D

Small Tool Instruments
Calipers
Height Gages
Depth Gages

Digimatic Caliper

Digimatic Height Gages

Linear Height

Depth Gages

ABSOLUTE Digimatic Caliper

ABSOLUTE Coolant-Proof Caliper

Super Caliper

ABSOLUTE Digimatic Offset Caliper

Digimatic Height Gage

INDEX

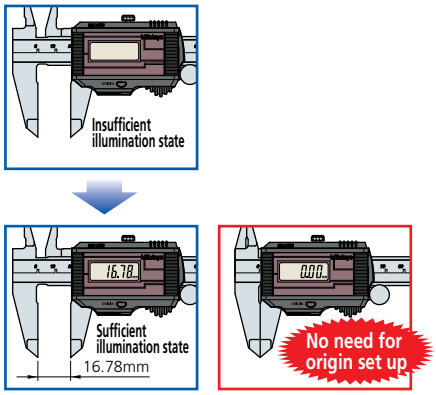
Mitutoyo

Super Caliper--Solar Powered

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

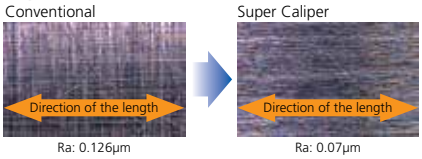
FEATURES

- With no annoying origin restoration necessary, a measurement can be started at any time and without restrictions on operating speed.



- This unique* eco-friendly solar-powered Super Caliper requires no battery.
  *According to Mitutoyo investigation in January,2005
- The impact resistance of the display unit has been increased for improved usability in workshop conditions.
- IP67 protection ensures waterproof reliability.
- This Super Caliper uses components that do not contain harmful substances and is compatible with RoHS Directives.
- Supplied in fitted plastic case.

Improvement in surface finish of beam



500-784

SPECIFICATIONS

Metric

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

*Without SPC data output

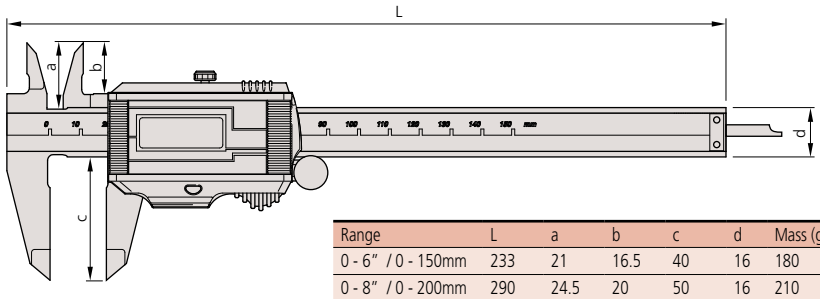
Inch/Metric

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

*Without SPC data output

DIMENSIONS AND MASS

Unit: mm



Range	L	a	b	c	d	Mass (g)
0 - 6" / 0 - 150mm	233	21	16.5	40	16	180
0 - 8" / 0 - 200mm	290	24.5	20	50	16	210

Jaw thickness: 3.5mm

Technical Data

Accuracy: Refer to the list of specifications
Resolution: .0005"/0.01mm or 0.01mm
Repeatability: .0005" / 0.01mm
Display: LCD
Length standard: ABSOLUTE electromagnetic induction linear encoder
Max. response speed: Unlimited
Battery: Solar cell*
Dust/Water protection level: IP67
*Can be used continuously above 60 lux ambient illumination.

Function

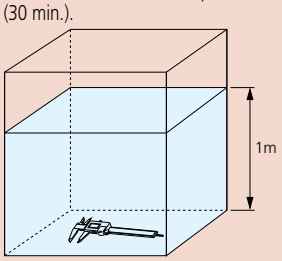
Origin-set, inch/mm conversion (on inch/metric models only)
Alarm: Counting value composition error

Optional Accessories

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

IP67 protection level

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



About the charge function (Super Caliper)

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

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

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

SPC

ABSOLUTE®
Absolute System Patented by MITUTOYO

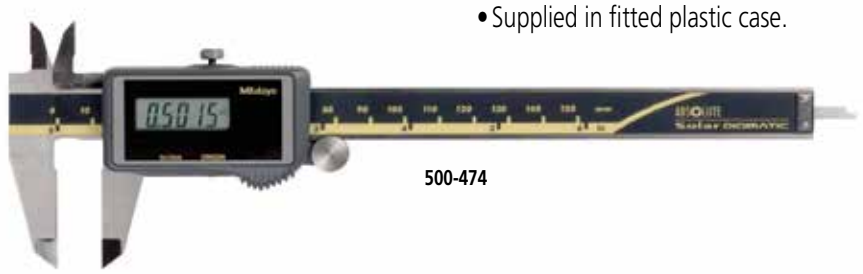
ABSOLUTE Super Caliper

SERIES 500 — No battery or origin reset needed

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

FEATURES

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



500-474

Technical Data

Accuracy: Refer to the list of specifications
Resolution: .0005"/0.01mm or 0.01mm
Repeatability: .0005" / 0.01mm
Display: LCD
Length standard: ABSOLUTE electrostatic capacitance type linear encoder
Max. response speed: Unlimited
Battery: Solar cell*
*Can be used continuously above 60 lux ambient illumination.

Function

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

Optional Accessories

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

SPECIFICATIONS

Metric

Range	Order No.	Accuracy	Resolution	Remarks
0 - 100mm	**500-443**	±0.02mm	0.01mm	ø1.9mm round depth bar
0 - 100mm	**500-453***	±0.02mm	0.01mm	ø1.9mm round depth bar
0 - 150mm	**500-444**	±0.02mm	0.01mm	
0 - 150mm	**500-454***	±0.02mm	0.01mm	
0 - 200mm	**500-445**	±0.02mm	0.01mm	
0 - 200mm	**500-455***	±0.02mm	0.01mm	

*without SPC data output

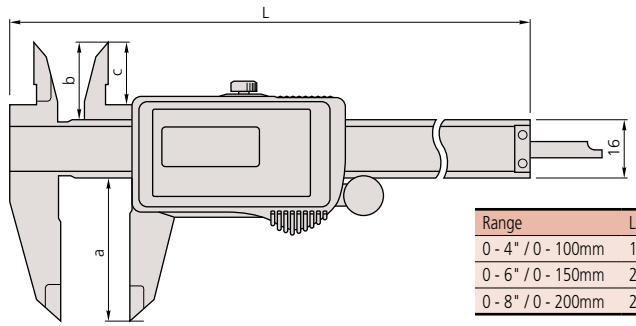
Inch/Metric

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

*without SPC data output

DIMENSIONS AND MASS

Unit: mm



Range	L	a	b	c	Mass (g)
0 - 4" / 0 - 100mm	182	40	21	16.5	125
0 - 6" / 0 - 150mm	233	40	21	16.5	150
0 - 8" / 0 - 200mm	290	50	24.5	20	180

Mitutoyo

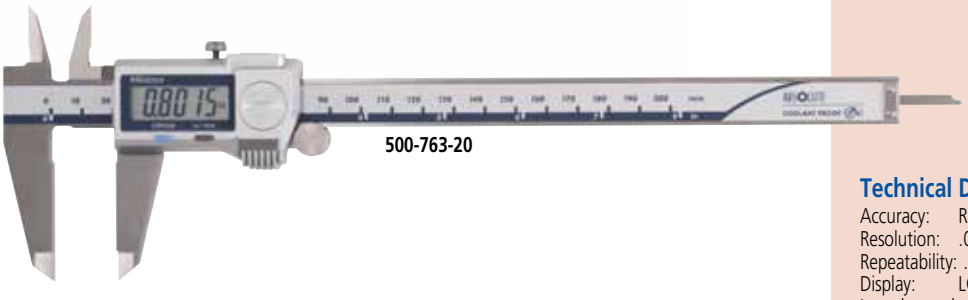
ABSOLUTE Coolant-Proof Caliper

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

FEATURES

- Can be used in workshop conditions exposed to coolant, water, dust or oil.
- Easy to use - no need to wipe or clean the scale.
- Advanced design.
- Character height increased from 7.4mm to 9.0mm for improved readability.
- Redesigned battery cover eliminates the need for a screwdriver.
- Incorporates absolute measurement system.
- Automatic power-on/off.
- Data output function.
- With thumb roller.
- Supplied in fitted plastic case.

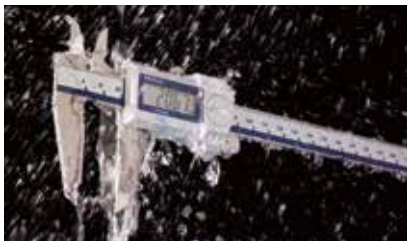
500-752-20



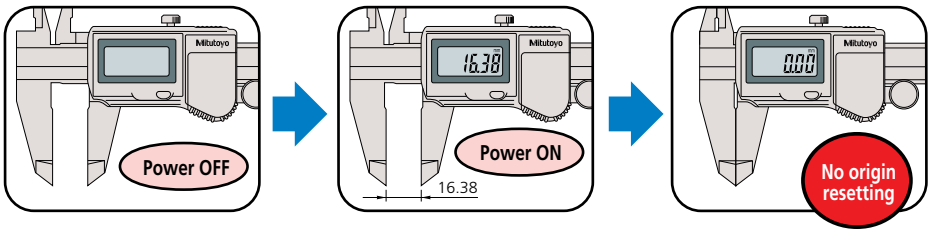
500-763-20

COOLANT PROOF™ IP67

COOLANT PROOF is the universal term of Mitutoyo Digimatic Small Tool Instruments that are free from measurement error and physical deterioration due to routine exposure to water, cutting oil or coolant. This high performance is achieved by using encoders that are inherently immune to contamination, where exposure is inevitable, combined with comprehensive sealing techniques and extremely oil-resistant materials to guarantee a long working life under normal operating conditions.



