

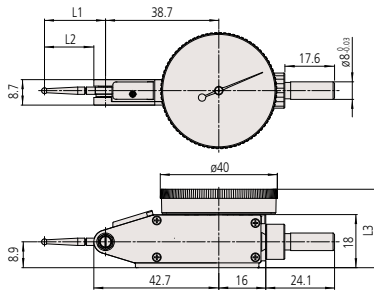


## Dial Test Indicator SERIES 513 — Standard Type

### DIMENSIONS

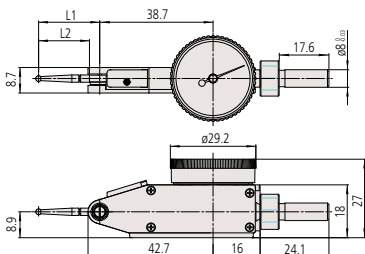
#### Standard

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 | 28 |
| 513-475-10E     |      |      |    |
| 513-425-10E/A   | 20.9 | 17.4 | 27 |
| 513-404-10E/A/T |      |      |    |
| 513-426-10E/A   | 22.2 | 18.7 | 28 |
| 513-474-10E     |      |      |    |
| 513-424-10E/A/T | 37.4 | 33.9 | 27 |
| 513-414-10E/A/T |      |      |    |
| 513-415-10E/A/T | 44.5 | 41.0 | 27 |
| 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



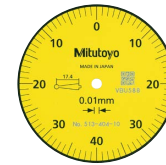
513-415-10E  
Contact point No. 136013



513-465-10E  
Contact point No. 103011



513-402-10E  
Contact point No. 133195

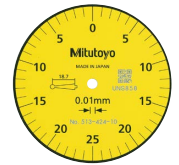


Graduation: 0.01 mm  
Range: 0.8 mm

513-404-10E/10A/10T

☒ Standard

☒ Carbide contact point



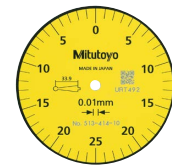
Graduation: 0.01 mm  
Range: 0.5 mm

513-424-10E/10A/10T

☒ Standard

☒ Double scale spacing

☒ Carbide contact point



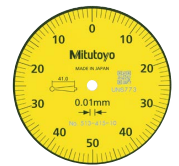
Graduation: 0.01 mm  
Range: 0.5 mm

513-414-10E/10A/10T

☒ Long contact point

☒ Carbide contact point

☒ Double scale spacing

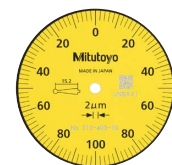


Graduation: 0.01 mm  
Range: 1.0 mm

513-415-10E/10A/10T

☒ Long contact point

☒ Carbide contact point

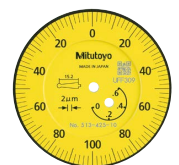


Graduation: 0.002 mm  
Range: 0.2 mm

513-405-10E/10A/10T

☒ Standard

☒ Carbide contact point

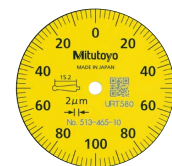


Graduation: 0.002 mm  
Range: 0.6 mm

513-425-10E/10A

☒ With revolution counter

☒ Carbide contact point

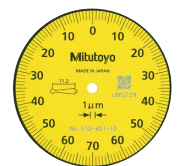


Graduation: 0.002 mm  
Range: 0.2 mm

513-465-10E

☒ Compact

☒ Carbide contact point



Graduation: 0.001 mm  
Range: 0.14 mm

513-401-10E

☒ High accuracy

☒ Carbide contact point



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 Indicators

### Dial Test Indicator SERIES 513 — Standard Type

#### SPECIFICATIONS

##### Metric

| Code No.                  |             |             | Graduation<br>(mm) | Range<br>(mm) | Dial<br>reading | Maximum permissible error (MPE)*1 (μm) |          |                    |            | Mass<br>(g)   | Measuring<br>force<br>(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               | —           | —           |                    |               |                 | 10                                     |          |                    |            |               | 41                        |                            |                         |                    |          |                      |         |                       |                    |
| 513-466-10E               | —           | —           |                    |               |                 | 16                                     |          |                    |            |               | 45                        |                            |                         |                    |          |                      |         |                       |                    |
| 513-414-10E               | 513-414-10A | 513-414-10T |                    |               |                 | 10                                     |          |                    |            |               | 41                        |                            |                         |                    |          |                      |         |                       |                    |
| 513-426-10E               | 513-426-10A | —           |                    | 1.5           | 0-40-0          | 9                                      | —        | 5                  | 4          | 3             | 45                        | 0.2 or less<br>0.4 or less | ✓                       | ✓                  | ✓        | ✓                    | ✓       | ✓                     | ✓                  |
| 513-404-10E               | 513-404-10A | 513-404-10T |                    |               |                 | 9                                      |          |                    |            |               | 45                        |                            |                         |                    |          |                      |         |                       |                    |
| 513-474-10E               | —           | —           |                    | 0.8           | 0-40-0          | 9                                      | —        | 5                  | 4          | 3             | 45                        | 0.3 or less                | ✓                       | ✓                  | ✓        | ✓                    | ✓       | ✓                     | ✓                  |
| 513-464-10E               | —           | —           |                    |               |                 | 9                                      |          |                    |            |               | 41                        |                            |                         |                    |          |                      |         |                       |                    |
| 513-415-10E               | 513-415-10A | 513-415-10T |                    | 1.0           | 0-50-0          | 10                                     | —        | 5                  | 5          | 3             | 45                        | 0.2 or less                | ✓                       | ✓                  | ✓        | ✓                    | ✓       | ✓                     | ✓                  |
| 513-477-10E               | —           | —           |                    |               |                 | 10                                     |          |                    |            |               | 45                        |                            |                         |                    |          |                      |         |                       |                    |
| 513-405-10E               | 513-405-10A | 513-405-10T | 0.002              | 0.2           | 0-100-0         | 4                                      | —        | 2                  | 3          | 1             | 45                        | 0.3 or less                | ✓                       | ✓                  | ✓        | ✓                    | ✓       | ✓                     | ✓                  |
| 513-475-10E               | —           | —           |                    |               |                 | 4                                      |          |                    |            |               | 41                        |                            |                         |                    |          |                      |         |                       |                    |
| 513-465-10E               | —           | —           |                    |               |                 | 7                                      |          |                    |            |               | 45                        |                            |                         |                    |          |                      |         |                       |                    |
| 513-425-10E               | 513-425-10A | —           |                    |               |                 | 7                                      |          |                    |            |               | 45                        |                            |                         |                    |          |                      |         |                       |                    |
| 513-401-10E               | —           | —           | 0.001              | 0.14          | 0-70-0          | 4                                      | —        | 3                  | 3          | 1             | 45                        | 0.4 or less                | ✓                       | ✓                  | ✓        | ✓                    | ✓       | ✓                     | ✓                  |
| 513-471-10E               | —           | —           |                    |               |                 | 4                                      |          |                    |            |               | 45                        |                            |                         |                    |          |                      |         |                       |                    |
| 513-908-10E <sup>2)</sup> | —           | —           |                    |               |                 | 9                                      |          |                    |            |               | 45                        |                            |                         |                    |          |                      |         |                       |                    |

