



An inspection certificate is supplied as standard.
Refer to page U-11 for details.

Dial Indicators

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

SERIES 1 — Compact Type, Small Diameter

- Compact dial indicators ideal for restricted-space applications in gaging jigs.
- All models come with limit markers and a bezel clamp.
- Watertight assembly of bezel and crystal as well as the use of an O-ring prevents water or oil penetration.
- The stem and spindle are made of high-strength quench-hardened stainless steel suitable for heavy-duty use.
- A carbide contact point is used.
- Application of a hard coating on the surface of the crystal makes the gage highly scratch- and chemical-resistant.



10445

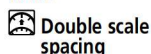


Continuous scale



Graduation: 0.01 mm,
Measuring range: 3.5 mm

10405



Double scale spacing

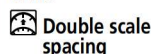


Balanced scale



Graduation: 0.01 mm,
Measuring range: 3.5 mm

10415



Double scale spacing



Continuous scale



Graduation: 0.01 mm,
Measuring range: 5 mm

10445



Jeweled bearing
10445-15



Balanced scale

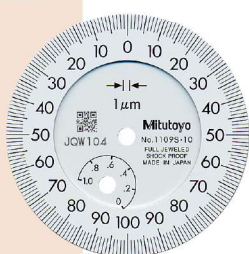


Graduation: 0.01 mm,
Measuring range: 5 mm

10455



Balanced scale



Graduation: 0.001 mm,
Measuring range: 1 mm

11095-10



Shockproof
Jeweled bearing



Balanced scale



Graduation: 0.002 mm,
Measuring range: 1 mm

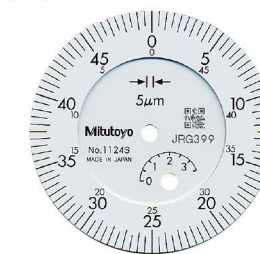
10135-10



Shockproof
Jeweled bearing



Continuous scale



Graduation: 0.005 mm,
Measuring range: 3.5 mm

11245



11095-10

Dial Indicators

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



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1044S-60



Continuous scale



Graduation: 0.01 mm,
Measuring range: 5 mm

1044S-60

Waterproof

SPECIFICATIONS

Metric		ISO/JIS type									
Order No.		Graduation (mm)	Range (range/rev) (mm)	Maximum permissible error (MPE) (μm)						Dial reading	Measuring force (N)
w/lug	Flat-back			Indication error				Hysteresis	Repeat-ability		
				1/10 Rev	1/2 Rev	1 Rev	Measuring range				
1013S-10	1013SB-10	0.002	1 (0.2)	2.5	4	5	6	2.5	1	0-100-0	1.5 or less
1040S	1040SB	0.01	3.5 (0.5)	8	10	11	13	4	3	±0-50	1.4 or less
1041S	1041SB	0.01	3.5 (0.5)	8	10	11	13	4	3	0-25-0	1.4 or less
1044S	1044SB	0.01	5 (1)	8	10	11	13	4	3	±0-100	1.4 or less
1044S-15	1044SB-15	0.01	5 (1)	8	10	11	13	4	3	±0-100	0.4 or less*
1044S-60	1044SB-60	0.01	5 (1)	8	10	11	13	4	3	±0-100	2.0 or less
1045S	1045SB	0.01	5 (1)	8	10	11	13	4	3	0-50-0	1.4 or less
1109S-10	1109SB-10	0.001	1 (0.2)	2.5	3.5	4.5	5	2	1	0-100-0	1.5 or less
1124S	1124SB	0.005	3.5 (0.5)	6	9	10	12	3.5	3	±0-50	1.4 or less

* For low measuring force type, use in the vertical orientation.

Note: Completed products inspection is performed in the vertical orientation (contact point downward) and the stated accuracy is guaranteed.

FEATURES

Metric								
Order No.		ISO/JIS type	Flat-back	Waterproof	Low measuring force	High accuracy	High resolution	High precision
1013S-10	1013SB-10	✓	✓	✓	✓	✓	✓	✓
1040S	1040SB	✓	✓	✓	✓	✓	✓	✓
1041S	1041SB	✓	✓	✓	✓	✓	✓	✓
1044S	1044SB	✓	✓	✓	✓	✓	✓	✓
1044S-15	1044SB-15	✓	✓	✓	✓	✓	✓	✓
1044S-60	1044SB-60	✓	✓	✓	✓	✓	✓	✓
1045S	1045SB	✓	✓	✓	✓	✓	✓	✓
1109S-10	1109SB-10	✓	✓	✓	✓	✓	✓	✓
1124S	1124SB	✓	✓	✓	✓	✓	✓	✓

