MeasurLink® ENABLED
Data Management Software by Mitutoyo

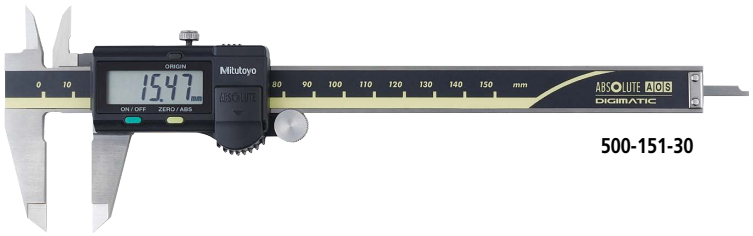
U-WAVE fit

ABSOLUTE™

PROPRIETARY INSPECTION CERTIFICATE

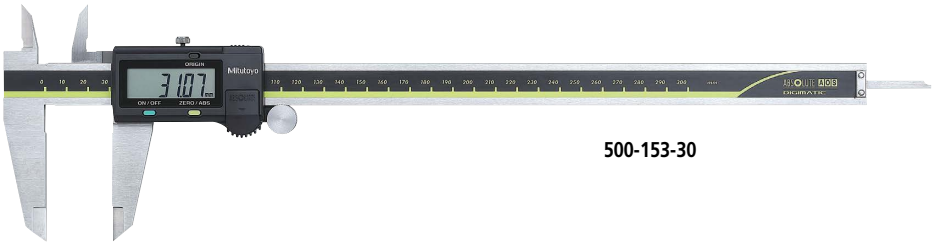
ABSOLUTE Digimatic Caliper
SERIES 500 — with Exclusive ABSOLUTE Encoder Technology

- This is a standard digital calliper. The digital display can reduce human error by preventing incorrect reading of measurement results.
- Incorporates Mitutoyo's ABSOLUTE measurement system. No need to reset the origin after switching on. Eliminates overspeed errors.
- Carbide-tipped jaw calipers are optimal for rough finished parts, castings, grinding stones, etc.
- SPC data output models can be integrated into statistical process control and measurement systems. (Refer to page 09-3.)



500-151-30

500-182-30



500-153-30

Functions

- ABSOLUTE measurement: after a data is displayed, next measurement can be performed without zero-setting. Also, the ABS origin point can be changed with ORIGIN switch.
- Incremental measurement: Sets the displayed value to zero (zero-setting) at any position, making comparative measurement easier.
- Low-voltage alert: notifies that the battery is worn with "B" mark before becoming immeasurable. Thus, the timing for battery replacement can be confirmed in advance.
- Data output: Models equipped with this function have an output port for transferring measurement data to a Statistical Process Control (SPC) system.
  Note: Excludes models without measurement output data port. See SPECIFICATIONS on page 04-6.
- Data hold: With the optional hold unit, the function can hold the displayed value (cannot be used with the output function).

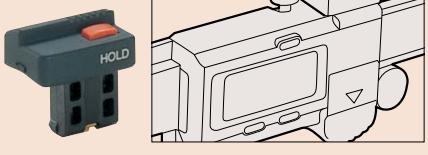
Optional Accessories

(Note: Usable only for models with SPC data output. Refer to page 09-23 for details.)

Code No.	Type	Description
264-020	—	USB Input Tool Series USB Keyboard Signal Conversion Type **IT-020U**
959149	C	Connection cable for **IT/DP/MUX** (1 m)
959150	C	Connection cable for **IT/DP/MUX** (2 m)
06AFM380C	C	USB Input Tool Direct (2 m)
02AZD730G	IP67*	**U-WAVE-T**
02AZD880G	Buzzer	**U-WAVE-T**
02AZE200	—	**U-WAVE-T** mounting bracket
02AZD790C	C	Connection cable for **U-WAVE-T** (160 mm)
02AZE140C	C	Connection cable for **U-WAVE-T** For foot switch
264-620	IP67*	**U-WAVE-TC**
264-621	Buzzer	**U-WAVE-TC**
264-624	IP67*	**U-WAVE-TCB**
264-625	Buzzer	**U-WAVE-TCB**
02AZF300	Buzzer	Connecting unit for **U-WAVE-TC/TCB**

* IP-67 is applied to these **U-WAVE-T/-TC/-TCB**, but not to the calipers on page 04-6 to 04-7.

- **Data hold unit**



959143

SPECIFICATIONS

Metric

Code No.	Range (mm)	Resolution (mm)	Maximum permissible error (mm)* E_{MPE}	Maximum permissible error (mm)* S_{MPE}	Measurement data output port	Mass (g)	Depth bar	Fine adjustment	Remarks
500-150-30	0 - 100	0.01	±0.02	±0.04	✓	143	ø1.9 mm rod	with thumb roller	—
500-180-30					—			—	
500-151-30	0 - 150				✓	168	Blade	with thumb roller	Carbide-tipped jaws for outside measurement
500-154-30									Carbide-tipped jaws for outside and inside measurement
500-155-30									
500-158-30							ø1.9 mm rod		—
500-181-30					—		Blade	—	
500-152-30	0 - 200				✓	198		with thumb roller	Carbide-tipped jaws for outside measurement
500-156-30									Carbide-tipped jaws for outside and inside measurement
500-157-30									
500-182-30					—			—	—
500-153-30	0 - 300		±0.03	±0.05	✓	350		with thumb roller	
500-161-30	0 - 150		±0.02	±0.04		168		—	
500-162-30	0 - 200					198			
500-184-30	0 - 150				—	168	ø1.9 mm rod		
500-201-30	0 - 100				✓	143	Blade		
500-203-30	0 - 150					168	ø1.9 mm rod		
500-205-30	0 - 300		±0.03	±0.05		345	Blade		
500-233-30	0 - 150		±0.02	±0.04		168			Carbide-tipped jaws for outside measurement
500-234-30									Carbide-tipped jaws for outside and inside measurement
500-235-30	0 - 200					198			Carbide-tipped jaws for outside measurement
500-236-30									Carbide-tipped jaws for outside and inside measurement

- Power source: SR44 battery (1 pc.), **938882** included as standard (for operational checks)
- Position detection method: ABSOLUTE electromagnetic induction linear encoder
- Battery life: Approx. 5 years under normal use
- Response speed: Unlimited

* The Partial Surface Contact Error (E_{MPE}) and Shift Error (S_{MPE}) are terms defined by ISO 13385-1:2019.

Mitutoyo