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



Certificate of inspection

CERTIFICATE OF INSPECTION / CERTIFICAT DE CONTROLE

Mitutoyo Corporation

Technical Data

Accuracy: Refer to the list of specifications
Resolution: .0005"/0.01mm or 0.01mm
Repeatability: .0005" / 0.01mm
Display: LCD
Length standard: ABSOLUTE electromagnetic induction linear encoder
Max. response speed: Unlimited
Battery: SR44 (1 pc./2 pcs*), **938882**
Battery life: Approx. 5 years under normal use (1 year: over 12" / 300mm models)
Dust/Water protection level: IP67
*0 - 300mm model

Function

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

Optional Accessories

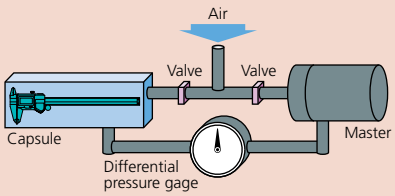
05CZA624: SPC cable with data switch (40" / 1m)
05CZA625: SPC cable with data switch (80" / 2m)

05CZA624

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

Air leakage detection system used for water-proof testing

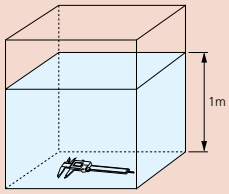
Generally, air leakage tests are performed to evaluate water resistance. Testing begins by placing a measuring tool into the capsule. Next, air with equivalent pressure is supplied to the capsule and the master, then the valves are closed. If none of the air in the capsule seeps into the measuring tool,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



IP67 protection level

Level 6: Dust-tight
No ingress of dust.

Level 7: Protected against the effects of temporary immersion in water.
Ingress of water in quantities causing harmful effects shall not be possible when the enclosure is temporarily immersed 1 meter in water under standardized conditions of pressure and time (30 min.).



SPECIFICATIONS

Metric IP67 model

Range	Order No.	Accuracy	Resolution	Remarks
0-150mm	**500-702-20***	+/-0.02mm	0.01mm	
0-150mm	**500-712-20**	+/-0.02mm	0.01mm	
0-150mm	**500-719-20**	+/-0.02mm	0.01mm	dia. 1.9mm rod depth bar
0-150mm	**500-721-20**	+/-0.02mm	0.01mm	carbide-tipped jaws for ID measurement
0-150mm	**500-723-20**	+/-0.02mm	0.01mm	carbide-tipped jaws for OD & ID measurement
0-200mm	**500-703-20***	+/-0.02mm	0.01mm	
0-200mm	**500-713-20**	+/-0.02mm	0.01mm	
0-200mm	**500-722-20**	+/-0.02mm	0.01mm	carbide-tipped jaws for ID measurement
0-200mm	**500-724-20**	+/-0.02mm	0.01mm	carbide-tipped jaws for OD & ID measurement
0-300mm	**500-704-10***	+/-0.03mm	0.01mm	
0-300mm	**500-714-10**	+/-0.03mm	0.01mm	

*without SPC data output

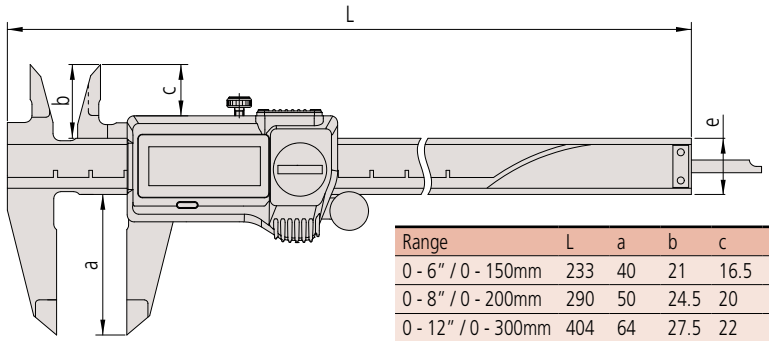
Inch/Metric IP67 model

Range	Order No.	Accuracy	Resolution	Remarks
0-6"/0-150mm	**500-752-20***	+/-.001"	.0005"/0.01mm	
0-6"/0-150mm	**500-762-20**	+/-.001"	.0005"/0.01mm	
0-6"/0-150mm	**500-768-20***	+/-.001"	.0005"/0.01mm	.075" rod depth bar
0-6"/0-150mm	**500-769-20**	+/-.001"	.0005"/0.01mm	.075" rod depth bar
0-6"/0-150mm	**500-731-20***	+/-.001"	.0005"/0.01mm	carbide-tipped jaws for OD measurement
0-6"/0-150mm	**500-735-20**	+/-.001"	.0005"/0.01mm	carbide-tipped jaws for OD measurement
0-6"/0-150mm	**500-733-20***	+/-.001"	.0005"/0.01mm	carbide-tipped jaws for OD & ID measurement
0-6"/0-150mm	**500-737-20**	+/-.001"	.0005"/0.01mm	carbide-tipped jaws for OD & ID measurement
0-8"/0-200mm	**500-753-20***	+/-.001"	.0005"/0.01mm	
0-8"/0-200mm	**500-763-20**	+/-.001"	.0005"/0.01mm	
0-8"/0-200mm	**500-732-20***	+/-.001"	.0005"/0.01mm	carbide-tipped jaws for OD measurement
0-8"/0-200mm	**500-736-20**	+/-.001"	.0005"/0.01mm	carbide-tipped jaws for OD measurement
0-8"/0-200mm	**500-734-20***	+/-.001"	.0005"/0.01mm	carbide-tipped jaws for OD & ID measurement
0-8"/0-200mm	**500-738-20**	+/-.001"	.0005"/0.01mm	carbide-tipped jaws for OD & ID measurement
0-12"/0-300mm	**500-754-10***	+/-.0015"	.0005"/0.01mm	
0-12"/0-300mm	**500-764-10**	+/-.0015"	.0005"/0.01mm	

*without SPC data output

DIMENSIONS AND MASS

Unit: mm



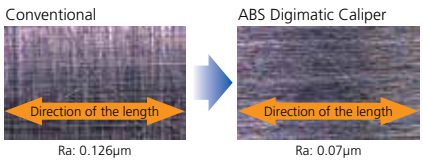
Range	L	a	b	c	e	Mass (g)
0 - 6" / 0 - 150mm	233	40	21	16.5	16	168
0 - 8" / 0 - 200mm	290	50	24.5	20	16	198
0 - 12" / 0 - 300mm	404	64	27.5	22	20	350

ABSOLUTE Digimatic Caliper

SERIES 500 — with Exclusive ABSOLUTE Encoder Technology

Mitutoyo's absolute Digimatic Caliper is the next generation of electronic calipers. It keeps track of its origin point once set. Whenever turned on, the large LCD 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 concern 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 also will allow return to the absolute (ABS) coordinate and display of the true position from the origin point (usually jaws-closed point).
- Data Hold Unit (959143) is optional.
- Carbide-tipped jaw-type calipers are also available.
- Thumb roller included only on calipers up to and including 12" or 300mm.
- Supplied in fitted plastic case. Except 40" / 1000mm supplied in wooden case.

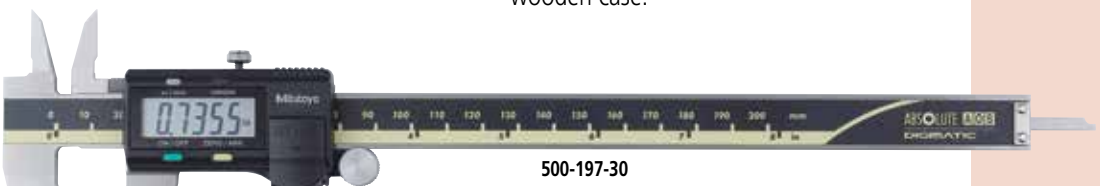
SPC

PROPRIETARY INSPECTION CERTIFICATE

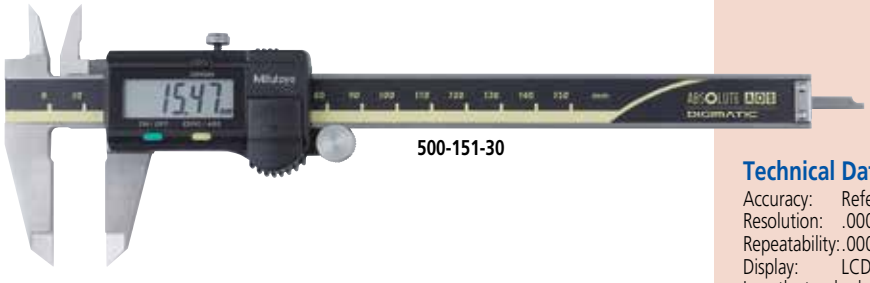
ABSOLUTE AOS DIGIMATIC

AOS: Advanced Onsite Sensor

The new Mitutoyo ABS Digimatic Caliper line with exclusive AOS sensor technology. The patented Advanced Onsite Sensor (AOS) offers improved measurement dependability by increasing resistance to harsh workshop conditions.



