

# Calipers

An industry standard measuring tool

## ABSOLUTE Coolant Proof Carbon Fiber Caliper SERIES 552 — with Standard jaws

**MeasurLink<sup>®</sup> ENABLED**  
Data Management Software by Mitutoyo

- IP66 Absolute Digital Caliper (Refer to page D-6 for details on the Absolute function.)
- Lightweight Digimatic Calipers that employ CFRP (Carbon Fiber Reinforced Plastics) in the beam.
- Allows integration into statistical process control and measurement systems for models with measurement data output connector. (Refer to page A-3.)



552-303-10

### SPECIFICATIONS

| Metric     |                         |               | Inch / Metric |                       |               |
|------------|-------------------------|---------------|---------------|-----------------------|---------------|
| Order No.  | Range (mm)*             | Accuracy (mm) | Order No.     | Range (in)*           | Accuracy (in) |
| 552-302-10 | 0 - 450 (20.1 - 47.0)   | ±0.04         | 552-312-10    | 0 - 18 (0.504 - 18.5) | ±0.002        |
| 552-303-10 | 0 - 600 (20.1 - 62.0)   | ±0.04         | 552-313-10    | 0 - 24 (0.504 - 24.5) | ±0.002        |
| 552-304-10 | 0 - 1000 (20.1 - 102.0) | ±0.05         | 552-314-10    | 0 - 40 (1.004 - 40.5) | ±0.002        |
| 552-305-10 | 0 - 1500 (20.1 - 152.0) | ±0.09         | 552-315-10    | 0 - 60 (1.004 - 60.5) | ±0.004        |
| 552-306-10 | 0 - 2000 (20.1 - 202.0) | ±0.12         | 552-316-10    | 0 - 80 (1.004 - 80.5) | ±0.005        |

\* ( ): Dimension in inside measurement

Note: A constant-force mechanism is used in the finger rest; however, this is only an auxiliary mechanism to avoid measurement error caused by excessive measuring force. To measure with good accuracy, use the minimum necessary measuring force for the caliper measuring faces to make sufficient contact with the workpiece. Refer to page D-40 for details.

Products equipped with the measurement data output function can be connected to the measurement data network system MeasurLink (refer to page A-5 for details).

**ABSOLUTE<sup>™</sup>**

**IP66**



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### Technical Data

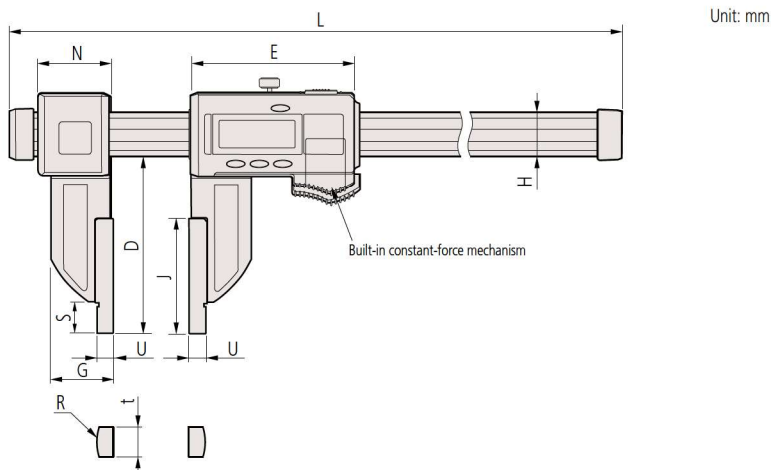
- Repeatability: 0.01 mm
- Accuracy: Refer to the list of specifications. (excluding quantizing error)
- Resolution: 0.01 mm or 0.0005 in/0.01 mm
- Material of jaws: Stainless Steel Hardened
- Display: LCD
- Scale type: ABSOLUTE electromagnetic induction linear encoder
- Max. response speed: Unlimited
- Battery: SR44 (1 pc), **938882**, for initial operational checks (standard accessory)
- Battery life: Approx. 5,000 hours in continuous use
- Dust/Water protection level: IP66 (IEC60529)\*
- Standard accessory: Jaw clamps (2 pcs.), 05GZA033
- \* Rustproofing shall be applied after use if caliper was in contact with coolant.

