

Dial Indicators

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

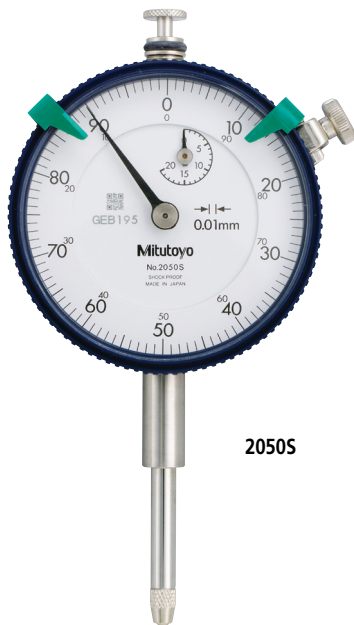
SERIES 2 — Long Stroke Type

- Long stroke dial indicators with a $\varnothing 57$ mm outer frame. All the models are equipped with limit markers and a bezel clamp as standard. (inch models are exception)
- An O-ring is employed to ensure air-tightness between the outer frame and the crystal case to prevent water or oil penetration.
- The stem and the spindle are made of high-strength quench-hardened stainless steel suitable for heavy-duty use.
- A carbide contact point is employed.
- The grand gear is made of stainless steel with high resistance to wear and deformation.
- Application of a hard coating on the surface of the crystal makes the gauge highly scratch- and chemical-resistant.
- 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 any tools.

* Not available for waterproof type.



An inspection certificate is supplied as standard. Refer to page X for details.



2050S



2050S-60



Continuous scale



Graduation: 0.01 mm,
Measuring range: 20 mm

2050S

With damper at lowest rest point

2050S-19

Shockproof
 Jeweled bearing
 With damper at lowest rest point

2050S-60

Waterproof



Continuous scale



Graduation: 0.01 mm,
Measuring range: 30 mm

2052S

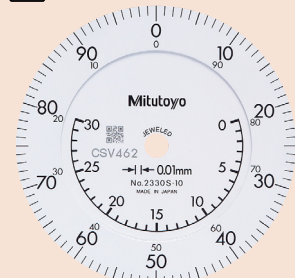
With damper at lowest rest point

2052S-19

Shockproof
 Jeweled bearing
 With damper at lowest rest point



Continuous scale



Graduation: 0.01 mm,
Measuring range: 30 mm

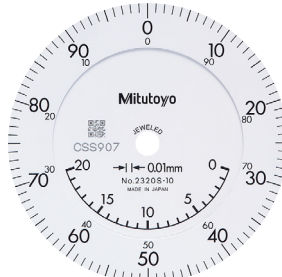
2330S-10

With coaxial revolution counter

With damper at lowest rest point
 Jeweled bearing



Continuous scale



Graduation: 0.01 mm,
Measuring range: 20 mm

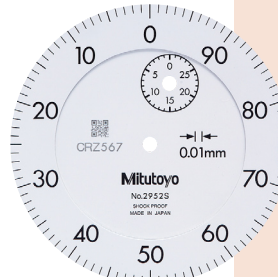
2320S-10

With coaxial revolution counter

With damper at lowest rest point
 Jeweled bearing



Reverse reading



Graduation: 0.01 mm,
Measuring range: 30 mm

2952S

With damper at lowest rest point

FEATURES

Metric

Order No.		ISO	JIS	Flat-back	Waterproof	High Accuracy	High Precision	High Rigidity	High Stability
w/ lug	Flat-back								
2050S	2050SB	✓	—	—	—	—	—	—	—
2050S-60	2050SB-60	✓	—	—	—	—	—	—	—
2050S-19	2050SB-19	✓	—	—	—	—	—	—	—
2320S-10	2320SB-10	✓	—	—	—	—	—	—	—
2052S	2052SB	✓	—	—	—	—	—	—	—
2052S-19	2052SB-19	✓	—	—	—	—	—	—	—
2330S-10	2330SB-10	✓	—	—	—	—	—	—	—
2952S	2952SB	—	—	✓	—	—	—	—	—

