

Dial Test Indicators

Pocket Type Dial Test Indicator SERIES 513

- This test indicator series is slimmer than standard test indicators without a clutch lever, making it more suitable for measuring deep points.
- Contact point length is printed on dial face to avoid accuracy issues.

Note 1: Attaching a contact point of incorrect length will lead to measurement failure.

- Glare-free flat crystal face allows easy reading of graduations. Multi-layer composite coatings make the crystal more anti-reflective and stain resistant.

- Bonding the bezel and crystal together leaves no gap for cutting fluid or oil to penetrate through to the dial face. (Note that this type is NOT water-proof.)
- Clutch type (with a clutch lever)

Note 2: See page 07-83 for notes on differences with models that do not have a clutch lever.

- A $\varnothing 2$ mm carbide contact point is supplied as standard.
- Metric Dial Test Indicator is inspected according to JIS B 7533:2015. We guarantee accuracy by inspecting with the dial face facing upward.



Graduation: 0.01 mm
Range: 0.8 mm

513-517-10E/
513-517-10T

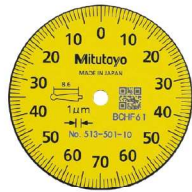
- Standard
- Compact
- Carbide contact point



Graduation: 0.01 mm
Range: 1 mm

513-515-10E/
513-515-10T

- Long contact point
- Compact
- Carbide contact point



Graduation: 0.001 mm
Range: 0.14 mm

513-501-10E/
513-501-10T

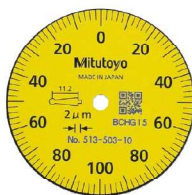
- High accuracy
- Compact
- Carbide contact point



Graduation: 0.01 mm
Range: 0.5 mm

513-514-10E/
513-514-10T

- Long contact point
- Double scale spacing
- Compact
- Carbide contact point



Graduation: 0.002 mm
Range: 0.2 mm

513-503-10E/
513-503-10T

- Standard
- Compact
- Carbide contact point



Set Configuration: Metric

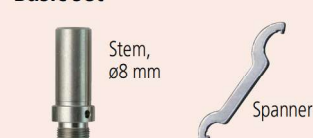
Full set

513-5XX-10T



Basic set

513-5XX-10E



513-5XX-10 is indicated on the dial face.



Set Configuration: Inch

Full set

513-5XX-10T



Basic set

513-5XX-10E



513-5XX-10 is indicated on the dial face.





Graduation: 0.001 in
Range: 0.04 in

**513-518-10E/
513-518-10T**

- ☒ Compact
- ☒ Carbide contact point



Graduation: 0.0005 in
Range: 0.02 in

**513-512-10E/
513-512-10T**

- ☒ Long contact point
- ☒ Double scale spacing
- ☒ Compact
- ☒ Carbide contact point



Graduation: 0.0001 in
Range: 0.01 in

**513-504-10E/
513-504-10T**

- ☒ Compact
- ☒ Carbide contact point

SPECIFICATIONS

Metric

Code No.		Graduation (mm)	Range (mm)	Dial reading	Maximum permissible error (MPE)* (μm)					Mass (g)	Measuring force (N)	High accuracy	With revolution counter	Long contact point	Standard	Double scale spacing	Compact	Carbide contact point	Ruby contact point
Basic set	Full set				Measuring range	One rev.	10 scale divisions	Hysteresis	Repeatability										
513-517-10E	513-517-10T	0.01	0.8	0-40-0	9	—	5	4	3	50	0.3 or less								
513-514-10E	513-514-10T	0.01	0.5	0-25-0	10	—	5	5	3	51	0.3 or less								
513-515-10E	513-515-10T	0.01	1	0-50-0	10	—	5	5	3	51	0.3 or less								
513-503-10E	513-503-10T	0.002	0.2	0-100-0	4	—	2	3	1	50	0.4 or less								
513-501-10E	513-501-10T	0.001	0.14	0-70-0	4	—	2	3	1	50	0.5 or less								

Inch

Code No.		Graduation (in)	Range (in)	Dial reading	Maximum permissible error (MPE)* (in)				Mass (g)	Measuring force (N)	High accuracy	With revolution counter	Long contact point	Standard	Double scale spacing	Compact	Carbide contact point	Ruby contact point
Basic set	Full set				One rev.	First 2.5 rev.	Hysteresis	Repeatability										
513-518-10E	513-518-10T	0.001	0.04	0-20-0	±0.001	—	0.0002	±0.0004	50	0.3 or less								
513-512-10E	513-512-10T	0.0005	0.02	0-10-0	±0.0005	—	0.0002	±0.0002	51	0.3 or less								
513-504-10E	513-504-10T	0.0001	0.01	0-5-0	±0.0002	—	0.0001	±0.00004	50	0.3 or less								

* We guarantee the accuracy of completed products by inspecting them with the dial face facing upward.

