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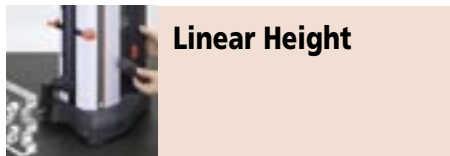
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**Digimatic Caliper**



**Digimatic Height Gages**



**Linear Height**



**Depth Gages**



**New Products**



**SuperCaliper**



**ABSOLUTE Coolant Proof Caliper**



**ABSOLUTE Digimatic Caliper**



**ABSOLUTE Digimatic Offset Caliper**



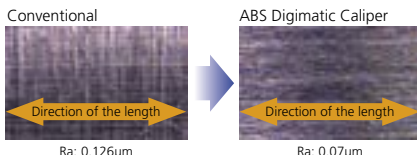
**ABSOLUTE Digital Height Gage**

# 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

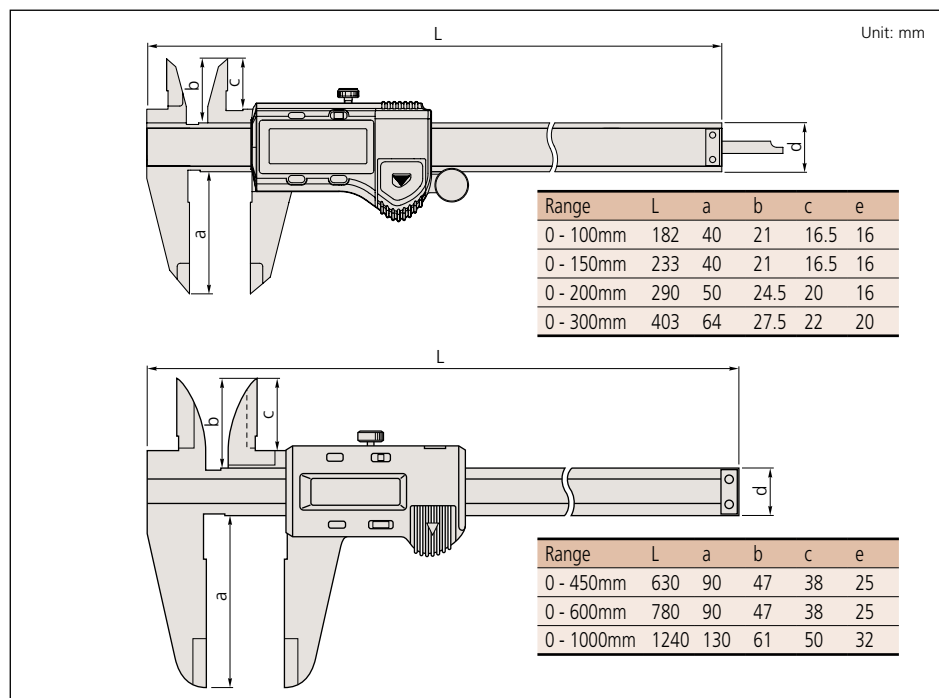


## FEATURES

- 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.



## DIMENSION



(Refer to the page 9 for details.)



(Refer to the page 9 for details.)

## Technical Data

Accuracy:  $\pm 0.02\text{mm}$  ( $\leq 200\text{mm}$ ),  $\pm 0.03\text{mm}$  ( $\leq 300\text{mm}$ )  
 $\pm 0.05\text{mm}$  ( $\leq 600\text{mm}$ ),  $\pm 0.07\text{mm}$  ( $\leq 1000\text{mm}$ )  
 (excluding quantizing error)  
 Resolution: 0.01mm or .0005"/0.01mm  
 Repeatability: 0.01mm  
 Display: LCD  
 Length standard: ABSOLUTE electrostatic capacitance type linear encoder  
 Max. response speed: Unlimited  
 Battery: SR44 (1 pc.), **938882**  
 Battery life: Approx. 3.5 years under normal use

## Function

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

## Optional Accessory

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



## SPECIFICATIONS

### Metric

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

\*without SPC data output

### Inch/Metric

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

\*without SPC data output

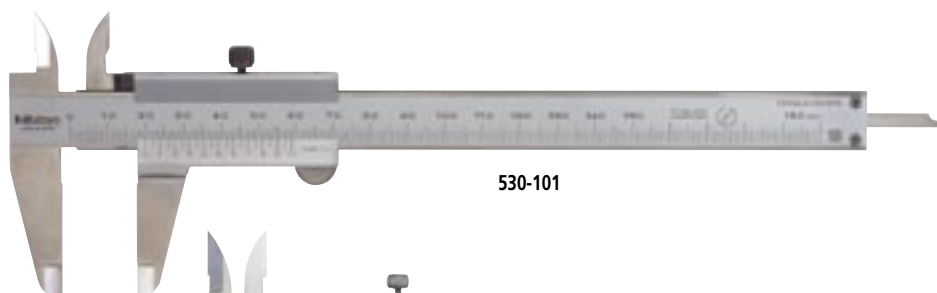
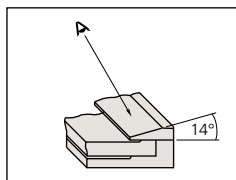


# Vernier Caliper

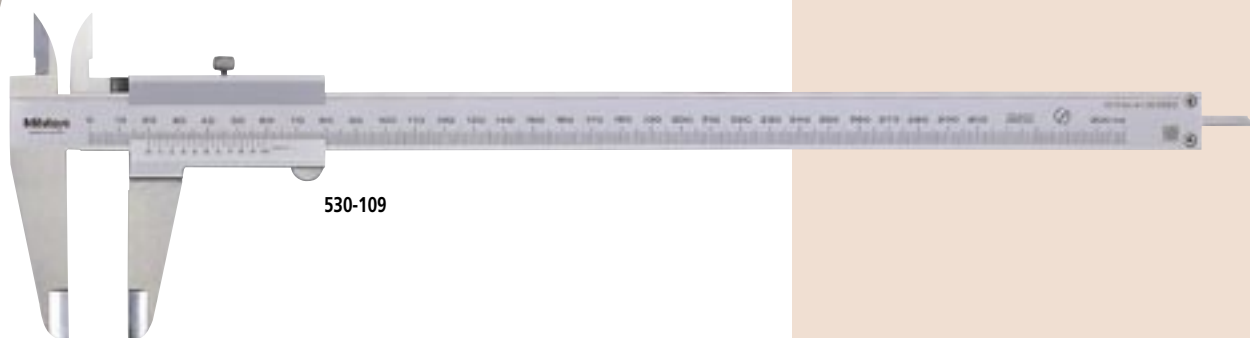
## SERIES 530 — Standard model

### FEATURES

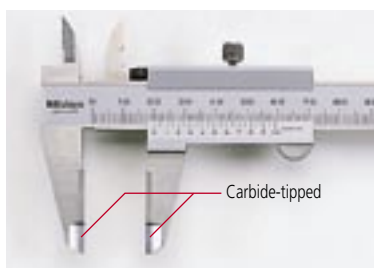
- Plain and basic design.
- Can measure OD (outside diameter), ID (inside diameter), depth, and steps.
- The small vernier face angle (14°) provides easy reading.
- Different reading scales on vernier. (metric/inch and inch models only)
- Clamping screw atop the slider.
- Carbide-tipped jaw type calipers are also available.



