

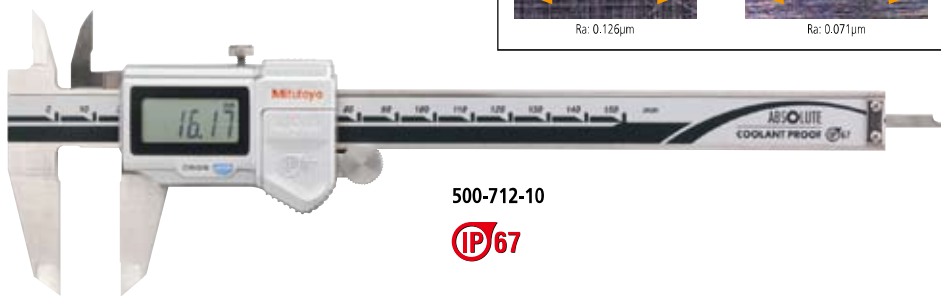
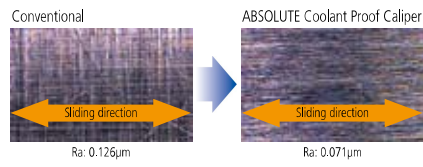
ABSOLUTE Coolant Proof Caliper

SERIES 500 — with Dust/Water Protection Conforming to IP67 Level

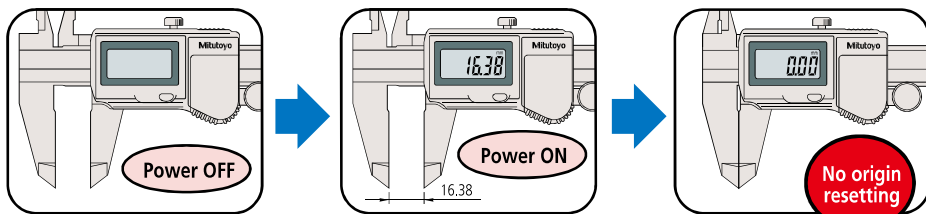
FEATURES

- Can be used in workshop conditions exposed to coolant, water, dust or oil.
- Easy to use — no need to wipe or clean the scale.
- Advanced design styling.
- Incorporates absolute measurement system.
- Automatic power-on/off.
- Data output function.

High quality guide surface finish for smooth slider movement



Built-in ABS (absolute) scale means that these calipers are ready to use immediately after power-on without origin resetting. It's as easy as vernier caliper measurements.



Certificate of inspection

CERTIFICATE OF INSPECTION / CERTIFICAT DE CONTROLE		Inspection result/Résultats				(GRV/P)
Product name/Désignation	Digital Caliper/Pied à coulisse Numérique	Measuring length/ Position de mesure	Permissible values/ Valeurs admissibles	Instrumental error/Erreur	Internal/Internal	
Model No./Modèle	CC-1576					
Code No./Référence	500-622					
Serial No./No. de série	03418811					
Measuring range/Capacité de mesure	0-150mm	0	±0.01	0.00	0.01	
Measuring resolution/Résolution	0.01mm	50	±0.02	-0.01	0.00	
Standard Temperature / Température de Référence	20°C	100				Unit:mm
QC Manager/Responsable Qualité		150				Unit:mm
		200				
		∅0.16	±0.008			
		0	-0.0015			
		2				
		4				
		6	±0.0010			Unit:inch
		8				Unit:inch
Inspection standard: Mitutoyo standard Based on: JISB7207 1993, DIN852 1985 Traceable to: NMI/NIST by: JCIS No. 2020, NIST via: 621058634-03 PTB via 3795, PTB 02, 4340, PTB 03		Overall Judgment: Passed/Passed		Conformité: conforme		

Measurement data output function is available with a water-resistant SPC cable.



ABSOLUTE®
Absolute System Patented by MITUTOYO

(Refer to page VIII for details.)



(Refer to page VIII for details.)



(Refer to page VIII for details.)

