

# D

## Small Tool Instruments and Data Management



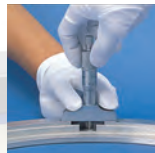
### Digimatic Caliper



### Digimatic Height Gages



### Linear Height



### Depth Gages



SuperCaliper



ABSOLUTE Coolant Proof Caliper



ABSOLUTE Digimatic Caliper



ABSOLUTE Digimatic Offset Caliper



Digimatic Height Gage

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### Depth Gages

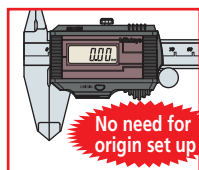
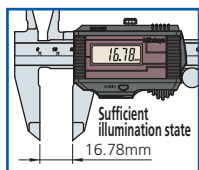
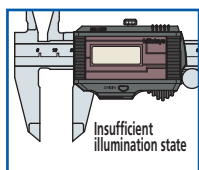
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# Super Caliper-Solar Powered

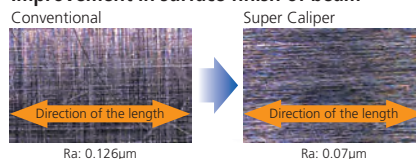
**SERIES 500 — No battery or origin reset needed for IP67 Digital Caliper**

## FEATURES

- With no annoying origin restoration necessary, a measurement can be started any time and there is no restriction on operating speed.
- World's unique\* solar-powered Super Caliper that is eco-friendly with no battery.  
\*According to Mitutoyo investigation in January, 2005
- The impact resistance of the display unit has been increased for improved usability in workshop conditions.
- IP67 protection assures waterproof reliability.
- This Super Caliper uses components that do not contain harmful substances and is compatible with RoHS Directives.
- Supplied in fitted plastic case.



### Improvement in surface finish of beam



500-784

## SPECIFICATIONS

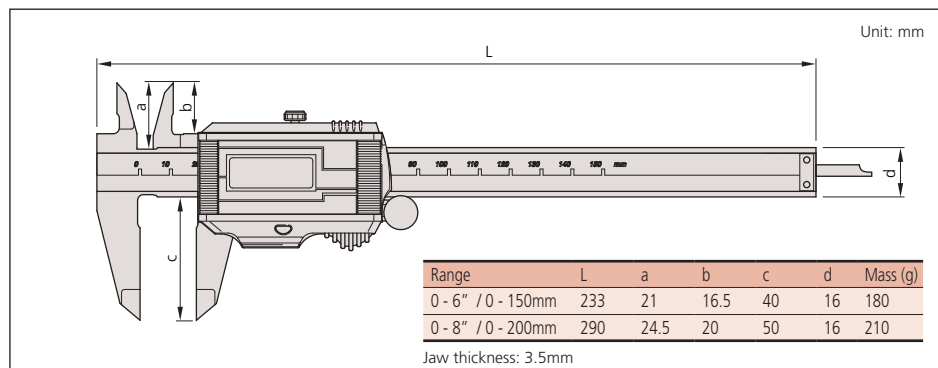
Metric			
Range	Order No.	Accuracy	Resolution
0 - 150mm	<b>500-776</b>	±0.02mm	0.01mm
0 - 150mm	<b>500-774*</b>	±0.02mm	0.01mm
0 - 200mm	<b>500-777</b>	±0.02mm	0.01mm
0 - 200mm	<b>500-775*</b>	±0.02mm	0.01mm

\*Without SPC data output

Inch/Metric			
Range	Order No.	Accuracy	Resolution
0 - 6" / 0 - 150mm	<b>500-786</b>	±.001"	.0005" / 0.01mm
0 - 6" / 0 - 150mm	<b>500-784*</b>	±.001"	.0005" / 0.01mm
0 - 8" / 0 - 200mm	<b>500-787</b>	±.001"	.0005" / 0.01mm
0 - 8" / 0 - 200mm	<b>500-785*</b>	±.001"	.0005" / 0.01mm

\*Without SPC data output

## 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 electromagnetic induction linear encoder  
 Max. response speed: Unlimited  
 Battery: Solar battery\*  
 Dust/Water protection level: IP67  
 \*Can be used continuously above 60 lux ambient illumination.

## Function

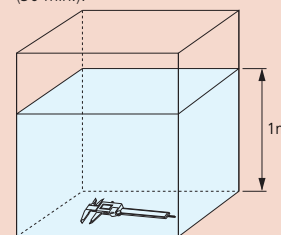
Origin-set, inch/mm conversion (on inch/metric models only)  
 Alarm: Counting value composition error

## Optional Accessories

**05CZA624:** SPC cable with data switch (40" / 1m)  
**05CZA625:** SPC cable with data switch (80" / 2m)

## 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.).



## About the charge function (Super Caliper)

The minimum illumination required in the uncharged state is 60 lux. As shown in the table 'JIS Z 9110 Artificial Illumination Intensity Standard', this Super Caliper can be used without problems in a normal work environment.

The charge function allows the operator to use this Super Caliper without interrupting work even if the ambient illumination is temporarily insufficient.

- In the fully charged state this Super Caliper can operate for approximately an hour in an environment of 50lux illumination (less than the minimum necessary illumination intensity).
- The time necessary for full charge differs, depending on the charging conditions. If this Super Caliper is left unused in an illumination of 500 lux (usual for manufacturing environments), it takes approximately one hour to reach full charge.

# ABSOLUTE Solar Caliper

**SERIES 500 — No battery or origin reset needed**

Mitutoyo's Absolute Solar Digimatic Caliper retains its origin point even the display turns off for the entire life of the caliper. At 60 Lux and up the ABSOLUTE solar caliper is turned on ready to start measurement.

## FEATURES

- No more repeated zero setting caused by low light intensity.
- Hard-coated solar panel for increased durability.
- No fear for overspeed errors.
- With thumb roller.
- Supplied in fitted plastic case.



## 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: Solar battery\*  
 \*Can be used continuously above 60 lux ambient illumination.

## Function

Origin-set, Data hold, Data output, inch/mm conversion (on inch/metric models only)  
 Alarm: Counting value composition error

## Optional Accessories

**959143:** Data hold unit (SPC output model only)  
**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>500-443</b>	±0.02mm	0.01mm	ø1.9mm round depth bar
0 - 100mm	<b>500-453*</b>	±0.02mm	0.01mm	ø1.9mm round depth bar
0 - 150mm	<b>500-444</b>	±0.02mm	0.01mm	
0 - 150mm	<b>500-454*</b>	±0.02mm	0.01mm	
0 - 200mm	<b>500-445</b>	±0.02mm	0.01mm	
0 - 200mm	<b>500-455*</b>	±0.02mm	0.01mm	

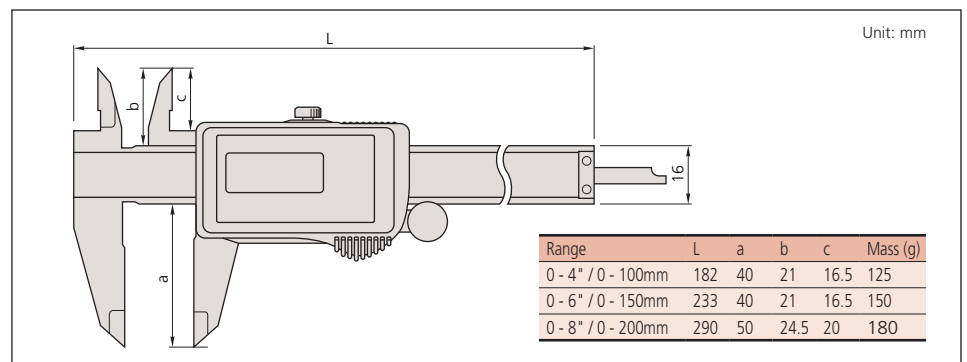
\*without SPC data output

### Inch/Metric

Range	Order No.	Accuracy	Resolution	Remarks
0 - 4" / 0 - 100mm	<b>500-463</b>	±.001"	.0005" / 0.01mm	.075" round depth bar
0 - 4" / 0 - 100mm	<b>500-473*</b>	±.001"	.0005" / 0.01mm	.075" round depth bar
0 - 6" / 0 - 150mm	<b>500-464</b>	±.001"	.0005" / 0.01mm	
0 - 6" / 0 - 150mm	<b>500-474*</b>	±.001"	.0005" / 0.01mm	
0 - 8" / 0 - 200mm	<b>500-465</b>	±.001"	.0005" / 0.01mm	
0 - 8" / 0 - 200mm	<b>500-475*</b>	±.001"	.0005" / 0.01mm	

\*without SPC data output

## DIMENSIONS AND MASS

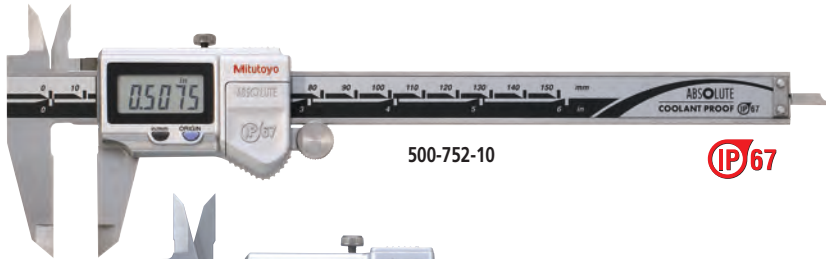


# ABSOLUTE Coolant Proof Caliper

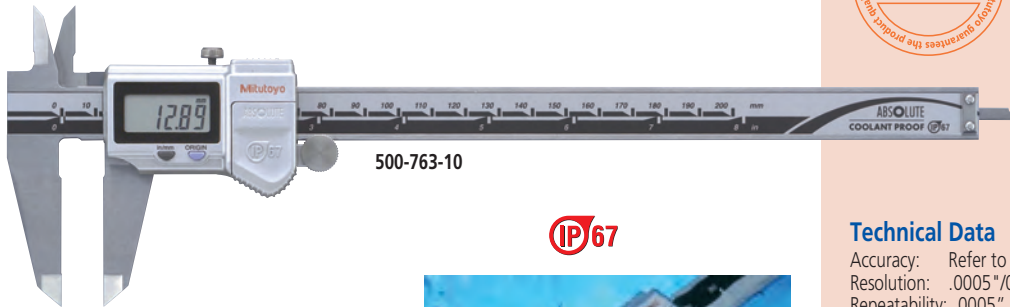
**SERIES 500 — with Dust/Water Protection Conforming to IP67 Level**

## 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.
- With thumb roller.
- Supplied in fitted plastic case.



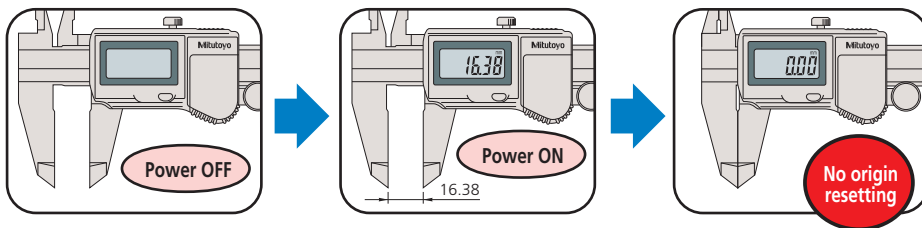
500-752-10



500-763-10



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/Resultats		(GR/F)
Product name/Designation	Digital Caliper/à lecture Électronique	Measuring length	150mm	
Model No./Model	CD-150Q	Resolution	0.005mm	
Code No./Reference	500-752	Repeatability	±0.002mm	
Serial No./No. de série	03419911	Accuracy	±0.002mm	
Measuring range/Échelle de mesure	0-150mm	Temperature	20°C	
Minimum Indication Résolution	0.01mm	Standard Temperature	20°C	
Temperature de Référence	20°C	OC Manager/Responsable Qualité Contrôle		
Inspection standard: Mitutoyo standard		Overall Judgment: Passed / Passé Conformité: conforme		
Based on: JIS B 7500 / ISO 9001:2008				
Traces: Mitutoyo / JCSA No.0000181ST / 18.12.10/0000403				
IP78 / 18.12.10 / 0000181ST / 03				



## 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 linear encoder
- Max. response speed: Unlimited
- Battery: SR44 (1 pc./2 pcs\*), 938882
- Battery life: Approx. 3 years under normal use (1 year: over 12" / 300mm models)
- Dust/Water protection level: IP67
- \*0 - 300mm model

## Function

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

## Optional Accessories

- 05CZA624: SPC cable with data switch (40" / 1m)
- 05CZA625: SPC cable with data switch (80" / 2m)



05CZA624

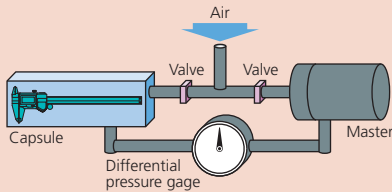


Measurement data output function is available with a water-resistant SPC cable.



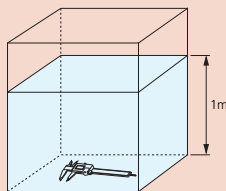
## Air leakage detection system used for water-proof testing

Generally, air leakage tests are performed to evaluate water resistance. Testing begins by placing a measuring tool into the capsule. Next, air with equivalent pressure is supplied to the capsule and the master, 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 gage will continue to point to the center. However, if some air does seep into the measuring tool, it will create an air pressure difference in the amount indicated by the differential pressure gage. Thus, detection of air pressure differences is used as a criterion for judging leakage. Every single unit of the ABS Coolant Proof calipers and Coolant Proof micrometer is tested this way for air leakage to help ensure product quality.



## 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** IP67 model

Range	Order No.	Accuracy	Resolution	Remarks
0-150mm	<b>500-702-10*</b>	+/-0.02mm	0.01mm	
0-150mm	<b>500-712-10</b>	+/-0.02mm	0.01mm	
0-150mm	<b>500-719-10</b>	+/-0.02mm	0.01mm	dia. 1.9mm rod depth bar
0-150mm	<b>500-721-10</b>	+/-0.02mm	0.01mm	carbide-tipped jaws for ID measurement
0-150mm	<b>500-723-10</b>	+/-0.02mm	0.01mm	carbide-tipped jaws for OD & ID measurement
0-200mm	<b>500-703-10*</b>	+/-0.02mm	0.01mm	
0-200mm	<b>500-713-10</b>	+/-0.02mm	0.01mm	
0-200mm	<b>500-722-10</b>	+/-0.02mm	0.01mm	carbide-tipped jaws for ID measurement
0-200mm	<b>500-724-10</b>	+/-0.02mm	0.01mm	carbide-tipped jaws for OD & ID measurement
0-300mm	<b>500-704-10*</b>	+/-0.03mm	0.01mm	
0-300mm	<b>500-714-10</b>	+/-0.03mm	0.01mm	

\*without SPC data output

**Inch/Metric** IP67 model

Range	Order No.	Accuracy	Resolution	Remarks
0-6" / 0-150mm	<b>500-752-10*</b>	+/- .001"	.0005" / 0.01mm	
0-6" / 0-150mm	<b>500-762-10</b>	+/- .001"	.0005" / 0.01mm	
0-6" / 0-150mm	<b>500-768-10*</b>	+/- .001"	.0005" / 0.01mm	.075" rod depth bar
0-6" / 0-150mm	<b>500-769-10</b>	+/- .001"	.0005" / 0.01mm	.075" rod depth bar
0-6" / 0-150mm	<b>500-731-10*</b>	+/- .001"	.0005" / 0.01mm	carbide-tipped jaws for ID measurement
0-6" / 0-150mm	<b>500-735-10</b>	+/- .001"	.0005" / 0.01mm	carbide-tipped jaws for ID measurement
0-6" / 0-150mm	<b>500-733-10*</b>	+/- .001"	.0005" / 0.01mm	carbide-tipped jaws for OD & ID measurement
0-6" / 0-150mm	<b>500-737-10</b>	+/- .001"	.0005" / 0.01mm	carbide-tipped jaws for OD & ID measurement
0-8" / 0-200mm	<b>500-753-10*</b>	+/- .001"	.0005" / 0.01mm	
0-8" / 0-200mm	<b>500-763-10</b>	+/- .001"	.0005" / 0.01mm	
0-8" / 0-200mm	<b>500-732-10*</b>	+/- .001"	.0005" / 0.01mm	carbide-tipped jaws for OD measurement
0-8" / 0-200mm	<b>500-736-10</b>	+/- .001"	.0005" / 0.01mm	carbide-tipped jaws for ID measurement
0-8" / 0-200mm	<b>500-734-10*</b>	+/- .001"	.0005" / 0.01mm	carbide-tipped jaws for OD & ID measurement
0-8" / 0-200mm	<b>500-738-10</b>	+/- .001"	.0005" / 0.01mm	carbide-tipped jaws for OD & ID measurement
0-12" / 0-300mm	<b>500-754-10*</b>	+/- .0015"	.0005" / 0.01mm	
0-12" / 0-300mm	<b>500-764-10</b>	+/- .0015"	.0005" / 0.01mm	

\*without SPC data output

## DIMENSIONS AND MASS

Unit: mm

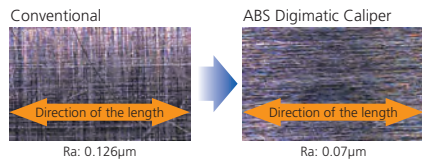
Range	L	a	b	c	e	Mass (g)
0 - 6" / 0 - 150mm	233	40	21	16.5	16	168
0 - 8" / 0 - 200mm	290	50	24.5	20	16	198
0 - 12" / 0 - 300mm	404	64	27.5	22	20	350

# ABSOLUTE Digimatic Caliper

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

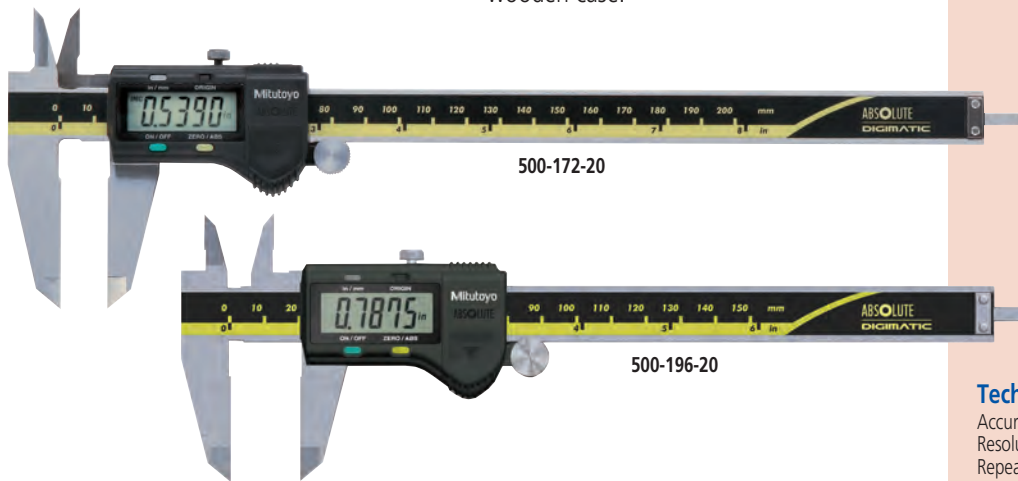
Mitutoyo's absolute Digimatic Caliper is the next generation of electronic calipers. It keeps track of its origin point once set. Whenever turned on, the large LCD screen displays the actual slider position ready to start measurement. No more repeated zero setting is necessary with the absolute encoder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



## 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

## 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

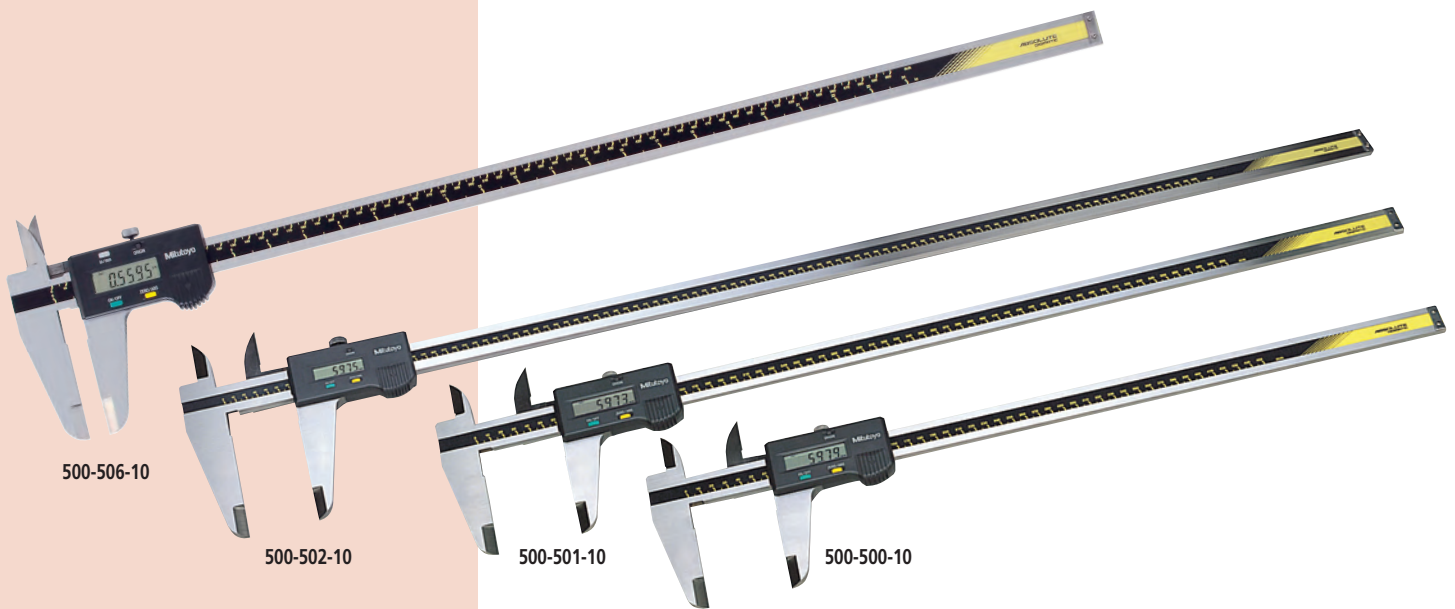
## Function

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)





500-506-10

500-502-10

500-501-10

500-500-10

## SPECIFICATIONS

### Metric

Range	Order No.	Accuracy	Resolution	Remarks
0 - 100mm	<b>500-150-20</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

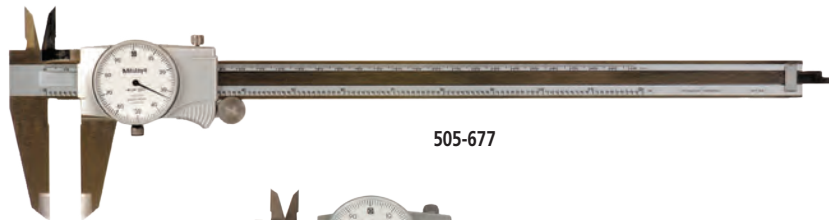
\*without SPC data output

# Dial Caliper

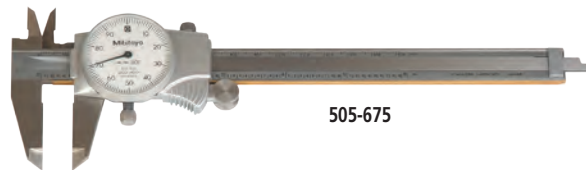
## SERIES 505

### FEATURES

- New designed dial movement for ultra smooth sliding and high shock protection.
- Titanium Nitride (TiN) coating is applied to the sliding surface to increase wear resistance (except for 0 - 12" and 0 - 300mm model).
- Lock screw for dial bezel and for holding the sliding jaw position.
- Can measure OD, ID, depth, and steps.
- Models available with carbide-tipped OD and ID jaws.
- Supplied in fitted plastic case.



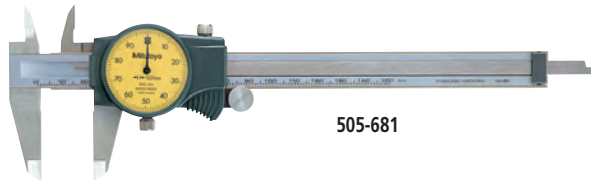
505-677



505-675



505-673



505-681

### SPECIFICATIONS

**Metric** 1mm Per One Revolution

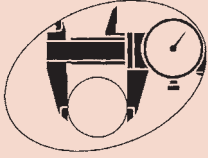
Range	Order No.	Accuracy	Graduation	Remarks
0-100mm	505-680	+/-0.015mm	0.01mm	—
0-150mm	505-681	+/-0.03mm	0.01mm	—
0-200mm	505-682	+/-0.03mm	0.01mm	—

**Metric** 2mm Per One Revolution

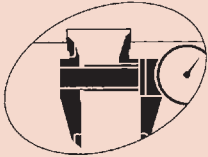
Range	Order No.	Accuracy	Graduation	Remarks
0-150mm	505-671	+/-0.03mm	0.02mm	—
0-150mm	505-707	+/-0.03mm	0.02mm	Carbide-tipped jaws for OD measurement
0-150mm	505-711	+/-0.03mm	0.02mm	Carbide-tipped jaws for OD & ID measurement
0-200mm	505-672	+/-0.03mm	0.02mm	—
0-300mm	505-673	+/-0.04mm	0.02mm	—



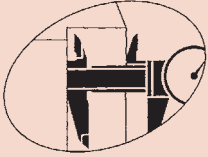
## "Quadri" (4-way) Measurement



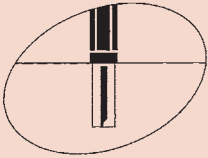
1. Outside measurement



2. Inside measurement



3. Step measurement



4. Depth measurement

### Results of 1,000,000 cycle sliding wear test

TiN coating



Wear: 0 $\mu$ m

Conventional



Wear: 4 $\mu$ m

## SPECIFICATIONS

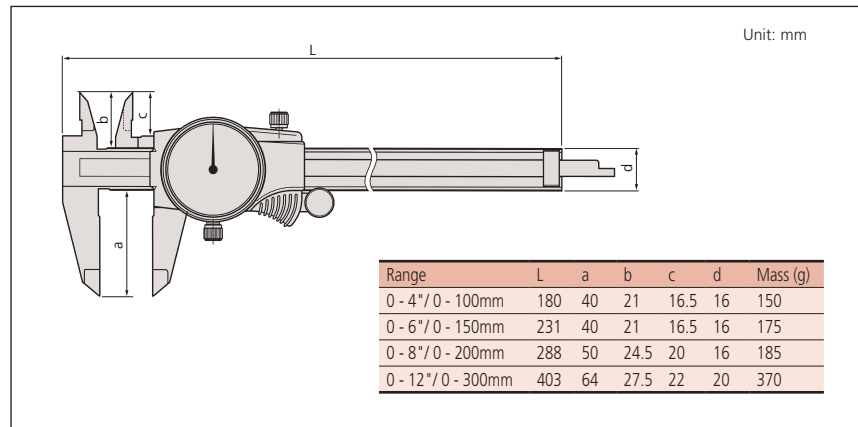
**Inch**  $\frac{1}{16}$ " Per One Revolution

Range	Order No.	Accuracy	Graduation	Remarks
0-4"	505-674	+/- .001"	.001"	-
0-6"	505-675	+/- .001"	.001"	-
0-6"	505-675-51	+/- .001"	.001"	Blue Dial Face
0-6"	505-675-52	+/- .001"	.001"	Purple Dial Face
0-6"	505-675-53	+/- .001"	.001"	Green Dial Face
0-6"	505-675-54	+/- .001"	.001"	Red Dial Face
0-6"	505-675-55	+/- .001"	.001"	Orange Dial Face
0-6"	505-675-56	+/- .001"	.001"	Black Dial Face
0-6"	505-675-66	+/- .001"	.001"	Black Dial Face with Ratchet Stop
0-6"	505-689	+/- .001"	.001"	Extra smooth movement
0-6"	505-708	+/- .001"	.001"	Carbide-tipped jaws for OD measurement
0-6"	505-712	+/- .001"	.001"	Carbide-tipped jaws for OD & ID measurement
0-8"	505-676	+/- .002"	.001"	-
0-8"	505-690	+/- .002"	.001"	Extra smooth movement
0-8"	505-709	+/- .002"	.001"	Carbide-tipped jaws for OD measurement
0-8"	505-713	+/- .002"	.001"	Carbide-tipped jaws for OD & ID measurement
0-12"	505-677	+/- .002"	.001"	—
0-12"	505-710	+/- .002"	.001"	Carbide-tipped jaws for OD measurement
0-12"	505-714	+/- .002"	.001"	Carbide-tipped jaws for OD & ID

**Inch**  $\frac{1}{32}$ " Per One Revolution

Range	Order No.	Accuracy	Graduation	Remarks
0-4"	505-716	+/- .001"	.001"	—
0-6"	505-717	+/- .001"	.001"	—
0-6"	505-718	+/- .001"	.001"	Carbide-tipped jaws for OD measurement
0-8"	505-719	+/- .002"	.001"	—
0-12"	505-720	+/- .002"	.001"	—
0-12"	505-721	+/- .002"	.001"	Carbide-tipped jaws for OD measurement

## DIMENSIONS AND MASS

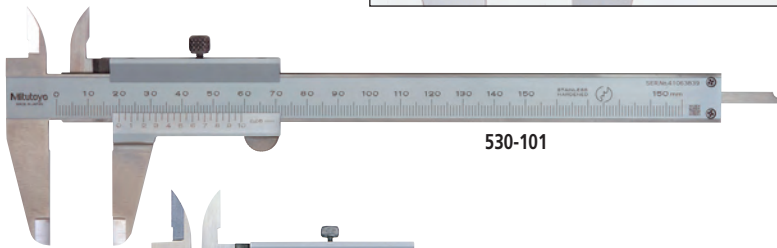
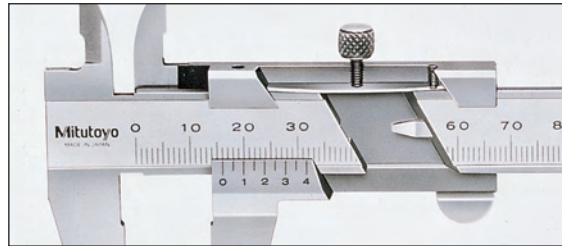
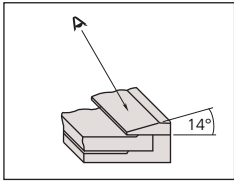


# Vernier Caliper

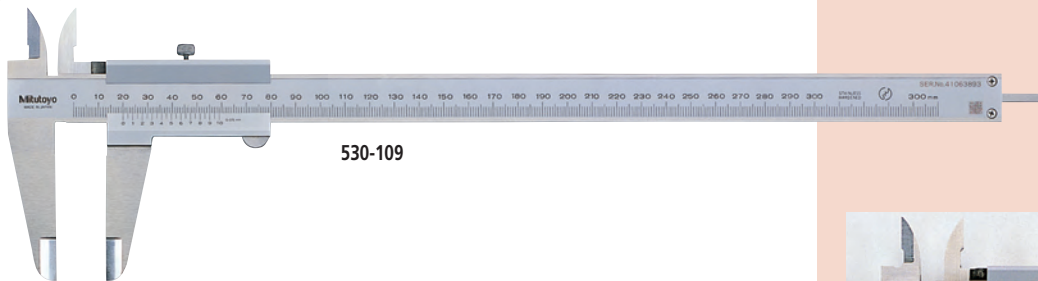
## SERIES 530 — Standard Model

### FEATURES

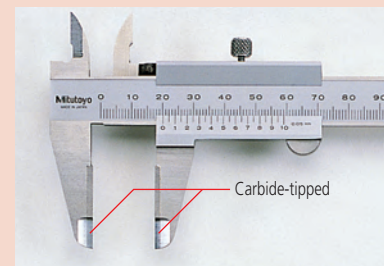
- Can measure OD (outside diameter), ID (inside diameter), depth, and steps.
- The small vernier face angle ( $14^\circ$ ) provides easy reading.
- Dual reading scales on vernier. (metric/inch and inch models only)
- Lock screw for holding the sliding jaw position.
- Carbide-tipped jaw type calipers are also available.
- Supplied with vinyl holster in fitted carton. Except 24" / 600mm models are carton only. 40" / 1000mm supplied in wooden case.



530-101

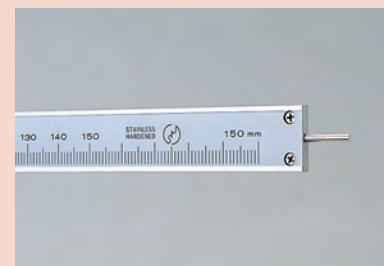
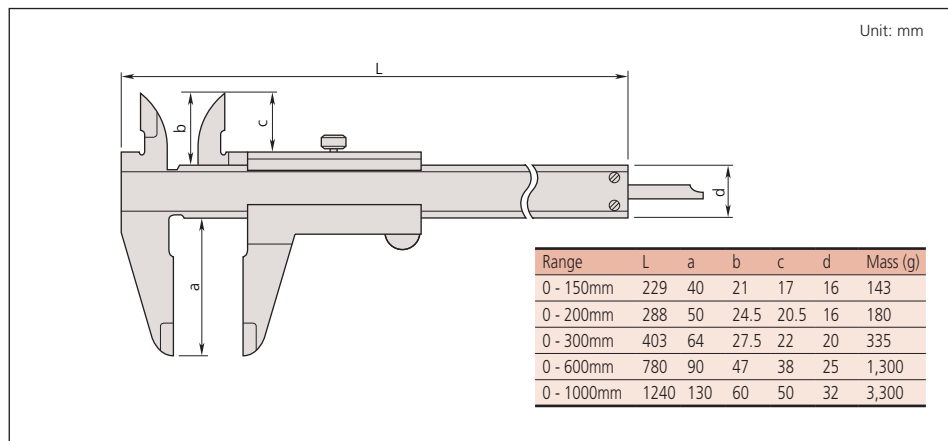


530-109



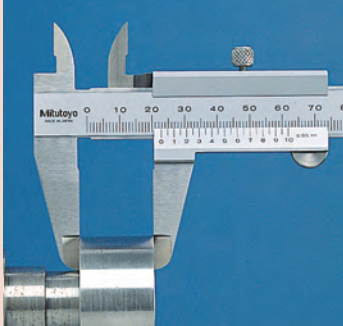
Carbide-tipped jaw type

### DIMENSIONS AND MASS

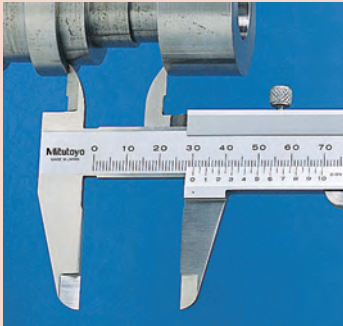


Round depth bar type

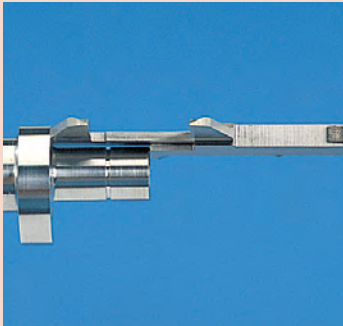
## "Quadri" (4 way) Measurement Measurement Applications



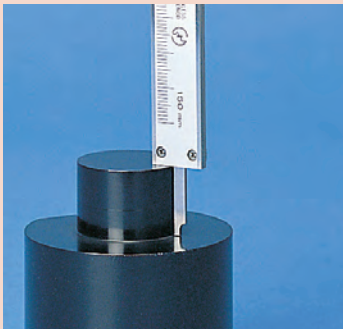
OD measurement



ID measurement



Step measurement



Depth measurement

## SPECIFICATIONS

### Metric

Range	Order No.	Accuracy	Graduation	Remarks
0 - 150mm	<b>530-102</b>	±0.05mm	0.05mm	∅ 1.9mm Depth bar
0 - 150mm	<b>530-101</b>	±0.05mm	0.05mm	—
0 - 150mm	<b>530-320</b>	±0.05mm	0.05mm	Carbide-tipped jaws for OD measurement
0 - 150mm	<b>530-335</b>	±0.05mm	0.05mm	Carbide-tipped jaws for OD & ID measurement
0 - 150mm	<b>530-122*</b>	±0.03mm	0.02mm	High accuracy model
0 - 200mm	<b>530-108</b>	±0.05mm	0.05mm	—
0 - 200mm	<b>530-321</b>	±0.05mm	0.05mm	Carbide-tipped jaws for OD measurement
0 - 200mm	<b>530-123*</b>	±0.03mm	0.02mm	High accuracy model
0 - 300mm	<b>530-109</b>	±0.08mm	0.05mm	—
0 - 300mm	<b>530-322</b>	±0.08mm	0.05mm	Carbide-tipped jaws for OD measurement
0 - 300mm	<b>530-124*</b>	±0.04mm	0.02mm	High accuracy model: ±0.04mm
0 - 600mm	<b>530-501**</b>	±0.1mm	0.05mm	—
0 - 1000mm	<b>530-502**</b>	±0.15mm	0.05mm	—

\*Graduation: 0.02mm

\*\*No depth measuring bar

### Metric/Inch with metric/inch dual scale

Range	Order No.	Accuracy	Vernier Graduation		Remarks
			Lower Scale	Upper Scale	
0 - 150mm / 0 - 6"	<b>530-104</b>	±0.05mm	0.05mm	1/128"	—
0 - 150mm / 0 - 6"	<b>530-316</b>	±0.05mm	0.05mm	1/128"	—
0 - 150mm / 0 - 6"	<b>530-312*</b>	±0.03mm	0.02mm	.001"	High accuracy model
0 - 200mm / 0 - 8"	<b>530-114</b>	±0.05mm	0.05mm	1/128"	—
0 - 200mm / 0 - 8"	<b>530-118*</b>	±0.03mm	0.02mm	.001"	High accuracy model
0 - 300mm / 0 - 12"	<b>530-115</b>	±0.08mm	0.05mm	1/128"	—
0 - 300mm / 0 - 12"	<b>530-119*</b>	±0.04mm	0.02mm	.001"	High accuracy model

\*Graduation: 0.02mm

### Inch with inch/inch dual scale

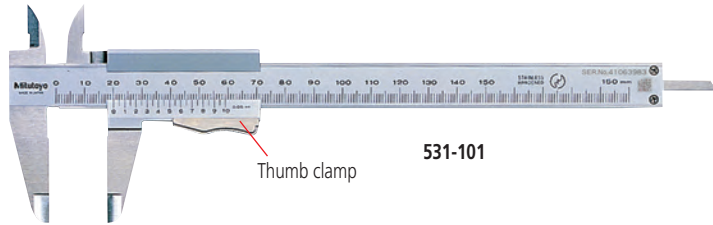
Range	Order No.	Accuracy	Vernier Graduation		Remarks
			Lower Scale	Upper Scale	
0 - 6"	<b>530-105</b>	±.0015"	.001"	1/128"	—
0 - 8"	<b>530-116</b>	±.0015"	.001"	1/128"	—

# Vernier Caliper

## SERIES 531 — with Thumb Clamp

### FEATURES

- The slider moves only when the spring loaded thumb clamp is depressed.
- Can measure OD, ID, depth, and steps
- Supplied with vinyl holster in fitted carton.



531-101

Thumb clamp

### SPECIFICATIONS

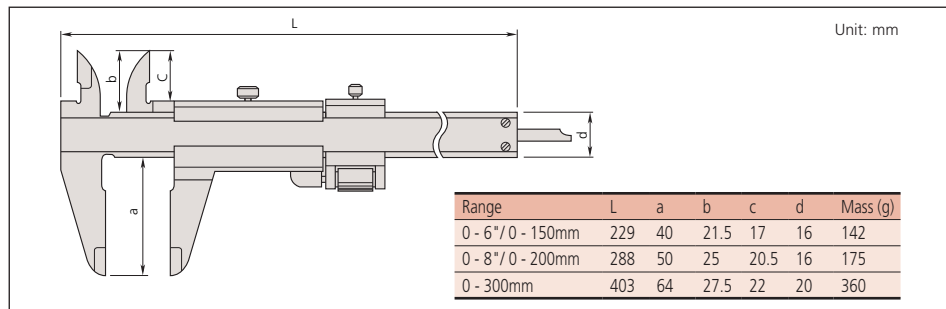
#### Metric

Range	Order No.	Accuracy	Graduation	Remarks
0 - 150mm	531-101	±0.05mm	0.05mm	—
0 - 200mm	531-102	±0.05mm	0.05mm	—
0 - 300mm	531-103	±0.08mm	0.05mm	—

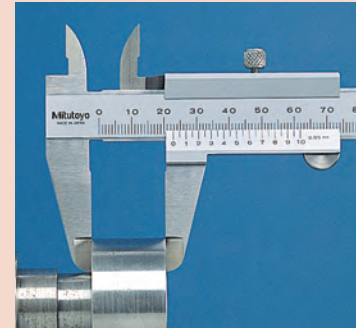
#### Metric/Inch with metric/inch dual scale

Range	Order No.	Accuracy	Graduation		Remarks
			Lower Scale	Upper Scale	
0 - 150mm / 0 - 6"	531-122	±0.05mm	0.05mm	1/128"	with inch/mm conversion label
0 - 150mm / 0 - 6"	531-128	±0.03mm	0.02mm	.001"	High accuracy model
0 - 200mm / 0 - 8"	531-108	±0.05mm	0.05mm	1/128"	—
0 - 200mm / 0 - 8"	531-129	±0.03mm	0.02mm	.001"	High accuracy model
0 - 300mm / 0 - 12"	531-109	±0.08mm	0.05mm	1/128"	—
0 - 300mm / 0 - 12"	531-112	±0.04mm	0.02mm	.001"	High accuracy model

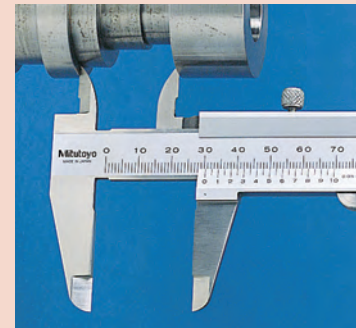
### DIMENSIONS AND MASS



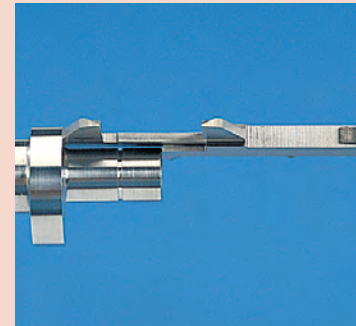
### "Quadri" (4 way) Measurement Applications



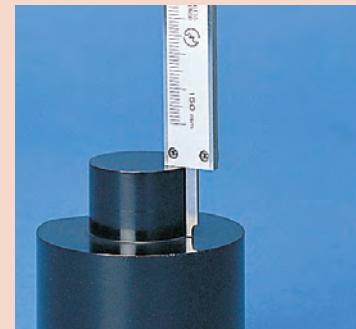
OD measurement



ID measurement



Step measurement



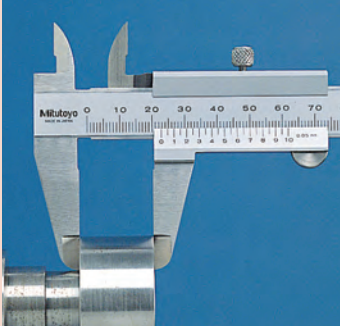
Depth measurement



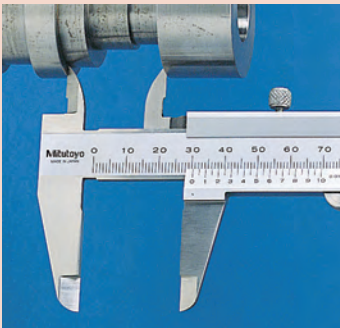
# Vernier Caliper

**SERIES 532 — with Fine Adjustment**

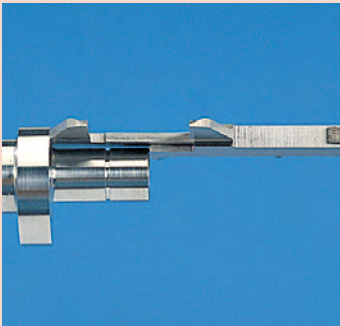
## “Quadri” (4 way) Measurement Measurement Applications



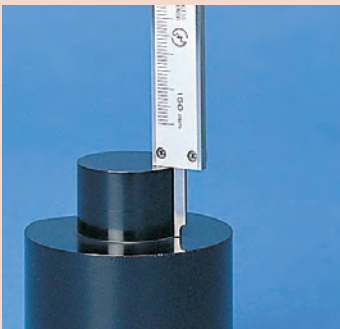
OD measurement



ID measurement



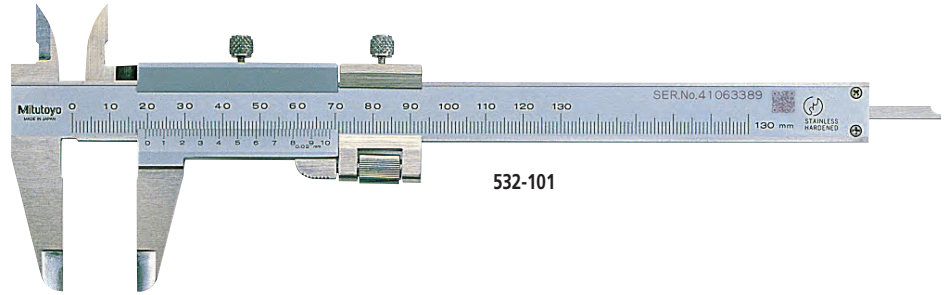
Step measurement



Depth measurement

## FEATURES

- Provided with a fine-adjustment carriage to feed the slider finely.
- Can measure OD, ID, depth, and steps.
- Supplied with vinyl holster in fitted carton.



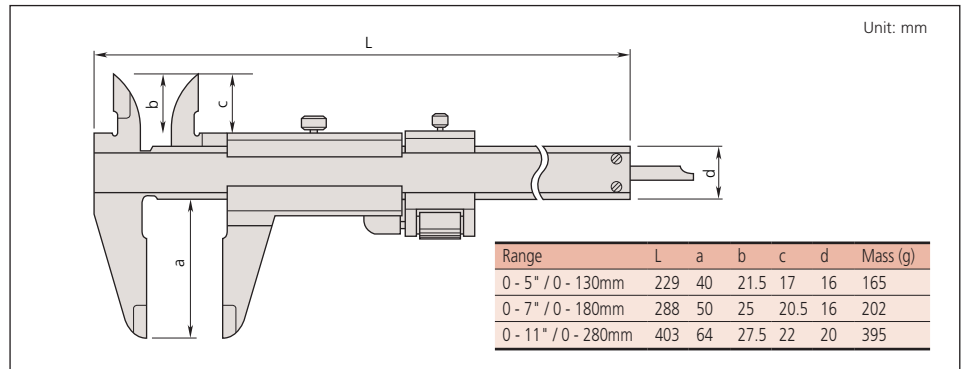
532-101

## SPECIFICATIONS

Metric			
Range	Order No.	Accuracy	Graduation
0 - 130mm	<b>532-101</b>	±0.03mm	0.02mm
0 - 180mm	<b>532-102</b>	±0.03mm	0.02mm
0 - 280mm	<b>532-103</b>	±0.04mm	0.02mm

Metric/Inch with metric/inch dual scale				
Range	Order No.	Accuracy	Graduation	
			Lower Scale	Upper Scale
0 - 130mm / 0 - 5"	<b>532-119</b>	±0.03mm	0.02mm	.001"
0 - 180mm / 0 - 7"	<b>532-120</b>	±0.03mm	0.02mm	.001"
0 - 280mm / 0 - 11"	<b>532-121</b>	±0.04mm	0.02mm	.001"

## DIMENSIONS AND MASS



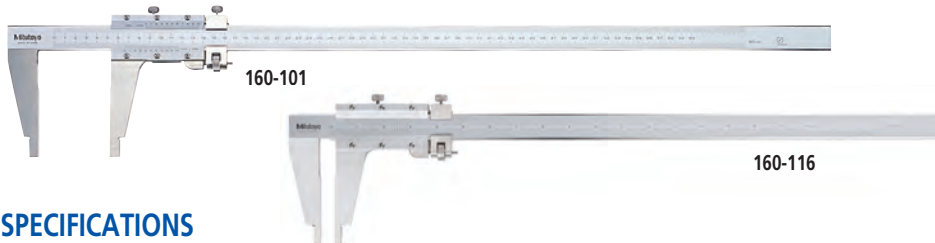
Unit: mm

# Vernier Caliper

## SERIES 160 — with Nib Style Jaws and Fine Adjustment

### FEATURES

- The jaws have round measuring faces for accurate ID measurement.
- With fine adjustment carriage to feed the slider finely.
- Inside and outside measurements can be directly read from the upper and lower slider graduations, respectively.
- Supplied with vinyl holster in fitted carton. Except 12" / 300mm, 18" / 450mm and 24" / 600mm are fitted carton only. Over 24" / 600mm supplied in wooden case.



### SPECIFICATIONS

**Metric** with metric/metric dual scale

Range*	Order No.	Accuracy	Graduation		Mass (g)
			Lower Scale	Upper Scale	
0 (10) - 300mm	<b>160-127</b>	±0.04mm	0.02mm	0.02mm	450
0 (20) - 450mm	<b>160-128</b>	±0.05mm	0.02mm	0.02mm	1,200
0 (20) - 600mm	<b>160-101</b>	±0.05mm	0.02mm	0.02mm	2,600
0 (20) - 1000mm	<b>160-104</b>	±0.07mm	0.02mm	0.02mm	3,500
0 (20) - 1500mm	<b>160-110</b>	±0.09mm	0.02mm	0.02mm	4,850
0 (20) - 2000mm	<b>160-113</b>	±0.12mm	0.02mm	0.02mm	10,200

\*( ): Minimum dimension in ID measurement

**Metric/Inch** with metric/inch dual scale

Range*	Order No.	Accuracy	Graduation		Mass (g)
			Lower Scale	Upper Scale	
0 (10) - 300mm / 0 (.3") - 12"	<b>160-150</b>	±0.04mm	0.02mm	.001"	450
0 (20) - 450mm / 0 (.5") - 18"	<b>160-151</b>	±0.05mm	0.02mm	.001"	1,200
0 (20) - 600mm / 0 (.5") - 24"	<b>160-153</b>	±0.05mm	0.02mm	.001"	1,400
0 (20) - 1000mm / 0 (1") - 40"	<b>160-155</b>	±0.07mm	0.02mm	.001"	3,500
0 (20) - 1500mm / 0 (1") - 60"	<b>160-157</b>	±0.09mm	0.02mm	.001"	4,850
0 (20) - 2000mm / 0 (1") - 80"	<b>160-159</b>	±0.12mm	0.02mm	.001"	10,200

\*( ): Minimum dimension in ID measurement

**Inch** with inch/inch dual scale

Range*	Order No.	Accuracy	Graduation		Mass (g)
			Lower Scale	Upper Scale	
0 (.3") - 12"	<b>160-124</b>	±.0015"	.001"	.001"	450
0 (.5") - 18"	<b>160-116</b>	±.002"	.001"	.001"	1,200
0 (.5") - 24"	<b>160-102</b>	±.002"	.001"	.001"	1,400
0 (1") - 40"	<b>160-105</b>	±.003"	.001"	.001"	3,500
0 (1") - 60"	<b>160-111</b>	±.004"	.001"	.001"	4,850
0 (1") - 80"	<b>160-114</b>	±.005"	.001"	.001"	10,200

\*( ): Minimum dimension in ID measurement

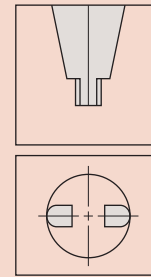
**Inch/Metric** with inch/metric dual scale

Range*	Order No.	Accuracy	Graduation		Mass (g)
			Lower Scale	Upper Scale	
0 (.3") - 12" / 0 (10) - 300mm	<b>160-125</b>	±.0015"	.001"	0.02mm	450
0 (.5") - 18" / 0 (20) - 450mm	<b>160-119</b>	±.002"	.001"	0.02mm	1,200
0 (.5") - 24" / 0 (20) - 600mm	<b>160-103</b>	±.002"	.001"	0.02mm	1,400
0 (1") - 40" / 0 (20) - 1000mm	<b>160-106</b>	±.003"	.001"	0.02mm	3,500
0 (1") - 60" / 0 (20) - 1500mm	<b>160-112</b>	±.004"	.001"	0.02mm	4,850
0 (1") - 80" / 0 (20) - 2000mm	<b>160-115</b>	±.005"	.001"	0.02mm	10,200

\*( ): Minimum dimension in ID measurement

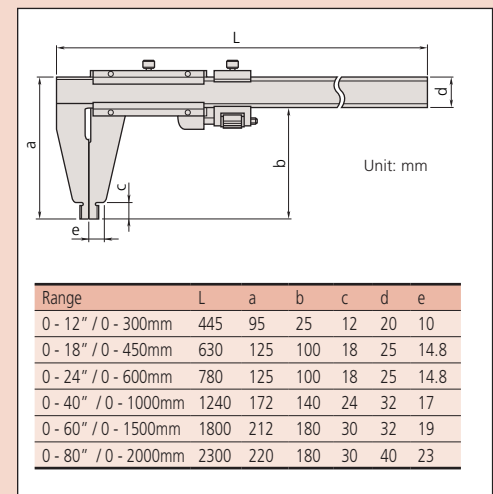
### Technical Data

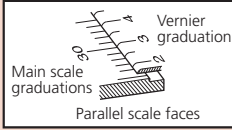
Accuracy: Refer to the list of specifications.  
Graduation: Refer to the list of specifications.



Round surface of jaws for accurate ID measurement

### DIMENSIONS





### Technical Data

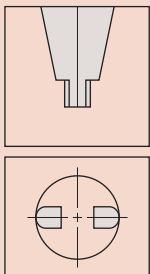
Accuracy: Refer to the list of specifications.  
 Display\*: LCD  
 Length standard\*: ABSOLUTE electrostatic capacitance type linear encoder  
 Max. response speed\*: Unlimited  
 Battery\*: SR44 (1 pc.), 938882  
 Battery life\*: Approx. 3.5 years under normal use  
 \*Digital models \*\*Analog models

### Function of Digital Model

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

### Optional Accessories for Digital Model

- 959143: Data hold unit
- 959149: SPC cable with data switch (40" / 1m)
- 959150: SPC cable with data switch (80" / 2m)
- 05CZA624: SPC cable with data switch (40" / 1m) for IP67 model
- 05CZA625: SPC cable with data switch (80" / 2m) for IP67 model



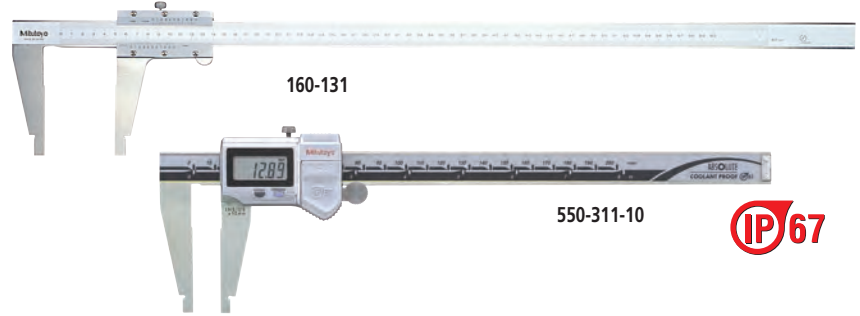
Round surface of jaws for accurate ID measurement

# ABSOLUTE Digimatic & Vernier Caliper

## SERIES 550, 160 — with Nib Style Jaws

### FEATURES

- The rounded faces of the jaws are ideal for accurate ID (inside diameter) measurement.
- Inside and outside measurements can be directly read from the upper and lower slider graduations (Series 160).
- With fine-adjustment carriage type is available (Series 160).
- Parallax-free vernier scale type is available for easy and positive measurement (Series 160).
- With SPC output (Series 550).
- Supplied in fitted plastic case. Except 40"/1000mm supplied in wooden case.



### SPECIFICATIONS

#### Metric Digital model

Range*	Order No.	Accuracy	Resolution	Mass (g)	Remarks
0 (10) - 200mm	550-301-10	±0.03mm	0.01mm	180	IP67
0 (10) - 300mm	550-331-10	±0.03mm	0.01mm	380	w/ offset/preset function for easy ID measurement, IP67
0 (20) - 450mm	550-203-10	±0.05mm	0.01mm	1,110	
0 (20) - 600mm	550-205-10	±0.05mm	0.01mm	1,290	
0 (20) - 1000mm	550-207-10	±0.07mm	0.01mm	3,350	

\*( ): Minimum dimension in ID measurement

#### Inch/Metric Digital model

Range*	Order No.	Accuracy	Resolution	Mass (g)	Remarks
0 (.4") - 8" / 0 (10) - 200mm	550-311-10	±.001"	.0005" / 0.01mm	180	IP67
0 (.4") - 12" / 0 (10) - 300mm	550-341-10	±.0015"	.0005" / 0.01mm	380	w/ offset/preset function for easy ID measurement, IP67
0 (.5") - 18" / 0 (20) - 450mm	550-223-10	±.002"	.0005" / 0.01mm	1,110	—
0 (.5") - 24" / 0 (20) - 600mm	550-225-10	±.002"	.0005" / 0.01mm	1,290	—
0 (1") - 40" / 0 (20) - 1000mm	550-227-10	±.003"	.0005" / 0.01mm	3,350	—

\*( ): Minimum dimension in ID measurement

#### Metric with metric/metric dual scale

Range*	Order No.	Accuracy	Graduation	Mass (g)	Remarks
0 (20) - 450mm	160-130	±0.10mm	0.02mm	1,100	—
0 (20) - 600mm	160-131	±0.10mm	0.02mm	1,300	—
0 (20) - 1000mm	160-132	±0.15mm	0.02mm	3,350	—
0 (20) - 1500mm	160-133	±0.22mm	0.05mm	4,850	
0 (20) - 2000mm	160-134	±0.28mm	0.05mm	10,000	

\*( ): Minimum dimension in ID measurement

### DIMENSIONS

Range	L	a	b	d
0 - 8" / 0 - 200mm	288 (290)	60	8	16
0 - 12" / 0 - 300mm	445	75	12	20
0 - 18" / 0 - 450mm	632	100	18	25
0 - 24" / 0 - 600mm	780	100	18	25
0 - 40" / 0 - 1000mm	1240	140	24	32

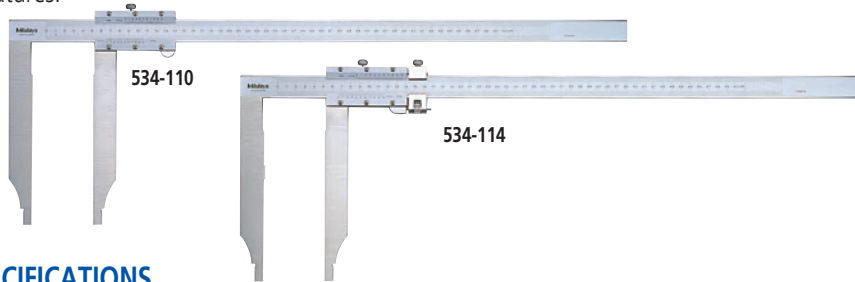
Unit: mm  
 ( ): Digital models

# Long Jaw Vernier Caliper

## SERIES 534

### FEATURES

- Long jaws for measuring hard-to-reach features.
- Supplied in fitted wooden case.



### SPECIFICATIONS

**Metric** with metric/metric dual scale without fine adjustment

Range*	Order No.	Accuracy	Graduation		Mass (g)
			Lower Scale	Upper Scale	
0 (10) - 300mm	<b>534-109</b>	±0.07mm	0.05mm	0.05mm	400
0 (20) - 500mm	<b>534-110</b>	±0.13mm	0.05mm	0.05mm	1,400

\*( ): Minimum dimension in ID measurement

**Metric** with metric/metric dual scale

Range*	Order No.	Accuracy	Graduation		Mass (g)
			Lower Scale	Upper Scale	
0 (10) - 300mm	<b>534-113</b>	±0.04mm	0.02mm	0.02mm	460
0 (20) - 500mm	<b>534-114</b>	±0.06mm	0.02mm	0.02mm	1,500
0 (20) - 750mm	<b>534-115</b>	±0.08mm	0.02mm	0.02mm	2,900
0 (20) - 1000mm	<b>534-116</b>	±0.10mm	0.02mm	0.02mm	3,500

\*( ): Minimum dimension in ID measurement

**Metric/Inch** with metric/inch dual scale

Range*	Order No.	Accuracy	Graduation		Mass (g)
			Lower Scale	Upper Scale	
0 (10) - 300mm / 0 (.3") - 12"	<b>534-101</b>	±0.07mm	0.05mm	1/128"	460
0 (10) - 300mm / 0 (.3") - 12"	<b>534-105</b>	±0.04mm	0.02mm	.001"	460
0 (20) - 500mm / 0 (.8") - 20"	<b>534-102</b>	±0.13mm	0.05mm	1/128"	1,500
0 (20) - 500mm / 0 (.8") - 20"	<b>534-106</b>	±0.06mm	0.02mm	.001"	1,500
0 (20) - 700mm / 0 (.8") - 30"	<b>534-103</b>	±0.16mm	0.05mm	1/128"	2,900
0 (20) - 700mm / 0 (.8") - 30"	<b>534-107</b>	±0.08mm	0.02mm	.001"	2,900
0 (20) - 1000mm / 0 (.8") - 40"	<b>534-104</b>	±0.20mm	0.05mm	1/128"	3,500
0 (20) - 1000mm / 0 (.8") - 40"	<b>534-108</b>	±0.10mm	0.02mm	.001"	3,500

\*( ): Minimum dimension in ID measurement

**Inch** with inch/inch dual scale

Range*	Order No.	Accuracy	Graduation		Mass (g)
			Lower Scale	Upper Scale	
0 (.3") - 12"	<b>534-117</b>	±.002"	.001"	.001"	400
0 (.8") - 20"	<b>534-118</b>	±.003"	.001"	.001"	1500
0 (.8") - 30"	<b>534-119</b>	±.004"	.001"	.001"	2900
0 (.8") - 40"	<b>534-120</b>	±.004"	.001"	.001"	3500

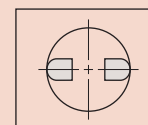
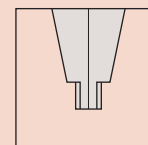
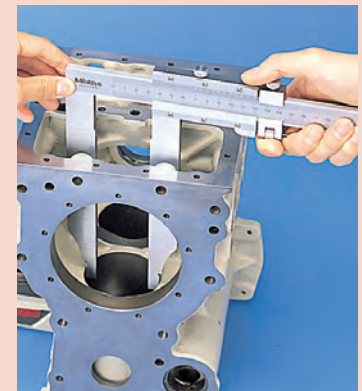
\*( ): Minimum dimension in ID measurement

### DIMENSIONS

Range	L	a	b	c	d	e
0 - 12" / 0 - 300mm	445	110	90	12	20	7
0 - 20" / 0 - 500mm	682	225	200	18.5	25	12
0 - 30" / 0 - 750mm	995	232	200	18.5	32	12
0 - 40" / 0 - 1000mm	1230	232	200	18.5	32	12

### Technical Data

Accuracy: Refer to the list of specifications.  
 Graduation: Refer to the list of specifications.



Round surface of jaws for accurate CD measurement





### Technical Data

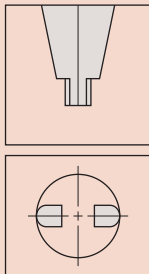
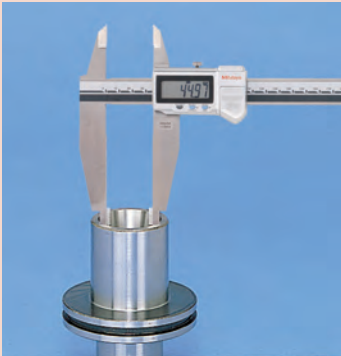
Accuracy: Refer to the list of specifications.  
 Resolution: 0.01mm or .0005"/0.01mm  
 Display: LCD  
 Length standard: ABSOLUTE electrostatic capacitance type linear encoder  
 Max. response speed: Unlimited  
 Battery: SR44 (1 pc.), **938882**  
 Battery life: Approx. 3.5 years under normal use

### Function of Digital Model

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

### Optional Accessories for Digital Model

**05CZA624**: SPC cable with data switch (1m / 40")  
**05CZA625**: SPC cable with data switch (2m / 80")



Round surface of jaws for accurate ID measurement

# ABSOLUTE Digimatic Caliper

**SERIES 551 — with Nib Style and Standard Jaws**

### FEATURES

- The rounded faces of the jaws are ideal for accurate ID (inside diameter) measurement.
- With SPC output.
- Supplied in fitted plastic holster in carton. 18" / 450mm and larger supplied wooden case.



### SPECIFICATIONS

**Metric** Digital model

Range*	Order No.	Accuracy	Resolution	Mass (g)	Remarks
0 (10) - 200mm	<b>551-301-10</b>	±0.03mm	0.01mm	180	IP67
0 (10) - 300mm	<b>551-331-10</b>	±0.04mm	0.01mm	380	with offset/preset function for easy ID measurement, IP67
0 (20) - 500mm	<b>551-204-10</b>	±0.06mm	0.01mm	1,060	—
0 (20) - 750mm	<b>551-206-10</b>	±0.06mm	0.01mm	1,410	—
0 (20) - 1000mm	<b>551-207-10</b>	±0.07mm	0.01mm	3,430	—

\*( ): Minimum dimension in ID measurement

**Inch/Metric** Digital model

Range*	Order No.	Accuracy	Resolution	Mass (g)	Remarks
0 (.4") - 8" / 0 (10) - 200mm	<b>551-311-10</b>	±.001"	.0005" / 0.01mm	180	IP67
0 (.4") - 12" / 0 (10) - 300mm	<b>551-341-10</b>	±.002"	.0005" / 0.01mm	380	w/ offset/preset function for easy ID measurement, IP67
0 (.5") - 20" / 0 (20) - 500mm	<b>551-224-10</b>	±.0025"	.0005" / 0.01mm	1,060	—
0 (.5") - 30" / 0 (20) - 750mm	<b>551-226-10</b>	±.0025"	.0005" / 0.01mm	1,410	—
0 (1") - 40" / 0 (20) - 1000mm	<b>551-227-10</b>	±.003"	.0005" / 0.01mm	3,430	—

\*( ): Minimum dimension in ID measurement

### DIMENSIONS

Series 551 Unit: mm

Range	a	b	c	d	R
0 - 8" / 0 - 200mm	60	43	8	30	5
0 - 12" / 0 - 300mm	90	68	10	40.1	5
0 - 20" / 0 - 500mm	150	115	15	56	10
0 - 30" / 0 - 750mm	150	115	15	56	10
0 - 40" / 0 - 1000mm	150	115	20	56	10

# Digimatic Carbon Fiber Caliper

**SERIES 552 — with optional jaw attachments**

**ABSOLUTE®**  
Absolute System Patented by MTUTOYO

## FEATURES

- Lightweight Digimatic Calipers that employ CFRP (Carbon Fiber Reinforced Plastics) in the beam and jaws.
- Highly durable and easy to handle.
- The range of applications can be expanded by using the optional attachments.
- Direct readout of ID measurements from the LCD. (Offset value can be set easily by pressing the Offset key.)
- Preset function for setting a desired starting point.
- With SPC data output.
- Special model available with ceramic jaws which are suitable for measuring abrasive and magnetic products.
- Supplied in fitted wooden case.

**SPC**

**IP66**

## Technical Data

Accuracy: Refer to the list of specifications.  
Resolution: .0005"/0.01mm or 0.01mm  
Display: LCD  
Length standard: Electrostatic capacitance type linear encoder  
Max. response speed: 1600mm/s  
Battery: SR44 (1 pc.), **938882**  
Battery life: Approx. 3,000 hours in continuous use



## SPECIFICATIONS

### Metric

Range*	Order No.	Accuracy	Resolution	Remarks
0(20)-450mm	<b>552-302-10</b>	+/-0.04mm	0.01mm	
0(20)-450mm	<b>552-150-10</b>	+/-0.06mm	0.01mm	long jaws 200mm
0(20)-450mm	<b>552-155-10</b>	+/-0.04mm	0.01mm	ceramic jaws
0(20)-600mm	<b>552-303-10</b>	+/-0.04mm	0.01mm	
0(20)-600mm	<b>552-151-10</b>	+/-0.06mm	0.01mm	long jaws 200mm
0(20)-600mm	<b>552-156-10</b>	+/-0.04mm	0.01mm	ceramic jaws
0(20)-1000mm	<b>552-304-10</b>	+/-0.05mm	0.01mm	
0(20)-1000mm	<b>552-152-10</b>	+/-0.07mm	0.01mm	long jaws 200mm
0(20)-1500mm	<b>552-305-10</b>	+/-0.09mm	0.01mm	
0(20)-1500mm	<b>552-153-10</b>	+/-0.11mm	0.01mm	long jaws 200mm
0(20)-2000mm	<b>552-306-10</b>	+/-0.12mm	0.01mm	
0(20)-2000mm	<b>552-154-10</b>	+/-0.14mm	0.01mm	long jaws 200mm

\*( ): Minimum dimension in ID measurement

### Inch/Metric

Range*	Order No.	Accuracy	Resolution	Remarks
0(.5")-18"	<b>552-312-10</b>	+/- .002"	.0005"/0.01mm	
0(.5")-18"	<b>552-160-10</b>	+/- .0025"	.0005"/0.01mm	long jaws 7.9"
0(.5")-18"	<b>552-165-10</b>	+/- .002"	.0005"/0.01mm	ceramic jaws
0(.5")-24"	<b>552-313-10</b>	+/- .002"	.0005"/0.01mm	
0(.5")-24"	<b>552-161-10</b>	+/- .0025"	.0005"/0.01mm	long jaws 7.9"
0(.5")-24"	<b>552-166-10</b>	+/- .002"	.0005"/0.01mm	ceramic jaws
0(1")-40"	<b>552-314-10</b>	+/- .002"	.0005"/0.01mm	
0(1")-40"	<b>552-162-10</b>	+/- .003"	.0005"/0.01mm	long jaws 7.9"
0(1")-60"	<b>552-315-10</b>	+/- .004"	.0005"/0.01mm	
0(1")-60"	<b>552-163-10</b>	+/- .0045"	.0005"/0.01mm	long jaws 7.9"
0(1")-80"	<b>552-316-10</b>	+/- .005"	.0005"/0.01mm	
0(1")-80"	<b>552-164-10</b>	+/- .0055"	.0005"/0.01mm	long jaws 7.9"

\*( ): Minimum dimension in ID measurement

## Function

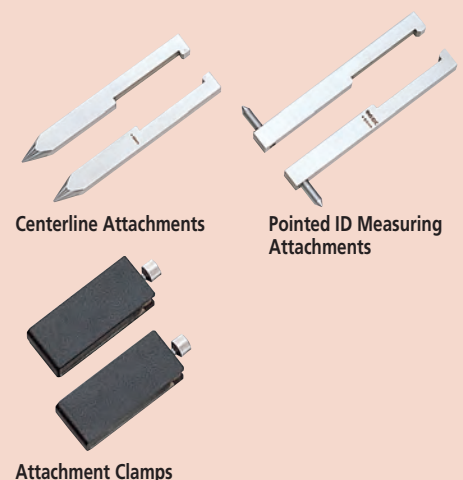
Origin-set, Zero-setting, Presetting, Offsetting, Data hold, Data output, inch/mm conversion (on inch/metric models only)  
Alarm: Low voltage, Counting value composition error

## Optional Accessories

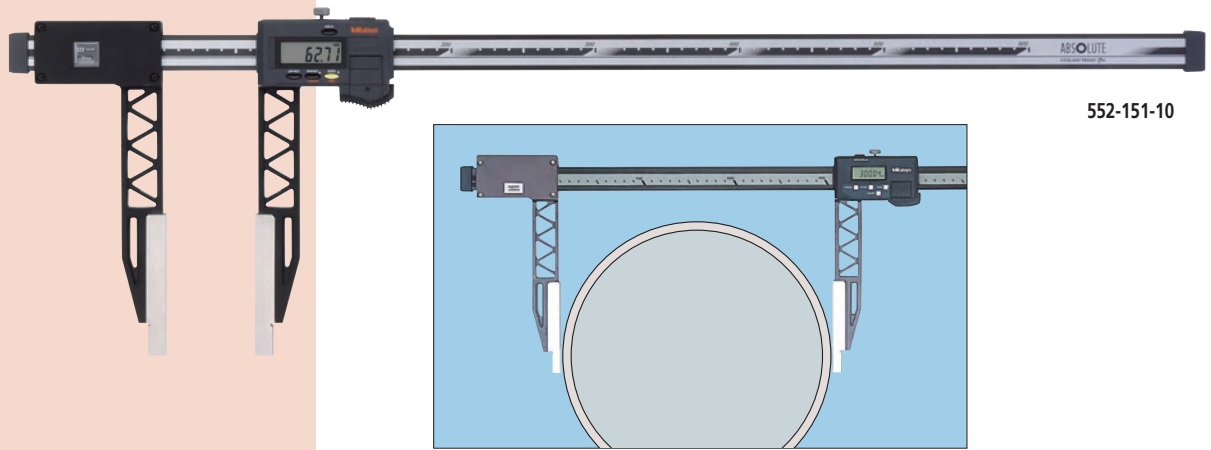
**05CZA624:** SPC cable with data switch (40"/1m)  
**05CZA625:** SPC cable with data switch (80"/2m)

- 914055:** Centerline attachments (mm)\*
- 914056:** Centerline attachments (inch)\*
- 914057:** Pointed ID measuring attachments (mm)\*
- 914058:** Pointed ID measuring attachments (inch)\*
- 914053:** Attachment clamps (for models up to 24" / 600mm range)
- 914054:** Attachment clamps (for models over 24" / 600mm range)

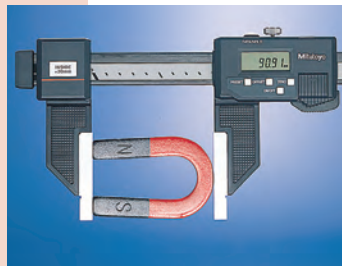
\* Attachment clamps are required and not available for long jaw type.



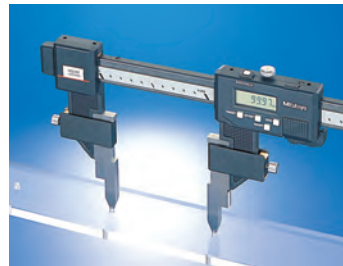
Attachment Clamps



552-151-10



Ceramic jaws



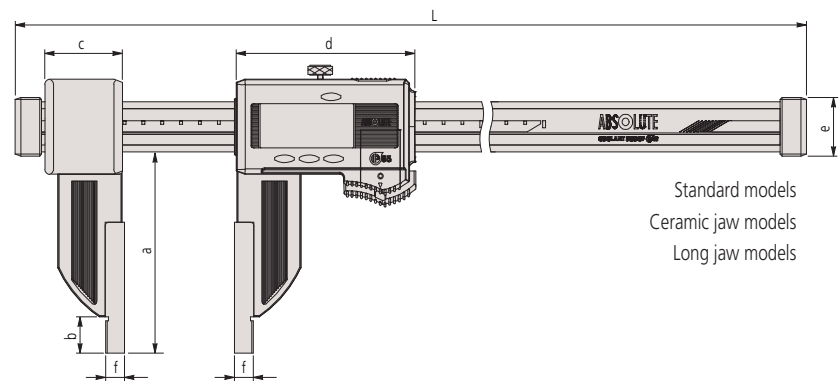
Centerline attachments



ID point attachments

## DIMENSIONS AND MASS

Unit: mm



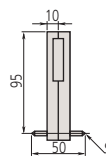
Standard models  
Ceramic jaw models  
Long jaw models

Standard models, Ceramic jaw models

Range	L	a	b	c	d	e	f	Mass (g)
0 - 18" / 0 - 450mm	640	100	18	41.2	91.8	25	10 (.25")	715
0 - 24" / 0 - 600mm	790	100	18	41.2	91.8	25	10 (.25")	790
0 - 40" / 0 - 1000mm	1230	150	24	62.8	113.8	32	10 (.5")	1,760
0 - 60" / 0 - 1500mm	1740	150	24	62.8	113.8	32	10 (.5")	2,160
0 - 80" / 0 - 2000mm	2250	150	24	62.8	113.8	32	10 (.5")	2,560

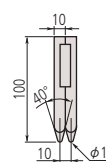
( ) : inch/mm models

Pointed ID Measuring Attachments



Unit: mm

Centerline Attachments



Long jaw models

Range	L	a	b	c	d	e	f	Mass (g)
0 - 18" / 0 - 450mm	680	200	24	89	91.8	25	10 (.25")	1,215
0 - 24" / 0 - 600mm	830	200	24	89	91.8	25	10 (.25")	1,290
0 - 40" / 0 - 1000mm	1280	200	24	110	113.8	32	10 (.5")	2,090
0 - 60" / 0 - 1500mm	1790	200	24	110	113.8	32	10 (.5")	2,490
0 - 80" / 0 - 2000mm	2300	200	24	110	113.8	32	10 (.5")	2,890

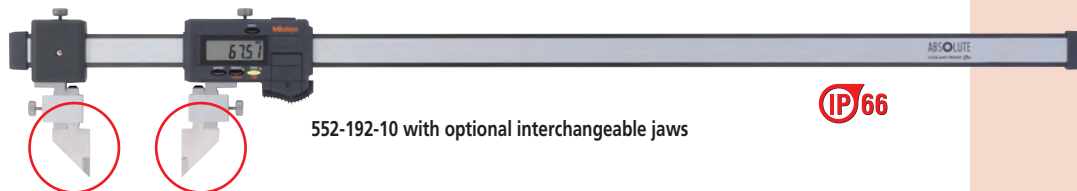
( ) : inch/mm models

# ABSOLUTE Coolant Proof Carbon Fiber Caliper

## SERIES 552 — with Interchangeable Jaws

### FEATURES

- The range of applications can be expanded by using interchangeable jaws (optional).
- Quick and easy exchanging of jaws due to the unique clamping mechanism. (A pair of clamping wheels is a standard accessory.)
- Provided with preset function for setting a desired starting point, which allows direct readout of offset measurements.
- SPC data output.



552-192-10 with optional interchangeable jaws



### SPECIFICATIONS

Inch/Metric

Range	Order No.	Accuracy	Mass(g)
0 - 18" / 0 - 450mm	552-191-10	±.002"	650
0 - 24" / 0 - 600mm	552-192-10	±.002"	725
0 - 40" / 0 - 1000mm	552-193-10	±.002"	1480
0 - 60" / 0 - 1500mm	552-194-10	±.004"	1880
0 - 80" / 0 - 2000mm	552-195-10	±.005"	2280

### Interchangeable Jaws (Optional)

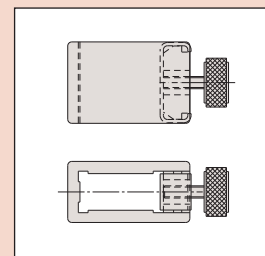
Standard type	Inside point type	Standard Type												
		<table border="1"> <thead> <tr> <th>Order No.</th> <th>Components</th> <th>a</th> <th>b</th> </tr> </thead> <tbody> <tr> <td>07CZA056</td> <td>Right (07CAA044), Left (07CAA045)</td> <td>28mm (1.1")</td> <td>30mm (1.2")</td> </tr> </tbody> </table>	Order No.	Components	a	b	07CZA056	Right (07CAA044), Left (07CAA045)	28mm (1.1")	30mm (1.2")				
Order No.	Components	a	b											
07CZA056	Right (07CAA044), Left (07CAA045)	28mm (1.1")	30mm (1.2")											
		<table border="1"> <thead> <tr> <th>Order No.</th> <th>Components</th> <th>a</th> <th>b</th> </tr> </thead> <tbody> <tr> <td>07CZA058</td> <td>07CZA041 x 2pcs.</td> <td>25mm</td> <td>50mm</td> </tr> <tr> <td>07CZA059</td> <td>07CZA048 x 2pcs.</td> <td>1"</td> <td>2"</td> </tr> </tbody> </table>	Order No.	Components	a	b	07CZA058	07CZA041 x 2pcs.	25mm	50mm	07CZA059	07CZA048 x 2pcs.	1"	2"
Order No.	Components	a	b											
07CZA058	07CZA041 x 2pcs.	25mm	50mm											
07CZA059	07CZA048 x 2pcs.	1"	2"											
		<table border="1"> <thead> <tr> <th>Order No.</th> <th>Components</th> <th>a</th> <th>b</th> </tr> </thead> <tbody> <tr> <td>07CZA055</td> <td>Right (07CZA042), Left (07CZA043)</td> <td>8mm</td> <td>30mm</td> </tr> <tr> <td>07CZA061</td> <td>Right (07CZA042), Left (07CZA049)</td> <td>031"</td> <td>1.2"</td> </tr> </tbody> </table>	Order No.	Components	a	b	07CZA055	Right (07CZA042), Left (07CZA043)	8mm	30mm	07CZA061	Right (07CZA042), Left (07CZA049)	031"	1.2"
Order No.	Components	a	b											
07CZA055	Right (07CZA042), Left (07CZA043)	8mm	30mm											
07CZA061	Right (07CZA042), Left (07CZA049)	031"	1.2"											
		<table border="1"> <thead> <tr> <th>Order No.</th> <th>a</th> <th>b</th> </tr> </thead> <tbody> <tr> <td>07CZA044</td> <td>3.5" / 90mm</td> <td>1.1" / 28mm</td> </tr> </tbody> </table>	Order No.	a	b	07CZA044	3.5" / 90mm	1.1" / 28mm						
Order No.	a	b												
07CZA044	3.5" / 90mm	1.1" / 28mm												
		<table border="1"> <thead> <tr> <th>Order No.</th> <th>Components</th> <th>a</th> <th>b</th> </tr> </thead> <tbody> <tr> <td>07CZA057</td> <td>07CZA039 x 2pcs.</td> <td>30mm</td> <td>30mm</td> </tr> <tr> <td>07CZA060</td> <td>07CZA047 x 2pcs.</td> <td>1.2"</td> <td>1.2"</td> </tr> </tbody> </table>	Order No.	Components	a	b	07CZA057	07CZA039 x 2pcs.	30mm	30mm	07CZA060	07CZA047 x 2pcs.	1.2"	1.2"
Order No.	Components	a	b											
07CZA057	07CZA039 x 2pcs.	30mm	30mm											
07CZA060	07CZA047 x 2pcs.	1.2"	1.2"											

Unit: mm



### Technical Data

Accuracy: Refer to the list of specifications.  
 Resolution: .0005"/0.01mm  
 Display: LCD  
 Scale type: ABSOLUTE electromagnetic linear encoder  
 Max. response speed: Unlimited  
 Battery: SR44 (1 pc.), 938882  
 Battery life: Approx. 5,000 hours in continuous use  
 Dust/Water protection level: IP66  
 Standard accessory: Jaw clamps (2 pcs.), 05GZA033



### Functions

Origin-set, Zero-setting, Presetting, Offsetting, Data hold,  
 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 (40" / 1m)
- 05CZA625: SPC cable with data switch (80" / 2m)
- 02AZD790A: SPC cable for U-WAVE w/ data switch (160mm)







**ABSOLUTE**<sup>®</sup>

Absolute System Patented by MITUTOYO

# ABSOLUTE Back-Jaw Centerline Caliper

**SERIES 573 — Center-to-Center & Edge-to-Center Types**

## FEATURES

- Specially designed to measure the distance between two centers or the distance from an edge to center.
- Provided with jaws on the back of the slider, measurements can be read easily by looking down.
- Direct reading of pitch measurements is available due to the offset value setting function.
- With SPC data output.
- Supplied fitted in wooden case.

## Technical Data

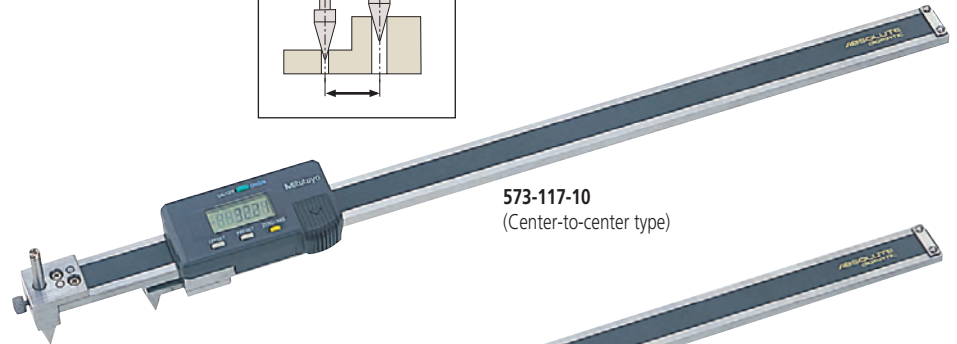
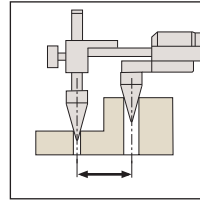
Accuracy: Refer to the list of specifications.  
 Resolution: 0.01mm  
 Display: LCD  
 Length standard\*: ABSOLUTE electrostatic capacitance type linear encoder  
 Max. response speed: Unlimited  
 Battery: SR44 (1 pc.), **938882**  
 Battery life: Approx. 3.5 years under normal use

## Function

Origin-set, Zero-setting, Power On/Off, Data output, inch/mm conversion (on inch/metric models only)  
 Alarm: Low voltage, Counting value composition error

## Optional Accessories

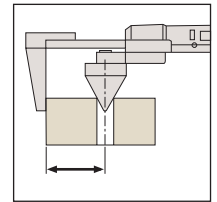
- 959143:** Data hold unit  
**959149:** SPC cable with data switch (1m)  
**959150:** SPC cable with data switch (2m)



**573-117-10**  
(Center-to-center type)



**573-119-10**  
(Edge-to-center type)



## SPECIFICATIONS

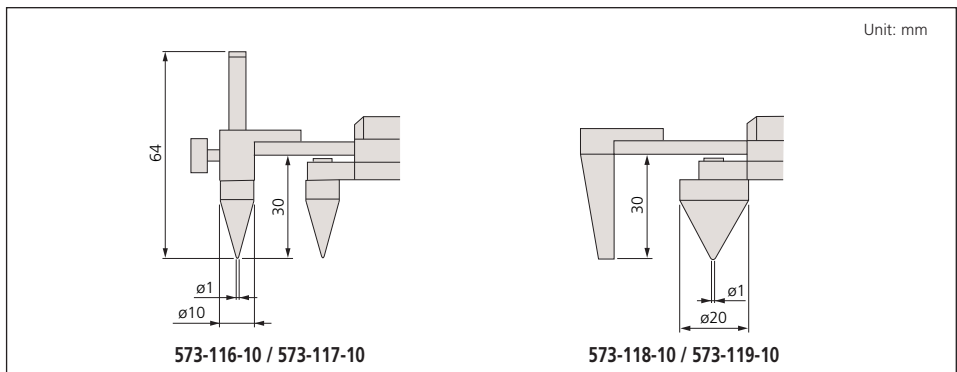
**Metric** Center-to-center distance type

Range	Order No.	Accuracy	Resolution	Mass (g)
10 - 200mm	<b>573-116-10</b>	±0.10mm	0.01mm	482
10 - 300mm	<b>573-117-10</b>	±0.15mm	0.01mm	578

**Metric** Edge-to-center distance type

Range	Order No.	Accuracy	Resolution	Mass (g)
10 - 200mm	<b>573-118-10</b>	±0.10mm	0.01mm	485
10 - 300mm	<b>573-119-10</b>	±0.15mm	0.01mm	581

## DIMENSIONS



**573-116-10 / 573-117-10**

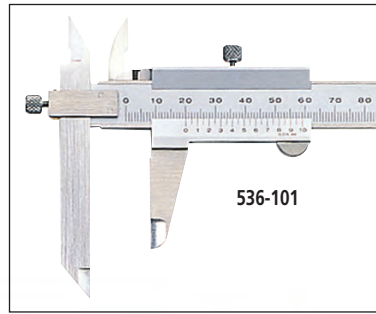
**573-118-10 / 573-119-10**

# Offset Caliper

**SERIES 573, 536 — ABSOLUTE Digimatic and Vernier Type**

## FEATURES

- Main scale jaw can slide up and down to facilitate measurement of stepped sections. (Hard-to-get-at dimensions such as A, B, C can be accurately measured.)
- With depth bar.
- With SPC data output. (Series 573)
- Supplied in fitted plastic case.