530-101



530-109



Carbide-tipped

Carbide-tipped jaw type

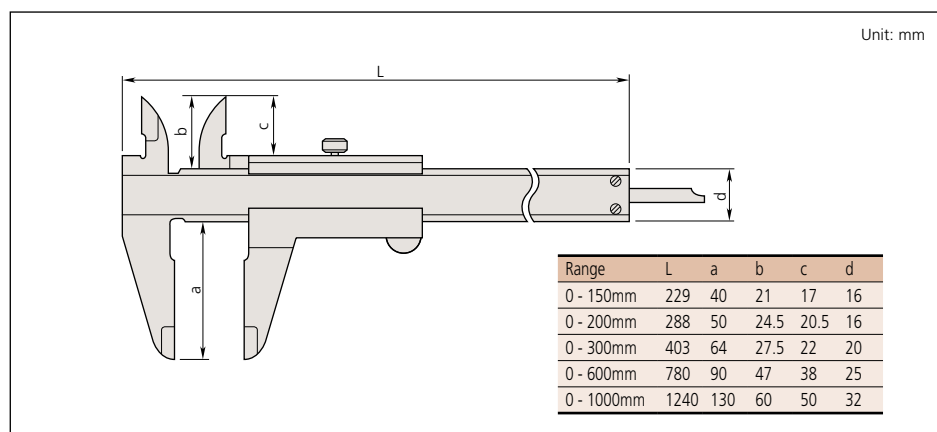


Round depth bar type

### Technical Data

Accuracy:  $\pm 0.05\text{mm}$  ( $\leq 200\text{mm}$ ),  $\pm 0.08\text{mm}$  ( $\leq 300\text{mm}$ )  
 $\pm 0.10\text{mm}$  ( $\leq 600\text{mm}$ ),  $\pm 0.15\text{mm}$  ( $\leq 1000\text{mm}$ )  
 High accuracy type:  
 $\pm 0.03\text{mm}$  ( $\leq 200\text{mm}$ ),  $\pm 0.04\text{mm}$  ( $\leq 300\text{mm}$ )  
 Graduation: 0.05mm, 0.05mm (1/128") or .001" (1/128")  
 High accuracy type:  
 0.02mm or 0.02mm (.001")

### DIMENSION



## Measurement Applications



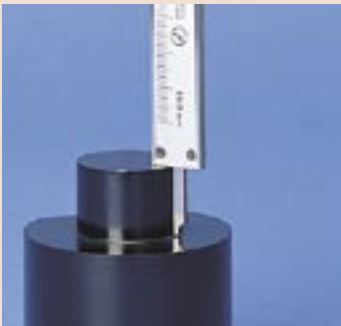
OD measurement



ID measurement



Step measurement



Depth measurement

## SPECIFICATIONS

### Metric

Range	Order No.	Remarks (depth measuring bar / second scale graduation / others)		
0 - 150mm	<b>530-102</b>	ø1.9mm rod	—	—
0 - 150mm	<b>530-101</b>	Blade	—	—
0 - 150mm	<b>530-320</b>	Blade	—	Carbide-tipped jaws for OD measurement
0 - 150mm	<b>530-335</b>	Blade	—	Carbide-tipped jaws for OD & ID measurement
0 - 150mm	<b>530-319</b>	Blade	—	Clamping screw below the slider
0 - 150mm	<b>530-122*</b>	Blade	—	High accuracy model: ±0.03mm
0 - 200mm	<b>530-108</b>	Blade	—	—
0 - 200mm	<b>530-321</b>	Blade	—	Carbide-tipped jaws for OD measurement
0 - 200mm	<b>530-123*</b>	Blade	—	High accuracy model: ±0.03mm
0 - 300mm	<b>530-109</b>	Blade	—	—
0 - 300mm	<b>530-322</b>	Blade	—	Carbide-tipped jaws for OD measurement
0 - 300mm	<b>530-124*</b>	Blade	—	High accuracy model: ±0.04mm
0 - 600mm	<b>530-501</b>	—	—	—
0 - 1000mm	<b>530-502</b>	—	—	—

\*Graduation: 0.02mm

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

Range	Order No.	Remarks (depth measuring bar / second scale graduation / others)		
0 - 150mm	<b>530-104</b>	Blade	1/128"	—
0 - 150mm	<b>530-316</b>	Blade	1/128"	Clamping screw below the slider
0 - 150mm	<b>530-125</b>	Blade	1/128"	—
0 - 150mm	<b>530-312*</b>	Blade	.001"	High accuracy model: ±0.03mm
0 - 200mm	<b>530-114</b>	Blade	1/128"	—
0 - 200mm	<b>530-118*</b>	Blade	.001"	High accuracy model: ±0.03mm
0 - 300mm	<b>530-115</b>	Blade	1/128"	—
0 - 300mm	<b>530-119*</b>	Blade	.001"	High accuracy model: ±0.04mm

\*Graduation: 0.02mm

### Inch with inch/inch double scale

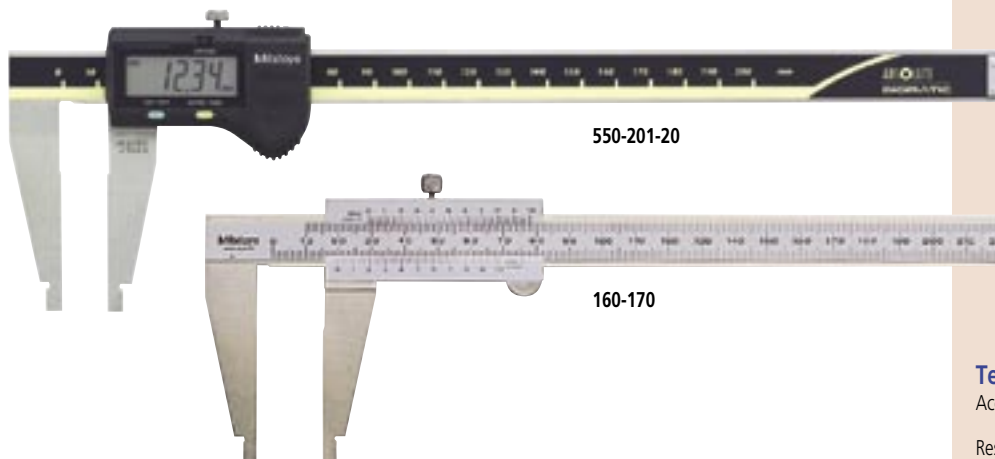
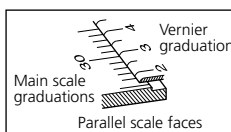
Range	Order No.	Remarks (depth measuring bar / second scale graduation / others)		
0 - 6"	<b>530-105</b>	Blade	1/128"	—
0 - 6"	<b>530-314</b>	Blade	1/128"	Carbide-tipped jaws for OD measurement
0 - 8"	<b>530-116</b>	Blade	1/128"	—

