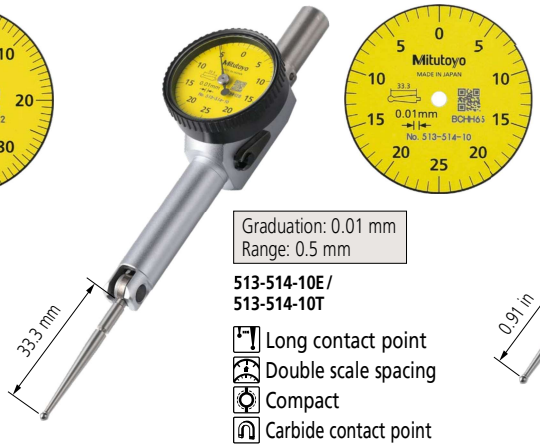
Pocket Type Dial Test Indicator SERIES 513

- Slim design is suited for measurement in deep holes.
- Visibility of the dial face has been greatly improved thanks to a universal font, the selected color of the dial face, and improved balance between the pointer and the thickness of scale lines. The length of the contact point is shown in the illustration on the dial face.
- The crystal surface is flat to reduce glare and is coated to prevent scratches, dirt, and reflections.
- 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)
- With ø2 mm Carbide contact point
- 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

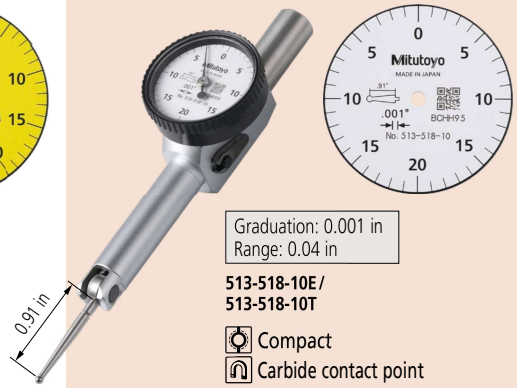
- Standard
- Compact
- Carbide contact point



Graduation: 0.01 mm
Range: 0.5 mm

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

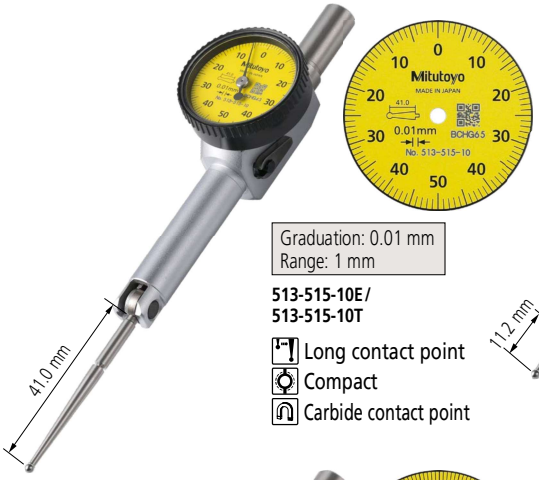
- Long contact point
- Double scale spacing
- Compact
- Carbide contact point



