

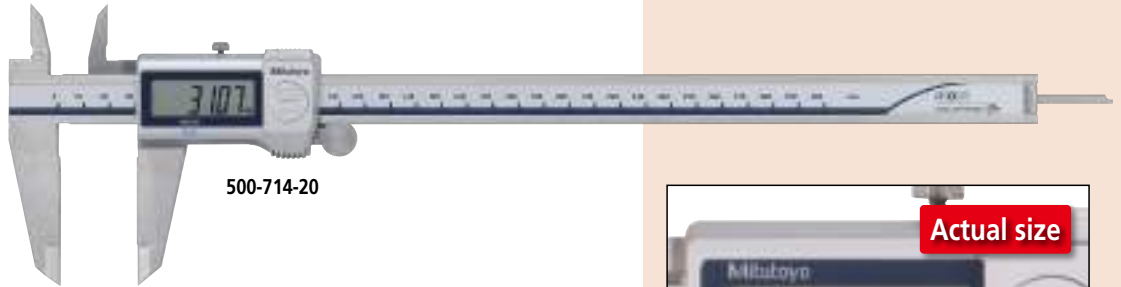
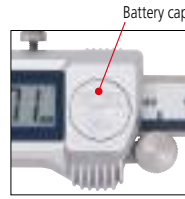
# Calipers

An industry standard measuring tool

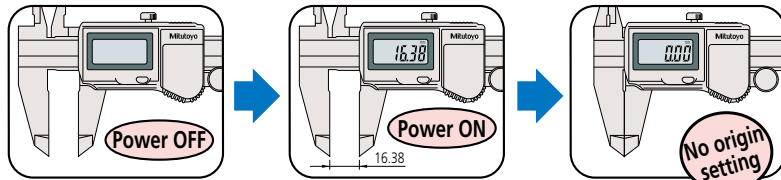
## ABSOLUTE Coolant Proof Caliper SERIES 500 — with Dust/Water Protection Conforming to IP67 Level

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

- ABS Coolant Proof Caliper with Dust/Water Protection conforming to IP67 Level. Can be used in workshop conditions exposed to coolant, water, dust or oil. 100% air-leak test ensures every caliper conforms to IP67.
- Large characters on the display provide better visibility, and high-contrast LCD reduces eyestrain.
- Easy to use — advanced ergonomic design uses only 1 button.
- The automatic power-on/off function shuts down the LCD display after 20 minutes inactivity, but the ABS scale origin is unaffected. Power is restored to the display when the slider is moved.
- Incorporates Mitutoyo's ABSOLUTE measurement system. No need to reset the origin.
- Allows step measurement.
- Battery cap does not require a screw driver for battery replacement (except for 0 to 300 mm/0 to 12 inch models).
- Extended battery life of Approx. 5 years due to low current integrated circuit (except for 0 to 300 mm/0 to 12 inch models).
- Can be integrated into statistical process control and measurement systems. (Refer to page A-3.)
- An inspection certificate is supplied as standard. (However, this cannot be used as a calibration certificate as it is undated.)



### No need to reset the origin after switching on



### Optional accessories



#### Connecting cables for IT/DP/MUX\*1

- 05CZA624: SPC cable with data button (1 m)
- 05CZA625: SPC cable with data button (2 m)

\*1 Cannot be used for other than water resistant type Digital calipers with external output function.

\*2 IP67 model is water/dust-proofed suitable for the factory floor.  
Buzzer type is not water/dust-proofed.



#### USB Input Tool Direct

06AFM380A: SPC cable for USB-ITN-A (2 m)

U-WAVE-T\*2: 02AZD730G (IP67 type)  
02AZD880G (Buzzer type)

Wireless data output\*2 **U-WAVE<sup>fit</sup>**  
U-WAVE-TC: 264-620 (IP67 type)  
264-621 (Buzzer type)

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

Products equipped with the measurement data output function can be connected to the measurement data network system MeasurLink<sup>®</sup> (refer to page A-25 for details).

ABSOLUTE™

IP67



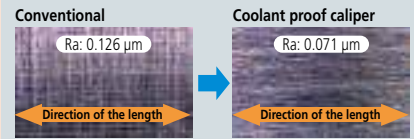
Dust- and Water Protected  
www.tuv.com  
ID 0000045042



An inspection certificate is supplied as standard. Refer to page U-9 for details.

### Smooth slider movement makes for comfortable operation.

#### High quality guide surface finish for smooth slider movement



### Technical Data

- Resolution: 0.01 mm or 0.0005 in/0.01 mm
  - Dust/Water protection level: IP67 (IEC60529)\*
  - 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 years under normal use
- \* Although these models are IP67 rated, care should be taken to dry tool after use.



