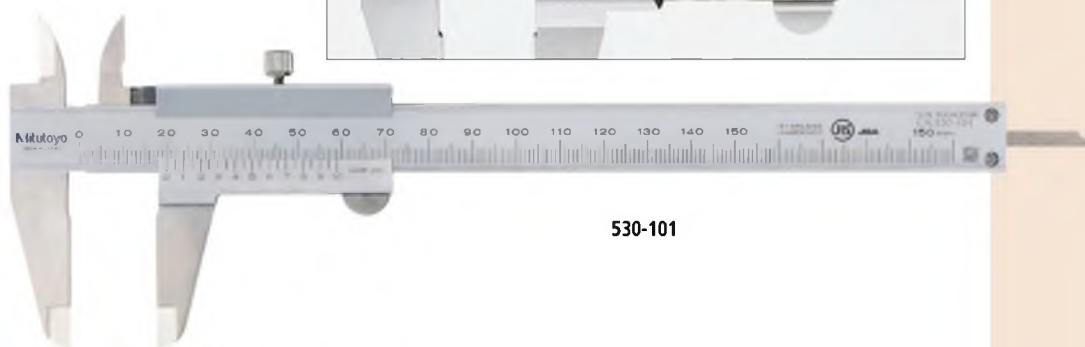
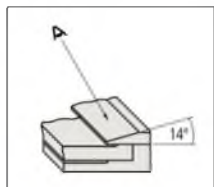


Calipers

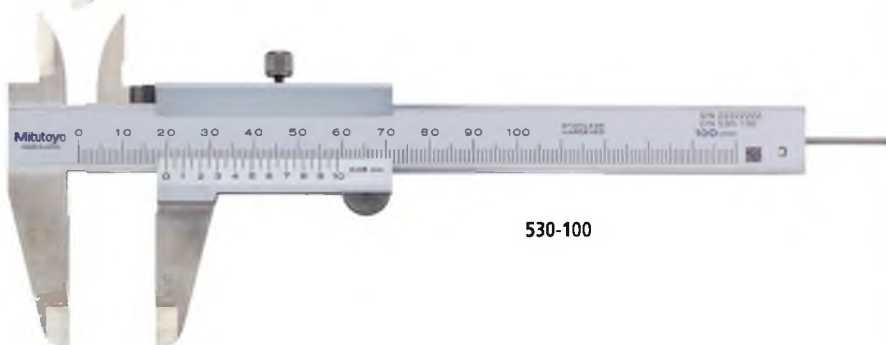
An industry standard in measuring tools

Vernier Caliper 530 Series — Standard model

- Plain and basic design.
- Stepped graduation face prevents dust ingress between the main scale and slider.
- The small vernier face angle (14°) provides easy reading.
- Can measure outside and inside dimensions, depth, and steps.
- Carbide-tipped jaw calipers are optimal for rough finished parts, castings, grinding stones, etc.
- Decimal and fractional graduated scales (metric/inch and inch models only).

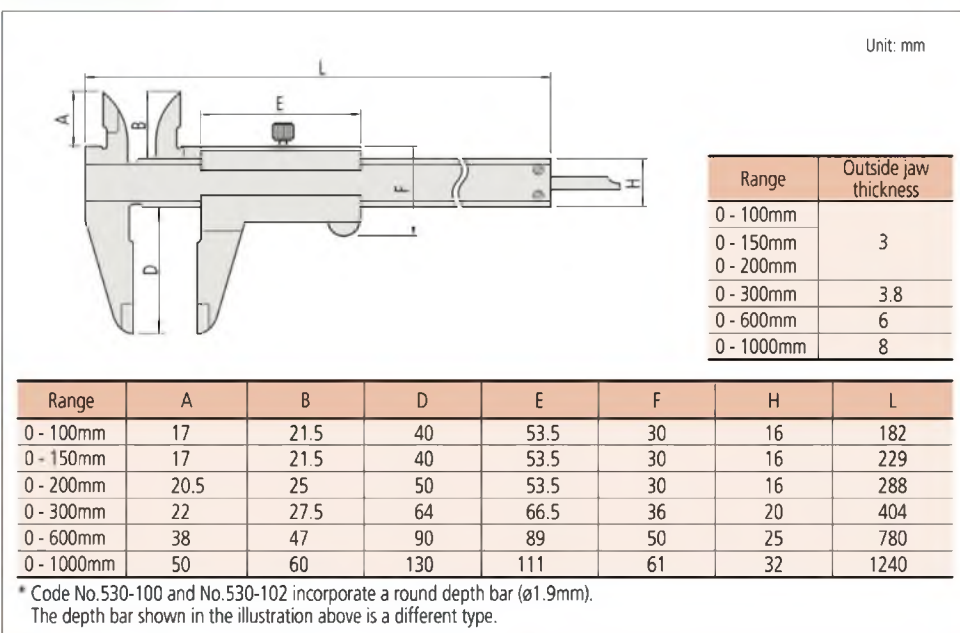


530-101



530-100

DIMENSIONS



530-102 (Round depth bar type)



530-320 (Carbide-tipped jaw 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 ($.001''$)

SPECIFICATIONS

Metric			
Order No.	Range	Depth bar	Remarks
530-100	0 - 100mm	$\varnothing 1.9\text{mm}$ rod	—
530-102			—
530-101			—
530-320	0 - 150mm	Blade	Carbide-tipped jaws for outside measurement
530-335			Carbide-tipped jaws for outside and inside measurement
530-122*			High accuracy model: $\pm 0.03\text{mm}$
530-108			—
530-321	0 - 200mm	Blade	Carbide-tipped jaws for outside measurement
530-123*			High accuracy model: $\pm 0.03\text{mm}$
530-109	0 - 300mm	Blade	—
530-322			Carbide-tipped jaws for outside measurement
530-124*			High accuracy model: $\pm 0.04\text{mm}$
530-501	0 - 600mm	—	—
530-502	0 - 1000mm	—	—

* Graduation: 0.02mm

Metric/Inch with metric/inch double scale				
Order No.	Range	Depth bar	Inch graduation	Remarks
530-104	0 - 150mm	Blade	$1/128''$	—
530-316			$1/128''$	Clamping screw below the slider
530-312*			$.001''$	High accuracy model: $\pm 0.03\text{mm}$
530-114	0 - 200mm	Blade	$1/128''$	—
530-118*			$.001''$	High accuracy model: $\pm 0.03\text{mm}$
530-115	0 - 300mm	Blade	$1/128''$	—
530-119*			$.001''$	High accuracy model: $\pm 0.04\text{mm}$

* Graduation: 0.02mm

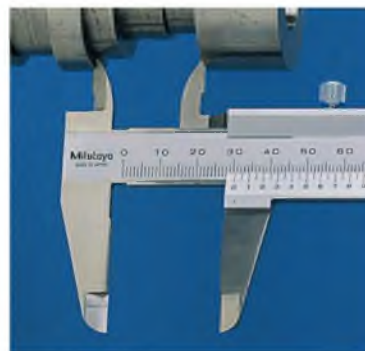
Inch with inch/inch double scale				
Order No.	Range	Depth bar	Inch graduation	Remarks
530-105	0 - 6"	Blade	$1/128''$	—
530-116	0 - 8"			

Measurement Applications

1. Outside measurement



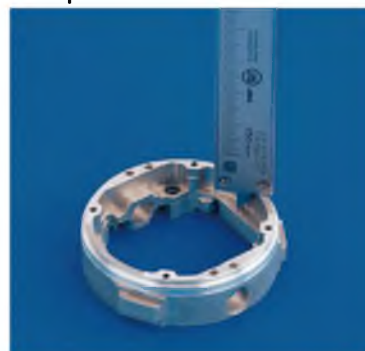
2. Inside measurement



3. Step measurement



4. Depth measurement



Calipers

An industry standard in measuring tools

Vernier Caliper 532 Series — with fine adjustment

- Fine-adjustment aids slider positioning.
- Allows step measurement.



Technical Data

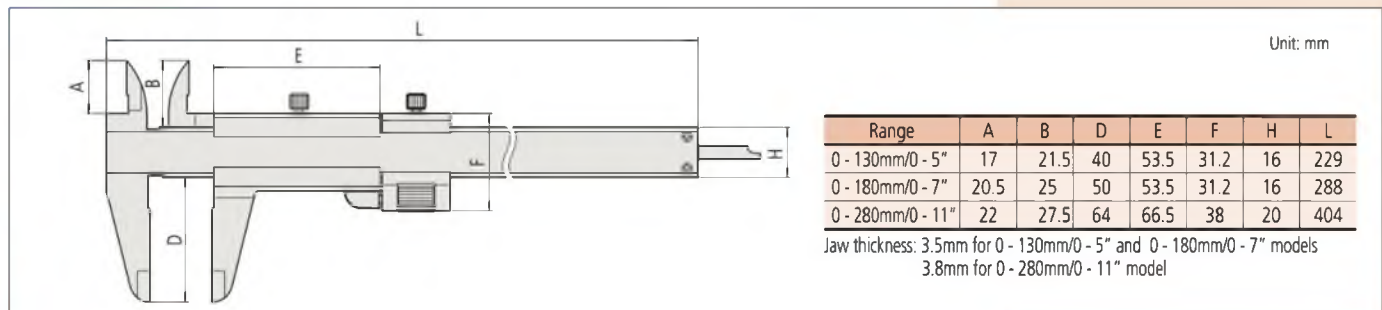
Accuracy: $\pm 0.03\text{mm}$ ($\leq 180\text{mm}$), $\pm 0.04\text{mm}$ ($\leq 280\text{mm}$)
 Graduation: 0.02mm, 0.02mm (.001") or .001" (1/128")

SPECIFICATIONS

Metric				
Order No.	Range	Depth bar	Remarks	
532-101	0 - 130mm	Blade	with fine adjustment	
532-102	0 - 180mm			
532-103	0 - 280mm			

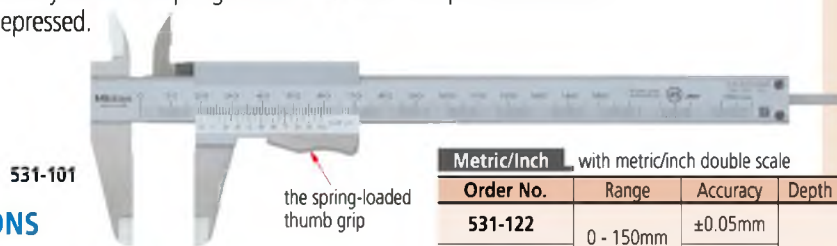
Metric/Inch with metric/inch double scale				
Order No.	Range	Depth bar	Inch graduation	Remarks
532-119	0 - 130mm	Blade	.001"	with fine adjustment
532-120	0 - 180mm			
532-121	0 - 280mm			

DIMENSIONS



Vernier Caliper 531 Series — with thumb clamp

- The slider moves only when the spring-loaded thumb grip is depressed.
- Allows step measurement.



Technical Data

Accuracy: Refer to the list of specifications.
 Graduation: 0.05mm, 0.05mm (1/128") or .001" (1/128")
 High accuracy type:
 0.02mm or 0.02mm (.001")

SPECIFICATIONS

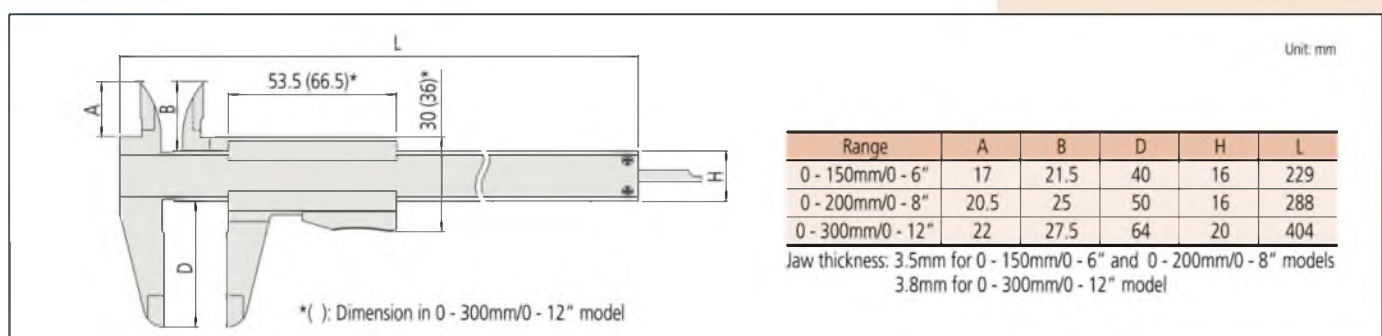
Metric				
Order No.	Range	Accuracy	Depth bar	Remarks
531-101	0 - 150mm	$\pm 0.05\text{mm}$	Blade	—
531-102	0 - 200mm			
531-103	0 - 300mm	$\pm 0.08\text{mm}$		

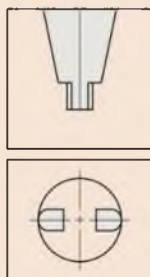
* Graduation: 0.02mm

Metric/Inch with metric/inch double scale					
Order No.	Range	Accuracy	Depth bar	Inch graduation	Remarks
531-122	0 - 150mm	$\pm 0.05\text{mm}$	Blade	1/128"	with inch/mm conversion label
531-128*		$\pm 0.03\text{mm}$.001"	High accuracy model
531-108	0 - 200mm	$\pm 0.05\text{mm}$		1/128"	—
531-129*		$\pm 0.03\text{mm}$.001"	High accuracy model
531-109	0 - 300mm	$\pm 0.08\text{mm}$		1/128"	—
531-112*		$\pm 0.04\text{mm}$.001"	High accuracy model

* Graduation: 0.02mm

DIMENSIONS





Radiused jaws for accurate ID measurement

Technical Data

Accuracy: Refer to the list of specifications.

(excluding quantizing error for digital models)

Resolution: 0.01mm or .0005"/0.01mm

Display: LCD

Scale type: ABSOLUTE electromagnetic induction linear encoder

Max. response speed: Unlimited

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

for initial operational checks (standard accessory)

Battery life: Approx. 3 years under normal use

(1 year: 300mm models)

(3.5 years: over 300mm models)

Dust/Water protection level: IP67* (models up to 300mm)

*This model is not waterproof type.

Therefore, rustproofing shall be applied after use.

Optional accessories

For details, refer to page D-39.

