SERIES 513 — Dial Test Indicator Features

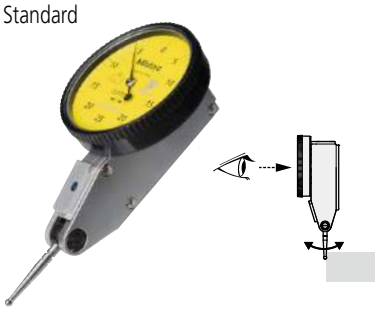
Provides easy access to narrow or recessed areas that cannot be reached with conventional dial indicators.

- Five types are available: standard, standard (20° Tilted face), vertical, horizontal, and universal, allowing users to select the model most suited to their needs.
- Newly designed contact point holder prevents backlash and permits smooth pointer operation.
- Ruby tip has wear-resistance several times greater than a carbide tip and, since it is nonconductive, it can be used safely on an electrical discharge machine.
- The pointer and carbide contact point are weakly magnetic.

  Note 1: Magnetic material is used for some internal parts.
- Contact point length is printed on dial face to avoid accuracy issues.

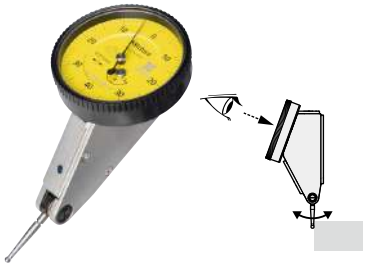
  Note 2: Attaching a contact point of incorrect length will lead to measurement failure.
- Glare-free flat crystal face allows easy reading of graduations. Multi-layer and composite coatings provide a more stain-resistant, anti-reflective crystal.
- Bonding the bezel and crystal together leaves no gap for cutting fluid or oil to penetrate through to the dial face. (Note that this type is NOT water-proof.)
- The main unit is equipped with three dovetails to which the stem with dovetail groove ø6 (standard accessory) can be attached. This greatly improves convenience as the attachment location can be adjusted as needed.
- Metric Dial Test Indicator is inspected according to JIS B 7533:2015. Standard, 20° tilted face, and vertical types are inspected with the dial face in the upward orientation, while the horizontal type is inspected with the dial face in the vertical orientation to guarantee their accuracy.

Standard



Vertical

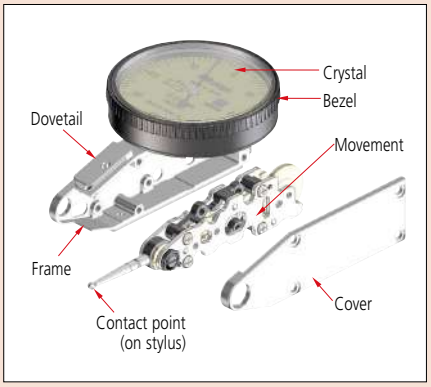
Standard
(20° Tilted face)



Horizontal

Universal

Naming of parts



Feature icons

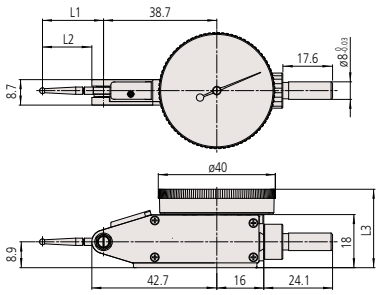
Icon	Feature description
	High accuracy
	With revolution counter
	Long contact point
	Standard
	Double scale spacing
	Compact (Small face diameter)
	Carbide contact point
	Ruby contact point (Non-conductive and abrasion resistant)

Dial Test Indicator
SERIES 513 — Standard Type

DIMENSIONS

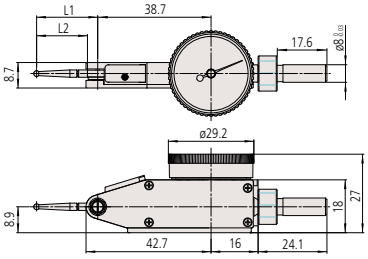
Standard

Unit: mm



Code No.	L1	L2	L3
513-401-10E	14.7	11.2	27
513-471-10E			
513-405-10E/A/T	18.7	15.2	
513-475-10E			
513-425-10E/A			28
513-404-10E/A/T	20.9	17.4	27
513-474-10E			
513-424-10E/A/T	22.2	18.7	
513-426-10E/A			28
513-478-10E			27
513-414-10E/A/T	37.4	33.9	
513-415-10E/A/T	44.5	41.0	
513-477-10E			