# 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).



## SPECIFICATIONS

Metric Digital model			
Range*	Order No.	Accuracy	Remarks
0 (10) - 200mm	<b>550-201-20</b>	±0.03mm	—
0 (10) - 300mm	<b>550-231-10</b>	±0.03mm	with offset/preset function for easy ID measurement
0 (20) - 450mm	<b>550-203-10</b>	±0.05mm	—
0 (20) - 600mm	<b>550-205-10</b>	±0.05mm	—
0 (20) - 1000mm	<b>550-207-10</b>	±0.07mm	—

\*( ): Minimum dimension in ID measurement

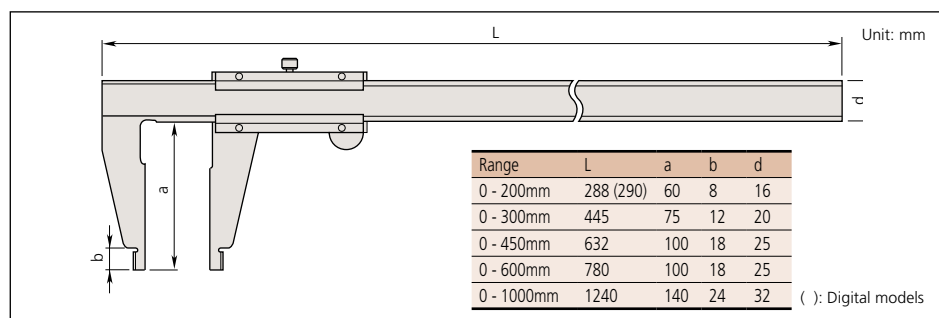
Inch/Metric Digital model			
Range*	Order No.	Accuracy	Remarks
0 (.4") - 8"	<b>550-201-20</b>	±.001"	—
0 (.4") - 12"	<b>550-231-10</b>	±.0015"	with offset/preset function for easy ID measurement
0 (.5") - 18"	<b>550-203-10</b>	±.002"	—
0 (.5") - 24"	<b>550-205-10</b>	±.002"	—
0 (1") - 40"	<b>550-207-10</b>	±.003"	—

\*( ): Minimum dimension in ID measurement

Metric with metric/metric double scale			
Range*	Order No.	Accuracy	Remarks
0 (10) - 200mm	<b>160-170</b>	±0.03mm	High accuracy model with parallax-free vernier scale (0.02mm graduation)
0 (10) - 300mm	<b>160-180</b>	±0.04mm	High accuracy model with parallax-free vernier scale (0.02mm graduation)
0 (20) - 450mm	<b>160-130</b>	±0.10mm	—
0 (20) - 600mm	<b>160-131</b>	±0.10mm	—
0 (20) - 1000mm	<b>160-132</b>	±0.15mm	—

\*( ): Minimum dimension in ID measurement

## DIMENSION



(Refer to the page 9 for details.)

## Technical Data

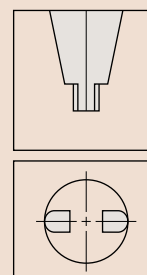
Accuracy: Refer to the list of specifications.  
(excluding quantizing error for digital models)  
Resolution\*: 0.01mm or .0005"/0.01mm  
Graduation\*\*: 0.02mm  
Display\*: LCD  
Length standard\*: ABSOLUTE electrostatic capacitance type linear encoder  
Max. response speed\*: Unlimited  
Battery\*: 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 (inch/mm models)  
Alarm: Low voltage, Counting value composition error

## Optional Accessory for Digital Model

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



Round surface of jaws for accurate CD measurement



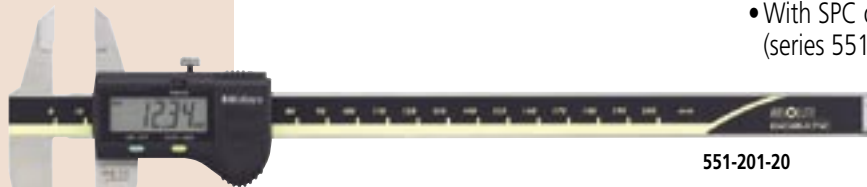
# ABSOLUTE Digimatic & Vernier Caliper

**SERIES 551, 533 — with Nib Style and Standard Jaws**

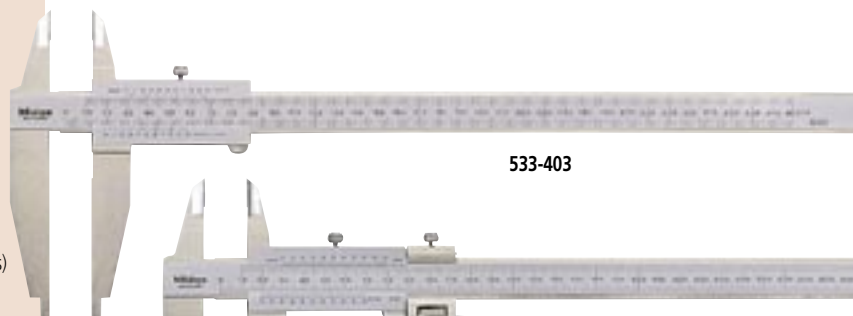


**ABSOLUTE**  
Absolute System Patented by MITUTOYO

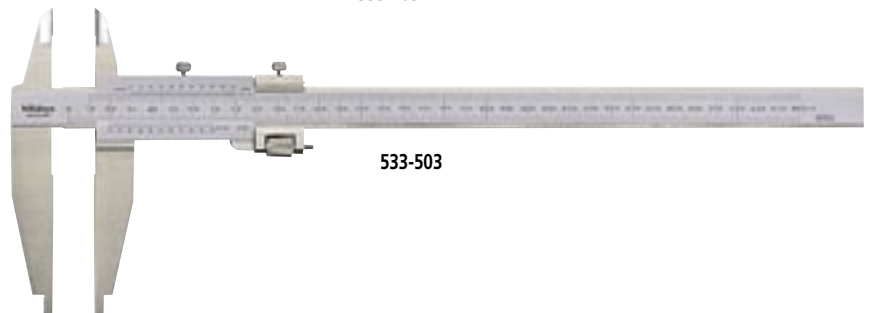
(Refer to the page 9 for details.)



