractor	27
2172	Digital Protractor	28
2173	Digital Level And Protractor	52
2176	Digital Protractor	27
2183	Digital Radius Gage	17
22		
2222	Internal Dial Caliper Gage	24
2278	Combination Square Set	29
23		
2308	Dial Indicator	19
2309	Dial Indicator	19
2310	Dial Indicator	19
2311	Compact Dial Indicator	18
2313	Precision Dial Indicator	20
2314	Shockproof Dial Indicator	19
2321	Internal Dial Caliper Gage	24
2322	Bore Gage	16
2324	Waterproof Dial Indicator	19
2332	External Dial Caliper Gage	24
2333	External Dial Caliper Gage	24
2341	Dial Depth Gage	9
2342	Dial Depth Gage	10
2364	Thickness Gage	24
2372	Universal Protractor	28
2373	Dial Protractor	28
2380	Dial Test Indicator	21
2381	Dial Test Indicator	21
2385	Centering Indicator	37
2394	Zero Setter	39
2397	Zero Setter	39
2398	Back Plunger Type Dial Test Indicator	21
2399	Dial Test Indicator	21
28		
2842	3D Tester	38
2852	Bore Gage For Small Holes	16
2862	Thickness Gage	24
2871	Digital Thickness Gage	24
2882	One Revolution Dial Indicator	20
31		
3108	Metric Digital Outside Micrometer	10
3109	Digital Outside Micrometer	11
3127	Digital Three Points Internal Micrometer	15
32		
3203	Outside Micrometer	11
3206	Outside Micrometer With Interchangeable Anvils	12
3209	Long Spindle Outside Micrometer	11
3210	1µm Graduation Outside Micrometer	11
3220	Inside Micrometer	13
3222	Tubular Inside Micrometer	14
3227	Three Points Internal Micrometer	14
3230	Point Micrometer	12
3232	Blade Micrometer	12

CODE NO. INDEX

CODE	DESCRIPTION	PAGE
32		
3241	Depth Micrometer	10
3260	Spherical Anvil Tube Micrometer	12
3281	Screw Thread Micrometer	13
3282	Disk Micrometer	12
33		
3332	Indicating Micrometer	12
35		
3520	Digital Inside Micrometer	13
41		
4100	Steel Gage Block Set	25
4110	Individual Pin Gage	26
4120	Thread Ring Gage	26
4124	Plain Plug Gage	27
4130	Thread Plug Gage	27
4166	Pin Gage Set	26
42		
4206	Telescoping Gage Set	17
46		
4601	Feeler Gage	30
4602	Feeler Gage	30
4605	Long Feeler Gage	30
4621	Feeler Gage Tape	30
4630	Taper Gage	32
47		
4700	Straight Edge	29
4707	Machinist Square With Wide Base	29
4780	Protractor	28
4781	Protractor	28
4782	Bench Center	23
4789	Concentricity Gage	23
4790	90° Beveled Edge Square	29
4791	90° Flat Edge Square	29
4799	Protractor	28
48		
4801	Radius Gage	31
4804	Radius Gage Set	31
4806	Angle Gage	31
4810	Center Gage	31
4820	Pitch Gage	31
4824	Pitch Gage	30
4830	Welding Gage	34
4833	Taper Gage	32
4835	Welding Gage	33
4837	Taper Gage Set	32
4839	Pipe Welding Gage	33
4842	Drill Angle Gage	33
4843	Drill Point Gage	33
4844	Chamfer Gage	32
49		
4910	Digital Level	53
4911	Aluminium Alloy Level	53
50		
5013	13-Piece Measuring Tool Set	40
5024	2-Piece Measuring Tool Set	39

CODE	DESCRIPTION	PAGE
5042	4-Piece Measuring Tool Set	39
5062	6-Piece Measuring Tool Set	39
61		
6140	Depth Base Attachment	9
6141	Extension Base	9
62		
6200	Magnetic Stand	22
6201	Magnetic Stand	22
6202	Magnetic Stand	22
6207	Flex Arm Magnetic Stand	23
6208	Universal Magnetic Stand	22
6210	Universal Magnetic Stand	22
6224	Mini Magnetic Stand	23
6282	Contact Point	20
6282	Extension Rod	20
6284	Styli For Dial Test Indicators	21
6291	Dial Test Indicator Centering Holder	22
6293	Dial Test Indicator Holder	22
6295	Dial Test Indicator Centering Holder	22
63		
6300	Micrometer Stand	13
6301	Micrometer Stand	13
6312	Setting Ring	16
65		
6533	Parallel Set	37
6535	Adjustable Angle Block	37
6550	Electronic Zero Setter	39
6562	Edge Finder	38
6566	Electronic Edge Finder	38
68		
6801	Magnetic V-Block	37
6832	Welding Gage	32
6862	Dial Gage Stand	23
6866	Granite Comparator Stand	23
6881	Gage Block Accessory	25
6888	Roller Bearing V-Block Set	36
6890	Magnetic V-Block	37
6896	V-Block Set	36
69		
6900	Granite Surface Plate	36
6902	Stand For Granite Surface Plate	36
71		
7106	Linear Gage And Display Unit	42
7107	Multi Linear Gage System	42
7110	Steel Rule	35
7111	Straight Edge	35
7114	Circumference Tape	17
72		
7203	Scriber Caliper	35
7205	Center Marking Gage	35
7230	Scriber	35
7231	Scriber	35
7232	Scriber	35
7247	Divider	34
7260	Spring Divider	34



www.insize.com



Obtain information about our complete line of product from
our website or general catalogue

Distributed by: