

Calipers

An industry standard measuring tool

Long ABSOLUTE Digimatic Caliper 500 Series — with Exclusive ABSOLUTE Encoder Technology

MeasurLink[®] ENABLED
Data Management Software by Mitutoyo

MeasurLink[®] ENABLED
Data Management Software by Mitutoyo

Products equipped with the measurement data output function can be connected to the measurement data network system MeasurLink (refer to page A-5 for details).

ABSOLUTE™

- Long Digital caliper incorporating an ABSOLUTE scale and available with a measuring range from 450 mm to 1000 mm.
- Allows step measurement.
- Allows integration into statistical process control and measurement systems for models with measurement data output connector. Refer to page A-3.
- For the details of the Absolute scale and its function, refer to page D-8.



SPECIFICATIONS

Metric

Order No.	Range (mm)	Depth bar	Fine adjustment	Remarks
500-500-10	0 - 450	—	—	—
500-501-10	0 - 600			
500-502-10	0 - 1000			

Note: Without SPC data output

Inch/Metric

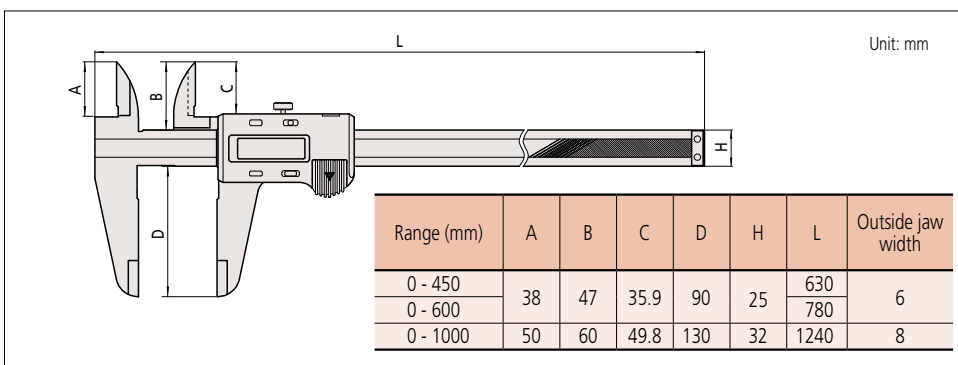
Order No.	Range (in)	Depth bar	Fine adjustment	Remarks
500-505-10	0 - 18	—	—	—
500-506-10	0 - 24			
500-507-10	0 - 40			

Note: Without SPC data output

Technical Data

- Accuracy: ± 0.05 mm (≤ 600 mm), ± 0.07 mm (≤ 1000 mm) (excluding quantizing error)
- Resolution: 0.01 mm or 0.0005 in/0.01 mm
- Repeatability: 0.01 mm
- Display: LCD
- Scale type: ABSOLUTE electrostatic capacity linear encoder
- Battery: SR44 (1 pc), **938882**, for initial operational checks (standard accessory)
- Battery life: Approx. 3.5 years under normal use
- Max. response speed: Unlimited

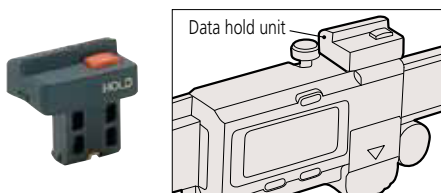
DIMENSIONS



Optional accessories

Dedicated for the models equipped with a digimatic output function. For details, refer to page D-38.

959143: Data hold unit



Connecting cables for IT/DP/MUX

- 959149: SPC cable with data button (1 m)
- 959150: SPC cable with data button (2 m)



USB Input Tool Direct

- 06AFM380C: SPC cable for USB-ITN-C (2 m)

Connecting cables for U-WAVE-T

- 02AZD790C: SPC cable with data button (160 mm)
- 02AZE140C: SPC cable for foot switch

ABSOLUTE™



An inspection certificate is supplied as standard. Refer to page U-11 for details.

