

Dial Indicator

SERIES 2 — Standard Type, 0.01mm Resolution

Series 2 dial indicators are Mitutoyo's most popular, and have the widest application.

FEATURES

- Standard 0.01mm graduation dial gauges having an outer frame with an outside diameter of 57mm. All types come with limit pins and an outer frame clamp as standard.
- The outer 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.
- Secured adhesion between the outer frame and crystal as well as the use of an O-ring ensure countermeasures against water and oil permeation via the front face.
- The stem spindle is made of high-strength quench-hardened stainless steel which resists strenuous use.
- A carbide contact point is used.
- The grand gear uses stainless steel that is resistant to wear and deformation.
- Application of a hard coating on the surface of the crystal makes the gauge highly scratch- and chemical-resistant.



2046S



2046S-60



(Refer to the page 9 for details.)



2046S
2046SH
2046S-09
2046S-15
2046S-80
2046SLB



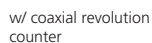
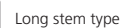
2046SY



2046S-60
2046S-69









2047S



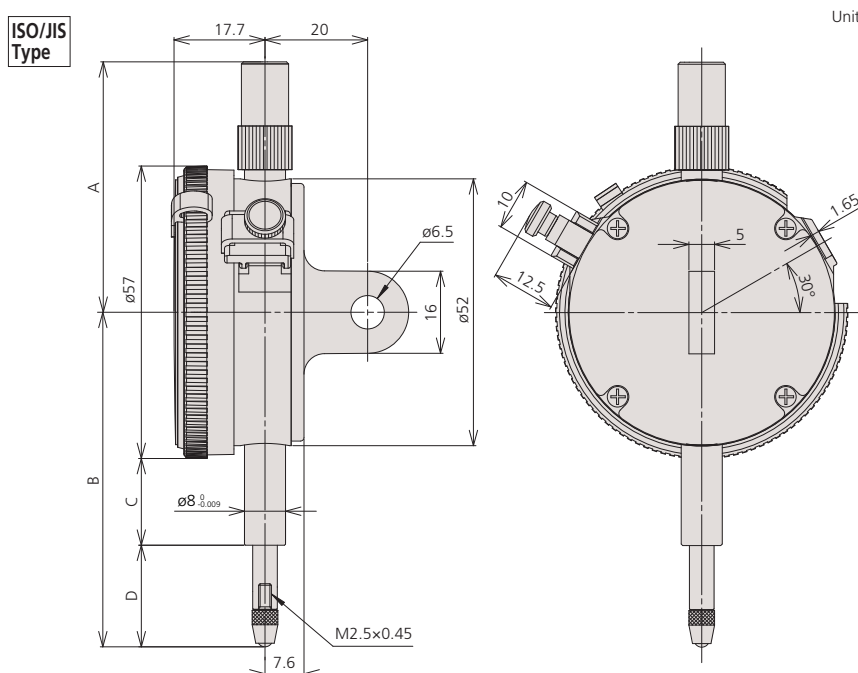
Metric

 ISO/JIS type

Graduation	Order No.		Range (range/rev)	Accuracy	Dial reading	Measuring force						
	w/ lug	Flat-back										
0.01mm	2044S	2044SB	5mm (1mm)	±12µm	0-100	1.4N or less	—	—	—	—	—	—
0.01mm	2044S-09	2044SB-09	5mm (1mm)	±13µm	0-100	1.4N or less	✓	—	—	—	—	—
0.01mm	2044S-60	2044SB-60	5mm (1mm)	±12µm	0-100	2.5N or less	—	✓	—	—	—	—
0.01mm	2045S	2045SB	5mm (1mm)	±12µm	0-50-0	1.4N or less	—	—	—	—	—	—
0.01mm	2046S	2046SB	10mm (1mm)	±13µm	0-100	1.4N or less	—	—	—	—	—	—
0.01mm	2046SY	2046SYB	10mm (1mm)	±13µm	0-100	1.4N or less	—	—	—	—	—	—
0.01mm	2046SH	2046SHB	10mm (1mm)	±8µm	0-100	1.4N or less	—	—	—	—	—	—
0.01mm	—	2046SLB	10mm (1mm)	±13µm	0-100	1.4N or less	—	—	✓	—	—	—
0.01mm	2046S-09	2046SB-09	10mm (1mm)	±15µm	0-100	1.4N or less	✓	—	—	—	—	—
0.01mm	2046S-60	2046SB-60	10mm (1mm)	±13µm	0-100	2.5N or less	—	✓	—	—	—	—
0.01mm	2046S-69	2046SB-69	10mm (1mm)	±15µm	0-100	2.5N or less	✓	✓	—	—	—	—
0.01mm	2046S-15	2046SB-15	10mm (1mm)	±13µm	0-100	0.8N or less*	—	—	—	✓	—	—
0.01mm	2310S-10	2310SB-10	10mm (1mm)	±15µm	0-100	1.4N or less	—	—	—	✓	✓	—
0.01mm	2902S	2902SB	10mm (1mm)	±13µm	100-0	1.4N or less	—	—	—	—	—	✓
0.01mm	2047S	2047SB	10mm (1mm)	±13µm	0-50-0	1.4N or less	—	—	—	—	—	—

