

Dial Test Indicators

SERIES 513 — Horizontal Type

FEATURES

- Performs easy and accurate measurement of narrow or recessed areas, plus inside and outside diameters that dial indicators cannot access.
- No-clutch structure for automatic reversal of measuring direction.
- Resistant to water and dust thanks to the one-piece bezel and "crystal" design with O-ring.
- The glare-free flat crystal face has a scratch-resistant coating.
- High-sensitivity and quick-response because of jeweled bearings.
- A carbide contact point is provided as standard.



513-424E



513-404E



513-414E

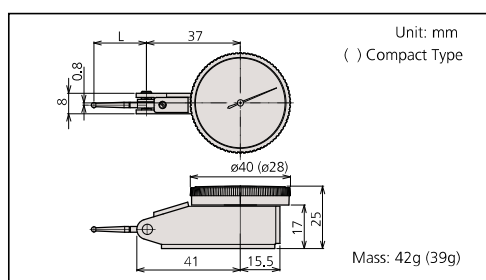


513-403



513-424

DIMENSIONS AND MASS



Optional Accessories

- : Swivel clamp
- : Holding bar
- : Stem
- : Contact points

Special Set: No. 513-908 (mm)

- 513-404E: Dial test indicator
- 7014: Mini magnetic stand

No. 513-907 (inch)

- 513-402: Dial test indicator
- 7014E: Mini magnetic stand



Set Configuration: Metric Test Indicators

Full set

Swivel clamp (900321, for ø4mm, ø8mm, dovetail) Metric holding bar (L: 100mm) (900209)

Contact point, ø1mm carbide Contact point, ø3mm carbide Stem, ø4mm (190318)

Basic set

Indicator Contact point, ø2mm (Carbide) Knurled clamp ring Stem, ø8mm (Set No. 902804)


Set Configuration: Inch Test Indicators


Full set


Contact point, .039" DIA. carbide Contact point, .118" DIA. carbide Stem, .157" DIA. (190318) Swivel clamp (900322, for .157" DIA., 3/8" DIA., dovetail) Inch holding bar (L: 4") (900306)

Basic set

Indicator Contact point, .079" DIA. (Carbide) Knurled clamp ring Stem, 3/8" DIA. (Set No. 902805)


 Anti-magnet type

 Double scale spacing type

 Long contact point type

 Jeweled bearing type

 Compact type

 With revolution counter type



513-466E









513-464E



513-463





SPECIFICATIONS

Metric

Graduation	Order No.		Range	Accuracy	Dial reading	Measuring force	L (mm)						
	Basic set	Full set											
0.01mm	513-424E	513-424T	0.5mm	5µm	0-25-0	0.3N or less	22.3	✓	✓	—	✓	—	—
0.01mm	513-414E	513-414T	0.5mm	10µm	0-25-0	0.2N or less	36.8	✓	✓	✓	✓	—	—
0.01mm	513-466E	—	0.5mm	5µm	0-25-0	0.3N or less	22.3	✓	✓	—	✓	✓	—
0.01mm	513-478E*	—	0.5mm	5µm	0-25-0	0.3N or less	22.3	✓	—	—	✓	—	—
0.01mm	513-404E	513-404T	0.8mm	8µm	0-40-0	0.3N or less	20.9	✓	—	—	✓	—	—
0.01mm	513-474E*	—	0.8mm	8µm	0-40-0	0.3N or less	20.9	✓	—	—	✓	—	—
0.01mm	513-464E	—	0.8mm	8µm	0-40-0	0.3N or less	20.9	✓	—	—	✓	✓	—
0.01mm	513-415E	513-415T	1mm	10µm	0-50-0	0.2N or less	44.5	✓	—	—	✓	—	—
0.01mm	513-477E*	—	1mm	10µm	0-50-0	0.2N or less	44.5	✓	—	—	✓	—	—
0.01mm	513-426E	—	1.5mm	8µm	0-25-0	0.4N or less	22.3	✓	✓	—	✓	—	✓
0.002mm	513-405E	513-405T	0.2mm	3µm	0-100-0	0.3N or less	14.7	✓	—	—	✓	—	—
0.002mm	513-465E	—	0.2mm	3µm	0-100-0	0.3N or less	14.7	✓	—	—	✓	✓	—
0.01mm	513-475*	—	1mm	10µm	0-50-0	0.2N or less	44.5	✓	—	—	✓	—	—
0.002mm	513-425E	—	0.6mm	6µm	0-100-0	0.4N or less	14.7	✓	—	—	✓	—	✓
0.001mm	513-401E	—	0.14mm	3µm	0-70-0	0.3N or less	12.8	✓	—	—	✓	—	—
0.01mm	513-471E*	—	0.14mm	3µm	0-70-0	0.3N or less	12.8	✓	—	—	✓	—	—



*provided with a ø2mm ruby contact point as a substitute for ø2mm carbide contact point.

Inch



Graduation	Order No.		Range	Accuracy	Dial reading	Measuring force	L (mm)						
	Basic set	Full set										—	—
.0005"	513-402	513-402T	.03"	±.0005"	0-15-0	0.3N or less	19.9	✓	—	✓	—	—	—
.0005"	513-472*	—	.03"	±.0005"	0-15-0	0.3N or less	19.9	✓	—	✓	—	—	—
.0005"	513-412	513-412T	.03"	±.0005"	0-15-0	0.2N or less	33.9	✓	✓	✓	—	—	—
.0005"	513-479*	—	.03"	±.0005"	0-15-0	0.2N or less	33.9	✓	✓	✓	—	—	—
.0005"	513-462	—	.03"	±.0005"	0-15-0	0.3N or less	19.9	✓	—	✓	✓	—	—
.0001"	513-403	513-403T	.008"	±.0001"	0-4-0	0.3N or less	15	✓	—	✓	—	—	—
.0001"	513-473*	—	.008"	±.0001"	0-4-0	0.3N or less	15	✓	—	✓	—	—	—
.0001"	513-463	—	.008"	±.0001"	0-4-0	0.3N or less	15	✓	—	✓	✓	—	—

*provided with a ø2mm ruby contact point as a substitute for ø2mm carbide contact point.

Metric/inch

Graduation	Order No.		Range	Accuracy	Dial reading	Measuring force	L (mm)						
	Basic set	Full set								—	—	—	—
0.002mm, .0001"	513-409	513-409T	0.2mm, .0075"	3µm	0-10-0, 0-38-0	0.3N or less	14.7	✓	✓	—	—	—	—

Inch/Metric

Graduation	Order No.		Range	Accuracy	Dial reading	Measuring force	L (mm)						
	Basic set	Full set								—	—	—	—
.0005", 0.01mm	513-406	513-406T	.03", 0.7mm	±.0005"	0-15-0, 0-35-0	0.3N or less	19.9	✓	✓	—	—	—	—