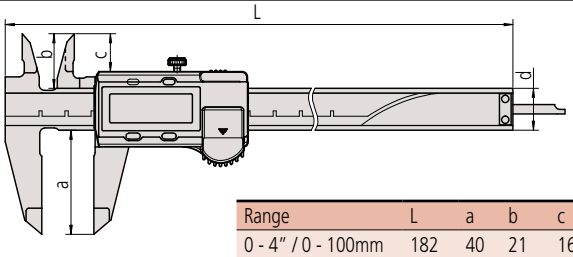
500-197-30



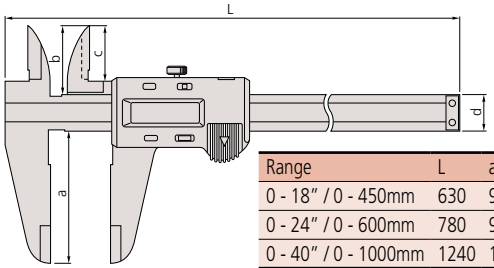
500-151-30

DIMENSIONS AND MASS

Unit: mm



Range	L	a	b	c	d	Mass (g)
0 - 4" / 0 - 100mm	182	40	21	16.5	16	143
0 - 6" / 0 - 150mm	233	40	21	16.5	16	168
0 - 8" / 0 - 200mm	290	50	24.5	20	16	198
0 - 12" / 0 - 300mm	403	64	27.5	22	20	350



Range	L	a	b	c	d	Mass (g)
0 - 18" / 0 - 450mm	630	90	47	38	25	1170
0 - 24" / 0 - 600mm	780	90	47	38	25	1350
0 - 40" / 0 - 1000mm	1240	130	61	50	32	3300

Technical Data

Accuracy: Refer to the list of specifications
Resolution: .0005"/0.01mm or 0.01mm
Repeatability: .0005"/ 0.01mm
Display: LCD
Length standard:
ABSOLUTE electromagnetic induction type linear encoder (200mm and smaller models)
ABSOLUTE electrostatic capacitance type linear encoder (300mm and larger models)
Max. response speed: Unlimited
Battery: SR44 (1 pc.), **938882**
Battery life: Approx. 3.5 years under normal use

Function

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

Optional Accessories

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

959143

959149

500-506-10

500-502-10

500-501-10

500-500-10

SPECIFICATIONS

Metric

Range	Order No.	Accuracy	Resolution	Remarks
0 - 100mm	**500-150-30**	±0.02mm	0.01mm	ø1.9mm rod depth bar
0 - 150mm	**500-151-30**	±0.02mm	0.01mm	—
0 - 150mm	**500-154-30**	±0.02mm	0.01mm	Carbide-tipped jaws for OD measurement
0 - 150mm	**500-155-30**	±0.02mm	0.01mm	Carbide-tipped jaws for OD & ID measurement
0 - 150mm	**500-158-30**	±0.02mm	0.01mm	ø1.9mm rod depth bar
0 - 200mm	**500-152-30**	±0.02mm	0.01mm	—
0 - 200mm	**500-156-30**	±0.02mm	0.01mm	Carbide-tipped jaws for OD measurement
0 - 200mm	**500-157-30**	±0.02mm	0.01mm	Carbide-tipped jaws for OD & ID measurement
0 - 300mm	**500-153**	±0.03mm	0.01mm	—
0 - 450mm	**500-500-10**	±0.05mm	0.01mm	Without Thumb Roller
0 - 600mm	**500-501-10**	±0.05mm	0.01mm	Without Thumb Roller
0 - 1000mm	**500-502-10**	±0.07mm	0.01mm	Without Thumb Roller

Inch/Metric

Range	Order No.	Accuracy	Resolution	Remarks
0 - 4" / 0 - 100mm	**500-170-30**	±.001"	.0005" / 0.01mm	.075" rod depth bar
0 - 4" / 0 - 100mm	**500-195-30***	±.001"	.0005" / 0.01mm	.075" rod depth bar
0 - 6" / 0 - 150mm	**500-171-30**	±.001"	.0005" / 0.01mm	—
0 - 6" / 0 - 150mm	**500-174-30**	±.001"	.0005" / 0.01mm	Carbide-tipped jaws for OD measurement
0 - 6" / 0 - 150mm	**500-175-30**	±.001"	.0005" / 0.01mm	Carbide-tipped jaws for OD & ID measurement
0 - 6" / 0 - 150mm	**500-178-30**	±.001"	.0005" / 0.01mm	.075" rod depth bar
0 - 6" / 0 - 150mm	**500-196-30***	±.001"	.0005" / 0.01mm	—
0 - 6" / 0 - 150mm	**500-159-30***	±.001"	.0005" / 0.01mm	Carbide-tipped jaws for OD measurement
0 - 6" / 0 - 150mm	**500-160-30***	±.001"	.0005" / 0.01mm	Carbide-tipped jaws for OD & ID measurement
0 - 8" / 0 - 200mm	**500-172-30**	±.001"	.0005" / 0.01mm	—
0 - 8" / 0 - 200mm	**500-176-30**	±.001"	.0005" / 0.01mm	Carbide-tipped jaws for OD measurement
0 - 8" / 0 - 200mm	**500-177-30**	±.001"	.0005" / 0.01mm	Carbide-tipped jaws for OD & ID measurement
0 - 8" / 0 - 200mm	**500-197-30***	±.001"	.0005" / 0.01mm	—
0 - 8" / 0 - 200mm	**500-163-30***	±.001"	.0005" / 0.01mm	Carbide-tipped jaws for OD measurement
0 - 8" / 0 - 200mm	**500-164-30***	±.001"	.0005" / 0.01mm	Carbide-tipped jaws for OD & ID measurement
0 - 12" / 0 - 300mm	**500-173**	±.0015"	.0005" / 0.01mm	—
0 - 12" / 0 - 300mm	**500-167**	±.0015"	.0005" / 0.01mm	Carbide-tipped jaws for OD measurement
0 - 12" / 0 - 300mm	**500-168**	±.0015"	.0005" / 0.01mm	Carbide-tipped jaws for OD & ID measurement
0 - 12" / 0 - 300mm	**500-193***	±.0015"	.0005" / 0.01mm	—
0 - 12" / 0 - 300mm	**500-165***	±.0015"	.0005" / 0.01mm	Carbide-tipped jaws for OD measurement
0 - 12" / 0 - 300mm	**500-166***	±.0015"	.0005" / 0.01mm	Carbide-tipped jaws for OD & ID measurement
0 - 18" / 0 - 450mm	**500-505-10**	±.002"	.0005" / 0.01mm	Without Thumb Roller
0 - 24" / 0 - 600mm	**500-506-10**	±.002"	.0005" / 0.01mm	Without Thumb Roller
0 - 40" / 0 - 1000mm	**500-507-10**	±.003"	.0005" / 0.01mm	Without Thumb Roller

*without SPC data output

Mitutoyo

Dial Caliper

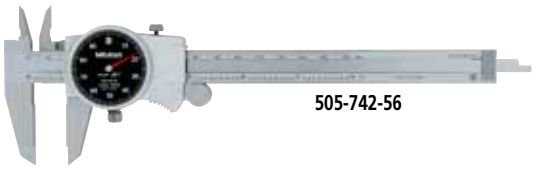
SERIES 505

FEATURES

- New designed dial movement for ultra-smooth sliding and high-shock protection.
- Improved finish on sliding surfaces for longevity.
- New face for improved readability.
- Removal of TiN coating on sliding surfaces without sacrificing wear life.
- Lock screw for dial bezel and for holding the sliding jaw position.
- Can measure OD, ID, depth and steps.
- Models available with carbide-tipped OD and ID jaws.
- Supplied in fitted plastic case.

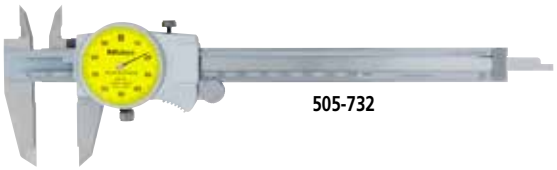
Mitutoyo guarantees the product quality.
PROPRIETARY INSPECTION CERTIFICATE
Mitutoyo guarantees the product quality.

