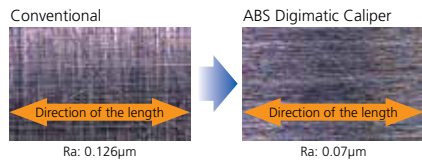


# ABSOLUTE Digimatic Caliper

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

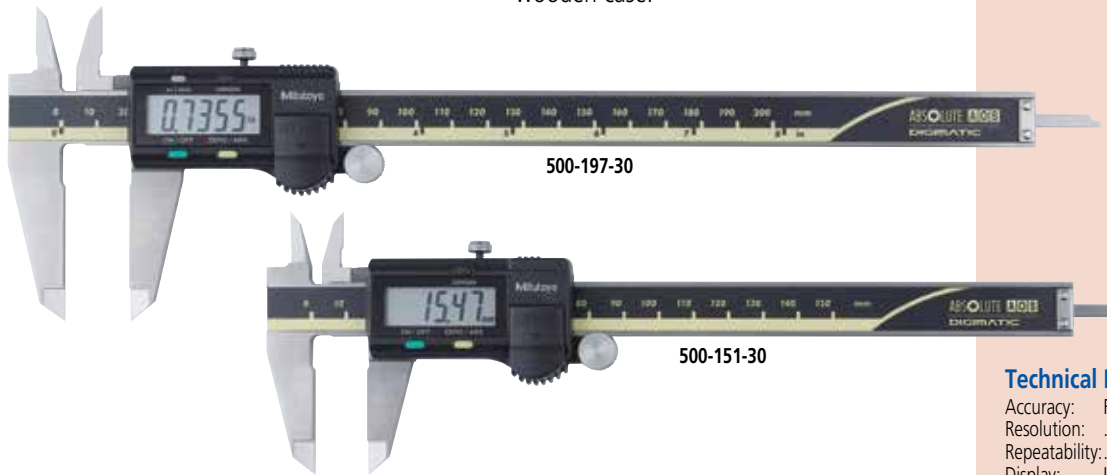
Mitutoyo's absolute Digimatic Caliper is the next generation of electronic calipers. It keeps track of its origin point once set. Whenever turned on, the large LCD displays the actual slider position ready to start measurement. No more repeated zero setting is necessary with the absolute encoder technology,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



## DIMENSIONS AND MASS

Range	L	a	b	c	d	Mass (g)
0 - 4" / 0 - 100mm	182	40	21	16.5	16	143
0 - 6" / 0 - 150mm	233	40	21	16.5	16	168
0 - 8" / 0 - 200mm	290	50	24.5	20	16	198
0 - 12" / 0 - 300mm	403	64	27.5	22	20	350

Range	L	a	b	c	d	Mass (g)
0 - 18" / 0 - 450mm	630	90	47	38	25	1170
0 - 24" / 0 - 600mm	780	90	47	38	25	1350
0 - 40" / 0 - 1000mm	1240	130	61	50	32	3300



The new Mitutoyo ABS Digimatic Caliper line with exclusive AOS sensor technology. The patented Advanced Onsite Sensor (AOS) offers improved measurement dependability by increasing resistance to harsh workshop conditions.

## 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 electromagnetic induction type linear encoder (200mm and smaller models)  
 ABSOLUTE electrostatic capacitance type linear encoder (300mm and larger models)  
 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)

959143



959149



500-506-10

500-502-10

500-501-10

500-500-10

## SPECIFICATIONS

### Metric

Range	Order No.	Accuracy	Resolution	Remarks
0 - 100mm	<b>500-150-30</b>	±0.02mm	0.01mm	ø1.9mm rod depth bar
0 - 150mm	<b>500-151-30</b>	±0.02mm	0.01mm	—
0 - 150mm	<b>500-154-30</b>	±0.02mm	0.01mm	Carbide-tipped jaws for OD measurement
0 - 150mm	<b>500-155-30</b>	±0.02mm	0.01mm	Carbide-tipped jaws for OD & ID measurement
0 - 150mm	<b>500-158-30</b>	±0.02mm	0.01mm	ø1.9mm rod depth bar
0 - 200mm	<b>500-152-30</b>	±0.02mm	0.01mm	—
0 - 200mm	<b>500-156-30</b>	±0.02mm	0.01mm	Carbide-tipped jaws for OD measurement
0 - 200mm	<b>500-157-30</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

### Inch/Metric

Range	Order No.	Accuracy	Resolution	Remarks
0 - 4" / 0 - 100mm	<b>500-170-30</b>	±.001"	.0005" / 0.01mm	.075" rod depth bar
0 - 4" / 0 - 100mm	<b>500-195-30*</b>	±.001"	.0005" / 0.01mm	.075" rod depth bar
0 - 6" / 0 - 150mm	<b>500-171-30</b>	±.001"	.0005" / 0.01mm	—
0 - 6" / 0 - 150mm	<b>500-174-30</b>	±.001"	.0005" / 0.01mm	Carbide-tipped jaws for OD measurement
0 - 6" / 0 - 150mm	<b>500-175-30</b>	±.001"	.0005" / 0.01mm	Carbide-tipped jaws for OD & ID measurement
0 - 6" / 0 - 150mm	<b>500-178-30</b>	±.001"	.0005" / 0.01mm	.075" rod depth bar
0 - 6" / 0 - 150mm	<b>500-196-30*</b>	±.001"	.0005" / 0.01mm	—
0 - 6" / 0 - 150mm	<b>500-159-30*</b>	±.001"	.0005" / 0.01mm	Carbide-tipped jaws for OD measurement
0 - 6" / 0 - 150mm	<b>500-160-30*</b>	±.001"	.0005" / 0.01mm	Carbide-tipped jaws for OD & ID measurement
0 - 8" / 0 - 200mm	<b>500-172-30</b>	±.001"	.0005" / 0.01mm	—
0 - 8" / 0 - 200mm	<b>500-176-30</b>	±.001"	.0005" / 0.01mm	Carbide-tipped jaws for OD measurement
0 - 8" / 0 - 200mm	<b>500-177-30</b>	±.001"	.0005" / 0.01mm	Carbide-tipped jaws for OD & ID measurement
0 - 8" / 0 - 200mm	<b>500-197-30*</b>	±.001"	.0005" / 0.01mm	—
0 - 8" / 0 - 200mm	<b>500-163-30*</b>	±.001"	.0005" / 0.01mm	Carbide-tipped jaws for OD measurement
0 - 8" / 0 - 200mm	<b>500-164-30*</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