



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 2 — Standard Type, 0.01 mm Graduation

- Standard 0.01 mm graduation dial gages having a bezel with an outside diameter of 57 mm.
- The bezel clamp and lifting lever (optional) can be attached to either the right or left side. These parts can be easily installed and removed without tools.
- 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.
- The grand gear is made of stainless steel with high resistance to wear and deformation.
- Application of an anti-reflective and hard surface coating improves scale visibility along with scratch and chemical resistance.



2046A



**Continuous scale**



Graduation: 0.01 mm,  
Measuring range: 10 mm

**2046A**

With damper at top rest point

**2046A-09**

Shockproof



**Balanced scale**



Graduation: 0.01 mm,  
Measuring range: 10 mm

**2047A**

With damper at top rest point



**Reverse reading type. Suitable for depth and step measurement.**



Graduation: 0.01 mm,  
Measuring range: 10 mm

**2902A**

With damper at top rest point



**Continuous scale**



Graduation: 0.01 mm,  
Measuring range: 10 mm

**2310A-10**

With coaxial revolution counter  
 Jeweled bearing



**Continuous scale**



Graduation: 0.01 mm,  
Measuring range: 5 mm

**2044A**

With damper at top rest point

**2044A-09**

With damper at top rest point

Shockproof



**Balanced scale**



Graduation: 0.01 mm,  
Measuring range: 5 mm

**2045A**

With damper at top rest point

# Dial Indicators

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

## DIMENSIONS

ISO / JIS  
Type

Unit: mm

Order No.	A	B	C	D	E	F	G	H	I	Mass (g)	
										w/lug	Flat-back
2046A	47.2	65.2	57	18.1	20	16.9	19.8	52	7.6	144	135
2046A-09	47.2	65.2	57	18.1	20	16.9	19.8	52	7.6	146	137
2047A	47.2	65.2	57	18.1	20	16.9	19.8	52	7.6	144	135
2902A	47.2	65.2	57	18.1	20	16.9	19.8	52	7.6	144	135
2310A-10	47.2	65.2	57	18.1	20	16.9	19.8	52	7.6	146	137
2044A	47.2	65.2	57	18.1	20	16.9	19.8	52	7.6	145	136
2044A-09	47.2	65.2	57	18.1	20	16.9	19.8	52	7.6	147	138
2045A	47.2	65.2	57	18.1	20	16.9	19.8	52	7.6	145	136

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

## Optional Accessories

- Limit hand (2 pcs.): **21AZB195**
- Bezel clamp: **21AZB148**

## FEATURES

Metric									
Order No.									
w/lug	Flat-back								
2046A	2046AB	✓					✓		
2046A-09	2046AB-09	✓			✓				
2047A	2047AB		✓				✓		
2902A	2902AB			✓			✓		
2310A-10	2310AB-10	✓						✓	✓
2044A	2044AB	✓					✓		
2044A-09	2044AB-09	✓			✓				
2045A	2045AB		✓				✓		

## 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			Measuring range	Hysteresis	Repeat-ability		
		1/10 Rev	1/2 Rev	1 Rev							
2046A	2046AB	0.01	10 (1)	5	9	10	13	3	3	±0-100	1.4 or less
2046A-09	2046AB-09	0.01	10 (1)	5	9	10	15	3	3	±0-100	1.4 or less
2047A	2047AB	0.01	10 (1)	5	9	10	13	3	3	0-50-0	1.4 or less
2902A	2902AB	0.01	10 (1)	5	9	10	13	3	3	100-0	1.4 or less
2310A-10	2310AB-10	0.01	10 (1)	5	9	10	15	3	3	±0-100	1.4 or less
2044A	2044AB	0.01	5 (1)	5	9	10	12	3	3	±0-100	1.4 or less
2044A-09	2044AB-09	0.01	5 (1)	5	9	10	12	3	3	±0-100	1.4 or less
2045A	2045AB	0.01	5 (1)	5	9	10	12	3	3	0-50-0	1.4 or less

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