505-746



505-742-56

505-745



505-732

.100" per revolution

.200" per revolution

1mm per revolution

2mm per revolution

SPECIFICATIONS

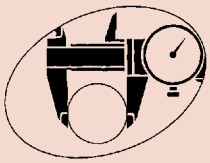
Metric 1mm Per One Revolution

Range	Order No.	Accuracy	Graduation	Remarks
0-150mm	**505-732**	+/-0.03mm	0.01mm	—
0-200mm	**505-733**	+/-0.03mm	0.01mm	—

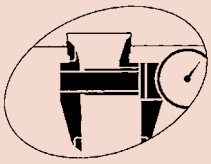
Metric 2mm Per One Revolution

Range	Order No.	Accuracy	Graduation	Remarks
0-150mm	**505-730**	+/-0.03mm	0.02mm	—
0-150mm	**505-734**	+/-0.03mm	0.02mm	Carbide-tipped jaws for OD measurement
0-150mm	**505-735**	+/-0.03mm	0.02mm	Carbide-tipped jaws for OD & ID measurement
0-200mm	**505-731**	+/-0.03mm	0.02mm	—
0-300mm	**505-745**	+/-0.04mm	0.02mm	—

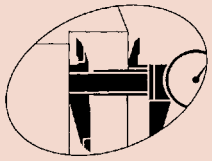
Measurement Applications



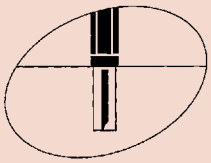
1. Outside measurement



2. Inside measurement



3. Step measurement



4. Depth measurement

SPECIFICATIONS

Inch .1″ Per Revolution

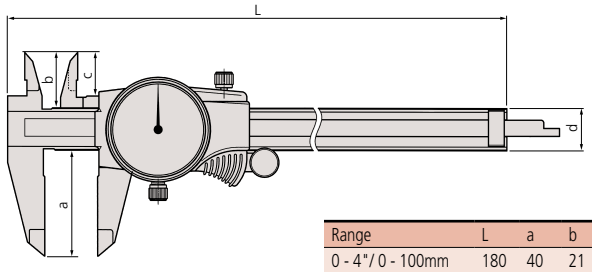
Range	Order No.	Accuracy	Graduation	Remarks
0-6″	**505-742**	+/-.001″	.001″	-
0-6″	**505-742-51**	+/-.001″	.001″	Blue Dial Face
0-6″	**505-742-52**	+/-.001″	.001″	Purple Dial Face
0-6″	**505-742-53**	+/-.001″	.001″	Green Dial Face
0-6″	**505-742-54**	+/-.001″	.001″	Red Dial Face
0-6″	**505-742-55**	+/-.001″	.001″	Orange Dial Face
0-6″	**505-742-56**	+/-.001″	.001″	Black Dial Face
0-6″	**505-736**	+/-.001″	.001″	Carbide-tipped jaws for OD measurement
0-6″	**505-738**	+/-.001″	.001″	Carbide-tipped jaws for OD & ID measurement
0-8″	**505-743**	+/-.002″	.001″	-
0-8″	**505-737**	+/-.002″	.001″	Carbide-tipped jaws for OD measurement
0-8″	**505-739**	+/-.002″	.001″	Carbide-tipped jaws for OD & ID measurement
0-12″	**505-746**	+/-.002″	.001″	—
0-12″	**505-747**	+/-.002″	.001″	Carbide-tipped jaws for OD measurement
0-12″	**505-748**	+/-.002″	.001″	Carbide-tipped jaws for OD & ID

Inch .2″ Per Revolution

Range	Order No.	Accuracy	Graduation	Remarks
0-6″	**505-740**	+/-.001″	.001″	—
0-6″	**505-744**	+/-.001″	.001″	Carbide-tipped jaws for OD measurement
0-8″	**505-741**	+/-.002″	.001″	—
0-12″	**505-749**	+/-.002″	.001″	—
0-12″	**505-750**	+/-.002″	.001″	Carbide-tipped jaws for OD measurement

DIMENSIONS AND MASS

Unit: mm



Range	L	a	b	c	d	Mass (g)
0 - 4"/ 0 - 100mm	180	40	21	16.5	16	150
0 - 6"/ 0 - 150mm	231	40	21	16.5	16	175
0 - 8"/ 0 - 200mm	288	50	24.5	20	16	185
0 - 12"/ 0 - 300mm	403	64	27.5	22	20	370

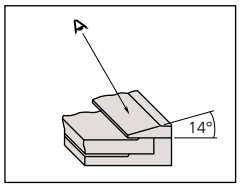
Mitutoyo

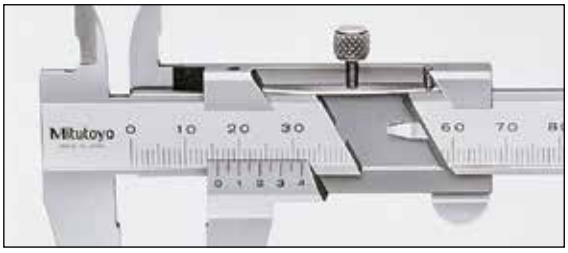
Vernier Caliper

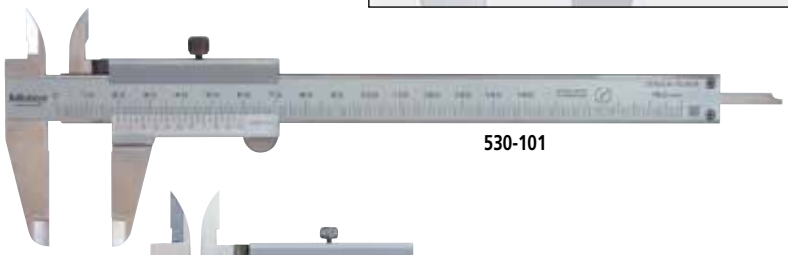
SERIES 530 — Standard Model

FEATURES

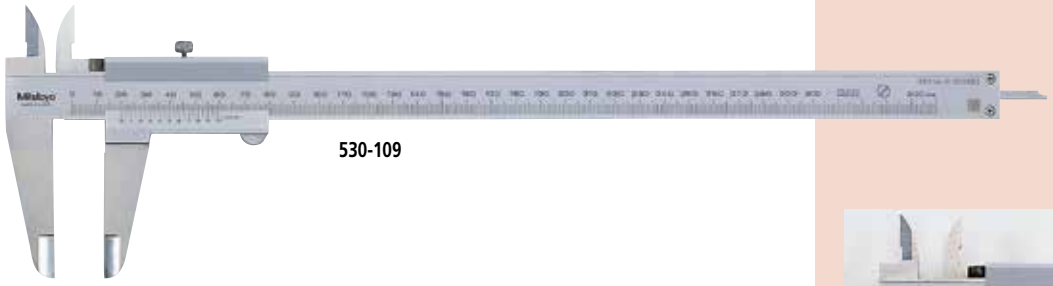
- Measures OD (outside diameter), ID (inside diameter), depth, and steps.
- The small vernier face angle (14°) provides easy reading.
- Dual reading scales on vernier. (metric/inch and inch models only).
- Lock screw for holding the sliding jaw position.
- Carbide-tipped jaw-type calipers are available.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



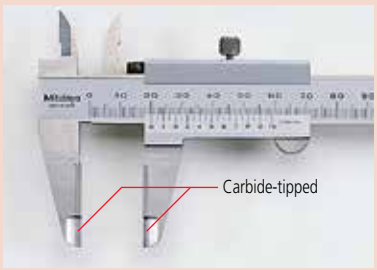




530-101



530-109

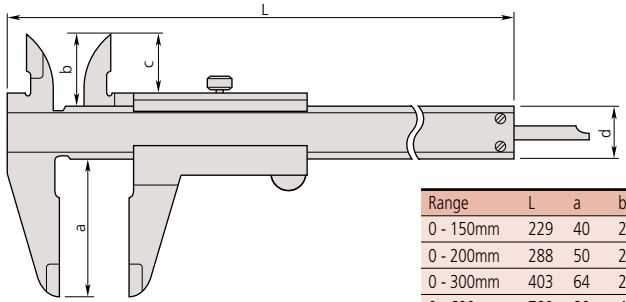


Carbide-tipped jaw type

Round depth bar type

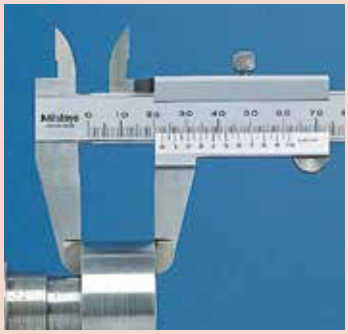
DIMENSIONS AND MASS

Unit: mm

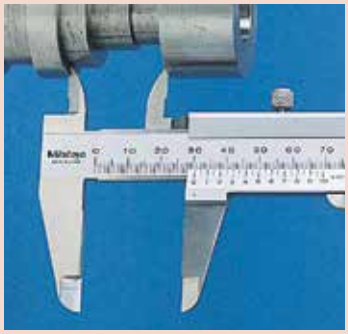


Range	L	a	b	c	d	Mass (g)
0 - 150mm	229	40	21	17	16	143
0 - 200mm	288	50	24.5	20.5	16	180
0 - 300mm	403	64	27.5	22	20	335
0 - 600mm	780	90	47	38	25	1,300
0 - 1000mm	1240	130	60	50	32	3,300

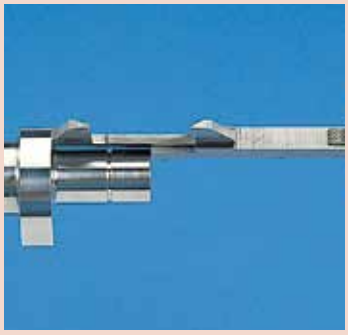
Measurement Applications



OD measurement



ID measurement



Step measurement

Depth measurement

SPECIFICATIONS

Metric

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

*Graduation: 0.02mm
**No depth measuring bar

Metric/Inch

with metric/inch dual scale

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

*Graduation: 0.02mm

Inch

with inch/inch dual scale

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

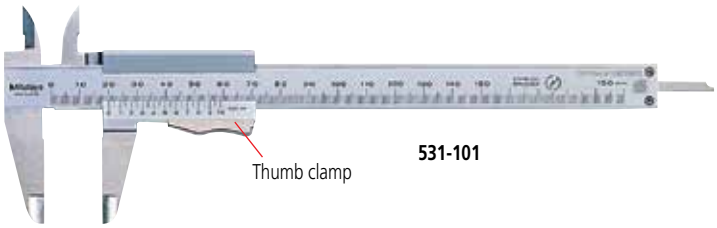
Mitutoyo

Vernier Caliper

SERIES 531 — with Thumb Clamp

FEATURES

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



531-101

SPECIFICATIONS

Metric

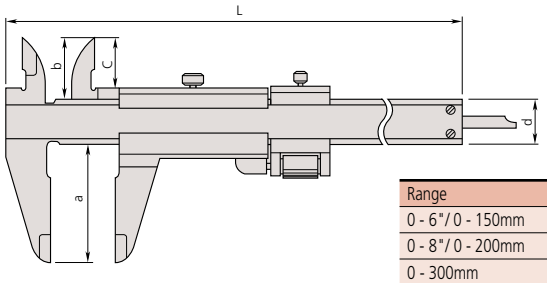
Range	Order No.	Accuracy	Graduation	Remarks
0 - 150mm	**531-101**	±0.05mm	0.05mm	—
0 - 200mm	**531-102**	±0.05mm	0.05mm	—
0 - 300mm	**531-103**	±0.08mm	0.05mm	—