## SPECIFICATIONS

**Metric** Digital model

Range	Order No.	Accuracy	Resolution	Mass (g)
0 - 150mm	<b>573-601</b>	±0.02mm	0.01mm	168
0 - 200mm	<b>573-602</b>	±0.02mm	0.01mm	198
0 - 300mm	<b>573-604</b>	±0.03mm	0.01mm	350

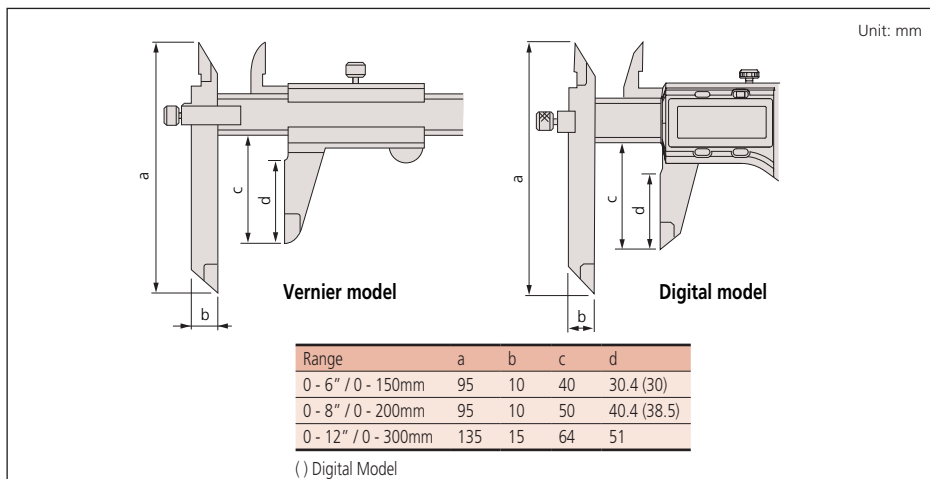
**Metric**

Range	Order No.	Accuracy	Graduation	Mass (g)
0 - 150mm	<b>536-101</b>	±0.05mm	0.05mm	150
0 - 200mm	<b>536-102</b>	±0.05mm	0.05mm	200
0 - 300mm	<b>536-103</b>	±0.08mm	0.05mm	400

**Inch/Metric** Digital model

Range	Order No.	Accuracy	Resolution	Mass (g)
0 - 6" / 0 - 150mm	<b>573-701</b>	±.001"	.0005" / 0.01mm	168
0 - 8" / 0 - 200mm	<b>573-702</b>	±.001"	.0005" / 0.01mm	198
0 - 12" / 0 - 300mm	<b>573-704</b>	±.0015"	.0005" / 0.01mm	350

## DIMENSIONS



## Technical Data

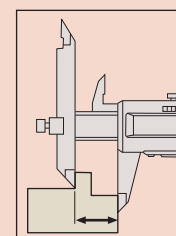
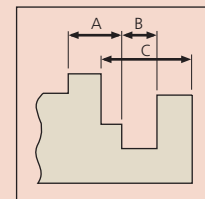
Accuracy: Refer to the list of specifications.  
 Resolution\*: .0005"/0.01mm or 0.01mm  
 Graduation\*\*: 0.05mm  
 Display\*: LCD  
 Length standard\*: ABSOLUTE electrostatic capacitance type linear encoder  
 Max. response speed\*: Unlimited  
 Battery\*: SR44 (1 pc.), **938882**  
 Battery life\*: Approx. 3.5 years under normal use  
 \*Digital models \*\*Analog models

## Function of Digital Model

Origin-set, Zero-setting, Power On/Off, Data output, inch/mm conversion (on inch/metric models only)  
 Alarm: Low voltage, Counting value composition error

## Optional Accessories for Digital Model

- 05CZA624**: SPC cable with data switch (40" / 1m)
- 05CZA625**: SPC cable with data switch (80" / 2m)





### Technical Data

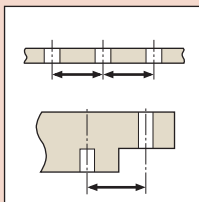
Accuracy: Refer to the list of specifications.  
 Resolution\*: .0005"/0.01mm or 0.01mm  
 Graduation\*\*: 0.05mm  
 Display\*: LCD  
 Length standard\*: ABSOLUTE electrostatic capacitance type linear encoder  
 Max. response speed\*: Unlimited  
 Battery\*: SR44 (1 pc.), 938882  
 Battery life\*: Approx. 3.5 years under normal use  
 \*Digital models \*\*Analog models

### Function of Digital Model

Origin-set, Zero-setting, Power On/Off, Data output, inch/mm conversion (on inch/metric models only)  
 Alarm: Low voltage, Counting value composition error

### Optional Accessories for Digital Model

05CZA624: SPC cable with data switch (40" / 1m)  
 05CZA625: SPC cable with data switch (80" / 2m)

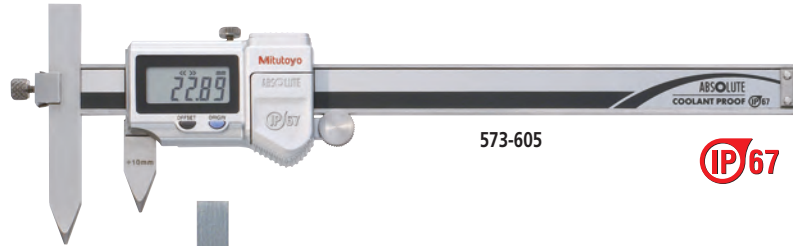


# Offset Centerline Caliper

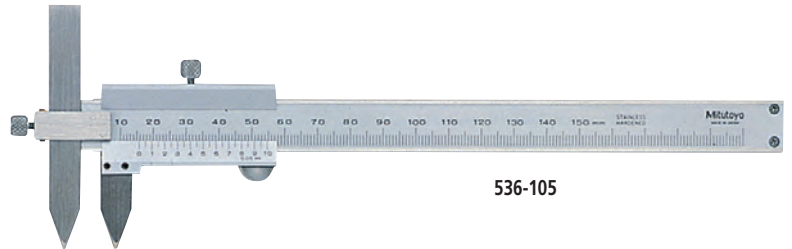
## SERIES 573, 536 — ABSOLUTE Digimatic and Vernier Type

### FEATURES

- Specially designed for center to center distance measurements on the same and offset planes.
- Can also measure from edge to center.
- Hole diameter should be in the range of 1.5mm - 10mm (.06" - .4").
- With SPC data output. (Series 573)
- Supplied in fitted plastic case.



573-605



536-105

### SPECIFICATIONS

Metric		Digital model		
Range	Order No.	Accuracy	Resolution	Mass (g)
10 - 150mm	573-605	±0.03mm	0.01mm	157
10 - 200mm	573-606	±0.03mm	0.01mm	177
10 - 300mm	573-608	±0.04mm	0.01mm	320

Inch/Metric		Digital model		
Range	Order No.	Accuracy	Resolution	Mass (g)
.4 - 6" / 10 - 150mm	573-705	±.0015"	.0005" / 0.01mm	157
.4 - 8" / 10 - 200mm	573-706	±.0015"	.0005" / 0.01mm	177
.4 - 12" / 10 - 300mm	573-708	±.0015"	.0005" / 0.01mm	320

Metric		Vernier model		
Range	Order No.	Accuracy	Graduation	Mass (g)
10 - 150mm	536-105	±0.05mm	0.05mm	140
10 - 200mm	536-106	±0.05mm	0.05mm	160
10 - 300mm	536-107	±0.08mm	0.05mm	320

### DIMENSIONS

Unit: mm

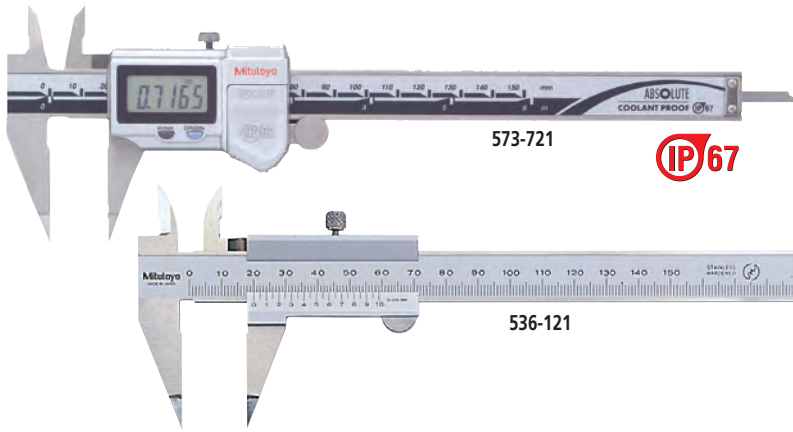
Range	a	t
0 - 6" / 0 - 150mm	75	3
0 - 8" / 0 - 200mm	75	3
0 - 12" / 0 - 300mm	100	3.8

# Point Caliper

**SERIES 573, 536 — ABSOLUTE Digimatic and Vernier Type**

## FEATURES

- Narrow tip jaws fit into very small grooves and tracks, making many previously difficult outside measurements far easier to obtain.
- With depth bar.
- With SPC data output. (Series 573)
- Supplied in fitted plastic case.



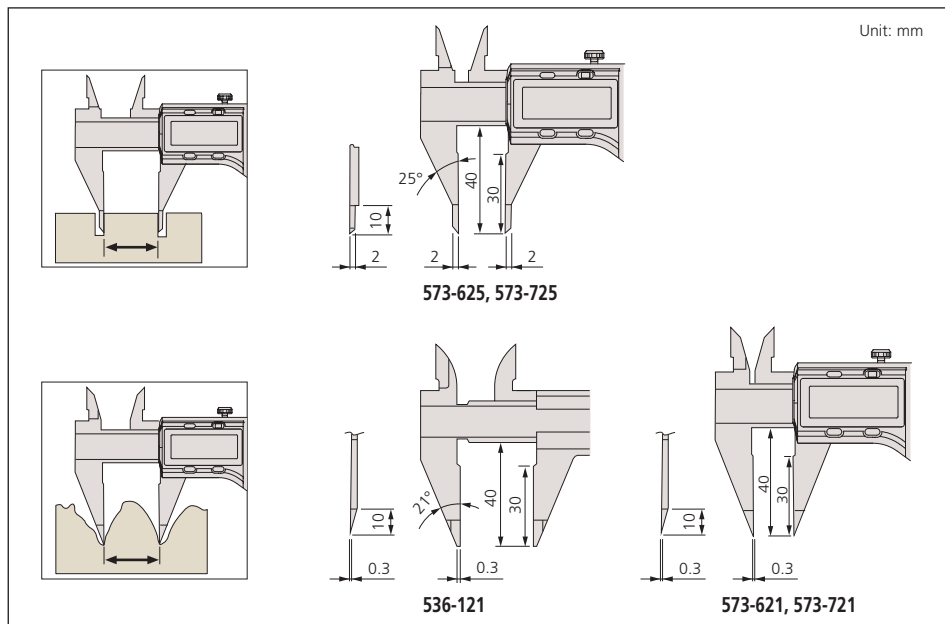
## SPECIFICATIONS

Metric		Digital model		
Range	Order No.	Accuracy	Resolution	Mass (g)
0 - 150mm	573-621	±0.02mm	0.01mm	163
0 - 150mm	573-625	±0.02mm	0.01mm	163

Inch/Metric		Digital model		
Range	Order No.	Accuracy	Resolution	Mass (g)
0 - 6" / 0 - 150mm	573-721	±.001"	.0005" / 0.01mm	163
0 - 6" / 0 - 150mm	573-725	±.001"	.0005" / 0.01mm	163

Metric		Vernier model		
Range	Order No.	Accuracy	Graduation	Mass (g)
0 - 150mm	536-121	±0.05mm	0.05mm	150

## DIMENSIONS



## Technical Data

Accuracy: Refer to the list of specifications.  
 Resolution\*: .0005"/0.01mm or 0.01mm  
 Graduation\*\*: 0.05mm  
 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  
 \*Digital models \*\*Analog models

## Function of Digital Model

Origin-set, Zero-setting, Power On/Off, Data output, inch/mm conversion (on inch/metric models only)  
 Alarm: Low voltage, Counting value composition error

## Optional Accessories for Digital Model

**05CZA624**: SPC cable with data switch (40" / 1m)  
**05CZA625**: SPC cable with data switch (80" / 2m)





### Technical Data

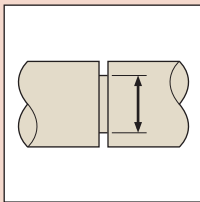
Accuracy: Refer to the list of specifications.  
 Resolution\*: .0005" / 0.01mm or 0.01mm  
 Graduation\*\*: 0.05mm  
 Display\*: LCD  
 Length standard\*: ABSOLUTE electrostatic capacitance type linear encoder  
 Max. response speed\*: Unlimited  
 Battery\*: SR44 (1 pc.), **938882**  
 Battery life\*: Approx. 3.5 years under normal use  
 \*Digital models \*\*Analog models

### Function of Digital Model

Origin-set, Zero-setting, Power On/Off, Data output, inch/mm conversion (on inch/metric models only)  
 Alarm: Low voltage, Counting value composition error

### Optional Accessories for Digital Model

**05CZA624:** SPC cable with data switch (40" / 1m)  
**05CZA625:** SPC cable with data switch (80" / 2m)

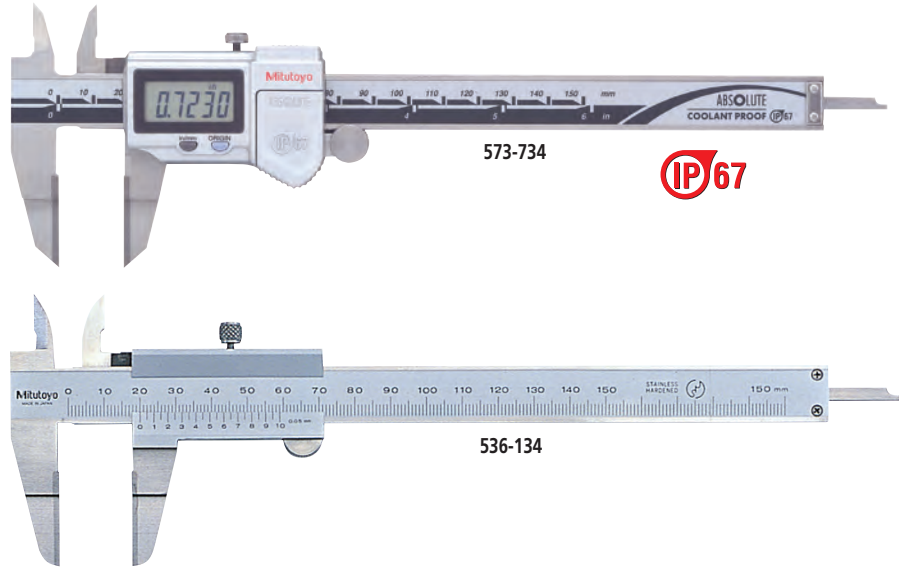


# Blade Type Caliper

## SERIES 573, 536 — ABSOLUTE Digimatic and Vernier Type

### FEATURES

- The thin blade type jaws fit into very small grooves and making previously difficult outside measurements far easier to obtain.
- The OD measuring faces are carbide-tipped.
- With depth bar.
- With SPC data output. (Series 573)
- Supplied in fitted plastic case.



### SPECIFICATIONS

Metric		Digital model		
Range	Order No.	Accuracy	Resolution	Mass (g)
0 - 150mm	<b>573-634</b>	±0.02mm	0.01mm	168

Inch/Metric		Digital model		
Range	Order No.	Accuracy	Resolution	Mass (g)
0 - 6" / 0 - 150mm	<b>573-734</b>	±.001"	.0005" / 0.01mm	168

Metric		Vernier model		
Range	Order No.	Accuracy	Graduation	Mass (g)
0 - 150mm	<b>536-134</b>	±0.05mm	0.05mm	130
0 - 200mm	<b>536-135</b>	±0.05mm	0.05mm	160
0 - 300mm	<b>536-136</b>	±0.08mm	0.05mm	340

### DIMENSIONS

Unit: mm

Range	a	b	c	t
0 - 6" / 0 - 150mm	40	20	0.75	3
0 - 200mm	50	25	0.75	3
0 - 300mm	64	30	1	3.8

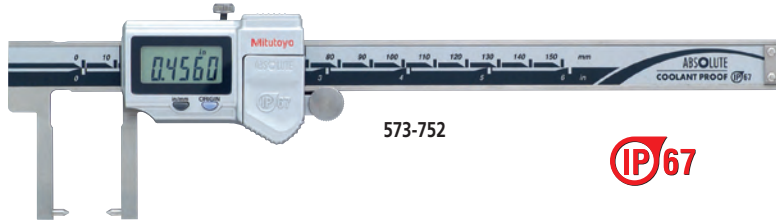


# Neck Caliper

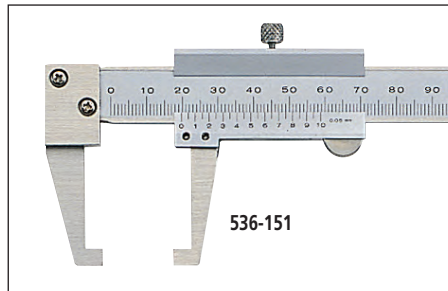
**SERIES 573, 536 — ABSOLUTE Digimatic and Vernier Type**

## FEATURES

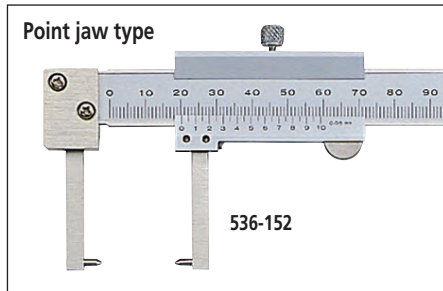
- Point jaw type can measure wall thickness inside bores and recesses.
- Flat jaw type can measure grooves and recesses.
- With SPC data output. (Series 573)
- Supplied in fitted plastic case.



573-752



536-151



Point jaw type

536-152

## SPECIFICATIONS

### Metric Digital model

Range	Order No.	Accuracy	Resolution	Mass (g)
0 - 150mm	573-651	±0.03mm	0.01mm	157
0 - 150mm	573-652*	±0.03mm	0.01mm	157

\*Point jaw type

### Inch/Metric Digital model

Range	Order No.	Accuracy	Resolution	Mass (g)
0 - 6" / 0 - 150mm	573-751	±.0015"	.0005" / 0.01mm	157
0 - 6" / 0 - 150mm	573-752*	±.0015"	.0005" / 0.01mm	157

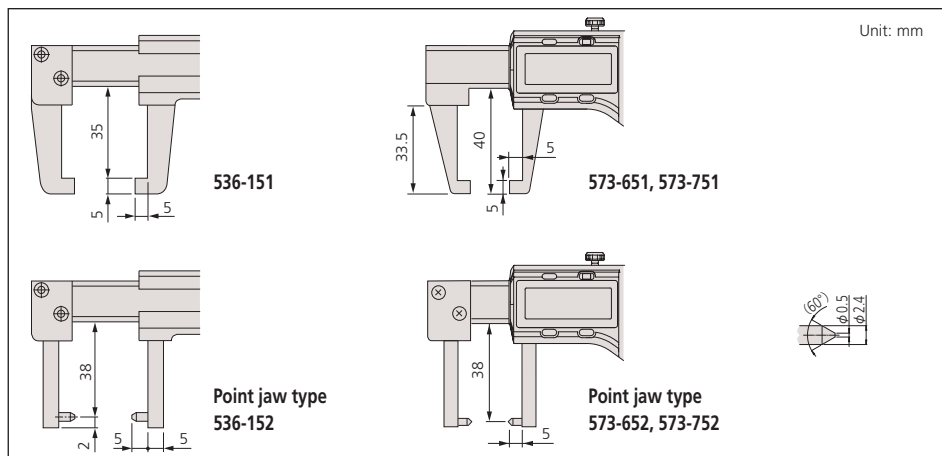
\*Point jaw type

### Metric

Range	Order No.	Accuracy	Graduation	Mass (g)
0 - 150mm	536-151	±0.05mm	0.05mm	140
0 - 150mm	536-152*	±0.05mm	0.05mm	140

\*Point jaw type

## DIMENSIONS



## Technical Data

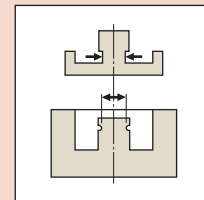
Accuracy: Refer to the list of specifications.  
 Resolution\*: 0.01mm or .0005"/0.01mm  
 Graduation\*\*: 0.05mm  
 Display\*: LCD  
 Length standard\*: ABSOLUTE electrostatic capacitance type linear encoder  
 Max. response speed\*: Unlimited  
 Battery\*: SR44 (1 pc.), **938882**  
 Battery life\*: Approx. 3.5 years under normal use  
 \*Digital models \*\*Analog models

## Function of Digital Model

Origin-set, Zero-setting, Power On/Off, Data output, inch/mm conversion (on inch/metric models only)  
 Alarm: Low voltage, Counting value composition error

## Optional Accessories for Digital Model

- 05CZA624:** SPC cable with data switch (1m / 40")
- 05CZA625:** SPC cable with data switch (2m / 80")





### Technical Data

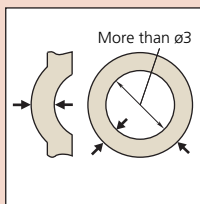
Accuracy: Refer to the list of specifications.  
 Display\*: LCD  
 Length standard: ABSOLUTE electrostatic capacitance type linear encoder  
 Max. response speed\*: Unlimited  
 Battery\*: SR44 (1 pc.), 938882  
 Battery life\*: Approx. 3.5 years under normal use  
 \*Digital models \*\*Analog models

### Function of Digital Model

Origin-set, Zero-setting, Power On/Off, Data output, inch/mm conversion (on inch/metric models only)  
 Alarm: Low voltage, Counting value composition error

### Optional Accessories for Digital Model

05CZA624: SPC cable with data switch (40" / 1m)  
 05CZA625: SPC cable with data switch (80" / 2m)

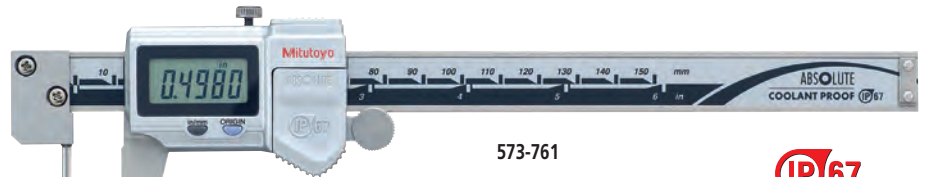


# Tube Thickness Caliper

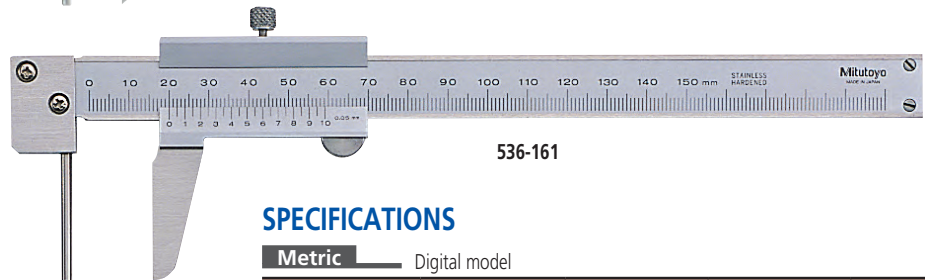
## SERIES 573, 536 — ABSOLUTE Digimatic and Vernier Type

### FEATURES

- The main scale jaw is a round bar that facilitates measurements of tube wall thickness.
- With SPC data output. (Series 573)
- Supplied in fitted plastic case.



573-761



536-161

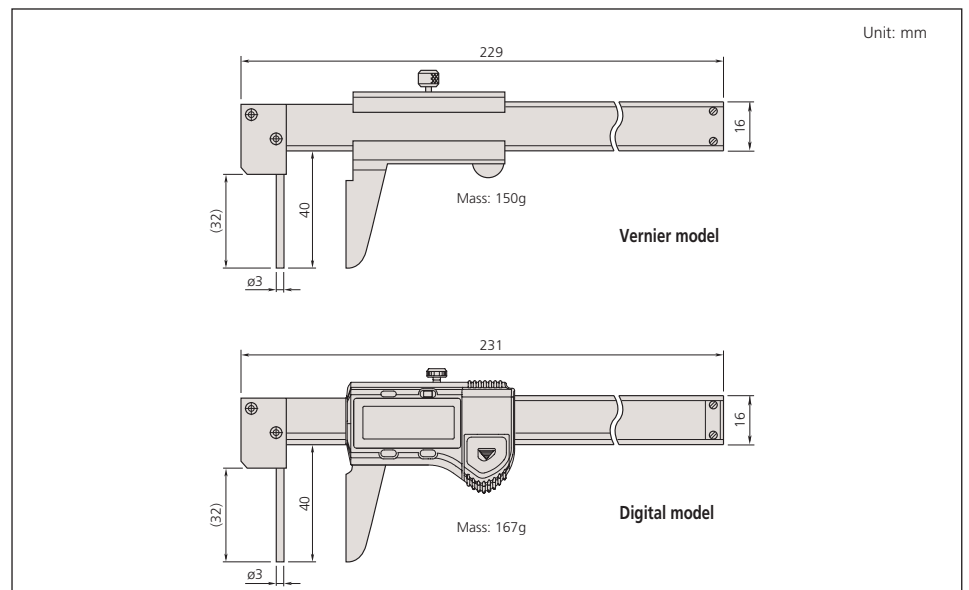
### SPECIFICATIONS

Metric		Digital model		
Range	Order No.	Accuracy	Resolution	Mass(g)
0 - 150mm	573-661	±0.05mm	0.01mm	167

Inch/Metric		Digital model		
Range	Order No.	Accuracy	Resolution	Mass(g)
0 - 6" / 0 - 150mm	573-761	±.002"	.0005" / 0.01mm	167

Metric		Vernier model		
Range	Order No.	Accuracy	Graduation	Mass(g)
0 - 150mm	536-161	±0.05mm	0.05mm	150

### DIMENSIONS AND MASS



# ABSOLUTE Low Force Caliper

**SERIES 573**

## FEATURES

- Due to the low measuring force these calipers are ideal for elastic or resilient workpieces such as plastic parts and

rubber parts that standard calipers cannot measure.

- With SPC data output.
- Supplied in fitted plastic case.



573-191-20

## SPECIFICATIONS

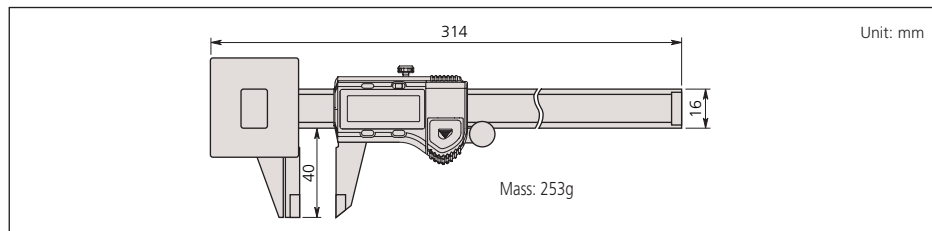
### Metric

Range	Order No.	Accuracy	Resolution	Mass (g)
0 - 180mm	573-191-20	±0.05mm	0.01mm	253

### Inch/Metric

Range	Order No.	Accuracy	Resolution	Mass (g)
0 - 7" / 0 - 180mm	573-291-20	±.002"	.0005" / 0.01mm	253

## DIMENSIONS AND MASS



# ABSOLUTE Snap Caliper

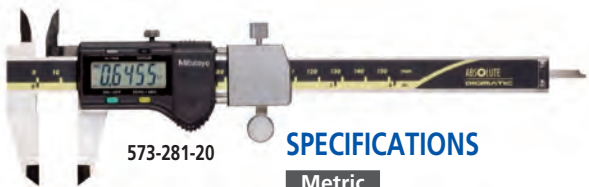
**SERIES 573**

## FEATURES

- The ABSOLUTE Digimatic snap caliper features a spring-loaded mechanism to allow quick and efficient GO/NO-GO

inspection for mass production parts.

- With SPC data output.
- Supplied in fitted plastic case.



573-281-20

## SPECIFICATIONS

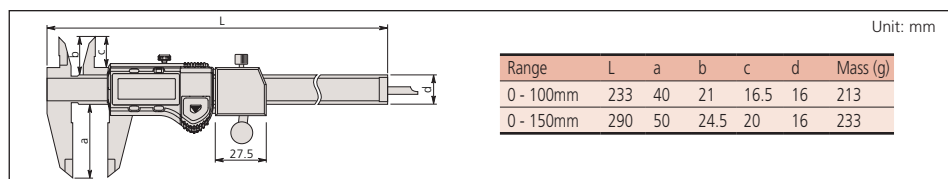
### Metric

Range	Order No.	Accuracy	Resolution	Mass (g)
0 - 100mm	573-181-20	±0.02mm	0.01mm	213
0 - 150mm	573-182-20	±0.02mm	0.01mm	233

### Inch/Metric

Range	Order No.	Accuracy	Resolution	Mass (g)
0 - 4" / 0 - 100mm	573-281-20	±.001"	.0005" / 0.01mm	213
0 - 6" / 0 - 150mm	573-282-20	±.001"	.0005" / 0.01mm	233

## DIMENSIONS AND MASS



## Technical Data

Accuracy: Refer to the list of specifications.  
 Resolution: .0005"/0.01mm or 0.01mm  
 Display: LCD  
 Length standard: ABSOLUTE electrostatic capacitance type linear encoder  
 Measuring force: 0.49N to 0.98N (50gf to 100gf)  
 Jaw retraction: 0.3mm  
 Max. response speed: Unlimited  
 Battery: SR44 (1 pc.), **938882**  
 Battery life: Approx. 3.5 years under normal use

## Function

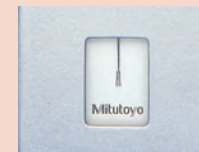
Origin-set, Zero-setting, Power On/Off, Data output, inch/mm conversion (on inch/metric models only)  
 Alarm: Low voltage, Counting value composition error

## Optional Accessories

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



## Measurement procedures



To measure resilient workpieces take the measurement when the pointer is between the two index lines.



