

WATERPROOF DIGITAL PROTRACTOR (HEAVY DUTY)

ABSOLUTE LEVEL

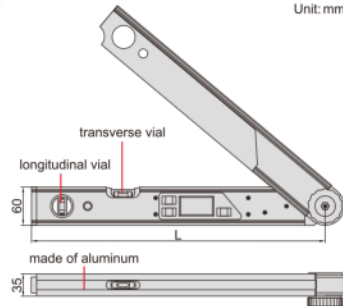
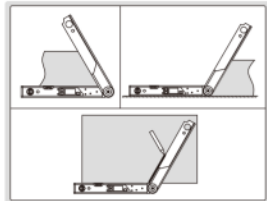
AUTOMATIC BACKLIGHT

IP54 WATERPROOF

2174-225



Unit: mm



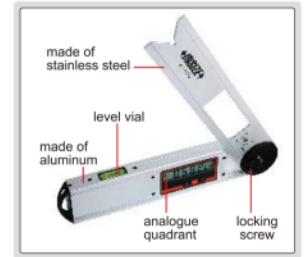
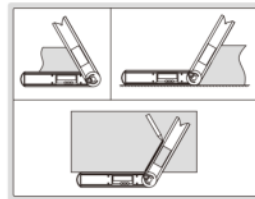
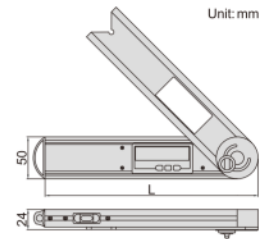
- Suitable for setting horizontal and vertical mitre angles of cutting machine
- Buttons: ON/OFF, HOLD/SUP, SPR/CNR/MTR/BVL
- IP54 dust/waterproof
- With transverse and longitudinal vials
- 2xAAA batteries
- Absolute level, zero setting is not needed when batteries are replaced
- Backlight turns off in one minute after no data changing, automatic power off in 5 minutes

Code	Size (L)	Range	Resolution	Accuracy
2174-225	460mm	0-225°	0.05°	±0.10°

DIGITAL PROTRACTOR



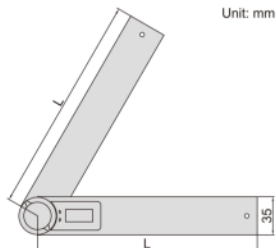
2171-250



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

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

DIGITAL PROTRACTORS

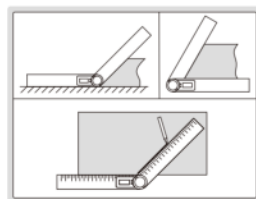


Unit: mm



2176-200

- Resolution: 0.1°
- Buttons: on/off, zero
- With clamping screw to lock the blades
- Graduation of blade: 1mm and 1/32"
- Made of stainless steel
- CR2032 battery, automatic power off

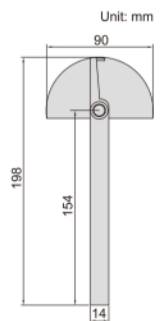


Code	Size (L)	Range	Accuracy
2176-200	200mm	0-360°	±0.3°
2176-300	300mm	0-360°	±0.3°

PROTRACTOR (ECONOMIC TYPE)



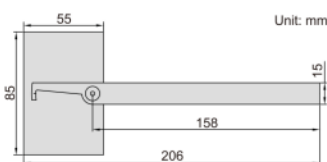
4780-85A



- Made of stainless steel
- With clamping screw

Code	Size	Range	Graduation	Accuracy
4780-85A	90x154mm	0-180°	1°	±0.5°

PROTRACTOR



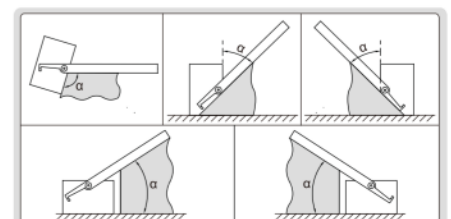
Unit: mm



4781-85A

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

Code	Size	Range	Graduation	Accuracy
4781-85A	85x158mm	0-180°	1°	±0.3°

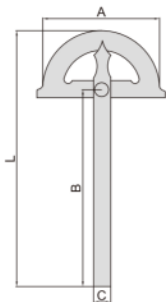


PROTRACTORS



4799-180

- Made of stainless steel (4799-1300 is made of carbon steel)
- Satin chrome plated scale
- With clamping screw