959143: Data hold unit

Connecting cables for IT/DP/MUX

05CZA624: SPC cable with data button (1m)*

05CZA625: SPC cable with data button (2m)*



959149: SPC cable with data button (1m)

959150: SPC cable with data button (2m)

USB Input Tool Direct

06ADV380A: SPC cable for USB-ITN-A (2m)*

06ADV380C: SPC cable for USB-ITN-C (2m)

Connecting cables for U-WAVE-T

02AZD790A: SPC cable for U-WAVE with data button (160mm)*

02AZE140A: SPC cable for footswitch*

02AZD790C: SPC cable for U-WAVE with data button (160mm)

02AZE140C: SPC cable for footswitch

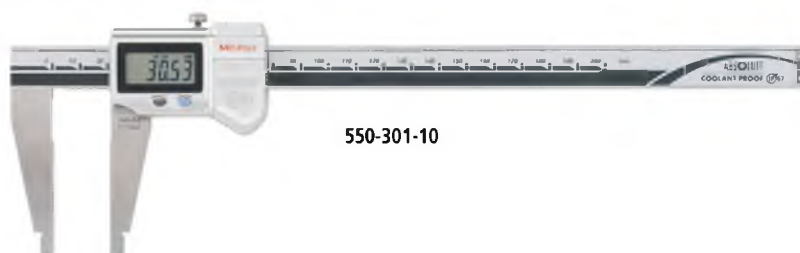
* For IP67 models (up to 300mm)

ABSOLUTE Digimatic Caliper 550 Series — with Nib Style Jaws

- Offers a resolution of 0.01mm with corresponding accuracy.
- Incorporates an Absolute measurement system. No need to reset the origin after switching on. (Refer to page D-8 for a description of Absolute measurement.)
- Code Nos. 550-301-10, 550-331-10, 550-311-10 and 550-341-10: IP67 (These models are not a waterproof type. Therefore a rustproofing shall be applied after use.)
- Allows integration into statistical process control and measurement systems for models

with measurement data output connector. Refer to page A-3.

- ID measurement value: displayed value + (the minimum inside measurement value mentioned below). OFFSET switch allows to input a compensation value so that the measurement value can be read directly (Code Nos. 550-301-10, 550-331-10, 550-311-10 and 550-341-10). Preset function allows to set a desired starting point (Code Nos. 550-331-10 and 550-341-10).



550-301-10

SPECIFICATIONS

Metric			
Order No.	Range*	Accuracy	Remarks
550-301-10	0 - 200mm (10.1 - 210mm)	±0.03mm	IP67
550-331-10	0 - 300mm (10.1 - 310mm)	±0.04mm	IP67, with offset/preset function for easy inside measurement
550-203-10	0 - 450mm (20.1 - 470mm)	±0.05mm	—
550-205-10	0 - 600mm (20.1 - 620mm)	±0.05mm	—
550-207-10	0 - 1000mm (20.1 - 1020mm)	±0.07mm	—

* () : Inside measurement

Note: Series 550 is not equipped with a depth bar.

Inch/Metric			
Order No.	Range*	Accuracy	Remarks
550-311-10	0 - 8" (.404" - 8.4")	±.0015"	IP67
550-341-10	0 - 12" (.404" - 12.4")	±.002"	IP67, with offset/preset function for easy inside measurement
550-223-10	0 - 18" (.504" - 18.5")		—
550-225-10	0 - 24" (.504" - 24.5")		—
550-227-10	0 - 40" (.504" - 40.2")	±.003"	—

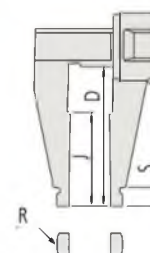
* () : Inside measurement

Note: Series 550 is not equipped with a depth bar.

DIMENSIONS

Range	D	J	S	R
0 - 200mm	60	40.5	8	5
0 - 300mm	75	50.5	12	5
0 - 450mm	100	65	18	10
0 - 600mm	100	65	18	10
0 - 1000mm	140	95	24	10

Jaw thickness: 3mm for 0 - 200mm model
3.8mm for 0 - 300mm model
6mm for 0 - 450mm and 0 - 600mm models
8mm for 0 - 1000mm model



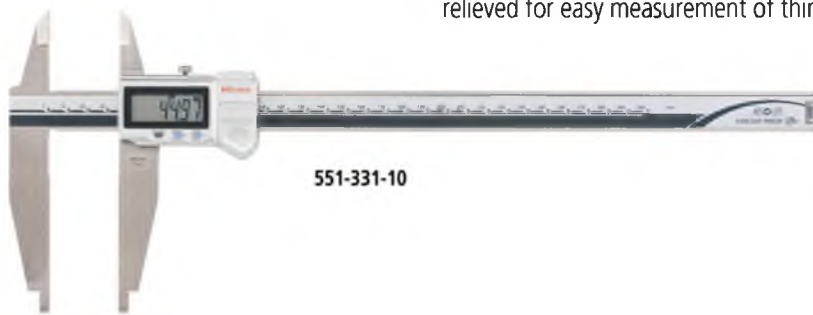
Unit: mm

Calipers

An industry standard in measuring tools

ABSOLUTE Digimatic Caliper 551 Series - with Nib Style and Standard Jaws

- Offers a resolution of 0.01mm with corresponding accuracy.
- Incorporates an Absolute measurement system. No need to reset the origin after switching on. (Refer to page D-8 for a description of Absolute measurement.)
- Allows integration into statistical process control and measurement systems for models with measurement data output connector. Refer to page A-3.
- ID measurement value: displayed value + (the minimum inside measurement value mentioned below). OFFSET switch allows to input a compensation value so that the measurement value can be read directly (Code No. 551-301-10, 551-331-10, 551-311-10 and 551-341-10). Preset function allows to set a desired starting point (Code No. 551-331-10 and 551-341-10).
- Tips of the outside measurement jaw are relieved for easy measurement of thin parts.



SPECIFICATIONS

Metric			
Order No.	Range*	Accuracy	Remarks
551-301-10	0 - 200mm (10.1 - 210mm)	±0.03mm	IP67
551-331-10	0 - 300mm (10.1 - 310mm)	±0.04mm	IP67, with offset/preset function for easy inside measurement
551-204-10	0 - 500mm (20.1 - 520mm)	±0.06mm	—
551-206-10	0 - 750mm (20.1 - 770mm)	±0.06mm	
551-207-10	0 - 1000mm (20.1 - 1020mm)	±0.07mm	

* (): inside measurement

Note: Series 551 is not equipped with a depth bar.

Inch/Metric			
Order No.	Range*	Accuracy	Remarks
551-311-10	0 - 8" (.404" - 8.4")	±.0015"	IP67
551-341-10	0 - 12" (.404" - 12.4")	±.002"	IP67, with offset/preset function for easy inside measurement
551-224-10	0 - 20" (.504" - 20.5")	±.0025"	—
551-226-10	0 - 30" (.504" - 30.5")	±.0025"	
551-227-10	0 - 40" (1.004" - 41")	±.003"	

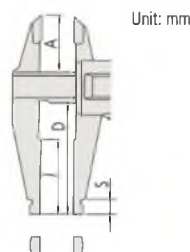
* (): inside measurement

Note: Series 551 is not equipped with a depth bar.

DIMENSIONS

Range	A	D	J	S
0 - 200mm	30	60	43	8
0 - 300mm	40.1	90	68	10
0 - 500mm	56	150	115	15
0 - 750mm	56	150	115	15
0 - 1000mm	56	150	115	20

Jaw thickness: 3mm for 0 - 200mm model
3.8mm for 0 - 300mm model
6mm for 0 - 500mm and 0 - 750mm models
8mm for 0 - 1000mm model



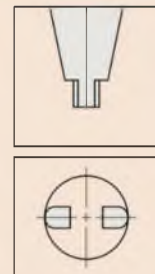
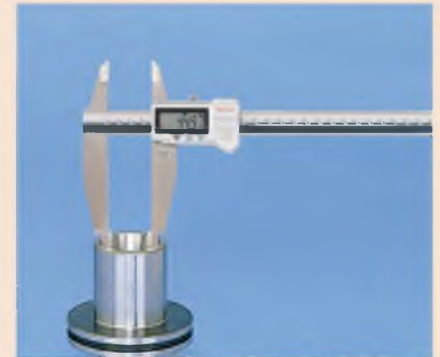
ABSOLUTE™ (Refer to page X for details.)



(Refer to page X for details.)



(Refer to page X for details.)



Radiused jaws for accurate ID measurement

Technical Data

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

Resolution: 0.01mm or .0005"/0.01mm

Display: LCD

Scale type: ABSOLUTE electromagnetic induction linear encoder

Max. response speed: Unlimited

Battery: **SR44** (1 pc), **938882**, for initial operational checks (standard accessory)

Battery life: Approx. 3 years under normal use

(1 year: 300mm models)

(3.5 years: over 300mm models)

Dust/Water protection level: IP67* (models up to 300mm)

*This model is not waterproof type.

Therefore, rustproofing shall be applied after use.

Optional accessories

For details, refer to page D-39.

959143: Data hold unit

Connecting cables for IT/DP/MUX

05CZA624: SPC cable with data button (1m)*

05CZA625: SPC cable with data button (2m)*



959149: SPC cable with data button (1m)

959150: SPC cable with data button (2m)

USB Input Tool Direct

06ADV380A: SPC cable for USB-ITN-A (2m)*

06ADV380C: SPC cable for USB-ITN-C (2m)

Connecting cables for U-WAVE-T

02AZD790A: SPC cable for U-WAVE with data button (160mm)*

02AZE140A: SPC cable for footswitch*

02AZD790C: SPC cable for U-WAVE with data button (160mm)

02AZE140C: SPC cable for footswitch

* For IP67 models (up to 300mm)



An inspection certificate is supplied as standard.
Refer to page X for details.

Dial Caliper Series 505

- Newly designed dial movement for ultra-smooth sliding and high shock protection.
- Easy-to-read yellow dial.
- Large finger-rest aids ease-of-use.
- Jaw tips are relieved for easy measurement of thin parts.
- Allows step measurement.



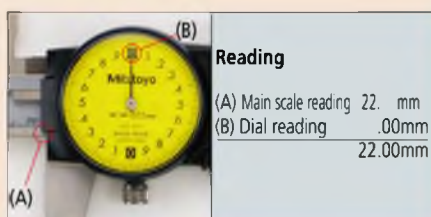
505-730



505-731



505-745



Reading
(A) Main scale reading 22. mm
(B) Dial reading .00mm
22.00mm

SPECIFICATIONS

Metric				
Order No.	Range	Accuracy	Graduation	Remarks
505-730	0 - 150mm	±0.03mm	0.02mm, 2mm/rev	Carbide-tipped jaws for outside measurement
505-734				Carbide-tipped jaws for outside and inside measurement
505-735				—
505-732*	0 - 200mm	±0.02mm	0.01mm, 1mm/rev	—
505-731				—
505-733*				—
505-745	0 - 300mm	±0.04mm	0.02mm, 2mm/rev	—

* Silver cover type

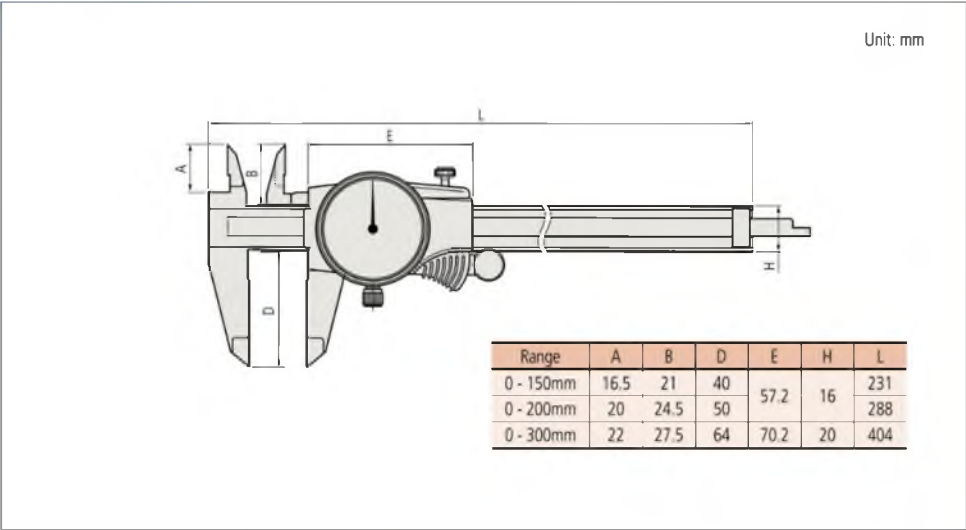
Inch				
Order No.	Range	Accuracy	Graduation	Remarks
505-740J / 505-742J*	0 - 6"	±.001"	.001", .1"/rev	Carbide-tipped jaws for outside measurement
505-736*		±.001"		Carbide-tipped jaws for outside and inside measurement
505-738*		±.001"		—
505-744	0 - 8"	±.001"	.001", .2"/rev	Carbide-tipped jaws for outside measurement
505-741J / 505-743J*		±.002"		—
505-737*		±.002"		Carbide-tipped jaws for outside measurement
505-739*	0 - 12"	±.002"	.001", .1"/rev	Carbide-tipped jaws for outside and inside measurement
505-749		±.002"		—
505-746*		±.002"		—
505-750	0 - 12"	±.002"	.001", .2"/rev	Carbide-tipped jaws for outside measurement
505-747*		±.002"		Carbide-tipped jaws for outside and inside measurement
505-748*		±.002"		Carbide-tipped jaws for outside and inside measurement

* Silver cover type

Calipers

An industry standard in measuring tools

DIMENSIONS



ABSOLUTE Coolant Proof Carbon Fiber Caliper SERIES 552 — with Standard jaws

- IP66 Absolute Digital Caliper (Refer to page D-8 for Absolute function.)
- Lightweight Digimatic Calipers that employ CFRP (Carbon Fiber Reinforced Plastics) in the beam and jaws.
- Allows integration into statistical process control and measurement systems for models with measurement data output connector. Refer to page A-3.



552-303-10

Technical Data

Accuracy: Refer to the list of specifications.
(excluding quantizing error)
Resolution: 0.01mm or .0005"/0.01mm
Material of jaws: Stainless Steel Hardened
Display: LCD
Scale type: ABSOLUTE electromagnetic induction linear encoder
Max. response speed: Unlimited
Battery: **SR44** (1 pc), **938882**,
for initial operational checks (standard accessory)
Battery life: Approx. 5,000 hours in continuous use
Dust/Water protection level: IP66 (IEC60529)*
Standard accessory: Jaw clamps (2 pcs.), 05GZA033
* This model is not waterproof type. Please wipe away the wet after use.

