

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 guench-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.



Shockproof type



▼ Waterproof type



Reverse reading type



Jeweled bearing type



□ ISO/IIS type



20465 2046SH 20465-09 2046S-15 20465-80 2046SLB



2046SY



20465-60 20465-69



SPECIFICATIONS

Metric Stem dia. ø8mm M2.5 x 0.45 Thread															
Graduation	Range	Range	Dial reading	Order No.		Accuracy	Measuring	3	O	T 2X	₩			Ð	J
	Mariye	/ Rev	,	w/ lug	Flat-back		force		\square	لثنا			٢	+2	12
0.001mm	1mm	(0.1mm)	0-100	2110S-10	2110SB-10	±0.005mm	1.5N or less	V			1	/			
0.001mm	1mm	(0.1mm)	0-100	2110S-70	2110SB-70	±0.005mm	2.0N or less	V	V		V	V			
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	~		1	V				
0.001mm	1mm	(0.2mm)	0-100-0	2109S-70	2109SB-70	±0.005mm	2.0N or less	~	V		1				
0.001mm	2mm	(0.2mm)	0-100-0	2113S-10	2113SB-10	±0.007mm	1.5N or less	V			V				
0.001mm	5mm	(0.2mm)	0-100-100	2118S-10	2118SB-10	±0.010mm	1.5N or less				V				
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				1				
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		1						
0.01mm	5mm	(1mm)	0-50-0	2045S	2045SB	±0.012mm	1.4N or less							~	
0.01mm	10mm	(1mm)	0-100	20465	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			V					
0.01mm	10mm	(1mm)	0-100	2046S-09	2046SB-09	±0.015mm	1.4N or less	1							
0.01mm	10mm	(1mm)	0-100	2046S-60	2046SB-60	±0.013mm	2.5N or less		1						
0.01mm	10mm	(1mm)	0-100	2046S-69	2046SB-69	±0.015mm	2.5N or less	~	1						
0.01mm	10mm	(1mm)	0-100	2046S-15	2046SB-15	±0.013mm	0.8N or less*				V				
0.01mm	10mm	(1mm)	0-100	2310S-10	2310SB-10	±0.015mm	1.4N or less				V		1		
0.01mm	10mm	(1mm)	100-0	29025	2902SB	±0.013mm	1.4N or less							٧	
0.01mm	10mm	(1mm)	0-50-0	20475	2047SB	±0.013mm	1.4N or less								
0.01mm	20mm	(1mm)	0-100	2050S	2050SB	±0.020mm	2.0N or less								1
0.01mm	20mm	(1mm)	0-100	2050S-60	2050SB-60	±0.020mm	2.5N or less		V						
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				~		1		1
0.01mm	30mm	(1mm)	0-100	20525	2052SB	±0.025mm	2.5N or less								1
0.01mm	30mm	(1mm)	0-100	20525-19	2052SB-19	±0.025mm	2.5N or less	7			V				1
0.01mm	30mm	(1mm)	0-100	2330S-10	2330SB-10	±0.025mm	2.5N or less				~		~		~
0.01mm	30mm	(1mm)	100-0	29525	2952SB	±0.025mm	2.5N or less							~	~

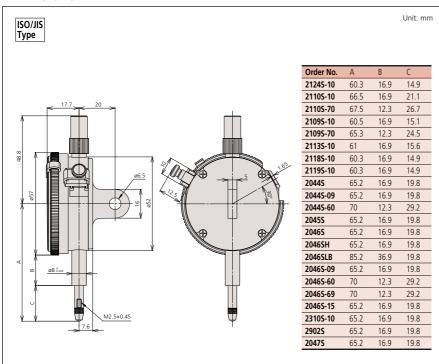
*Use in a vertical position only (contact point downward).

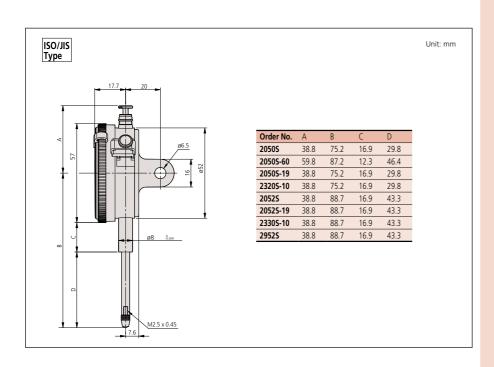


Dial Indicators

SERIES 2 — Metric Standard Type

DIMENSIONS













20445-60 20445-09 10 10 10 20 Milkstoye 30 Milkstoye 20455

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	ANSI/AGD type									
Graduation	Range	Range / Rev	Dial	Order No.		Accuracy		Measuring	₩	
			reading	w/ lug	Flat-back	First 2.5 Rev	Overall	force		3
0.001mm	1mm	0.2mm	0-100-0	2109S-11	2109SB-11	±0.003mm	±0.004mm	1.5N or less	~	V
0.001mm	5mm	0.2mm	0-100-0	21195-11	2119SB-11	±0.007mm	±0.01mm	1.5N or less	V	
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	20445-01	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

						17.7	19			Unit: mm		
					<u> </u>							
Order No.	Α	В	С									
2109S-11	48.8	51.4	9.3	∢			1 1					
2119S-11	48.8	55.8	13.7						1.65			
2230S-01	48.8	53.6	11.5				ø6.5		6.35			
22315-01	48.8	53.6	11.5					12.5	- Mu 1			
20445-01	48.8	56.1	14.0	\ \ \ \ '	ø57		925 [26	3				
2046S-01	48.8	61.1	19.0	1								
2046S-11	48.8	61.1	19.0						\(\mathrea{\big }\)			
2047S-01	48.8	61.1	19.0						⊕///			
29025-01	48.8	61.1	19.0		857].					
2050S-01	38.8	71.1	29.0			┸	<u> </u>					
2050S-11	38.8	71.1	29.0	ω	.0							
2056S-01	38.8	76.1	34.0		13.6	> <	ø9.52 -8.03 (3/8")					
					¥		(3/8)					
				\	V	7.6	#4-48UNF					
					(): water proof type							