Metric/Inch with metric/inch dual scale

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

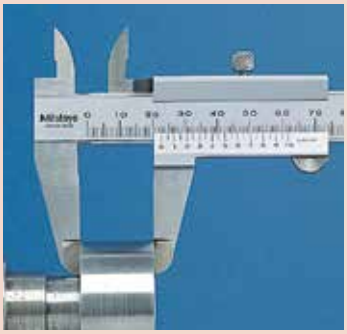
DIMENSIONS AND MASS

Unit: mm

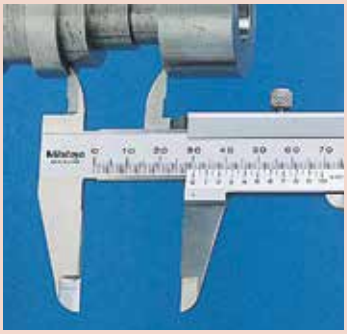


Range	L	a	b	c	d	Mass (g)
0 - 6"/ 0 - 150mm	229	40	21.5	17	16	142
0 - 8"/ 0 - 200mm	288	50	25	20.5	16	175
0 - 300mm	403	64	27.5	22	20	360

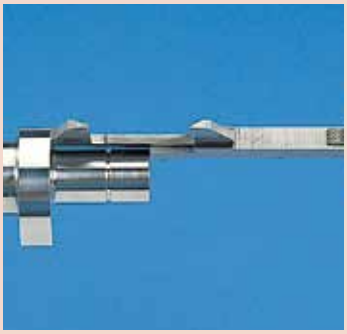
Measurement Applications



OD measurement



ID measurement



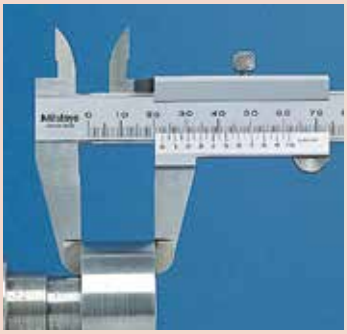
Step measurement

Depth measurement

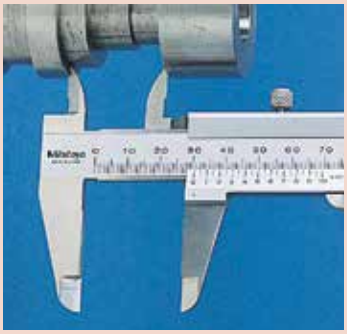
Vernier Caliper

SERIES 532 — with Fine Adjustment

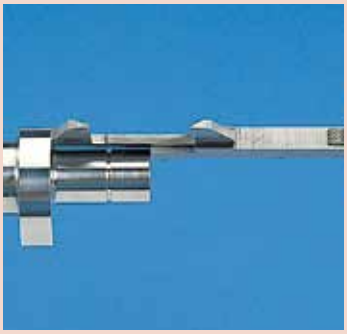
Measurement Applications



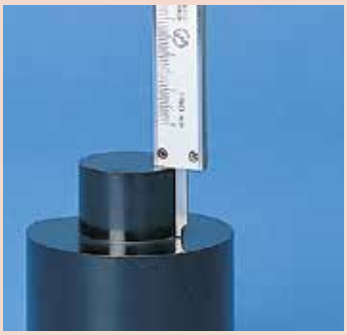
OD measurement



ID measurement



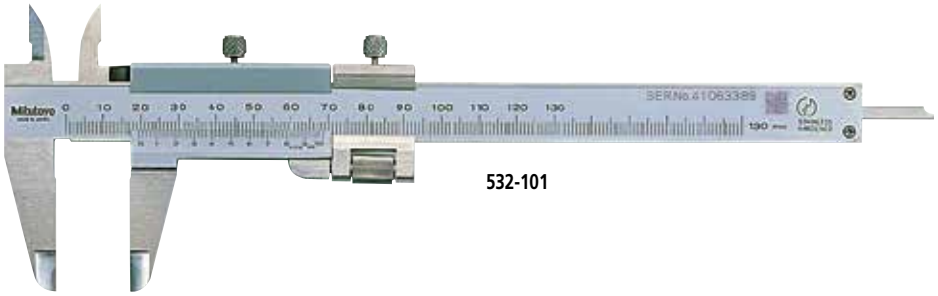
Step measurement



Depth measurement

FEATURES

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



532-101

SPECIFICATIONS

Metric

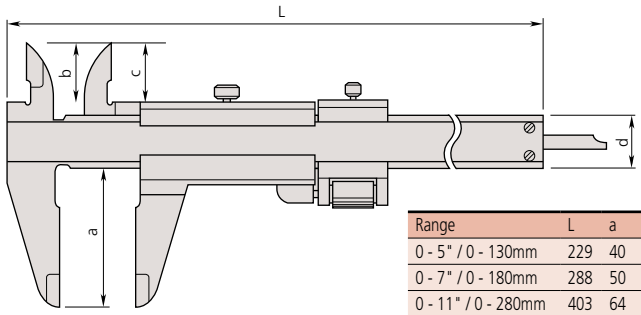
Range	Order No.	Accuracy	Graduation
0 - 130mm	**532-101**	±0.03mm	0.02mm
0 - 180mm	**532-102**	±0.03mm	0.02mm
0 - 280mm	**532-103**	±0.04mm	0.02mm

Metric/Inch with metric/inch dual scale

Range	Order No.	Accuracy	Graduation	
			Lower Scale	Upper Scale
0 - 130mm / 0 - 5″	**532-119**	±0.03mm	0.02mm	.001"
0 - 180mm / 0 - 7″	**532-120**	±0.03mm	0.02mm	.001"
0 - 280mm / 0 - 11″	**532-121**	±0.04mm	0.02mm	.001"

DIMENSIONS AND MASS

Unit: mm



Range	L	a	b	c	d	Mass (g)
0 - 5" / 0 - 130mm	229	40	21.5	17	16	165
0 - 7" / 0 - 180mm	288	50	25	20.5	16	202
0 - 11" / 0 - 280mm	403	64	27.5	22	20	395

Mitutoyo

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.
- Inside and outside measurements can be directly read from the upper and lower slider graduations, respectively.
- Supplied with vinyl holster in fitted carton. Except 12" / 300mm, 18" / 450mm and 24" / 600mm are fitted carton only. Over 24" / 600mm supplied in wooden case.

SPECIFICATIONS

Metric with metric/metric dual scale

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

*( ): Minimum dimension in ID measurement

Metric/Inch with metric/inch dual scale

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

*( ): Minimum dimension in ID measurement

Inch with inch/inch dual scale

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

*( ): Minimum dimension in ID measurement

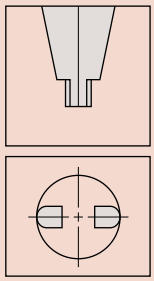
Inch/Metric with inch/metric dual scale

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

*( ): Minimum dimension in ID measurement

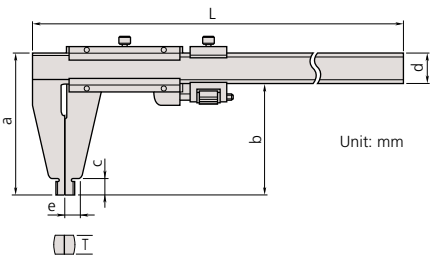
Technical Data

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



Round surface of jaws for accurate ID measurement.

DIMENSIONS



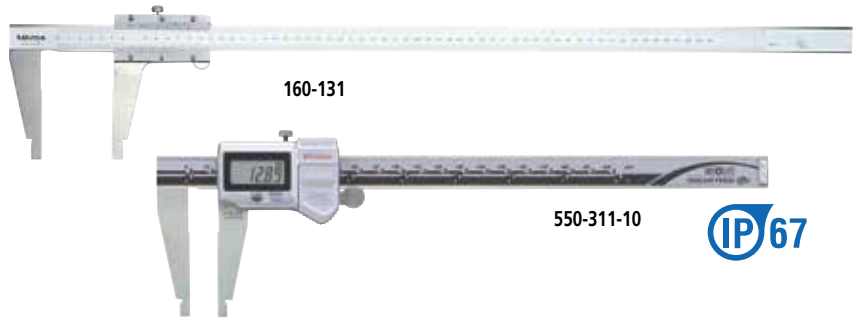
Range	L	a	b	c	d	e	T
0 - 12" / 0 - 300mm	445	95	75	12	20	10	3.8
0 - 18" / 0 - 450mm	630	125	100	18	25	14.8	6
0 - 24" / 0 - 600mm	780	125	100	18	25	14.8	6
0 - 40" / 0 - 1000mm	1240	172	140	24	32	17	8
0 - 60" / 0 - 1500mm	1800	212	180	30	32	19	8
0 - 80" / 0 - 2000mm	2300	220	180	30	40	23	12

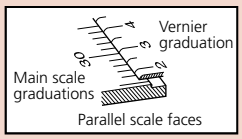
ABSOLUTE Digimatic & Vernier Caliper

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).
- A fine-adjustment carriage type is available (Series 160).
- Parallax-free vernier scale type is available for easy and positive measurement (Series 160).
- With SPC output (Series 550).
- Supplied in fitted plastic case. Except 40"/ 1000mm supplied in wooden case.





