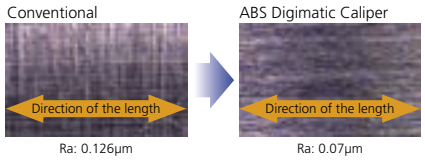
ABSOLUTE Digimatic Caliper

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.

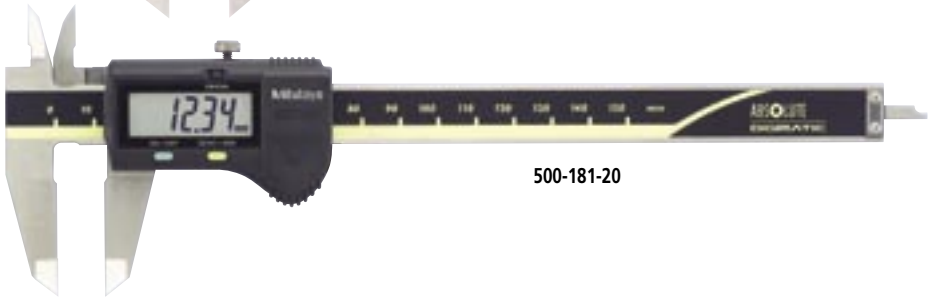
SPC

ABSOLUTE® Absolute System Patented by MITUTOYO (Refer to the page 9 for details.)

PROPRIETARY INSPECTION CERTIFICATE (Refer to the page 9 for details.)



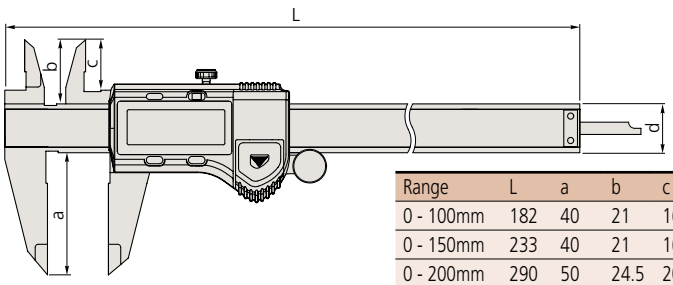
500-150-20



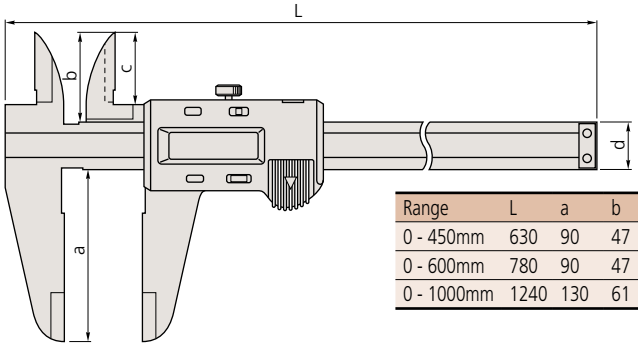
500-181-20

DIMENSION

Unit: mm



Range	L	a	b	c	e
0 - 100mm	182	40	21	16.5	16
0 - 150mm	233	40	21	16.5	16
0 - 200mm	290	50	24.5	20	16
0 - 300mm	403	64	27.5	22	20



Range	L	a	b	c	e
0 - 450mm	630	90	47	38	25
0 - 600mm	780	90	47	38	25
0 - 1000mm	1240	130	61	50	32

Technical Data

Accuracy: ±0.02mm (≤200mm), ±0.03mm (≤300mm)
±0.05mm (≤600mm), ±0.07mm (≤1000mm)
(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)

959143



959149

SPECIFICATIONS

Metric

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

*without SPC data output

Inch/Metric

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

*without SPC data output



500-502-10 **500-501-10** **500-500-10**