



Dial Indicators

SERIES 2 — Metric Standard Type

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.



SPECIFICATIONS

Metric Stem dia. ø8mm M2.5 x 0.45 Thread

ISO/JIS type



Graduation	Range	Range / Rev	Dial reading	Order No.		Accuracy	Measuring force	Features									
				w/ lug	Flat-back			Shockproof	Waterproof	Long stem	Jeweled bearing	Double scale	Coaxial counter	Reverse reading	Damper		
0.001mm	1mm	(0.1mm)	0-100	2110S-10	2110SB-10	±0.005mm	1.5N or less	✓	✓	✓	✓						
0.001mm	1mm	(0.1mm)	0-100	2110S-70	2110SB-70	±0.005mm	2.0N or less	✓	✓	✓	✓						
0.001mm	1mm	(0.2mm)	0-100-0	2109S-10	2109SB-10	±0.005mm	1.5N or less	✓		✓	✓						
0.001mm	1mm	(0.2mm)	0-100-0	—	2109SLB-10	±0.005mm	1.5N or less	✓		✓	✓						
0.001mm	1mm	(0.2mm)	0-100-0	2109S-70	2109SB-70	±0.005mm	2.0N or less	✓	✓	✓	✓						
0.001mm	2mm	(0.2mm)	0-100-0	2113S-10	2113SB-10	±0.007mm	1.5N or less	✓		✓	✓						
0.001mm	5mm	(0.2mm)	0-100-100	2118S-10	2118SB-10	±0.010mm	1.5N or less			✓	✓						
0.001mm	5mm	(0.2mm)	0-100-0	2119S-10	2119SB-10	±0.010mm	1.5N or less			✓	✓						
0.005mm	5mm	(0.5mm)	0-50	2124S-10	2124SB-10	±0.012mm	1.5N or less			✓	✓						
0.01mm	5mm	(1mm)	0-100	2044S	2044SB	±0.012mm	1.4N or less										
0.01mm	5mm	(1mm)	0-100	2044S-09	2044SB-09	±0.013mm	1.4N or less	✓									
0.01mm	5mm	(1mm)	0-100	2044S-60	2044SB-60	±0.012mm	2.5N or less		✓								
0.01mm	5mm	(1mm)	0-50-0	2045S	2045SB	±0.012mm	1.4N or less										✓
0.01mm	10mm	(1mm)	0-100	2046S	2046SB	±0.013mm	1.4N or less										✓
0.01mm	10mm	(1mm)	0-100	2046SY	2046SYB	±0.013mm	1.4N or less										✓
0.01mm	10mm	(1mm)	0-100	2046SH	2046SHB	±0.08mm	1.4N or less										✓
0.01mm	10mm	(1mm)	0-100	—	2046SLB	±0.013mm	1.4N or less			✓							✓
0.01mm	10mm	(1mm)	0-100	2046S-09	2046SB-09	±0.015mm	1.4N or less	✓									✓
0.01mm	10mm	(1mm)	0-100	2046S-60	2046SB-60	±0.013mm	2.5N or less		✓								✓
0.01mm	10mm	(1mm)	0-100	2046S-69	2046SB-69	±0.015mm	2.5N or less	✓	✓								✓
0.01mm	10mm	(1mm)	0-100	2046S-15	2046SB-15	±0.013mm	0.8N or less*				✓						✓
0.01mm	10mm	(1mm)	0-100	2310S-10	2310SB-10	±0.015mm	1.4N or less				✓						✓
0.01mm	10mm	(1mm)	100-0	2902S	2902SB	±0.013mm	1.4N or less										✓
0.01mm	10mm	(1mm)	0-50-0	2047S	2047SB	±0.013mm	1.4N or less										✓
0.01mm	20mm	(1mm)	0-100	2050S	2050SB	±0.020mm	2.0N or less										✓
0.01mm	20mm	(1mm)	0-100	2050S-60	2050SB-60	±0.020mm	2.5N or less		✓								✓
0.01mm	20mm	(1mm)	0-100	2050S-19	2050SB-19	±0.020mm	2.0N or less	✓			✓						✓
0.01mm	20mm	(1mm)	0-100	2320S-10	2320SB-10	±0.020mm	2.0N or less				✓				✓		✓
0.01mm	30mm	(1mm)	0-100	2052S	2052SB	±0.025mm	2.5N or less										✓
0.01mm	30mm	(1mm)	0-100	2052S-19	2052SB-19	±0.025mm	2.5N or less	✓			✓						✓
0.01mm	30mm	(1mm)	0-100	2330S-10	2330SB-10	±0.025mm	2.5N or less				✓					✓	✓
0.01mm	30mm	(1mm)	100-0	2952S	2952SB	±0.025mm	2.5N or less				✓					✓	✓

