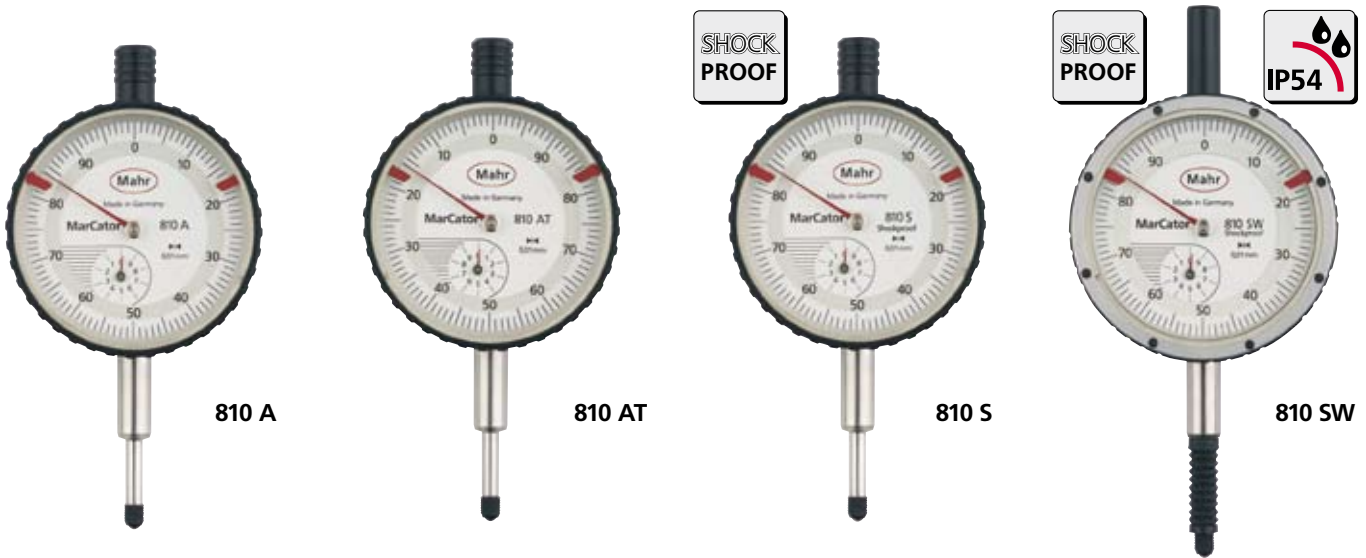


Precision Dial Indicators 810 DIN style



Features

Dial Indicator 810 A

Standard version

- High precision gears and pinions
- Lifter protection cap on the upper end of the measuring spindle
- Adjustable tolerance markers
- Chrome-plated housing

Dial Indicator 810 AT

for depth measurement

- Design features identical to 810 A, with the following exception:
- Scale of the dial face is counter-clockwise

Dial Indicator 810 S

Shockproof

- High precision gears and pinions
- Lifter protection cap on the upper end of the measuring spindle
- Adjustable tolerance markers
- Chrome-plated housing

Dial Indicator 810 SW

Waterproof and oil proof

- Design features identical to 810 S, with the following exceptions:
- Measuring spindle sealed with rubber sleeve, thus preventing contamination by liquids and impurities
 - Hermetically sealed protective measuring spindle cap

All indicators delivered in plastic case

Technical Data

| | Range | Readings | Dial face dia. | Overtravel | Mounting shank dia. | Measuring force | Accuracy | Order no. |
|----------------|------------|----------|----------------|------------|---------------------|-----------------|----------|----------------|
| | mm | mm | mm | mm | mm | N | DIN 878 | |
| 810 A | 10 | 0.01 | 50 | 0.1 | 8h6 | 0.7 - 1.3 | ● | 4311050 |
| 810 AT | 10 | 0.01 | 50 | 0.1 | 8h6 | 0.7 - 1.3 | ● | 4311060 |
| 810 S | 10 | 0.01 | 50 | 0.1 | 8h6 | 0.8 - 1.3 | ● | 4311000 |
| 810 SW | 10 | 0.01 | 50 | 0.1 | 8h6 | 0.9 - 1.5 | ● | 4315000 |
| 810 SB | 0.8 (±0.4) | 0.01 | 50 | 9 | 8h6 | 0.9 | ● | 4317000 |
| 810 SM | 1 | 0.001 | 50 | 4 | 8h6 | 1.3 - 1.8 | | 4311070 |
| 810 SRM | 5 | 0.001 | 50 | 0.1 | 8h6 | 1.5 - 2 | | 4311080 |
| 810 AZ | .400" | .0005" | 2" | .004" | 8h6 | 0.9 - 1.5 | | 4311900 |