Functions

Zero-setting
Data hold
Offsetting
Presetting
Data output
Low-power and low-voltage alert
Counting value composition error
Automatic power on/off, inch/mm reading
(inch/mm models)

SPECIFICATIONS

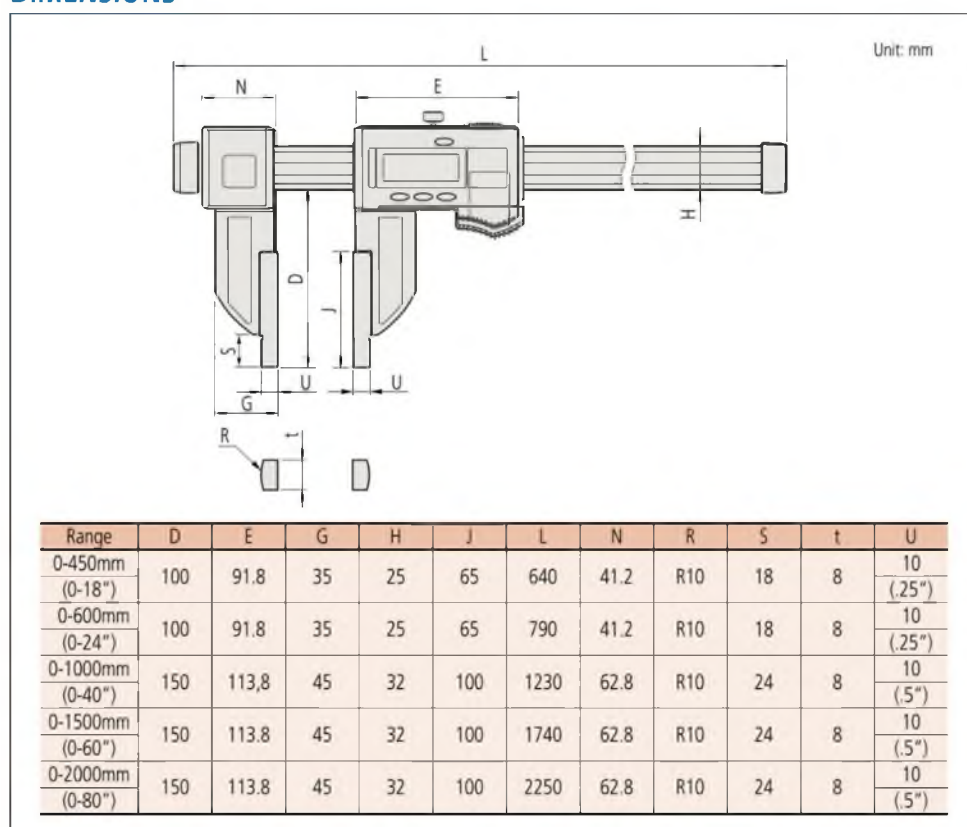
Metric			
Order No.	Range*	Accuracy	
552-302-10	0 - 450mm (20.1 - 470mm)	±0.04mm	
552-303-10	0 - 600mm (20.1 - 620mm)	±0.04mm	
552-304-10	0 - 1000mm (20.1 - 1020mm)	±0.05mm	
552-305-10	0 - 1500mm (20.1 - 1520mm)	±0.09mm	
552-306-10	0 - 2000mm (20.1 - 2020mm)	±0.12mm	

* () : Dimension in inside measurement

Inch/Metric			
Order No.	Range*	Accuracy	
552-312-10	0 - 18" (.504 - 18.5")	±.002"	
552-313-10	0 - 24" (.504 - 24.5")	±.002"	
552-314-10	0 - 40" (1.004 - 40.5")	±.002"	
552-315-10	0 - 60" (1.004 - 60.5")	±.004"	
552-316-10	0 - 80" (1.004 - 80.5")	±.005"	

* () : Dimension in inside measurement

DIMENSIONS

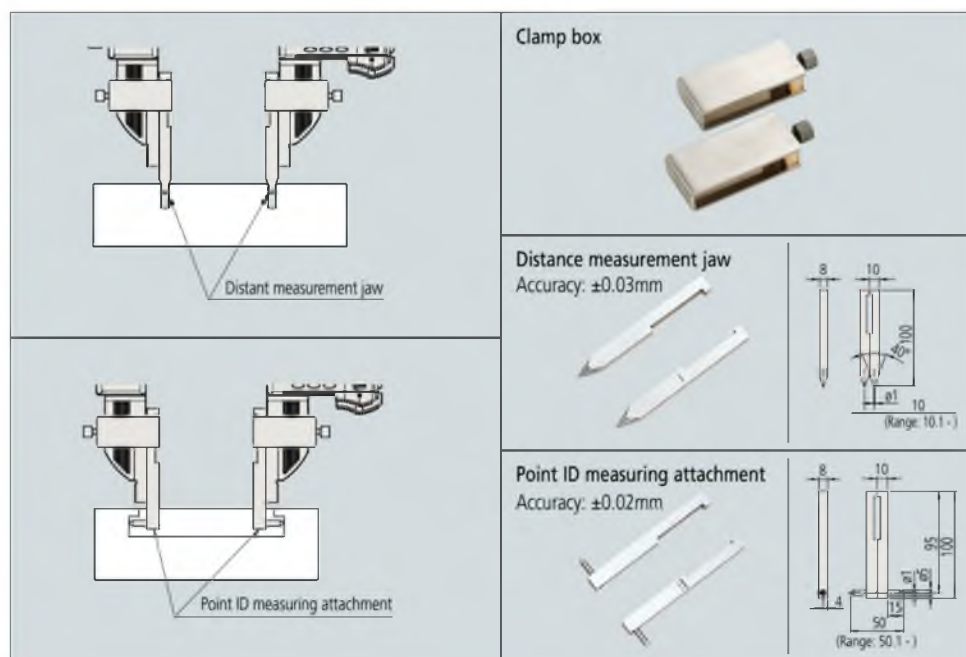


Calipers

An industry standard in measuring tools

Optional accessories

Metric		
	No. 552-302-10, 552-155-10, 552-303-10 and 552-156-10.	No. 552-304-10 and 552-305-10
Clamp box (1 pair)	No.914053	No.914054
Distance measurement jaw (1 pair)	No.914055	
Point ID measuring attachment	No.914057	
Inch/Metric		
	No. 552-312-10, 552-165-10, 552-313-10 and 552-166-10	No. 552-314-10, 552-315-10, 552-316-10
Clamp box (1 pair)	No.914053	No.914054
Distance measurement jaw (1 pair)	No.914056	
Point ID measuring attachment	No.914058	



Optional accessories

For details, refer to page D-39.

Connecting cables for **IT/DP/MUX**

05CZA624: SPC cable with data button (1m)

05CZA625: SPC cable with data button (2m)



USB Input Tool Direct

06ADV380A: SPC cable for **USB-ITN-A** (2m)

Connecting cables for **U-WAVE-T**

02AZD790A: SPC cable for U-WAVE with data button (160mm)

02AZE140A: SPC cable for footswitch

ABSOLUTE™ (Refer to page X for details.)



(Refer to page X for details.)



(Refer to page X for details.)

Technical Data

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

Resolution: 0.01mm or .0005"/0.01mm

Material of jaws: Stainless Steel Hardened

Display: LCD

Scale type: ABSOLUTE electromagnetic induction linear encoder

Max. response speed: Unlimited

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

for initial operational checks (standard accessory)

Battery life: Approx. 5,000 hours in continuous use

Dust/Water protection level: IP66 (IEC 60529)*

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

*This model is not waterproof type. Please wipe away the wet after use.

Functions

Zero-setting

Data hold

Offsetting

Presetting

Data output

Low-power and low-voltage alert

Counting value composition error

Automatic power on/off, inch/mm reading
(inch/mm models)

Optional accessories

For details, refer to page D-39.

Connecting cables for **IT/DP/MUX**

05CZA624: SPC cable with data button (1m)

05CZA625: SPC cable with data button (2m)



USB Input Tool Direct

06ADV380A: SPC cable for **USB-ITN-A** (2m)

Connecting cables for **U-WAVE-T**

02AZD790A: SPC cable for U-WAVE with data button
(160mm)

02AZE140A: SPC cable for footswitch

ABSOLUTE Coolant Proof Carbon Fiber Caliper SERIES 552 - with Long Jaws

- IP66 Absolute Digital Caliper (Refer to page D-8 for a description of Absolute measurement.)
- Lightweight Digimatic Calipers that employ CFRP (Carbon Fiber Reinforced Plastics) in the beam and jaws.

- Allows integration into statistical process control and measurement systems for models with measurement data output connector. Refer to page A-3.



552-151-10



SPECIFICATIONS

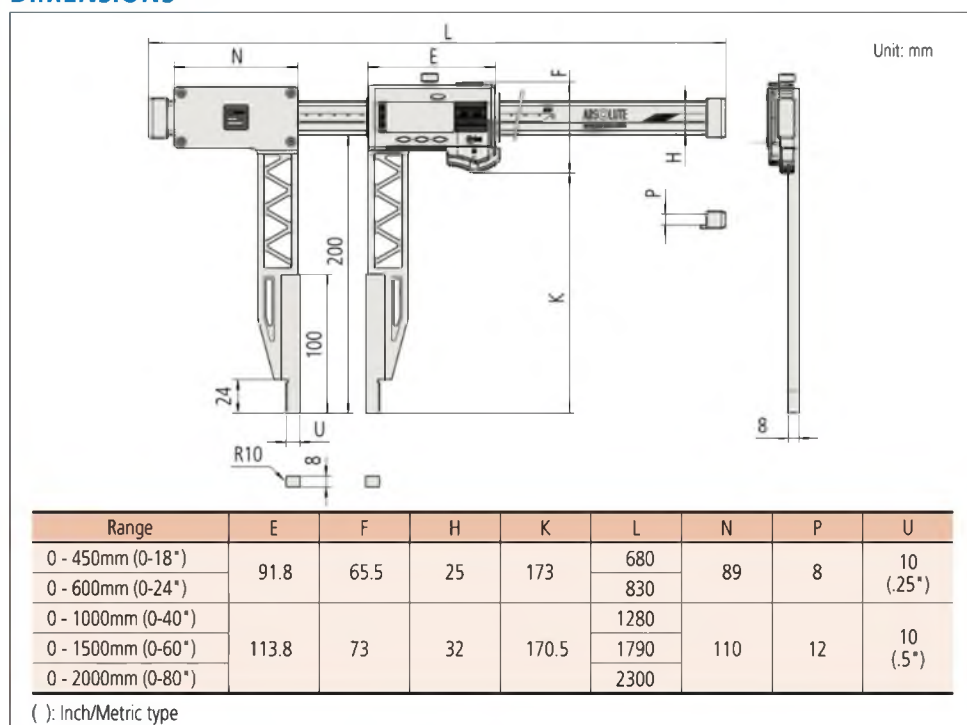
Metric			
Order No.	Range*	Accuracy	
552-150-10	0 - 450mm (20.1 - 470mm)	±0.06mm	
552-151-10	0 - 600mm (20.1 - 620mm)		
552-152-10	0 - 1000mm (20.1 - 1020mm)	±0.07mm	
552-153-10	0 - 1500mm (20.1 - 1520mm)	±0.11mm	
552-154-10	0 - 2000mm (20.1 - 2020mm)	±0.14mm	

* (): Dimension in inside measurement

Inch/Metric			
Order No.	Range*	Accuracy	
552-160-10	0 - 18" (.504 - 18.5")	±.0025"	
552-161-10	0 - 24" (.504 - 24.5")		
552-162-10	0 - 40" (1.004 - 40.5")	±.003"	
552-163-10	0 - 60" (1.004 - 60.5")	±.0045"	
552-164-10	0 - 80" (1.004 - 80.5")	±.0055"	

* (): Dimension in inside measurement

DIMENSIONS



Calipers

An industry standard in measuring tools

ABSOLUTE Coolant Proof Carbon Fiber Caliper SERIES 552 - with Ceramic Jaws

- IP66 Absolute Digital Caliper (Refer to page D-8 for a description of Absolute measurement.)
- Lightweight Digimatic Calipers that employ CFRP (Carbon Fiber Reinforced Plastics) in the beam and jaws.
- Allows integration into statistical process control and measurement systems for models with measurement data output connector. Refer to page A-3.
- The zirconia-ceramic jaws make this caliper suitable for measuring moderately magnetic workpieces. However, since steel is used in the main unit, it may not be suitable for measuring strongly magnetic workpieces.



552-156-10

SPECIFICATIONS

Metric

Order No.	Range*	Accuracy
552-155-10	0 - 450mm (20.1 - 470mm)	±0.04mm
552-156-10	0 - 600mm (20.1 - 620mm)	

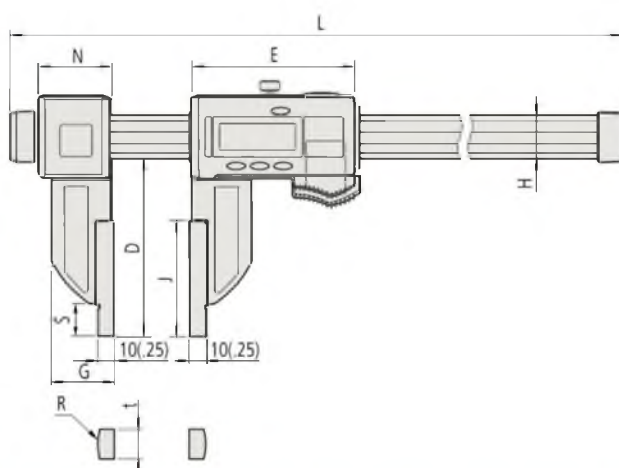
* (): Dimension in inside measurement

Inch/Metric

Order No.	Range*	Accuracy
552-165-10	0 - 18" (.504 - 18.5")	±.002"
552-166-10	0 - 24" (.504 - 24.5")	

* (): Dimension in inside measurement

DIMENSIONS



Unit: mm

Range	D	E	G	H	J	L	N	R	S	t
0-450mm (0-18")	100	91.8	35	25	65	640	41.2	R10	18	8
0-600mm (0-24")	100	91.8	35	25	65	790	41.2	R10	18	8

(): Inch/Metric type

ABSOLUTE™

(Refer to page X for details.)

