

Lever Indicator Horizontal Type - 0,01 mm

Series 513

- Drastically enhanced durability, sensitivity and visibility.
- Glare-free flat crystal face allows easy reading of graduations.
- Preventing dust and oil from penetrating to the dial face. The O-ring seal on the bezel has the effect of providing smooth rotation and prevents dust and oil from penetrating through to the dial face.
- Multi-layer coatings on the Crystal.
- Hard and non-glare coatings on the crystal inhibit scratches, contamination and glare on the surface.
- Jewelled bearings and precision gears and pinions give you smooth, accurate movement and quick response.



513-466-10E



513-424-10E



513-414-10E



513-464-10E



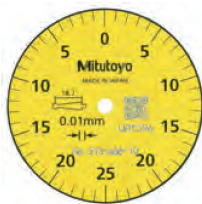
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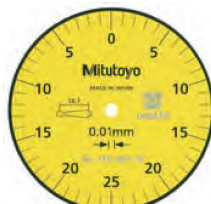
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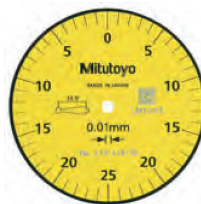
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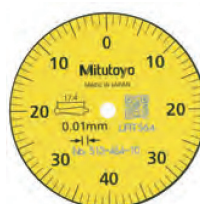
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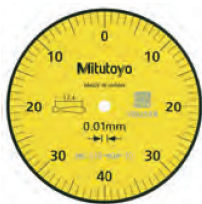
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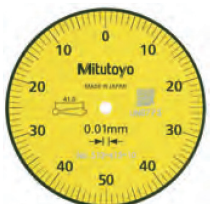
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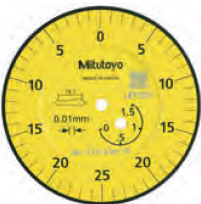
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513-404-10E



513-415-10E



513-426-10E

Series 513		513-404-10E	513-474-10E	513-415-10E	513-477-10E	513-464-10E	513-414-10E	513-424-10E	513-466-10E	513-426-10E
Functions										
	Double scale spacing									
	Coaxial revolution counter									
	Compact type									
	Long stylus									
	Anti-magnet									

Specifications

Contact point Thread M 1,7 x 0,35

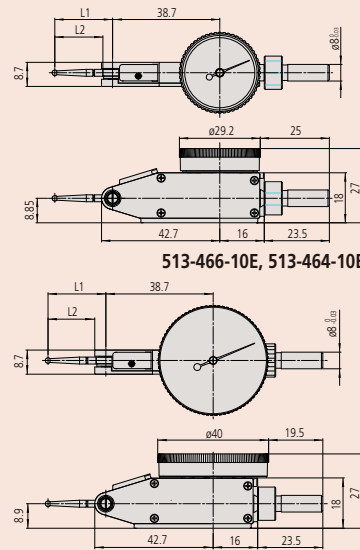
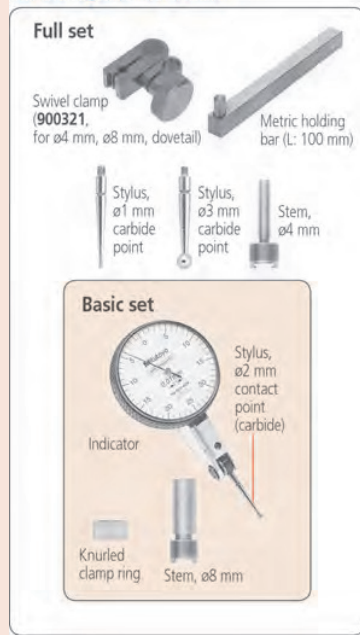
For optional accessories, see end of lever indicators section.