Compact



Type	Code No.	L1	L2
Compact	513-465-10E	18.7	15.2
	513-464-10E	20.9	17.4
	513-466-10E	22.2	18.7

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

Special Set: 513-908-10E (Metric)

513-404-10E: Dial test indicator
7014-10: Mini magnetic stand

513-907-10E (inch)

513-402-10E: Dial test indicator
7014E-10: Mini magnetic stand

513-404-10E
Contact point No. 103006

Graduation: 0.01 mm
Range: 0.8 mm

513-404-10E / 10A / 10T
Standard
Carbide contact point

Graduation: 0.01 mm
Range: 0.5 mm

513-424-10E / 10A / 10T
Standard
Double scale spacing
Carbide contact point

513-415-10E
Contact point No. 136013

Graduation: 0.01 mm
Range: 0.5 mm

513-414-10E / 10A / 10T
Long contact point
Carbide contact point
Double scale spacing

Graduation: 0.01 mm
Range: 1.0 mm

513-415-10E / 10A / 10T
Long contact point
Carbide contact point

513-465-10E
Contact point No. 103011

Graduation: 0.002 mm
Range: 0.2 mm

513-405-10E / 10A / 10T
Standard
Carbide contact point

Graduation: 0.002 mm
Range: 0.6 mm

513-425-10E / 10A
With revolution counter
Carbide contact point

Graduation: 0.002 mm
Range: 0.2 mm

513-465-10E
Compact
Carbide contact point

Graduation: 0.001 mm
Range: 0.14 mm

513-401-10E
High accuracy
Carbide contact point

513-402-10E
Contact point No. 133195

Graduation: 0.0005 in
Range: 0.03 in

513-402-10E / 10T
Standard
Carbide contact point

Graduation: 0.0001 in
Range: 0.008 in

513-403-10E / 10T
Standard
Carbide contact point

Note: **513-4XX-10** is indicated on the dial face and the inspection certificate.
The code No. with suffix (E/T/A) is a set item which includes accessories. The main unit is not available as a standalone item.

Dial Test Indicator
SERIES 513 — Standard Type

SPECIFICATIONS

Metric

Code No.			Graduation (mm)	Range (mm)	Dial reading	Maximum permissible error (MPE)*1 (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	Plus set	Full set				Measuring range	One rev.	10 scale divisions	Hysteresis	Repeatability											
513-424-10E	**513-424-10A**	**513-424-10T**	0.01	0.5	0-25-0	6	–	5	4	3	45	0.3 or less				✔	✔		✔	
513-478-10E	–	–														✔	✔			✔
513-466-10E	–	–									41						✔	✔	✔	
513-414-10E	**513-414-10A**	**513-414-10T**				10			5		45	0.2 or less			✔		✔		✔	
513-426-10E	**513-426-10A**	–		1.5		16	10					0.4 or less		✔			✔		✔	
513-404-10E	**513-404-10A**	**513-404-10T**		0.8	0-40-0	9	–		4			0.3 or less				✔			✔	
513-474-10E	–	–														✔				✔
513-464-10E	–	–									41							✔	✔	
513-415-10E	**513-415-10A**	**513-415-10T**		1.0	0-50-0	10	–		5		45	0.2 or less			✔				✔	
513-477-10E	–	–													✔					✔
513-405-10E	**513-405-10A**	**513-405-10T**	0.002	0.2	0-100-0	4		2	3	1		0.3 or less				✔			✔	
513-475-10E	–	–														✔				✔
513-465-10E	–	–									41							✔	✔	
513-425-10E	**513-425-10A**	–		0.6		7	5		4		45	0.4 or less		✔					✔	
513-401-10E	–	–	0.001	0.14	0-70-0	4	–		3			0.3 or less	✔						✔	
513-471-10E	–	–											✔							✔
513-908-10E*2	–	–	0.01	0.8	0-40-0	9	–	5	4	3	45					✔			✔	