## 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  
 Measuring force: 7N to 14N (700gf to 1400gf)  
 Jaw retraction: 2mm  
 Max. response speed: Unlimited  
 Battery: SR44 (1 pc.), **938882**  
 Battery life: Approx. 3.5 years under normal use

## Function

Origin-set, Zero-setting, Power On/Off, 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)



### Technical Data

Accuracy: Refer to the list of specifications.  
 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, Power On/Off, Data output, inch/mm conversion (on inch/metric models only)  
 Alarm: Low voltage, Counting value composition error

### Optional Accessories

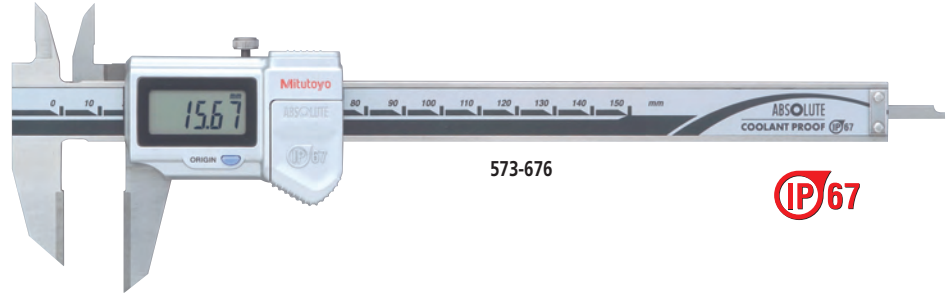
**05CZA624:** SPC cable with data switch (40" / 1m)  
**05CZA625:** SPC cable with data switch (80" / 2m)

# Scribing Caliper

## SERIES 573, 536 — ABSOLUTE Digimatic and Vernier Type

### FEATURES

- The carbide-tipped jaws facilitate fine scribing on workpiece.
- With depth bar.
- With SPC data output. (Series 573)
- Supplied in fitted plastic case.



### SPECIFICATIONS

Metric		Digital model			
Range	Order No.	Accuracy	Resolution	Mass (g)	
0 - 150mm	<b>573-676</b>	±0.02mm	0.01mm	166	
0 - 200mm	<b>573-677</b>	±0.02mm	0.01mm	196	
0 - 300mm	<b>573-679</b>	±0.03mm	0.01mm	345	

Metric		Vernier type			
Range	Order No.	Accuracy	Graduation	Mass (g)	
0 - 150mm	<b>536-221</b>	±0.05mm	0.05mm	150	
0 - 200mm	<b>536-222</b>	±0.05mm	0.05mm	180	
0 - 300mm	<b>536-223</b>	±0.08mm	0.05mm	355	

### DIMENSIONS

Range	L	a	b	c	d	e
0 - 150mm	229	46	21.5	17	16	33
0 - 200mm	288	50	25	20.5	16	43
0 - 300mm	403	64	27.5	22	20	54

Unit: mm

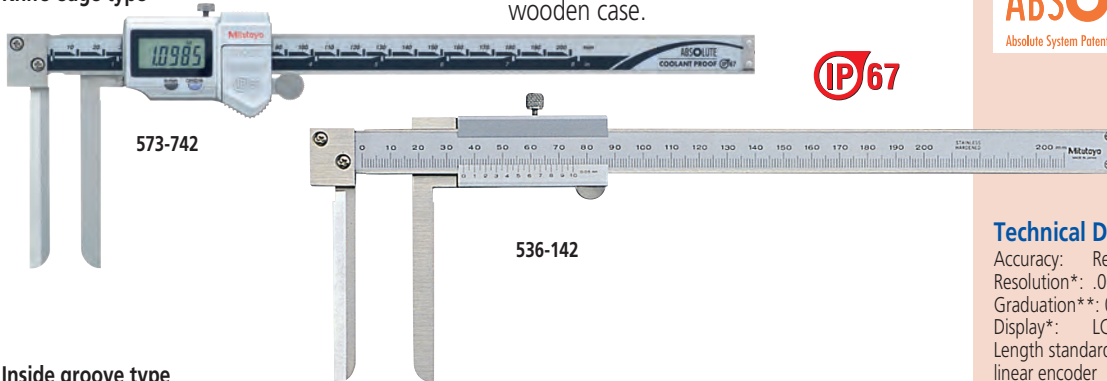
# ABSOLUTE Inside Caliper

**SERIES 573, 536 — Knife-edge/Inside Groove/Point Jaw Type**

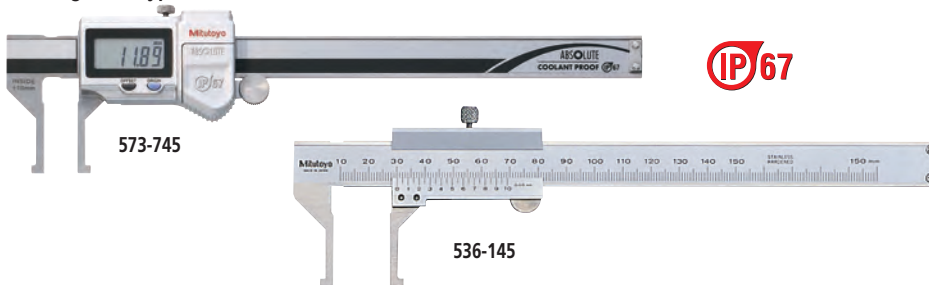
## FEATURES

- Specially designed for inside measurements in hard-to-reach places.
- With SPC data output. (Series 573)
- Supplied in fitted plastic case. 18" / 450mm and 24" / 600mm supplied in wooden case.

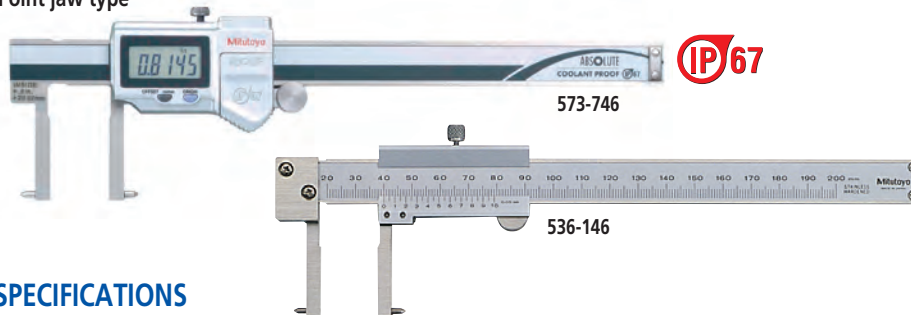
### Knife-edge type



### Inside groove type



### Point jaw type



## SPECIFICATIONS

### Metric Digital model

Range	Order No.	Accuracy	Remarks	Mass (g)
10 - 200mm	<b>573-642</b>	±0.05mm	Knife-edge type, Measurable min. hole diameter: ø10mm	227
10 - 160mm	<b>573-645</b>	±0.05mm	Inside groove type, Measurable min. hole diameter: ø10mm	147
20 - 170mm	<b>573-646</b>	±0.03mm	Point jaw type, Measurable min. hole diameter: ø20mm	157

### Inch/Metric Digital model

Range	Order No.	Accuracy	Remarks	Mass (g)
.4" - 8" / 10-200mm	<b>573-742</b>	±.002"	Knife-edge type, Measurable min. hole diameter: ø.4"	227
.4" - 6" / 10-150mm	<b>573-745</b>	±.002"	Inside groove type, Measurable min. hole diameter: ø.4"	147
.8" - 6" / 20-150mm	<b>573-746</b>	±.0015"	Point jaw type, Measurable min. hole diameter: ø.8"	157

### Metric

Range	Order No.	Accuracy	Remarks	Mass (g)
10 - 200mm	<b>536-142</b>	±0.12mm	Knife-edge type, Measurable min. hole diameter: ø10mm	210
10 - 150mm	<b>536-145</b>	±0.05mm	Inside groove type, Measurable min. hole diameter: ø10mm	130
20 - 150mm	<b>536-146</b>	±0.05mm	Point jaw type, Measurable min. hole diameter: ø20mm	140
30 - 300mm	<b>536-147</b>	±0.08mm	Point jaw type, Measurable min. hole diameter: ø30mm	370
70 - 450mm	<b>536-148</b>	±0.10mm	Point jaw type, Measurable min. hole diameter: ø70mm	1,250
70 - 600mm	<b>536-149</b>	±0.12mm	Point jaw type, Measurable min. hole diameter: ø70mm	1,430



## Technical Data

Accuracy: Refer to the list of specifications.  
 Resolution\*: .0005"/0.01mm / 0.01mm  
 Graduation\*\*: 0.05mm  
 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  
 \*Digital models \*\*Analog models

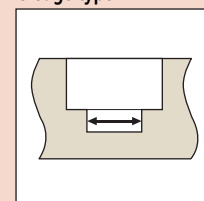
## Function of Digital Model

Origin-set, Zero-setting, Power On/Off, Data output, inch/mm conversion (on inch/metric models only)  
 Alarm: Low voltage, Counting value composition error

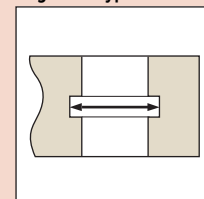
## Optional Accessories for Digital Model

- 05CZA624**: SPC cable with data switch (40" / 1m)
- 05CZA625**: SPC cable with data switch (80" / 2m)

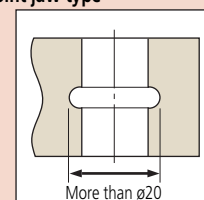
### Knife-edge type



### Inside groove type



### Point jaw type

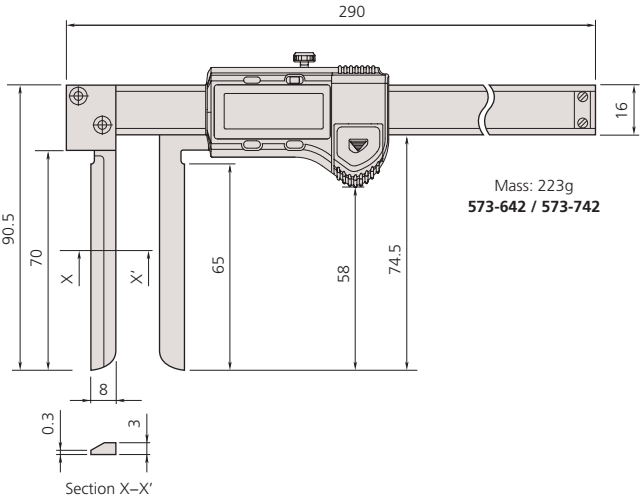
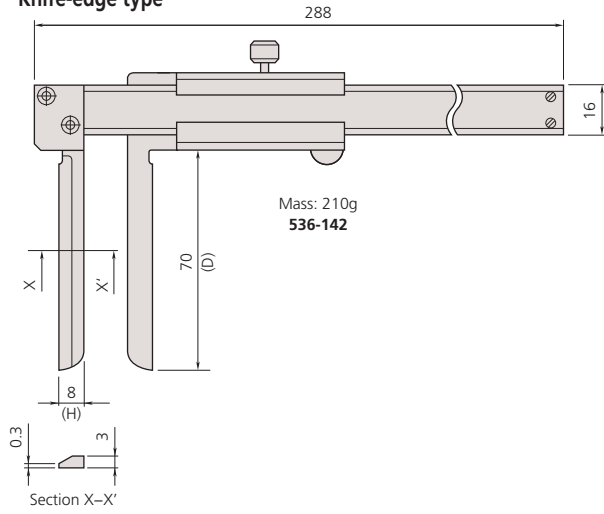




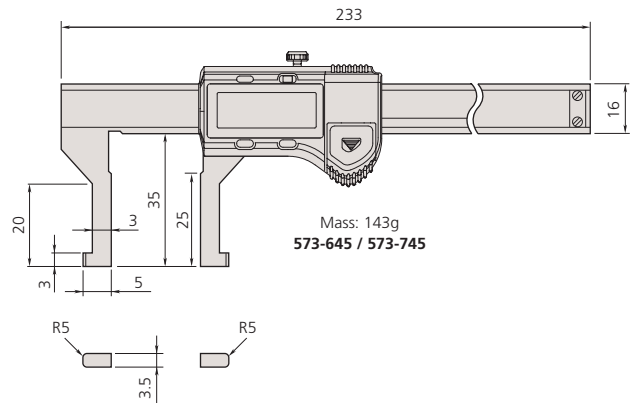
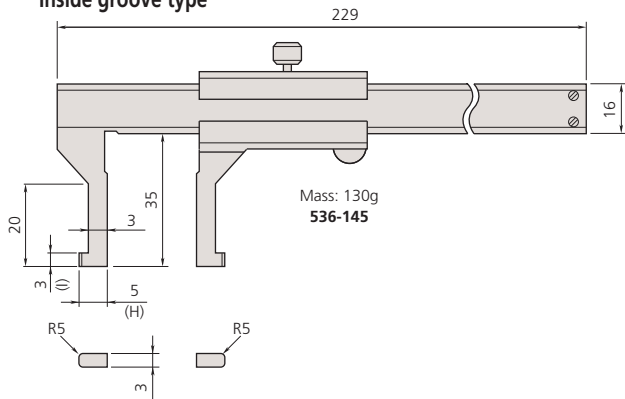
# DIMENSIONS AND MASS

Unit: mm

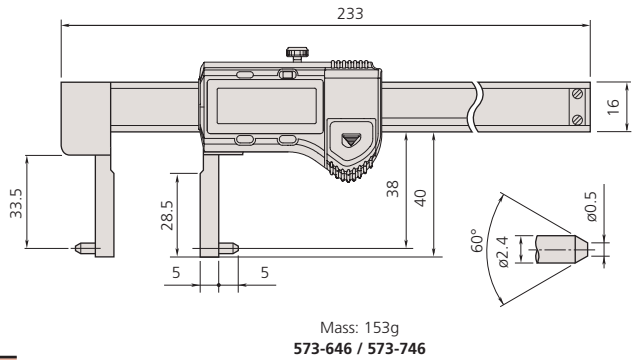
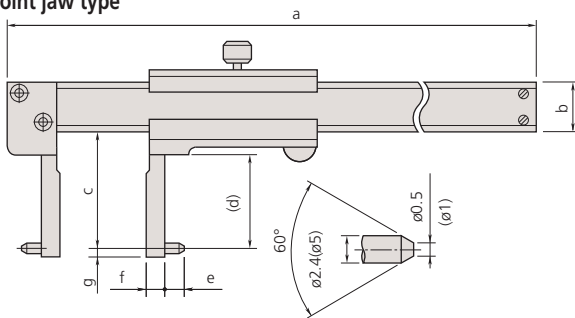
## Knife-edge type



## Inside groove type



## Point jaw type



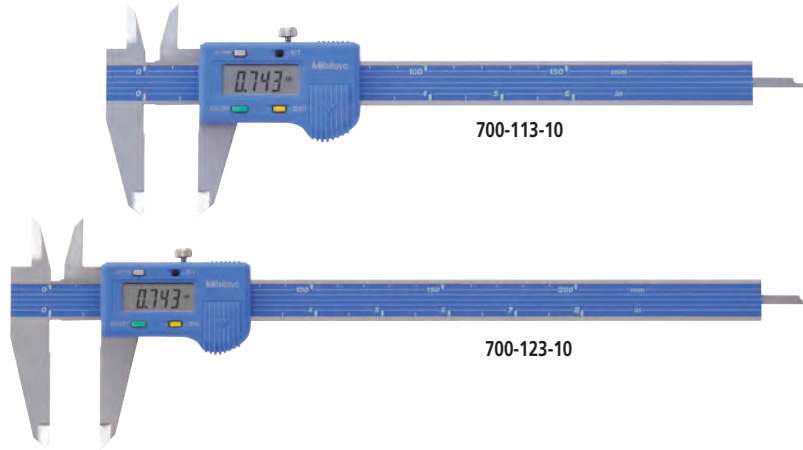
Order No.	Range	a	b	c	d	e	f	g	Mass (g)
<b>536-146</b>	150mm	229	16	38	31	5	5	2	140
<b>536-147</b>	300mm	403	20	98	89	5	10	2	370
<b>536-148</b>	450mm	610	25	145	136	10	25	5	1,250
<b>536-149</b>	600mm	750	25	145	136	10	25	5	1,430

# MyCAL-Lite

## SERIES 700 — Digital Caliper for DIY

### FEATURES

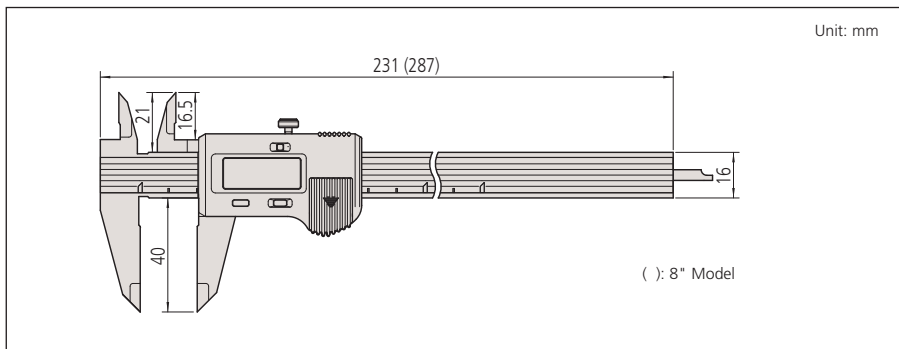
- The "MyCAL-Lite" is an ideal measuring tool for DIY.
- The LCD screen allows error-free readout of measurements.
- With depth measuring bar.



### SPECIFICATIONS

Inch/Metric			
Range	Order No.	Accuracy	Mass (g)
0 - 6" / 0 - 150mm	700-113-10	$\pm 0.005"$ / $\pm 0.2\text{mm}$	150
0 - 8" / 0 - 200mm	700-123-10	$\pm 0.005"$ / $\pm 0.2\text{mm}$	170

### DIMENSIONS



### Technical Data

Accuracy: Refer to the list of specifications.  
Resolution: .001" / 0.1mm  
Display: LCD  
Length standard: Electrostatic capacitance type linear encoder  
Max. response speed: 1800mm/s  
Battery: SR44 (1 pc.), **938882**  
Battery life\*: Approx. 2 years under normal use

### Function

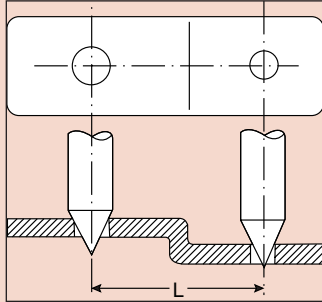
Zero-setting, Power on/off  
inch/mm conversion  
Alarm: Low voltage, Counting value composition error

# Center Line Gage

## Optional Accessories for Caliper

### FEATURES

Pairs of conical probes are specially designed for Digimatic, Dial and Vernier calipers to quickly measure centerline distances.



**050001**

Application for 4", 6" and 8" Vernier, Dial and Digimatic Calipers, requiring dimensions over .375".



**050018**

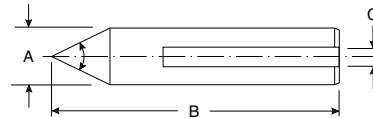
Application for 12" Vernier, Dial and Digimatic Calipers requiring dimensions over .5".

### SPECIFICATIONS

Center Line Gage

Order No.	Description
050001	For 4, 6 and 8" Calipers
050018	For 12" Calipers

### DIMENSIONS



	A	B	C
050001	.375"	2.187"	.141"
050018	.500"	2.75"	.154"

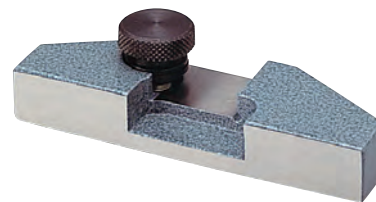
# Depth Base Attachment

## Optional Accessories for Caliper

### FEATURES

- For 4", 6", 8", 12" / 100mm, 150mm, 200mm, 300mm, vernier, dial and digital calipers which have a depth measuring bar.

- Finely grounded base surface and secure locking clamp.



**050084-10**

### SPECIFICATIONS

Inch/Metric

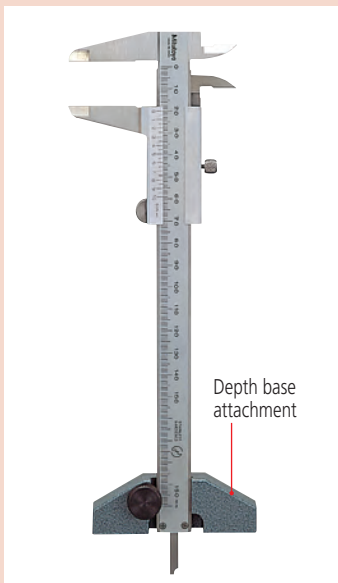
Size	Order No.	Remarks (applicable measuring range of caliper)
3" / 75mm	050083-10	4", 6", 8" / 100mm, 150mm, 200mm
4" / 100mm	050084-10	4", 6", 8" / 100mm, 150mm, 200mm
5" / 125mm	050085-10	12" / 300mm

### DIMENSIONS

Unit: mm

Size	a	b	c	d	e	t
3" / 75mm	25	75	26.5	13	18.5	12
4" / 100mm	25	100	26.5	13	18.5	12
5" / 125mm	30	125	28.5	13	20	14

t: Base thickness



# Digimatic Height Gage

## SERIES 192 — Multi-Function Type with SPC Data Output

### FEATURES

- Highly versatile multi-function type.
- Carbide-tipped long scriber is provided.
- Rigid construction ensures repeatable measurement.
- Switchable resolution.
- Coarse/fine feed switching.
- Bi-directional touch-signal probe is an optional accessory. It can quickly and accurately measure steps, inside width, and outside width.
- With SPC data output.
- Two preset reference height.



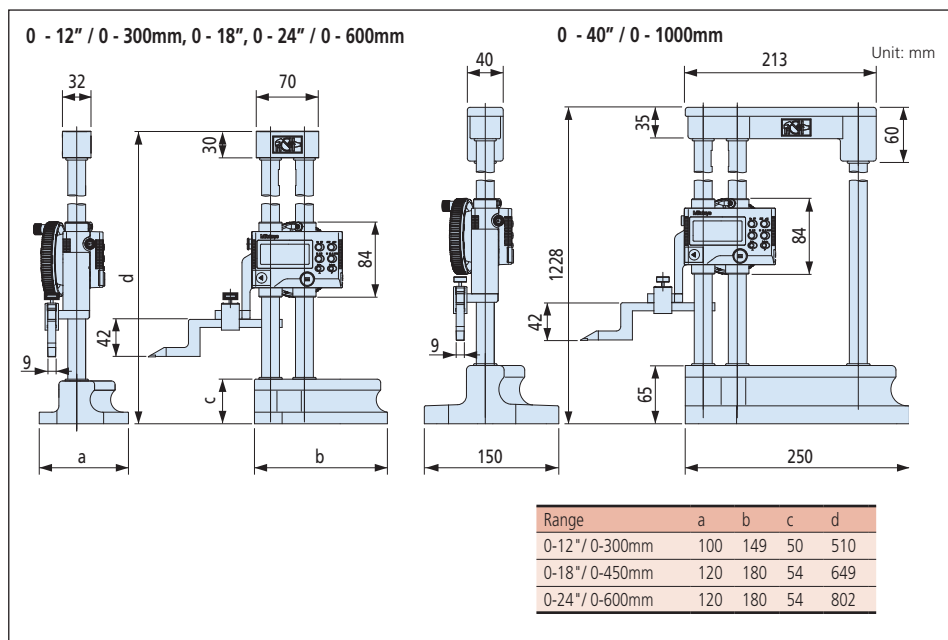
192-670-10

### SPECIFICATIONS

Inch/Metric				
Range	Order No.	Accuracy	Resolution	Mass (kg)
0-12"/0-300mm	<b>192-670-10</b>	±001"	.0005" (0.01mm) [.0002" (0.005mm) Switchable]	5.7
0-18"/0-450mm	<b>192-671-10</b>	±0015"	.0005" (0.01mm) [.0002" (0.005mm) Switchable]	7.5
0-24"/0-600mm	<b>192-672-10</b>	±0015"	.0005" (0.01mm) [.0002" (0.005mm) Switchable]	8.3
0-40"/0-1000mm	<b>192-673-10</b>	±0025"	.0005" (0.01mm) [.0002" (0.005mm) Switchable]	15.7

Metric				
Range	Order No.	Accuracy	Resolution	Mass (kg)
0-300mm	<b>192-663-10</b>	±0.02mm	Switchable between 0.01mm and 0.005mm	5.7
0-600mm	<b>192-664-10</b>	±0.04mm	Switchable between 0.01mm and 0.005mm	8.3
0-1000mm	<b>192-665-10</b>	±0.06mm	Switchable between 0.01mm and 0.005mm	15.7

### DIMENSIONS



### Technical Data

Accuracy: Refer to the list of specifications.  
 Resolution: 0.01+0.005mm or 0.0005" (0.01mm) [0.0002" (0.005mm) switchable]  
 Display: LCD, 7-digits, character height 11mm  
 Max. response speed: 500mm/s  
 Battery: SR44 (1 pc.), **938882**  
 Battery life: Approx. 2000 hours under normal use

### Function

Zero-setting, ABS/INC switching, Two presets, Probe tip diameter compensation, +/- switching, Power ON/OFF, Data hold, Data output, inch/mm conversion (on inch/metric models only)  
 Alarm: Low voltage, Counting value composition error

### Standard Scriber Provided

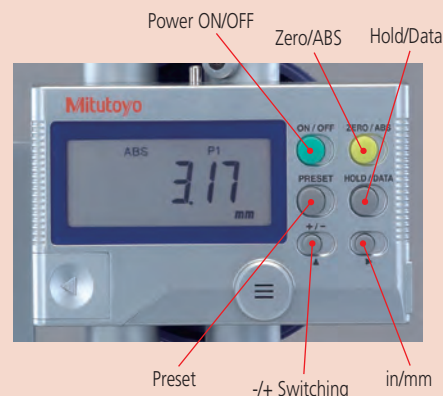
Metric models: Carbide-tipped scriber (**905200**) and scriber clamp (**05GZA033**)  
 Inch/Metric models: Carbide-tipped scriber (**905201**) and scriber clamp (**901385**)

### Optional Accessories

- 905338:** SPC cable (40" / 1m)
- 905409:** SPC cable (80" / 2m)
- 905691:** SPC cable (L-shape, 40" / 1m)
- 905692:** SPC cable (L-shape, 80" / 2m)
- 192-007:** Bi-directional touch-signal probe (metric)
- 192-008:** Bi-directional touch-signal probe (inch)
- 953638:** Holding bar for test indicator (length: 50mm)
- 900209:** Holding bar for test indicator (length: 100mm)
- 953639:** Holding bar for test indicator (length: 2")
- 900306:** Holding bar for test indicator (length: 4")
- 900321:** Swivel clamp used with holding bar (metric)
- 900322:** Swivel clamp used with holding bar (inch)



Shown with optional touch-signal probe





# Digimatic Height Gage

## SERIES 192 — Standard Type with SPC Data Output

### Technical Data

Accuracy: Refer to the list of specifications.  
 Resolution: .0005" (0.01mm) [.0002" (0.005mm)]  
 or 0.01mm and 0.005mm  
 Display: LCD, 7-digit, character height 11mm  
 Max. response speed: 500mm/s  
 Battery: SR44 (1 pc.), **938882**  
 Battery life: Approx. 2000 hours under normal use

### Function

Zero-setting, ABS/INC switching, Two presets, Probe tip diameter compensation, +/- switching, Power ON/OFF, Data hold, With Output, inch/mm conversion (on inch/metric models only)  
 Alarm: Low voltage, Counting value composition error

### Standard Scriber Provided

Metric models: Carbide-tipped scriber (**07GZA000**) and scriber clamp (**05GZA033**)  
 Inch/Metric models: Carbide-tipped scriber (**900258**) and scriber clamp (**901385**)

### Optional Accessories

**953638:** Holding bar for test indicator (length: 50mm)  
**900209:** Holding bar for test indicator (length: 100mm)  
**953639:** Holding bar for test indicator (length: 2")  
**900306:** Holding bar for test indicator (length: 4")  
**900321:** Swivel clamp used with holding bar (metric)  
**900322:** Swivel clamp used with holding bar (inch)  
**905338:** SBC cable (CD type) 1M  
**905409:** SBC cable (CD type) 2M  
**905691:** CD/Connecting Cable L-Type 1M RIG  
**905692:** CD/Connecting Cable L-Type 2M RIG

### FEATURES

- Easy-to-use standard type.
- Carbide-tipped scriber is provided.
- Double-column structure ensures high measuring accuracy.
- Coarse/fine feed switching.
- Switchable resolution
- Two preset reference height

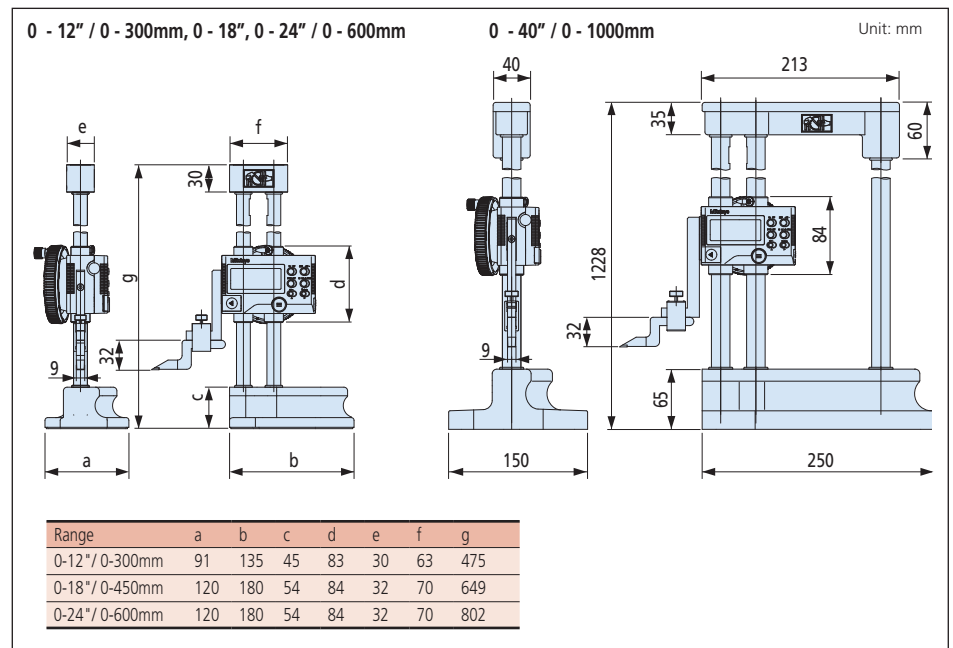


### SPECIFICATIONS

Inch/Metric				
Range	Order No.	Accuracy	Resolution	Mass (kg)
0-12"/0-300mm	<b>192-630-10</b>	±001"	.0005" (0.01mm) [.0002" (0.005mm) Switchable]	4.7
0-18"/0-450mm	<b>192-631-10</b>	±002"	.0005" (0.01mm) [.0002" (0.005mm) Switchable]	7.5
0-24"/0-600mm	<b>192-632-10</b>	±002"	.0005" (0.01mm) [.0002" (0.005mm) Switchable]	8.3
0-40"/0-1000mm	<b>192-633-10</b>	±003"	.0005" (0.01mm) [.0002" (0.005mm) Switchable]	15.7

Metric				
Range	Order No.	Accuracy	Resolution	Mass (kg)
0-300mm	<b>192-613-10</b>	±0.02mm	Switchable between 0.01mm and 0.005mm	4.7
0-600mm	<b>192-614-10</b>	±0.05mm	Switchable between 0.01mm and 0.005mm	8.3
0-1000mm	<b>192-615-10</b>	±0.07mm	Switchable between 0.01mm and 0.005mm	15.7

### DIMENSIONS





# Dial Height Gage

**SERIES 192 — with Digital Counter**

## FEATURES

- Easy and error-free reading with both up and down digital counters as well as a dial.
- Provided with a feed wheel for easy coarse feeding.
- Carbide-tipped scriber is provided.
- The counters and dial can be re-zeroed at any scriber position.

