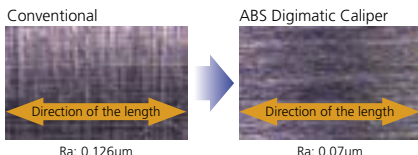


# ABSOLUTE Digimatic Caliper

**SERIES 500 — with Exclusive ABSOLUTE Encoder Technology**

Mitutoyo's absolute Digimatic Caliper is the next generation of electronic calipers. It keeps track of its origin point once set. Whenever turned on, the large LCD screen displays the actual slider position ready to start measurement. No more repeated zero setting is necessary with the absolute encoder technology as well as no more care for overspeed errors.

## High quality guide surface finish for smooth slider movement



Ra: 0.126µm

Ra: 0.07µm

## FEATURES

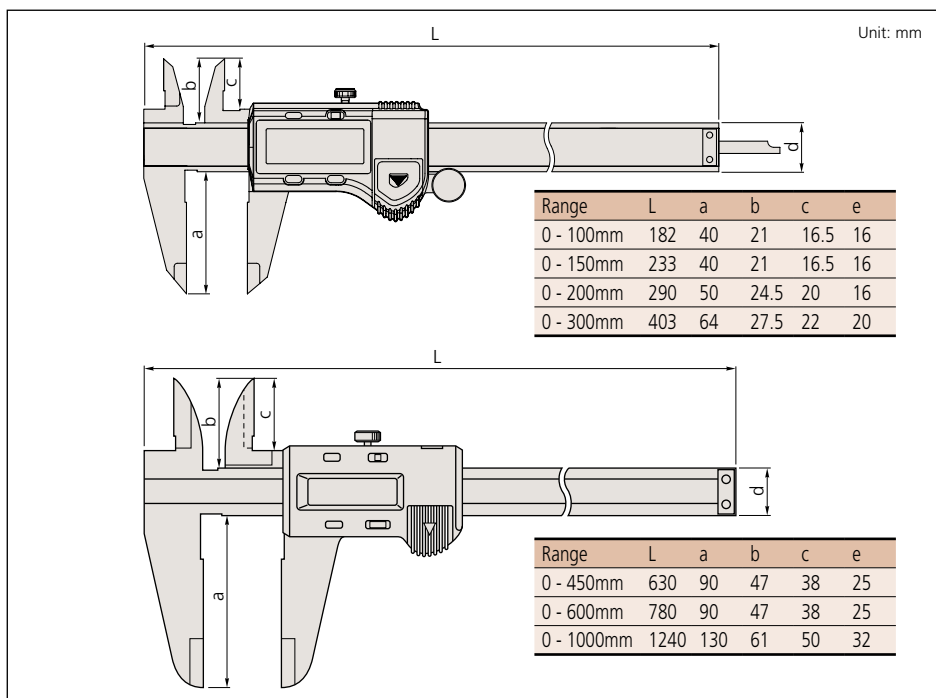
- Large and clear LCD readout.
- The ZERO/ABS key allows the display to be Zero-Set at any slider position along the scale for incremental comparison measurements. This switch will also allow return to the absolute (ABS) coordinate and display of the true position from the origin point (usually jaws-closed point).
- Data Hold Unit (959143) is optional.
- Carbide-tipped jaw type calipers are also available.



500-150-20

500-181-20

## DIMENSION



(Refer to the page 9 for details.)



(Refer to the page 9 for details.)

## Technical Data

Accuracy:  $\pm 0.02\text{mm}$  ( $\leq 200\text{mm}$ ),  $\pm 0.03\text{mm}$  ( $\leq 300\text{mm}$ )  
 $\pm 0.05\text{mm}$  ( $\leq 600\text{mm}$ ),  $\pm 0.07\text{mm}$  ( $\leq 1000\text{mm}$ )  
 (excluding quantizing error)  
 Resolution: 0.01mm or .0005"/0.01mm  
 Repeatability: 0.01mm  
 Display: LCD  
 Length standard: ABSOLUTE electrostatic capacitance type linear encoder  
 Max. response speed: Unlimited  
 Battery: SR44 (1 pc.), **938882**  
 Battery life: Approx. 3.5 years under normal use

## Function

Origin-set, Zero-setting, Data output, inch/mm conversion (inch/mm models)  
 Alarm: Low voltage, Counting value composition error