Code	Size (AxB)	Range	Accuracy	Graduation	L	C
4799-180	80x120mm	0-180°	±0.3°	1°	168mm	11mm
4799-1120	120x150mm	0-180°	±0.3°	1°	220mm	14mm
4799-1150	150x200mm	0-180°	±0.3°	1°	285mm	16mm
4799-1200	200x300mm	0-180°	±0.3°	1°	413mm	20mm
4799-1300	300x500mm	0-180°	±0.3°	1°	675mm	30mm

DIGITAL PROTRACTORS

ATTENTION:
NO DATA OUTPUT

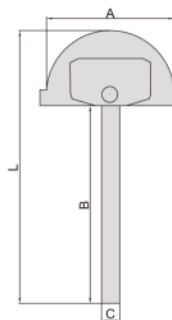


4779-120

the reading can turn over



- Range: 0-180°
- Buttons: on/off, zero, hold/turn
- Made of stainless steel
- With clamping screw



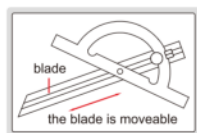
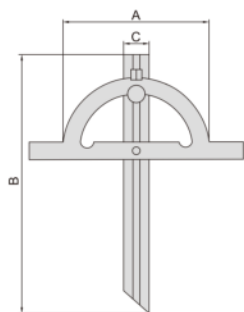
Code	Size (AxB)	Resolution	Accuracy	L	C
4779-120	120x150mm	0.05°	±0.3°	220mm	22mm
4779-150	150x200mm	0.05°	±0.3°	285mm	22mm
4779-200	200x300mm	0.05°	±0.3°	409mm	22mm

PROTRACTORS



4797-100

- Graduation: 1°
- Made of carbon steel
- Satin chrome plated
- With clamping screw
- The blade is moveable



Code	Size (AxB)	Range	Accuracy	C
4797-100	100x150mm	10-170°	±0.3°	18mm
4797-150	150x300mm	10-170°	±0.3°	22mm
4797-200	200x400mm	10-170°	±0.3°	24mm
4797-250	250x500mm	10-170°	±0.3°	28mm
4797-300	300x600mm	10-170°	±0.3°	32mm

DIGITAL PROTRACTORS

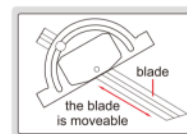
ATTENTION:
NO DATA OUTPUT



4778-100

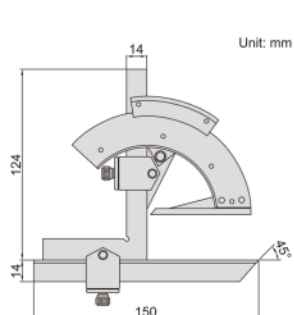
- Range: 0-180°
- Buttons: on/off, zero, hold/turn
- Made of stainless steel
- With clamping screw
- The blade is moveable

the reading can turn over



Code	Size (AxB)	Resolution	Accuracy	C
4778-100	100x150mm	0.05°	±0.3°	22mm
4778-150	150x300mm	0.05°	±0.3°	22mm
4778-200	200x400mm	0.05°	±0.3°	24mm