Technical Data

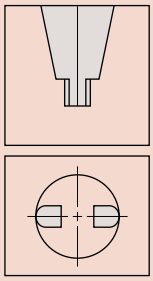
Accuracy: Refer to the list of specifications
Display*: LCD
Length standard*: ABSOLUTE electrostatic capacitance type linear encoder
Max. response speed*: Unlimited
Battery*: SR44 (1 pc.), **938882**
Battery life*: Approx. 3.5 years under normal use
*Digital models **Analog models

Function of Digital Model

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

Optional Accessories for Digital Model

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



Round surface of jaws for accurate ID measurement.

SPECIFICATIONS

Metric Digital model

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

*( ): Minimum dimension in ID measurement **Models are not IP67 rated

Inch/Metric Digital model

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

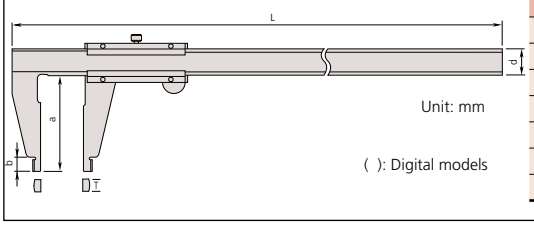
*( ): Minimum dimension in ID measurement **Models are not IP67 rated

Metric with metric/metric dual scale

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

*( ): Minimum dimension in ID measurement

DIMENSIONS



Range	L	a	b	d	T
0 - 8"/ 0 - 200mm	288 (290)	60	8	16	3
0 - 12" / 0 - 300mm	445	75	12	20	3.8
0 - 18" / 0 - 450mm	632	100	18	25	6
0 - 24" / 0 - 600mm	780	100	18	25	6
0 - 40" / 0 - 1000mm	1240	140	24	32	8
0 - 60" / 0 - 1500mm	1800	180	30	32	8
0 - 80" / 0 - 2000mm	2300	180	30	40	12

Long-Jaw Vernier Caliper

SERIES 534

FEATURES

- Long jaws for measuring hard-to-reach features.
- Fine adjustment for more accurate measurement (except 534-109 and 534-110)
- Supplied in fitted wooden case.

SPECIFICATIONS

Metric with metric/metric dual scale without fine adjustment

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

*( ): Minimum dimension in ID measurement

Metric with metric/metric dual scale

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

*( ): Minimum dimension in ID measurement

Metric/Inch with metric/inch dual scale

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

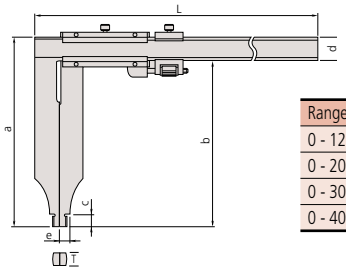
*( ): Minimum dimension in ID measurement

Inch with inch/inch dual scale

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

*( ): Minimum dimension in ID measurement

DIMENSIONS

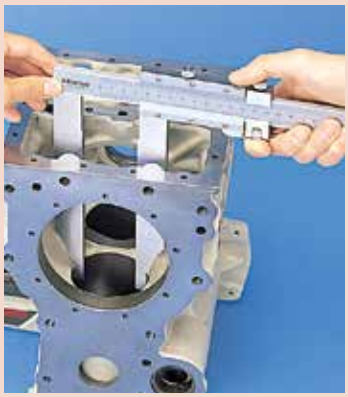


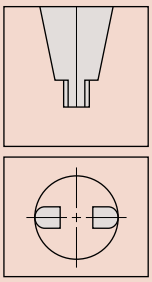
Unit: mm

Range	L	a	b	c	d	e	T
0 - 12″ / 0 - 300mm	445	110	90	12	20	7	3.8
0 - 20″ / 0 - 500mm	682	225	200	18.5	25	12	6
0 - 30″ / 0 - 750mm	995	232	200	18.5	32	12	8
0 - 40″ / 0 - 1000mm	1230	232	200	18.5	32	12	8

Technical Data

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





Round surface of jaws for accurate CD measurement.

ABSOLUTE Digimatic Caliper

SERIES 551 — with Nib Style and Standard Jaws

FEATURES

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

551-311-10

Technical Data

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

Function of Digital Model

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

Optional Accessories for Digital Model

05CZA624: SPC cable with data switch (1m / 40") IP67
05CZA625: SPC cable with data switch (2m / 80") IP67

SPECIFICATIONS

Metric Digital model

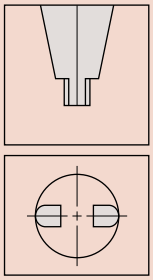
Range*	Order No.	Accuracy	Resolution	Mass (g)	Remarks
0 (10) - 200mm	**551-301-10**	±0.03mm	0.01mm	180	IP67
0 (10) - 300mm	**551-331-10**	±0.04mm	0.01mm	380	with offset/preset function for easy ID measurement, IP67
0 (20) - 500mm	**551-204-10****	±0.06mm	0.01mm	1,060	—
0 (20) - 750mm	**551-206-10****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

*( ): Minimum dimension in ID measurement ** Models are not IP67 rated

Inch/Metric Digital model

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

*( ): Minimum dimension in ID measurement ** Models are not IP67 rated

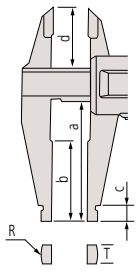


Round surface of jaws for accurate ID measurement.

DIMENSIONS

Series 551

Unit: mm



Range	a	b	c	d	R	T
0 - 8" / 0 - 200mm	60	43	8	30	5	3
0 - 12" / 0 - 300mm	90	68	10	40.1	5	3.8
0 - 20" / 0 - 500mm	150	115	15	56	10	6
0 - 30" / 0 - 750mm	150	115	15	56	10	8
0 - 40" / 0 - 1000mm	150	115	20	56	10	8

Digimatic Carbon-Fiber Caliper

SERIES 552 — with Optional Jaw Attachments

ABSOLUTE® Absolute System Patented by MITUTOYO

SPC

IP66

FEATURES

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

552-314-10

552-155-10

Technical Data

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

Function

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

SPECIFICATIONS

Metric

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

*( ): Minimum dimension in ID measurement

Inch/Metric

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

*( ): Minimum dimension in ID measurement

Optional Accessories

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

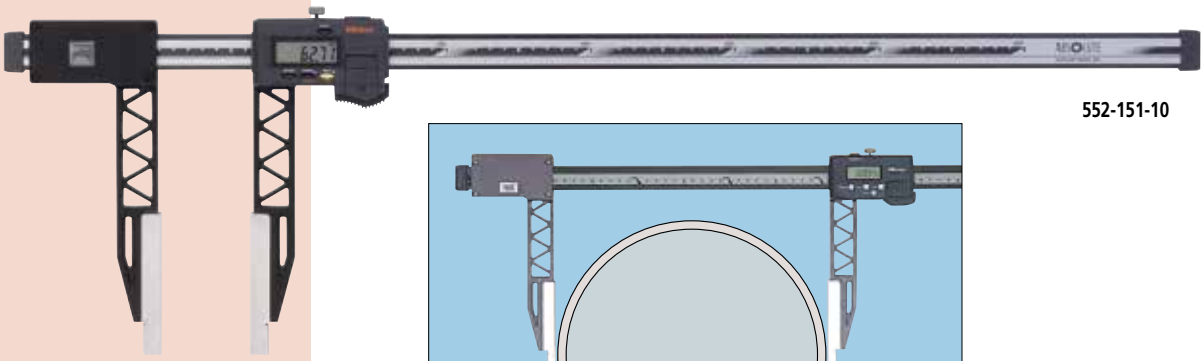
914055:* Centerline attachments (mm)
914056:* Centerline attachments (inch)
914057:* Pointed ID measuring attachments (mm)
914058:* Pointed ID measuring attachments (inch)
914053:** Attachment clamps (for models up to 24" / 600mm range)
914054:** Attachment clamps (for models over 24" / 600mm range)

*Attachment clamps are required
**Attachment clamps and attachments are not available for long jaw type calipers