Remarkably easy to read display

#### U-WAVE-TCB Transmitter\*2

(Mitutoyo **Bluetooth<sup>®</sup>** U-WAVE)

264-624 (IP67 type)

264-625 (Buzzer type)

Refer to page A-10 for details.

#### Connecting unit for U-WAVE-TC/TCB

02AZF310 (IP67 type)

Refer to pages A-10 and A-12 for details.

## Functions

- Origin-set: Absolute origin position can be changed.
- Data output\*: Measurement data output connector allows integration into statistical process control and measurement systems.
  - \* Excludes **500-702-20** and **500-703-20**.
- Automatic power on/off: LCD display will turn off after 20 minutes inactivity, but the ABS scale unit origin is stored. Power is restored when the slider is moved.
- Alarm: Error message is displayed if error in calculation is found and measurement is stopped. Measurement will not be continued while error is displayed. Also, if the battery voltage becomes low, "B" appears to alert the user before measurement is no longer possible.



## IP67 protection level

**IP67**

First characteristic number	Protection from solid objects (people or things)		Second characteristic number	Protection from liquids (water, etc.)	
	Brief description	Description		Brief description	Description
<b>6</b>	Dust-proof	No ingress of dust allowed.	<b>7</b>	Protected against water penetration.	Ingress of water in quantities causing harmful effects shall not be possible when the enclosure is temporarily immersed in water under standardized conditions of pressure and time.

Note: For details of the test conditions used in evaluating each degree of protection, please refer to the original standard.

## SPECIFICATIONS

Metric												
Order No.	Range (mm)	Maximum permissible error (mm)*		Measurement data output port	Mass (g)	Thumb roller	Remarks					
		<i>E</i> <sub>MPE</sub>	<i>S</i> <sub>MPE</sub>									
<b>500-702-20</b>	0 - 150	±0.02	±0.04	—	168	✓	—					
<b>500-703-20</b>	0 - 200				198							
<b>500-706-20</b>	0 - 150				168							
<b>500-707-20</b>	0 - 200				198							
<b>500-716-20</b>	0 - 150				168							
<b>500-717-20</b>	0 - 200				198							
<b>500-712-20</b>	0 - 150				168							
<b>500-713-20</b>	0 - 200				198							
<b>500-719-20</b>	0 - 150				168							
<b>500-721-20</b>	0 - 150				168							
<b>500-722-20</b>	0 - 200				198							
<b>500-723-20</b>	0 - 150				168							
<b>500-724-20</b>	0 - 200				198							
<b>500-714-20</b>	0 - 300				±0.03			±0.05	✓	350	✓	—
<b>500-718-20</b>									—	345	—	
<b>500-704-20</b>									—	350	✓	
<b>500-708-20</b>		—	345	—								

\* Partial Surface Contact Error, *E*<sub>MPE</sub> and Shift Error, *S*<sub>MPE</sub> are terms (notations) used in ISO 13385-1:2019.

Inch/Metric												
Order No.	Range (in)	Maximum permissible error*		Measurement data output port	Mass (g)	Thumb roller	Remarks					
		<i>E</i> <sub>MPE</sub>	<i>S</i> <sub>MPE</sub>									
<b>500-731-20</b>	0 - 6	±0.001 in/ ±0.02 mm	±0.002 in/ ±0.04 mm	—	168	✓	Carbide-tipped jaws for outside measurement					
<b>500-732-20</b>	0 - 8				198							
<b>500-733-20</b>	0 - 6				168							
<b>500-734-20</b>	0 - 8				198							
<b>500-735-20</b>	0 - 6				168							
<b>500-736-20</b>	0 - 8				198							
<b>500-737-20</b>	0 - 6				168							
<b>500-738-20</b>	0 - 8				198							
<b>500-752-20</b>	0 - 6				168							
<b>500-753-20</b>	0 - 8				198							
<b>500-762-20</b>	0 - 6				168							
<b>500-763-20</b>	0 - 8				198							
<b>500-768-20</b>	0 - 6				168							
<b>500-769-20</b>	0 - 6				168							
<b>500-764-20</b>	0 - 12				±0.0015 in/ ±0.03 mm			±0.0025 in/ ±0.05 mm	✓	350	✓	—
<b>500-754-20</b>									—	350		

\* Partial Surface Contact Error, *E*<sub>MPE</sub> and Shift Error, *S*<sub>MPE</sub> are terms (notations) used in ISO 13385-1:2019.

## DIMENSIONS

Unit: mm

Range (mm)	A	B	C	D	H	L
0 - 150	16.5	21	14.6	40	16	233
0 - 200	20	24.5	18.1	50	16	290
0 - 300	22	27.5	19.8	64	20	404

Outside jaw thickness = 3.5 mm for 0 to 150 mm/0 to 200 mm models  
3.8 mm for 0 to 300 mm model