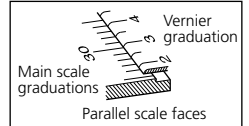
551-201-20



533-403



533-503



## 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 533).
- With fine-adjustment carriage type is available (series 533).
- Parallax-free vernier scale type is available for easy and positive measurement (series 533).
- With SPC output (series 551).

## Technical Data

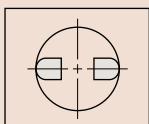
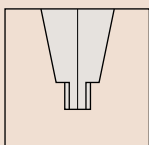
Accuracy: Refer to the list of specifications.  
(excluding quantizing error for digital models)  
Resolution\*: 0.01mm or .0005"/0.01mm  
Graduation\*\*\*: 0.02mm or 0.05mm  
Display\*: LCD  
Length standard\*: ABSOLUTE electrostatic capacitance type linear encoder  
Max. response speed\*: Unlimited  
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, Data output, inch/mm conversion (inch/mm models)  
Alarm: Low voltage, Counting value composition error

## Optional Accessory for Digital Model

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



Round surface of jaws for accurate CD measurement

## SPECIFICATIONS

### Metric Digital model

Range*	Order No.	Accuracy	Remarks
0 (10) - 200mm	<b>551-201-20</b>	±0.03mm	—
0 (10) - 300mm	<b>551-231-10</b>	±0.04mm	with offset/preset function for easy ID measurement
0 (20) - 450mm	<b>551-204-10</b>	±0.06mm	—
0 (20) - 600mm	<b>551-206-10</b>	±0.06mm	—
0 (20) - 1000mm	<b>551-207-10</b>	±0.07mm	—

\*( ): Minimum dimension in ID measurement

### Inch/Metric Digital model

Range*	Order No.	Accuracy	Remarks
0 (.4") - 8"	<b>551-221-20</b>	±.001"	—
0 (.4") - 12"	<b>551-241-10</b>	±.002"	with offset/preset function for easy ID measurement
0 (.5") - 18"	<b>551-224-10</b>	±.0025"	—
0 (.5") - 24"	<b>551-226-10</b>	±.0025"	—
0 (1") - 40"	<b>551-227-10</b>	±.003"	—

\*( ): Minimum dimension in ID measurement

### Metric with metric/metric double scale

Range*	Order No.	Accuracy	Remarks
0 (10) - 200mm	<b>533-401</b>	±0.05mm	with parallax-free vernier scale
0 (10) - 300mm	<b>533-403</b>	±0.08mm	with parallax-free vernier scale
0 (20) - 450mm	<b>533-404</b>	±0.10mm	—
0 (20) - 600mm	<b>533-405</b>	±0.12mm	—
0 (20) - 1000mm	<b>533-406</b>	±0.15mm	—

\*( ): Minimum dimension in ID measurement

### Metric with metric/metric double scale and fine adjustment

Range*	Order No.	Accuracy	Remarks
0 (10) - 280mm	<b>533-503*</b>	±0.04mm	High accuracy model with parallax-free vernier scale (0.02mm graduation)
0 (20) - 500mm	<b>533-504*</b>	±0.05mm	High accuracy model with 0.02mm graduation
0 (20) - 750mm	<b>533-505*</b>	±0.06mm	High accuracy model with 0.02mm graduation
0 (20) - 1000mm	<b>533-506*</b>	±0.07mm	High accuracy model with 0.02mm graduation

\*( ): Minimum dimension in ID measurement

# Dial Caliper

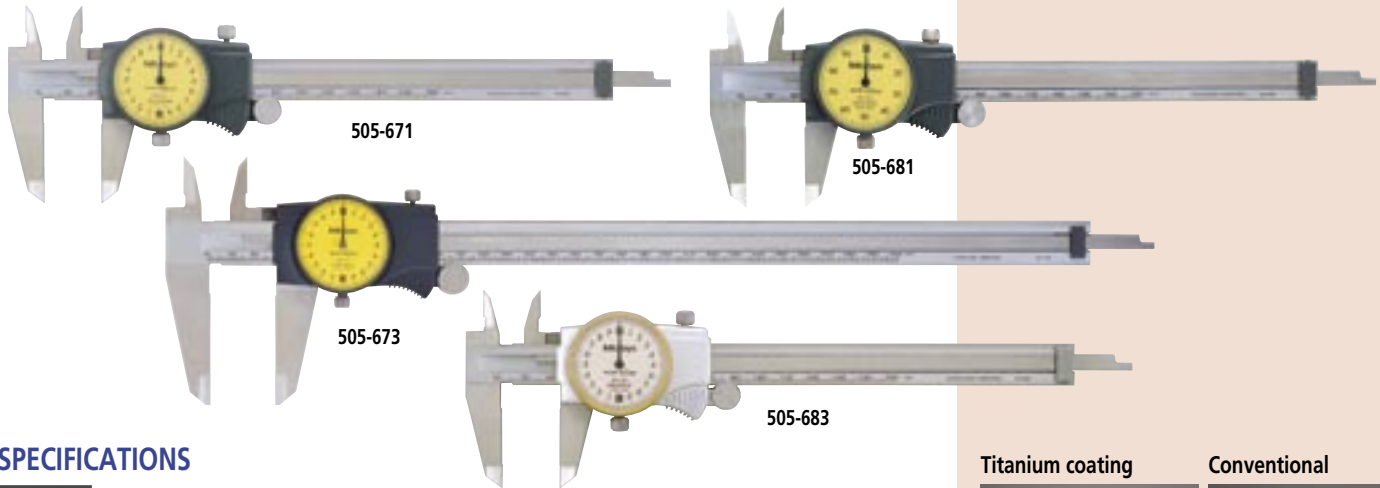
## SERIES 505

### FEATURES

- New designed dial movement for ultra smooth sliding and high shock protection.
- Titanium coating is applied to the sliding surface to strengthen the durability (except for 0 - 300mm and 0 - 12" model). No wearing by 100,000-time sliding test.
- Can measure OD, ID, depth, and steps.
- Clamping screw atop the slider.
- Special models available with carbide-tipped OD and ID jaws.



(Refer to the page 9 for details.)