Centerline Attachments

Pointed ID Measuring Attachments

Attachment Clamps



552-151-10

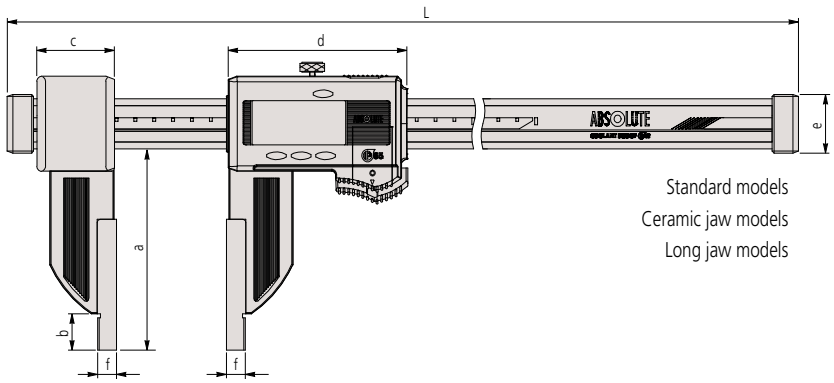
Ceramic jaws

Centerline attachments

ID point attachments

DIMENSIONS AND MASS

Unit: mm



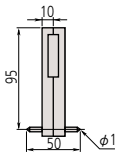
Standard models
Ceramic jaw models
Long jaw models

Standard models, Ceramic jaw models

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

( ): inch/mm models

Pointed ID Measuring Attachments



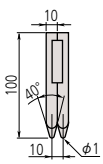
Unit: mm

Long jaw models

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

( ): inch/mm models

Centerline Attachments



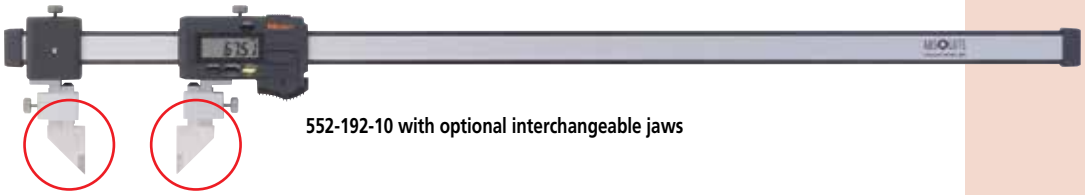
Mitutoyo

ABSOLUTE Coolant-Proof Carbon-Fiber Caliper

SERIES 552 — with Interchangeable Jaws

FEATURES

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



552-192-10 with optional interchangeable jaws

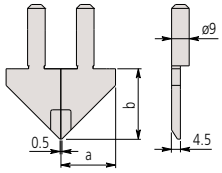
SPECIFICATIONS

Inch/Metric

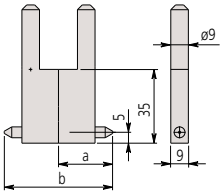
Range	Order No.	Accuracy	Mass(g)
0 - 18" / 0 - 450mm	**552-191-10**	±.002"	650
0 - 24" / 0 - 600mm	**552-192-10**	±.002"	725
0 - 40" / 0 - 1000mm	**552-193-10**	±.002"	1480
0 - 60" / 0 - 1500mm	**552-194-10**	±.004"	1880
0 - 80" / 0 - 2000mm	**552-195-10**	±.005"	2280

Interchangeable Jaws (Optional)

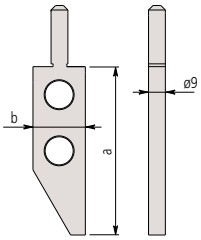
Standard type



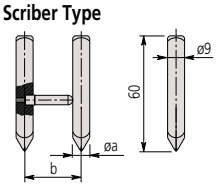
Inside point type



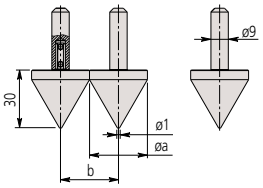
Surface Plate Type



Scriber Type



Centerline Type



Unit: mm

Standard Type

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

Inside Point Type

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

Scriber Type

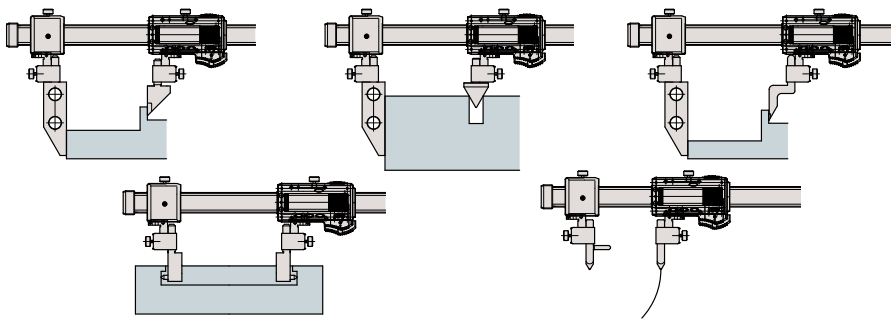
Order No.	Components	a	b
07CZA055	Right (**07CZA042**), Left (**07CZA043**)	8mm	30mm
07CZA061	Right (**07CZA042**), Left (**07CZA049**)	031"	1.2"

Surface Plate Type

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

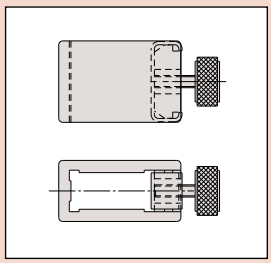
Centerline Type

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



Technical Data

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

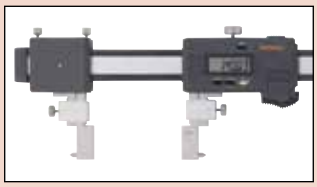


Functions

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

Optional Accessories

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



ABSOLUTE Back-Jaw Centerline Caliper

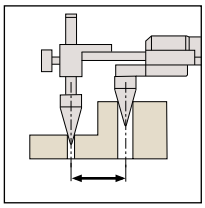
SERIES 573 — Center-to-Center & Edge-to-Center Types

SPC

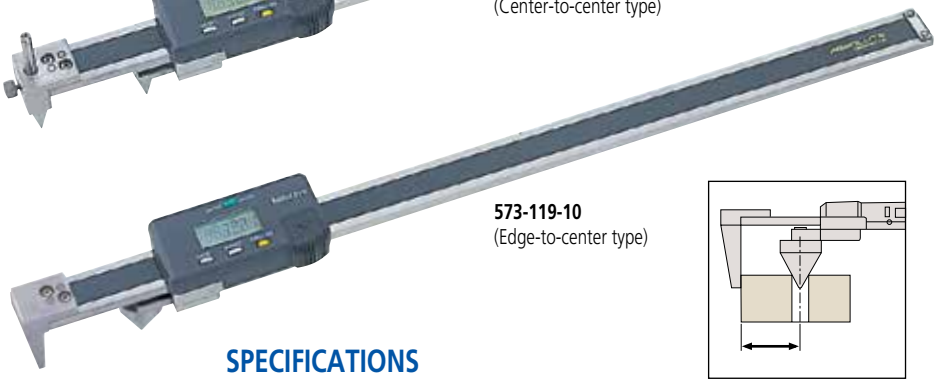
ABSOLUTE®
Absolute System Patented by MITUTOYO

FEATURES

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



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



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

Technical Data

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

Function

Origin-set, Zero-setting, Power On/Off, Data output
Alarm: Low voltage, Counting value composition error

Optional Accessories

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

SPECIFICATIONS

Metric Center-to-center distance type

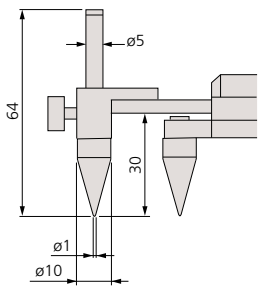
Range	Order No.	Accuracy	Resolution	Mass (g)
10 - 200mm	**573-116-10**	±0.10mm	0.01mm	482
10 - 300mm	**573-117-10**	±0.15mm	0.01mm	578

Metric Edge-to-center distance type

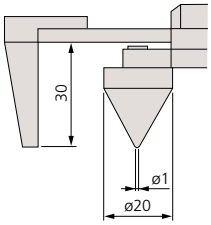
Range	Order No.	Accuracy	Resolution	Mass (g)
10 - 200mm	**573-118-10**	±0.10mm	0.01mm	485
10 - 300mm	**573-119-10**	±0.15mm	0.01mm	581

DIMENSIONS

Unit: mm



573-116-10 / 573-117-10



573-118-10 / 573-119-10

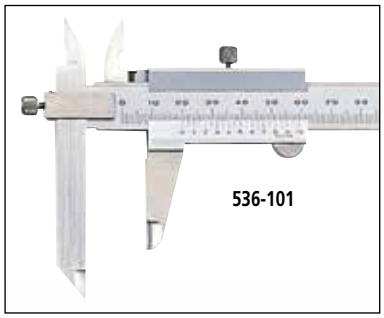
Mitutoyo

Offset Caliper

SERIES 573, 536 — ABSOLUTE Digimatic and Vernier Type

FEATURES

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



SPECIFICATIONS

Metric Digital model

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

Metric

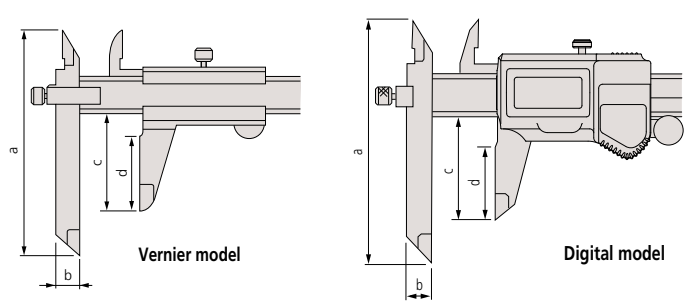
Range	Order No.	Accuracy	Graduation	Mass (g)
0 - 150mm	**536-101**	±0.05mm	0.05mm	150
0 - 200mm	**536-102**	±0.05mm	0.05mm	200
0 - 300mm	**536-103**	±0.08mm	0.05mm	400