Optional accessories

No.	Description
21AAB363	Limit indicators, 2 pcs., for dial indicator and dial test indicator

Lever Indicator Horizontal Type - 0,01 mm

Set Configuration: Metric



513-466-10E, 513-464-10E

513-404-10E, 513-404-10T, 513-414-10E, 513-414-10T, 513-415-10E, 513-415-10T, 513-424-10E, 513-424-10T, 513-426-10E, 513-474-10E, 513-477-10E, 513-478-10E

Metric Basic set

No.	Range [mm]	Graduation	Scale	Measuring force [N]	Carbide stylus tip ø2 mm No.	Ø D [mm]	L1 [mm]	L2 [mm]	Mass [g]
513-466-10E	0,5	0,01 mm	0-25-0	0,01-0,3	137557	29,2	22,2	18,7	41
513-424-10E	0,5	0,01 mm	0-25-0	0,01-0,3	137557	40	22,2	18,7	45
513-414-10E	0,5	0,01 mm	0-25-0	0,01-0,2	131324	40	37,4	33,9	45
513-464-10E	0,8	0,01 mm	0-40-0	0,01-0,3	103006	29,2	20,9	17,4	41
513-404-10E	0,8	0,01 mm	0-40-0	0,01-0,3	103006	40	20,9	17,4	45
513-415-10E	1	0,01 mm	0-50-0	0,01-0,2	136013	40	44,5	41	45
513-426-10E	1,5	0,01 mm	0-25-0	0,01-0,4	137557	40	22,2	18,7	45

Metric Basic set - Ruby contact point

No.	Range [mm]	Graduation	Scale	Measuring force [N]	Ruby stylus tip ø2 mm No.	Ø D [mm]	L1 [mm]	L2 [mm]	Mass [g]
513-478-10E	0,5	0,01 mm	0-25-0	0,01-0,3	21CZA210	40	22,2	18,7	45
513-474-10E	0,8	0,01 mm	0-40-0	0,01-0,3	21CZA201	40	20,9	17,4	45
513-477-10E	1	0,01 mm	0-50-0	0,01-0,3	21CZA211	40	44,5	41	45

Metric Full set

No.	Range [mm]	Graduation	Scale	Measuring force [N]	Carbide stylus tip ø2 mm No.	Ø D [mm]	L1 [mm]	L2 [mm]	Mass [g]
513-424-10T	0,5	0,01 mm	0-25-0	0,01-0,3	137557	40	22,2	18,7	45
513-414-10T	0,5	0,01 mm	0-25-0	0,01-0,2	131324	40	37,4	33,9	45
513-404-10T	0,8	0,01 mm	0-40-0	0,01-0,3	103006	40	20,9	17,4	45
513-415-10T	1	0,01 mm	0-50-0	0,01-0,2	136013	40	44,5	41	45

No.	DIN 2270 (2016)				EN ISO 9493 (2010)					
	Error of indication over a range of		Hysteresis	Repeatability	Error of indication over a range of				Hysteresis	Repeatability
	any 10 scale divisions	measuring range			any 10 scale divisions	any half revolution	any one revolution	measuring range		
513-466-10E	5	5	3	3	5			5	3	3
513-424-10E	5	5	3	3	5			5	3	3
513-414-10E	5	10	4	3	5			10	4	3
513-464-10E	5	8	3	3	5	6		8	3	3
513-404-10E	5	8	3	3	5	6		8	3	3
513-415-10E					5	8		10	4	3
513-426-10E					5		10	16	4	3
513-478-10E	5	5	3	3	5			5	3	3
513-474-10E	5	8	3	3	5	6		8	3	3
513-477-10E					5	8		10	4	3
513-424-10T	5	5	3	3	5			5	3	3
513-414-10T	5	10	4	3	5			10	4	3
513-404-10T	5	8	3	3	5	6		8	3	3
513-415-10T					5	8		10	4	3

Lever Indicator - Horizontal Type - 0.001/0,002 mm

Series 513

- Drastically enhanced durability, sensitivity and visibility.
- Glare-free flat crystal face allows easy reading of graduations.
- Preventing dust and oil from penetrating to the dial face. The O-ring seal on the bezel has the effect of providing smooth rotation and prevents dust and oil from penetrating through to the dial face.
- Multi-layer coatings on the Crystal.
- Hard, antifouling and non-glare coatings on the crystal inhibit scratches, contamination and glare on the surface.
- Jewelled bearings and precision gears and pinions give you smooth, accurate movement and quick response.