Note 1: Be sure to perform calibration with reference gage, etc. after exchanging the contact point. The inside parts may be damaged when the contact point is exchanged due to the breakage. In the case the of the significant deterioration in the operation, repair is required.

Note 2: Stem is not included in the mass.

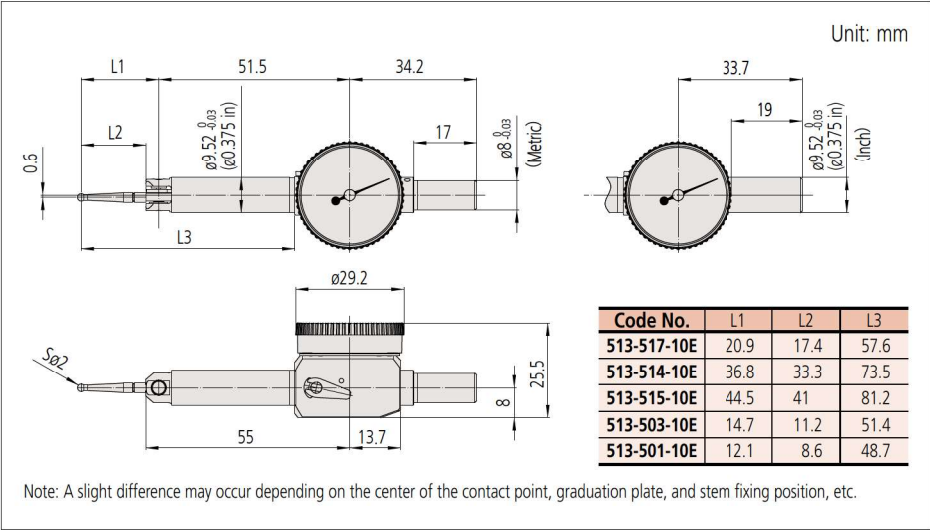
Note 3: **513-5XX-10** is indicated on the dial face and the inspection certificate.

The code No. with suffix (E/T) is a set item which includes accessories. The main unit is not available as a standalone item.

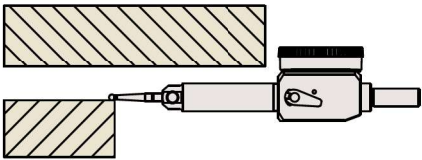
Dial Test Indicators

Pocket Type Dial Test Indicator
SERIES 513

DIMENSIONS

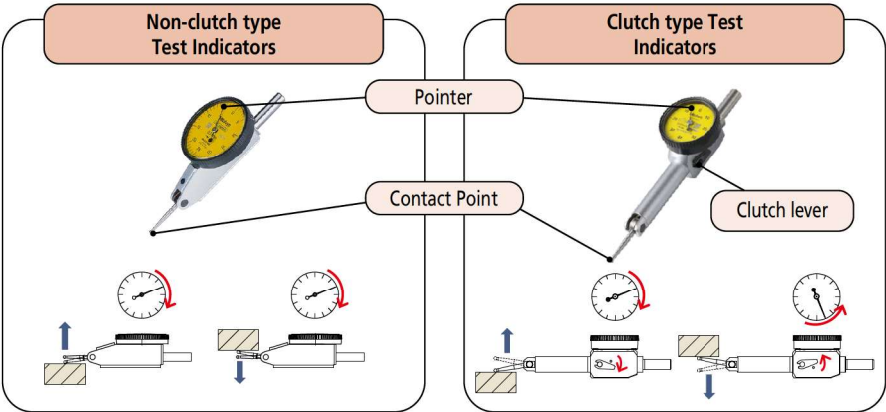


Pocket type can be fixed at the body (at $\varnothing 9.52$ ($\varnothing 0.375$ in))



The slim body allows measurements in shallow space.

There are two types of Mitutoyo Dial Test Indicator:
The non-clutch type (without a clutch lever) and the clutch type (with a clutch lever)



In the non-clutch type, although the contact point may move either in the upward or downward direction, the pointer always rotates clockwise.
In the clutch type, if the clutch lever is set in one position the contact point moves in the upward direction and the pointer rotates clockwise. Conversely, if the lever is set in the other position the contact point moves in the downward direction and the pointer rotates counterclockwise.