### SPECIFICATIONS

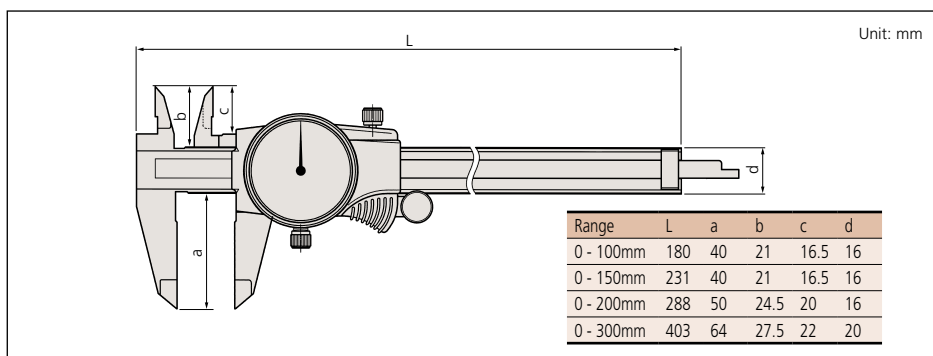
Metric			
Range	Order No.	Accuracy	Remarks (dial reading / others)
0 - 100mm	505-680	±0.015mm	0.01mm, 1mm/rev —
0 - 150mm	505-671 / 505-683*	±0.03mm	0.02mm, 2mm/rev —
0 - 150mm	505-707	±0.03mm	0.02mm, 2mm/rev Carbide-tipped jaws for OD measurement
0 - 150mm	505-711	±0.03mm	0.02mm, 2mm/rev Carbide-tipped jaws for OD & ID measurement
0 - 150mm	505-681 / 505-685*	±0.02mm	0.01mm, 1mm/rev —
0 - 200mm	505-672 / 505-684*	±0.03mm	0.02mm, 2mm/rev —
0 - 200mm	505-682 / 505-686*	±0.03mm	0.01mm, 1mm/rev —
0 - 300mm	505-673	±0.04mm	0.02mm, 2mm/rev —

\*Silver cover type

Inch			
Range	Order No.	Accuracy	Remarks (dial reading / others)
0 - 4"	505-674	±.001"	.001", .1"/rev —
0 - 6"	505-675 / 505-689*	±.001"	.001", .1"/rev —
0 - 6"	505-708	±.001"	.001", .1"/rev Carbide-tipped jaws for OD measurement
0 - 6"	505-712	±.001"	.001", .1"/rev Carbide-tipped jaws for OD & ID measurement
0 - 8"	505-676 / 505-690*	±.002"	.001", .1"/rev —
0 - 8"	505-709	±.002"	.001", .1"/rev Carbide-tipped jaws for OD measurement
0 - 8"	505-713	±.002"	.001", .1"/rev Carbide-tipped jaws for OD & ID measurement
0 - 12"	505-720	±.002"	.001", .2"/rev —
0 - 12"	505-677*	±.002"	.001", .1"/rev —
0 - 12"	505-721	±.002"	.001", .2"/rev Carbide-tipped jaws for OD measurement
0 - 12"	505-710*	±.002"	.001", .1"/rev Carbide-tipped jaws for OD measurement
0 - 12"	505-714*	±.002"	.001", .1"/rev Carbide-tipped jaws for OD & ID measurement

\*Silver cover type

### DIMENSION



### Titanium coating



Wear: 0µm

### Conventional



Wear: 4µm

### Technical Data

Accuracy: Refer to the list of specifications.  
Dial reading: Refer to the list of specifications.



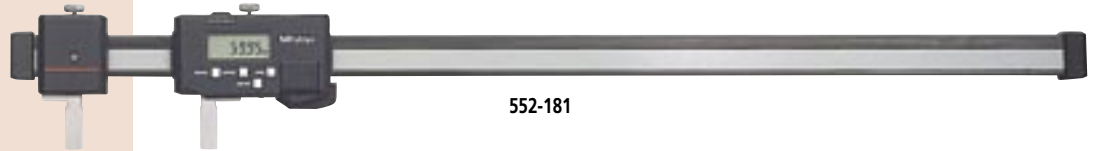


# Digimatic Carbon Fiber Caliper

**SERIES 552 — with Interchangeable Jaws**

## FEATURES

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



552-181

## Technical Data

Accuracy: Refer to the list of specifications. (excluding quantizing error)

Resolution: 0.01mm or .0005"/0.01mm

Display: LCD

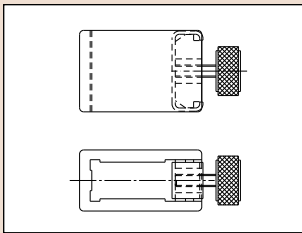
Length standard: Electrostatic capacitance type linear encoder

Max. response speed: 1600mm/s

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

Battery life: Approx. 3,000 hours in continuous use

Standard accessory: Attachment clamps (2 pcs.), **05GZA033**



## SPECIFICATIONS

Metric		
Range	Order No.	Accuracy
0 - 450mm	<b>552-181</b>	±0.04mm
0 - 600mm	<b>552-182</b>	±0.04mm

Inch/Metric		
Range	Order No.	Accuracy
0 - 18"	<b>552-191</b>	±.002"
0 - 24"	<b>552-192</b>	±.002"

## Interchangeable Jaws (Optional)

### Standard Type

Order No.	Components	a	b
<b>07CZA056</b>	Right ( <b>07CAA044</b> ), Left ( <b>07CAA045</b> )	28mm (1.1")	36mm (1.4")

### Centerline Type

Metric			
Order No.	Components	a	b
<b>07CZA057</b>	<b>07CZA039</b> x 2pcs.	30mm	30mm

### Inch

Order No.	Components	a	b
<b>07CZA060</b>	<b>07CZA047</b> x 2pcs.	1.2"	1.2"

### Inside Point Type

Metric			
Order No.	Components	a	b
<b>07CZA058</b>	<b>07CZA041</b> x 2pcs.	25mm	50mm

### Inch

Order No.	Components	a	b
<b>07CZA059</b>	<b>07CZA048</b> x 2pcs.	1"	2"

### Surface Plate Type

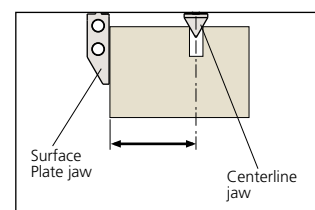
Order No.	a	b
<b>07CZA044</b>	90mm (3.5")	28mm (1.1")

### Scriber Type

Metric			
Order No.	Components	a	b
<b>07CZA055</b>	Right ( <b>07CZA042</b> ), Left ( <b>07CZA043</b> )	8mm	30mm

