

Calipers

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

- Digimatic Calipers employ CFRP (Carbon-Fiber Reinforced Plastics) in the beam and jaws. Lightweight 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.



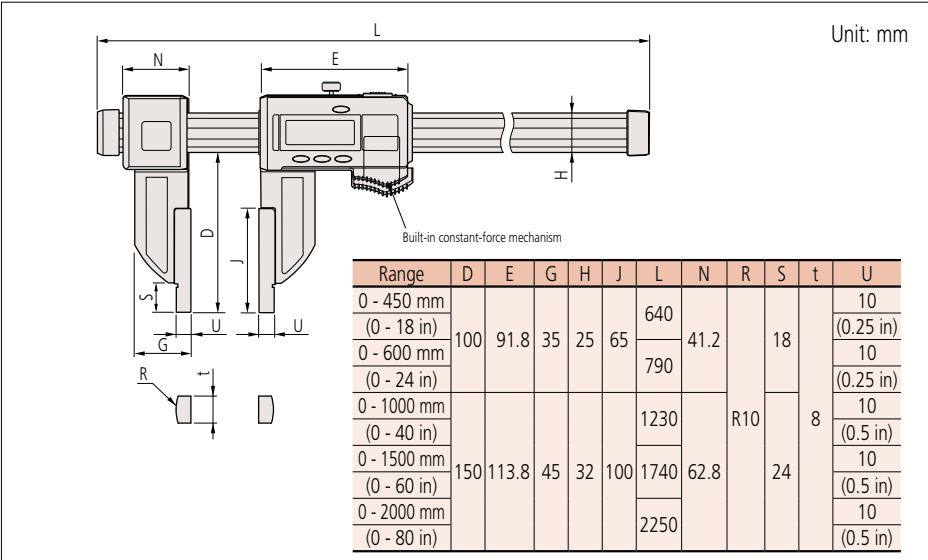
SPECIFICATIONS

Metric				
Code No.	Range (mm)*1	Resolution (mm)	Maximum permissible error (mm)*2	
			EMPE	SMPE
552-302-10	0 - 450 (20.1 - 470)	0.01	±0.04	±0.04
552-303-10	0 - 600 (20.1 - 620)		±0.04	±0.04
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	
			EMPE	SMPE
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)		±0.002 in/±0.05 mm	±0.002 in/±0.05 mm
552-314-10	0 - 40 in/0 - 1000 mm (1.004 - 41 in/25.5 - 1025.4 mm)		±0.004 in/±0.09 mm	±0.004 in/±0.09 mm
552-315-10	0 - 60 in/0 - 1500 mm (1.004 - 61 in/25.5 - 1525.4 mm)		±0.005 in/±0.12 mm	±0.005 in/±0.12 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 (EMPE) and Shift Error (SMPE) 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.

DIMENSIONS



Measurement example



Functions

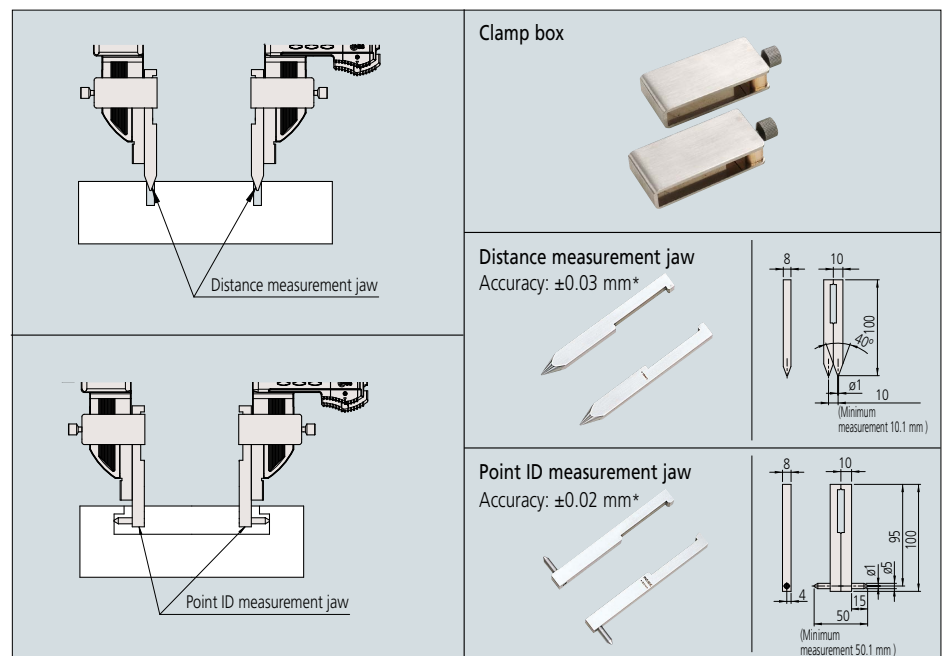
- Zero-setting
- Data hold: Pressing the HOLD switch displays "H" on the LCD display and holds (retains) the display of value. Moving the slider in this state does not change the displayed value. Pressing the switch again cancels the state, allowing you to start measurement again.
- Offsetting: Pressing 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, signalling the need for battery replacement before the calliper 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.

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

Optional accessories

Metric		
	552-302-10, 552-155-10, 552-303-10 and 552-156-10	552-304-10, 552-305-10 and 552-306-10
Clamp box (1 pair)	914053	914054
Distance measurement jaw (1 pair)	914055	
Point ID measurement jaw (1 pair)	914057	
Inch / Metric		
	552-312-10, 552-165-10, 552-313-10 and 552-166-10	552-314-10, 552-315-10 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.