SPECIFICATIONS

Metric

Order No.		Graduation	Range (range/rev)	Accuracy*				Repeat-ability	Dial reading	Measuring force
w/ lug	Flat-back			Overall	Retrace	1/10 Rev	1 Rev			
2050S	2050SB	0.01 mm	20 mm (1 mm)	20 µm	5 µm	8 µm	15 µm	4 µm	±0-100	2.0 N or less
2050S-60	2050SB-60	0.01 mm	20 mm (1 mm)	20 µm	5 µm	8 µm	15 µm	4 µm	±0-100	2.5 N or less
2050S-19	2050SB-19	0.01 mm	20 mm (1 mm)	20 µm	5 µm	8 µm	15 µm	4 µm	±0-100	2.0 N or less
2320S-10	2320SB-10	0.01 mm	20 mm (1 mm)	20 µm	5 µm	8 µm	15 µm	4 µm	±0-100	2.0 N or less
2052S	2052SB	0.01 mm	30 mm (1 mm)	25 µm	7 µm	10 µm	15 µm	5 µm	±0-100	2.5 N or less
2052S-19	2052SB-19	0.01 mm	30 mm (1 mm)	25 µm	7 µm	10 µm	15 µm	5 µm	±0-100	2.5 N or less
2330S-10	2330SB-10	0.01 mm	30 mm (1 mm)	25 µm	7 µm	10 µm	15 µm	5 µm	±0-100	2.5 N or less
2952S	2952SB	0.01 mm	30 mm (1 mm)	25 µm	7 µm	10 µm	15 µm	5 µm	100-0	2.5 N or less

*1 2050S-60 and 2050SB-60 are waterproof types that use a rubber bellows to cover the spindle.

Note that the outer diameter of the bellows (ø9.5) is larger than that of the stem (ø8).

*2 Completed products inspection is performed in the vertical position (contact point downward) and the stated accuracy is guaranteed.

Inch

Order No.		ISO	JIS	Flat-back	Waterproof	High Accuracy	High Precision	High Rigidity	High Stability
w/ lug	Flat-back								
2416S	2416SB	✓	—	—	—	—	—	—	—
2416S-06	2416SB-06	✓	—	—	—	—	—	—	—
2416S-10	2416SB-10	✓	—	—	—	—	—	—	—
2417S	2417SB	—	✓	—	—	—	—	—	—
2424S-19	2424SB-19	✓	—	✓	—	—	—	—	—
2776S	2776SB	✓	—	—	—	—	—	—	—
2904S	2904SB	—	—	—	✓	—	—	—	—

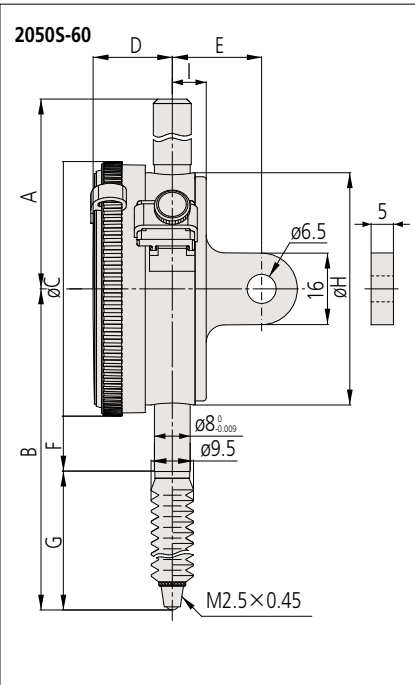
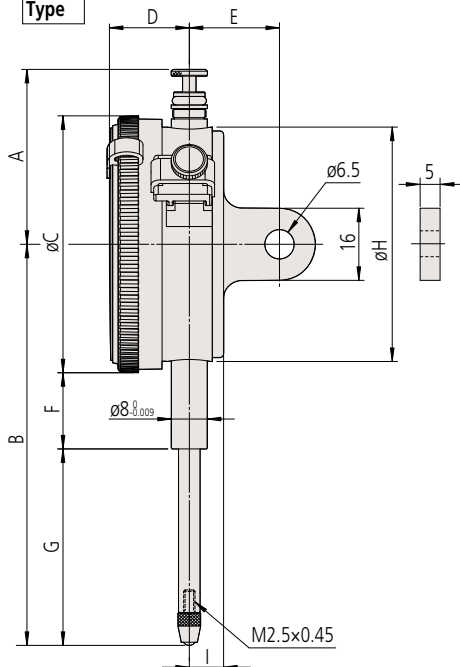
Inch