PROTRACTOR



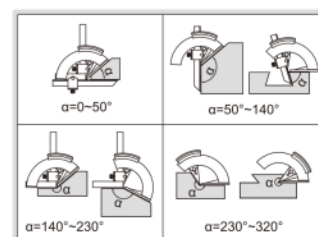
Unit: mm



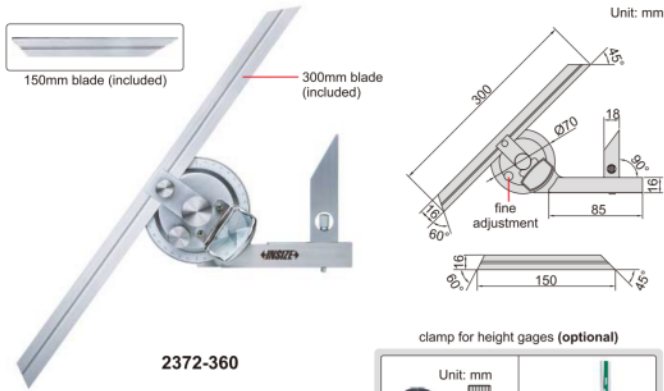
2374-320

- Made of stainless steel
- Satin chrome plated scale

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

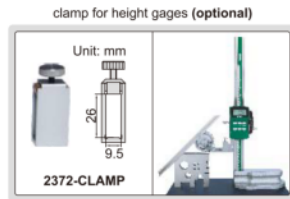


UNIVERSAL PROTRACTOR



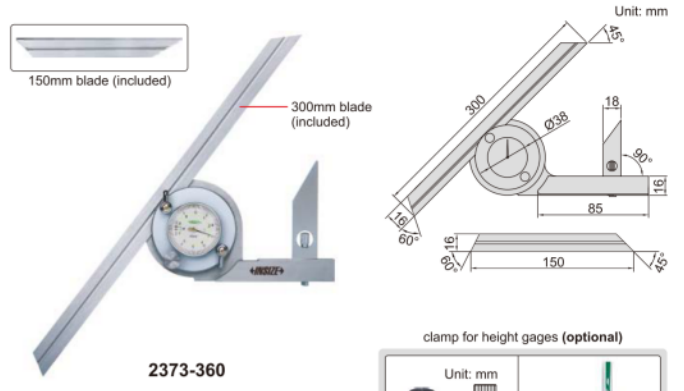
2372-360

- Parallax-free reading
- Made of stainless steel
- Optional accessory: clamp (code **2372-CLAMP**), suitable for height gages **1156, 1150-300, 1351, 1151** and **1250**



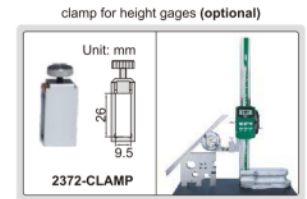
Code	Range	Graduation	Accuracy
2372-360	0-360°	5'	±5'

DIAL PROTRACTOR



2373-360

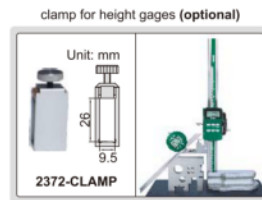
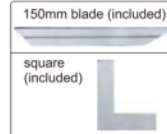
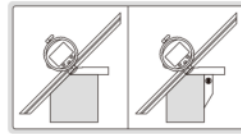
- Made of stainless steel
- Optional accessory: clamp (code **2372-CLAMP**), suitable for height gages **1156, 1150-300, 1351, 1151** and **1250**



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

DIGITAL PROTRACTOR

- Display in degree (for example 32.655°) and degree/minute/second (for example 32°39'30")
- SET button: preset the reading, change measuring direction
- MODE button: choose 0-90°, 0-180° or 0-360° display
- ZERO/ON/OFF button: zero and power on/off
- Battery CR2032, automatic power off
- Data output
- Supplied with square to set 90°
- Made of stainless steel
- Optional accessory: data output cable (code **7315-50, 7302-SPC3B**), clamp (code **2372-CLAMP**), suitable for height gages **1156, 1150-300, 1351, 1151** and **1250**



2172-360A



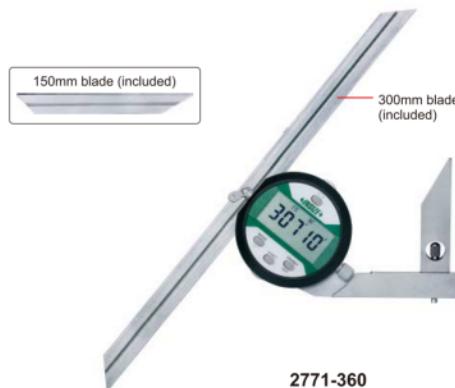
DATA OUTPUT

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

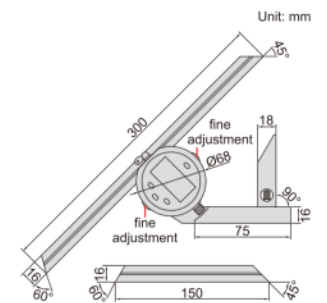
DIGITAL PROTRACTOR (BASIC TYPE)