## SPECIFICATIONS

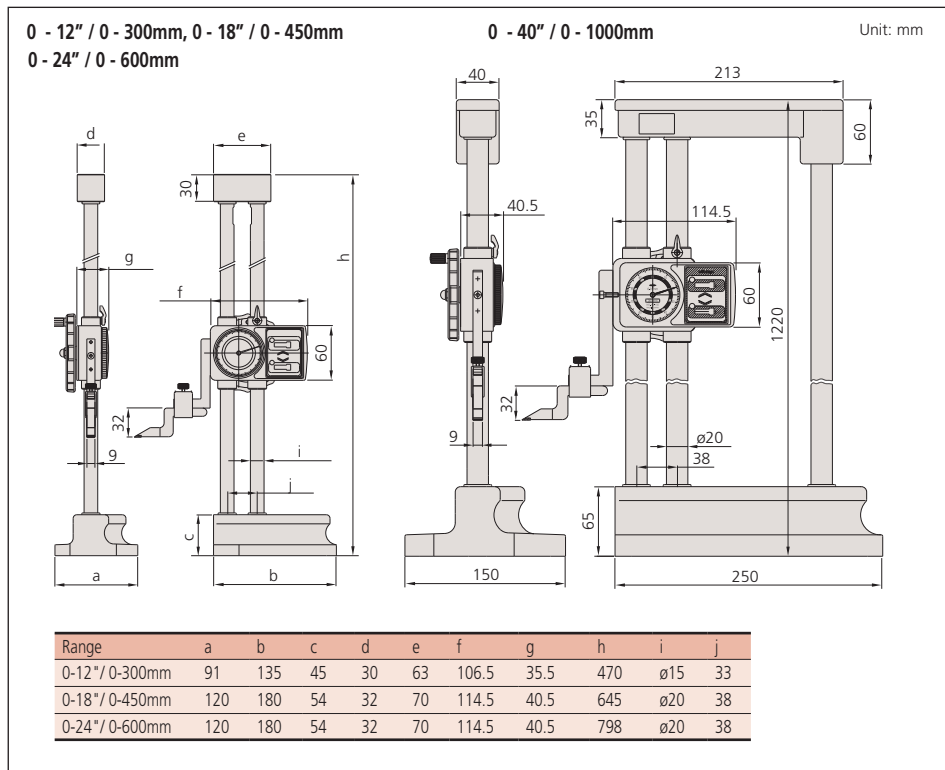
### Metric

Range	Order No.	Accuracy	Graduation	Mass (kg)
0 - 300mm	<b>192-130</b>	±0.03mm	0.01mm	4.2
0 - 450mm	<b>192-131</b>	±0.05mm	0.01mm	9.2
0 - 600mm	<b>192-132</b>	±0.05mm	0.01mm	9.8
0 - 1000mm	<b>192-133</b>	±0.07mm	0.01mm	17.0

### Inch

Range	Order No.	Accuracy	Graduation	Mass (kg)
0 - 12"	<b>192-150</b>	±.0015"	.001"	4.2
0 - 18"	<b>192-151</b>	±.002"	.001"	9.2
0 - 24"	<b>192-152</b>	±.002"	.001"	9.8
0 - 40"	<b>192-153</b>	±.003"	.001"	17.0

## DIMENSIONS



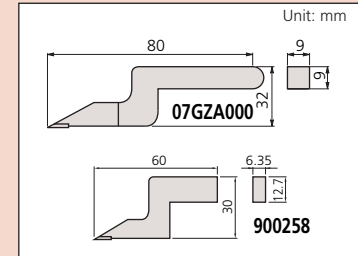
## Technical Data

Dial reading: 0.01mm or .001"

## Standard Scriber Provided

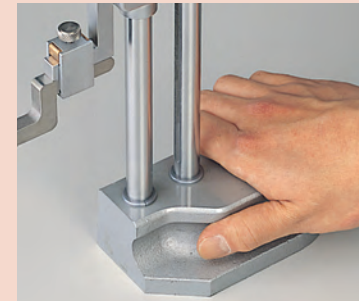
Metric models: Carbide-tipped scriber (**07GZA000**) and scriber clamp (**05GZA033**)  
Inch/Metric models: Carbide-tipped scriber (**900258**) and scriber clamp (**901385**)

## Dimension of scriber



## Optional Accessories

**953638:** Holding bar for test indicator (length: 50mm)  
**900209:** Holding bar for test indicator (length: 100mm)  
**953639:** Holding bar for test indicator (length: 2")  
**900306:** Holding bar for test indicator (length: 4")  
**900321:** Swivel clamp used with holding bar (metric)  
**900322:** Swivel clamp used with holding bar (inch)



Comfortable grip base



Easy and secure clamping



Easy and error free reading



# ABSOLUTE Digimatic Height Gage

**SERIES 570 — with ABSOLUTE Linear Encoder**

## FEATURES

- Built in ABSOLUTE linear encoder  
This encoder eliminates the necessity of setting the reference point at every power-on. It has improved reliability because no over-speed error will occur.
- Fine-adjustment carriage to feed the slider finely.
- Carbide-tipped scriber is provided.
- With SPC data output.

## Technical Data

Accuracy: Refer to the list of specifications.  
 Resolution: .0005" / 0.01mm or 0.01mm  
 Display: LCD, 6-digit  
 Length standard: ABSOLUTE electrostatic capacitance type linear encoder  
 Max. response speed: Un limited  
 Battery: SR44 (1 pc.), **938882**  
 Battery life: Approx. 5000 hours under normal use

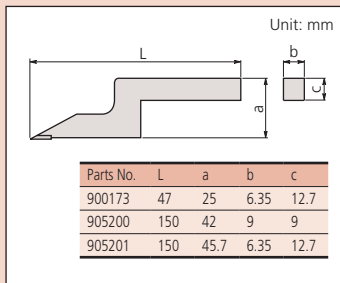
## Function

Origin setting, ABS/INC switching, Presetting, +/- switching, Data hold, Data output, inch/mm conversion (on inch/metric models only)  
 Alarm: Low voltage, Counting value composition error

## Standard Scriber Provided

Metric models: Carbide-tipped scriber (900173/905200\*) and scriber clamp (901338/05GZA033\*)  
 \*0 - 1000mm model  
 Inch/Metric models: Carbide-tipped scriber (900173/905201\*) and scriber clamp (901338/901385\*)  
 \*0 - 40" model

## Dimension of scriber

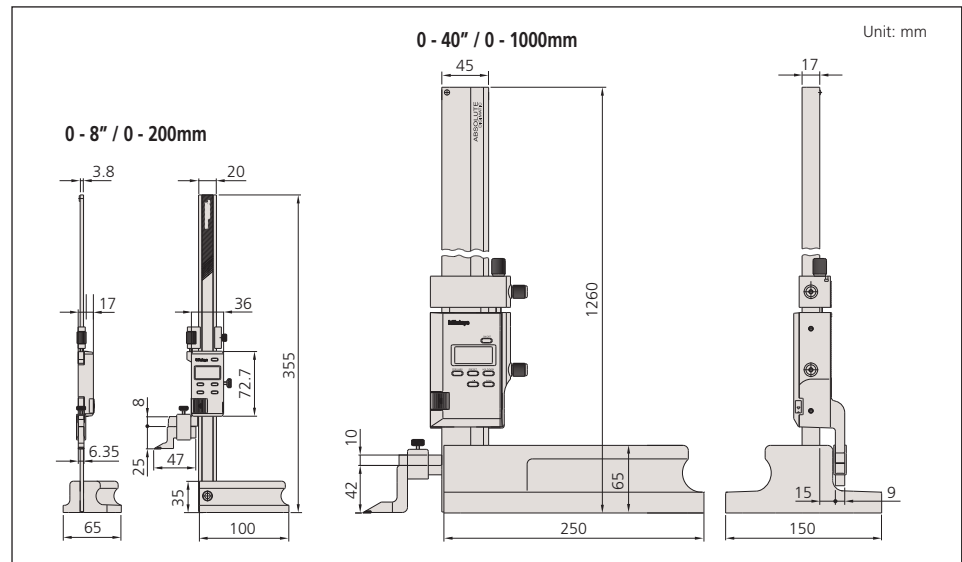


## SPECIFICATIONS

Metric				
Range	Order No.	Accuracy	Resolution	Mass (kg)
0 - 200mm	<b>570-227</b>	±0.03mm	0.01mm	1.4
0 - 1000mm	<b>570-230</b>	±0.07mm	0.01mm	16.8

Inch/Metric				
Range	Order No.	Accuracy	Resolution	Mass(kg)
0 - 8" / 0 - 200mm	<b>570-244</b>	±.001"	.0005" / 0.01mm	1.4
0 - 40" / 0 - 1000mm	<b>570-248</b>	±.003"	.0005" / 0.01mm	16.8

## DIMENSIONS



## Optional Accessories

- 905338:** SPC cable (40" / 1m)
- 905409:** SPC cable (80" / 2m)
- 953638:** Holding bar for test indicator (length: 50mm)
- 953639:** Holding bar for test indicator (length: 2")
- 902053:** Swivel clamp used with holding bar (metric)
- 900322:** Swivel clamp used with holding bar (inch)

# ABSOLUTE Digimatic Height Gage

**SERIES 570 — with ABSOLUTE Linear Encoder**



## FEATURES

- Built in ABSOLUTE linear encoder  
This encoder eliminates the necessity of setting the reference point at every power-on. It has improved reliability because no over-speed error will occur.
- Rigid column structure ensures high measuring accuracy.
- With large smooth slider feed wheel.
- Carbide-tipped scriber is provided.
- With SPC data output.



## SPECIFICATIONS

Metric			
Range	Order No.	Accuracy	Resolution
0 - 300mm	<b>570-302</b>	±0.03mm	0.01mm
0 - 600mm	<b>570-304</b>	±0.05mm	0.01mm

Inch/Metric			
Range	Order No.	Accuracy	Resolution
0 - 12" / 0 - 300mm	<b>570-312</b>	±.0015"	.0005" / 0.01mm
0 - 18" / 0 - 450mm	<b>570-313</b>	±.002"	.0005" / 0.01mm
0 - 24" / 0 - 600mm	<b>570-314</b>	±.002"	.0005" / 0.01mm

## DIMENSIONS AND MASS

Range	L	a	b	c	Mass (kg)
0 - 12" / 300mm	507	160	122	72.6	4.6
0 - 18" / 450mm	662	181	142	74.1	5.9
0 - 24" / 600mm	812	181	142	74.1	6.4

Unit: mm

## Technical Data

Accuracy: Refer to the list of specifications.  
 Resolution: .0005"/0.01mm or 0.01mm  
 Display: LCD, 6-digit  
 Length standard: ABSOLUTE electrostatic capacitance type linear encoder  
 Max. response speed: Un limited  
 Battery: SR44 (1 pc.), **938882**  
 Battery life: Approx. 20000 hours under normal use

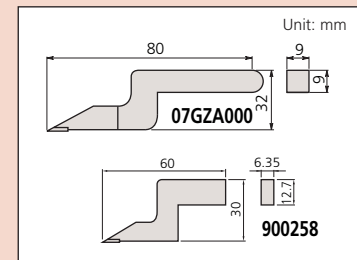
## Function

Origin setting, ABS/INC switching, Power ON/OFF, Data hold, Data output, inch/mm conversion (on inch/metric models only)  
 Alarm: Low voltage, Counting value composition error

## Standard Scriber Provided

Metric models: Carbide-tipped scriber (**07GZA000**), scriber clamp (**05GZA033**)  
 Inch/Metric models: Carbide-tipped scriber (**900258**), scriber clamp (**901385**)

## Dimension of scriber



## Optional Accessories

- 905338:** SPC cable (40" / 1m)
- 905409:** SPC cable (80" / 2m)
- 953638:** Holding bar for test indicator (length: 50mm)
- 953639:** Holding bar for test indicator (length: 2")
- 902053:** Swivel clamp used with holding bar (metric)
- 900322:** Swivel clamp used with holding bar (inch)



Large smooth slider feed wheel



Large clamp lever



Comfortable grip base



# Vernier Height Gage

## SERIES 514 — Standard Height Gage with Adjustable Main Scale

### FEATURES

- Zero reference point can be adjusted.
- Stain chrome finished scales for glare-free reading.
- Extra-large base for rigidity.
- Optional magnifier for easier reading
- Carbide-tipped scriber is provided.



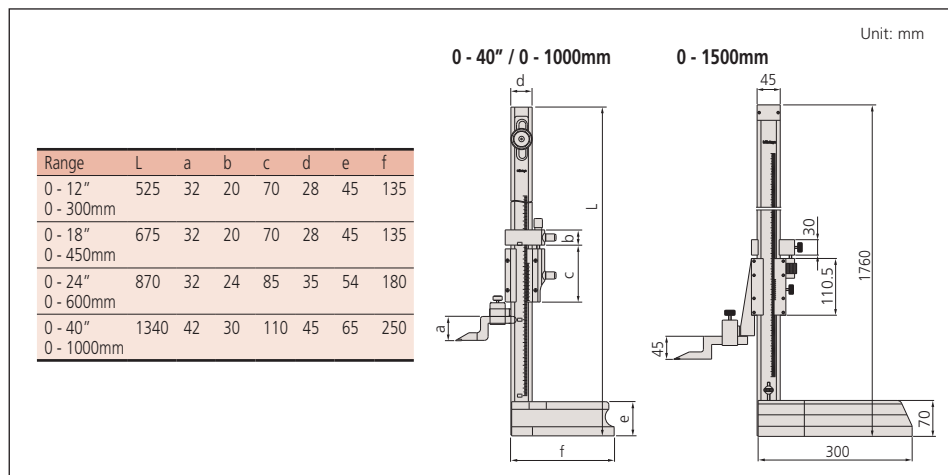
### SPECIFICATIONS

Metric				
Range	Order No.	Accuracy	Graduation	Mass (kg)
0 - 300mm	<b>514-102</b>	±0.04mm	0.02mm	3.1
0 - 450mm	<b>514-104</b>	±0.05mm	0.02mm	3.4
0 - 600mm	<b>514-106</b>	±0.05mm	0.02mm	7.4
0 - 1000mm	<b>514-108</b>	±0.07mm	0.02mm	20.0
0 - 1500mm	<b>514-170</b>	±0.18mm	0.02mm	26.0

### Inch/Metric — Inch model with inch/metric dual scale

Range	Order No.	Accuracy	Graduation	Mass (kg)
0 - 12" / 0 - 300mm	<b>514-103</b>	±.002"	.001" / 0.02mm	3.1
0 - 18" / 0 - 450mm	<b>514-105</b>	±.002"	.001" / 0.02mm	3.4
0 - 24" / 0 - 600mm	<b>514-107</b>	±.002"	.001" / 0.02mm	7.4
0 - 40" / 0 - 1000mm	<b>514-109</b>	±.003"	.001" / 0.02mm	20.0

### DIMENSIONS



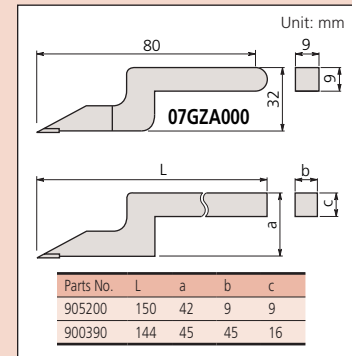
### Technical Data

Main scale adjustment: 15mm or 25mm  
Slider fine feed: 4mm, 6mm, 7mm or 20mm

### Standard Scriber Provided

- Up to 600mm: Carbide-tipped scriber (**07GZA000**) and scriber clamp (**05GZA033**)
- 0 - 1000mm: Carbide-tipped scriber (**905200**) and scriber clamp (**05GZA033**)
- 0 - 1500mm: Carbide-tipped scriber (**900390**) and scriber clamp (**905008**)

### Dimension of scriber



### Optional Accessories

- 07GZA003:** Magnifier for 300, 450mm, 600mm models
- 07GZA015:** Magnifier for 1000mm and 1500mm models
- 953638:** Holding bar for test indicator (length: 50mm)
- 902053:** Swivel clamp used with holding bar





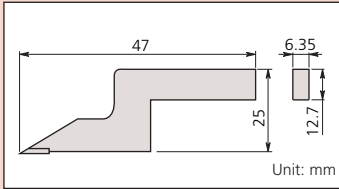
# Vernier Height Gage

## SERIES 506 — Light Weight Height Gage

### Standard Scriber Provided

Carbide-tipped scriber (900173) and scriber clamp (901338)

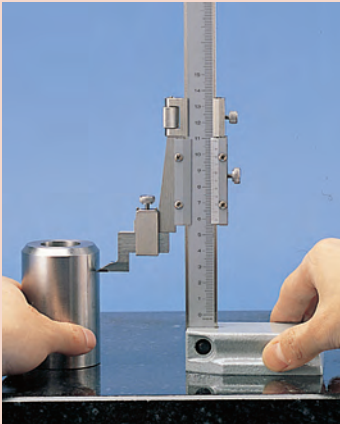
### Dimension of scriber



### Optional Accessories

953639: Holding bar for test indicator (length: 2" / 50mm)

900322: Swivel clamp used with holding bar



### FEATURES

- The Light Weight Height Gage is designed for scribing from a vertical base or for small parts.
- Stain chrome finished scales for glare-free reading.
- Beam and slider are made of stainless steel.
- Carbide-tipped scriber is provided.



### SPECIFICATIONS

#### Metric

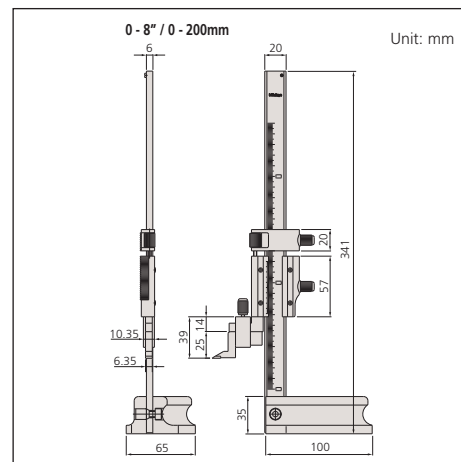
Range	Order No.	Accuracy	Graduation	Mass (kg)
0 - 200mm	506-207	±0.03mm	0.02mm	1.4

#### Inch/Metric

Inch model with inch/metric double scale

Range	Order No.	Accuracy	Graduation	Mass (kg)
0 - 8" / 0 - 200mm	506-208	±.001"	.001" / 0.02mm	1.4

### DIMENSIONS



# Carbide-Tipped Scriber

## Optional Accessory for Height Gage

### FEATURES

- Use the appropriate scriber and clamp for each height gage.

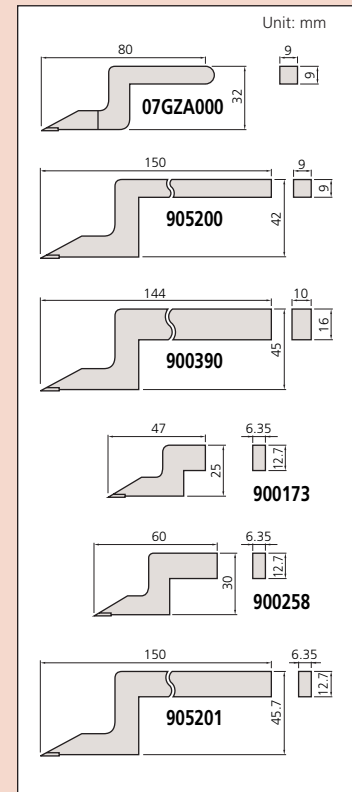
### SPECIFICATIONS

Metric	
Order No.	Remarks (applicable height gage)
07GZA000	192 Series Digimatic height gages (192-613-10, 192-614-10, 192-615-10)
	570 Series Digimatic Height Gages (570-302, 570-304)
	192 Series Dial Height Gages (192-130, 192-131, 192-132, 192-133)
	514 Series Vernier Height Gages (514-102, 514-104, 514-106, 514-103, 514-105, 514-107) 574 Series Heightmatic (574-112-1, 574-111-1, 574-110-1)
905200	192 Series Digimatic Height Gages (192-663-10, 192-664-10, 192-665-10)
	570 Series Digimatic Height Gages (570-230)
	514 Series Vernier Height Gages (514-108, 514-109)
900390	514 Series Vernier Height Gage (514-170)

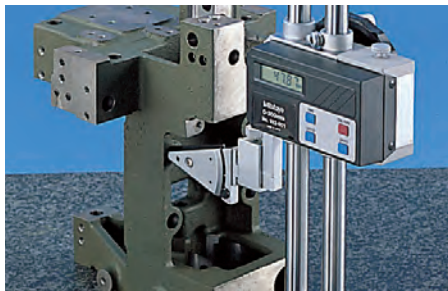
Inch	
Order No.	Remarks (applicable height gage)
900173	570 Series Digimatic height gages (570-227, 570-244)
	506 Series Vernier Height Gages (506-201, 506-202, 506-204, 506-205, 506-207, 506-208)
	509 Series Vernier Height Gages (509-301, 509-302, 509-313, 509-314)
900258	192 Series Digimatic Height Gages (192-630-10, 192-631-10, 192-632-10, 192-633-10)
	570 Series Digimatic Height Gages (570-312, 570-313, 570-314)
	574 Series Heightmatic (574-212-1, 574-211-1, 574-210-1)
905201	192 Series Digimatic Height Gages (192-670-10, 192-671-10, 192-672-10, 192-673-10)
	570 Series Digimatic Height Gages (570-248)

### Dimension of scriber



# Optional Accessories

## Optional Accessories for Height Gage



### Center Master

#### FEATURES

- Allows quick measurement of center-to-center distance between holes.
- Measurable hole diameters: .040" to 1.50" /  $\varnothing 1 - \varnothing 38$ mm.

#### SPECIFICATIONS

Order No.: 951144 (with metric type holding bar)  
900581 (with inch type holding bar)



### Depth Gage Attachment

#### FEATURES

- Attached to a height gage to measure groove and hole depth.
- Minimum hole diameter: 5.5mm
- Maximum distance from the bottom of the holding bar to the contact point: 2.95" (inch type), 80mm (metric type)
- Uses standard dial indicator points

#### SPECIFICATIONS

Order No.: 900878 (with inch type holding bar)  
900764 (with metric type holding bar)



### Contact Sensor

#### FEATURES

- The contact sensor eliminates errors caused by jacking-up the height gage while taking measurements. When the scriber of a height gage touches a conductive workpiece, an indicator will light up to indicate that measurement can be taken, which will result in consistent height measurement.
- Battery (2 pcs. SR44 required) is not included.

#### SPECIFICATIONS

Order No.: 900872



# CERA Caliper Checker

## SERIES 515

### FEATURES

- The CERA Caliper Checker is designed to inspect vernier, dial and Digimatic calipers. It is comprised of permanently wrung, high-grade CERA gage blocks in a protective casting.
- The CERA Caliper Checker also stands perpendicular to a surface for height gage inspection.
- The zirconia based ceramic CERA measuring blocks are corrosion resistant and dimensionally stable.