Graduation: 0.001 in
Range: 0.04 in

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

- Compact
- Carbide contact point



Graduation: 0.01 mm
Range: 1 mm

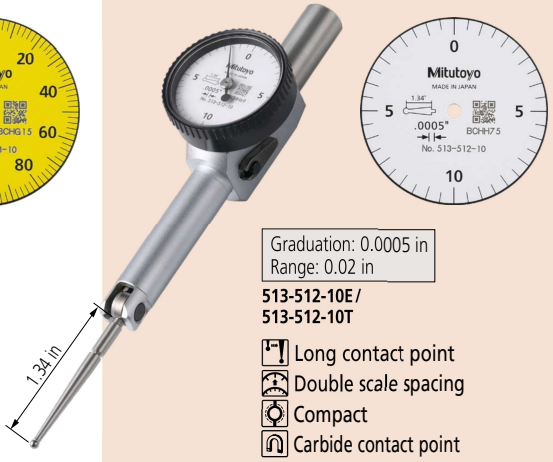
513-515-10E/
513-515-10T

- Long contact point
- Compact
- Carbide contact point

Graduation: 0.002 mm
Range: 0.2 mm

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

- Standard
- Compact
- Carbide contact point



Graduation: 0.0005 in
Range: 0.02 in

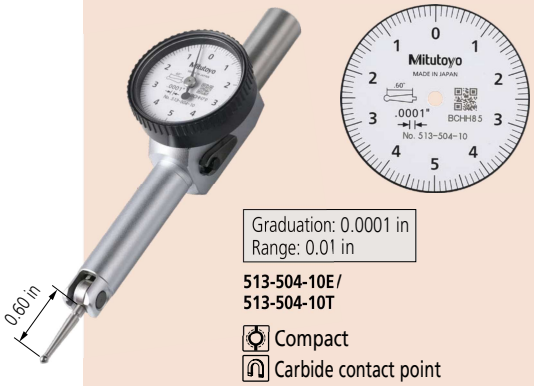
513-512-10E/
513-512-10T

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

Graduation: 0.001 mm
Range: 0.14 mm

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

- High accuracy
- Compact
- Carbide contact point



Graduation: 0.0001 in
Range: 0.01 in

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

- Compact
- Carbide contact point

SPECIFICATIONS

Metric

Order 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	Repetability										
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

Order 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	Repetability										
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						✔	✔	

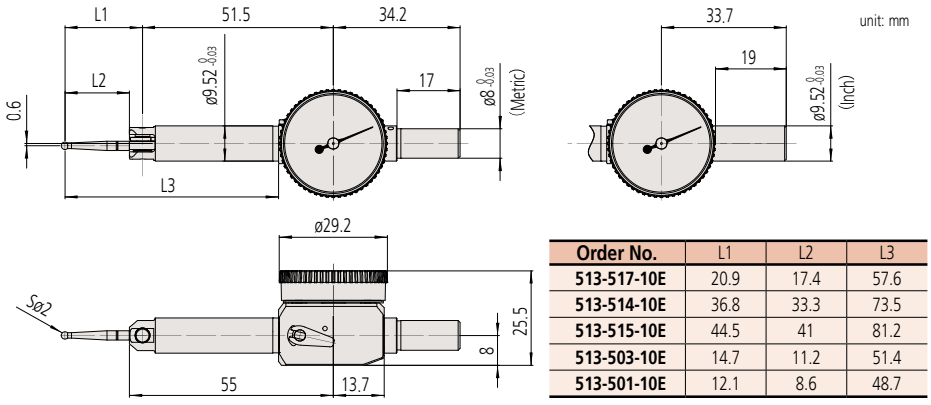
* We guarantee the accuracy of completed products by inspecting them with the dial face facing upward.

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. But the Order No. for the Special Set provided with the stem etc. has a suffix (E or T) at the end.

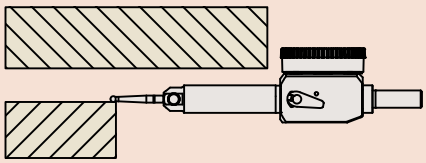
DIMENSIONS



Order No.	L1	L2	L3
513-517-10E	20.9	17.4	57.6
513-514-10E	36.8	33.3	73.5
513-515-10E	44.5	41	81.2
513-503-10E	14.7	11.2	51.4
513-501-10E	12.1	8.6	48.7

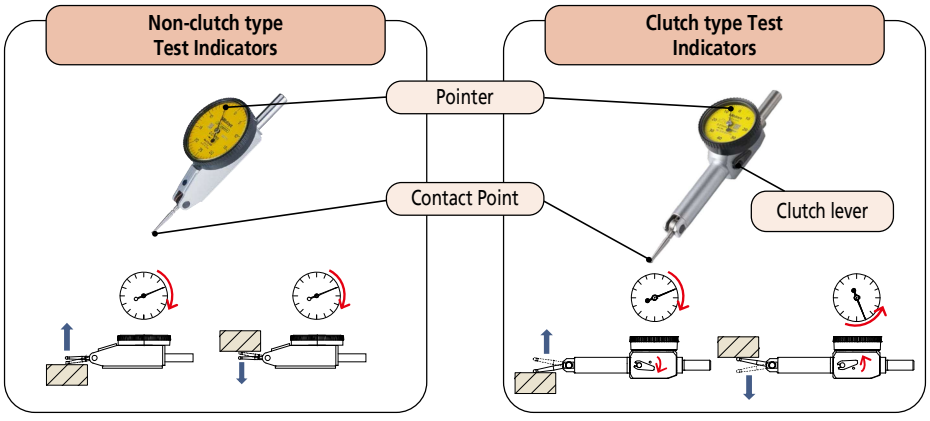
Note: A slight difference may occur depending on the center of the contact point, graduation plate, and stem fixing position, etc.

Pocket type can be fixed at the body (at ø9.52)



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.

F