

Dial Indicators

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

SERIES 2 — Long Stroke Type

- Long stroke dial indicators with a $\varnothing 57\text{mm}$ outer frame. All the models are equipped with limit markers and a bezel clamp as standard.
- An O-ring is employed to ensure air-tightness between the outer frame and the crystal case to prevent water or oil penetration.
- Both 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 IX for details.



2050S



2050S-60

Continuous scale



- Graduation: 0.01mm, Measuring range: 20mm
- 2050S**
- With damper at lowest rest point
- 2050S-19**
- Shockproof
 - Jeweled bearing
 - With damper at lowest rest point
- 2050S-60**
- Waterproof

Continuous scale



- Graduation: 0.01mm, Measuring range: 30mm
- 2052S**
- With damper at lowest rest point
- 2052S-19**
- Shockproof
 - Jeweled bearing
 - With damper at lowest rest point

Continuous scale



- Graduation: 0.01mm, Measuring range: 30mm
- 2330S-10**
- With coaxial revolution counter
 - With damper at lowest rest point
 - Jeweled bearing

Continuous scale



- Graduation: 0.01mm, Measuring range: 20mm
- 2320S-10**
- With coaxial revolution counter
 - With damper at lowest rest point
 - Jeweled bearing

Reverse reading



- Graduation: 0.01mm, Measuring range: 30mm
- 2952S**
- With damper at lowest rest point

F

FEATURES

Metric											
Order No.	Order No.										
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	—	—	—	—	—	—	—	—	—	—

Inch											
Order No.	Order No.										
w/ lug	Flat-back										
2416S	2416SB	✓	—	—	—	—	—	—	—	—	—
2416S-06	2416SB-06	✓	—	—	—	—	—	—	—	—	—
2416S-10	2416SB-10	✓	—	—	—	—	—	—	—	—	—
2417S	2417SB	—	✓	—	—	—	—	—	—	—	—
2424S-19	2424SB-19	✓	—	—	—	—	—	—	—	—	—
2776S	2776SB	✓	—	—	—	—	—	—	—	—	—
2904S	2904SB	—	—	—	—	—	—	—	—	—	—

SPECIFICATIONS

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

* 2050S-60 and 2050SB-60 are waterproof types that use a rubber bellows to cover the spindle.
Please note that the outer diameter of the bellows (ø9.5) is larger than that of the stem (ø8).

Inch		ANSI/AGD type									
Order No.	Order No.	Graduation	Range (range/rev)	Accuracy		Repeat-ability	Dial reading	Measuring force			
				First 1 Rev / 2.5 Rev / 10 Rev	Retrace						
2416S	2416SB	.001"	1" (.1")	±.001" / ±.001" / ±.002"	.0002"	±.0002"	±0-100	1.8N or less			
2416S-06	2416SB-06	.001"	1" (.1")	±.001" / ±.001" / ±.002"	.0002"	±.0002"	±0-100	1.8N or less			
2416S-10	2416SB-10	.001"	1" (.1")	±.001" / ±.001" / ±.002"	.0002"	±.0002"	±0-100	1.8N or less			
2417S	2417SB	.001"	1" (.1")	±.001" / ±.001" / ±.002"	.0002"	±.0002"	0-50-0	1.8N or less			
2424S-19	2424SB-19	.001"	2" (.1")	±.001" / ±.001" / ±.002" / ±.003" (First 20Rev)	.00033"	±.0002"	±0-100	2.5N or less			
2776S	2776SB	.0005"	1" (.05")	±.0005" / ±.0005" / ±.0015"	.0002"	±.0001"	±0-50	2.5N or less			
2904S	2904SB	.001"	1" (.1")	±.001" / ±.001" / ±.002"	.0002"	±.0002"	100-0	1.8N or less			

DIMENSIONS

ISO/JIS Type

2050S-60

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