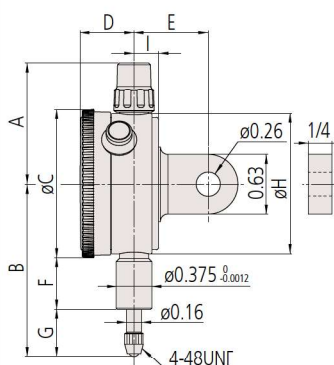
Inch		ANSI/AGD type									
Order No.		Graduation (in)	Range (range/rev) (in)	Accuracy (in)		Repeat- ability (in)	Dial reading	Measuring force (N)			
w/lug	Flat-back			First 1 Rev/2.5 Rev/10 Rev	Retrace						
1410S	1410SB	0.001	0.25 (0.1)	±0.001/±0.001/—	0.0002	±0.0002	0-100	1.4 or less			
1411S	1411SB	0.001	0.25 (0.1)	±0.001/±0.001/—	0.0002	±0.0002	0-50-0	1.4 or less			
1410S-10	1410SB-10	0.001	0.25 (0.1)	±0.001/±0.001/—	0.0002	±0.0002	0-100	1.4 or less			
1780S	1780SB	0.001	0.125 (0.05)	±0.001/±0.001/—	0.0002	±0.0002	0-50	1.4 or less			
1781S	1781SB	0.001	0.125 (0.05)	±0.001/±0.001/—	0.0002	±0.0002	0-25-0	1.4 or less			
1506S	1506SB	0.0005	0.125 (0.05)	±0.0005/±0.0005/—	0.00016	±0.0001	0-50	1.4 or less			
1507S	1507SB	0.0005	0.125 (0.05)	±0.0005/±0.0005/—	0.00016	±0.0001	0-25-0	1.4 or less			
1670S	1670SB	0.0005	0.1 (0.04)	±0.0005/±0.0005/—	0.00016	±0.0001	0-40	1.4 or less			
1671S	1671SB	0.0005	0.1 (0.04)	±0.0005/±0.0005/—	0.00016	±0.0001	0-20-0	1.4 or less			
1802S-10	1802SB-10	0.0001	0.025 (0.01)	±0.0001/±0.0001/—	0.0001	±0.00003	0-10	1.5 or less			
1803S-10	1803SB-10	0.0001	0.025 (0.01)	±0.0001/±0.0001/—	0.0001	±0.00003	0-5-0	1.5 or less			

Note: Completed products inspection is performed in the vertical orientation (contact point downward) and the stated accuracy is guaranteed.

DIMENSIONS

ANSI/AGD Type

Unit: in



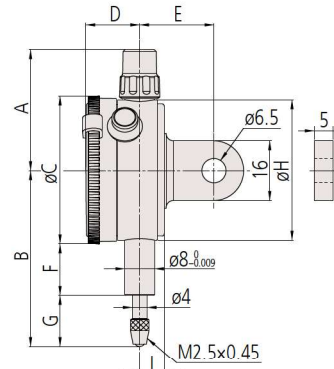
Order No.	A	B	C	D	E	F	G	H	I
1410S	1.28	1.87	1.57	0.57	3/4	0.50	0.58	1.50	0.26
1411S	1.28	1.87	1.57	0.57	3/4	0.50	0.58	1.50	0.26
1410S-10	1.28	1.87	1.57	0.57	3/4	0.50	0.58	1.50	0.26
1780S	1.28	1.74	1.57	0.57	3/4	0.50	0.44	1.50	0.26
1781S	1.28	1.74	1.57	0.57	3/4	0.50	0.44	1.50	0.26
1506S	1.28	1.74	1.57	0.57	3/4	0.50	0.44	1.50	0.26
1507S	1.28	1.74	1.57	0.57	3/4	0.50	0.44	1.50	0.26
1670S	1.28	1.71	1.57	0.57	3/4	0.50	0.42	1.50	0.26
1671S	1.28	1.71	1.57	0.57	3/4	0.50	0.42	1.50	0.26
1802S-10	1.28	1.63	1.57	0.57	3/4	0.50	0.33	1.50	0.26
1803S-10	1.28	1.63	1.57	0.57	3/4	0.49	0.33	1.50	0.26

Note 1: Refer to pages F-57 to F-60 for details of contact points.

Note 2: If the contact point of the waterproof model is replaced, the water resistance cannot be guaranteed.

ISO/JIS Type

Unit: mm



Order No.	A	B	C	D	E	F	G	H	I
1013S-10	32.5	49	40	14.5	20	13.8	15.2	38	6.6
1040S	32.5	46	40	14.5	20	13.8	12.2	38	6.6
1041S	32.5	46	40	14.5	20	13.8	12.2	38	6.6
1044S	32.5	47.5	40	14.5	20	13.8	13.7	38	6.6
1044S-15*	32.5	47.5	40	14.5	20	13.8	13.7	38	6.6
1044S-60	32.5	57	40	14.5	20	12.2	24.8	38	6.6
1045S	32.5	47.5	40	14.5	20	13.8	13.7	38	6.6
1109S-10	32.5	49	40	14.5	20	13.8	15.2	38	6.6
1124S	32.5	46	40	14.5	20	13.8	12.2	38	6.6

* 3 Use in the vertical orientation (contact point downward) for the low measuring force model.

Note 1: Refer to pages F-57 to F-60 for details of contact points.

Note 2: If the contact point of the waterproof model is replaced, the water resistance cannot be guaranteed.