ABSOLUTE Digimatic Caliper
SERIES 500 — with Exclusive ABSOLUTE Encoder Technology

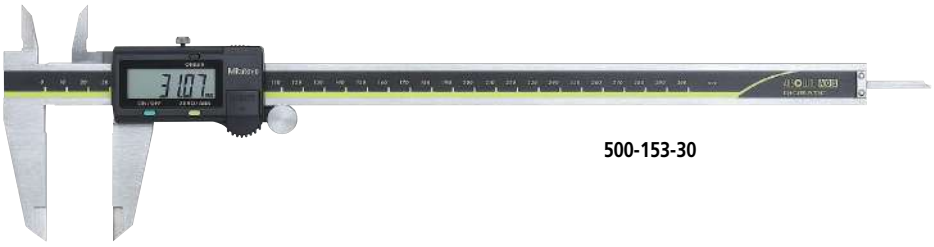
- This is a standard digital calliper. The digital display can reduce human error by preventing incorrect reading of measurement results.
- Incorporates Mitutoyo's ABSOLUTE measurement system. No need to reset the origin after switching on. Eliminates overspeed errors.
- Carbide-tipped jaw calipers are 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).

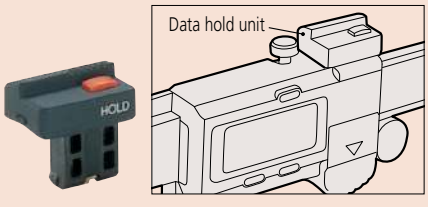
Optional Accessories

(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

Mitutoyo reserves the right to change any or all aspects of any product specification, including prices, designs and service content, without notice.

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	
500-154-30									Carbide-tipped jaws for outside measurement
500-155-30									Carbide-tipped jaws for outside and inside measurement
500-158-30							ø1.9 mm rod		—
500-181-30					—		Blade	—	
500-152-30	0 - 200				✓	198		with thumb roller	
500-156-30									Carbide-tipped jaws for outside measurement
500-157-30									Carbide-tipped jaws for outside and inside measurement
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.

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