Technical Data

- Accuracy: ±0.02mm (≤200mm), ±0.03mm (>200mm) (excluding quantizing error)
- Resolution: 0.01mm or .0005"/0.01mm
- Repeatability: 0.01mm
- Display: LCD
- Scale type: ABSOLUTE electromagnetic linear encoder
- Max. response speed: Unlimited
- Battery: SR44 (1 pc.), **938882**
- Battery life: Approx. 3 years under normal use (1 year: over 300mm models)
- Dust/Water protection level: IP67

Functions

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

Optional Accessories

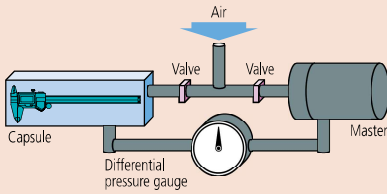
- 05CZA624**: SPC cable with data switch (1m)
- 05CZA625**: SPC cable with data switch (2m)
- 02AZD790A**: SPC cable for U-WAVE w/ data switch (160mm)



05CZA624

Air leakage detection system used for water-proof testing

Generally, air leakage tests are performed to evaluate water resistance. Testing begins by placing a measuring tool into the capsule. Next, air at the required test pressure is supplied to the capsule and the master capsule, then the valves are closed. If none of the air in the capsule seeps into the measuring tool, the capsule's air pressure will remain equal to that in the master, and the differential pressure gauge will continue to point to the center. However, if some air does seep into the measuring tool, it will create an air pressure difference that will be indicated by the differential pressure gauge. Thus, detection of air pressure differences is used as a criterion for judging leakage. Every single unit of ABS Coolant Proof caliper and Coolant Proof micrometer is tested this way to help ensure product quality.



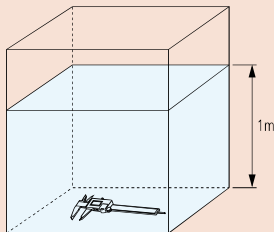
IP66 protection level

- Level 6: Dust-tight
No ingress of dust.
- Level 6: Protected against powerful water jets.
Water projected in powerful jets* against the enclosure from any direction shall have no harmful effects.
*Size of direct jets: 12.5 mm (inner diameter) nozzle emitting a 100 kPa jet of water at 100 liters per minute for at least 3 minutes from a distance of approx. 3 meters.



IP67 protection level

- Level 6: Dust-tight
No ingress of dust.
- Level 7: Protected against the effects of temporary immersion in water.
Ingress of water in quantities causing harmful effects shall not be possible when the enclosure is temporarily immersed 1 meter in water under standardized conditions of pressure and time (30 min.).



SPECIFICATIONS

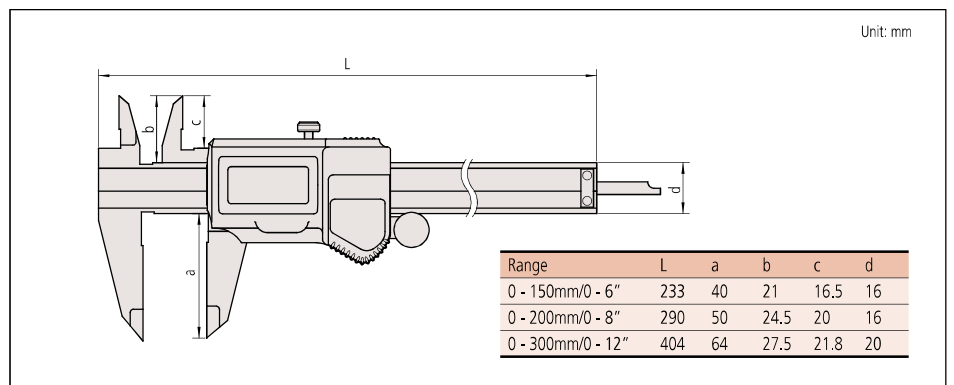
Metric				
Range	Order No.	Depth bar	Fine adjustment	Remarks
0 - 150mm	500-702-10*	Blade	with thumb roller	—
0 - 150mm	500-712-10	Blade	with thumb roller	—
0 - 150mm	500-706-11*	Blade	—	—
0 - 150mm	500-716-11	Blade	—	—
0 - 150mm	500-709-11*	ø1.9mm rod	—	—
0 - 150mm	500-719-10	ø1.9mm rod	with thumb roller	—
0 - 150mm	500-721-10	Blade	with thumb roller	Carbide-tipped jaws for outside measurement
0 - 150mm	500-723-10	Blade	with thumb roller	Carbide-tipped jaws for outside and inside measurement
0 - 150mm	500-727-11	Blade	—	Carbide-tipped jaws for outside and inside measurement
0 - 200mm	500-703-10*	Blade	with thumb roller	—
0 - 200mm	500-713-10	Blade	with thumb roller	—
0 - 200mm	500-707-11*	Blade	—	—
0 - 200mm	500-717-11	Blade	—	—
0 - 200mm	500-722-10	Blade	with thumb roller	Carbide-tipped jaws for outside measurement
0 - 200mm	500-724-10	Blade	with thumb roller	Carbide-tipped jaws for outside and inside measurement
0 - 200mm	500-728-11	Blade	—	Carbide-tipped jaws for outside and inside measurement
0 - 300mm	500-714-10	Blade	with thumb roller	—
0 - 300mm	500-718-11	Blade	—	—
0 - 300mm	500-704-10*	Blade	with thumb roller	—
0 - 300mm	500-708-11*	Blade	—	—