ABSOLUTE ZERO DATA OUTPUT

- Absolute zero, zero setting is not needed when batteries are replaced
- Button function: choose 0-90°, 0-180° or 0-360° display, change resolution, display flips over, data hold, zero, on/off supplementary angle measurement
- Battery CR2032, automatic power off
- Data output
- Made of stainless steel
- Optional square for zero setting
- Optional accessory: clamp (code **2372-CLAMP**), suitable for height gages **1156, 1150-300, 1351, 1250** and **1151**, data output cable (code **7315-2771, 7302-50M**)



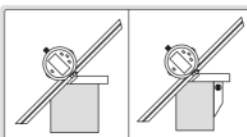
2771-360



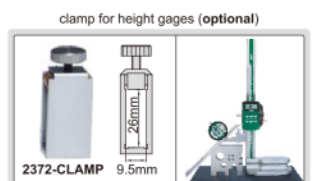
Code	Range	Resolution	Accuracy
2771-360	0-360°	1'/0.01°	±5'

Square (for zero setting, optional)

Code
2771-S90



square (optional)



PERPENDICULARITY TESTERS



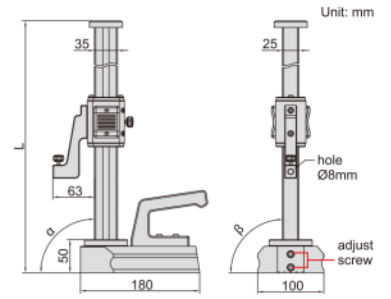
- Optional accessory: dial test indicators (graduation: 1µm or 2µm)

Code	Range (H)	Perpendicularity (α)	Side perpendicularity (β)	L
4770-300	0-300mm	3µm	10µm	460mm
4770-600	0-600mm	5µm	20µm	760mm



dial test indicator is optional

4770-300



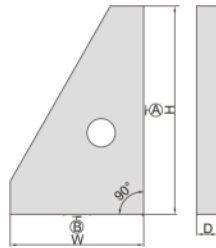
Unit: mm

GRANITE SQUARES

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

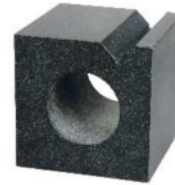


4141-250

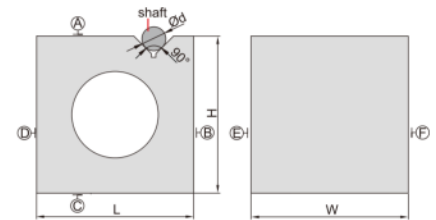


Code	Size (HxW)	Flatness of A	Flatness of B	Squareness of A to B	D
4141-250	250x160mm	1µm	1µm	2µm	25mm
4141-400	400x250mm	1.5µm	1µm	3µm	40mm
4141-630	630x400mm	2µm	1.5µm	4µm	63mm

GRANITE SQUARE WITH V GROOVE



4142-200



- Parallelism and squareness of A, B, C, D, E and F: 6µm
- Parallelism and squareness of V groove to A, B, C, D, E and F: 6µm

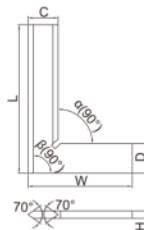
Code	Size (LxWxH)	Range of shaft (Ød)
4142-200	200x200x200mm	9-70mm

90° BEVELED EDGE SQUARES

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



4790-0100



Code	Size (LxW)	Squareness		C	D	H
		Inside (α)	Outside (β)			
4790-050	50x40mm	2.4µm	2.5µm	13	13	4
4790-075	75x50mm	2.6µm	2.8µm	15	15	4
4790-0100	100x70mm	2.8µm	3.0µm	20	20	5
4790-0150	150x100mm	3.2µm	3.5µm	30	30	6
4790-0200	200x130mm	3.7µm	4.0µm	34	34	7
4790-0300	300x200mm	4.6µm	5.0µm	40	40	8

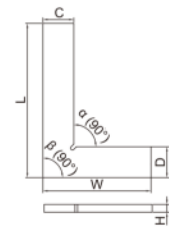
Code	Size (LxW)	Squareness		C	D	H
		Inside (α)	Outside (β)			
4790-500	50x40mm	6µm	6µm	13	13	4
4790-750	75x50mm	6µm	7µm	15	15	4
4790-1000	100x70mm	7µm	7µm	20	20	5
4790-1500	150x100mm	7µm	8µm	30	30	6
4790-2000	200x130mm	8µm	9µm	34	34	7
4790-3000	300x200mm	10µm	11µm	40	40	8

