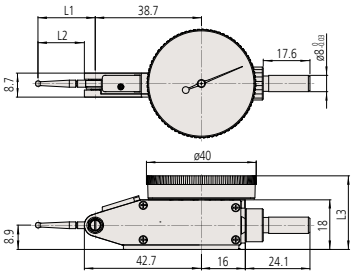
An inspection certificate is supplied as standard.
Refer to page U-11 for details.

Dial Test Indicator
SERIES 513 — Horizontal Type

DIMENSIONS

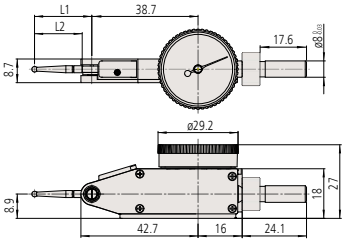
Horizontal

unit: mm



Order 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	Order 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

513-415-10E
Contact point No. 136013

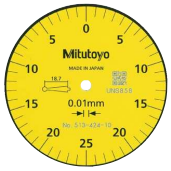
513-465-10E
Contact point No. 103011

513-402-10E
Contact point No. 133195

Note: **513-4XX-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.

Graduation: 0.01 mm
Range: 0.8 mm

513-404-10E / 10A / 10T
Standard
Carbide contact point (Slightly magnetic)



Graduation: 0.01 mm
Range: 0.5 mm

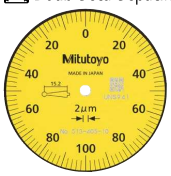
513-424-10E / 10A / 10T
Standard
Double scale spacing
Carbide contact point (Slightly magnetic)

Graduation: 0.01 mm
Range: 0.5 mm

513-414-10E / 10A / 10T
Long stylus
Carbide contact point (Slightly magnetic)
Double scale spacing

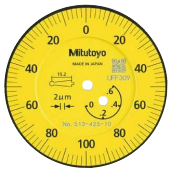
Graduation: 0.01 mm
Range: 1.0 mm

513-415-10E / 10A / 10T
Long stylus
Carbide contact point (Slightly magnetic)



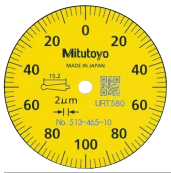
Graduation: 0.002 mm
Range: 0.2 mm

513-405-10E / 10A / 10T
Standard
Carbide contact point (Slightly magnetic)



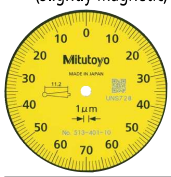
Graduation: 0.002 mm
Range: 0.6 mm

513-425-10E / 10A
With revolution counter
Carbide contact point (Slightly magnetic)



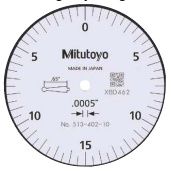
Graduation: 0.002 mm
Range: 0.2 mm

513-465-10E
Compact
Carbide contact point (Slightly magnetic)



Graduation: 0.001 mm
Range: 0.14 mm

513-401-10E
High accuracy
Carbide contact point (Slightly magnetic)



Graduation: 0.0005 in
Range: 0.03 in

513-402-10E / 10T
Standard
Carbide contact point (Slightly magnetic)

Graduation: 0.0001 in
Range: 0.008 in

513-403-10E / 10T
Standard
Carbide contact point (Slightly magnetic)

F

Mitutoyo reserves the right to change any or all aspects of any product specification, including prices, designs and service content, without notice.

Dial Test Indicators

Comparison measuring instruments which ensure high quality, high accuracy and reliability.

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 (Slightly magnetic)	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	–	–														✓				✓
513-455-10E	513-455-10A	513-455-10T									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	–	–											✓							✓

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 (Slightly magnetic)	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	0.3 or less						✓	✓	
513-407-10E	–	513-407-10T	0.00005	0.008	0-4-0	±0.0001	0.0001	±0.00004	45								✓	
513-403-10E	–	513-403-10T	0.0001											✓			✓	
513-473-10E	–	–												✓				✓
513-463-10E	–	–							41							✓	✓	

Metric / Inch

Order No.			Graduation	Range	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 (Slightly magnetic)	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

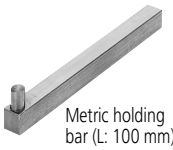
Order No.			Graduation	Range	Dial reading	Maximum permissible error (MPE)* (in)			Mass (g)	Measuring force (N)	High accuracy	With revolution counter	Long contact point	Standard	Double scale spacing	Compact	Carbide contact point (Slightly magnetic)	Ruby contact point
Basic set	Plus set	Full set				One 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							✓	

* We guarantee the accuracy of completed products by inspecting them with the dial face facing upward.
Note: Stem with dovetail groove is not included in the mass.

Set Configuration: Metric and Metric / Inch

Full set

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



Metric holding bar (L: 100 mm)

Plus set

ø1 mm contact point (carbide)

ø3 mm contact point (carbide)

Stem, ø4 mm

Basic set

ø2 mm contact point (carbide)

Indicator

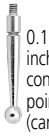
Knurled clamp ring

Stem, ø8 mm

Set Configuration: Inch and Inch / Metric

Full set

0.039 inch DIA. contact point (carbide)



0.118 inch DIA. contact point (carbide)

Stem, 0.157 inch DIA.

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

Inch holding bar (L: 4 in)

Basic set

0.079 inch DIA. contact point (carbide)

Indicator

Knurled clamp ring

Stem, 0.375 inch DIA.

F

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