Inch

Code No.			Graduation (in)	Range (in)	Dial reading	Maximum permissible error (MPE)*1 (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	Plus set	Full set				One rev.	Hysteresis	Repeatability										
513-402-10E	–	**513-402-10T**	0.0005	0.03	0-15-0	±0.0005	0.0002	±0.0002	45	0.3 or less				✔			✔	
513-472-10E	–	–												✔				✔
513-412-10E	–	**513-412-10T**								0.2 or less			✔				✔	
513-479-10E	–	–											✔					✔
513-462-10E	–	–							41							✔	✔	
513-407-10E	–	**513-407-10T**	0.00005	0.008	0-4-0	±0.0001	0.0001	±0.00004	45	0.3 or less							✔	
513-403-10E	–	**513-403-10T**	0.0001											✔			✔	
513-473-10E	–	–												✔				✔
513-463-10E	–	–							41							✔	✔	
513-907-10E*3	–	–	0.0005	0.03	0-15-0	±0.0005	0.0002	±0.0002	45					✔			✔	

Metric / Inch

Code No.			Graduation	Range	Dial reading	Maximum permissible error (MPE)*1 (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	Plus set	Full set				Measuring range	10 scale divisions	Hysteresis	Repeatability										
513-409-10E	–	**513-409-10T**	0.002 mm /0.0001 in	0.2 mm /0.0076 in	0-10-0 /0-38-0	4	2	3	1	45	0.3 or less							✔	

Inch / Metric

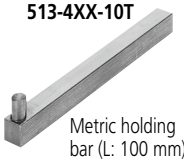
Code No.			Graduation	Range	Dial reading	Maximum permissible error (MPE)*1 (in)			Mass (g)	Measuring force (N)	High accuracy	With revolution counter	Long contact point	Standard	Double scale spacing	Compact	Carbide contact point	Ruby contact point
Basic set	Plus set	Full set				One rev.	Hysteresis	Repeatability										
513-406-10E	–	**513-406-10T**	0.0005 in /0.01 mm	0.03 in /0.7 mm	0-15-0 /0-35-0	±0.0005	0.0002	±0.0002	45	0.3 or less							✔	

*1 We guarantee the accuracy of completed products by inspecting them with the dial face facing upward.
*2 A set consisting of **513-404-10E** and **7014-10**.
*3 A set consisting of **513-402-10E** and **7014E-10**.
Note: Stem with dovetail groove is not included in the mass.

Set Configuration: Metric and Metric / Inch

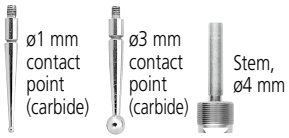
Full set **513-4XX-10T**

Swivel clamp (**900321**, for ø4 mm stem, ø8 mm stem, and dovetail)



Metric holding bar (L: 100 mm)

Plus set **513-4XX-10A**

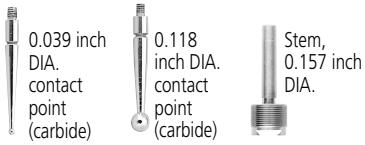


Basic set **513-4XX-10E**

513-4XX-10 is indicated on the dial face.

Set Configuration: Inch and Inch / Metric

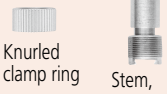
Full set **513-4XX-10T**



Swivel clamp (**900322**, for 0.157 inch DIA. stem, 0.375 inch DIA. stem, and dovetail)

Inch holding bar (L: 4 in)

Basic set **513-4XX-10E**

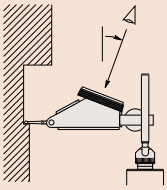


513-4XX-10 is indicated on the dial face.

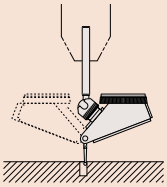
PROPRIETARY INSPECTION CERTIFICATE

Example of use of a test indicator with a tilted dial face

- The dial face obliquely faces upward, allowing users to read the graduations from the user's side. It is convenient when probing on the side of a large workpiece and the workbench is high.



- Using the universal holder allows easy hole centering. The dial face always faces upward when the indicator is rotated, which makes reading easy.