90° FLAT EDGE SQUARES

- Made of hardened stainless steel



4791-100

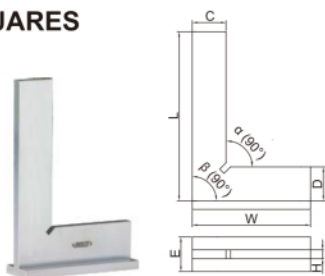


Code	Size (LxW)	Squareness		C	D	H
		Inside (α)	Outside (β)			
4791-50	50x40mm	6µm	6µm	15	15	4
4791-75	75x50mm	6µm	7µm	15	15	4
4791-100	100x70mm	7µm	7µm	20	20	5
4791-150	150x100mm	7µm	8µm	30	30	6
4791-200	200x130mm	8µm	9µm	30	30	7
4791-250	250x165mm	9µm	10µm	35	35	7
4791-300	300x200mm	10µm	11µm	40	40	8

Code	Size (LxW)	Squareness		C	D	H
		Inside (α)	Outside (β)			
4791-501	50x40mm	12µm	13µm	15	15	4
4791-751	75x50mm	13µm	14µm	15	15	4
4791-1001	100x70mm	14µm	15µm	20	20	5
4791-1501	150x100mm	16µm	18µm	30	30	6
4791-2001	200x130mm	19µm	20µm	30	30	6

90° FLAT EDGE SQUARES WITH WIDE BASE

4793-100



- DIN875 grade 0
- Made of hardened stainless steel

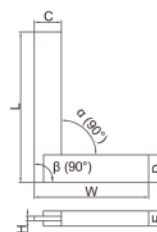
Code	Size (LxW)	Squareness		C	D	H	E
		Inside (α)	Outside (β)				
4793-50	50x40mm	6 μ m	6 μ m	13	13	4	13
4793-75	75x50mm	6 μ m	7 μ m	15	15	4	15
4793-100	100x70mm	7 μ m	7 μ m	20	20	5	20
4793-150	150x100mm	7 μ m	8 μ m	30	30	6	30
4793-200	200x130mm	8 μ m	9 μ m	30	30	7	30
4793-250	250x165mm	9 μ m	10 μ m	35	35	7	35
4793-300	300x200mm	10 μ m	11 μ m	40	40	8	40

(mm)

90° FLAT EDGE SQUARES WITH WIDE BASE



4792-100



- DIN875 grade 0
- Made of hardened stainless steel

Code	Size (LxW)	Squareness		C	D	H	E
		Inside (α)	Outside (β)				
4792-50	50x40mm	6 μ m	6 μ m	12	12	3	10
4792-75	75x50mm	6 μ m	7 μ m	14	14	3	10
4792-100	100x70mm	7 μ m	7 μ m	18	18	3	10
4792-150	150x100mm	8 μ m	8 μ m	22	22	4	12
4792-200	200x130mm	9 μ m	9 μ m	25	25	4	12

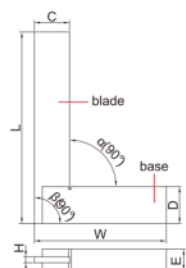
(mm)

MACHINIST SQUARES WITH WIDE BASE (ECONOMIC TYPE)