### inch

Order No.	Components	a	b
<b>07CZA061</b>	Right ( <b>07CZA042</b> ), Left ( <b>07CZA049</b> )	0.31"	1.2"



## Function

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

Alarm: Low voltage, Counting value composition error

## Optional Accessory

**905338**: SPC cable (straight, 1m)

**905409**: SPC cable (straight, 2m)

**905689**: SPC cable (L-type, 1m)

**905690**: SPC cable (L-type, 2m)

# Digimatic Carbon Fiber Caliper

**SERIES 552 — with Interchangeable Jaws**

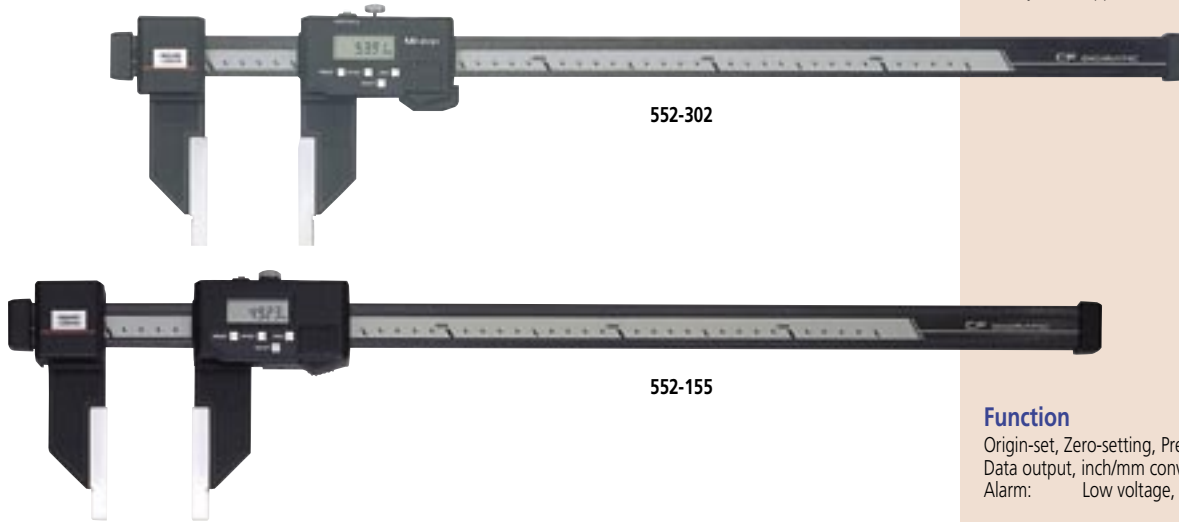
## FEATURES

- 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 to measure magnetic products.



## Technical Data

Accuracy: Refer to the list of specifications. (excluding quantizing error)  
 Resolution: 0.01mm or .0005"/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	Remarks
0 (20) - 300mm	<b>552-301</b>	±0.04mm	—
0 (20) - 450mm	<b>552-302 / 552-155</b>	±0.05mm	<b>552-155:</b> with ceramic jaws
0 (20) - 600mm	<b>552-303 / 552-156</b>	±0.05mm	<b>552-156:</b> with ceramic jaws
0 (20) - 1000mm	<b>552-304</b>	±0.07mm	—
0 (20) - 1500mm	<b>552-305</b>	±0.09mm	—

\*( ): Minimum dimension in ID measurement

Inch/Metric			
Range*	Order No.	Accuracy	Remarks
0 (.5") - 12"	<b>552-311</b>	±.0015"	—
0 (.5") - 18"	<b>552-312 / 552-165</b>	±.002"	<b>552-165:</b> with ceramic jaws
0 (.5") - 24"	<b>552-313 / 552-166</b>	±.002"	<b>552-166:</b> with ceramic jaws
0 (1") - 40"	<b>552-314</b>	±.003"	—
0 (1") - 60"	<b>552-315</b>	±.0035"	—

\*( ): Minimum dimension in ID measurement

Metric Long jaw type			
Range*	Order No.	Accuracy	Remarks
0 (20) - 450mm	<b>552-150</b>	±0.07mm	—
0 (20) - 600mm	<b>552-151</b>	±0.07mm	—

\*( ): Minimum dimension in ID measurement

Inch/Metric Long jaw type			
Range*	Order No.	Accuracy	Remarks
0 (.5") - 12"	<b>552-160</b>	±.003"	—
0 (.5") - 24"	<b>552-161</b>	±.003"	—

\*( ): Minimum dimension in ID measurement

## Function

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

## Optional Accessory

- 905338:** SPC cable (straight, 1m)
- 905409:** SPC cable (straight, 2m)
- 905689:** SPC cable (L-type, 1m)
- 905690:** SPC cable (L-type, 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 600mm/24" range)
- 914054:** Attachment clamps (for models over 600mm/24" range)