Dial Test Indicator
SERIES 513 — Standard (20° Tilted Face), Vertical, and Horizontal Types

513-454-10E / 10A / 10T
Contact point No. 103006

Carbide contact point

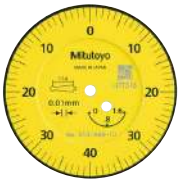
Graduation: 0.01 mm
Range: 0.8 mm

513-452-10E / 10T
Contact point No. 133195

Carbide contact point

Graduation: 0.0005 in
Range: 0.03 in

513-444-10E / 10A / 10T
Contact point No. 103006



With revolution counter
Carbide contact point

Graduation: 0.01 mm
Range: 1.6 mm

513-445-10E / 10A / 10T
Contact point No. 103011

With revolution counter
Carbide contact point

Graduation: 0.002 mm
Range: 0.4 mm

513-484-10E / 10A / 10T
Contact point No. 103006

Carbide contact point

Graduation: 0.01 mm
Range: 0.8 mm

513-485-10E
Contact point No. 103011

Carbide contact point

Graduation: 0.002 mm
Range: 0.2 mm

Note: **513-4XX-10** is indicated on the dial face and the inspection certificate.
The code No. with suffix (E/A/T) is a set item which includes accessories. The main unit is not available as a standalone item.

Mitutoyo

Dial Test Indicators

With revolution counter | Long contact point | Carbide contact point

SPECIFICATIONS

Metric Standard (20° tilted face) type

Code No. Basic set	Plus set	Full set	Graduation (mm)	Range (mm)	Dial reading	Maximum permissible error (MPE)* (µm) Measuring range	One rev.	10 scale divisions	Hysteresis	Repeatability	Mass (g)	Measuring force (N)	With revolution counter	Long contact point	Carbide contact point	Remarks
513-444-10E	513-444-10A	513-444-10T	0.01	1.6	0-40-0	16	10	5	5	3	48	0.3 or less	✔		✔	
513-445-10E	513-445-10A	513-445-10T	0.002	0.4	0-100-0	6	5	2	4	1			✔		✔	

Inch Standard (20° tilted face) type

Code No. Basic set	Plus set	Full set	Graduation (in)	Range (in)	Dial reading	Maximum permissible error (MPE)* (in) One rev.	First 2.5 rev.	Hysteresis	Repeatability	Mass (g)	Measuring force (N)	With revolution counter	Long contact point	Carbide contact point	Remarks
—	513-442-10A	513-442-10T	0.0005	0.06	0-15-0	±0.0005	±0.0005	0.0002	±0.0002	48	0.3 or less	✔		✔	
—	513-442-16A	513-442-16T									0.3 or less	✔		✔	Black dial
—	513-446-10A	513-446-10T									0.2 or less	✔	✔	✔	
—	513-446-16A	513-446-16T									0.2 or less	✔	✔	✔	Black dial
—	513-443-10A	513-443-10T	0.0001	0.016	0-4-0	±0.0002	±0.0002	0.0001	±0.00004		0.3 or less	✔		✔	
—	513-443-16A	513-443-16T									0.3 or less	✔		✔	Black dial

Metric Vertical type

Code No. Basic set	Plus set	Full set	Graduation (mm)	Range (mm)	Dial reading	Maximum permissible error (MPE)* (µm) Measuring range	One rev.	10 scale divisions	Hysteresis	Repeatability	Mass (g)	Measuring force (N)	Carbide contact point	Remarks
513-456-10E	—	—	0.01	0.5	0-25-0	6	—	5	4	3	46	0.3 or less	✔	
513-454-10E	513-454-10A	513-454-10T		0.8	0-40-0	9	—						✔	
513-455-10E	513-455-10A	513-455-10T	0.002	0.2	0-100-0	4	—	2	3	1			✔	

Inch Vertical type

Code No. Basic set	Plus set	Full set	Graduation (in)	Range (in)	Dial reading	Maximum permissible error (MPE)* (in) One rev.	First 2.5 rev.	Hysteresis	Repeatability	Mass (g)	Measuring force (N)	Carbide contact point	Remarks
513-452-10E	—	513-452-10T	0.0005	0.03	0-15-0	±0.0005	—	0.0002	±0.0002	46	0.3 or less	✔	
513-453-10E	—	513-453-10T	0.0001	0.008	0-4-0	±0.0001	—	0.0001	±0.00004		0.3 or less	✔	

