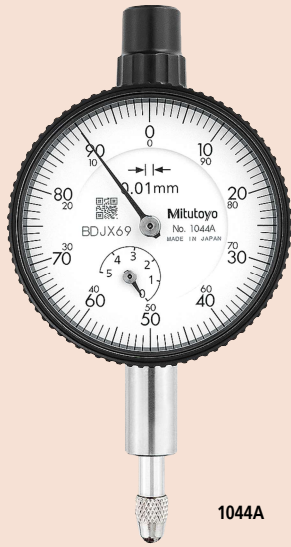




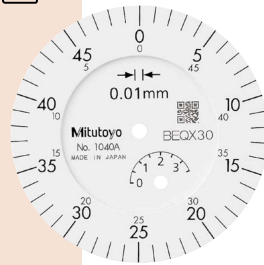
SERIES 1 — Compact Type, Small Diameter

- Compact dial indicators ideal for restricted-space applications in gaging jigs.
- Watertight assembly of bezel and crystal as well as the use of an O-ring prevents water or oil penetration.
- The stem and spindle are made of high-strength quench-hardened stainless steel suitable for heavy-duty use.
- A carbide contact point is used.
- Application of an anti-reflective and hard surface coating improves scale visibility along with scratch and chemical resistance.



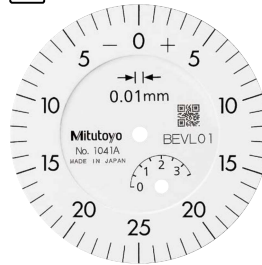
1044A

Continuous scale



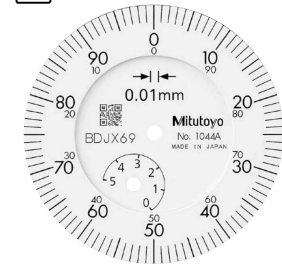
Graduation: 0.01 mm, Measuring range: 3.5 mm **1040A**
 Double scale spacing

Balanced scale



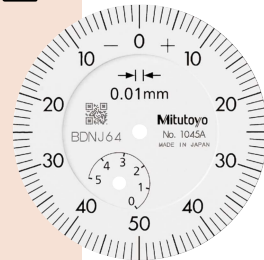
Graduation: 0.01 mm, Measuring range: 3.5 mm **1041A**
 Double scale spacing

Continuous scale



Graduation: 0.01 mm, Measuring range: 5 mm **1044A**
1044A-15
 Jeweled bearing

Balanced scale

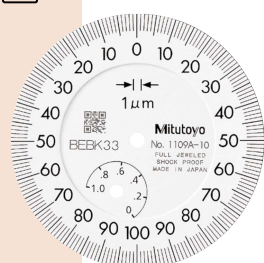


Graduation: 0.01 mm, Measuring range: 5 mm **1045A**



1109A-10

Balanced scale



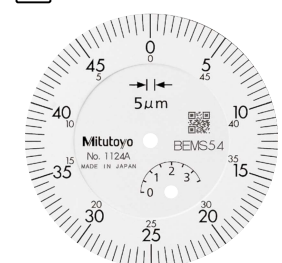
Graduation: 0.001 mm, Measuring range: 1 mm **1109A-10**
 Shockproof
 Jeweled bearing

Balanced scale



Graduation: 0.002 mm, Measuring range: 1 mm **1013A-10**
 Shockproof
 Jeweled bearing

Continuous scale



Graduation: 0.005 mm, Measuring range: 3.5 mm **1124A**

Dial Indicators



1044A-60

Continuous scale



Graduation: 0.01 mm, Measuring range: 5 mm

1044A-60

Waterproof



Optional Accessories

- Limit hand (2 pcs.): 21AAB33



- Bezel clamp: 21RZA149

SPECIFICATIONS

Metric		ISO/JIS type									
Order No. w/lug	Flat-back	Graduation (mm)	Range (range/rev) (mm)	Maximum permissible error (MPE) (μm)						Dial reading	Measuring force (N)
				Indication error			Hysteresis	Repeat-ability	Measuring range		
			1/10 Rev	1/2 Rev	1 Rev						
1013A-10	1013AB-10	0.002	1 (0.2)	2.5	4	5	6	2.5	1	0-100-0	1.5 or less
1040A	1040AB	0.01	3.5 (0.5)	8	10	11	13	4	3	±0-50	1.4 or less
1041A	1041AB	0.01	3.5 (0.5)	8	10	11	13	4	3	0-25-0	1.4 or less
1044A	1044AB	0.01	5 (1)	8	10	11	13	4	3	±0-100	1.4 or less
1044A-15	1044AB-15	0.01	5 (1)	8	10	11	13	4	3	±0-100	0.4 or less*
1044A-60	1044AB-60	0.01	5 (1)	8	10	11	13	4	3	±0-100	2.0 or less
1045A	1045AB	0.01	5 (1)	8	10	11	13	4	3	0-50-0	1.4 or less
1109A-10	1109AB-10	0.001	1 (0.2)	2.5	3.5	4.5	5	2	1	0-100-0	1.5 or less
1124A	1124AB	0.005	3.5 (0.5)	6	9	10	12	3.5	3	±0-50	1.4 or less

* For low measuring force type, use in the vertical orientation.