IP66

(Refer to page X for details.)



(Refer to page X for details.)

Technical Data

Accuracy: Refer to the list of specifications.

(excluding quantizing error)

Resolution: 0.01mm or .0005"/0.01mm

Material of jaws: Ceramic

Display: LCD

Scale type: ABSOLUTE electromagnetic induction linear encoder

Max. response speed: Unlimited

Battery: **SR44** (1 pc), **938882**, for initial operational checks (standard accessory)

Battery life: Approx. 5,000 hours in continuous use

Dust/Water protection level: IP66 (IEC 60529)*

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

*This model is not waterproof type. Please wipe away the wet after use.

Functions

Zero-setting

Data hold

Offsetting

Presetting

Data output

Low-power and low-voltage alert

Counting value composition error

Automatic power on/off, inch/mm reading (inch/mm models)

Optional accessories

For details, refer to page D-39.

Connecting cables for **IT/DP/MUX**

05CZA624: SPC cable with data button (1m)

05CZA625: SPC cable with data button (2m)



USB Input Tool Direct

06ADV380A: SPC cable for **USB-ITN-A** (2m)

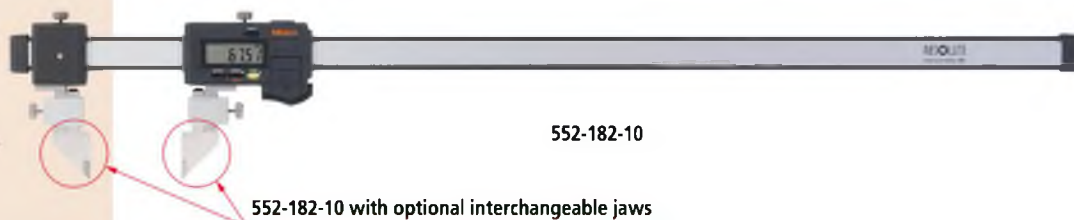
Connecting cables for **U-WAVE-T**

02AZD790A: SPC cable for U-WAVE with data button (160mm)

02AZE140A: SPC cable for footswitch

ABSOLUTE Coolant Proof Carbon Fiber Caliper SERIES 552 - with Interchangeable Jaws

- IP66 Absolute Digital Caliper (Refer to page D-8 for a description of Absolute measurement.)
- The range of applications can be expanded by using interchangeable jaws (optional).
- Allows integration into statistical process control and measurement systems for models with measurement data output connector. Refer to page A-3.
- Provided with preset function for setting a desired starting point, which allows direct readout of offset measurement.



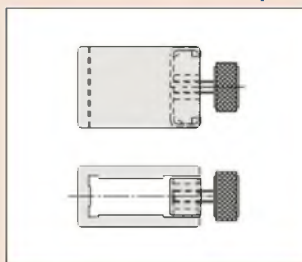
Technical Data

Accuracy: Refer to the list of specifications.
(excluding quantizing error)
Resolution: 0.01mm or .0005"/0.01mm
Display: LCD
Scale type: ABSOLUTE electromagnetic induction linear encoder
Max. response speed: Unlimited
Battery: **SR44** (1 pc), **938882**,
for initial operational checks (standard accessory)
Battery life: Approx. 5,000 hours in continuous use
Dust/Water protection level: IP66 (IEC 60529)*
Standard accessory: Jaw clamps (2 pcs.), 05GZA033
* Although these models are IP66 rated, care should be taken to dry tool after use.

Functions

Zero-setting
Data hold
Offsetting
Presetting
Data output
Low-power and low-voltage alert
Counting value composition error
Automatic power on/off, inch/mm reading
(inch/mm models)

Standard accessories (2 pcs)



Jaw clamps: No.05GZA033

Optional accessories

For details, refer to page D-39.
Connecting cables for **IT/DP/MUX**
05CZA624: SPC cable with data button (1m)
05CZA625: SPC cable with data button (2m)



USB Input Tool Direct

06ADV380A: SPC cable for **USB-ITN-A** (2m)
Connecting cables for **U-WAVE-T**
02AZD790A: SPC cable for U-WAVE with data button
(160mm)
02AZE140A: SPC cable for footswitch

SPECIFICATIONS

Metric			Inch/Metric		
Order No.	Range	Accuracy	Order No.	Range	Accuracy
552-181-10	0 - 450mm	±0.04mm	552-191-10	0 - 18"	±.002"
552-182-10	0 - 600mm		552-192-10	0 - 24"	
552-183-10	0 - 1000mm	±0.05mm	552-193-10	0 - 40"	±.004"
552-184-10	0 - 1500mm	±0.09mm	552-194-10	0 - 60"	
552-185-10	0 - 2000mm	±0.12mm	552-195-10	0 - 80"	±.005"

Calipers

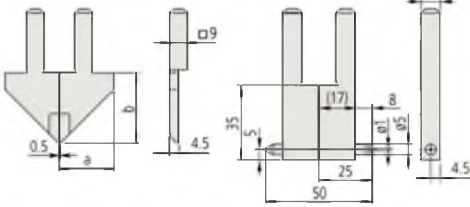
An industry standard in measuring tools

Optional accessories

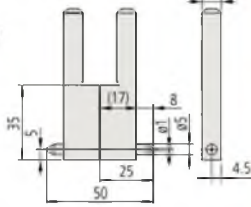
Interchangeable jaws

SPECIFICATIONS

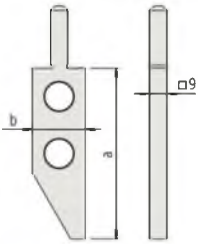
Standard type



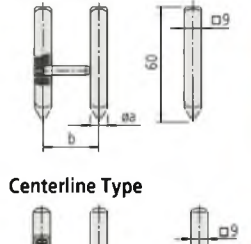
Inside point type



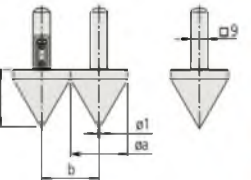
Surface Plate Type



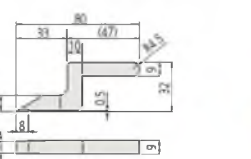
Scriber Type



Centerline Type



Scriber for height gages



Standard Type

Order No.	Components	a	b
07CZA056	Right (07CAA044), Left (07CAA045)	28mm (1.1")	30mm (1.2")

* 1 set

Inside Point Type

Order No.	Components	a	b
07CZA058	07CZA041 x 2pcs.	25mm	50mm
07CZA059	07CZA048 x 2pcs.	1"	2"

Scriber Type

Order No.	Components	a	b
07CZA055	Right (07CZA042), Left (07CZA043)	8mm	30mm
07CZA061	Right (07CZA042), Left (07CZA049)	0.31"	1.2"

Surface Plate Type

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

Centerline Type

Order No.	Components	a	b
07CZA057	07CZA039 x 2pcs.	30mm	30mm
07CZA060	07CZA047 x 2pcs.	1.2"	1.2"

Note: Entering the appropriate offset value enables the display to indicate the correct measurement value inscribed on the jaws, which should be installed so that this inscription is visible from the display side of the caliper.

Scriber for height gages

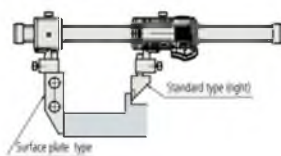
Order No.
07GZA000

Type	Applicable calipers	Range	Accuracy when attached to the caliper
Standard type	552-181-10 (552-191-10)	0 - 450mm (0-18")	±0.06mm (±0.0025")
	552-182-10 (552-192-10)	0 - 600mm (0-24")	±0.07mm (±0.0030")
	552-183-10 (552-193-10)	0 - 1000mm (0-40")	±0.07mm (±0.0030")
	552-184-10 (552-194-10)	0 - 1500mm (0-60")	±0.11mm (±0.0045")
Inside point type	552-185-10 (552-195-10)	0 - 2000mm (0-80")	±0.14mm (±0.0055")
	552-181-10 (552-191-10)	Inside: 50.1-500mm (2.004-20") Outside: 0 - 450mm (0-18")	±0.09mm (±0.0035")
	552-182-10 (552-192-10)	Inside: 50.1-650mm (2.004-26") Outside: 0 - 600mm (0-24")	±0.10mm (±0.0040")
	552-183-10 (552-193-10)	Inside: 50.1-1050mm (2.004-42") Outside: 0 - 1000mm (0-40")	±0.10mm (±0.0040")
Centerline type	552-184-10 (552-194-10)	Inside: 50.1-1550mm (2.004-62") Outside: 0 - 1500mm (0-60")	±0.14mm (±0.0055")
	552-185-10 (552-195-10)	Inside: 50.1-2050mm (2.004-82") Outside: 0 - 2000mm (0-80")	±0.17mm (±0.0070")
	552-181-10 (552-191-10)	30.1 - 480mm (1.204-19.2")	±0.08mm (±0.0030")
	552-182-10 (552-192-10)	30.1 - 630mm (1.204-25.2")	±0.09mm (±0.0035")
Scriber type	552-183-10 (552-193-10)	30.1 - 1030mm (1.204-41.2")	±0.13mm (±0.0055")
	552-184-10 (552-194-10)	30.1 - 1530mm (1.204-61.2")	±0.16mm (±0.0065")
	552-185-10 (552-195-10)	30.1 - 2030mm (1.204-81.2")	±0.18mm (±0.0070")
	552-181-10 (552-191-10)	30 - 480mm (1.2-19.2")	±0.10mm (±0.0040")
Surface plate type + Scriber type for height gages	552-182-10 (552-192-10)	30 - 630mm (1.2-25.2")	±0.11mm (±0.0045")
	552-183-10 (552-193-10)	30 - 1030mm (1.2-41.2")	±0.15mm (±0.0060")
	552-184-10 (552-194-10)	30 - 1530mm (1.2-61.2")	±0.18mm (±0.0070")
	552-185-10 (552-195-10)	30 - 2030mm (1.2-81.2")	±0.18mm (±0.0070")
Surface plate type + Inside point type	552-181-10 (552-191-10)	Inside: 25.1 - 475mm (1.004-19") Outside: 0 - 450mm (1-18")	±0.12mm (±0.0050")
	552-182-10 (552-192-10)	Inside: 25.1 - 625mm (1.004-25") Outside: 0 - 600mm (1-24")	±0.13mm (±0.0055")
	552-183-10 (552-193-10)	Inside: 25.1 - 1025mm (1.004-41") Outside: 0 - 1000mm (1-40")	±0.17mm (±0.0070")
	552-184-10 (552-194-10)	Inside: 25.1 - 1525mm (1.004-62") Outside: 0 - 1500mm (1-60")	±0.20mm (±0.0080")
Surface plate type + Centerline type	552-185-10 (552-195-10)	Inside: 25.1 - 2025mm (1.004-81") Outside: 0 - 2000mm (1-80")	±0.20mm (±0.0080")
	552-181-10 (552-191-10)	15 - 465mm (0.6-18.6")	±0.11mm (±0.0045")
	552-182-10 (552-192-10)	15 - 615mm (0.6-24.6")	±0.12mm (±0.0050")
	552-183-10 (552-193-10)	15 - 1015mm (0.6-40.6")	±0.16mm (±0.0065")
Centerline type	552-184-10 (552-194-10)	15 - 1515mm (0.6-60.6")	±0.19mm (±0.0075")
	552-185-10 (552-195-10)	15 - 2015mm (0.6-80.6")	±0.19mm (±0.0075")

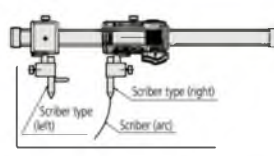
(): Inch/Metric models

Application examples

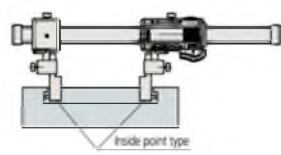
Surface plate type + Standard type



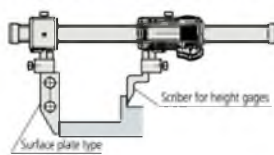
Scriber type



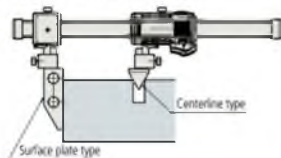
Inside point type



Surface plate type + Scriber for height gages



Surface plate type + Centerline type

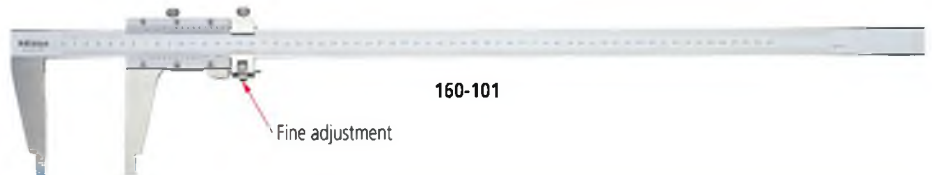


Vernier Caliper SERIES 160 — with Nib Style Jaws and Fine Adjustment

- Inside and outside measurements can be read directly from the upper and lower vernier scales.
- The jaws have radiused measuring faces for accurate inside diameter (ID) measurement.
- With fine adjustment (except for 160-130/131/132/133/134).



