



An inspection certificate is supplied as standard.  
Refer to page U-11 for details.

IP64

# Dial Indicators

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

## SERIES 2 — Waterproof Type, 0.01 mm & 0.001 mm Graduation

- Waterproof type dial indicators having a bezel with an outside diameter of 57 mm.
- O-rings and rubber bellows are used to prevent water and oil penetration.
- All types come with limit markers and a bezel clamp as standard.
- The bezel clamp can be attached to either the right or left side. These parts can be easily installed and removed without tools.
- 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 a hard coating on the surface of the crystal makes the gage highly scratch- and chemical-resistant.



2046S-60



2109S-70

Continuous scale



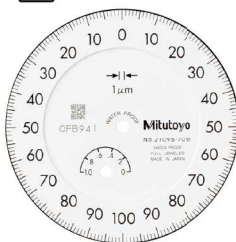
Graduation: 0.01 mm, Measuring range: 10 mm **Waterproof**

Continuous scale



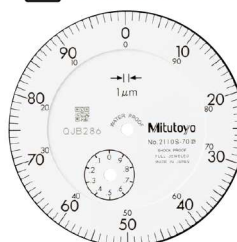
Graduation: 0.01 mm, Measuring range: 5 mm **Waterproof**

Balanced scale



Graduation: 0.001 mm, Measuring range: 1 mm **Waterproof**  
 **Shockproof**  
 **Jeweled bearing**

Continuous scale

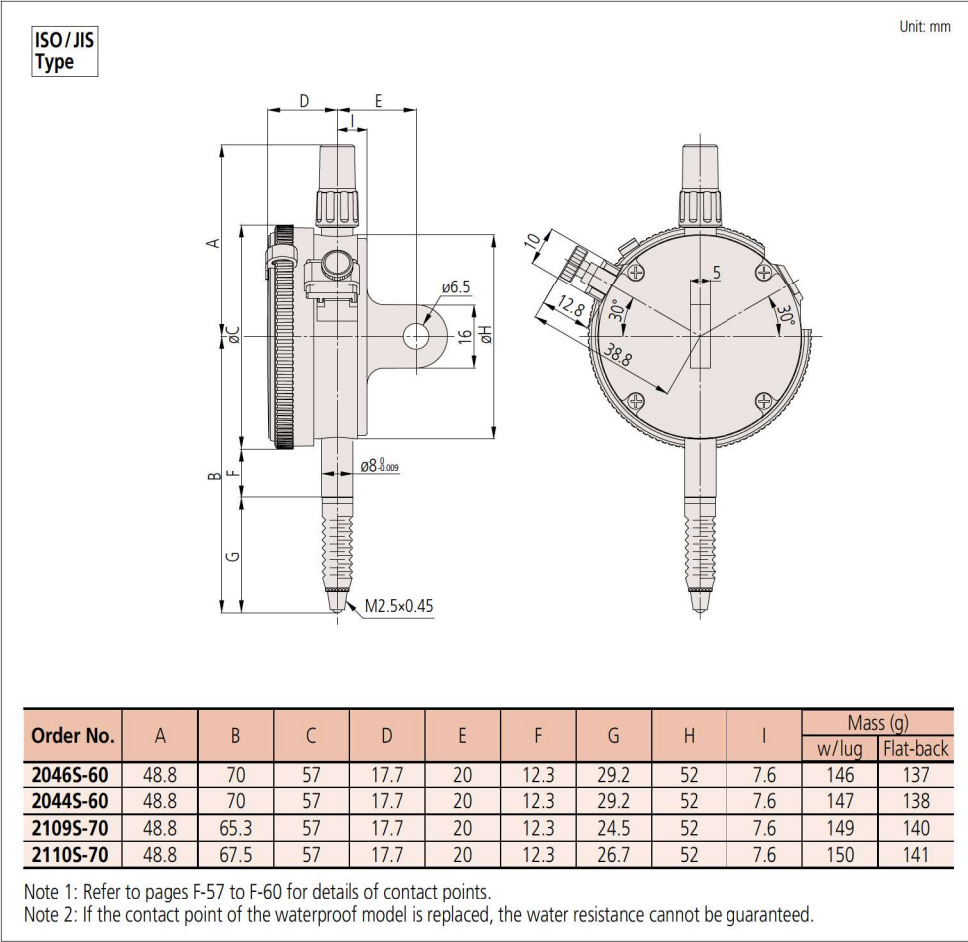


Graduation: 0.001 mm, Measuring range: 1 mm **Waterproof**  
 **Double scale spacing**  
 **Shockproof**  
 **Jeweled bearing**

# Dial Indicators

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

## DIMENSIONS



## FEATURES

Metric							
Order No.		30°	10°	64°	64°	64°	64°
2046S-60	2046SB-60	✓			✓		
2044S-60	2044SB-60	✓			✓		
2109S-70	2109SB-70		✓	✓	✓	✓	
2110S-70	2110SB-70	✓		✓	✓	✓	✓

## 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						
2046S-60	2046SB-60	0.01	10 (1)	5	9	10	13	3	3	±0-100	2.5 or less		
2044S-60	2044SB-60	0.01	5 (1)	5	9	10	12	3	3	±0-100	2.5 or less		
2109S-70	2109SB-70	0.001	1 (0.2)	2	3	4	5	2	0.5	0-100-0	2.0 or less		
2110S-70	2110SB-70	0.001	1 (0.1)	2	3	4	5	2	0.5	±0-100	2.0 or less		

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