Metric Horizontal Type

Code No. Basic set	Plus set	Full set	Graduation (mm)	Range (mm)	Dial reading	Maximum permissible error (MPE)* (µm) Measuring range	One rev.	10 scale divisions	Hysteresis	Repeatability	Mass (g)	Measuring force (N)	Carbide contact point	Remarks
513-486-10E	—	—	0.01	0.5	0-25-0	6	—	5	4	3	53	0.3 or less	✔	
513-484-10E	513-484-10A	513-484-10T		0.8	0-40-0	9	—						✔	
513-485-10E	—	—	0.002	0.2	0-100-0	4	—	2	3	1			✔	

Inch Horizontal Type

Code No. Basic set	Plus set	Full set	Graduation (in)	Range (in)	Dial reading	Maximum permissible error (MPE)* (in) One rev.	First 2.5 rev.	Hysteresis	Repeatability	Mass (g)	Measuring force (N)	Carbide contact point	Remarks
—	513-482-10A	513-482-10T	0.0005	0.03	0-15-0	±0.0005	—	0.0002	±0.0002	53	0.3 or less	✔	

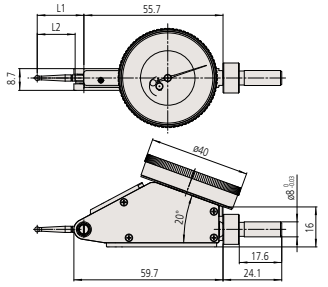
* Standard (20° Tilted Face) Type, Vertical Type: We guarantee the accuracy of completed products by inspecting them with the dial face facing upward.
Horizontal Type: We guarantee the accuracy of completed products by inspecting them with the dial face vertical.

Note: **513-4XX-1X** is indicated on the dial face and the inspection certificate.
The code No. with suffix (E/A/T) is a set item which includes accessories. The main unit is not available as a standalone item.

DIMENSIONS

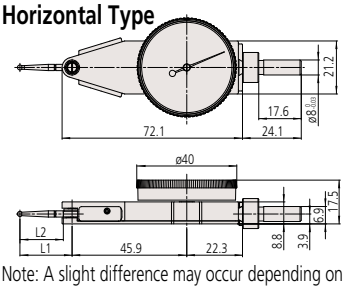
Standard (20° Tilted Face) Type

Unit: mm



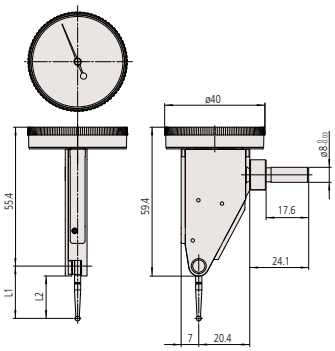
Code No.	L1	L2
513-445-10E	18.7	15.2
513-444-10E	20.9	17.4

Horizontal Type



Code No.	L1	L2
513-484-10E	20.9	17.4
513-485-10E	18.7	15.2
513-486-10E	22.2	18.7

Vertical Type



Code No.	L1	L2
513-454-10E	20.9	17.4
513-455-10E	18.7	15.2
513-456-10E	22.2	18.7

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

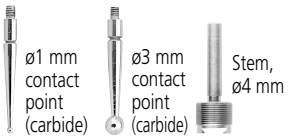
Set Configuration: Metric

Full set 513-4XX-10T

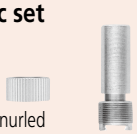
Swivel clamp (**900321**, for ø4 mm stem, ø8 mm stem, and dovetail)

Metric holding bar (L: 100 mm)

Plus set 513-4XX-10A



Basic set 513-4XX-10E



513-4XX-10 is indicated on the dial face.

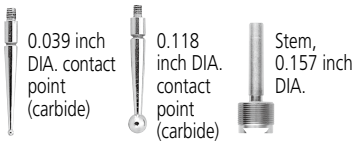
Set Configuration: Inch

Full set 513-4XX-1XT

Swivel clamp (**900322**, for 0.157 inch DIA. stem, 0.375 inch DIA. stem, and dovetail)

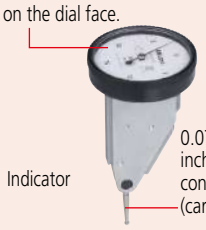
Inch holding bar (L: 4 in)

Plus set 513-4XX-1XA



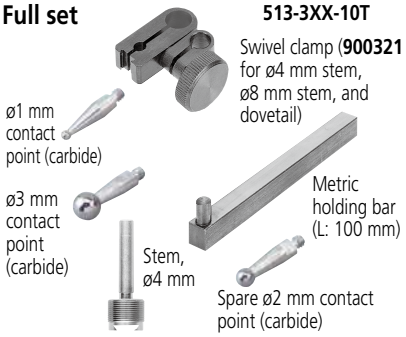
Basic set 513-4XX-10E

513-4XX-1X is indicated on the dial face.