160-131



160-101

Fine adjustment

SPECIFICATIONS

Metric with inside measurement vernier scale

Order No.	Range*	Accuracy	Graduations	Remarks
160-130	0 (20.1) - 450mm	±0.10mm	0.05mm	without fine adjustment
160-131	0 (20.1) - 600mm	±0.10mm		
160-132	0 (20.1) - 1000mm	±0.15mm		
160-133	0 (20.1) - 1500mm	±0.22mm		
160-134	0 (20.1) - 2000mm	±0.28mm		

* (): Minimum dimension in ID measurement

Metric with inside measurement vernier scale

Order No.	Range*	Accuracy	Graduations	Remarks
160-127	0 (10.1) - 300mm	±0.04mm	0.02mm	with fine adjustment
160-128	0 (20.1) - 450mm	±0.05mm		
160-101	0 (20.1) - 600mm	±0.05mm		
160-104	0 (20.1) - 1000mm	±0.07mm		
160-110	0 (20.1) - 1500mm	±0.1mm		
160-113	0 (20.1) - 2000mm	±0.12mm		

* (): Minimum dimension in ID measurement

Metric/Inch with metric/inch double scale

Order No.	Range*	Accuracy	Graduations	Remarks
160-150	0 (10.1) - 300mm	±0.04mm	0.02mm/.001"	+10mm/.394" to reading in inside measurement
160-151	0 (20.1) - 450mm	±0.05mm		+20mm/.787" to reading in inside measurement
160-153	0 (20.1) - 600mm	±0.05mm		
160-155	0 (20.1) - 1000mm	±0.07mm		
160-157	0 (20.1) - 1500mm	±0.1mm		
160-159	0 (20.1) - 2000mm	±0.12mm		

* (): Minimum dimension in ID measurement

Inch with inside measurement vernier scale

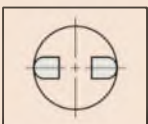
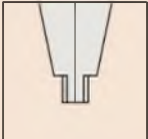
Order No.	Range*	Accuracy	Graduations	Remarks
160-124	0 (.304") - 12"	±.0015"	.001"	—
160-116	0 (.504") - 18"	±.002"		
160-102	0 (.504") - 24"	±.002"		
160-105	0 (1.004") - 40"	±.003"		
160-111	0 (1.004") - 60"	±.004"		
160-114	0 (1.004") - 80"	±.005"		

* (): Minimum dimension in ID measurement

Inch/Metric with inch/metric double scale

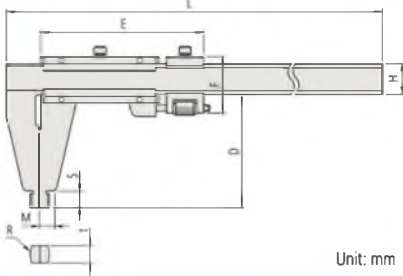
Order No.	Range*	Accuracy	Graduations	Remarks
160-125	0 (.304") - 12"	±.0015"	.001"/0.02mm	+3"/7.62mm to reading in inside measurement
160-119	0 (.504") - 18"	±.002"		+5"/12.7mm to reading in inside measurement
160-103	0 (.504") - 24"	±.002"		
160-106	0 (1.004") - 40"	±.003"		+1"/25.4mm to reading in inside measurement
160-112	0 (1.004") - 60"	±.004"		
160-115	0 (1.004") - 80"	±.005"		

* (): Minimum dimension in ID measurement



Radiused jaws for accurate ID measurement

DIMENSIONS



Unit: mm

Range	D	E	F	H	L	M	R	S	t
0-300mm/0-12"	75	103	38	20	445	10	R 5	12	3.8
0-450mm*	100	89	—	25	630	14.8	R10	18	6
0-450mm/0-18"	100	112	51	—	—	—	R10	18	6
0-600mm*	100	89	—	25	780	14.8	R10	18	6
0-600mm/0-24"	100	112	51	—	—	—	R10	18	6
0-1000mm*	140	111	—	32	1240	17	R10	24	8
0-1000mm/0-40"	140	150	62.5	—	—	—	R10	24	8
0-1500mm*	180	129	—	32	1800	19	R10	30	8
0-1500mm/0-60"	180	170	62.5	—	—	—	R10	30	8
0-2000mm*	180	129	—	40	2300	23	R10	30	12
0-2000mm/0-80"	180	178	—	—	—	—	R10	30	12

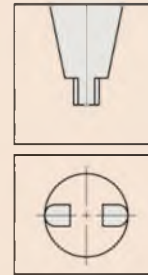
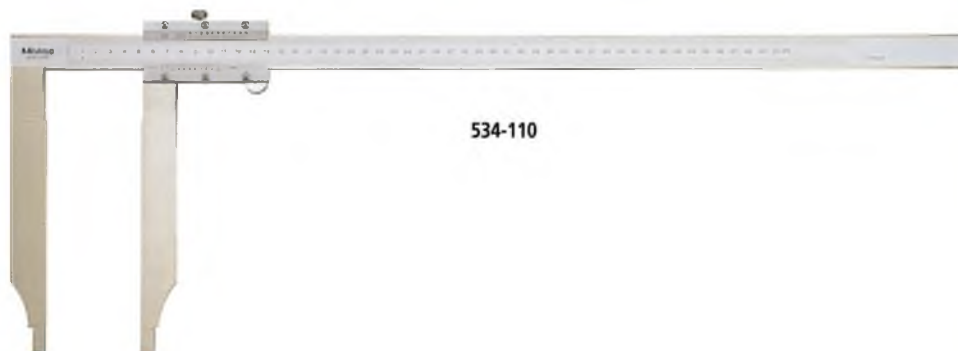
*: without fine adjustment

Calipers

An industry standard in measuring tools

Long Jaw Vernier Caliper SERIES 534

- Long jaws for measuring hard-to-reach workpiece features.
- Inside and outside measurements can be read directly from the upper and lower vernier scales.



Round jaws for accurate ID measurement

SPECIFICATIONS

Metric _____, with inside measurement vernier scale

Order No.	Range*	Accuracy	Graduation	Remarks
534-109	0 (10.1) - 300mm	±0.07mm	0.05mm	without fine adjustment
534-110	0 (20.1) - 500mm	±0.13mm		

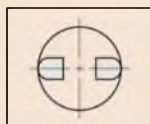
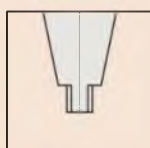
* (): Minimum dimension in inside measurement

Metric/Inch _____, with metric/inch double scale

Order No.	Range*	Accuracy	Graduation	Remarks
534-101	0 (10.1) - 300mm	±0.07mm	0.05mm/ 1/128"	+10mm/.394" to reading in inside measurement without fine adjustment
534-105		±0.04mm	0.02mm/.001"	
534-102	0 (20.1) - 500mm	±0.13mm	0.05mm/ 1/128"	+20mm/.787" to reading in inside measurement without fine adjustment
534-106		±0.06mm	0.02mm/.001"	
534-103	0 (20.1) - 750mm	±0.16mm	0.05mm/ 1/128"	
534-107		±0.08mm	0.02mm/.001"	
534-104	0 (20.1) - 1000mm	±0.20mm	0.05mm/ 1/128"	
534-108		±0.10mm	0.02mm/.001"	

* (): Minimum dimension in inside measurement

Long Jaw Vernier Caliper SERIES 534



Radiused jaws for accurate ID measurement

- Long jaws for measuring hard-to-reach workpiece features.

- Inside and outside measurements can be read directly from the upper and lower vernier scales.



SPECIFICATIONS

Metric with inside measurement vernier scale				
Order No.	Range*	Accuracy	Graduation	Remarks
534-113	0 (10.1) - 300mm	±0.04mm	0.02mm	with fine adjustment
534-114	0 (20.1) - 500mm	±0.06mm		
534-115	0 (20.1) - 750mm	±0.08mm		
534-116	0 (20.1) - 1000mm	±0.10mm		

* (): Minimum dimension in inside measurement

Inch with inside measurement vernier scale				
Order No.	Range*	Accuracy	Graduation	Remarks
534-117	0 (.304") - 12"	±.002"	.001"	with fine adjustment
534-118	0 (.804") - 20"	±.003"		
534-119	0 (.804") - 30"	±.004"		
534-120	0 (.804") - 40"			

* (): Minimum dimension in inside measurement

DIMENSIONS

Unit: mm									
Range	D	E	F	H	L	M	R	S	t
0-300mm*	90	76.5	—	20	445	7	R5	12	3.8
0-300mm/0-12"		103	38	—	—	—	R5	—	3.8
0-500mm*	200	89	—	25	682	—	R10	—	6
0-500mm/0-20"		112	51	—	—	—	R10	18.5	6
0-750mm*		150	—	—	995	12	R10	—	8
0-750mm/0-30"			62.5	32	—	—	R10	—	8
0-1000mm*			—	—	1230	—	R10	—	8
0-1000mm/0-40"		—	62.5	—	—	—	R10	—	8

* Without fine adjustment

Calipers

An industry standard in measuring tools

Offset Caliper

SERIES 573, 536 — ABSOLUTE Digimatic and vernier type

- The beam-mounted jaw can be adjusted to facilitate measurement of stepped sections and hard-to-get-at workpiece features.
- Digital models are IP67 Absolute type. No need to reset the origin after switching on. (Refer to page D-8 for a description of Absolute measurement.)
- Allows integration into statistical process control and measurement systems for models with measurement data output connector. Refer to page A-3.



SPECIFICATIONS

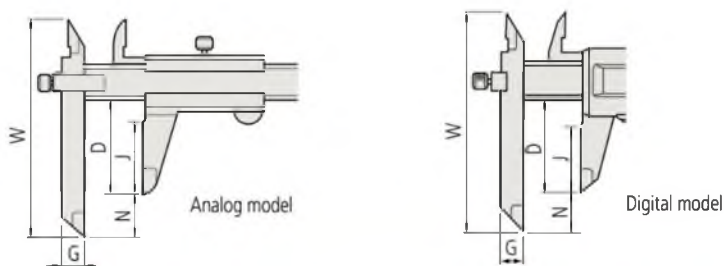
Metric Digital model		
Order No.	Range	Accuracy
573-601	0 - 150mm	±0.02mm
573-611*	0 - 150mm	±0.02mm
573-602	0 - 200mm	±0.02mm
573-612*	0 - 200mm	±0.02mm
573-604	0 - 300mm	±0.03mm
573-614*	0 - 300mm	±0.03mm

* Without thumb roller

Metric Analog model		
Order No.	Range	Accuracy
536-101	0 - 150mm	±0.05mm
536-102	0 - 200mm	±0.05mm
536-103	0 - 300mm	±0.08mm

Inch/Metric Digital model		
Order No.	Range	Accuracy
573-701	0 - 6"	±.001"
573-702	0 - 8"	±.001"
573-704	0 - 12"	±.0015"

DIMENSIONS



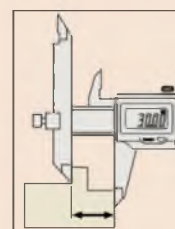
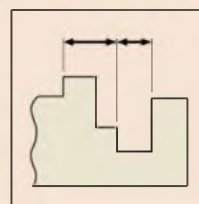
Order No.	Model	Range	D	G	J	N	W
573-601	Digital model	0 - 150mm	40	10	30	10	95
573-602		0 - 200mm	50	10	38.5	10	95
573-604		0 - 300mm	64	15	51	15	135
536-101	Analog model	0 - 150mm	40	10	30	10	95
536-102		0 - 200mm	50	10	38.5	10	95
536-103		0 - 300mm	64	15	51	15	135



(Refer to page X for details.)



(Refer to page X for details.)

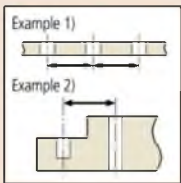


Technical Data

Accuracy: Refer to the list of specifications.
(excluding quantizing error for digital models)
Resolution*: 0.01mm or .0005"/0.01mm
Graduation**: 0.05mm
Display*: LCD
Scale type*: ABSOLUTE electromagnetic induction linear encoder
Max. response speed*: Unlimited
Battery: **SR44** (1 pc), **938882**,
for initial operational checks (standard accessory)
Battery life*: Approx. 3 years under normal use
(1 year: 300mm model)
Dust/Water protection level*: IP67 (IEC 60529)***
* Digital models ** Analog models
*** This model is not waterproof type.
Therefore, rustproofing shall be applied after use.

Optional accessories for Digital Model

For details, refer to page D-39.
959143: Data hold unit
Connecting cables for IT/DP/MUX
05CZA624: SPC cable with data button (1m)
05CZA625: SPC cable with data button (2m)
USB Input Tool Direct
06ADV380A: SPC cable for **USB-ITN-A** (2m)
Connecting cables for **U-WAVE-T**
02AZD790A: SPC cable for **U-WAVE** with data button
(160mm)
02AZE140A: SPC cable for footswitch

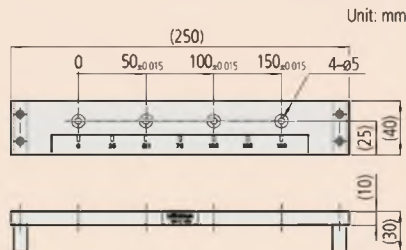


Technical Data

Accuracy: Refer to the list of specifications.
(excluding quantizing error for digital models)
Resolution*: 0.01mm or .0005"/0.01mm
Graduation**: 0.05mm
Display*: LCD
Scale type*: ABSOLUTE electromagnetic induction linear encoder
Max. response speed*: Unlimited
Battery: **SR44** (1 pc), **938882**,
for initial operational checks (standard accessory)
Battery life*: Approx. 3 years under normal use
(1 year: 310mm model)
Dust/Water protection level*: IP67 (IEC 60529)***
* Digital models ** Analog models
*** This model is not waterproof type.
Therefore, rustproofing shall be applied after use.

Optional accessories for Digital Models

For details, refer to page D-39.
959143: Data hold unit
Connecting cables for IT/DP/MUX
05CZA624: SPC cable with data button (1m)
05CZA625: SPC cable with data button (2m)
USB Input Tool Direct
06ADV380A: SPC cable for USB-ITN-A (2m)
Connecting cables for **U-WAVE-T**
02AZD790A: SPC cable for **U-WAVE** with data button
(160mm)
02AZE140A: SPC cable for footswitch
05FAJ735: Centerline caliper inspection gage



Offset Centerline Caliper SERIES 573, 536 — ABSOLUTE Digimatic and vernier type

- Specially designed for hole Center-to-Center measurements on the same, or offset, planes.
- Digital models are IP67 Absolute type. No need to reset the origin after switching on. (Refer to page D-8 for a description of Absolute measurement.)
- Direct reading of pitch measurements is available due to the offset-value setting function.
- Allows integration into statistical process control and measurement systems for models with measurement data output connector. Refer to page A-3.



