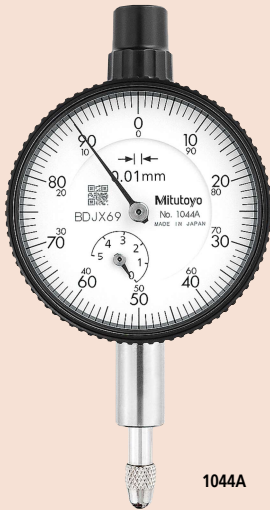




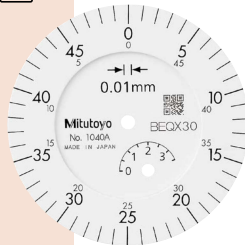
## SERIES 1 — Compact Type, Small Diameter

- 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.



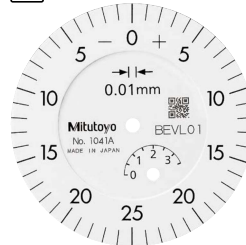
1044A

Continuous scale



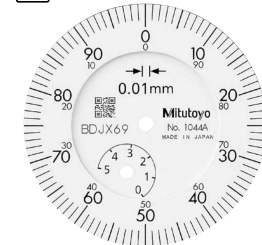
Graduation: 0.01 mm, Measuring range: 3.5 mm **1040A**  
 Double scale spacing

Balanced scale



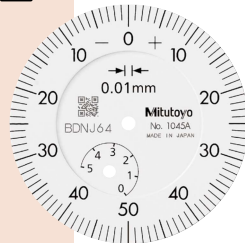
Graduation: 0.01 mm, Measuring range: 3.5 mm **1041A**  
 Double scale spacing

Continuous scale



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

Balanced scale

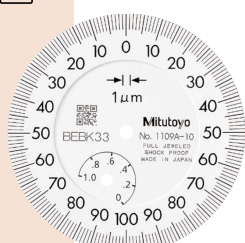


Graduation: 0.01 mm, Measuring range: 5 mm **1045A**



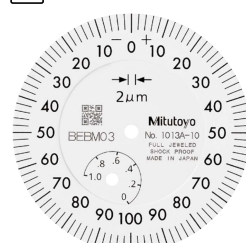
1109A-10

Balanced scale



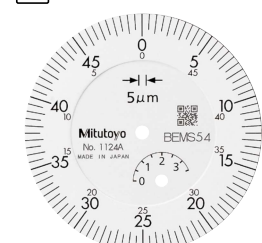
Graduation: 0.001 mm, Measuring range: 1 mm **1109A-10**  
 Shockproof  
 Jeweled bearing

Balanced scale



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

Continuous scale



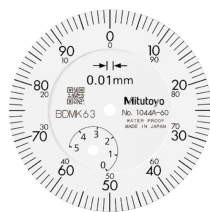
Graduation: 0.005 mm, Measuring range: 3.5 mm **1124A**

# Dial Indicators



1044A-60

Continuous scale



Graduation: 0.01 mm, Measuring range: 5 mm **Waterproof**



## Optional Accessories

- Limit hand (2 pcs.): **21AAB363**



- 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		Repeatability	Hysteresis	Dial reading			Measuring force (N)
				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-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.

## FEATURES

**Metric**

Order No.	w/lug	Flat-back					
1013A-10	1013AB-10		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1040A	1040AB		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1041A	1041AB		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1044A	1044AB		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1044A-15	1044AB-15		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1044A-60	1044AB-60		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1045A	1045AB		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1109A-10	1109AB-10		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1124A	1124AB		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Inch**  ANSI/AGD type

Order No.	w/lug	Flat-back	Graduation (in)	Range (range/rev) (in)	Accuracy (in)		Repeatability (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	±0.0002	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.

**Inch**

Order No.	w/lug	Flat-back				
1410A	1410AB		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1411A	1411AB		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1410A-10	1410AB-10		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1780A	1780AB		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1781A	1781AB		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1506A	1506AB		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1507A	1507AB		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1670A	1670AB		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1671A	1671AB		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1802A-10	1802AB-10		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1803A-10	1803AB-10		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

## 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*	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.