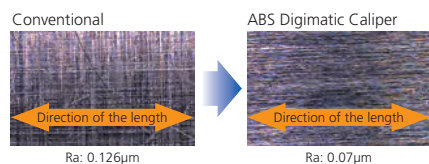


# ABSOLUTE Digimatic Caliper

**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



## FEATURES

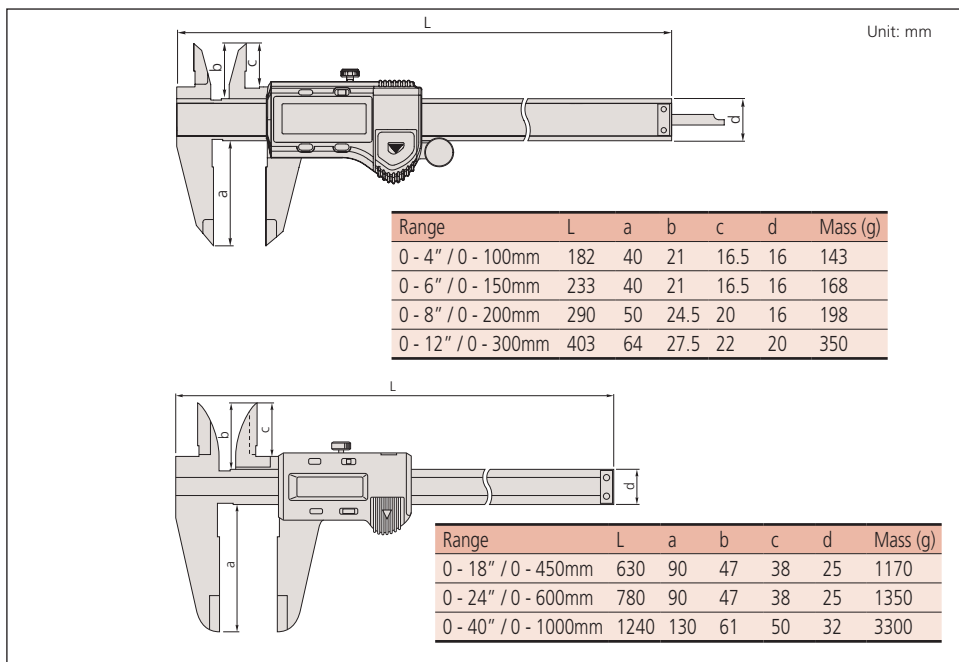
- Large and clear LCD readout.
- The ZERO/ABS key allows the display to be Zero-Set at any slider position along the scale for incremental comparison measurements. This switch will also allow return to the absolute (ABS) coordinate and display of the true position from the origin point (usually jaws-closed point).
- Data Hold Unit (959143) is optional.
- Carbide-tipped jaw type calipers are also available.
- Thumb roller included only on calipers up to and including 12" or 300mm.
- Supplied in fitted plastic case. Except 40" / 1000mm supplied in wooden case.

**SPC**

**ABSOLUTE**  
Absolute System Patented by MITUTOYO



## DIMENSIONS AND MASS



## Technical Data

Accuracy: Refer to the list of specifications  
 Resolution: .0005"/0.01mm or 0.01mm  
 Repeatability: .0005"/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 (on inch/metric models only)  
 Alarm: Low voltage, Counting value composition error

## Optional Accessories

- 959143:** Data hold unit  
**959149:** SPC cable with data switch (40" / 1m)  
**959150:** SPC cable with data switch (80" / 2m)





## SPECIFICATIONS

### Metric

| Range      | Order No.          | Accuracy | Resolution | Remarks                                     |
|------------|--------------------|----------|------------|---------------------------------------------|
| 0 - 100mm  | <b>500-150-20</b>  | ±0.02mm  | 0.01mm     | ø1.9mm rod depth bar                        |
| 0 - 150mm  | <b>500-151-20</b>  | ±0.02mm  | 0.01mm     | —                                           |
| 0 - 150mm  | <b>500-154-20</b>  | ±0.02mm  | 0.01mm     | Carbide-tipped jaws for OD measurement      |
| 0 - 150mm  | <b>500-155-20</b>  | ±0.02mm  | 0.01mm     | Carbide-tipped jaws for OD & ID measurement |
| 0 - 150mm  | <b>500-158-20</b>  | ±0.02mm  | 0.01mm     | ø1.9mm rod depth bar                        |
| 0 - 200mm  | <b>500-152-20</b>  | ±0.02mm  | 0.01mm     | —                                           |
| 0 - 200mm  | <b>500-156-20</b>  | ±0.02mm  | 0.01mm     | Carbide-tipped jaws for OD measurement      |
| 0 - 200mm  | <b>500-157-20</b>  | ±0.02mm  | 0.01mm     | Carbide-tipped jaws for OD & ID measurement |
| 0 - 300mm  | <b>500-153</b>     | ±0.03mm  | 0.01mm     | —                                           |
| 0 - 450mm  | <b>500-500-10*</b> | ±0.05mm  | 0.01mm     | Without Thumb Roller                        |
| 0 - 600mm  | <b>500-501-10*</b> | ±0.05mm  | 0.01mm     | Without Thumb Roller                        |
| 0 - 1000mm | <b>500-502-10*</b> | ±0.07mm  | 0.01mm     | Without Thumb Roller                        |

