

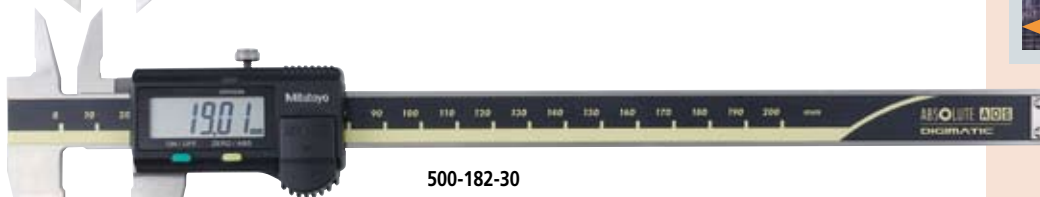
Calipers

An industry standard measuring tool

ABSOLUTE Digimatic Caliper 500 Series — with exclusive ABSOLUTE Encoder Technology

MeasurLink[®] ENABLED
Data Management Software by Mitutoyo

- An ABSOLUTE electromagnetic induction linear encoder system is incorporated (except for 0 - 300 mm / 0 - 12 inch models).
- New ergonomic design with finger rest.
- The ZERO/ABS button allows the display to be Zero-Set at any slider position along the scale for comparison measurements. This button will also allow return to the absolute (ABS) mode and display of the true position from the origin (usually jaws closed point).
- Large and clear LCD readout.
- Smooth slider movement makes for comfortable operation.
- 18,000 hours battery life.
- Allows step measurement.
- Carbide-tipped jaw calipers are optimal for rough finished parts, castings, grinding stones, etc.
- Allows integration into statistical process control and measurement systems for models with measurement data output connector. Refer to page A-3.

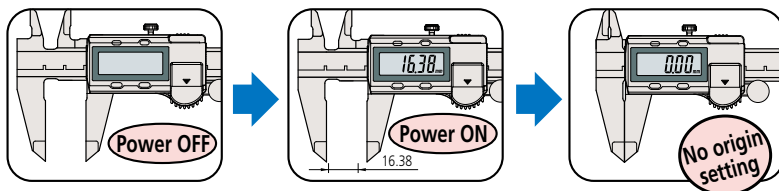


GOOD DESIGN AWARD 2013



Remarkably easy to read display

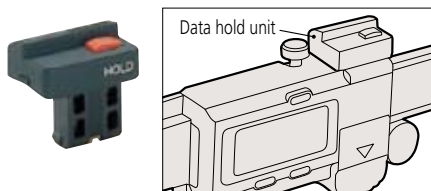
A built-in ABS (absolute) scale means that these calipers are ready to use immediately after power-on without origin resetting – just like using a vernier caliper.



Optional accessories

Dedicated for the models equipped with a digimatic output function. For details, refer to page D-39.

959143: Data hold unit



Connecting cables for IT/DP/MUX

- 959149: SPC cable with data button (1 m)
- 959150: SPC cable with data button (2 m)



USB Input Tool Direct

- 06AFM380C: SPC cable for USB-ITN-C (2 m)

- Wireless data output **U-WAVE^{fit}**
 - U-WAVE-TC: 264-620 (IP67 type)
 - 264-621 (Buzzer type)
 - Connecting unit for U-WAVE-TC: 02AZF310 (IP67 type)
 - 02AZF300 (Buzzer type)
- Refer to page A-15 for details

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Products equipped with the measurement data output function can be connected to the measurement data network system MeasurLink (refer to page A-5 for details).

ABSOLUTE[™]

(Refer to page X for details.)

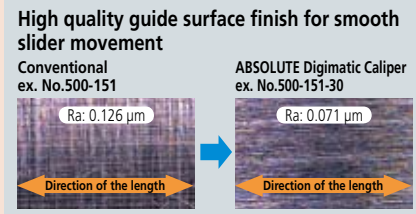


An inspection certificate is supplied as standard. Refer to page X for details.