*Use in a vertical position only (contact point downward).

Unit: mm



Note 1: Dimensions of the inch (ANSI/AGD Type) dial indicator partly differ from those of the metric (ISO/JIS Type) indicator.

Note 2: Inch (ANSI/AGD Type) dial indicator is provided with a stem of 3/8" dia. and #4-48UNF thread mount for the contact point.

Order No.	A	B	C	D
2044S	48.8	65.2	16.9	19.8
2044S-09	48.8	65.2	16.9	19.8
2044S-60	48.8	70	12.3	29.2
2045S	48.8	65.2	16.9	19.8
2046S	48.8	65.2	16.9	19.8
2046SH	48.8	65.2	16.9	19.8
2046SLB	48.8	85.2	36.9	19.8
2046S-09	48.8	65.2	16.9	19.8
2046S-60	48.8	70	12.3	29.2
2046S-69	48.8	70	12.3	29.2
2046S-15	48.8	65.2	16.9	19.8
2310S-10	48.8	65.2	16.9	19.8
2902S	48.8	65.2	16.9	19.8
2047S	48.8	65.2	16.9	19.8



Optional Accessory

—: Backs (See page 266.)
—: Contact points (See page 264.)

Dial Indicator

SERIES 2 — Standard Type, 0.001mm Resolution

FEATURES

- Standard 0.01mm graduation dial gauges having an outer frame with an outside diameter of $\varnothing 57\text{mm}$. All types come with limit pins and an outer frame clamp.
- The outer 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.
- Secured adhesion between the outer frame and crystal as well as the use of an O-ring ensure countermeasures against water and oil permeation via the front face.
- The stem spindle is made of high-strength quench-hardened stainless steel which resists strenuous use.
- A carbide contact point is used.
- The grand gear uses stainless steel that is resistant to wear and deformation.
- Application of a hard coating on the surface of the crystal makes the gauge highly scratch- and chemical-resistant.
- A special alloy is used for the sector gears to provide improved wear resistance.
- The bearing part uses jeweled bearings, providing excellent indication sensitivity and durability.



2109S-10



2110S-10



2119S-10



(Refer to the page 9 for details.)



2109S-10
2109SH-10
2109S-70
2109SLB-10



2110S-10
2110S-70



2113S-10



Shockproof type



Waterproof type



Long stem type



Jeweled bearing type



Double scale spacing type

SPECIFICATIONS

Metric

ISO/JIS type

Graduation	Order No.		Range (range/rev)	Accuracy	Dial reading	Measuring force						
	w/ lug	Flat-back										
0.005mm	2124S-10	2124SB-10	5mm (0.5mm)	$\pm 12\mu\text{m}$	0-50	1.5N or less	—	—	—	✓	—	—
0.001mm	2110S-10	2110SB-10	1mm (0.1mm)	$\pm 5\mu\text{m}$	0-100	1.5N or less	✓	—	—	✓	✓	—
0.001mm	2110S-70	2110SB-70	1mm (0.1mm)	$\pm 5\mu\text{m}$	0-100	2.0N or less	✓	✓	—	✓	✓	—
0.001mm	2109S-10	2109SB-10	1mm (0.2mm)	$\pm 5\mu\text{m}$	0-100-0	1.5N or less	✓	—	—	✓	—	—
0.001mm	2109SH-10	2109SHB-10	1mm (0.2mm)	$\pm 3\mu\text{m}$	0-100-0	1.5N or less	✓	—	—	✓	—	—
0.001mm	—	2109SLB-10	1mm (0.2mm)	$\pm 5\mu\text{m}$	0-100-0	1.5N or less	✓	—	✓	✓	—	—
0.001mm	2109S-70	2109SB-70	1mm (0.2mm)	$\pm 5\mu\text{m}$	0-100-0	2.0N or less	✓	✓	—	✓	—	—
0.001mm	2113S-10	2113SB-10	2mm (0.2mm)	$\pm 7\mu\text{m}$	0-100-0	1.5N or less	✓	—	—	✓	—	—
0.001mm	2118S-10	2118SB-10	5mm (0.2mm)	$\pm 10\mu\text{m}$	0-100-100	1.5N or less	—	—	—	✓	—	—
0.001mm	2119S-10	2119SB-10	5mm (0.2mm)	$\pm 10\mu\text{m}$	0-100-0	1.5N or less	—	—	—	✓	—	—