*without SPC data output

Inch/Metric				
Range	Order No.	Depth bar	Fine adjustment	Remarks
0 - 6"	500-752-10*	Blade	with thumb roller	—
0 - 6"	500-762-10	Blade	with thumb roller	—
0 - 6"	500-768-10*	ø3/40" rod	with thumb roller	—
0 - 6"	500-769-10	ø3/40" rod	with thumb roller	—
0 - 6"	500-731-10*	Blade	with thumb roller	Carbide-tipped jaws for outside measurement
0 - 6"	500-735-10	Blade	with thumb roller	Carbide-tipped jaws for outside measurement
0 - 6"	500-733-10*	Blade	with thumb roller	Carbide-tipped jaws for outside and inside measurement
0 - 6"	500-737-10	Blade	with thumb roller	Carbide-tipped jaws outside and inside measurement
0 - 8"	500-753-10*	Blade	with thumb roller	—
0 - 8"	500-763-10	Blade	with thumb roller	—
0 - 8"	500-732-10*	Blade	with thumb roller	Carbide-tipped jaws for outside measurement
0 - 8"	500-736-10	Blade	with thumb roller	Carbide-tipped jaws for outside measurement
0 - 8"	500-734-10*	Blade	with thumb roller	Carbide-tipped jaws for outside and inside measurement
0 - 8"	500-738-10	Blade	with thumb roller	Carbide-tipped jaws for outside and inside measurement
0 - 12"	500-764-10	Blade	with thumb roller	—
0 - 12"	500-754-10*	Blade	with thumb roller	—

*without SPC data output

DIMENSIONS

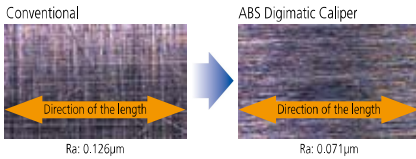


ABSOLUTE Digimatic Caliper

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 absolute encoder technology as well as no more concerns about overspeed errors.