### Technical Data

Block pitch accuracy:  $\pm 0.005\text{mm}$  for range up to 300mm  
 $\pm 0.002''$  for range up to 12''  
 $\pm 0.007\text{mm}$  for range up to 600mm  
 Parallelism of blocks: 0.002mm for range up to 300mm  
 0.004mm for range up to 600mm

### Optional Accessories

**602162:** Wooden case for 300mm model  
**602164:** Wooden case for 600mm model

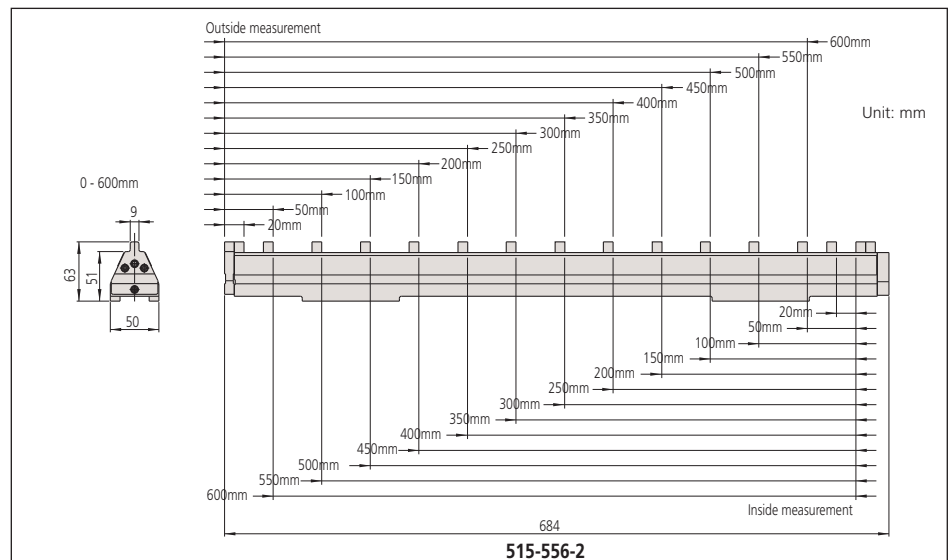
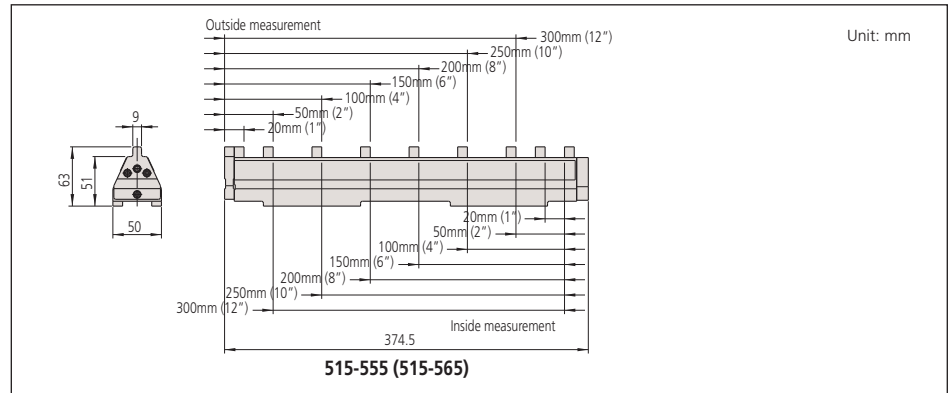
### SPECIFICATIONS

Metric			
Range	Order No.	Remarks (length to check)	Mass (kg)
0 - 300mm	<b>515-555</b>	Outside measurement: 20, 50, 100, 150, 200, 250, 300mm Inside measurement: 20, 50, 100, 150, 200, 250, 300mm	4.0
0 - 600mm	<b>515-556-2</b>	Outside, Inside measurement: 20, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600mm	8.5

Inch			
Range	Order No.	Remarks (length to check)	Mass (kg)
0 - 12"	<b>515-565</b>	Outside measurement: 1", 2", 4", 6", 8", 10", 12" Inside measurement: 1", 2", 4", 6", 8", 10", 12"	4.0

### DIMENSIONS



Used for caliper



Used for height gage

# Linear Height LH-600E

## SERIES 518 — High Performance 2D Measurement System

### FEATURES

- Excellent accuracy of  $(1.1+0.6L/600)\mu\text{m}$  with  $0.1\mu\text{m}/0.5\mu\text{m}$  resolution/repeatability.
- Perpendicularity (frontal) of  $5\mu\text{m}$  and straightness of  $4\mu\text{m}$  are guaranteed.
- Pneumatic full/semi-floating system allows adjustment of air-cushion height.
- Basic statistical functions are provided and, additionally, RS-232C / USB data output provides the option of evaluating measurement data externally with SPC software on a PC.
- One-key operation for running a semi-automatic measurement.
- Data entry from a Digimatic tool.

with power grip



518-351A-21

### SPECIFICATIONS

Inch/Metric	
<b>Order No.</b>	<b>518-351A-21 (120V with English manual)</b>
Measuring Range (stroke)	0-38" (24") / 0-972mm(600mm)
Resolution (selectable)	.000001"/.00001"/.0001"/.001"/ 0.0001mm/0.001mm/0.01mm/0.1mm
Accuracy at 20°C	Measuring accuracy .000043 + (.000024 x L*/24)" / (1.1 + 0.6L**/600) $\mu\text{m}$ Repeatability (2s) Plane: .000015"/0.4 $\mu\text{m}$ Bore: .000035"/0.9 $\mu\text{m}$ Perpendicularity .0002"/5 $\mu\text{m}$ Straightness .0002"/4 $\mu\text{m}$
Drive Method	Motor Drive (5, 10, 15, 20, 25, 30, 40mm/s=7 steps) / manual
Measuring Force	1N
Balancing Method	Counter balance
Main Unit Floating Method	Full/semi-floating with air
Air Source	Built-in air compressor
LCD	TFT LCD (color)
Language for Display	English/German/French/Spanish/Italian/Japanese
Number of Programs	50 (max.)
Number of Datas	60,000 (max.) 1 program 30,000 (Max.)
Power Supply	AC Adapter/Battery (Ni-MH)
Power Consumption	43VA
Operation Time	Approx. 5 hours
Standard Accessories	$\varnothing$ 5 Eccentric probe ( <b>12AAF634</b> ) Probe diameter calibration block ( <b>12AAA715</b> ) Battery ( <b>12AAA712</b> ) AC adapter ( <b>357651</b> ), Power Cable ( <b>02ZAA010</b> ) Clear Cover ( <b>223587</b> ) Conveying handle ( <b>510434</b> )
Mass	24kg

L\*=Measuring length (inch) L\*\*=Measuring length (mm)



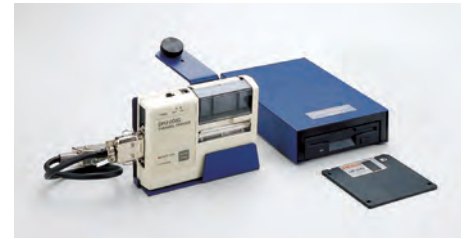
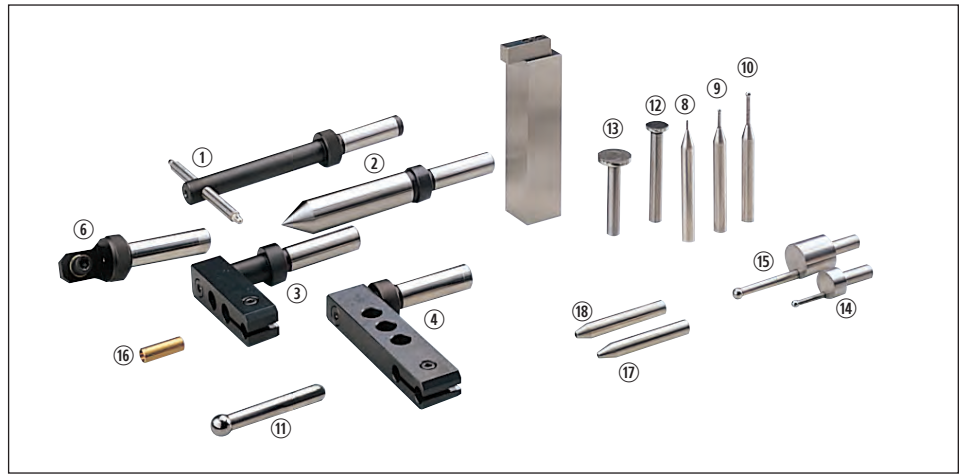
### Technical Data

Measuring range: 0 - 38" / 0 - 972mm  
 Slider stroke: 24" / 600mm  
 Resolution: .000001" / .00001" / .0001" / .001" or  
 (switchable) 0.0001 / 0.001 / 0.01 / 0.1mm /  
 0.0001 / 0.001 / 0.01 / 0.1mm  
 Accuracy at 20°C: Refer to the list of specifications.  
 Floating method: Full / semi-floating with built-in air  
 compressor  
 Display: TFT LCD (color)

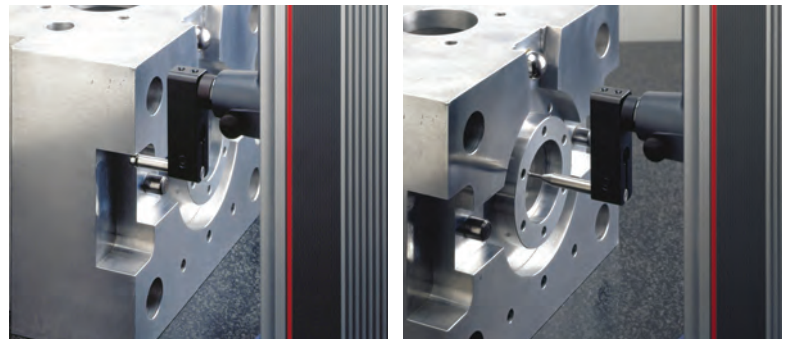
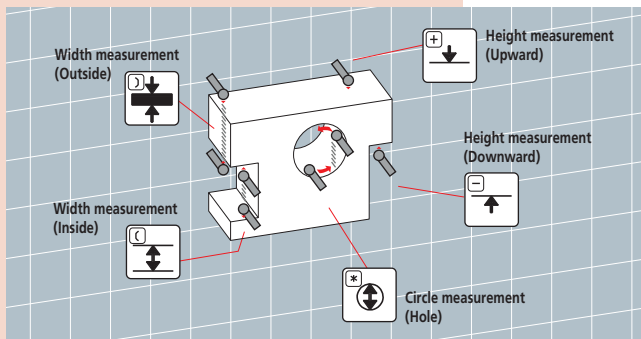
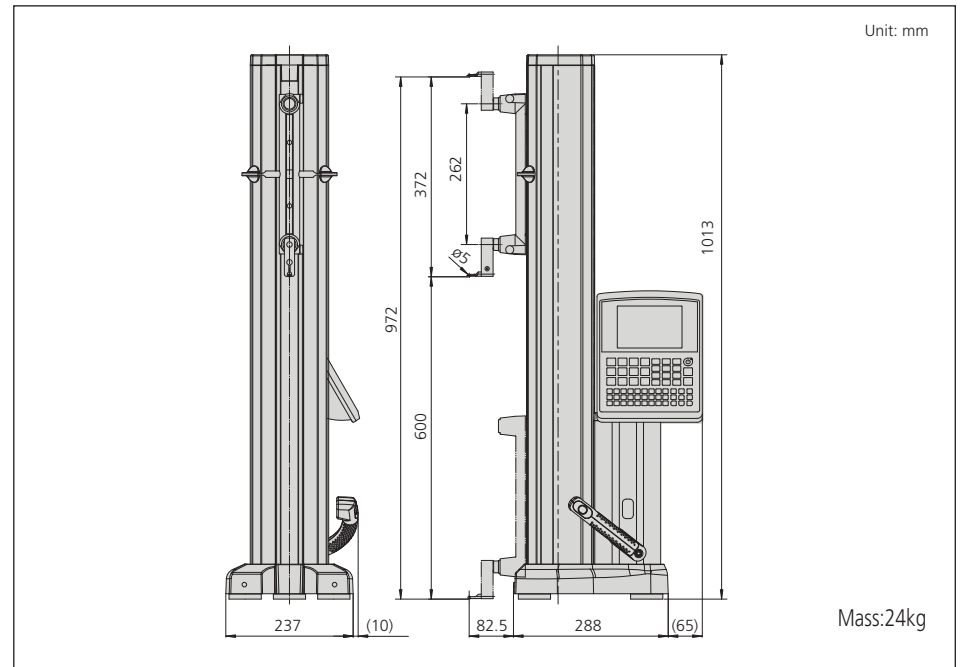


## Optional Accessories

- 12AAC072: ① Depth probe  
 12AAC073: ②  $\varnothing$ 20mm taper probe  
 12AAA787: Block for calibrating probe diameter (applicable to taper probe)  
 12AAA792: ③ Dial indicator ( $\varnothing$ 8mm stem) holder  
 12AAA837: Dial indicator ( $\varnothing$ 3/8" stem) holder  
 12AAA793: ④ Probe extension holder (3.3" / 85mm)  
 12AAB136:  $\varnothing$ 10mm cylindrical probe  
 932361: ⑥ Mu-checker lever head holder  
 12AAF666:  $\varnothing$ 1mm ball probe  
 12AAF667:  $\varnothing$ 2mm ruby ball probe  
 957261: ⑧  $\varnothing$ 2mm ball probe  
 957262: ⑨  $\varnothing$ 3mm ball probe  
 957263: ⑩  $\varnothing$ 4mm ball probe  
 12AAB552: ⑪  $\varnothing$ 10 mm ball probe, L=55mm  
 12AAF668:  $\varnothing$ 10mm ball probe, L=82mm  
 12AAF669:  $\varnothing$ 10mm ball probe, L=120mm  
 12AAF670:  $\varnothing$ 5mm disk probe  
 12AAF671:  $\varnothing$ 10mm disk probe  
 957264: ⑫  $\varnothing$ 14mm disk probe  
 957265: ⑬  $\varnothing$ 20mm disk probe  
 12AAF672:  $\varnothing$ 1mm ball offset probe  
 12AAA788: ⑭  $\varnothing$ 4mm ball offset probe  
 12AAA789: ⑮  $\varnothing$ 6mm ball offset probe  
 226116: ⑯ Test indicator ( $\varnothing$ 6mm stem) adapter  
 226117: ⑰ M2 CMM stylus adapter  
 226118: ⑱ M3 CMM stylus adapter  
 \_\_\_\_\_: CMM ball and disk hard probes are available.  
 12AAF712: Battery pack  
 12AAF675: Large capacity battery pack  
 12AAA797: Thermal printer (120V)  
 12AAA802: Thermal printing paper (10pcs.)  
 12AAA804: Cable for page printer\*\* (2m)  
 12AAA807: RS-232C cable 80" / 2m)  
 12AAA808: RS-232C cable (160" / 4m)  
 12AAH034: USB-Memory  
 12AAH035: USB-FDD



## DIMENSIONS AND MASS





# QM-Height

## SERIES 518 — High Precision ABSOLUTE Digital Height Gage

### FEATURES

- Newly developed high accuracy and high resolution ABSOLUTE linear encoder for position detection.
- Easy reference icon keys.
- Possible to measure inside/outside diameter via unique process (detect the circle apex and process by tracing measurement).
- Various types of optional probes are available.
- Large size LCD with back light.
- GO/±NG judgment is performed by setting the upper and lower tolerances. If a judgment result is out of tolerance, the display backlighting changes from green to red, so tolerance judgment can be made at a glance.
- Slider elevation knob (for travel) / wheel (for measurement).
- With SPC and RS-232C output.



### SPECIFICATIONS

Inch/Metric		
Order No.	518-221	518-223
Range	0 - 14" (0 - 350mm)	0 - 24" (0 - 600mm)
Resolution	.00005", .0001", .0002" / 0.001mm, 0.005mm	
Accuracy	± (.00011 + .0002xL / 40)"	
Repeatability	.00007" (2s)	
Display	LCD	
Functions	Zero setting, +/- switching, Presetting, Data hold, Probe tip diameter compensation, inch/mm conversion (Inch/Metric model only), Data output	
Perpendicularity	.0003"	.0005"
Measuring force	1.6 ± 0.5N	
Data output	SPC, RS-232C	
Power supply	AC adapter (optional accessory) / Battery (LR6x4)	
Battery Life	Approx. 800 Hrs. (when backlight is not used)	
	Approx. 260 Hrs. (When backlight is used in the power saving mode)	
	Approx. 6 Hrs. (When backlight is used in the Full-Time Turn-On mode)	
Standard Accessories	ø5mm stepped probe (05HZA148) 4 pcs. AA Alkaline Batteries (LR6)	
Users Manual	99MAF017B	
Mass	22kg	27kg



### Technical Data

Measuring range: 0 - 18.3" or 0 - 28.1"  
0 - 465mm or 0 - 715mm

Slider stroke: 14" / 350mm or 24" / 600mm

Resolution: .00005" / .0001" / .0002" / 0.001 / 0.005mm or 0.001 / 0.005mm

Accuracy at 20°C: Refer to the list of specifications

Guiding method: Roller bearing

Drive method: Manual

Length standard: ABSOLUTE electrostatic capacitance type linear encoder

Measuring force: 1.6±0.5N

Display: LCD

Power supply: AC adapter (optional) / battery (LR6x4)

Battery operation time: Approx. 260 hours (approx. 6 hours when using back light)



GO



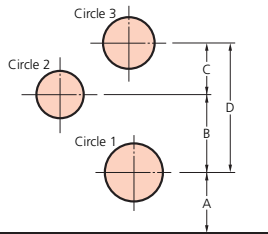
±NG

## Optional Accessories

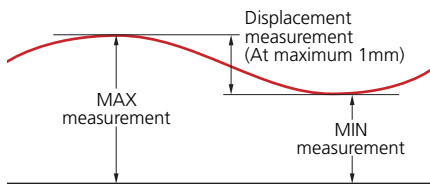
- 12AAC072: Depth probe
- 12AAA792: Dial indicator (ø8mm stem) holder
- 12AAA837: Dial indicator (ø3/8" stem) holder
- 12AAA793: Probe extension holder (3.3" / 85mm)
- 12AAF667: ø2mm ruby ball probe
- 957261: ø2mm ball probe
- 957262: ø3mm ball probe
- 957263: ø4mm ball probe
- 05HAA394: ø5mm ball probe (for 05HZA148)
- 12AAB552: ø10 mm ball probe, L=55mm
- 12AAF670: ø5mm disk probe
- 12AAF671: ø10mm disk probe
- 957264: ø14mm disk probe
- 957265: ø20mm disk probe
- 12AAA788: ø4mm ball offset probe
- 05HAA394: ø5mm ball offset probe
- 12AAA789: ø6mm ball offset probe
- 226116: Test indicator (ø6mm stem) adapter
- 05HZA173: Scriber
- 264-504-5A: DP-1VR
- 936937: SPC cable (40" / 1m)
- 965014: SPC cable (80" / 2m)
- 06AEG180JA: AC adapter (120V)

## Circle pitch measurement

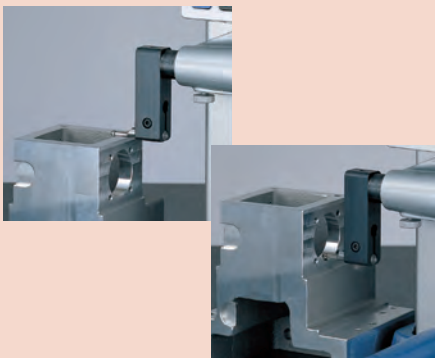
The length A, B, C and D can be determined by measuring circles 1 to 3 once each, using the memory of measuring data together with the calculation function. (A maximum of nine circle measurement data can be saved.)



## Maximum/minimum and displacement measurement

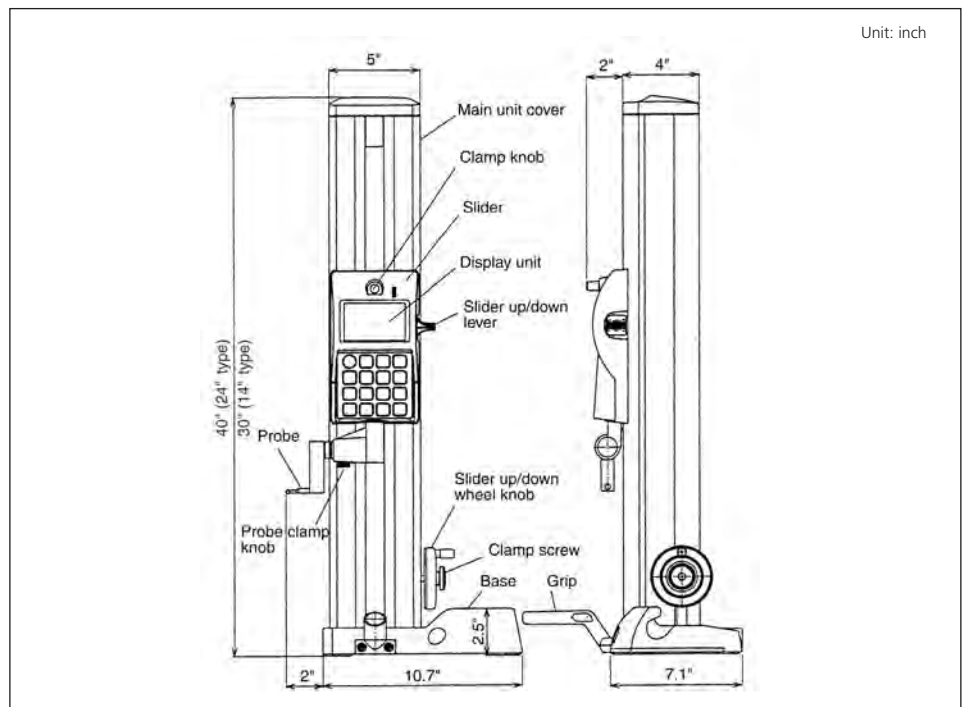


## Height measurement



Inside diameter measurement

## DIMENSIONS



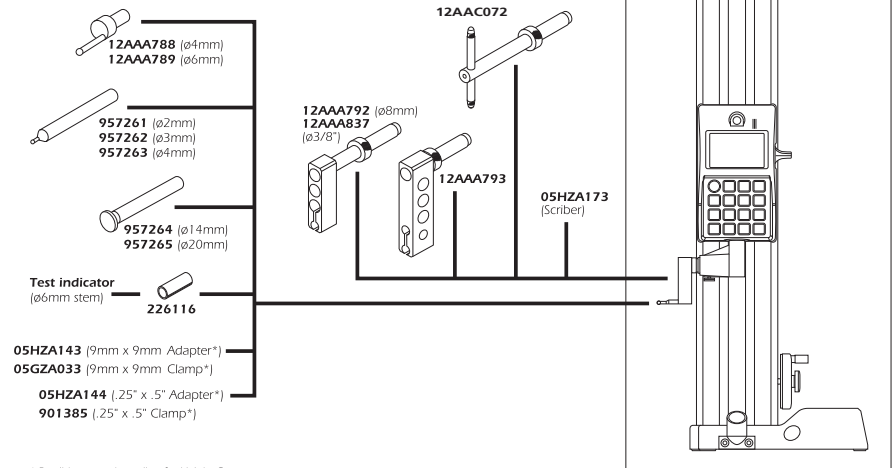
Unit: inch



Digimatic mini processor DP-1VR



936937 (1m)  
965014 (2m)



\* Possible to use the scriber for Height Gauge.

# Depth Micrometer

## SERIES 329, 129 — Interchangeable Rod Type

### FEATURES

- $\varnothing 4$ mm interchangeable rods, with lapped measuring end, provide a wide measuring range.
- The rod length can be adjusted in 1" or 25mm increments.
- With ratchet stop for constant force.
- With measuring rod clamp.
- With SPC output (Series 329).
- Supplied in fitted plastic case.



### SPECIFICATIONS

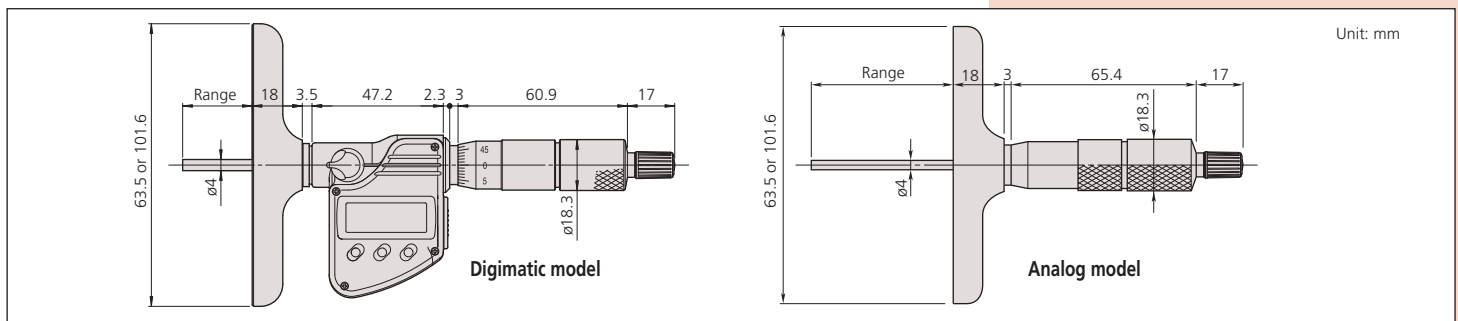
Metric Digimatic model			
Range	Order No.	Base Size	Rod Qty.
0 - 150mm	<b>329-250-10</b>	101.6x16mm	6 rods
0 - 300mm	<b>329-251-10</b>	101.6x16mm	12 rods

Metric			
Range	Order No.	Base Size	Rod Qty.
0 - 50mm	<b>129-109</b>	63.5x16mm	2 rods
0 - 100mm	<b>129-111</b>	63.5x16mm	4 rods
0 - 100mm	<b>129-115</b>	101.6x16mm	4 rods
0 - 150mm	<b>129-112</b>	63.5x16mm	6 rods
0 - 150mm	<b>129-116</b>	101.6x16mm	6 rods

Inch/Metric Digimatic model			
Range	Order No.	Base Size	Rod Qty.
0 - 6" / 0 - 152.4mm	<b>329-350-10</b>	4"x.63"	6 rods
0 - 12" / 0 - 304.8mm	<b>329-351-10</b>	4"x.63"	12 rods

Inch			
Range	Order No.	Base Size	Rod Qty.
0 - 4"	<b>129-127</b>	2.5"x.63"	4 rods
0 - 4"	<b>129-131</b>	4"x.63"	4 rods
0 - 6"	<b>129-128</b>	2.5"x.63"	6 rods
0 - 6"	<b>129-132</b>	4"x.63"	6 rods
0 - 12"	<b>129-149</b>	2.5"x.63"	12 rods
0 - 12"	<b>129-150</b>	4"x.63"	12 rods

### DIMENSIONS



### Technical Data

Accuracy:  $\pm 0.0012'' / \pm 3\mu\text{m}$  for micrometer head feed  
 $\pm [0.0008 + (.00004 \times R/3)]''$   
 R = max. measuring length (inch)  
 $\pm (2+L/75)\mu\text{m}$  for interchangeable rod,  
 L = Max. measuring length (mm)

Resolution\*:  $.00005'' / 0.001\text{mm}$  or  $0.001\text{mm}$   
 Graduation\*\*:  $.001''$  or  $0.01\text{mm}$   
 Flatness of reference face:  $.00005''$  for  $2.5'' / 1.3\mu\text{m}$  for  $63.5\text{mm}$  width base,  $.00008''$  for  $4'' / 2\mu\text{m}$  for  $101.6\text{mm}$  width base  
 Flatness of measuring rod face:  $0.3\mu\text{m}$   
 Parallelism between reference face and measuring rod face:  
 $[.00016 + (.00004 \times R/2)]''$   
 R = max. measuring range (inch)  
 $(4+L/50)\mu\text{m}$ , L = Max. measuring length (mm)

Measuring rod diameter:  $.157'' / 4\text{mm}$

Display\*: LCD

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

Battery life\*: Approx. 3.5 years under normal use

\*Digital models \*\*Analog models

### Function of Digimatic Model

Origin-set, Zero-setting, Data hold, Data output, inch/mm conversion (on inch/metric models only)  
 Alarm: Low voltage, Counting value composition error  
 Function Lock  
 2 Presets

### Optional Accessories for Digimatic Model

**05CZA662**: SPC cable with data switch (40" / 1m)

**05CZA663**: SPC cable with data switch (80" / 2m)

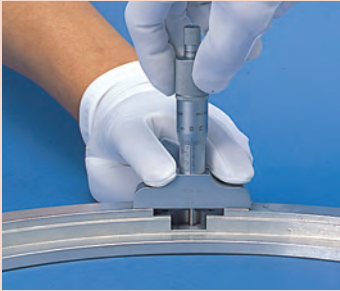


# Depth Micrometer

## SERIES 128

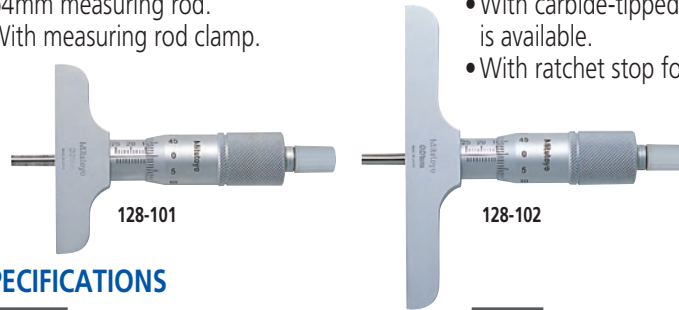
### Technical Data

Accuracy:  $\pm 3\mu\text{m}$  for micrometer head feed  
 Graduation: .001" or 0.01mm  
 Flatness of reference face: 1.3 $\mu\text{m}$  for 63.5mm width base,  
 2 $\mu\text{m}$  for 101.6mm width base  
 Flatness of measuring rod face: 0.3 $\mu\text{m}$   
 Parallelism between reference face and measuring rod face:  
 (4+L/50) $\mu\text{m}$ , L=Max. measuring length (mm)  
 Measuring rod diameter: 4mm



### FEATURES

- $\varnothing 4\text{mm}$  measuring rod.
- With measuring rod clamp.



- With carbide-tipped measuring rod model is available.
- With ratchet stop for constant force.

### SPECIFICATIONS

Metric		
Range	Order No.	Remarks (base)
0 - 25mm	128-101	63.5x16mm
0 - 25mm	128-103*	63.5x16mm
0 - 25mm	128-102	101.6x16mm
0 - 25mm	128-104*	101.6x16mm

Inch		
Range	Order No.	Remarks (base)
0 - 1"	128-105	2.5"x.63"
0 - 1"	128-106	4"x.63"

\*with carbide-tipped measuring rod

# Depth Micro Checker

## SERIES 515

### FEATURES

- The Depth Micro Checker is designed to efficiently check the zero point of a depth micrometer.

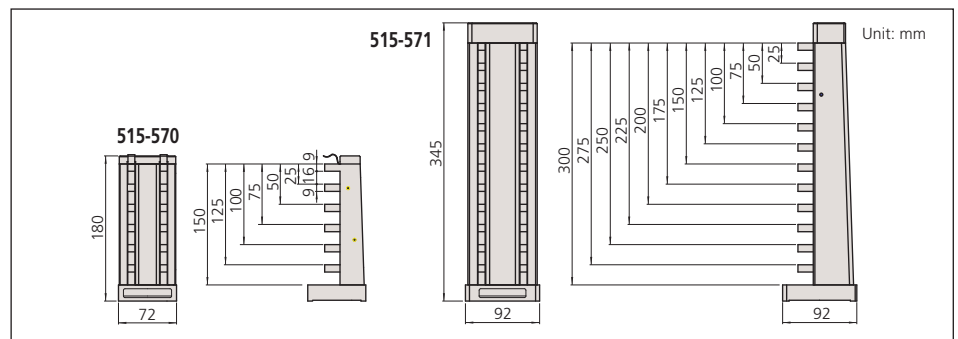


### SPECIFICATIONS

Metric		
Range	Order No.	Remarks (length to check)
0 - 150mm	515-570	25, 50, 75, 100, 125, 150mm
0 - 300mm	515-571	25, 50, 75, 100, 125, 150, 175, 200, 225, 250, 275, 300mm

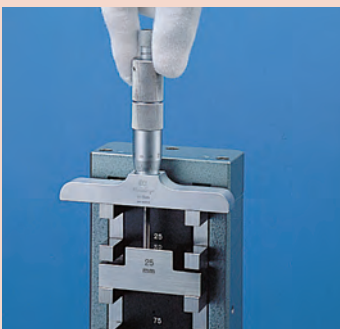
Inch		
Range	Order No.	Remarks (length to check)
0 - 6"	515-575	1", 2", 3", 4", 5", 6"

### DIMENSIONS



### Technical Data

Block pitch accuracy:  $\pm(1+L/150)\mu\text{m}$ ,  
 L=Length to check (mm)  
 Anvil block accuracy:  $\pm 0.5\mu\text{m}$

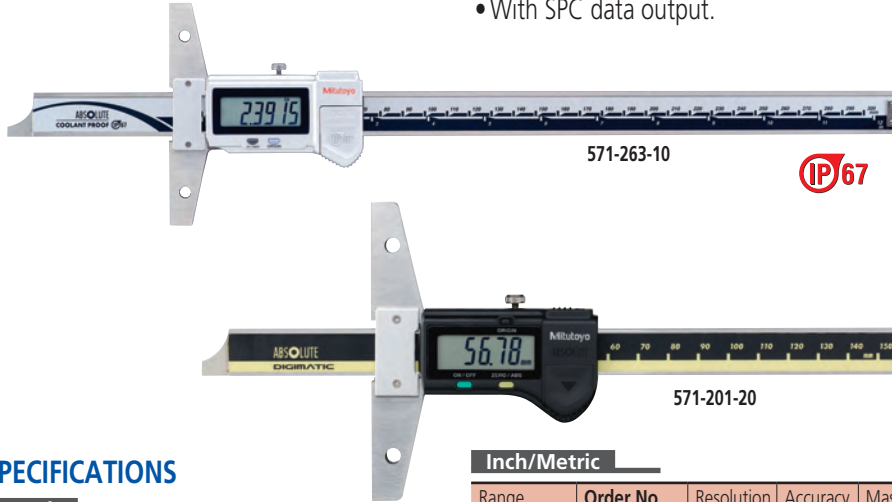


# ABSOLUTE Digimatic Depth Gage

## SERIES 571

### FEATURES

- ABSOLUTE Digimatic Depth Gage can keep track of the origin point once set for the entire life of the battery.
- Base and measuring faces are hardened and micro-lapped.
- Optional wider extension base are available. (up to 450mm range models)
- With SPC data output.