SPECIFICATIONS

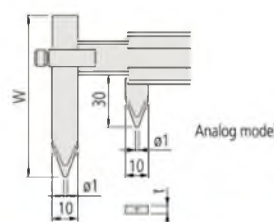
Metric	Digital model	
Order No.	Range	Accuracy
573-605	10.1 - 160mm	±0.03mm
573-615*	10.1 - 160mm	±0.03mm
573-606	10.1 - 210mm	±0.03mm
573-616*	10.1 - 210mm	±0.03mm
573-608	10.1 - 310mm	±0.04mm
573-618*	10.1 - 310mm	±0.04mm

* Without thumb roller

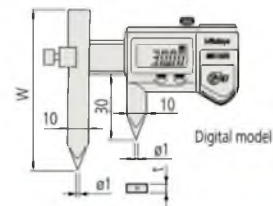
Metric	Analog model	
Order No.	Range	Accuracy
536-105	10.1 - 150mm	±0.05mm
536-106	10.1 - 200mm	±0.05mm
536-107	10.1 - 300mm	±0.08mm

Inch/Metric	Digital model	
Order No.	Range	Accuracy
573-705	.404 - 6.4"	±.0015"
573-706	.404 - 8.4"	±.0015"
573-708	.404 - 12.4"	±.0015"

DIMENSIONS



Range	W	t
10 - 150mm	75	3
10 - 200mm	75	3
10 - 300mm	100	3.8



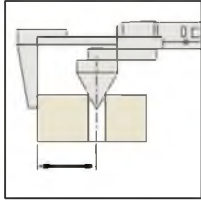
Range	W	t
10 - 160mm/.4 - 6.4"	75	3.5
10 - 210mm/.4 - 8.4"	75	3.5
10 - 310mm/.4 - 12.4"	100	3.8

Calipers

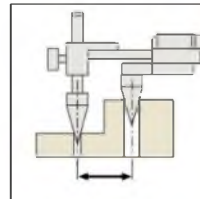
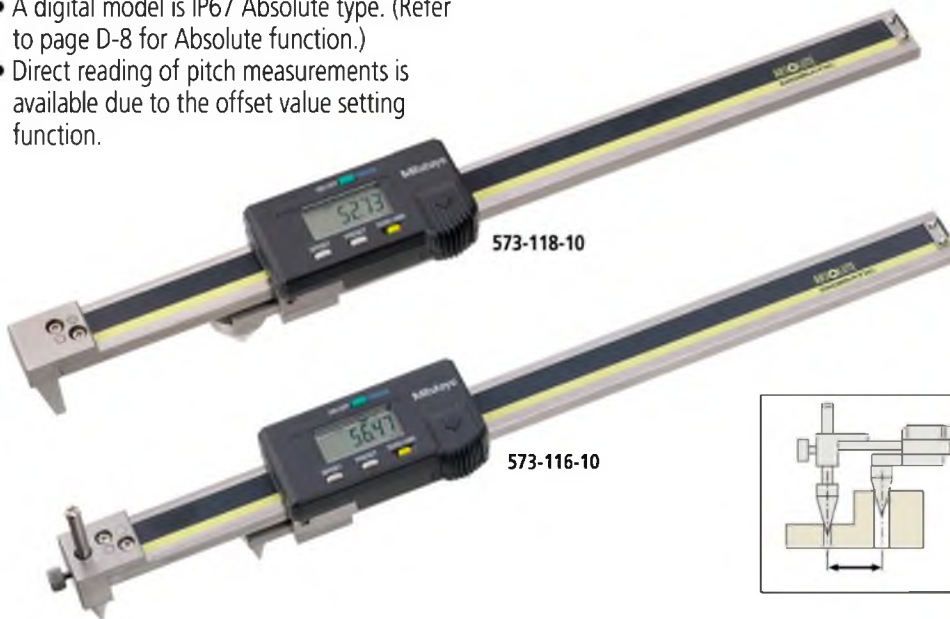
An industry standard in measuring tools

ABSOLUTE Back-Jaw Centerline Caliper SERIES 573 - Center-to-Center & Edge-to-Center Types

- Specially designed to measure hole Center-to-Center and Edge-to-Center distances.
- Provided with jaws on the back of the slider, measurements can be read easily from above.
- Allows integration into statistical process control and measurement systems for models with measurement data output connector. Refer to page A-3.
- Dedicated calibration inspection tools are available.



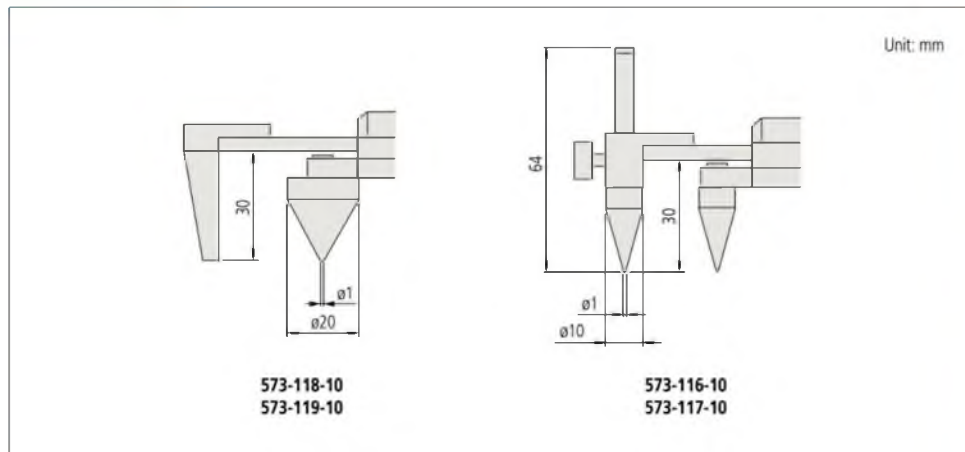
- A digital model is IP67 Absolute type. (Refer to page D-8 for Absolute function.)
- Direct reading of pitch measurements is available due to the offset value setting function.



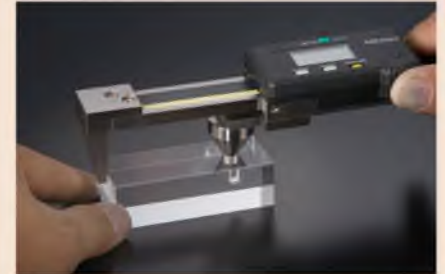
SPECIFICATIONS

Metric Edge-to-center distance type			Metric Center-to-center distance type		
Order No.	Range	Accuracy	Order No.	Range	Accuracy
573-118-10	10.1 - 200mm	±0.10mm	573-116-10	10.1 - 200mm	±0.10mm
573-119-10	10.1 - 300mm	±0.15mm	573-117-10	10.1 - 300mm	±0.15mm

DIMENSIONS



ABSOLUTE™ (Refer to page X for details.)

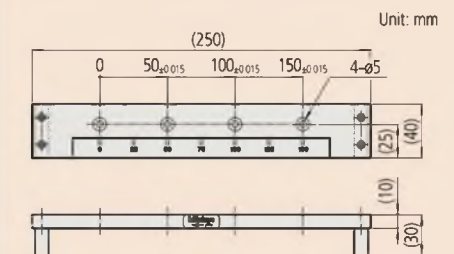


Technical Data

Accuracy: Refer to the list of specifications.
(excluding quantizing error)
Resolution: 0.01mm or .0005"/0.01mm
Display: LCD
Scale type: ABSOLUTE electrostatic capacity linear encoder
Max. response speed: Unlimited
Battery: **SR44** (1 pc), **938882**,
for initial operational checks (standard accessory)
Battery life: Approx. 3.5 years under normal use

Optional accessories

For details, refer to page D-39.
959143: Data hold unit
Connecting cables for IT/DP/MUX
959149: SPC cable with data button (1m)
959150: SPC cable with data button (2m)
USB Input Tool Direct
06ADV380C: SPC cable for **USB-ITN-C** (2m)
Connecting cables for **U-WAVE-T**
02AZD790C: SPC cable for **U-WAVE** with data button
(160mm)
02AZE140C: SPC cable for footswitch
05FAJ735: Centerline caliper inspection gage





Technical Data

Accuracy: Refer to the list of specifications.
(excluding quantizing error for digital models)
Resolution*: 0.01mm or .0005"/0.01mm
Graduation**: 0.05mm
Display*: LCD
Scale type*: ABSOLUTE electromagnetic induction linear encoder
Max. response speed*: Unlimited
Battery: **SR44** (1 pc), **9388882**,
for initial operational checks (standard accessory)
Battery life*: Approx. 3 years under normal use
Dust/Water protection level*: IP67 (IEC 60529)***
* Digital models ** Analog models
*** This model is not waterproof type.
Therefore, rustproofing shall be applied after use.

Optional accessories for Digital Models

For details, refer to page D-39.
Connecting cables for IT/DP/MUX
05CZA624: SPC cable with data button (1m)
05CZA625: SPC cable with data button (2m)
USB Input Tool Direct
06ADV380A: SPC cable for **USB-ITN-A** (2m)
Connecting cables for **U-WAVE-T**
02AZD790A: SPC cable for **U-WAVE** with data button
(160mm)
02AZE140A: SPC cable for footswitch

Point Caliper SERIES 573, 536 — ABSOLUTE Digimatic and vernier type

- Narrow-tip jaws fit into very small grooves and tracks, making many previously difficult outside measurements far easier to obtain.
- Allows step measurement.
- Digital models are IP67 Absolute type. No need to reset the origin after switching on. (Refer to page D-8 for a description of Absolute measurement.)
- SPC output models allow integration into statistical process control and measurement systems. Refer to page A-3.



SPECIFICATIONS

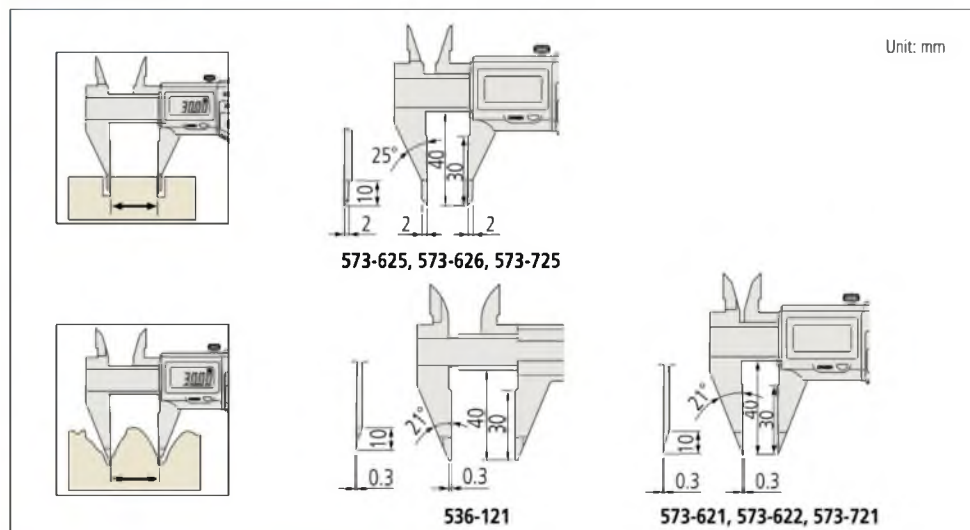
Metric	Digital model	
Order No.	Range	Accuracy
573-621	0 - 150mm	±0.02mm
573-625	0 - 150mm	±0.02mm
573-622*	0 - 150mm	±0.02mm
573-626*	0 - 150mm	±0.02mm

* without thumb roller

Metric		
Order No.	Range	Accuracy
536-121	0 - 150mm	±0.05mm

Inch/Metric	Digital model	
Order No.	Range	Accuracy
573-721	0 - 6"	±.001"
573-725	0 - 6"	±.001"

DIMENSIONS



Calipers

An industry standard in measuring tools

Blade Type Caliper

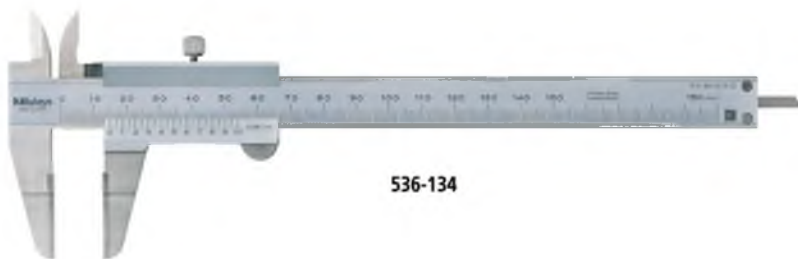
SERIES 573, 536 — ABSOLUTE Digimatic and vernier type

- The thin blade-type jaws fit into very small grooves and make previously difficult outside measurements far easier to obtain.
- The outside measuring faces are carbide tipped.
- Allows step measurement.
- Digital models are IP67 Absolute type. No need to reset the origin after switching on. (Refer to page D-8 for a description of Absolute measurement.)
- Allows integration into statistical process control and measurement systems for models with measurement data output connector. Refer to page A-3.



573-634

ABSOLUTE™



536-134

SPECIFICATIONS

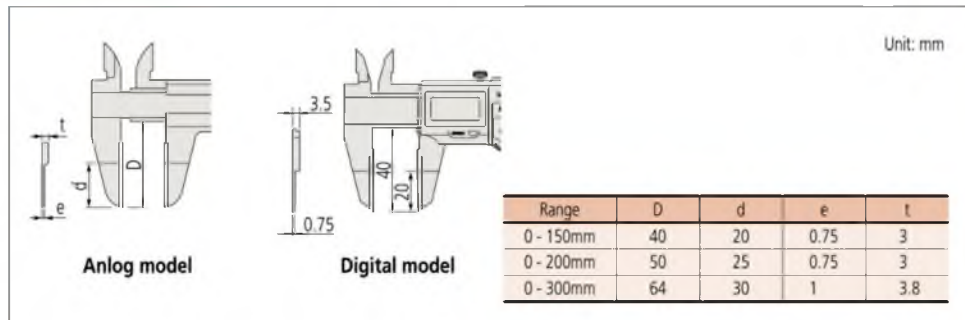
Metric	Digital model	
Order No.	Range	Accuracy
573-634	0 - 150mm	±0.02mm
573-635*	0 - 150mm	±0.02mm

* without thumb roller

Metric		
Order No.	Range	Accuracy
536-134	0 - 150mm	±0.05mm
536-135	0 - 200mm	±0.05mm
536-136	0 - 300mm	±0.08mm

Inch/Metric	Digital model	
Order No.	Range	Accuracy
573-734	0 - 6"	±.001"

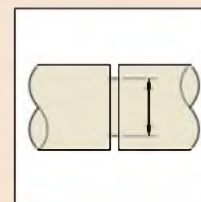
DIMENSIONS



(Refer to page X for details.)



(Refer to page X 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**: 0.05mm
Display*: LCD
Scale type*: ABSOLUTE electromagnetic induction linear encoder
Max. response speed*: Unlimited
Battery: SR44 (1 pc), 938882,
for initial operational checks (standard accessory)
Battery life*: Approx. 3 years under normal use
Dust/Water protection level*: IP67 (IEC 60529)***
* Digital models ** Analog models
*** This model is not waterproof type.
Therefore, rustproofing shall be applied after use.