High quality guide surface finish for smooth slider movement

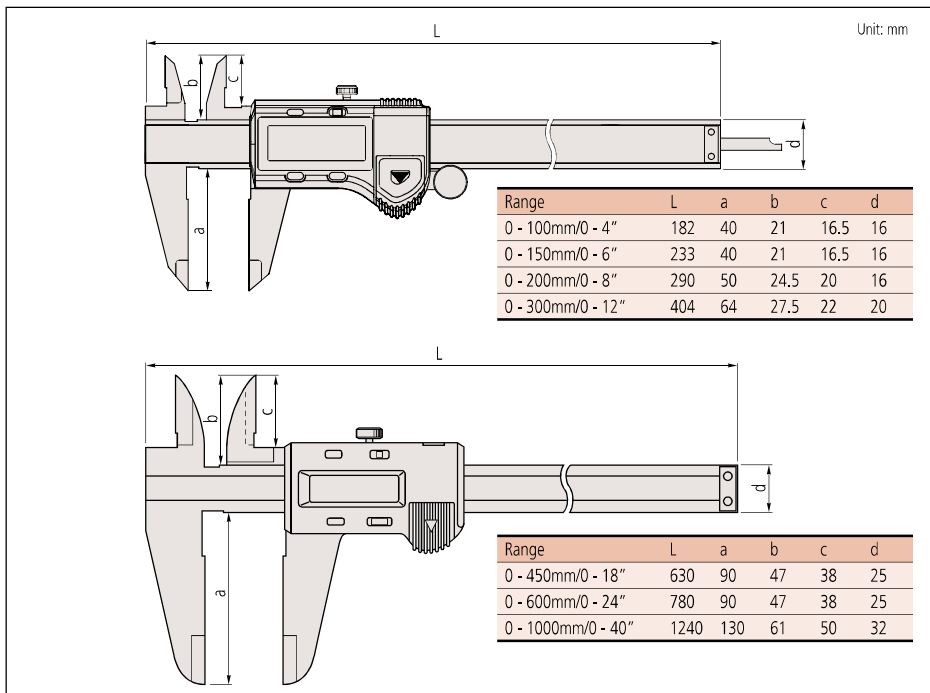


FEATURES

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



DIMENSIONS



(Refer to page VIII for details.)



(Refer to page VIII for details.)
*Up to 300mm/12" range models.

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

Scale type*: ABSOLUTE electrostatic linear encoder

Max. response speed: Unlimited

Battery: SR44 (1 pc.), **938882**

Battery life: Approx. 3.5 years under normal use

Functions

Origin-set, Zero-setting, Data output, inch/mm conversion (inch/mm models)

Alarm: Low voltage, Counting value composition error

Optional Accessories

- 959143:** Data hold unit
- 959149:** SPC cable with data switch (1m)
- 959150:** SPC cable with data switch (2m)
- 02AZD790C:** SPC cable for U-WAVE w/ data switch (160mm)



SPECIFICATIONS

Metric

Range	Order No.	Depth bar	Fine adjustment	Remarks
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 outside measurement
0 - 150mm	500-155-20	Blade	with thumb roller	Carbide-tipped jaws for outside and inside 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 outside measurement
0 - 200mm	500-157-20	Blade	with thumb roller	Carbide-tipped jaws for outside and inside 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.	Depth bar	Fine adjustment	Remarks
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 outside measurement
0 - 6"	500-175-20	Blade	with thumb roller	Carbide-tipped jaws for outside and inside 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 outside measurement
0 - 6"	500-160-20*	Blade	with thumb roller	Carbide-tipped jaws for outside and inside measurement
0 - 8"	500-172-20	Blade	with thumb roller	—
0 - 8"	500-176-20	Blade	with thumb roller	Carbide-tipped jaws for outside measurement
0 - 8"	500-177-20	Blade	with thumb roller	Carbide-tipped jaws for outside and inside measurement
0 - 8"	500-197-20*	Blade	with thumb roller	—
0 - 8"	500-163-20*	Blade	with thumb roller	Carbide-tipped jaws for outside measurement
0 - 8"	500-164-20*	Blade	with thumb roller	Carbide-tipped jaws for outside and inside measurement
0 - 12"	500-173	Blade	with thumb roller	—
0 - 12"	500-167	Blade	with thumb roller	Carbide-tipped jaws for outside measurement
0 - 12"	500-168	Blade	with thumb roller	Carbide-tipped jaws for outside and inside measurement
0 - 12"	500-193*	Blade	with thumb roller	—
0 - 12"	500-165*	Blade	—	Carbide-tipped jaws for outside measurement
0 - 12"	500-166*	Blade	—	Carbide-tipped jaws for outside and inside measurement
0 - 18"	500-505-10	—	—	—
0 - 24"	500-506-10	—	—	—
0 - 40"	500-507-10	—	—	—

*without SPC data output

