

Holding bar (optional)

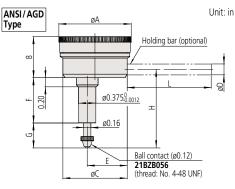
Order No.	øD (mm)	L (mm)						
21AAA166	ø6	42						
136567	ø6	81						
124625	ø6.35	81						
21AAA167	ø6.35	42						
21AAA168	ø8	42						
136568	ø8	81						

Note: ØD and L: detail shown in drawing below.

Optional Accessory

Limit hand (2 pcs.): 21AAB363

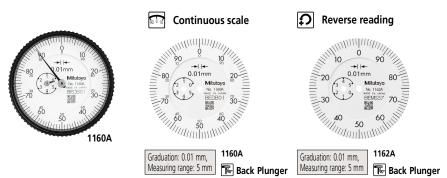
DIMENSIONS



,	Order No.	А	В	С	E	F	G	Н	Mass (g) (Bar excluded)
	1166A	1.57	0.89	1.40	7/8	0.98	0.43	1.67	80
	1167A	1.57	0.89	1.40	7/8	0.98	0.43	1.67	80
	1168A	1.57	0.89	1.40	7/8	0.98	0.43	1.67	80
	1961A	1.57	0.89	1.40	7/8	0.98	0.43	1.59	80

Back Plunger Type Dial Indicators SERIES 1

- Back Plunger type dial indicators are suitable for mounting onto leveling machine tool tables or inspection jigs, and for use in situations where standard dial indicators are difficult to read.
- Model **1960A** and **1961A**, which uses Mitutoyo's proprietary shock-proofing mechanism, has excellent durability and shock resistance.



Unit: mm

Order No.	А	В	С	E	F	G	Η	Mass (g) (Bar excluded)	
1160A	40	22.7	35.6	21.8	25	13.8	43.3	80	
1162A	40	22.7	35.6	21.8	25	13.8	43.3	80	
1960A	40	22.7	35.6	21.8	28.7	12.8	46	80	
Note 1: Contact point (standard accessory) for all products in this page has a role as a top dead point stopper. For this reason, if you need to install an optional contact point with an outside diameter smaller than 7 mm, use a washer (with outside diameter of at least 7 mm, inside diameter of 3 mm, and thickness of approx. 0.5 mm) placed									

between the contact point and the spindle. Note 2: Refer to pages F-57 to F-60 for details of contact points.

Sie 2. Refer to pages F-57 to F-bu for details of contact points.

ារី Balanced scale
Graduation: 0.01 mm, Measuring range: 1 mm Measuring States Measuring Cone

One revolution
Shockproof
Back Plunger

FEATURES

wethe						
Order No.	90 0 10	10 0 10	n	2	£	F 90•
1960A		~	~	~		~
1160A	~					~
1162A					~	~

90 ° 10	10 0 10	ſ	3	£	1 90°
	~	~	~		~
~					~
	~				~
				~	~
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SPECIFICATIONS

_	Metric L										ISO/JIS type
с	Order No.	Graduation Range (mm) (range/rev)		Maximum permissible error (MPE) (µm) Indication error Hysteresis						Dial reading	Measuring force (N)
		(IIIII)	(mm)	1/10 Rev	1/2 Rev	1 Rev	Measuring range	TIYSLELESIS	ability	reduing	
	1960A	0.01	1 (1.27)	8	—	_	14	4	3	50-0-50	1.4 or less
	1160A	0.01	5 (1)	8	12	14	16	4	3	±0-100	1.4 or less
	1162A	0.01	5 (1)	8	12	14	16	4	3	100-0	1.4 or less

Note 1: Completed products inspection is performed in the vertical orientation (contact point downward) and the stated accuracy is guaranteed. Note 2: The bezel clamp cannot be used.

Inch	A	NSI/AGD type					
Order No.		Range (range/rev)		Detroco	Repeatbility	Dial reading	Measuring force (N)
	(in)	(in)	First 1 Rev/2.5 Rev/10 Rev	Retrace	(in)	reading	TOICE (IN)
1961A	0.001	0.04 (0.05)	±0.001/—/—	0.0002	±0.0002	20-0-20	1.4 or less
1166A	0.001	0.2 (0.05)	±0.001/±0.001/±0.001	0.00033	±0.0002	±0-50	1.4 or less
1167A	0.001	0.2 (0.05)	±0.001/±0.001/±0.001	0.00033	±0.0002	0-25-0	1.4 or less
1168A	0.001	0.2 (0.05)	±0.001/±0.001/±0.001	0.00033	±0.0002	50-0	1.4 or less

Note 1: Completed products inspection is performed in the vertical orientation (contact point downward) and the stated accuracy is guaranteed. Note 2: The bezel clamp cannot be used.