Optional accessories for Digital Models

For details, refer to page D-39.
Connecting cables for IT/DP/MUX
05CZA624: SPC cable with data button (1m)
05CZA625: SPC cable with data button (2m)
USB Input Tool Direct
06ADV380A: SPC cable for USB-ITN-A (2m)
Connecting cables for U-WAVE-T
02AZD790A: SPC cable for U-WAVE with data button (160mm)
02AZE140A: SPC cable for footswitch

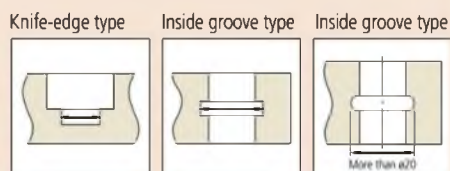


Technical Data

Accuracy: Refer to the list of specifications.
(excluding quantizing error for digital models)
Resolution*: 0.01mm or .00005"/0.01mm
Graduation**: 0.05mm
Display*: LCD
Scale type*: ABSOLUTE electromagnetic induction linear encoder
Max. response speed*: Unlimited
Battery: **SR44** (1 pc), **938882**,
for initial operational checks (standard accessory)
Battery life*: Approx. 3 years under normal use
Dust/Water protection level*: IP67 (IEC 60529)***
* Digital models ** Analog models
*** This model is not waterproof type.
Therefore, rustproofing shall be applied after use.

Optional accessories

For details, refer to page D-39.
Connecting cables for IT/DP/MUX
05CZA624: SPC cable with data button (1m)
05CZA625: SPC cable with data button (2m)
USB Input Tool Direct
06ADV380A: SPC cable for **USB-ITN-A** (2m)
Connecting cables for **U-WAVE-T**
02AZD790A: SPC cable for **U-WAVE** with data button
(160mm)
02AZE140A: SPC cable for footswitch



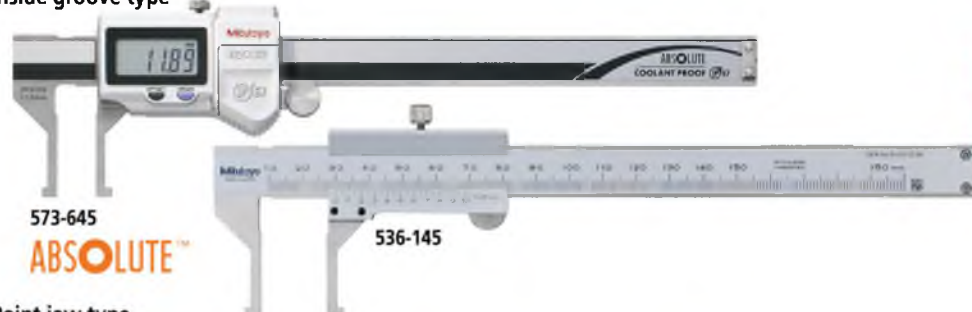
ABSOLUTE Inside Caliper SERIES 573, 536 — Knife-edge/Inside Groove/Point Jaw Type

- Specially designed for inside measurements in hard-to-reach places.
- Digital models are IP67 Absolute type. No need to reset the origin after switching on. (Refer to page D-8 for a description of Absolute measurement.)
- Allows integration into statistical process control and measurement systems for models with measurement data output connector. Refer to page A-3.

Knife-edge type



Inside groove type



Point jaw type



SPECIFICATIONS

Metric Digital model

Order No.	Range	Accuracy	Remarks
573-642	10 - 200mm	±0.05mm	Knife-edge type, Measurable min. hole diameter: ø10mm
573-643*	10 - 200mm	±0.05mm	Knife-edge type, Measurable min. hole diameter: ø10mm
573-645**	10.1 - 160mm	±0.05mm	Inside groove type, Measurable min. hole diameter: ø10.1mm
573-647*	10.1 - 160mm	±0.05mm	Inside groove type, Measurable min. hole diameter: ø10.1mm
573-646**	20.1 - 170mm	±0.03mm	Point jaw type, Measurable min. hole diameter: ø20.1mm
573-648*	20.1 - 170mm	±0.03mm	Point jaw type, Measurable min. hole diameter: ø20.1mm

* without thumb roller

** Incorporated with the offsetting function, which indicates the actual measurement value.

Metric

Order No.	Range	Accuracy	Remarks
536-142	10 - 200mm	±0.12mm	Knife-edge type, Measurable min. hole diameter: ø10.1mm
536-145	10.1 - 150mm	±0.05mm	Inside groove type, Measurable min. hole diameter: ø10.1mm
536-146	20.1 - 150mm	±0.05mm	Point jaw type, Measurable min. hole diameter: ø20.1mm
536-147	30.1 - 300mm	±0.08mm	Point jaw type, Measurable min. hole diameter: ø30.1mm
536-148	70.1 - 450mm	±0.10mm	Point jaw type, Measurable min. hole diameter: ø70.1mm
536-149	70.1 - 600mm	±0.12mm	Point jaw type, Measurable min. hole diameter: ø70.1mm

Inch/Metric Digital model

Order No.	Range	Accuracy	Remarks
573-742	.4 - 6"	±.002"	Knife-edge type, Measurable min. hole diameter: ø.4"
573-745**	.404 - 6"	±.002"	Inside groove type, Measurable min. hole diameter: ø.404"
573-746**	.804 - 6"	±.0015"	Point jaw type, Measurable min. hole diameter: ø.804"

** Incorporated with the offsetting function, which indicates the actual measurement value.

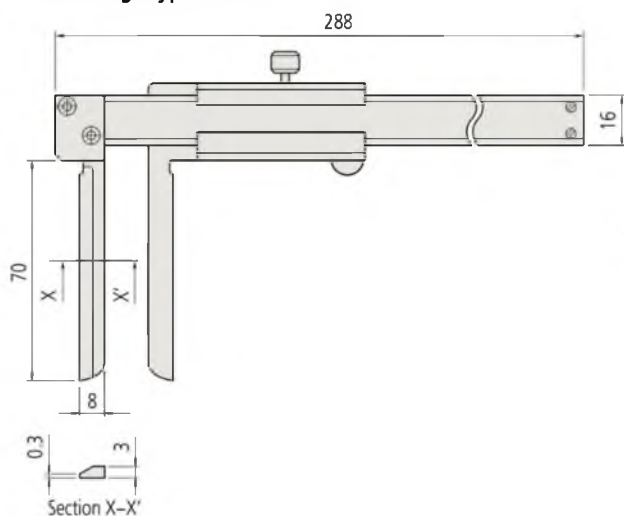
Calipers

An industry standard in measuring tools

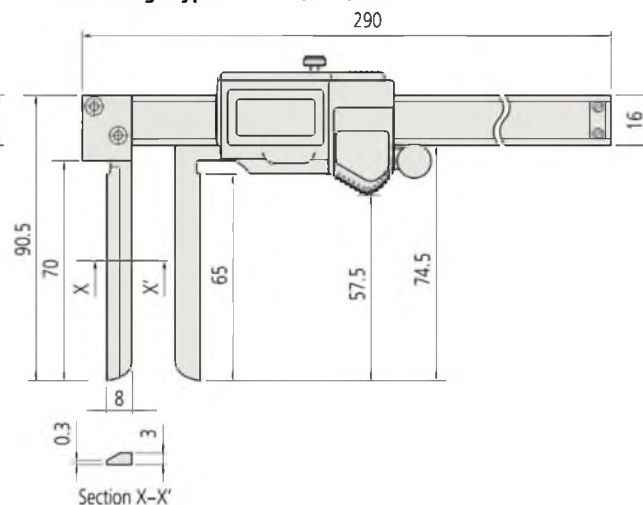
DIMENSIONS

Unit: mm

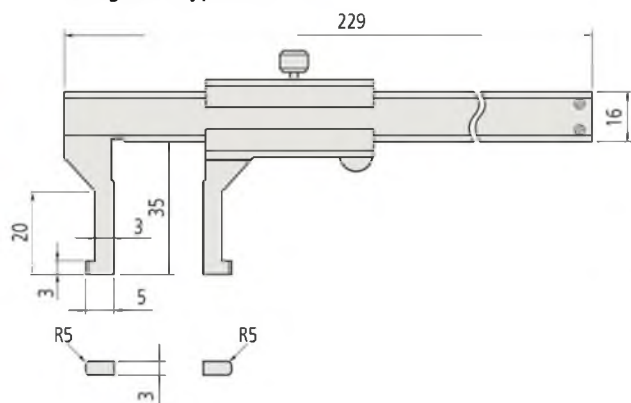
Knife-edge type: 536-142



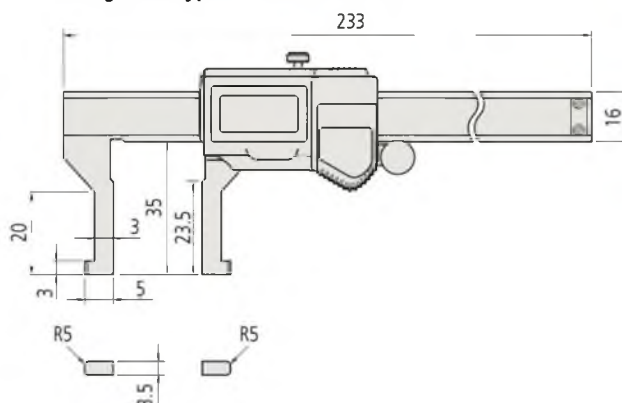
Knife-edge type: 573-642, 643, 742



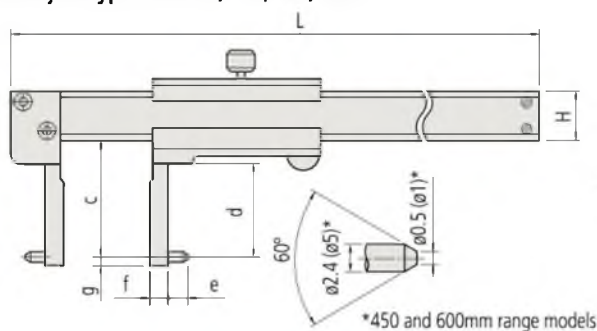
Inside groove type: 536-145



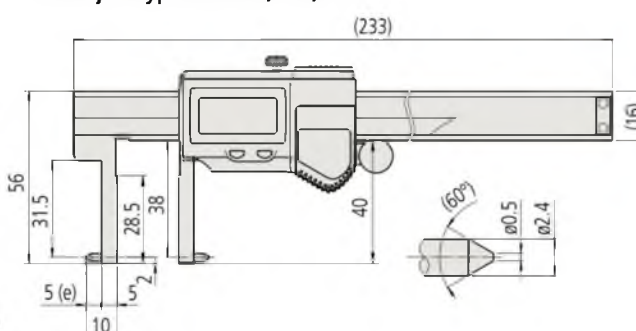
Inside groove type: 573-645, 647, 745



Point jaw type: 536-146, 147, 148, 149



Point jaw type: 573-646, 648, 746



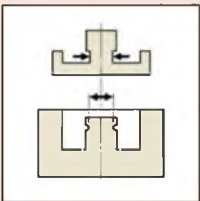
Range	c	d	e	f	g	H	L
150mm	38	31	5	5	2	16	229
300mm	98	89	5	10	2	20	403
450mm	145	136	10	25	5	25	610
600mm	145	136	10	25	5	25	750



(Refer to page X for details.)



(Refer to page X 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**: 0.05mm
Display*: LCD
Scale type*: ABSOLUTE electromagnetic induction linear encoder
Max. response speed*: Unlimited
Battery: **SR44** (1 pc), **938882**,
for initial operational checks (standard accessory)
Battery life*: Approx. 3 years under normal use
Dust/Water protection level*: IP67 (IEC 60529)***
* Digital models ** Analog models
*** This model is not waterproof type.
Therefore, rustproofing shall be applied after use.

Optional accessories

For details, refer to page D-39.
Connecting cables for IT/DP/MUX
05CZA624: SPC cable with data button (1m)
05CZA625: SPC cable with data button (2m)
USB Input Tool Direct
06ADV380A: SPC cable for **USB-ITN-A** (2m)
Connecting cables for **U-WAVE-T**
02AZD790A: SPC cable for **U-WAVE** with data button
(160mm)
02AZE140A: SPC cable for footswitch

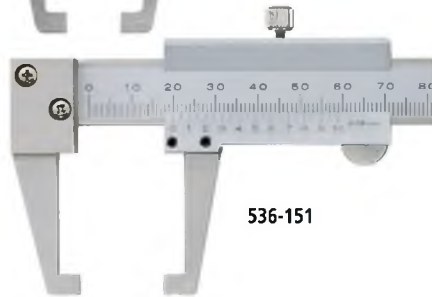
Neck Caliper SERIES 573, 536 — ABSOLUTE Digimatic and vernier type

- Can measure wall thickness inside bores and recesses.
- Digital models are an IP67 Absolute type. No need to reset the origin after switching on. (Refer to page D-8 for a description of Absolute measurement.)
- Allows integration into statistical process control and measurement systems for models with measurement data output connector. Refer to page A-3.

