

## **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

difficult to read.

**SERIES 1** 

Continuous scale

**Back Plunger Type Dial Indicators** 

• Back Plunger type dial indicators are suitable

situations where standard dial indicators are

for mounting onto leveling machine tool

tables or inspection jigs, and for use in

1160A



Graduation: 0.01 mm, Measuring range: 5 mm **Back Plunger** 

• Model **1960A** and **1961A**, which uses

Mitutoyo's proprietary shock-proofing

shock resistance.

mechanism, has excellent durability and

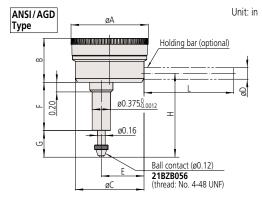


Reverse reading



**Back Plunger** 

## **DIMENSIONS**



Order No. A		В	С	E	F	G	Н	Mass (g) (Bar excluded)
1166A	<b>1166A</b>   1.57   0.		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

# Unit: mm ISO/JIS Туре Holding bar (optional) ø8-8.009 M2.5×0.45

Order No.	А	В	С	E	F	G	Н	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.

## **Balanced scale**



Graduation: 0.01 mm, Measuring range: 1 mm

1960A One revolution Shockproof

**Back Plunger** 

## **FEATURES**

Order No.	90 0 10	10 0 10	U	3	C)	<b>1</b> 90°
1960A		~	~	~		~
1160A	1					~
1162A					~	~

Inch						
Order No.	90 0 10	10 0 10	C	3	C)	<b>1</b> 90°
1961A		~	~	~		~
1166A	~					~
1167A		~				~
1168A					~	~
	1961A 1166A 1167A	Order No. 1961A 1166A 1167A	Order No. 1961A	Order No. 1961A	Order No.         Image: Control of the control o	Order No.         Image: Control of the control o

## **SPECIFICATIONS**

į	Metric L										ISO/JIS type
	Order No.	Maximum permissible error (Mi Indication error				Hysteresis	Repeat- ability	Dial reading	Measuring force (N)		
	1960A	0.01	1 (1.27)	8	—		14	4	3	50-0-50	1.4 or less
Ī	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 quaranteed. Note 2: The bezel clamp cannot be used.

Inch						P	INSI/AGD type
Order No. Graduation (in) Range (range/rev) (in)		Accuracy (in)	Repeatbility	Dial	Measuring		
		(in)	First 1 Rev/2.5 Rev/10 Rev	.5 Rev/10 Rev Retrace		reading	force (N)
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.