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

Dial Indicators

SERIES 2 — Metric Standard Type



DIMENSIONS

ISO/JIS Type

Unit: mm

Order No.	A	B	C
2124S-10	60.3	16.9	14.9
2110S-10	66.5	16.9	21.1
2110S-70	67.5	12.3	26.7
2109S-10	60.5	16.9	15.1
2109S-70	65.3	12.3	24.5
2113S-10	61	16.9	15.6
2118S-10	60.3	16.9	14.9
2119S-10	60.3	16.9	14.9
2044S	65.2	16.9	19.8
2044S-09	65.2	16.9	19.8
2044S-60	70	12.3	29.2
2045S	65.2	16.9	19.8
2046S	65.2	16.9	19.8
2046SH	65.2	16.9	19.8
2046SLB	85.2	36.9	19.8
2046S-09	65.2	16.9	19.8
2046S-60	70	12.3	29.2
2046S-69	70	12.3	29.2
2046S-15	65.2	16.9	19.8
2310S-10	65.2	16.9	19.8
2902S	65.2	16.9	19.8
2047S	65.2	16.9	19.8



2902S



2310S-10



2044S
2044S-60
2044S-09



2045S

ISO/JIS Type

Unit: mm

Order No.	A	B	C	D
2050S	38.8	75.2	16.9	29.8
2050S-60	59.8	87.2	12.3	46.4
2050S-19	38.8	75.2	16.9	29.8
2320S-10	38.8	75.2	16.9	29.8
2052S	38.8	88.7	16.9	43.3
2052S-19	38.8	88.7	16.9	43.3
2330S-10	38.8	88.7	16.9	43.3
2952S	38.8	88.7	16.9	43.3





Optional Accessories

- : Backs (See page F-33.)
- : Contact points (See page F-34.)

Dial Indicators

SERIES 2 — ANSI / AGD Type Metric Dial Indicator

SPECIFICATIONS

Metric										Stem dia. 3/8", #4-48 UNF Thread Yellow Dial Face		ANSI/AGD type	
Graduation	Range	Range / Rev	Dial reading	Order No.		Accuracy		Measuring force	 	 			
				w/ lug	Flat-back	First 2.5 Rev	Overall						
0.001mm	1mm	0.2mm	0-100-0	2109S-11	2109SB-11	±0.003mm	±0.004mm	1.5N or less	✓	✓			
0.001mm	5mm	0.2mm	0-100-0	2119S-11	2119SB-11	±0.007mm	±0.01mm	1.5N or less	✓				
0.01mm	2.5mm	1mm	0-100	2230S-01	2230SB-01	±0.01mm	±0.01mm	1.4N or less					
0.01mm	2.5mm	1mm	0-50-0	2231S-01	2231SB-01	±0.01mm	±0.01mm	1.4N or less					
0.01mm	5mm	1mm	0-100	2044S-01	2044SB-01	±0.01mm	±0.01mm	1.4N or less					
0.01mm	10mm	1mm	0-100	2046S-01	2046SB-01	±0.01mm	±0.013mm	1.4N or less					
0.01mm	10mm	1mm	0-100	2046S-11	2046SB-11	±0.01mm	±0.013mm	1.4N or less	✓				
0.01mm	10mm	1mm	0-50-0	2047S-01	2047SB-01	±0.01mm	±0.013mm	1.4N or less					
0.01mm	10mm	1mm	0-50-0	2047S-11	2047SB-11	±0.01mm	±0.013mm	1.4N or less	✓				
0.01mm	10mm	1mm	100-0	2902S-01	2902SB-01	±0.01mm	±0.013mm	1.4N or less					
0.01mm	20mm	1mm	0-100	2050S-01	2050SB-01	±0.01mm	±0.02mm	2.0N or less					
0.01mm	20mm	1mm	0-100	2050S-11	2050SB-11	±0.01mm	±0.02mm	2.0N or less	✓				
0.01mm	25mm	1mm	0-100	2056S-01	2056SB-01	±0.01mm	±0.025mm	2.5N or less					

DIMENSIONS

Order No.	A	B	C
2109S-11	48.8	51.4	9.3
2119S-11	48.8	55.8	13.7
2230S-01	48.8	53.6	11.5
2231S-01	48.8	53.6	11.5
2044S-01	48.8	56.1	14.0
2046S-01	48.8	61.1	19.0
2046S-11	48.8	61.1	19.0
2047S-01	48.8	61.1	19.0
2902S-01	48.8	61.1	19.0
2050S-01	38.8	71.1	29.0
2050S-11	38.8	71.1	29.0
2056S-01	38.8	76.1	34.0