Accessories

| | Order no. | | Order no. |
|---|------------|----------------|-----------|
| Adapter Bush for adapting mounting shank 8h6 mm to inch bore .375" | 940 | 4310103 | |
| Splash Guard Cover for bezel dia. 58 mm | 955 | 4373020 | |
| Mounting Lug | | | |
| Bore perpendicular to mounting shank | 961 | 4375010 | |
| Bore parallel to mounting shank | 962 | 4375011 | |

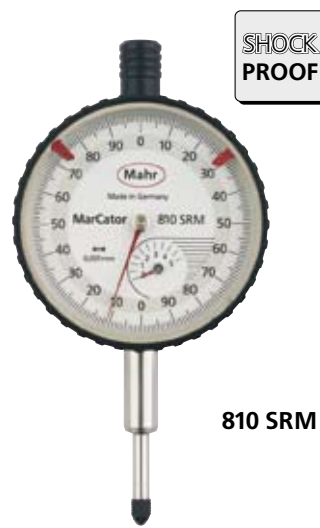
Precision Dial Indicators 810 DIN style



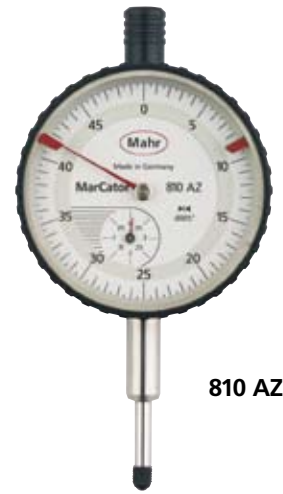
810 SB



810 SM



810 SRM



810 AZ

Features

Dial Indicator 810 SB with limited measuring range

Design features identical to 810 S, with the following exceptions:

- Limited measuring range (0.8 mm) for error-free readings
- Large overtravel (approx. 9 mm) for easier insertion of test items in measuring devices
- Hermetically sealed protective measuring spindle cap

Dial Indicator 810 SM Shockproof with reading 0.001 mm

- Precise mechanism with a combined gear lever transmission
- High accuracy with a minimum span of error
- Lifter protection cap on the upper end of the measuring spindle
- Adjustable tolerance markers
- Chrome-plated housing

Dial Indicator 810 SRM Shockproof with reading 0.001 mm

- High precision gears and pinions
- Lifter protection cap on the upper end of the measuring spindle
- Adjustable tolerance markers
- Chrome-plated housing

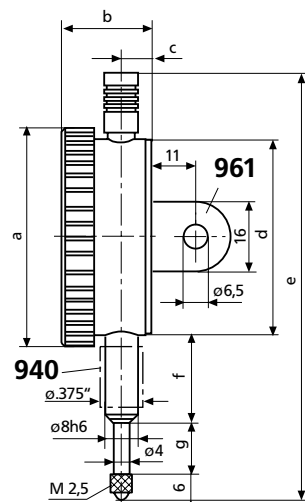
Dial Indicator 810 AZ Inch version

Design features are identical to 810 A, with the following exception:

- The scope of supply includes an Adapter Bush 940 for adapting mounting shank 8h6 mm to inch bore .375"

Dimensions according to DIN EN ISO 463

| mm | a | b | c | d | e | f | g |
|-----------------|------|-------|-----|----|-------|----|------|
| 810 A/AT | ∅ 58 | 23 | 7.5 | 52 | 112 | 21 | 16 |
| 810 S | ∅ 58 | 23 | 7.5 | 52 | 111.5 | 22 | 15 |
| 810 SW | ∅ 61 | 24.15 | 7.9 | 52 | 127.6 | 22 | 22.1 |
| 810 SB | ∅ 58 | 23 | 7.5 | 52 | 120 | 22 | 15 |
| 810 SM | ∅ 58 | 25 | 8.5 | 52 | 111.5 | 22 | 15 |
| 810 SRM | ∅ 58 | 23 | 7.5 | 52 | 111.5 | 22 | 15 |
| 810 AZ | ∅ 58 | 23 | 7.5 | 52 | 111.5 | 22 | 15 |



Shown with Mounting Lug

Contact Points and Accessories for Dial Indicators, Dial Comparators and Probes

Standard Contact Points 901

Ball dia. 3 mm

| Catalog no. | | Order no. |
|-------------|-------------------|-----------|
| 901 | with steel ball | 4360001 |
| 901 H | with carbide ball | 4360002 |
| 901 R | with ruby ball | 4360003 |

