Calipers

ABSOLUTE Coolant Proof Carbon Fiber Caliper
SERIES 552 — with Standard Jaws

MeasurLink® ENABLED ABSOLUTE™
Data Management Software by Mitutoyo

IP66

TÜVRheinland CERTIFIED — Dust- and Water- Protected www.tuv.com ID 0000022582

- Digimatic Calipers employ CFRP (Carbon-Fiber Reinforced Plastics) in the beam and jaws. Leightweight and easy to handle.

- Rated to IP66: can be used in adverse environments where the caliper is subject to splashing by cutting fluid or coolant. The digital display can reduce human error by preventing incorrect reading of measurement results.
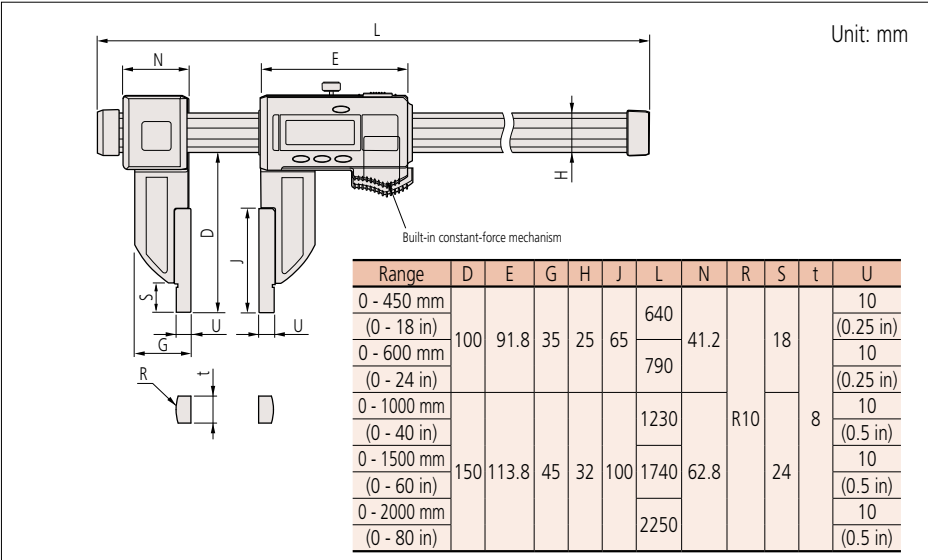
552-303-10

Measurement example

Functions

- Zero-setting
- Data hold: Pressing the HOLD switch displays "H" on the LCD display and holds (retains) the display of value. Moving the slider in this state does not change the displayed value. Pressing the switch again cancels the state, allowing you to start measuring again.
- Offsetting: Pressing the OFFSET switch adds an offset for inside measurement to the displayed value so that you can directly obtain an inside measurement value.
- Presetting: This function presets a desired value as the displayed value at the origin. When using optional jaws, presetting an offset of the jaws enables you to directly obtain the necessary measurement value.
- Data output: Measurement data can be output, allowing easy incorporation of this instrument into a statistical process control or measurement system.
- Low-power and low-voltage alert: When the battery voltage becomes low, "B" appears on the LCD, signaling the need for battery replacement before the caliper stops working.
- Counting value composition error: If a measurement error occurs due to dirt on the scale, etc., an error message appears on the display and measurement stops.
- Automatic power on/off, inch/mm reading (inch/mm models): LCD display turns off after 20 minutes inactivity but the ABS scale unit origin is stored. Moving the slider restores the display.

SPECIFICATIONS

Metric

Code No.	Range (mm)*1	Resolution (mm)	Maximum permissible error (mm)*2	
			E_{MPE}	S_{MPE}
552-302-10	0 - 450 (20.1 - 470)	0.01	±0.04	±0.04
552-303-10	0 - 600 (20.1 - 620)			
552-304-10	0 - 1000 (20.1 - 1020)		±0.05	±0.05
552-305-10	0 - 1500 (20.1 - 1520)		±0.09	±0.09
552-306-10	0 - 2000 (20.1 - 2020)		±0.12	±0.12

Inch/Metric

Code No.	Range*1	Resolution	Maximum permissible error*2	
			E_{MPE}	S_{MPE}
552-312-10	0 - 18 in/0 - 450 mm (0.504 - 18.5 in/12.8 - 462.7mm)	0.0005 in/0.01 mm	±0.002 in/±0.04 mm	±0.002 in/±0.04 mm
552-313-10	0 - 24 in/0 - 600 mm (0.504 - 24.5 in/12.8 - 612.7 mm)			
552-314-10	0 - 40 in/0 - 1000 mm (1.004 - 41 in/25.5 - 1025.4 mm)		±0.002 in/±0.05 mm	±0.002 in/±0.05 mm
552-315-10	0 - 60 in/0 - 1500 mm (1.004 - 61 in/25.5 - 1525.4 mm)		±0.004 in/±0.09 mm	±0.004 in/±0.09 mm
552-316-10	0 - 80 in/0 - 2000 mm (1.004 - 81 in/25.5 - 2025.4 mm)		±0.005 in/±0.12 mm	±0.005 in/±0.12 mm

- Dust/Water protection level: IP66 (IEC60529)*3
- Power source: SR44 battery (1 pc.), **938882** included as standard (for operational checks)
- Battery life: Approx. 5,000 hours in continuous use
- Response speed: Unlimited
- Material of jaws: Stainless Steel Hardened
- *1 ( ): Dimension in inside measurement
- *2 The Partial Surface Contact Error (E_{MPE}) and Shift Error (S_{MPE}) are terms defined by ISO 13385-1:2019.
- *3 Rustproofing shall be applied after use if caliper was in contact with coolant.
- 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 13-21 for details.

Optional Accessories

Code No.	Type	Description
264-020	—	USB Input Tool Series USB Keyboard Signal Conversion Type **IT-020U**
05CZA624	A	Connection cable for **IT/DP/MUX** (1 m)
05CZA625	A	Connection cable for **IT/DP/MUX** (2 m)
06AFM380A	A	USB Input Tool Direct (2 m)
02AZD730G	IP67	**U-WAVE-T**
02AZD880G	Buzzer	**U-WAVE-T**
02AZE200	—	**U-WAVE-T** mounting bracket
02AZD790A	A	Connection cable for **U-WAVE-T** (160 mm)
02AZE140A	A	Connection cable for **U-WAVE-T** For foot switch

DIMENSIONS

Unit: mm

Built-in constant-force mechanism

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

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