Order No.		Graduation	Range (range/rev)	Accuracy*			Repeat-ability	Dial reading	Measuring force
w/ lug	Flat-back			First 1 Rev / 2.5 Rev / 10 Rev	Retrace				
2416S	2416SB	0.001 in	1 in (0.1 in)	±0.001 in / ±0.001 in / ±0.002 in	0.0002 in		±0.0002 in	±0-100	1.8 N or less
2416S-06	2416SB-06	0.001 in	1 in (0.1 in)	±0.001 in / ±0.001 in / ±0.002 in	0.0002 in		±0.0002 in	±0-100	1.8 N or less
2416S-10	2416SB-10	0.001 in	1 in (0.1 in)	±0.001 in / ±0.001 in / ±0.002 in	0.0002 in		±0.0002 in	±0-100	1.8 N or less
2417S	2417SB	0.001 in	1 in (0.1 in)	±0.001 in / ±0.001 in / ±0.002 in	0.0002 in		±0.0002 in	0-50-0	1.8 N or less
2424S-19	2424SB-19	0.001 in	2 in (0.1 in)	±0.001 in / ±0.001 in / ±0.002 in / ±0.003 in (First 20Rev)	0.00033 in		±0.0002 in	±0-100	2.5 N or less
2776S	2776SB	0.0005 in	1 in (0.05 in)	±0.0005 in / ±0.0005 in / ±0.0015 in / ±0.002 in (First 20Rev)	0.0002 in		±0.0001 in	±0-50	2.5 N or less
2904S	2904SB	0.001 in	1 in (0.1 in)	±0.001 in / ±0.001 in / ±0.002 in	0.0002 in		±0.0002 in	100-0	1.8 N or less

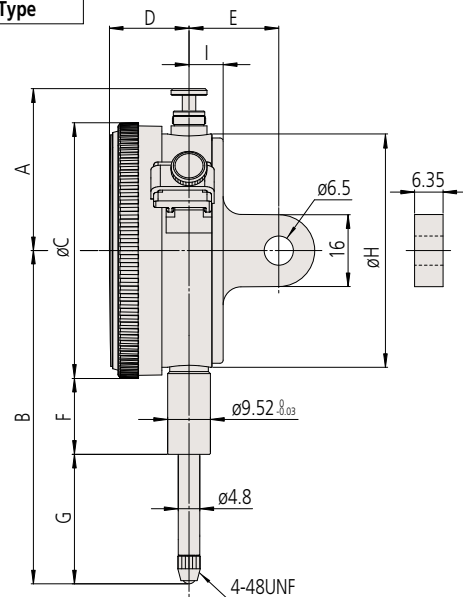
* Completed products inspection is performed in the vertical position (contact point downward) and the stated accuracy is guaranteed.

DIMENSIONS

ISO/JIS Type



ANSI/AGD Type



Unit: mm

Order No.	A	B	C	D	E	F	G	H	I
2050S	38.8	75.2	57	17.7	20	16.9	29.8	52	7.6
2050S-60	59.8	87.2	57	17.7	20	12.3	46.4	52	7.6
2050S-19	38.8	75.2	57	17.7	20	16.9	29.8	52	7.6
2320S-10	38.8	75.2	57	17.7	20	16.9	29.8	52	7.6
2052S	38.8	88.7	57	17.7	20	16.9	43.3	52	7.6
2052S-19	38.8	88.7	57	17.7	20	16.9	43.3	52	7.6
2330S-10	38.8	88.7	57	17.7	20	16.9	43.3	52	7.6
2952S	38.8	88.7	57	17.7	20	16.9	43.3	52	7.6

Order No.	A	B	C	D	E	F	G	H	I
2416S	38.9	76.8	57	17.7	19	13.6	34.7	52	7.6
2416S-06	38.9	76.8	57	17.7	19	13.6	34.7	52	7.6
2416S-10	38.9	76.8	57	17.7	19	13.6	34.7	52	7.6
2417S	38.9	76.8	57	17.7	19	13.6	34.7	52	7.6
2424S-19	118	142.5	57	17.7	20.9	54.3	59.7	52	9.5
2776S	38.9	76.8	57	17.7	19	13.6	34.7	52	7.6
2904S	38.9	76.8	57	17.7	19	13.6	34.7	52	7.6