Spherical Contact Points 902 Flat Contact Points 903

| 902 Steel | 902 H Carbide contact face | 903 Steel | 903 H Carbide tipped |
|--------------|----------------------------------|--------------|----------------------------|
| Length mm | Order no. | Order no. | Order no. |
| 4 | 4360007 | — | 4360070 |
| 6 | 4360009 | — | 4360071 |
| 8 | 4360010 | 4360040 | 4360072 |
| 10 | 4360011 | 4360041 | 4360073 |
| 12 | 4360012 | 4360042 | 4360074 |
| 15 | 4360013 | 4360043 | 4360075 |
| 20 | 4360014 | 4360044 | 4360076 |
| 25 | 4360015 | 4360045 | 4360077 |
| 30 | 4360016 | 4360046 | 4360300 |
| 35 | 4360017 | 4360047 | 4360078 |
| 40 | 4360019 | 4360049 | 4360310 |
| 45 | 4360026 | 4360050 | 4360303 |
| 50 | 4360018 | 4360048 | 4360079 |
| 55 | 4360031 | | |
| 65 | 4360035 | | |
| 75 | 4360020 | | |
| 85 | 4360036 | | |
| 95 | 4360029 | | |

Ball Contact Point 906 H

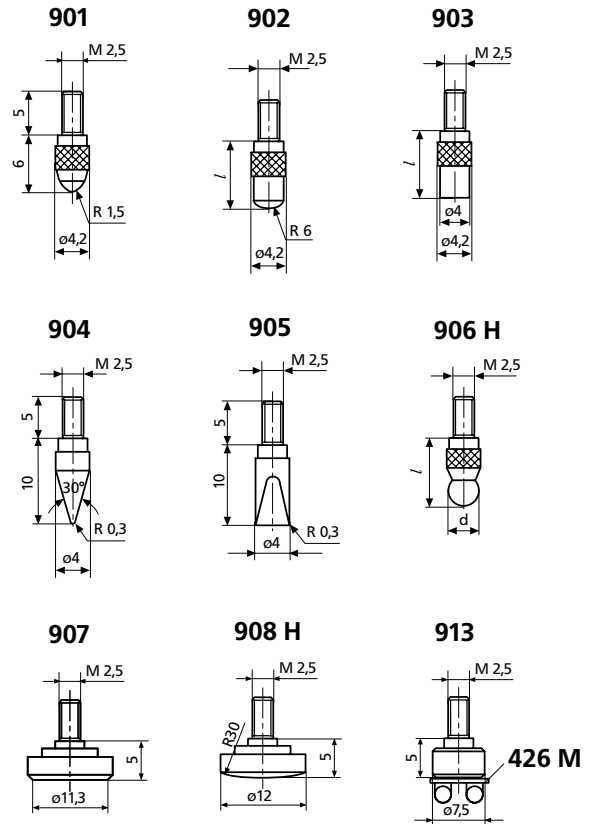
with carbide ball. accuracy ball dia. 0/-6µm

| Ball dia. d mm | l mm | Order no. | Ball dia. d mm | l mm | Order no. |
|-------------------|---------|--------------|-------------------|---------|--------------|
| 1 | 8.5 | 4360150 | 5.5 | 9 | 4360161 |
| 1.25 | 8.5 | 4360151 | 6 | 9 | 4360162 |
| 1.5 | 8.5 | 4360152 | 6.35 (1/4") | 9 | 4360163 |
| 1.75 | 8.5 | 4360153 | 6.5 | 10 | 4360164 |
| 2 | 8.5 | 4360154 | 7 | 10 | 4360165 |
| 2.5 | 8.5 | 4360155 | 7.5 | 11 | 4360166 |
| 3 | 8.5 | 4360156 | 8 | 11 | 4360167 |
| 3.5 | 8.5 | 4360157 | 8.5 | 12 | 4360168 |
| 4 | 8.5 | 4360158 | 9 | 12 | 4360169 |
| 4.5 | 8.5 | 4360159 | 10 | 13 | 4360170 |
| 5 | 9 | 4360160 | | | |

Contact Rollers 909

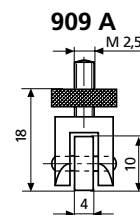
Concentricity error 3 µm

| | Order no. |
|---------------------------|---------------|
| Cylindrical Roller | 909 A 4360220 |
| Radiused Roller, R = 5 mm | 909 B 4360221 |