### Functions

- Zero-setting
- Data hold
- Offsetting
- Presetting
- Data output
- Low-power and low-voltage alert
- Counting value composition error
- Automatic power on/off, inch/mm reading (inch/mm models)

Note: LCD display turns off after 20 minutes inactivity but the ABS scale unit origin is stored. Moving the slider restores the display.

### DIMENSIONS



Unit: mm

| Range                      | D   | E     | G  | H  | J   | L    | N    | R   | S  | t | U               |
|----------------------------|-----|-------|----|----|-----|------|------|-----|----|---|-----------------|
| 0 - 450 mm<br>(0 - 18 in)  | 100 | 91.8  | 35 | 25 | 65  | 640  | 41.2 | R10 | 18 | 8 | 10<br>(0.25 in) |
| 0 - 600 mm<br>(0 - 24 in)  | 100 | 91.8  | 35 | 25 | 65  | 790  | 41.2 | R10 | 18 | 8 | 10<br>(0.25 in) |
| 0 - 1000 mm<br>(0 - 40 in) | 150 | 113.8 | 45 | 32 | 100 | 1230 | 62.8 | R10 | 24 | 8 | 10<br>(0.5 in)  |
| 0 - 1500 mm<br>(0 - 60 in) | 150 | 113.8 | 45 | 32 | 100 | 1740 | 62.8 | R10 | 24 | 8 | 10<br>(0.5 in)  |
| 0 - 2000 mm<br>(0 - 80 in) | 150 | 113.8 | 45 | 32 | 100 | 2250 | 62.8 | R10 | 24 | 8 | 10<br>(0.5 in)  |

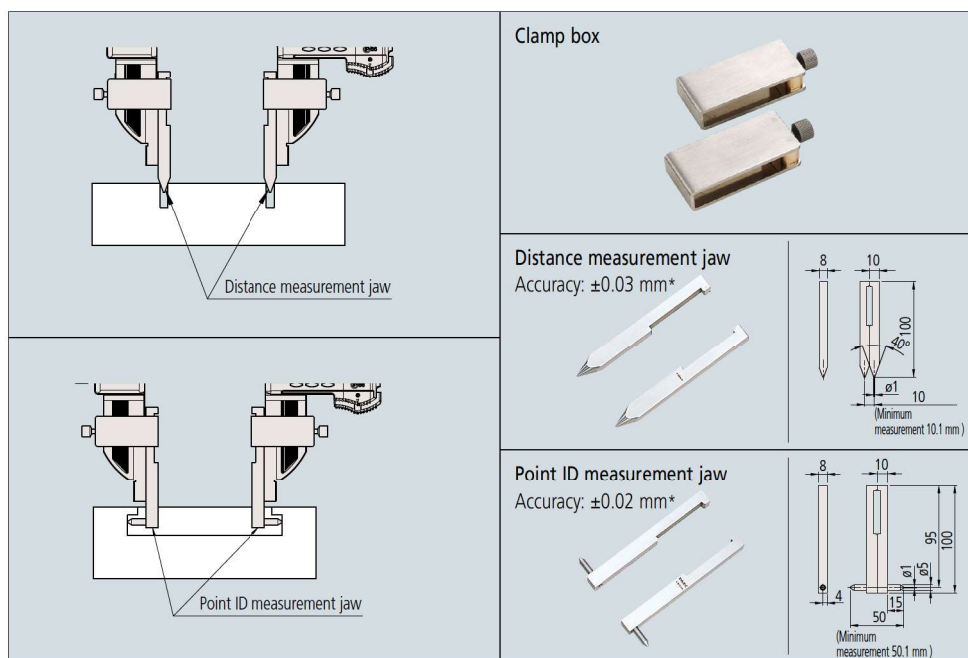
For details, refer to page A-27.

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- ## Optional accessories

| Inch / Metric                     |  |  |
|-----------------------------------|--|--|
|                                   | 552-312-10, 552-165-10, 552-313-10<br>and 552-166-10 | 552-314-10, 552-315-10<br>and 552-316-10 |
| Clamp box (1 pair)                | 914053   | 914054                                   |
| Distance measurement jaw (1 pair) |  | 914056                                   |
| Point ID measurement jaw (1 pair) |  | 914058                                   |



\* Accuracies shown in the diagrams are of each accessory and accuracy resulting in mounting them on the main body is not guaranteed.