## Optional Accessory

- 959143:** Data hold unit
- 959149:** SPC cable with data switch (1m)
- 959150:** SPC cable with data switch (2m)



959149

## SPECIFICATIONS

### Metric

Range	Order No.	Remarks (depth measuring bar / thumb roller / others)		
0 - 100mm	<b>500-150-20</b>	ø1.9mm rod	with thumb roller	—
0 - 100mm	<b>500-180-20*</b>	ø1.9mm rod	—	—
0 - 150mm	<b>500-151-20</b>	Blade	with thumb roller	—
0 - 150mm	<b>500-154-20</b>	Blade	with thumb roller	Carbide-tipped jaws for OD measurement
0 - 150mm	<b>500-155-20</b>	Blade	with thumb roller	Carbide-tipped jaws for OD & ID measurement
0 - 150mm	<b>500-158-20</b>	ø1.9mm rod	with thumb roller	—
0 - 150mm	<b>500-181-20*</b>	Blade	—	—
0 - 200mm	<b>500-152-20</b>	Blade	with thumb roller	—
0 - 200mm	<b>500-156-20</b>	Blade	with thumb roller	Carbide-tipped jaws for OD measurement
0 - 200mm	<b>500-157-20</b>	Blade	with thumb roller	Carbide-tipped jaws for OD & ID measurement
0 - 200mm	<b>500-182-20*</b>	Blade	—	—
0 - 300mm	<b>500-153</b>	Blade	with thumb roller	—
0 - 450mm	<b>500-500-10</b>	—	—	—
0 - 600mm	<b>500-501-10</b>	—	—	—
0 - 1000mm	<b>500-502-10</b>	—	—	—

\*without SPC data output

### Inch/Metric

Range	Order No.	Remarks (depth measuring bar / thumb roller / others)		
0 - 4"	<b>500-170-20</b>	ø3/40" rod	with thumb roller	—
0 - 4"	<b>500-195-20*</b>	ø3/40" rod	with thumb roller	—
0 - 6"	<b>500-171-20</b>	Blade	with thumb roller	—
0 - 6"	<b>500-174-20</b>	Blade	with thumb roller	Carbide-tipped jaws for OD measurement
0 - 6"	<b>500-175-20</b>	Blade	with thumb roller	Carbide-tipped jaws for OD & ID measurement
0 - 6"	<b>500-178-20</b>	ø3/40" rod	with thumb roller	—
0 - 6"	<b>500-196-20*</b>	Blade	with thumb roller	—
0 - 6"	<b>500-159-20*</b>	Blade	with thumb roller	Carbide-tipped jaws for OD measurement
0 - 6"	<b>500-160-20*</b>	Blade	with thumb roller	Carbide-tipped jaws for OD & ID measurement
0 - 8"	<b>500-172-20</b>	Blade	with thumb roller	—
0 - 8"	<b>500-176-20</b>	Blade	with thumb roller	Carbide-tipped jaws for OD measurement
0 - 8"	<b>500-177-20</b>	Blade	with thumb roller	Carbide-tipped jaws for OD & ID measurement
0 - 8"	<b>500-197-20*</b>	Blade	with thumb roller	—
0 - 8"	<b>500-163-20*</b>	Blade	with thumb roller	Carbide-tipped jaws for OD measurement
0 - 8"	<b>500-164-20*</b>	Blade	with thumb roller	Carbide-tipped jaws for OD & ID measurement
0 - 12"	<b>500-173</b>	Blade	with thumb roller	—
0 - 12"	<b>500-167</b>	Blade	with thumb roller	Carbide-tipped jaws for OD measurement
0 - 12"	<b>500-168</b>	Blade	with thumb roller	Carbide-tipped jaws for OD & ID measurement
0 - 12"	<b>500-193*</b>	Blade	with thumb roller	—
0 - 12"	<b>500-165*</b>	Blade	—	Carbide-tipped jaws for OD measurement
0 - 12"	<b>500-166*</b>	Blade	—	Carbide-tipped jaws for OD & ID measurement
0 - 18"	<b>500-505-10</b>	—	with thumb roller	—
0 - 24"	<b>500-506-10</b>	—	with thumb roller	—
0 - 40"	<b>500-507-10</b>	—	with thumb roller	—

\*without SPC data output



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