

Dial Indicators

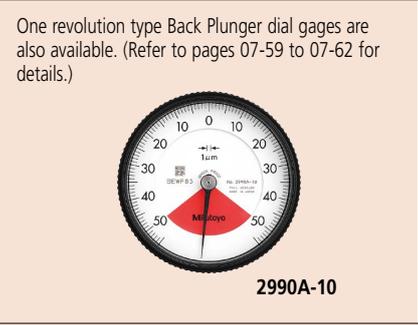


SERIES 1 — Compact One Revolution Type for Error-free Reading

- The one revolution dial indicator (compact type) prevents the possibility of reading errors.
- Mitutoyo's unique shock-proof mechanism is incorporated, providing improved resistance to shock due to sudden spindle retraction caused by impact.
- The indicator is highly durable thanks to its oil- and water-tight design, quenched hardened stainless-steel, carbide contact point, and a grand gear made of wear- and deformation-resistant material.
- Application of an anti-reflective and hard surface coating improves scale visibility along with scratch and chemical resistance.
- The red dead zone in the middle of the dial face is separated from the bezel and doesn't cover the graduations. Therefore, users can always see the range where accuracy is not guaranteed even if the bezel is rotated.



1929A



2990A-10

One revolution type Back Plunger dial gages are also available. (Refer to pages 07-59 to 07-62 for details.)

SPECIFICATIONS

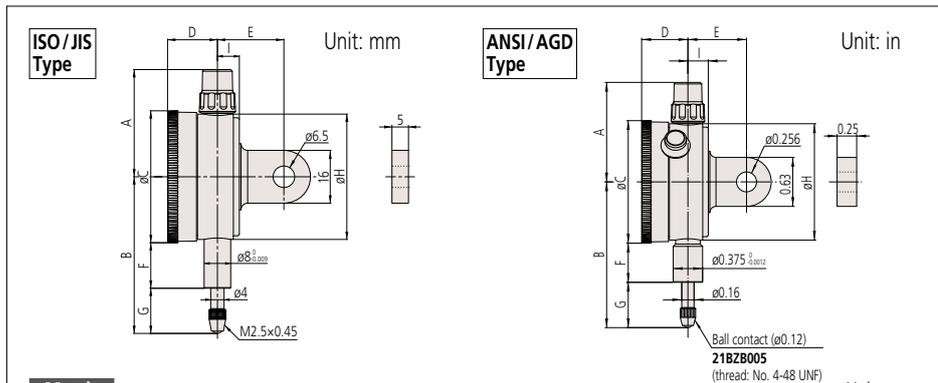
ISO/JIS type ANSI/AGD type

| Code No. | | Graduation (mm) | Range (range/rev) (mm) | Maximum permissible error (MPE) (μm) | | | | | | Dial reading | Measuring force (N) |
|----------|-----------|-----------------|------------------------|--------------------------------------|---------|-------|-----------------|------------|----------------|--------------|---------------------|
| w/lug | Flat-back | | | Indication error | | | | Hysteresis | Repeat-ability | | |
| | | | | 1/10 Rev | 1/2 Rev | 1 Rev | Measuring range | | | | |
| 1929A | 1929AB | 0.01 | 1 (1.4) | 7 | — | — | 11 | 4 | 3 | 50-0-50 | 1.4 or less |
| 1929A-62 | 1929AB-62 | 0.01 | 1 (1.4) | 7 | — | — | 11 | 4 | 3 | 50-0-50 | 1.4 or less |
| 1900A-10 | 1900AB-10 | 0.001 | 0.1 (0.14) | 2.5 | — | — | 5 | 2 | 1 | 50-0-50 | 1.5 or less |
| 1900A-72 | 1900AB-72 | 0.001 | 0.1 (0.14) | 2.5 | — | — | 5 | 2 | 1 | 50-0-50 | 1.5 or less |

| Code No. | | Graduation (in) | Range (range/rev) (in) | Accuracy (in) | | Repeat-ability (in) | Dial reading | Measuring force (N) | |
|----------|-----------|-----------------|------------------------|---------------|----------------|---------------------|--------------|---------------------|-------------|
| w/lug | Flat-back | | | First 1 Rev | 2.5 Rev/10 Rev | | | | Hysteresis |
| 1909A-62 | 1909AB-62 | 0.0005 | 0.04 (0.056) | ±0.0005 | —/— | 0.00016 | ±0.0001 | 20-0-20 | 1.4 or less |
| 1910A-72 | 1910AB-72 | 0.0001 | 0.006 (0.008) | ±0.0001 | —/— | 0.0001 | ±0.00003 | 3-0-3 | 1.5 or less |

Note: Completed products inspection is performed in the vertical orientation (contact point downward) and the stated accuracy is guaranteed.

DIMENSIONS



| Code No. | A | B | C | D | E | F | G | H | I | Mass (g) | |
|----------|------|------|----|----|----|------|------|----|-----|----------|-----------|
| | | | | | | | | | | w/lug | Flat-back |
| 1929A | 32.5 | 47.5 | 40 | 15 | 20 | 13.8 | 13.7 | 38 | 6.6 | 90 | 70 |
| 1929A-62 | 32.5 | 47.5 | 40 | 15 | 20 | 13.8 | 13.7 | 38 | 6.6 | 90 | 70 |
| 1900A-10 | 32.5 | 53.5 | 40 | 15 | 20 | 13.8 | 19.7 | 38 | 6.6 | 95 | 75 |
| 1900A-72 | 32.5 | 53.5 | 40 | 15 | 20 | 13.8 | 19.7 | 38 | 6.6 | 95 | 75 |

| Code No. | A | B | C | D | E | F | G | H | I | Mass (g) | |
|----------|------|------|------|------|------|------|------|------|------|----------|-----------|
| | | | | | | | | | | w/lug | Flat-back |
| 1909A-62 | 1.28 | 1.64 | 1.57 | 0.59 | 0.75 | 0.50 | 0.35 | 1.50 | 0.26 | 90 | 70 |
| 1910A-72 | 1.28 | 1.61 | 1.57 | 0.59 | 0.75 | 0.50 | 0.31 | 1.50 | 0.26 | 90 | 70 |

Note: Refer to pages 07-63 to 07-68 for details of contact points.

Special specifications

Upon request, we can manufacture custom types with changed graduation numbers, graduation lines, dead zones, etc. Please contact your local Mitutoyo Sales Office for more information.