\*without thumb rollers

### Inch/Metric

| Range                | Order No.          | Accuracy | Resolution      | Remarks                                     |
|----------------------|--------------------|----------|-----------------|---------------------------------------------|
| 0 - 4" / 0 - 100mm   | <b>500-170-20</b>  | ±.001"   | .0005" / 0.01mm | .075" rod depth bar                         |
| 0 - 4" / 0 - 100mm   | <b>500-195-20*</b> | ±.001"   | .0005" / 0.01mm | .075" rod depth bar                         |
| 0 - 6" / 0 - 150mm   | <b>500-171-20</b>  | ±.001"   | .0005" / 0.01mm | —                                           |
| 0 - 6" / 0 - 150mm   | <b>500-174-20</b>  | ±.001"   | .0005" / 0.01mm | Carbide-tipped jaws for OD measurement      |
| 0 - 6" / 0 - 150mm   | <b>500-175-20</b>  | ±.001"   | .0005" / 0.01mm | Carbide-tipped jaws for OD & ID measurement |
| 0 - 6" / 0 - 150mm   | <b>500-178-20</b>  | ±.001"   | .0005" / 0.01mm | .075" rod depth bar                         |
| 0 - 6" / 0 - 150mm   | <b>500-196-20*</b> | ±.001"   | .0005" / 0.01mm | —                                           |
| 0 - 6" / 0 - 150mm   | <b>500-159-20*</b> | ±.001"   | .0005" / 0.01mm | Carbide-tipped jaws for OD measurement      |
| 0 - 6" / 0 - 150mm   | <b>500-160-20*</b> | ±.001"   | .0005" / 0.01mm | Carbide-tipped jaws for OD & ID measurement |
| 0 - 8" / 0 - 200mm   | <b>500-172-20</b>  | ±.001"   | .0005" / 0.01mm | —                                           |
| 0 - 8" / 0 - 200mm   | <b>500-176-20</b>  | ±.001"   | .0005" / 0.01mm | Carbide-tipped jaws for OD measurement      |
| 0 - 8" / 0 - 200mm   | <b>500-177-20</b>  | ±.001"   | .0005" / 0.01mm | Carbide-tipped jaws for OD & ID measurement |
| 0 - 8" / 0 - 200mm   | <b>500-197-20*</b> | ±.001"   | .0005" / 0.01mm | —                                           |
| 0 - 8" / 0 - 200mm   | <b>500-163-20*</b> | ±.001"   | .0005" / 0.01mm | Carbide-tipped jaws for OD measurement      |
| 0 - 8" / 0 - 200mm   | <b>500-164-20*</b> | ±.001"   | .0005" / 0.01mm | Carbide-tipped jaws for OD & ID measurement |
| 0 - 12" / 0 - 300mm  | <b>500-173</b>     | ±.0015"  | .0005" / 0.01mm | —                                           |
| 0 - 12" / 0 - 300mm  | <b>500-167</b>     | ±.0015"  | .0005" / 0.01mm | Carbide-tipped jaws for OD measurement      |
| 0 - 12" / 0 - 300mm  | <b>500-168</b>     | ±.0015"  | .0005" / 0.01mm | Carbide-tipped jaws for OD & ID measurement |
| 0 - 12" / 0 - 300mm  | <b>500-193*</b>    | ±.0015"  | .0005" / 0.01mm | —                                           |
| 0 - 12" / 0 - 300mm  | <b>500-165*</b>    | ±.0015"  | .0005" / 0.01mm | Carbide-tipped jaws for OD measurement      |
| 0 - 12" / 0 - 300mm  | <b>500-166*</b>    | ±.0015"  | .0005" / 0.01mm | Carbide-tipped jaws for OD & ID measurement |
| 0 - 18" / 0 - 450mm  | <b>500-505-10</b>  | ±.002"   | .0005" / 0.01mm | Without Thumb Roller                        |
| 0 - 24" / 0 - 600mm  | <b>500-506-10</b>  | ±.002"   | .0005" / 0.01mm | Without Thumb Roller                        |
| 0 - 40" / 0 - 1000mm | <b>500-507-10</b>  | ±.003"   | .0005" / 0.01mm | Without Thumb Roller                        |

\*without SPC data output

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