##### Inch

| Code No.                  |          |             | Graduation<br>(in) | Range<br>(in) | Dial<br>reading | Maximum permissible error (MPE)*1 (in) |            |               |    | Mass<br>(g) | Measuring<br>force<br>(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 | 45          | 0.3 or less               | ✓             | ✓                       | ✓                  | ✓        | ✓                    | ✓       | ✓                     | ✓                  |
| 513-472-10E               | —        | —           |                    |               |                 |  |            |               |    |             | 0.2 or less               |               |                         |                    |          |                      |         |                       |                    |
| 513-412-10E               | —        | 513-412-10T |                    |               |                 |  |            |               |    |             | 41                        |               |                         |                    |          |                      |         |                       |                    |
| 513-479-10E               | —        | —           |                    |               |                 |  |            |               |    |             | 45                        |               |                         |                    |          |                      |         |                       |                    |
| 513-462-10E               | —        | —           | 0.00005            | 0.008         | 0-4-0           | ±0.0001                                | 0.0001     | ±0.00004      | 45 | 45          | 0.3 or less               | ✓             | ✓                       | ✓                  | ✓        | ✓                    | ✓       | ✓                     | ✓                  |
| 513-407-10E               | —        | 513-407-10T |                    |               |                 |  |            |               |    |             | 45                        |               |                         |                    |          |                      |         |                       |                    |
| 513-403-10E               | —        | 513-403-10T |                    |               |                 |  |            |               |    |             | 41                        |               |                         |                    |          |                      |         |                       |                    |
| 513-473-10E               | —        | —           |                    |               |                 |  |            |               |    |             | 45                        |               |                         |                    |          |                      |         |                       |                    |
| 513-463-10E               | —        | —           | 0.0001             | 0.03          | 0-15-0          | ±0.0005                                | 0.0002     | ±0.0002       | 45 | 45          | 0.3 or less               | ✓             | ✓                       | ✓                  | ✓        | ✓                    | ✓       | ✓                     | ✓                  |
| 513-907-10E <sup>3)</sup> | —        | —           |                    |               |                 |  |            |               |    |             | 45                        |               |                         |                    |          |                      |         |                       |                    |

##### Metric/Inch

| Code No.    |          |             | Graduation            | Range                | Dial<br>reading   | Maximum permissible error (MPE)*1 (μm) |                    |            |               | Mass<br>(g) | Measuring<br>force<br>(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<br>/0.001 in | 0.2 mm<br>/0.0076 in | 0-10-0<br>/0-38-0 | 4                                      | 2                  | 3          | 1             | 45          | 0.3 or less               | ✓             | ✓                       | ✓                  | ✓        | ✓                    | ✓       | ✓                     | ✓                  |

##### Inch/Metric

| Code No.    |          |             | Graduation            | Range              | Dial<br>reading   | Maximum permissible error (MPE)*1 (in) |            |               |  | Mass<br>(g) | Measuring<br>force<br>(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<br>/0.01 mm | 0.03 in<br>/0.7 mm | 0-15-0<br>/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

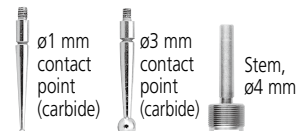
513-4XX-10T

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

Metric holding  
bar (L: 100 mm)

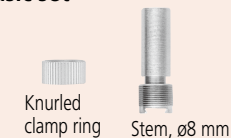
##### Plus set

513-4XX-10A

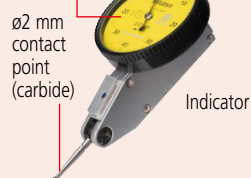


##### Basic set

513-4XX-10E



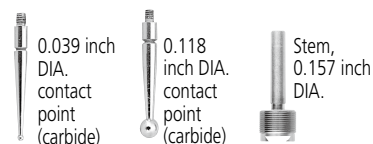
513-4XX-10 is indicated  
on the dial face.



#### 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.

