



An inspection certificate is supplied as standard.
Refer to page U-9 for details.

Dial Indicators

Comparison measuring instruments which ensure high quality, high accuracy and reliability.

SERIES 1 — Compact Type, Small Diameter

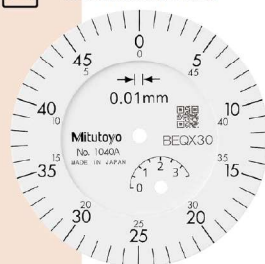
- Compact dial indicators ideal for restricted-space applications in gaging jigs.
- Watertight assembly of bezel and crystal as well as the use of an O-ring prevents water or oil penetration.
- The stem and spindle are made of high-strength quench-hardened stainless steel suitable for heavy-duty use.
- 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

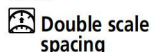


Continuous scale



Graduation: 0.01 mm,
Measuring range: 3.5 mm

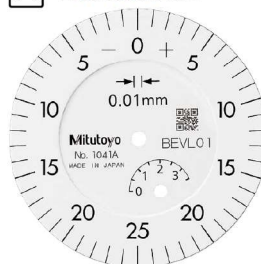
1040A



Double scale spacing

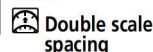


Balanced scale



Graduation: 0.01 mm,
Measuring range: 3.5 mm

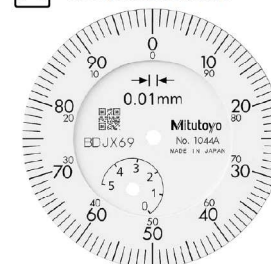
1041A



Double scale spacing

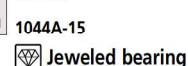


Continuous scale



Graduation: 0.01 mm,
Measuring range: 5 mm

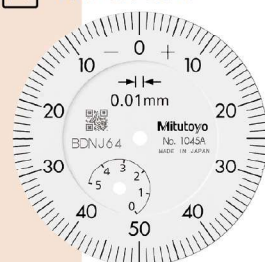
1044A



1044A-15



Balanced scale

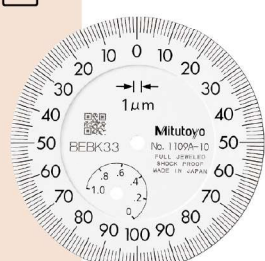


Graduation: 0.01 mm,
Measuring range: 5 mm

1045A



Balanced scale



Graduation: 0.001 mm,
Measuring range: 1 mm

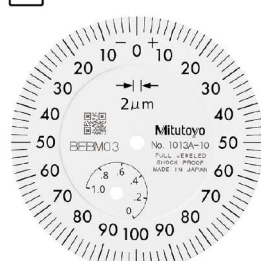
1109A-10



Shockproof
Jeweled bearing



Balanced scale



Graduation: 0.002 mm,
Measuring range: 1 mm

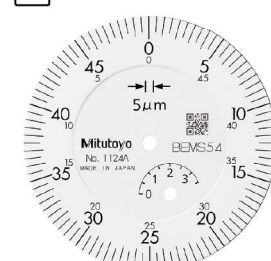
1013A-10



Shockproof
Jeweled bearing



Continuous scale



Graduation: 0.005 mm,
Measuring range: 3.5 mm

1124A



1109A-10

Dial Indicators

Comparison measuring instruments which ensure high quality, high accuracy and reliability.



Continuous scale



Graduation: 0.01 mm,
Measuring range: 5 mm

1044A-60

Waterproof

1044A-60

SPECIFICATIONS

Metric		ISO/JIS type									
Order 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				
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	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.

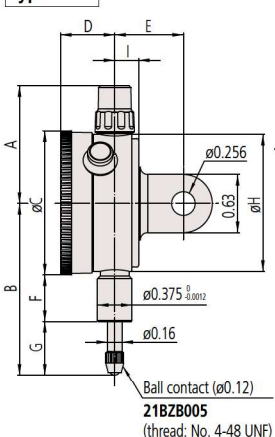
Note: Completed products inspection is performed in the vertical orientation (contact point downward) and the stated accuracy is guaranteed.

