

SPECIFICATIONS

Metric

Order No.			Graduation	Range	Dial reading	Indication accuracy				Mass	Measuring force	High accuracy	With revolution counter	Long stylus	Standard	Double scale spacing	Compact	Carbide contact point (Anti-magnet)	Ruby contact point (non-magnet)
Basic set	Plus set	Full set				Measuring range	10 scale divisions	Hysteresis	Repeatability										
513-444-10E	513-444-10A	513-444-10T	0.01mm	1.6mm	0-40-0	16μm	5μm	5μm	3μm	48g	0.3N or less		✓					✓	
513-445-10E	513-445-10A	513-445-10T	0.002mm	0.4mm	0-100-0	6μm	2μm	4μm	1μm										

Inch

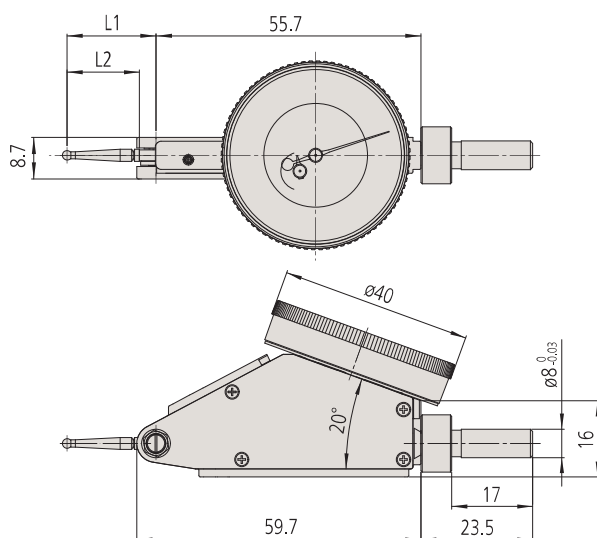
Order No.			Graduation	Range	Dial reading	Indication accuracy			Mass	Measuring force	High accuracy	With revolution counter	Long stylus	Standard	Double scale spacing	Compact	Carbide contact point (Anti-magnet)	Ruby contact point (non-magnet)
Basic set	Plus set	Full set				Measuring range	Hysteresis	Repeatability										
-	513-442-10A	513-442-10T	0.0005 in	0.06 in	0-15-0	±0.0005 in	0.0002 in	0.0002 in	48g	0.3N or less		✓					✓	
-	513-442-16A	513-442-16T								0.2N or less		✓	✓				✓	
-	513-446-10A	513-446-10T								0.2N or less		✓	✓				✓	
-	513-446-16A	513-446-16T								0.2N or less		✓	✓				✓	
-	513-443-10A	513-443-10T	0.0001 in	0.016 in	0-4-0	±0.0002 in	0.0001 in	0.00004 in		0.3N or less		✓					✓	
-	513-443-16A	513-443-16T								0.3N or less		✓					✓	

* Stem with ø6 dovetail groove is not included in the mass.

* Be sure to perform calibration with reference gage, etc. after changing the contact point. The inside parts may be damaged when the contact point is changed due to the breakage.
In the case the of the significant deterioration during the operation, repair is required.

DIMENSIONS

Unit: mm



Order No.	L1	L2
513-445-10E	18.7	15.2
513-444-10E	20.9	17.4

Refer to MEASURING INSTRUMENTS CATALOG No. US-1004 for the accessories such as styli, stems with dovetail, holding bars, etc.



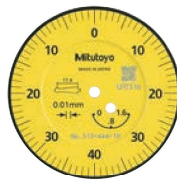
Horizontal (20° Tilted Face) (Dial face inclined 20°, compared with the vertical type.)

Metric



513-444-10

Contact point No. 103006



Graduation: 0.01mm
Range: 1.6mm

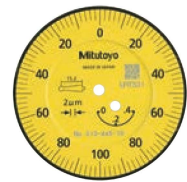
513-444-10E/513-444-10A/
513-444-10T

- ☒ With revolution counter
- ☒ Carbide contact point (Anti-magnet)



513-445-10

Contact point No. 103011



Graduation: 0.02mm
Range: 0.4mm

513-445-10E/513-445-10A/
513-445-10T

- ☒ With revolution counter
- ☒ Carbide contact point (Anti-magnet)

Inch



513-442-10

Contact point No. 133195



Graduation: 0.0005 in
Range: 0.06 in

513-442-10A/513-442-10T

- ☒ With revolution counter
- ☒ Carbide contact point (Anti-magnet)



513-442-16

Contact point No. 133195



Graduation: 0.0005 in
Range: 0.06 in

513-442-16A/513-442-16T

- ☒ With revolution counter
- ☒ Carbide contact point (Anti-magnet)



513-446-10

Contact point No. 136290



Graduation: 0.0005 in
Range: 0.06 in

513-446-10A/513-446-10T

- ☒ With revolution counter
- ☒ Long stylus
- ☒ Carbide contact point (Anti-magnet)



513-446-16

Contact point No. 136290



Graduation: 0.0005 in
Range: 0.06 in

513-446-16A/513-446-16T

- ☒ With revolution counter
- ☒ Long stylus
- ☒ Carbide contact point (Anti-magnet)



513-443-10

Contact point No. 21CZB064



Graduation: 0.0001 in
Range: 0.016 in

513-443-10A/513-443-10T

- ☒ With revolution counter
- ☒ Carbide contact point (Anti-magnet)



513-443-16

Contact point No. 21CZB064



Graduation: 0.0001 in
Range: 0.016 in

513-443-16A/513-443-16T

- ☒ With revolution counter
- ☒ Carbide contact point (Anti-magnet)