Metric Basic set

No.	Range [mm]	Graduation	Scale	Measuring force [N]	Carbide stylus tip $\varnothing 2$ mm No.	$\varnothing D$ [mm]	L1 [mm]	L2 [mm]	Mass [g]
513-401-10E	0,14	0,001 mm	0-70-0	0,01-0,3	103010	40	14,7	11,2	45
513-465-10E	0,2	0,002 mm	0-100-0	0,01-0,3	103011	29,2	18,7	15,2	41
513-405-10E	0,2	0,002 mm	0-100-0	0,01-0,3	103011	40	18,7	15,2	45
513-425-10E	0,6	0,002 mm	0-100-0	0,01-0,4	103011	40	18,7	15,2	45

Metric Basic set - Ruby contact point

No.	Range [mm]	Graduation	Scale	Measuring force [N]	Ruby stylus tip $\varnothing 2$ mm No.	$\varnothing D$ [mm]	L1 [mm]	L2 [mm]	Mass [g]
513-475-10E	0,2	0,002 mm	0-100-0	0,01-0,3	21CZB068	40	18,7	15,2	45

Metric Full set

No.	Range [mm]	Graduation	Scale	Measuring force [N]	Carbide stylus tip $\varnothing 2$ mm No.	$\varnothing D$ [mm]	L1 [mm]	L2 [mm]	Mass [g]
513-405-10T	0,2	0,002 mm	0-100-0	0,01-0,3	103011	40	18,7	15,2	45

No.	DIN 2270 (2016)				EN ISO 9493 (2010)						
	Error of indication over a range of		Hysteresis	Repeatability	Error of indication over a range of				Hysteresis	Repeatability	
	any 10 scale divisions	measuring range			any 10 scale divisions	any half revolution	any one revolution	measuring range			
513-401-10E					2	3			3	2	1
513-465-10E	2	3	2	1	2	3			3	2	1
513-405-10E	2	3	2	1	2	3			3	2	1
513-425-10E					2	3	5	7	4		1
513-475-10E	2	3	2	1	2	3			3	2	1
513-405-10T	2	3	2	1	2	3			3	2	1

Series 513

Functions	513-401-10E up to 513-475-10E	513-465-10E	513-425-10E
Coaxial revolution counter			●
Compact type		●	●
Anti-magnet	●	●	●

Specifications

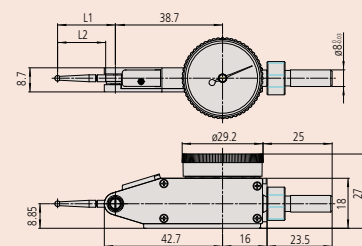
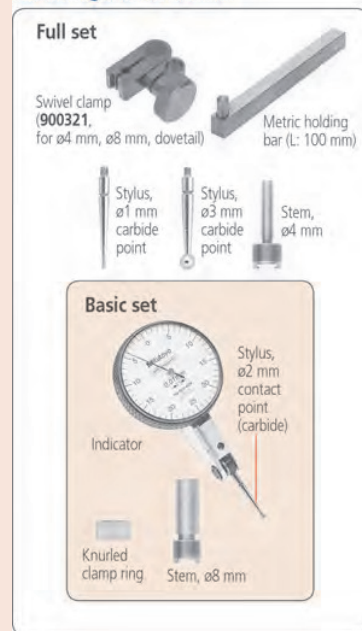
Contact point Thread M 1,7 x 0,35

For optional accessories, see end of lever indicators section.

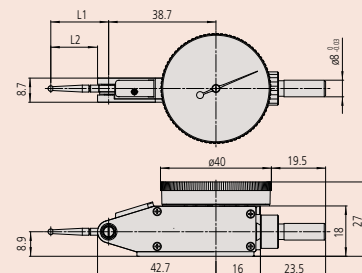
Optional accessories

No.	Description
21AAB363	Limit indicators, 2 pcs., for dial indicator and dial test indicator

Set Configuration: Metric



513-465-10E



513-401-10E, 513-405-10E, 513-425-10E, 513-475-10E

Lever Indicator and Magnet Stand

Series 513



513-908-10E

Indicator

Centered, bi-directional action for automatic reversal of measuring direction.
Jewelled bearings and precision gears and pinions for smooth, accurate movement and quick response.

Stand

Magnetic force : 150 N.
Mass : 180 g.



513-908-10E

Metric

No.	Contents include	Mass [g]
513-908-10E	513-404-10E : Lever Indicator 7014-10 : Mini Magnetic Stand 902804 : Stem with knurled clamp ring	222