Special Contact Points

| | Order no. |
|---|---------------|
| Conical Contact Points, Steel | 904 4360130 |
| Carbide tipped | 904 H 4360131 |
| Wedge Shaped Contact Points, Steel | 905 4360140 |
| Carbide tipped | 905 H 4360141 |
| Flat Contact Points, Steel, A = 1 cm² | 907 4360200 |
| Carbide tipped, dia. 7 mm | 907 H 4360201 |
| Spherical Contact Points, Steel | 908 4360210 |
| Carbide tipped | 908 H 4360211 |
| Flat Contact Point, for mounting Pin Gage Holder 426 M for measuring threads using three-wire method | 913 4360400 |



Contact Points and Accessories for Dial Indicators, Dial Comparators and Probes

Measuring Attachment 910 H

| | Order no. |
|---|----------------------|
| with parallel adjustable carbide blades | 910 H 4360230 |

Pin Contact Point 911

dia. 1 mm, flat

| Length <i>l</i> mm | Order no. | Length <i>l</i> mm | Order no. |
|-----------------------|----------------|-----------------------|----------------|
| 15 | 4360280 | 35 | 4360284 |
| 20 | 4360281 | 40 | 4360285 |
| 25 | 4360282 | 50 | 4360286 |
| 30 | 4360283 | | |

Pin Contact Point 911 H

| | Order no. |
|----------------------------------|-----------------------|
| Carbide tipped, dia 1 mm, flat | 911 H1 4360240 |
| Carbide tipped, dia 1.5 mm, flat | 911 H2 4360241 |

Measuring Spindle Extensions 912

| Length <i>l</i> mm | Order no. | Length <i>l</i> mm | Order no. |
|-----------------------|----------------|-----------------------|----------------|
| 10 | 4360250 | 35 | 4360254 |
| 15 | 4360251 | 50 | 4360255 |
| 20 | 4360252 | 75 | 4360256 |
| 25 | 4360253 | 100 | 4360257 |

Special Holder 941

For all types of measuring equipment
 For placing a dial indicator at a certain distance or angle
 Travel of the measuring spindle 3 mm
 Contact Point 901 (interchangeable)

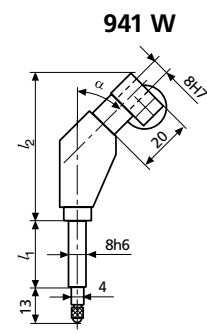
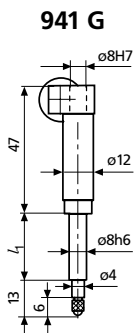
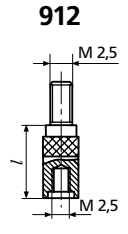
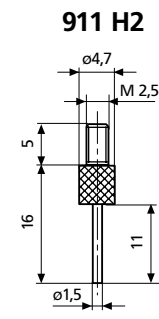
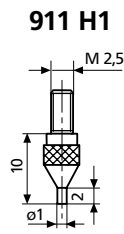
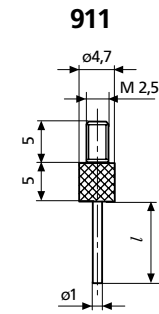
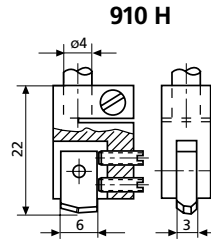
Straight Holder 941 G
 Mounting shank length *l*₁

Angular Holder 941 W

| Order no. | <i>l</i> ₁ | Order no. | <i>l</i> ₂ | Order no. | <i>l</i> ₂ | Order no. | <i>l</i> ₂ | | |
|-----------|-----------------------|-------------|-----------------------|-------------|-----------------------|-------------|-----------------------|---------|---------|
| | mm | Angle α=45° | mm | Angle α=60° | mm | Angle α=90° | mm | | |
| 25 | 4365000 | } 53.7 | } | 4365010 | } 49.3 | } | } 34.5 | | |
| 50 | 4365001 | | | 4365011 | | | | 4365020 | 4365030 |
| 75 | 4365002 | | | 4365012 | | | | 4365021 | 4365031 |
| | | | | 4365012 | 4365022 | 4365032 | | | |

Sensor Level 943

| | Order no. |
|---|----------------|
| For testing concentricity in bore holes as well as difficult to reach outside diameters To be inserted in a measuring stand with a lifting device Contact Point 901 interchangeable Travel ±1 mm | 4367000 |



Transmission error with the 941 W
 max. 1%;
 for travel 3 mm = 0.03 mm