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



Centerline Attachments

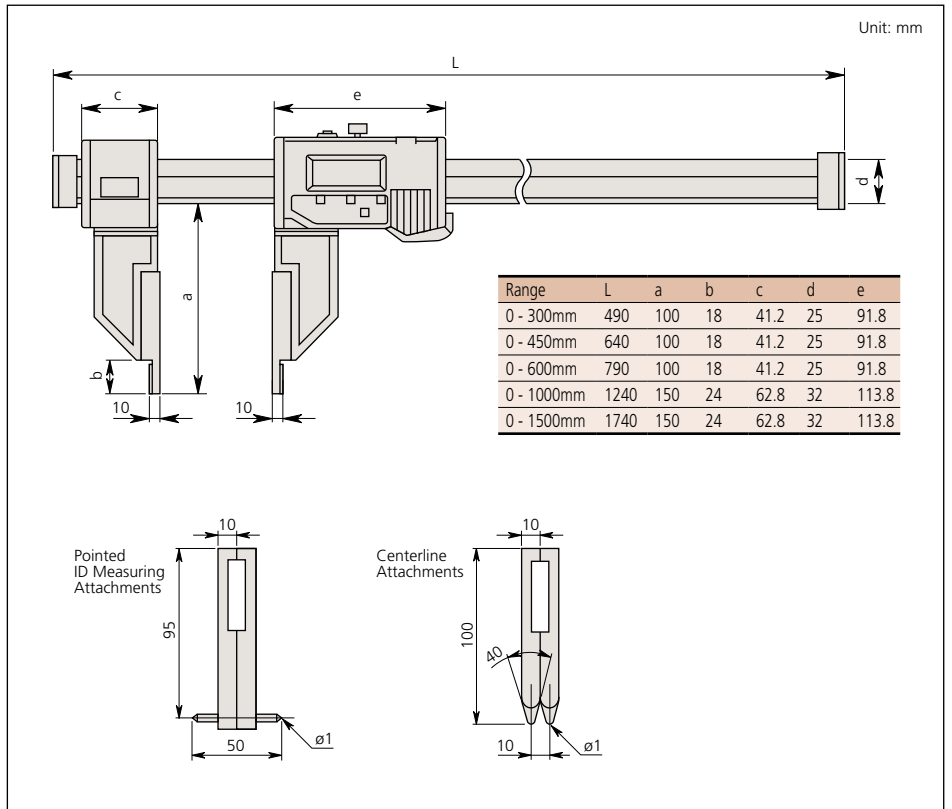
Pointed ID Measuring Attachments



Attachment Clamps



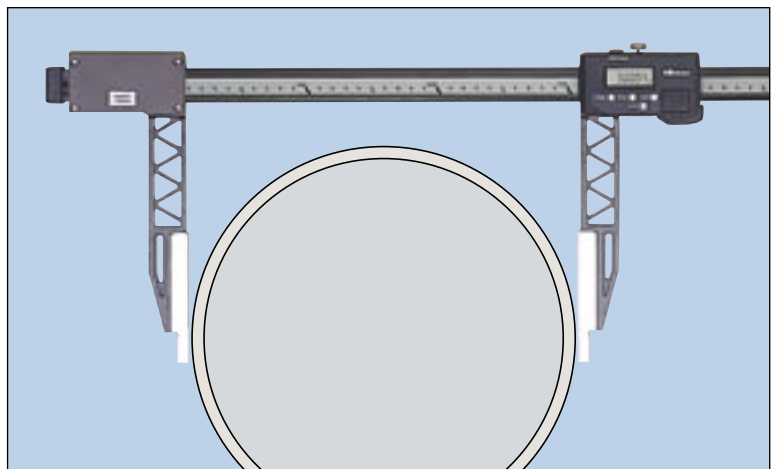
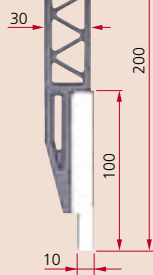
## DIMENSION



Unit: mm



552-151

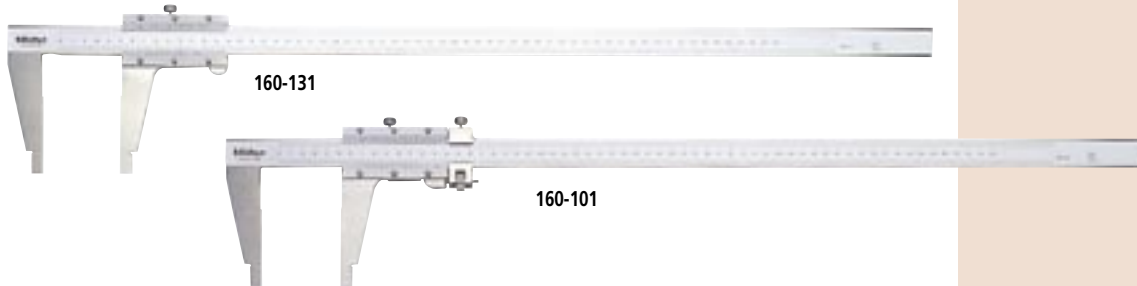


# Vernier Caliper

## 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. (without 160-130~134)
- Inside and outside measurements can be directly read from the upper and lower slider graduations, respectively.



### SPECIFICATIONS

**Metric** with metric/metric double scale

Range*	Order No.	Accuracy	Remarks (lower scale graduation / upper scale graduation / Others)		
0 (20) - 450mm	<b>160-130</b>	±0.10mm	0.05mm	0.05mm	without fine adjustment
0 (20) - 600mm	<b>160-131</b>	±0.10mm	0.05mm	0.05mm	without fine adjustment
0 (20) - 1000mm	<b>160-132</b>	±0.15mm	0.05mm	0.05mm	without fine adjustment
0 (20) - 1500mm	<b>160-133</b>	±0.22mm	0.05mm	0.05mm	without fine adjustment
0 (20) - 2000mm	<b>160-134</b>	±0.28mm	0.05mm	0.05mm	without fine adjustment

\*( ): Minimum dimension in ID measurement

**Metric** with metric/metric double scale

Range*	Order No.	Accuracy	Remarks (lower scale graduation / upper scale graduation / Others)		
0 (10) - 300mm	<b>160-127</b>	±0.04mm	0.02mm	0.02mm	—
0 (20) - 450mm	<b>160-128</b>	±0.05mm	0.02mm	0.02mm	—
0 (20) - 600mm	<b>160-101</b>	±0.05mm	0.02mm	0.02mm	—
0 (20) - 1000mm	<b>160-104</b>	±0.07mm	0.02mm	0.02mm	—
0 (20) - 1500mm	<b>160-110</b>	±0.09mm	0.02mm	0.02mm	—
0 (20) - 2000mm	<b>160-113</b>	±0.12mm	0.02mm	0.02mm	—

\*( ): Minimum dimension in ID measurement

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

Range*	Order No.	Accuracy	Remarks (lower scale graduation / upper scale graduation / Others)		
0 (10) - 300mm	<b>160-150</b>	±0.04mm	0.02mm	.001"	+10mm/.394" to reading in ID measurement
0 (20) - 450mm	<b>160-151</b>	±0.05mm	0.02mm	.001"	+20mm/.787" to reading in ID measurement
0 (20) - 600mm	<b>160-153</b>	±0.05mm	0.02mm	.001"	+20mm/.787" to reading in ID measurement
0 (20) - 1000mm	<b>160-155</b>	±0.07mm	0.02mm	.001"	+20mm/.787" to reading in ID measurement
0 (20) - 1500mm	<b>160-157</b>	±0.09mm	0.02mm	.001"	+20mm/.787" to reading in ID measurement
0 (20) - 2000mm	<b>160-159</b>	±0.12mm	0.02mm	.001"	+20mm/.787" to reading in ID measurement

\*( ): Minimum dimension in ID measurement

**Inch** with inch/inch double scale

Range*	Order No.	Accuracy	Remarks (lower scale graduation / upper scale graduation / Others)		
0 (.3") - 12"	<b>160-124</b>	±.0015"	.001"	.001"	—
0 (.5") - 18"	<b>160-116</b>	±.002"	.001"	.001"	—
0 (.5") - 24"	<b>160-102</b>	±.002"	.001"	.001"	—
0 (1") - 40"	<b>160-105</b>	±.003"	.001"	.001"	—
0 (1") - 60"	<b>160-111</b>	±.004"	.001"	.001"	—
0 (1") - 80"	<b>160-114</b>	±.005"	.001"	.001"	—