Technical Data

- Accuracy: ± 0.02 mm (≤ 200 mm), ± 0.03 mm (≤ 300 mm) (excluding quantizing error)
- Resolution: 0.01 mm or 0.0005 in / 0.01 mm
- Repeatability: 0.01 mm
- Display: LCD
- Scale type*: ABSOLUTE electromagnetic induction linear encoder
- *ABSOLUTE electrostatic capacity static linear encoder for 0 - 300 mm / 0 - 12 inch models.
- Max. response speed: Unlimited
- Battery: **SR44** (1 pc), **938882**, for initial operational checks (standard accessory)
- Battery life: Approx. 5 years under normal use (18,000 hours for continuous use)

Smooth slider movement makes for comfortable operation.



Functions

Absolute measurement: After power is turned ON, measurement can be started without zero-setting if origin-setting was previously performed. The Absolute origin position can be changed by the ORIGIN button.

Incremental measurement: Display can be set to zero at any arbitrary position for comparative measurements

Low-voltage alert: If the battery voltage becomes low, a "B" appears in the display to alert the user before measurement is no longer possible. A battery change advisory alert precedes this alert.

Data output: By using the connecting cable (option), measurement data can be output.

Data hold: By using the data hold unit (option), the displayed value can be held. This cannot be used with the data output function.

SPECIFICATIONS

Metric							
Order No.	Range	Accuracy**	Mass	Depth bar	Fine adjustment	Remarks	
500-150-30	0 - 100 mm	±0.02 mm	137 g	ø1.9 mm rod	with thumb roller	—	
500-180-30*				—	—		
500-151-30			0 - 150 mm	162 g	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	0 - 200 mm	±0.02 mm	192 g	ø1.9 mm rod	—	—	
500-181-30*				—	—		
500-152-30			Blade	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*	0 - 300 mm	±0.03 mm	350 g	—	—	—	
500-153				with thumb roller	—		

* Without SPC data output

** Excluding quantizing error of ±1 count in LSD

Inch/Metric							
Order No.	Range	Accuracy**	Mass	Depth bar	Fine adjustment	Remarks	
500-170-30	0 - 4 in	±0.001 in / ±0.02 mm	137 g	0.075 inch rod	with thumb roller	—	
500-195-30*				—			—
500-171-30			0 - 6 in	±0.001 in / ±0.02 mm		162 g	Blade
500-174-30	—	Carbide-tipped jaws for outside and inside measurement					
500-175-30	—	—			—		—
500-178-30	0 - 8 in	192 g			0.075 inch rod	—	Carbide-tipped jaws for outside measurement
500-196-30*						—	Carbide-tipped jaws for outside and inside measurement
500-159-30*					Blade	—	—
500-160-30*	—	—	—				
500-172-30	0 - 12 in	±0.0015 in / ±0.03 mm	350 g	Blade	—	Carbide-tipped jaws for outside measurement	
500-176-30					—	Carbide-tipped jaws for outside and inside measurement	
500-177-30	0 - 12 in	±0.0015 in / ±0.03 mm	350 g	Blade	—	Carbide-tipped jaws for outside measurement	
500-197-30*					—	Carbide-tipped jaws for outside and inside measurement	
500-163-30*	0 - 12 in	±0.0015 in / ±0.03 mm	350 g	Blade	—	Carbide-tipped jaws for outside measurement	
500-164-30*					—	Carbide-tipped jaws for outside and inside measurement	
500-173	0 - 12 in	±0.0015 in / ±0.03 mm	350 g	Blade	—	Carbide-tipped jaws for outside measurement	
500-167					—	Carbide-tipped jaws for outside and inside measurement	
500-168	0 - 12 in	±0.0015 in / ±0.03 mm	350 g	Blade	—	Carbide-tipped jaws for outside measurement	
500-193*					—	Carbide-tipped jaws for outside and inside measurement	
500-165*	0 - 12 in	±0.0015 in / ±0.03 mm	350 g	Blade	—	Carbide-tipped jaws for outside measurement	
500-166*					—	Carbide-tipped jaws for outside and inside measurement	

* Without SPC data output

** Excluding quantizing error of ±1 count in LSD

DIMENSIONS