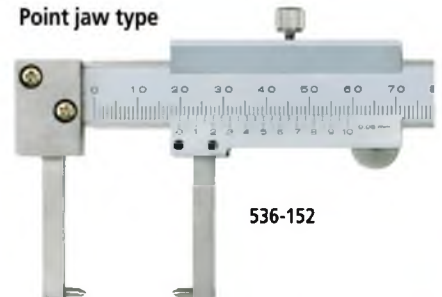


573-651

ABSOLUTE™



536-151



536-152

SPECIFICATIONS

Metric	Digital model
Order No.	Range
573-651	0 - 150mm
573-652*	0 - 150mm
573-653**	0 - 150mm
573-654***	0 - 150mm

* Point type
** Without thumb roller

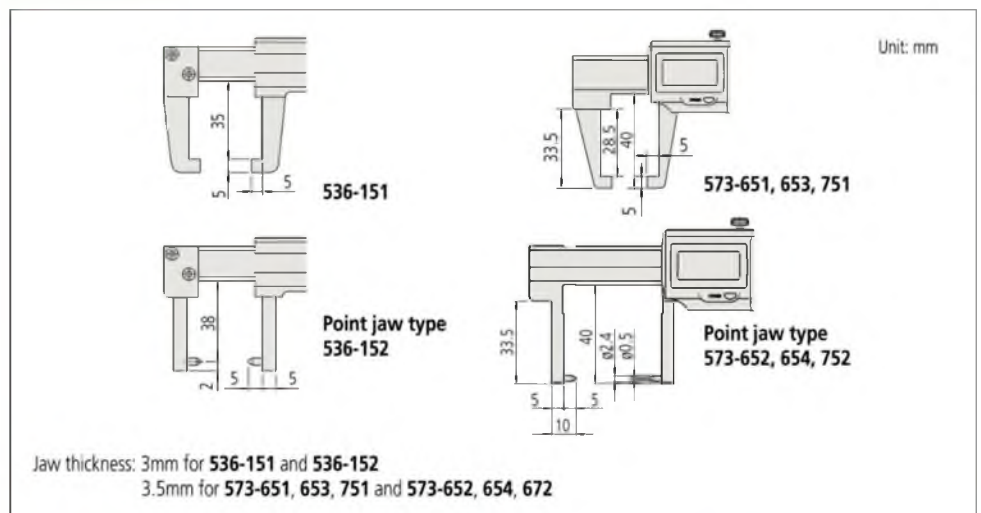
Metric	Digital model
Order No.	Range
536-151	0 - 150mm
536-152*	0 - 150mm

* Point type

Inch/Metric	Digital model
Order No.	Range
573-751	0 - 6"
573-752*	0 - 6"

* Point type

DIMENSIONS



Jaw thickness: 3mm for **536-151** and **536-152**
3.5mm for **573-651, 653, 751** and **573-652, 654, 672**

Calipers

An industry standard in measuring tools

Tube Thickness Caliper SERIES 573, 536 — ABSOLUTE Digimatic and vernier type

- The beam-mounted jaw is a round bar that facilitates measurements of tube wall thickness.
- Digital models are IP67 Absolute type. No need to reset the origin after switching on. (Refer to page D-8 for a description of Absolute measurement.)
- Allows integration into statistical process control and measurement systems for models with measurement data output connector. Refer to page A-3.



SPECIFICATIONS

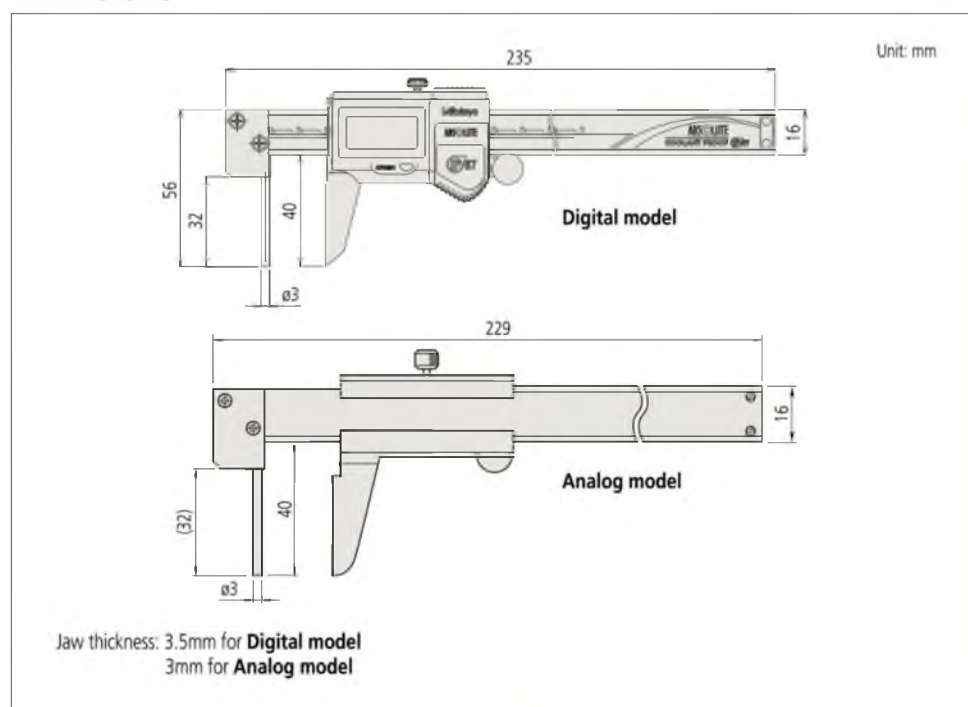
Metric	Digital model
Order No.	Range
573-661	0 - 150mm
573-662*	0 - 150mm

* without thumb roller

Metric	Analog model
Order No.	Range
536-161	0 - 150mm

Inch/Metric	Digital model
Order No.	Range
573-761	0 - 6"

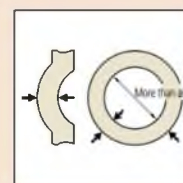
DIMENSIONS



(Refer to page X for details.)



(Refer to page X for details.)



Technical Data

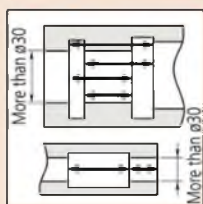
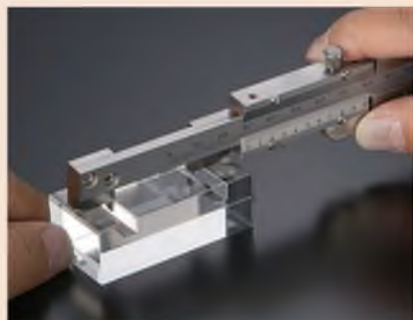
Accuracy: Refer to the list of specifications.
(excluding quantizing error for digital models)
Resolution*: 0.01mm or .0005"/0.01mm
Graduation**: 0.05mm
Display*: LCD
Scale type*: ABSOLUTE electromagnetic induction linear encoder
Max. response speed*: Unlimited
Battery: **SR44** (1 pc), **938882**,
for initial operational checks (standard accessory)
Battery life*: Approx. 3 years under normal use
Dust/Water protection level*: IP67 (IEC 60529)***
* Digital models ** Analog models
*** This model is not waterproof type.
Therefore, rustproofing shall be applied after use.

Optional accessories

For details, refer to page D-39.
Connecting cables for IT/DP/MUX
05CZA624: SPC cable with data button (1m)
05CZA625: SPC cable with data button (2m)
USB Input Tool Direct
06ADV380A: SPC cable for **USB-ITN-A** (2m)
Connecting cables for **U-WAVE-T**
02AZD790A: SPC cable for **U-WAVE** with data button (160mm)
02AZE140A: SPC cable for footswitch

Technical Data

Accuracy: $\pm 0.03\text{mm}$
Graduation: 0.02mm



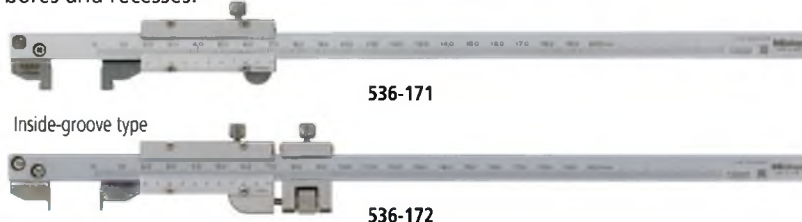
Technical Data

Accuracy: $\pm 0.05\text{mm}$
Graduation: 0.05mm



Hook Type Vernier Caliper SERIES 536

- Can measure width of grooves and lands inside bores and recesses.



SPECIFICATIONS

Metric			
Order No.	Range*	Accuracy	Remarks
536-171	0 - 200mm (10.1 - 200mm)	$\pm 0.03\text{mm}$	—
536-172	0 - 200mm (2.1 - 200mm)	$\pm 0.03\text{mm}$	with fine adjustment

* () : Dimension in inside measurement

DIMENSIONS

Unit: mm								
Range	D	F	L	N	P	S	t	W
536-171 ^{*1}	12	—	320	—	5	4	3.5	28
536-172 ^{*2}	—	28.5	—	20	1	—	—	—

*1: Inside measuring face is R5.
*2: Inside measuring face is flat.

Swivel Vernier Caliper SERIES 536 — Moving Jaw type

- The moving jaw can be rotated to measure sectioned shafts.
- Allows step measurement.



SPECIFICATIONS

Metric			
Order No.	Range	Accuracy	Remarks
536-212	0 - 200mm	$\pm 0.05\text{mm}$	with depth bar

* with depth bar

DIMENSIONS

Unit: mm								
20.5	25	53.5	288	16	30	42	50	

Jaw thickness: 3mm

Calipers

An industry standard in measuring tools

Absolute Low Force Caliper SERIES 573

- ABSOLUTE electromagnetic induction linear encoder system is introduced.
- Due to the low measuring force, these calipers are ideal for measuring elastic workpieces such as plastic parts and rubber parts that standard calipers cannot measure accurately.
- Allows fine feeding easily by using thumb roller.
- Displacement of main scale jaw is 0.3mm.
- Measuring force: 0.49N to 0.98N (0.5gf to 1.0gf)
- Absolute type. (Refer to page D-8 for a description of Absolute measurement.)
- Allows integration into statistical process control and measurement systems for models with measurement data output connector. Refer to page A-3.



573-191-30

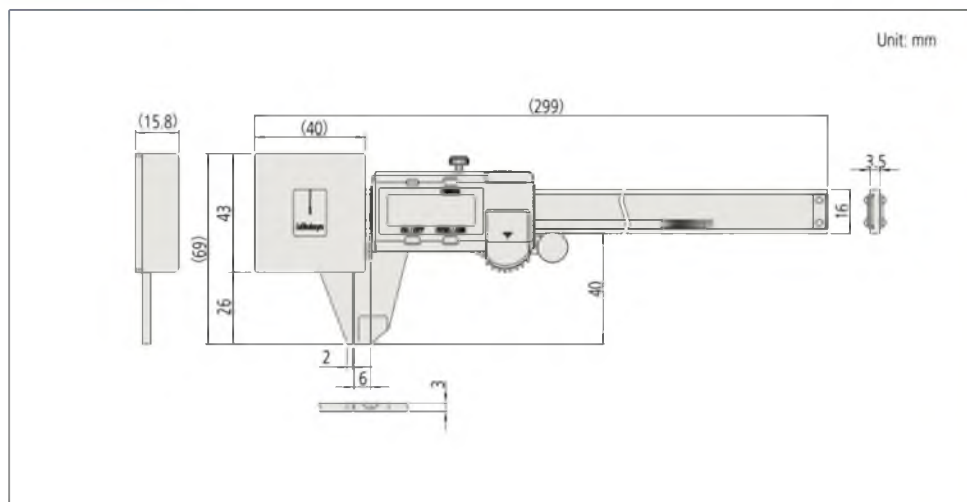
SPECIFICATIONS

Metric			Inch/Metric		
Order No.	Range	Accuracy*	Order No.	Range	Accuracy*
573-191-30	0 - 180mm	±0.05mm	573-291-20	0 - 7"	±.002"

* Excluding quantizing error.

Note) Dedicated for outside measurement (depth bar is not fitted).

DIMENSIONS



ABSOLUTE™ (Refer to page X for details.)



Technical Explanation

Measurement procedure



A consistently low measuring force can be guaranteed by only taking measurements when the pointer is between the two fiducial lines.

Technical Data

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

Resolution: 0.01mm or .0005"/0.01mm

Display: LCD

Scale type*: ABSOLUTE electromagnetic inductive linear encoder

Jaw retraction: 0.3mm

Max. response speed: Unlimited

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

for initial operational checks (standard accessory)

Battery life: Approx. 3.5 years under normal use

Optional accessories

For details, refer to page D-39.

959143: Data hold unit

Connecting cables for IT/DP/MUX

959149: SPC cable with data button (1m)

959150: SPC cable with data button (2m)

USB Input Tool Direct

06ADV380C: SPC cable for **USB-ITN-C** (2m)

Connecting cables for **U-WAVE-T**

02AZD790C: SPC cable for **U-WAVE** with data button (160mm)

02AZE140C: SPC cable for footswitch



Technical Data

Accuracy: Refer to the list of specifications.
(excluding quantizing error)
Resolution: 0.01mm or .0005"/0.01mm
Repeatability: 0.01mm
Display: LCD
Scale type: ABSOLUTE electromagnetic inductive linear encoder
Jaw retraction: 2mm
Max. response speed: Unlimited
Battery: **SR44** (1 pc), **938882**,
for initial operational checks (standard accessory)
Battery life: Approx. 3.5 years under normal use

Optional accessories

For details, refer to page D-39.

959143: Data hold unit

Connecting cables for IT/DP/MUX

959149: SPC cable with data button (1m)

959150: SPC cable with data button (2m)

USB Input Tool Direct

06ADV380C: SPC cable for **USB-ITN-C** (2m)

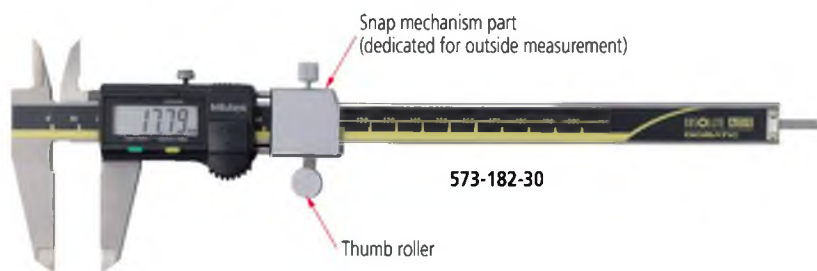
Connecting cables for **U-WAVE-T**

02AZD790C: SPC cable for **U-WAVE** with data button
(160mm)

02AZE140C: SPC cable for footswitch

Absolute Snap Caliper SERIES 573

- ABSOLUTE electromagnetic induction linear encoder system is introduced.
- Snap mechanism allows continuous and easy measurement without moving the slider by using the lever.
- The ABSOLUTE Digimatic snap caliper features a spring-loaded mechanism to allow quick and efficient GO/NO-GO inspection for mass production parts.
- Allows step measurement
- Displacement of snap part is 2 mm.
- Measuring force: 7N to 14N
- Absolute type. (Refer to page D-8 for a description of Absolute measurement.)
- Allows integration into statistical process control and measurement systems for models with measurement data output connector. Refer to page A-3.



SPECIFICATIONS

Metric			Inch/Metric		
Order No.	Range	Accuracy*	Order No.	Range	Accuracy*
573-181-30	0 - 100mm	±0.02mm	573-281-20	0 - 4"	±.001"
573-182-30	0 - 150mm	±0.02mm	573-282-20	0 - 6"	±.001"

* Excluding quantizing error.

Note) Dedicated for outside measurement (depth bar is not fitted).

DIMENSIONS