### SPECIFICATIONS

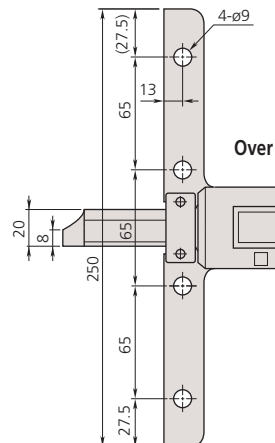
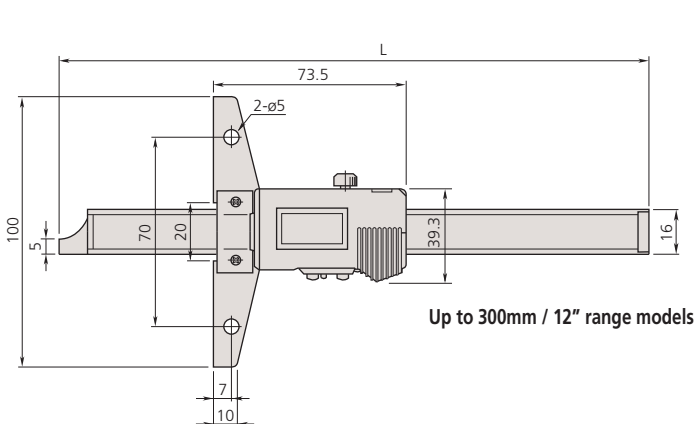
Metric				
Range	Order No.	Resolution	Accuracy	Mass(g)
0 - 150mm	571-201-20	0.01mm	±0.02mm	192
0 - 150mm	571-251-10*	0.01mm	±0.02mm	199
0 - 200mm	571-202-20	0.01mm	±0.02mm	212
0 - 200mm	571-252-10*	0.01mm	±0.02mm	219
0 - 300mm	571-203-20	0.01mm	±0.03mm	310
0 - 300mm	571-253-10*	0.01mm	±0.03mm	320
0 - 450mm	571-204-10	0.01mm	±0.05mm	1270
0 - 600mm	571-205-10	0.01mm	±0.05mm	1400
0 - 750mm	571-206-10	0.01mm	±0.06mm	1530
0 - 1000mm	571-207-10	0.01mm	±0.07mm	1760

\*IP67 Coolant Proof model

Inch/Metric				
Range	Order No.	Resolution	Accuracy	Mass(g)
0 - 6" / 0 - 150mm	571-211-20	.0005" / 0.01mm	±.001"	192
0 - 6" / 0 - 150mm	571-261-10*	.0005" / 0.01mm	±.001"	199
0 - 8" / 0 - 200mm	571-212-20	.0005" / 0.01mm	±.001"	212
0 - 8" / 0 - 200mm	571-262-10*	.0005" / 0.01mm	±.001"	219
0 - 12" / 0 - 300mm	571-213-10	.0005" / 0.01mm	±.0015"	310
0 - 12" / 0 - 300mm	571-263-10*	.0005" / 0.01mm	±.0015"	320
0 - 18" / 0 - 450mm	571-214-10	.0005" / 0.01mm	±.002"	1270
0 - 24" / 0 - 600mm	571-215-10	.0005" / 0.01mm	±.002"	1400
0 - 30" / 0 - 750mm	571-216-10	.0005" / 0.01mm	±.0025"	1530
0 - 40" / 0 - 1000mm	571-217-10	.0005" / 0.01mm	±.0025"	1760

\*IP67 Coolant Proof model

### DIMENSIONS



Range	L	Base thickness
0 - 6" / 0 - 150mm	237	6
0 - 8" / 0 - 200mm	287	6
0 - 12" / 0 - 300mm	403	6
0 - 18" / 0 - 450mm	635	10
0 - 24" / 0 - 600mm	785	10
0 - 30" / 0 - 750mm	935	10
0 - 40" / 0 - 1000mm	1200	10



### Technical Data

Resolution: .0005" / 0.01mm or 0.01mm  
 Repeatability: 0.01mm  
 Display: LCD  
 Length standard: ABSOLUTE electrostatic capacitance (electromagnetic induction)\* type linear encoder  
 Max. response speed: Unlimited  
 Battery: SR44 (1 pc.), **938882**  
 Battery life: Approx. 20,000 hours (3 years)\* under normal use  
 Dust/Water protection level: IP67\*  
 \*Coolant Proof models

### Function

Origin-set, Zero-setting, Automatic power on/off, 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)
- 05CZA624:** SPC cable with data switch (40" / 1m)\*
- 05CZA625:** SPC cable with data switch (80" / 2m)\*
- \_\_\_\_\_ Extension base (see page D-53.)

\*For IP67 models



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



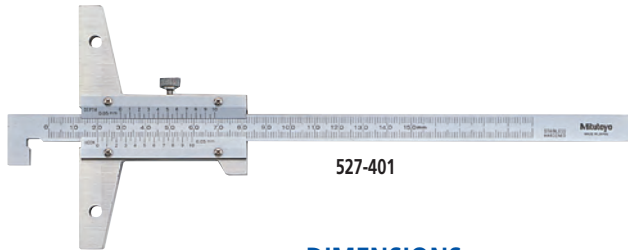


# Vernier Depth Gage

## SERIES 527 — Hook End Type

### FEATURES

- The end of the main scale is hook-shaped to allow depth and thickness measurements of a projected portion or lip in a hole, in addition to standard depth measurement.
- With fine adjustment models are available.
- Optional wider extension base are available.



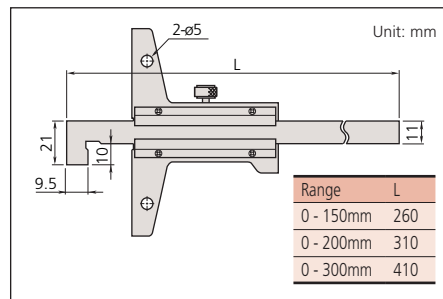
527-401

### SPECIFICATIONS

Metric				
Range	Order No.	Vernier reading	Accuracy	Mass (g)
0 - 150mm	527-401	0.05mm	±0.05mm	240
0 - 200mm	527-402	0.05mm	±0.05mm	240
0 - 300mm	527-403	0.05mm	±0.08mm	270

Metric with fine adjustment				
Range	Order No.	Vernier reading	Accuracy	Mass (g)
0 - 150mm	527-411	0.02mm	±0.03mm	280
0 - 200mm	527-412	0.02mm	±0.03mm	300
0 - 300mm	527-413	0.02mm	±0.04mm	350

### DIMENSIONS

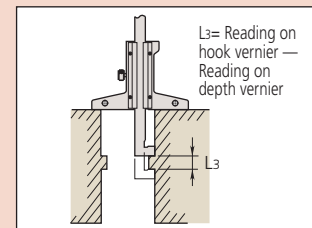
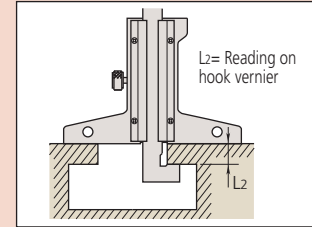
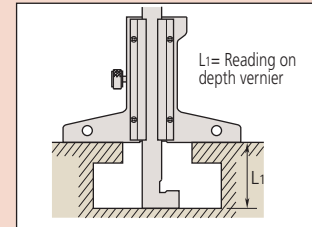


### Technical Data

Graduation: 0.05mm or 0.02mm  
Base size: 100x6.5mm (WxT)

### Optional Accessory

—: Extension base (see page D-53.)



# ABSOLUTE Digimatic Depth Gage

## SERIES 571 — Hook End Type

### FEATURES

- ABSOLUTE Digimatic Depth Gage can keep track of the origin point once set for the entire life of the battery.
- Base and measuring faces are hardened and micro-lapped.
- Optional wider extension base are available.
- With SPC data output.



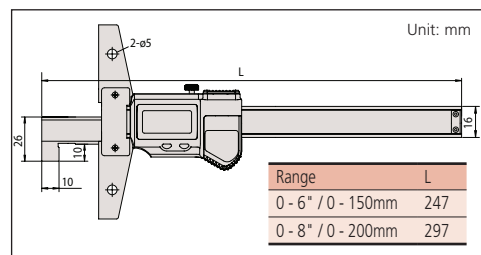
571-264-10



### SPECIFICATIONS

Inch/Metric				
Range	Order No.	Resolution	Accuracy	Mass (g)
0 - 6" / 0 - 150mm	571-264-10	.0005" / 0.01mm	±.0015"	578
0 - 8" / 0 - 200mm	571-265-10	.0005" / 0.01mm	±.0015"	598

### DIMENSIONS



### Technical Data

Resolution: .0005"/0.01mm  
Repeatability: .0005"/0.01mm  
Display: LCD  
Length standard: ABSOLUTE electrostatic capacitance (electromagnetic induction)\* type linear encoder  
Max. response speed: Unlimited  
Battery: SR44 (1 pc.), 938882  
Battery life: Approx. 20,000 hours (3 years)\* under normal use  
Dust/Water protection level: IP67

### Function

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

### Optional Accessories

05CZA624: SPC cable with data switch (40" / 1m)\*

05CZA625: SPC cable with data switch (80" / 2m)\*

—: Extension base (see page D-53.)

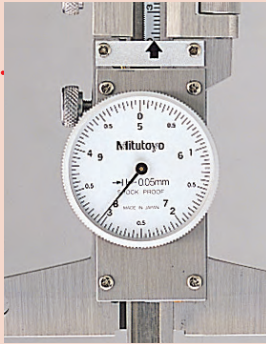
\*For IP67 models

# Dial Depth Gage

**SERIES 527 — with Fine Adjustment**

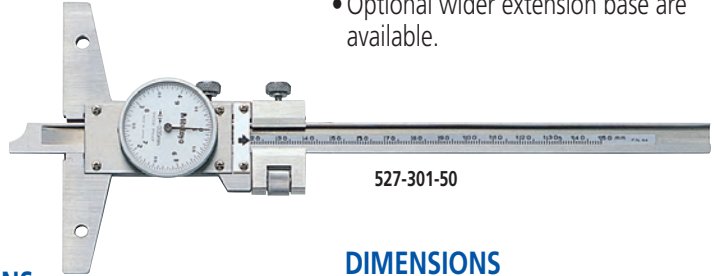
## Technical Data

Dial reading: .001" or 0.05mm  
Base size: 100x6.5mm (WxT)



## FEATURES

- Easier and faster reading of dial.
- Made of hardened stainless steel.
- Base and measuring faces are hardened and micro-lapped.
- Optional wider extension base are available.



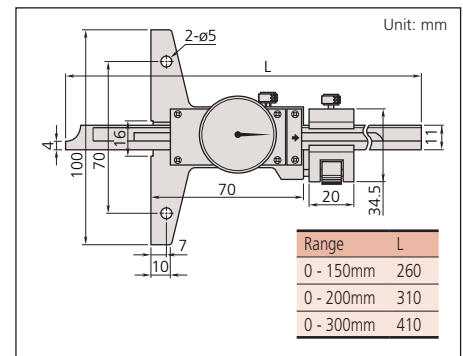
527-301-50

## SPECIFICATIONS

Metric				
Range	Order No.	Dial reading	Accuracy	Mass (g)
0 - 150mm	527-301-50	0.05mm	±0.05mm	280
0 - 200mm	527-302-50	0.05mm	±0.05mm	300
0 - 300mm	527-303-50	0.05mm	±0.08mm	340

Inch				
Range	Order No.	Dial reading	Accuracy	Mass (g)
0 - 6"	527-311-50	.001"	±.001"	280
0 - 8"	527-312-50	.001"	±.001"	300
0 - 12"	527-313-50	.001"	±.0015"	340

## DIMENSIONS

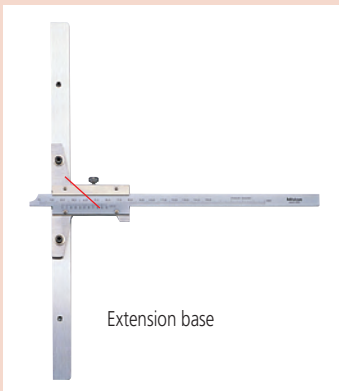


# Extension Bases

**Optional Accessory for Depth Gage**

## FEATURES

- Attached to the base (reference face) plate of a depth gage to extend its span.
- These extension base cannot be attached to 0-24" and 0-40", 0-600mm, 0-1000mm, range models.



Extension base



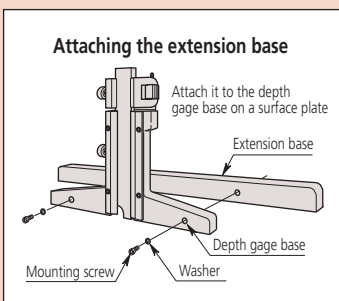
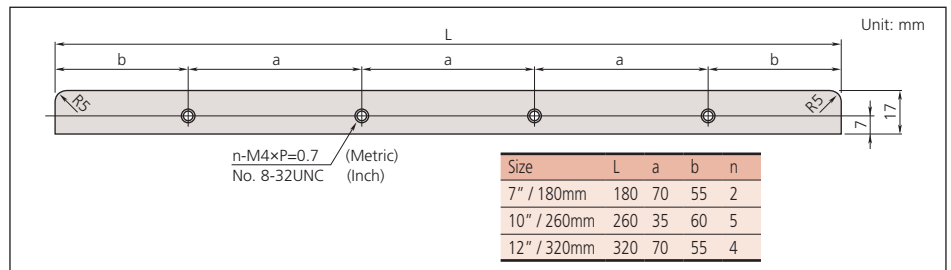
900372

## SPECIFICATIONS

Metric			
Size	Order No.	Remarks (dimension a, b / n)	
180mm	900370	70mm, 55mm	2
260mm	900371	35mm, 60mm	5
320mm	900372	70mm, 55mm	4

Inch			
Size	Order No.	Remarks (dimension a, b / n)	
7"	900367	2.76", 2.17"	2
10"	900368	1.38", 2.36"	5
12"	900369	2.76", 2.17"	4

## DIMENSIONS



# ABSOLUTE Digimatic/Dial Depth Gage

SERIES 547, 7



## FEATURES

- ABSOLUTE Digimatic Depth Gage can keep track of the origin point once set for the entire life of the battery. (Series 547)
- Wide probing range is available with the supplied extension rod.
- Bottom surface of the base is hardened, ground and lapped for highest degree of flatness.
- Designed with a back plunger type dial indicator for upward facing readings. (7231, 7237, 7238)
- With SPC data output. (Series 547)



## SPECIFICATIONS

### Metric Digimatic model

Range	Order No.	Resolution	Stroke	Accuracy	Extension rod	Base (WxT)	Flatness
0 - 200mm	547-211	0.01mm	12mm	±0.02mm	5 pcs. (10, 20, 30, 30, 100mm)	63.5x16mm	5µm
0 - 200mm	547-212	0.01mm	12mm	±0.02mm	5 pcs. (10, 20, 30, 30, 100mm)	101.6x16mm	5µm
0 - 200mm	547-251	0.001mm	12mm	±0.005mm	5 pcs. (10, 20, 30, 30, 100mm)	63.5x16mm	2µm
0 - 200mm	547-252	0.001mm	12mm	±0.005mm	5 pcs. (10, 20, 30, 30, 100mm)	101.6x16mm	2µm

0.01mm graduation    0.001mm graduation

### Inch/Metric Digimatic model

Range	Order No.	Resolution	Stroke	Accuracy	Extension rod	Base (WxT)	Flatness
0 - 8" / 0-200mm	547-217S	.0005" / 0.01mm	.5"	±.001"	4 pcs. (.5", 1", 2", 4")	2.5"x.63"	.0002"
0 - 8" / 0-200mm	547-218S	.0005" / 0.01mm	.5"	±.001"	4 pcs. (.5", 1", 2", 4")	4"x.63"	.0002"
0 - 8" / 0-200mm	547-257S	.00005" / 0.001mm	.5"	±.0003"	4 pcs. (.5", 1", 2", 4")	2.5"x.63"	.00008"
0 - 8" / 0-200mm	547-258S	.00005" / 0.001mm	.5"	±.0003"	4 pcs. (.5", 1", 2", 4")	4"x.63"	.00008"

.005"/0.01mm graduation    .00005"/0.001mm graduation

### Metric Dial Type

Range	Order No.	Graduation	Stroke	Accuracy	Extension rod	Base (WxT)	Flatness
0 - 10mm	7210*	0.01mm	10mm	±0.015mm	—	40x16mm,	5µm
0 - 200mm	7211	0.01mm	10mm	±0.015mm	5 pcs. (10, 20, 30, 30, 100mm)	63.5x16mm	5µm
0 - 200mm	7212	0.01mm	10mm	±0.015mm	5 pcs. (10, 20, 30, 30, 100mm)	101.6x16mm	5µm
0 - 210mm	7213	0.01mm	30mm	±0.03mm	3 pcs. (30, 60, 90mm)	63.5x16mm	5µm
0 - 210mm	7214	0.01mm	30mm	±0.03mm	3 pcs. (30, 60, 90mm)	101.6x16mm	5µm
0 - 200mm	7220	0.01mm	10mm	±0.015mm	5 pcs. (10, 20, 30, 30, 100mm)	100x18mm	5µm
0 - 200mm	7221	0.01mm	10mm	±0.015mm	5 pcs. (10, 20, 30, 30, 100mm)	150x18mm	5µm
0 - 10mm	7222*	0.01mm	10mm	±0.015mm	5 pcs. (10, 20, 30, 30, 100mm)	ø16mm	5µm
0 - 10mm	7223	0.01mm	10mm	±0.015mm	5 pcs. (10, 20, 30, 30, 100mm)	ø25mm	5µm
0 - 10mm	7224	0.01mm	10mm	±0.015mm	5 pcs. (10, 20, 30, 30, 100mm)	ø40mm	5µm
0 - 200mm	7231	0.01mm	5mm	±0.015mm	5 pcs. (10, 20, 30, 30, 100mm)	63.5x16mm	5µm

\*with needle probe

### Inch Dial Type

Range	Order No.	Graduation	Stroke	Accuracy	Extension rod	Base (WxT)	Flatness
0 - 8"	7217S	.001"	1"	±.002"	4 pcs. (.5", 1", 2", 4")	2.5"x.63"	.0002"
0 - 8"	7218S	.001"	1"	±.002"	4 pcs. (.5", 1", 2", 4")	4"x.63"	.0002"
0 - 8"	7237	.001"	.2"	±.002"	4 pcs. (.5", 1", 2", 4")	2.5"x.63"	.0002"
0 - 8"	7238	.001"	.2"	±.002"	4 pcs. (.5", 1", 2", 4")	4"x.63"	.0002"

## Technical Data

Accuracy: Refer to the list of specifications.  
 Resolution\*: .0005"/0.01mm or 0.001mm, 0.01mm, .00005"/0.001mm  
 Dial reading\*\*: .001" or 0.01mm  
 Flatness of base face: 5µm  
 Contact point: Carbide-tipped ball point or needle point (7210, 7222)  
 Measuring force: 1.4N, 1.5N (digital model), 2.5N (7210, 7214, 7217S, 7218S)  
 Display\*: LCD  
 Battery\*: SR44 (1 pc.), 938882  
 Battery life\*: Approx. 3.5 years under normal use  
 \*Digital models \*\*Dial models

## Technical Data of Dial Mode

Accuracy: Refer to the list of specifications.  
 Dial reading: .001" or 0.01mm  
 Flatness of base face: 5µm or 2µm  
 Contact point: Carbide-tipped ball point (needle point: 7210, 7222)  
 Measuring force: 1.4N (2.5N: 7213, 7214, 7217, 7218)

## Function of Digimatic Model

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

## Optional Accessories for Digimatic Model

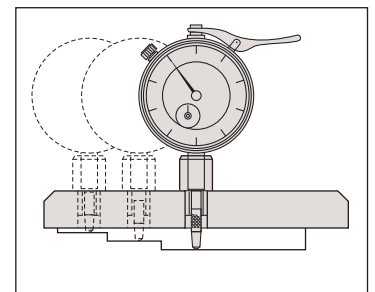
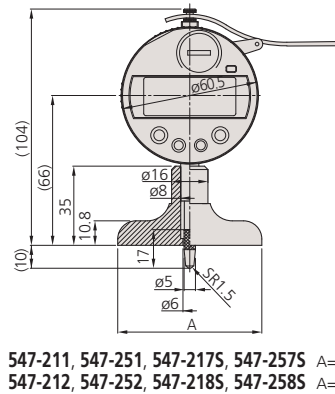
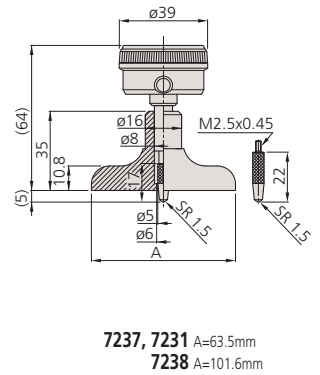
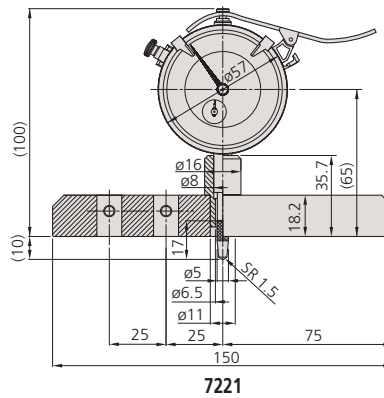
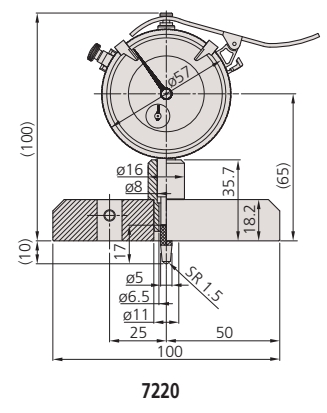
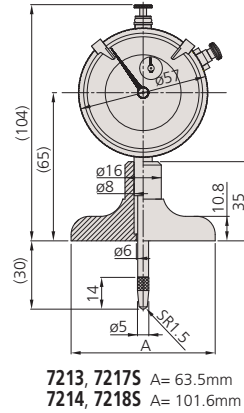
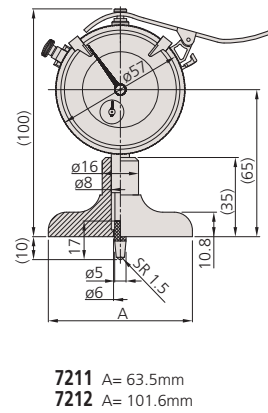
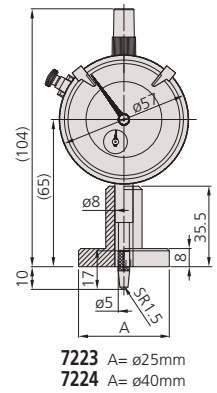
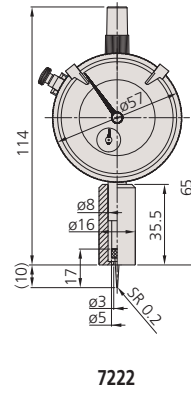
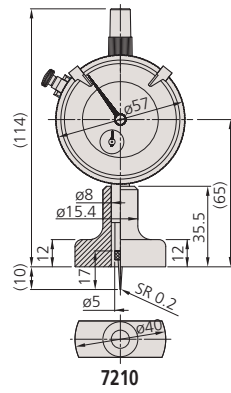
905338: SPC cable (40" / 1m)  
 905409: SPC cable (80" / 2m)  
 139167: .5" Extension Rod  
 301655: 1" Extension Rod  
 301657: 2" Extension Rod  
 301659: 4" Extension Rod  
 303611: 10mm Extension Rod  
 303612: 20mm Extension Rod  
 303613: 30mm Extension Rod  
 303614: 100mm Extension Rod

## Base Only (3/8" dia. hole)

Part No.	length	remark
902164:	2.5"	7217S, 7237, 547-217S, 547-257S
902165:	4"	7218S, 7238, 547-218S, 547-258S

# DIMENSIONS

Unit: mm





# Tire Tread Depth Gage

**SERIES 571, 700**

## FEATURES

- ABSOLUTE Digimatic Tread Depth Gage can keep track of the origin point once set for the entire life of the battery. (Series 571)
- Specially designed to measure tire tread depth.
- Plastic construction for light-weight use. (Series 700)
- With SPC data output. (Series 571)



571-100MOT-10



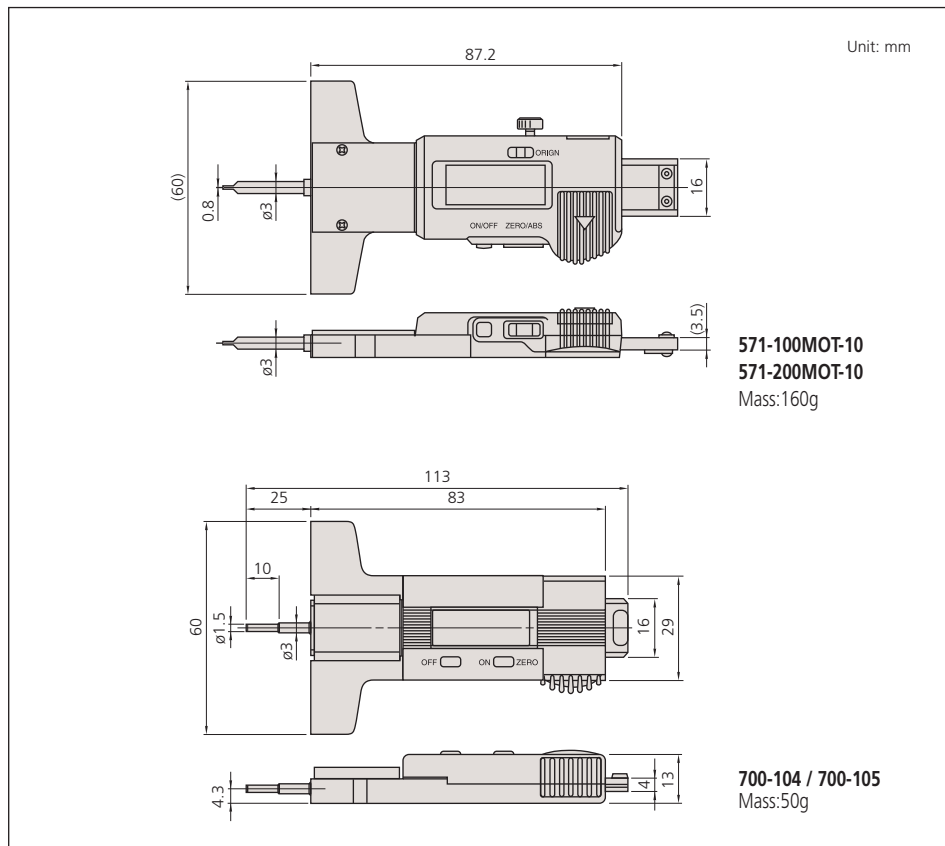
700-105

## SPECIFICATIONS

Metric			
Range	Order No.	Resolution	Accuracy
0 - 25mm	<b>571-100MOT-10</b>	0.01mm	±0.02mm
0 - 25mm	<b>700-104</b>	0.1mm	±0.2mm

Inch/Metric			
Range	Order No.	Resolution	Accuracy
0 - 1" / 0 - 25.4mm	<b>571-200MOT-10</b>	.0005" / 0.01mm	±.0005"
0 - 1" / 0 - 25.4mm	<b>700-105</b>	.001" / 0.1mm	±.008"

## DIMENSIONS AND MASS



## Technical Data

Accuracy: Refer to the list of specifications.  
 Resolution: .0005"/0.01mm or 0.01mm (571 Series)  
 .001"/0.1mm or 0.1mm (700 Series)  
 Display: LCD  
 Battery: SR44 (1 pc.), **938882**  
 Battery life: Approx. 2 years under normal use  
 (approx. 2000 hours: Series 571)

## Function

Origin-set\*, Zero-setting, Power ON/OFF,  
 inch/mm conversion (on inch/metric models only)  
 Alarm: Low voltage, Counting value composition error  
 \*Series 571

## Optional Accessories for Series 571

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