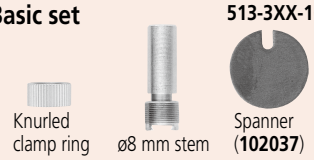


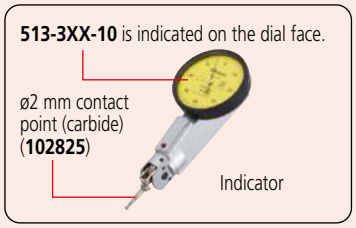
Set Configuration: Metric

Full set — **513-3XX-10T**



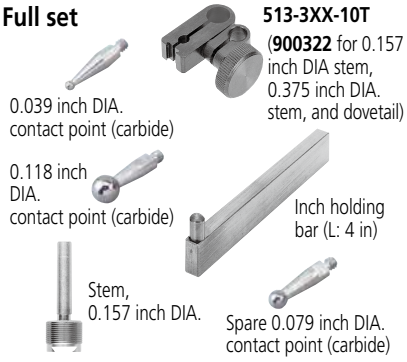
Basic set — **513-3XX-10E**



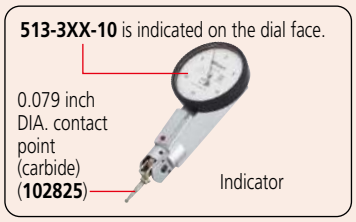


Set Configuration: Inch

Full set — **513-3XX-10T**



Basic set — **513-3XX-10E**



Optional Accessories

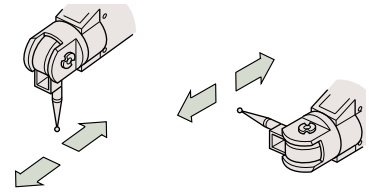
- Swivel clamps (See page 07-84)
- Holding bars (See page 07-85)
- Stems (See page 07-85)

102824: ø1 mm contact point (carbide)
102825: ø2 mm contact point (carbide)
102826: ø3 mm contact point (carbide)

Dial Test Indicator
SERIES 513 — Universal Type

513-304-10E

Universal Type



- The direction of the probe movement can be freely changed by rotating the contact point section of the indicator.

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	Dustproof	Carbide contact point	Ruby contact point
Basic set	Full set				Measuring range	One rev.	10 scale divisions	Hysteresis	Repeatability											
513-304 -10E	513-304-10T	0.01	0.8	0-40-0	9	—	5	4	3	71	0.3 or less								✔	

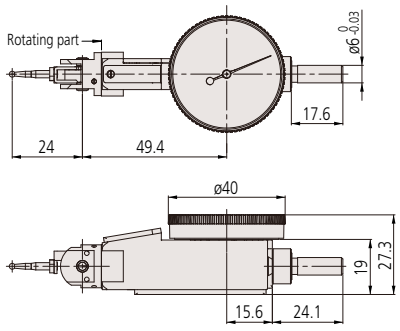
Inch

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	Dustproof	Carbide contact point	Ruby contact point
Basic set	Full set				One rev.	Hysteresis	Repeatability											
513-302-10E	513-302-10T	0.0005	0.03	0-15-0	±0.0005	0.0003	±0.0003	71	0.3 or less								✔	

* The accuracy is guaranteed when used with the dial face facing upward and the contact point oriented as shown in the figure.
Note: **513-3XX-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.

DIMENSIONS

Unit: mm



513-304-10E

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

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 ø2 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.