2118S-10

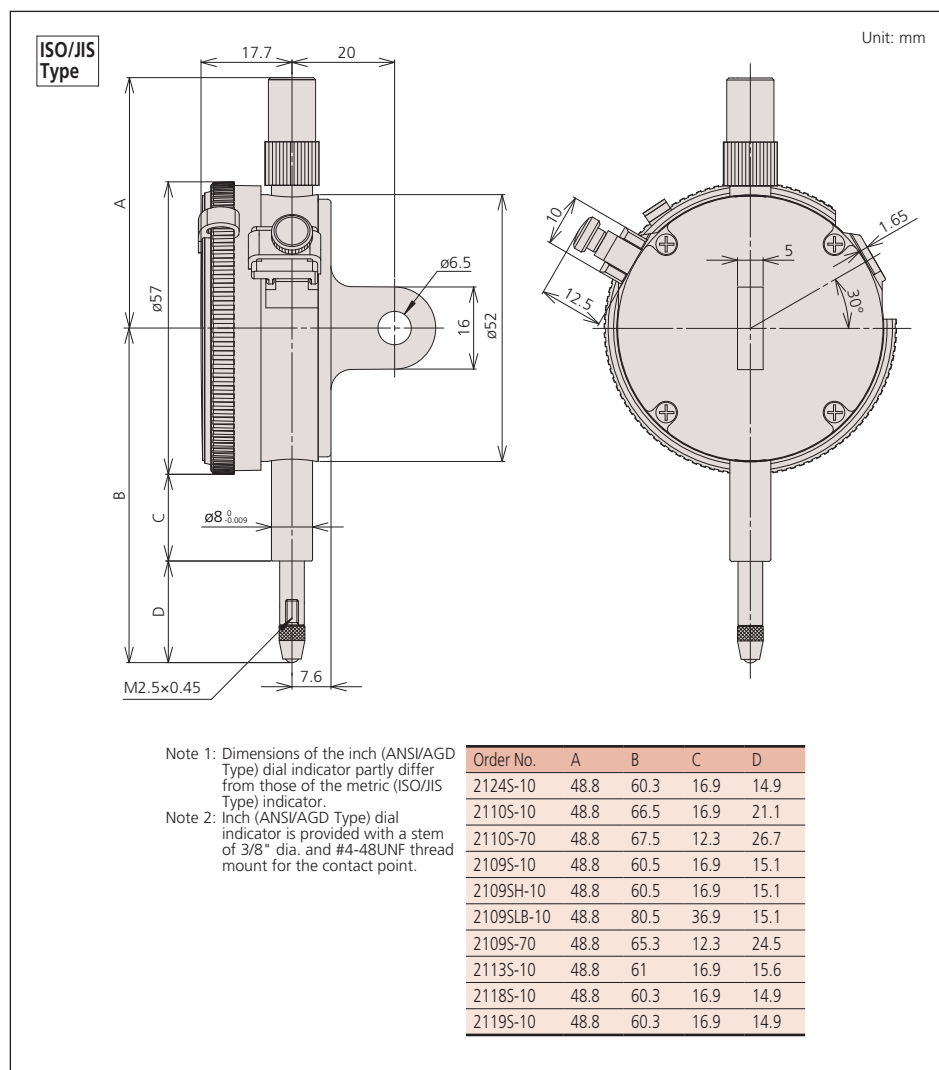


2119S-10



2124S-10

DIMENSION



Optional Accessory

- : Backs (See page 266.)
- : Contact points (See page 264.)