ATTENTION: NO ANTI-RUST TREATMENT, NOT HARDEND



4707-100



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

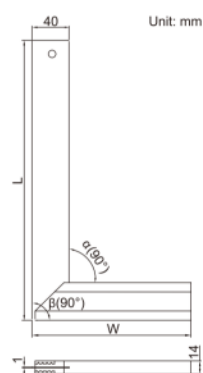
Code	Size (LxW)	Squareness		C	D	H	E
		Inside (α)	Outside (β)				
4707-50	50x40mm	24 μ m	25 μ m	16	12	3	9
4707-75	75x50mm	26 μ m	28 μ m	16	16	3	9
4707-100	100x70mm	28 μ m	30 μ m	19	19	3	12
4707-150	150x100mm	33 μ m	35 μ m	25	25	3	16
4707-200	200x130mm	37 μ m	40 μ m	30	32	4	16
4707-250	250x165mm	42 μ m	45 μ m	30	32	4	19
4707-300	300x200mm	47 μ m	50 μ m	32	32	4	19
4707-400	400x250mm	56 μ m	60 μ m	38	38	5	22
4707-500	500x300mm	65 μ m	70 μ m	45	50	6	25
4707-600	600x350mm	75 μ m	80 μ m	50	50	6	30
4707-750	750x400mm	90 μ m	95 μ m	55	55	6	50
4707-900	900x500mm	103 μ m	110 μ m	65	75	9	50
4707-1000	1000x550mm	113 μ m	120 μ m	65	75	9	50

(mm)

TRY SQUARE



2275-300



Unit: mm

- Graduation: 1mm
- Stainless steel blade, aluminum base

Code	Size (LxW)	Squareness	
		Inside (α)	Outside (β)
2275-300	300x170mm	0.5mm	0.5mm

STRAIGHT EDGES

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



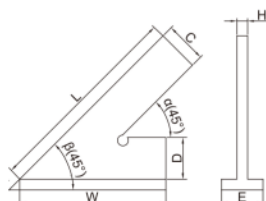
4700-100



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

(mm)

45° SQUARES WITH WIDE BASE



4747-150



- Made of hardened stainless steel

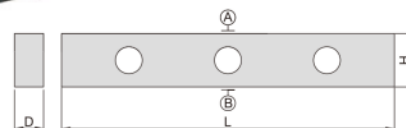
Code	Size (LxW)	Accuracy		C	D	H	E
		Inside (α)	Outside (β)				
4747-150	150x100mm	32 μ m	36 μ m	20	20	5	20
4747-200	200x130mm	36 μ m	41 μ m	25	25	5	25

(mm)

GRANITE STRAIGHT EDGES



4147-500A



Code	Length (L)	Flatness of A and B	Parallelism between A and B	D	H
4147-500A	500mm	2.1 μ m	3.2 μ m	50mm	80mm
4147-1000A	1000mm	3.0 μ m	4.5 μ m	60mm	120mm

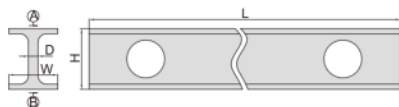
MAGNALIUM STRAIGHT EDGES

LIGHT WEIGHT



4180-1500

- Made of magnalium, light weight, non-deform, no rusty



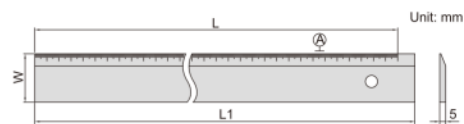
(mm)

Code	Length (L)	Flatness of A and B	Parallelism between A and B	H	W	D	Weight
4180-500	500mm	3 μ m	4 μ m	60	30	5	1kg
4180-1000	1000mm	5 μ m	8 μ m	60	30	5	1.5kg
4180-1500	1500mm	15 μ m	22 μ m	100	40	7	4.5kg
4180-2000	2000mm	18 μ m	27 μ m	100	40	7	6kg
4180-3000	3000mm	48 μ m	72 μ m	150	80	8	21kg

STRAIGHT EDGES



7111-300A



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

Code	Range (L)	Straightness of A	L1	W
7111-300A	300mm	0.02mm	310mm	40mm
7111-500A	500mm	0.03mm	510mm	40mm

STRAIGHTNESS/FLATNESS GAGE

application



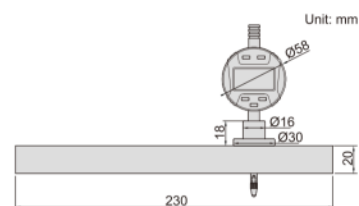
2144-200

- Optional accessory: data output cable (code 7315-50M, 7302-40M)



DATA OUTPUT

GRANITE HOLDER CAN BE CUSTOMIZED ACCORDING TO WORKPIECES



Code	Range	Digital indicator resolution	Straightness measurement accuracy	Parallelism of top and bottom surfaces of granite holder	Flatness of top and bottom surfaces of granite holder
2144-200	200mm	0.001mm/0.00005"	3 μ m	2 μ m	1.5 μ m