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

Standard
Compact
Carbide contact point

Graduation: 0.01 mm
Range: 0.8 mm

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

Long contact point
Compact
Carbide contact point

Graduation: 0.01 mm
Range: 1 mm

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

High accuracy
Compact
Carbide contact point

Graduation: 0.001 mm
Range: 0.14 mm

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

Long contact point
Double scale spacing
Compact
Carbide contact point

Graduation: 0.01 mm
Range: 0.5 mm

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

Standard
Compact
Carbide contact point

Graduation: 0.002 mm
Range: 0.2 mm

Set Configuration: Metric

Full set **513-5XX-10T**

Swivel clamp (**900321**, for ø4 mm stem, ø8 mm stem, and dovetail)

Metric holding bar (L: 100 mm)

Stem, ø4 mm

Holding bar

Basic set **513-5XX-10E**

Stem, ø8 mm

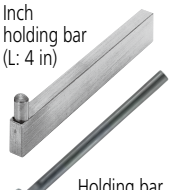
Spanner

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

Set Configuration: Inch

Full set **513-5XX-10T**

Swivel clamp (**900322**, for 0.157 inch DIA. stem, 0.375 inch DIA. stem, and dovetail)



Inch holding bar (L: 4 in)

Holding bar

0.039 inch DIA. contact point (carbide)

0.118 inch DIA. contact point (carbide)

Stem, 0.157 inch DIA.

Basic set **513-5XX-10E**

Stem, 0.375 inch DIA.

Spanner

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	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

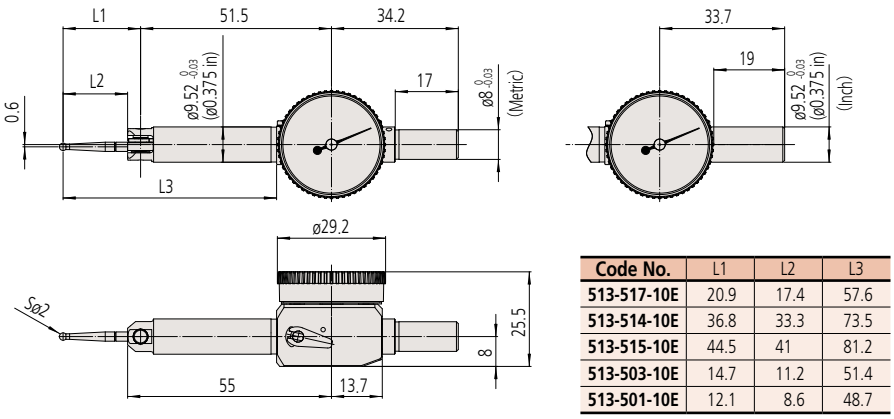
Code No.		Graduation (in)	Range (in)	Dial reading	Maximum permissible error (MPE)* (in)				Mass (g)	Measuring force (N)	High accuracy	With revolution counter	Long contact point	Standard	Double scale spacing	Compact	Carbide contact point	Ruby contact point
Basic set	Full set				One rev.	First 2.5 rev.	Hysteresis	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 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.

Pocket Type Dial Test Indicator SERIES 513

DIMENSIONS

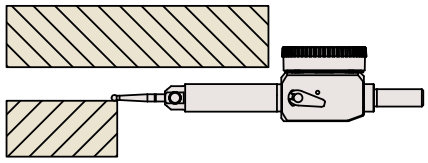
Unit: mm



Code 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

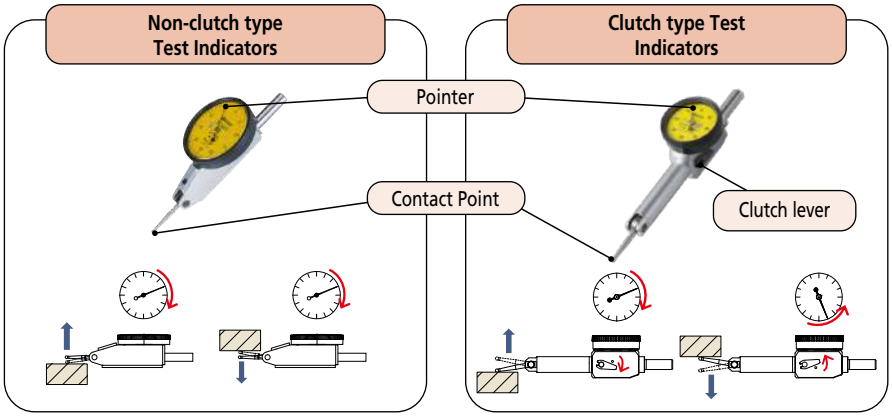
Note: A slight difference may occur depending on the center of the contact point, graduation plate, and stem fixing position, etc.

Pocket type can be fixed at the body (at ø9.52 (ø0.375 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.