\*( ): Minimum dimension in ID measurement

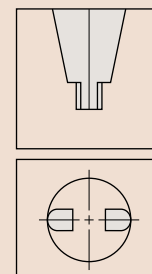
**Inch/Metric** with inch/metric double scale

Range*	Order No.	Accuracy	Remarks (lower scale graduation / upper scale graduation / Others)		
0 (.3") - 12"	<b>160-125</b>	±.0015"	.001"	0.02mm	+3"/7.62mm to reading in ID measurement
0 (.5") - 18"	<b>160-118</b>	±.002"	.001"	0.02mm	+5"/12.7mm to reading in ID measurement
0 (.5") - 24"	<b>160-103</b>	±.002"	.001"	0.02mm	+5"/12.7mm to reading in ID measurement
0 (1") - 40"	<b>160-106</b>	±.003"	.001"	0.02mm	+1"/25.4mm to reading in ID measurement
0 (1") - 60"	<b>160-112</b>	±.004"	.001"	0.02mm	+1"/25.4mm to reading in ID measurement
0 (1") - 80"	<b>160-115</b>	±.005"	.001"	0.02mm	+1"/25.4mm to reading in ID measurement

\*( ): Minimum dimension in ID measurement

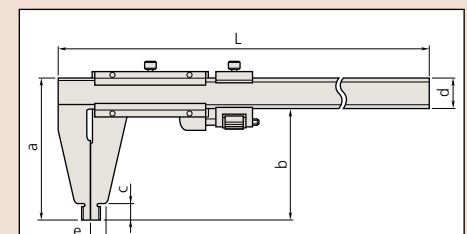
### Technical Data

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



Round surface of jaws for accurate CD measurement

### DIMENSION



Unit: mm

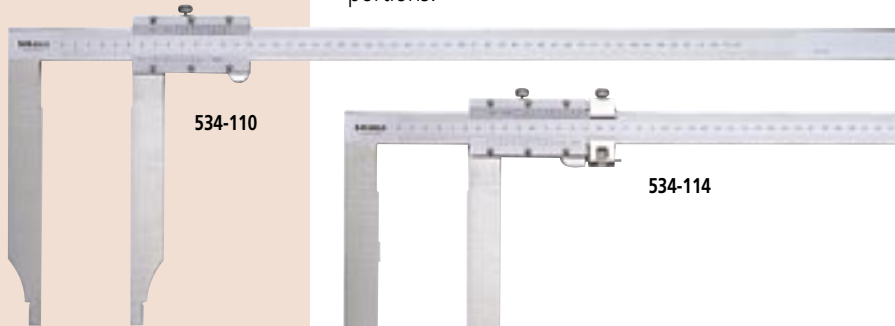
Range	L	a	b	c	d	e
0 - 300mm	445	95	25	12	20	10
0 - 450mm	630	125	100	18	25	14.8
0 - 600mm	780	125	100	18	25	14.8
0 - 1000mm	1240	172	140	24	32	17
0 - 1500mm	1800	212	180	30	32	19
0 - 2000mm	2300	220	180	30	40	23

# Long Jaw Vernier Caliper

## SERIES 534

### FEATURES

- Long jaws for measuring hard-to-reach portions.



534-110

534-114

### SPECIFICATIONS

**Metric** with metric/metric double scale

Range*	Order No.	Accuracy	Remarks (lower scale graduation / upper scale graduation / Others)		
0 (10) - 300mm	<b>534-109</b>	±0.07mm	0.05mm	0.05mm	without fine adjustment
0 (20) - 500mm	<b>534-110</b>	±0.13mm	0.05mm	0.05mm	without fine adjustment

\*( ): Minimum dimension in ID measurement

**Metric** with metric/metric double scale

Range*	Order No.	Accuracy	Remarks (lower scale graduation / upper scale graduation / Others)		
0 (10) - 300mm	<b>534-113</b>	±0.04mm	0.02mm	0.02mm	—
0 (20) - 500mm	<b>534-114</b>	±0.06mm	0.02mm	0.02mm	—
0 (20) - 750mm	<b>534-115</b>	±0.08mm	0.02mm	0.02mm	—
0 (20) - 1000mm	<b>534-116</b>	±0.10mm	0.02mm	0.02mm	—

\*( ): Minimum dimension in ID measurement

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

Range*	Order No.	Accuracy	Remarks (lower scale graduation / upper scale graduation / Others)		
0 (10) - 300mm	<b>534-101</b>	±0.07mm	0.05mm	1/128"	+10mm/.394" to reading in ID measurement
0 (10) - 300mm	<b>534-105</b>	±0.04mm	0.02mm	.001"	+10mm/.394" to reading in ID measurement
0 (20) - 500mm	<b>534-102</b>	±0.13mm	0.05mm	1/128"	+20mm/.787" to reading in ID measurement
0 (20) - 500mm	<b>534-106</b>	±0.06mm	0.02mm	.001"	+20mm/.787" to reading in ID measurement
0 (20) - 700mm	<b>534-103</b>	±0.16mm	0.05mm	1/128"	+20mm/.787" to reading in ID measurement
0 (20) - 700mm	<b>534-107</b>	±0.08mm	0.02mm	.001"	+20mm/.787" to reading in ID measurement
0 (20) - 1000mm	<b>534-104</b>	±0.20mm	0.05mm	1/128"	+20mm/.787" to reading in ID measurement
0 (20) - 1000mm	<b>534-108</b>	±0.10mm	0.02mm	.001"	+20mm/.787" to reading in ID measurement

\*( ): Minimum dimension in ID measurement

**Inch** with inch/inch double scale

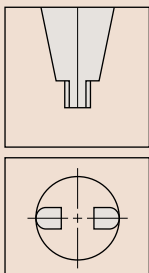
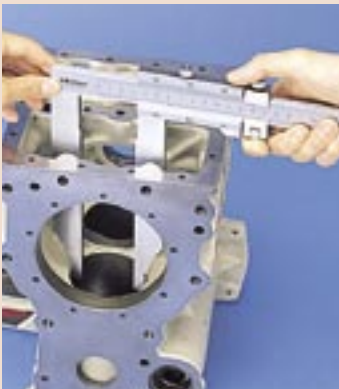
Range*	Order No.	Accuracy	Remarks (lower scale graduation / upper scale graduation / Others)		
0 (.3") - 12"	<b>534-117</b>	±.002"	.001"	.001"	—
0 (.8") - 20"	<b>534-118</b>	±.003"	.001"	.001"	—
0 (.8") - 30"	<b>534-119</b>	±.004"	.001"	.001"	—
0 (.8") - 40"	<b>534-120</b>	±.004"	.001"	.001"	—

\*( ): 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 CD measurement

### DIMENSION