Inch		ANSI/AGD type									
Order No.		Graduation (in)	Range (range/rev) (in)	Accuracy (in)		Repeat- ability (in)	Dial reading	Measuring force (N)			
w/lug	Flat-back			First 1 Rev/2.5 Rev/10 Rev	Retrace						
1410A	1410AB	0.001	0.25 (0.1)	±0.001/±0.001/—	0.0002	±0.0002	0-100	1.4 or less			
1411A	1411AB	0.001	0.25 (0.1)	±0.001/±0.001/—	0.0002	±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	±0.0002	0-100	1.4 or less			
1780A	1780AB	0.001	0.125 (0.05)	±0.001/±0.001/—	0.0002	±0.0002	0-50	1.4 or less			
1781A	1781AB	0.001	0.125 (0.05)	±0.001/±0.001/—	0.0002	±0.0002	0-25-0	1.4 or less			
1506A	1506AB	0.0005	0.125 (0.05)	±0.0005/±0.0005/—	0.00016	±0.0001	0-50	1.4 or less			
1507A	1507AB	0.0005	0.125 (0.05)	±0.0005/±0.0005/—	0.00016	±0.0001	0-25-0	1.4 or less			
1670A	1670AB	0.0005	0.1 (0.04)	±0.0005/±0.0005/—	0.00016	±0.0001	0-40	1.4 or less			
1671A	1671AB	0.0005	0.1 (0.04)	±0.0005/±0.0005/—	0.00016	±0.0001	0-20-0	1.4 or less			
1802A-10	1802AB-10	0.0001	0.025 (0.01)	±0.0001/±0.0001/—	0.0001	±0.00003	0-10	1.5 or less			
1803A-10	1803AB-10	0.0001	0.025 (0.01)	±0.0001/±0.0001/—	0.0001	±0.00003	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.

DIMENSIONS

ANSI/AGD Type

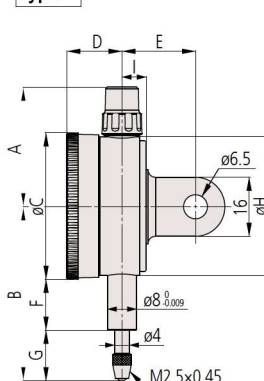


Unit: in

Order No.	A	B	C	D	E	F	G	H	I
1410A	1.28	1.87	1.57	0.57	3/4	0.50	0.58	1.50	0.26
1411A	1.28	1.87	1.57	0.57	3/4	0.50	0.58	1.50	0.26
1410A-10	1.28	1.87	1.57	0.57	3/4	0.50	0.58	1.50	0.26
1780A	1.28	1.74	1.57	0.57	3/4	0.50	0.44	1.50	0.26
1781A	1.28	1.74	1.57	0.57	3/4	0.50	0.44	1.50	0.26
1506A	1.28	1.74	1.57	0.57	3/4	0.50	0.44	1.50	0.26
1507A	1.28	1.74	1.57	0.57	3/4	0.50	0.44	1.50	0.26
1670A	1.28	1.71	1.57	0.57	3/4	0.50	0.42	1.50	0.26
1671A	1.28	1.71	1.57	0.57	3/4	0.50	0.42	1.50	0.26
1802A-10	1.28	1.63	1.57	0.57	3/4	0.50	0.33	1.50	0.26
1803A-10	1.28	1.63	1.57	0.57	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	14.5	20	13.8	15.2	38	6.6
1040A	32.5	46	40	14.5	20	13.8	12.2	38	6.6
1041A	32.5	46	40	14.5	20	13.8	12.2	38	6.6
1044A	32.5	47.5	40	14.5	20	13.8	13.7	38	6.6
1044A-15*	32.5	47.5	40	14.5	20	13.8	13.7	38	6.6
1044A-60	32.5	57	40	14.5	20	12.2	24.8	38	6.6
1045A	32.5	47.5	40	14.5	20	13.8	13.7	38	6.6
1109A-10	32.5	49	40	14.5	20	13.8	15.2	38	6.6
1124A	32.5	46	40	14.5	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.



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Refer to page U-9 for details.

Optional Accessories

- Limit hand (2 pcs.): 21AAB363
- Bezel clamp: 21RZA149

FEATURES

Metric							
Order No.							
w/lug	Flat-back						
1013A-10	1013AB-10		✓		✓	✓	
1040A	1040AB	✓		✓			
1041A	1041AB		✓	✓			
1044A	1044AB	✓					
1044A-15	1044AB-15	✓				✓	
1044A-60	1044AB-60	✓				✓	
1045A	1045AB		✓				
1109A-10	1109AB-10		✓			✓	
1124A	1124AB	✓					