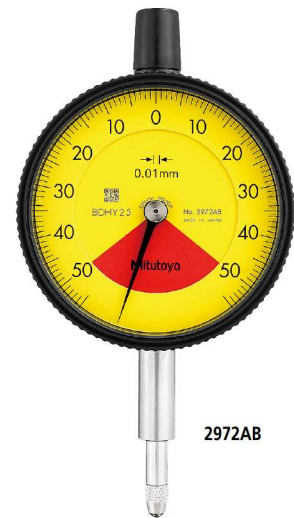




SERIES 2 — Standard One Revolution Type for Error-free Reading, Lightweight Type

- The one revolution dial indicator (lightweight type) prevents the possibility of reading errors.
- Mitutoyo's unique shock-proof mechanism is incorporated, providing improved resistance to shock due to sudden spindle retraction caused by impact.
- Lightweight type (70 g).
- It is highly durable thanks to a hardened stainless-steel stem and spindle, carbide probe, and a large gear made of wear- and deformation-resistant materials.
- Application of an anti-reflective and hard surface coating improves scale visibility along with scratch and chemical resistance.
- The dead zone in red indicates "accuracy not guaranteed".



2972AB

SPECIFICATIONS

Metric		ISO/JIS type										ANSI/AGD type	
Code No.		Graduation (mm)	Range (range/rev) (mm)	Maximum permissible error (MPE) (μm)						Dial reading	Measuring force (N)		
w/lug	Flat-back			Indication error				Hysteresis	Repeat-ability				
				1/10 Rev	1/2 Rev	1 Rev	Measuring range						
—	2971AB	0.01	0.5 (0.7)	5	—	—	8	3	3	25-0-25	1.4 or less		
—	2972AB	0.01	1 (1.4)	5	—	—	8	3	3	50-0-50	1.4 or less		
—	2973AB	0.02	1.6 (2)	8	—	—	16	6	5	80-0-80	1.4 or less		

Inch		Accuracy (in)										Repeat-ability (in)	Dial reading	Measuring force (N)
Code No.		Graduation (in)	Range (range/rev) (in)	Accuracy (in)				Retrace						
w/lug	Flat-back			First 1 Rev/2.5 Rev/10 Rev										
—	2976AB	0.0005	0.02 (0.028)	±0.0005/—/—				0.00016	±0.0001	10-0-10	1.4 or less			
—	2977AB	0.0005	0.04 (0.055)	±0.0005/—/—				0.00016	±0.0001	20-0-20	1.4 or less			
—	2978AB	0.001	0.06 (0.079)	±0.001/—/—				0.0002	±0.0002	30-0-30	1.4 or less			

Note: Completed products inspection is performed in the vertical orientation (contact point downward) and the stated accuracy is guaranteed.

Dial Indicators

SERIES 2 — Standard One Revolution Type for Error-free Reading, Lightweight Type

DIMENSIONS

ISO/JIS Type

Unit: mm

Technical drawings of the ISO/JIS Type dial indicator. The front view shows dimensions A, B, C, D, E, F, G, H, and I. The top view shows the circular dial face with a note: "Flat back lid and internal frame are integral molding." The side view shows the indicator body with a note: "Optional Back lid installation holes (4 locations)". An inset shows the "Installation example of back lid with lug" with a dimension of 22.5. The bottom view shows the mounting thread as M2.5x0.45.

ANSI/AGD Type

Unit: in

Technical drawings of the ANSI/AGD Type dial indicator. The front view shows dimensions A, B, C, D, E, F, G, H, and I. The top view shows the circular dial face with a note: "Flat back lid and internal frame are integral molding." The side view shows the indicator body with a note: "Optional Back lid installation holes (4 locations)". The bottom view shows the mounting thread as 218ZB005 (thread: No. 4-48 UNF) and a ball contact (ø0.12).

Note 1: When installing an optional back (refer to page 07-69 for details) 4 retaining screws must also be obtained (546666: Self-tapping screw only for plastic).
Do not apply a tightening torque of more than 20 N·cm in order to avoid stripping the screw threads.

Note 2: An optional lifting lever, release or bezel clamp cannot be installed.

Metric

Code No.	A	B	C	D	F	G	H	I	Mass (g)
2971AB	43.2	65.6	57	16.9	20.3	16.8	55	7.6	70
2972AB	43.2	66	57	16.9	20.3	17.2	55	7.6	
2973AB	43.2	66.3	57	16.9	20.3	17.5	55	7.6	

Inch

Code No.	A	B	C	D	F	G	H	I	Mass (g)
2976AB	1.70	2.55	2.24	0.67	0.80	0.63	2.17	0.30	70
2977AB	1.70	2.56	2.24	0.67	0.80	0.64	2.17	0.30	
2978AB	1.70	2.57	2.24	0.67	0.80	0.65	2.17	0.30	

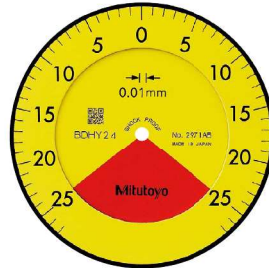
Note: Refer to pages 07-63 to 07-68 for details of contact points.

Optional Accessory
• Limit hand (2 pcs.): 21AZB195





Balanced scale



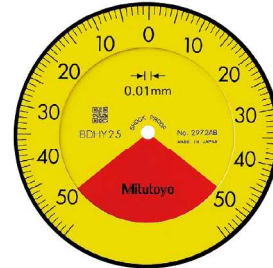
Graduation: 0.01 mm,
Measuring range: 0.5 mm

2971AB

- One revolution
- Shockproof
- Dustproof



Balanced scale



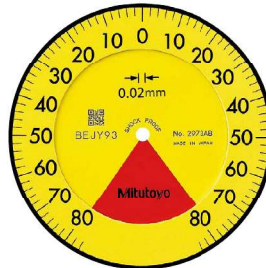
Graduation: 0.01 mm,
Measuring range: 1 mm

2972AB

- One revolution
- Shockproof
- Dustproof



Balanced scale







Graduation: 0.02 mm,
Measuring range: 1.6 mm

2973AB





- One revolution
- Shockproof
- Dustproof

FEATURES

Metric ☒ ISO/JIS type ☐ ANSI/AGD type

Code No.					
w/lug	Flat-back				
—	2971AB	✓	✓	✓	✓
—	2972AB	✓	✓	✓	✓
—	2973AB	✓	✓	✓	✓

Inch

Code No.					
w/lug	Flat-back				
—	2976AB	✓	✓	✓	✓
—	2977AB	✓	✓	✓	✓
—	2978AB	✓	✓	✓	✓