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

Inch		ANSI/AGD type									
Order No. w/lug	Flat-back	Graduation (in)	Range (range/rev) (in)	Accuracy (in)		Repeat-ability (in)	Dial reading	Measuring force (N)			
				First 1 Rev/2.5 Rev/10 Rev	Retrace						
1410A	1410AB	0.001	0.25 (0.1)	±0.001/±0.001/—		0.0002	0-100	1.4 or less			
1411A	1411AB	0.001	0.25 (0.1)	±0.001/±0.001/—		0.0002	0-50-0	1.4 or less			
1410A-10	1410AB-10	0.001	0.25 (0.1)	±0.001/±0.001/—		0.0002	0-100	1.4 or less			
1780A	1780AB	0.001	0.125 (0.05)	±0.001/±0.001/—		0.0002	0-50	1.4 or less			
1781A	1781AB	0.001	0.125 (0.05)	±0.001/±0.001/—		0.0002	0-25-0	1.4 or less			
1506A	1506AB	0.0005	0.125 (0.05)	±0.0005/±0.0005/—		0.00016	0-50	1.4 or less			
1507A	1507AB	0.0005	0.125 (0.05)	±0.0005/±0.0005/—		0.00016	0-25-0	1.4 or less			
1670A	1670AB	0.0005	0.1 (0.04)	±0.0005/±0.0005/—		0.00016	0-40	1.4 or less			
1671A	1671AB	0.0005	0.1 (0.04)	±0.0005/±0.0005/—		0.00016	0-20-0	1.4 or less			
1802A-10	1802AB-10	0.0001	0.025 (0.01)	±0.0001/±0.0001/—		0.0001	0-10	1.5 or less			
1803A-10	1803AB-10	0.0001	0.025 (0.01)	±0.0001/±0.0001/—		0.0001	0-5-0	1.5 or less			

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

FEATURES

Metric		ANSI/AGD type					
Order No. w/lug	Flat-back	ISO/JIS type	Waterproof	Limit hand	Bezel clamp	Diamond tip	63
1040A	1040AB	✓					
1041A	1041AB	✓	✓				
1044A	1044AB	✓					
1044A-15	1044AB-15	✓				✓	
1044A-60	1044AB-60	✓					✓
1045A	1045AB		✓				
1109A-10	1109AB-10		✓		✓	✓	
1124A	1124AB	✓					

Inch		ANSI/AGD type			
Order No. w/lug	Flat-back	ISO/JIS type	Waterproof	Limit hand	Bezel clamp
1411A	1411AB		✓		
1410A-10	1410AB-10	✓			✓
1780A	1780AB	✓			
1781A	1781AB		✓		
1506A	1506AB	✓			
1507A	1507AB		✓		
1670A	1670AB	✓			
1671A	1671AB		✓		
1802A-10	1802AB-10	✓			✓
1803A-10	1803AB-10		✓		✓

DIMENSIONS

ANSI/AGD Type

Unit: in

Order No.	A	B	C	D	E	F	G	H	I
1410A	1.28	1.87	1.57	0.59	3/4	0.50	0.58	1.50	0.26
1411A	1.28	1.87	1.57	0.59	3/4	0.50	0.58	1.50	0.26
1410A-10	1.28	1.87	1.57	0.59	3/4	0.50	0.58	1.50	0.26
1780A	1.28	1.74	1.57	0.59	3/4	0.50	0.44	1.50	0.26
1781A	1.28	1.74	1.57	0.59	3/4	0.50	0.44	1.50	0.26
1506A	1.28	1.74	1.57	0.59	3/4	0.50	0.44	1.50	0.26
1507A	1.28	1.74	1.57	0.59	3/4	0.50	0.44	1.50	0.26
1670A	1.28	1.71	1.57	0.59	3/4	0.50	0.42	1.50	0.26
1671A	1.28	1.71	1.57	0.59	3/4	0.50	0.42	1.50	0.26
1802A-10	1.28	1.63	1.57	0.59	3/4	0.50	0.33	1.50	0.26
1803A-10	1.28	1.63	1.57	0.59	3/4	0.49	0.33	1.50	0.26

Note: Refer to pages F-57 to F-60 for details of contact points.

ISO/JIS Type

Unit: mm

Order No.	A	B	C	D	E	F	G	H	I
1013A-10	32.5	49	40	15	20	13.8	15.2	38	6.6
1040A	32.5	46	40	15	20	13.8	12.2	38	6.6
1041A	32.5	46	40	15	20	13.8	12.2	38	6.6
1044A	32.5	47.5	40	15	20	13.8	13.7	38	6.6
1044A-15*3	32.5	47.5	40	15	20	13.8	13.7	38	6.6
1044A-60	32.5	57	40	15	20	12.2	24.8	38	6.6
1045A	32.5	47.5	40	15	20	13.8	13.7	38	6.6
1109A-10	32.5	49	40	15	20	13.8	15.2	38	6.6
1124A	32.5	46	40	15	20	13.8	12.2	38	6.6

*3 Use in the vertical orientation (contact point downward) for the low measuring force model.
Note: Refer to pages F-57 to F-60 for details of contact points.