Technical Data

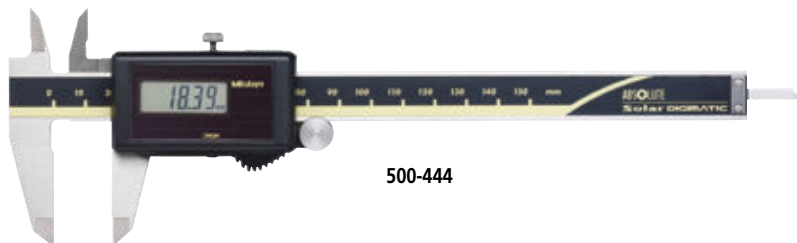
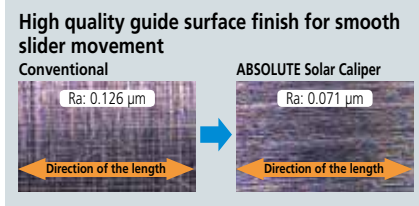
- Accuracy: ±0.02 mm (excluding quantizing error)
- Resolution: 0.01 mm or 0.0005 in/0.01 mm
- Repeatability: 0.01 mm
- Display: LCD
- Scale type: ABSOLUTE electrostatic capacity linear encoder
- Power supply: Solar cell*
- Max. response speed: Unlimited
- Operational temperature: 0 to 40 °C
- * Can be used continuously above 60 lux ambient illumination

Functions

- Absolute measurement
- Scale contamination detection
- Data output (use together with optional connecting cable)
- Data hold (use optional hold unit. This cannot be used with the data output function)
- * For details of the function, refer to page D-8.

ABSOLUTE Solar Caliper SERIES 500 — No battery or origin reset needed

- Mitutoyo's Absolute Solar Digimatic Caliper retains its origin point indefinitely.
- An ABSOLUTE scale is incorporated so that zero setting is not required at each power ON. No danger of overspeed errors.
- At 60 Lux and above the ABSOLUTE solar caliper is ready to start measurement. No more repeated zero setting caused by a shortage of light.
- Slider operation is smooth and comfortable.
- Allows step measurement.
- Allows integration into statistical process control and measurement systems for models with measurement data output connector. Refer to page A-3.



500-444

SPECIFICATIONS

Metric			
Order No.	Range (mm)	Depth bar	Fine adjustment
500-443	0 - 100	ø1.9 mm rod	with thumb roller
500-453*			
500-444	0 - 150	Blade	
500-454*			
500-445			
500-455*	0 - 200		

* Without SPC data output

Inch / Metric			
Order No.	Range (in)	Depth bar	Fine adjustment
500-463	0 - 4	0.075 inch rod	with thumb roller
500-473*			
500-464	0 - 6	Blade	
500-474*			
500-465			
500-475*	0 - 8		

* Without SPC data output

DIMENSIONS

Range (mm)	A	B	C	D	H	L
0 - 100	16.5	21	14.5	40	16	182
0 - 150						233
0 - 200	20	24.5	18	50		290

Jaw thickness: 3.5 mm

Optional accessories

Dedicated for the models equipped with a digimatic output function. For details, refer to page D-38.

959143: Data hold unit



Connecting cables for IT/DP/MUX

- 959149: SPC cable with data button (1 m)
- 959150: SPC cable with data button (2 m)



USB Input Tool Direct

- 06AFM380C: SPC cable for USB-ITN-C (2 m)

Connecting cables for U-WAVE-T

- 02AZD790C: SPC cable with data button (160 mm)
- 02AZE140C: SPC cable for foot switch

- Wireless data output **U-WAVE** fit
- U-WAVE-TC: 264-620 (IP67 type)
- 264-621 (Buzzer type)

Connecting unit for U-WAVE-TC: 02AZF300 (Buzzer type)
Note: IP67 model is water/dust-proofed suitable for the factory floor.
Buzzer type is not water/dust-proofed.
Refer to page A-15 for details.