

# Dial Indicators

## Back Plunger Type Dial Indicators SERIES 2

- This series has been developed to eliminate the possibility of reading errors due to miscounting multiple revolutions.
- Back Plunger type dial indicators are suitable for mounting onto leveling machine tool tables or inspection jigs, and for use in small spaces where the graduations of standard dial indicators are difficult to see.
- Mitutoyo's proprietary shock-proofing mechanism provides excellent durability and shock resistance.
- Model **2990A-10** provides 0.001 mm graduation.



### Holding bar (optional)

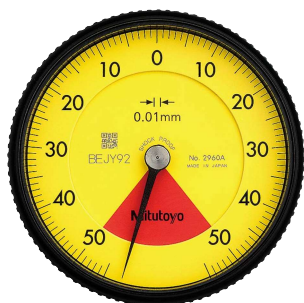
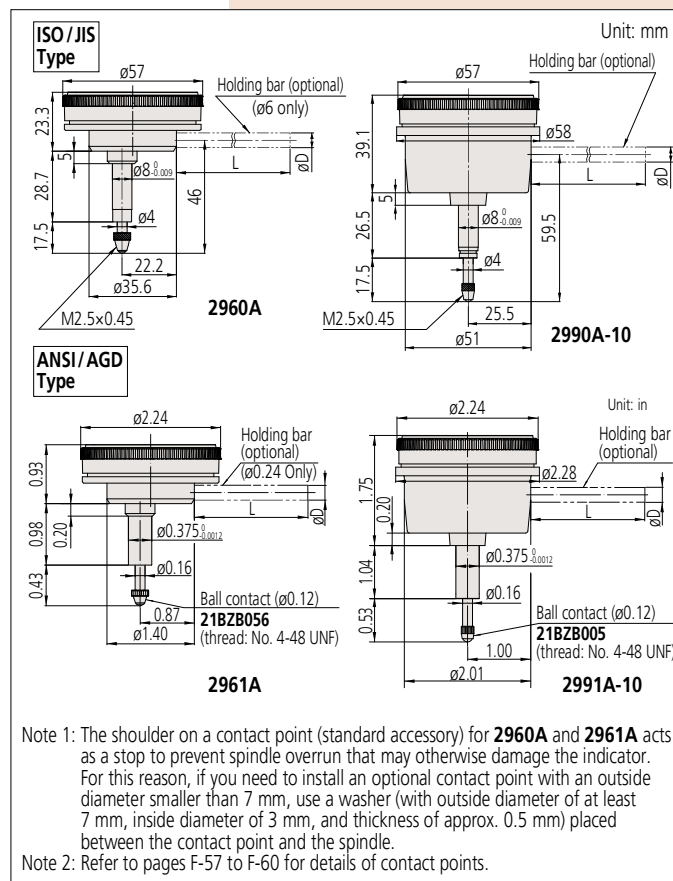
Order No.	øD (mm)	L (mm)
<b>21AAA166</b>	ø6	42
<b>136567</b>	ø6	81
<b>124625</b>	ø6.35	81
<b>21AAA167</b>	ø6.35	42
<b>21AAA168</b>	ø8	42
<b>136568</b>	ø8	81

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

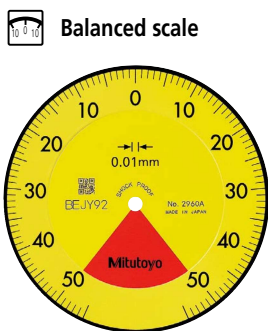
### Optional Accessory

- Limit hand (2 pcs.): **21AZB195**

## DIMENSIONS

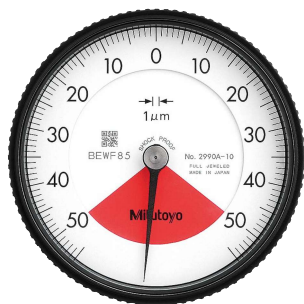


**2960A**

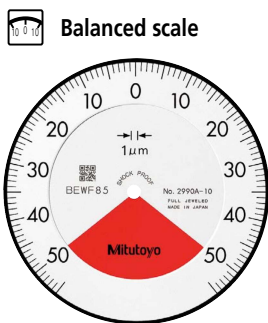


**2960A**  
Graduation: 0.01 mm,  
Measuring range: 1 mm

- One revolution
- Shockproof
- Back Plunger



**2990A-10**



**2990A-10**  
Graduation: 0.01 mm,  
Measuring range: 1 mm

- One revolution
- Shockproof
- Back Plunger
- Jeweled bearing

Order No.	Graduation (mm)	Range (range/rev) (mm)	Maximum permissible error (MPE) (μm)					Dial reading	Measuring force (N)	
			Indication error				Hysteresis			Repeatability
			1/10 Rev	1/2 Rev	1 Rev	Measuring range				
<b>2960A</b>	0.01	1 (1.27)	8	—	—	14	4	3	50-0-50	1.4 or less
<b>2990A-10</b>	0.001	0.1 (0.14)	2.5	—	—	5	2	1	50-0-50	1.5 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.

Order No.	Graduation (in)	Range (range/rev) (in)	Accuracy (in)			Repeatability (in)	Dial reading	Measuring force (N)
			First 1 Rev	2.5 Rev	10 Rev			
			Retrace					
<b>2961A</b>	0.0005	0.04 (0.05)	±0.0005/—/—	—	0.00016	±0.0001	20-0-20	1.4 or less
<b>2991A-10</b>	0.0001	0.008 (0.01)	±0.0002/—/—	—	0.0001	±0.00005	4-0-4	1.5 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.