Inch/Metric Digital model

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

DIMENSIONS

Unit: mm



Range	a	b	c	d
0 - 6" / 0 - 150mm	95	10	40	30.4 (30)
0 - 8" / 0 - 200mm	95	10	50	40.4 (38.5)
0 - 12" / 0 - 300mm	135	15	64	51

( ) Digital Model

TÜVRheinland CERTIFIED www.tuv.com ID 201120740

IP67

SPC

ABSOLUTE® Absolute System Patented by MITUTOYO

Technical Data

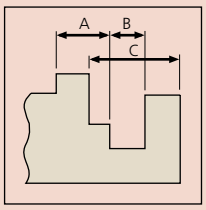
Accuracy: Refer to the list of specifications
Resolution*: .0005"/0.01mm or 0.01mm
Graduation**: 0.05mm
Display*: LCD
Length standard*: ABSOLUTE electrostatic capacitance type linear encoder
Max. response speed*: Unlimited
Battery*: SR44 (1 pc.), **938882**
Battery life*: Approx. 3.5 years under normal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

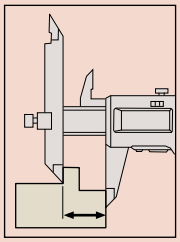
Function of Digital Model

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

Optional Accessories for Digital Model

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





Offset Centerline Caliper

SERIES 573, 536 — ABSOLUTE Digimatic and Vernier Type

FEATURES

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

573-605

536-105

Technical Data

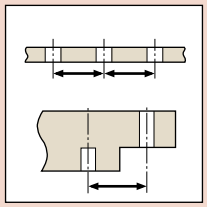
Accuracy: Refer to the list of specifications
Resolution*: .0005"/0.01mm or 0.01mm
Graduation**: 0.05mm
Display*: LCD
Length standard*: ABSOLUTE electrostatic capacitance type linear encoder
Max. response speed*: Unlimited
Battery*: SR44 (1 pc.), **938882**
Battery life*: Approx. 3.5 years under normal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

Function of Digital Model

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

Optional Accessories for Digital Model

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



SPECIFICATIONS

Metric Digital model

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

Inch/Metric Digital model

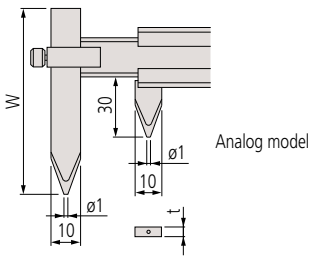
Range	Order No.	Accuracy	Resolution	Mass (g)
.4 - 6" / 10 - 150mm	**573-705**	±.0015"	.0005" / 0.01mm	157
.4 - 8" / 10 - 200mm	**573-706**	±.0015"	.0005" / 0.01mm	177
.4 - 12" / 10 - 300mm	**573-708**	±.0015"	.0005" / 0.01mm	320

Metric

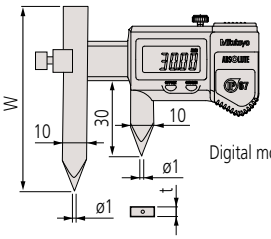
Range	Order No.	Accuracy	Graduation	Mass (g)
10 - 150mm	**536-105**	±0.05mm	0.05mm	140
10 - 200mm	**536-106**	±0.05mm	0.05mm	160
10 - 300mm	**536-107**	±0.08mm	0.05mm	320

DIMENSIONS

Unit: mm



Analog model



Digital model

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

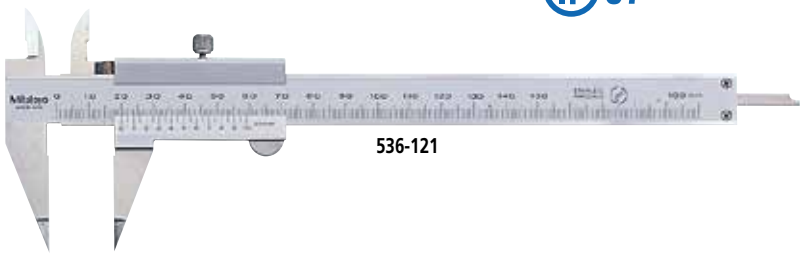
Point Caliper

SERIES 573, 536 — ABSOLUTE Digimatic and Vernier Type

FEATURES

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

573-721



536-121

SPECIFICATIONS

Metric Digital model

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

Inch/Metric Digital model

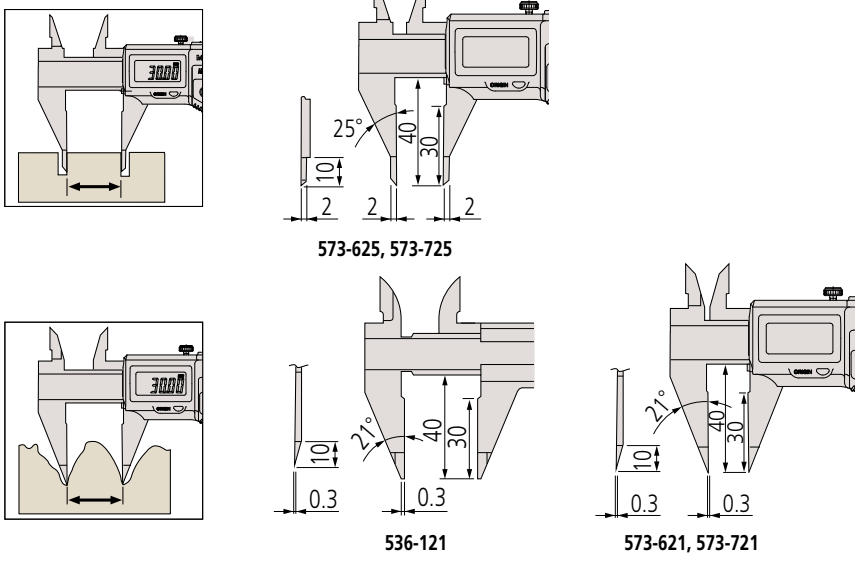
Range	Order No.	Accuracy	Resolution	Mass (g)
0 - 6" / 0 - 150mm	**573-721**	±.001"	.0005" / 0.01mm	163
0 - 6" / 0 - 150mm	**573-725**	±.001"	.0005" / 0.01mm	163

Metric

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

DIMENSIONS

Unit: mm



Technical Data

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

Function of Digital Model

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

Optional Accessories for Digital Model

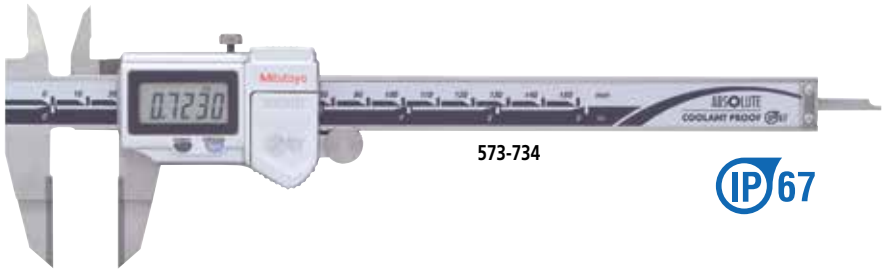
05CZA624: SPC cable with data switch (40" / 1m)
05CZA625: SPC cable with data switch (80" / 2m)

Blade-Type Caliper

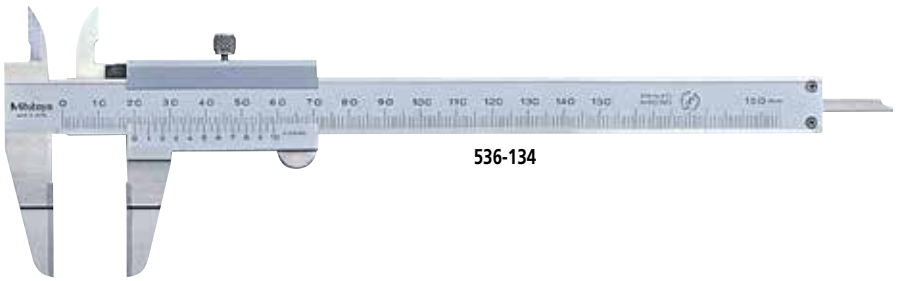
SERIES 573, 536 — ABSOLUTE Digimatic and Vernier Type

FEATURES

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



573-734



536-134

Technical Data

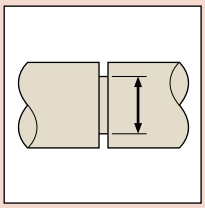
Accuracy: Refer to the list of specifications
Resolution*: .0005"/0.01mm or 0.01mm
Graduation**: 0.05mm
Display*: LCD
Length standard*: ABSOLUTE electrostatic capacitance type linear encoder
Max. response speed*: Unlimited
Battery*: SR44 (1 pc.), **938882**
Battery life*: Approx. 3.5 years under normal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

Function of Digital Model

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

Optional Accessories for Digital Model

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



SPECIFICATIONS

Metric Digital model

Range	Order No.	Accuracy	Resolution	Mass (g)
0 - 150mm	**573-634**	±0.02mm	0.01mm	168

Inch/Metric Digital model

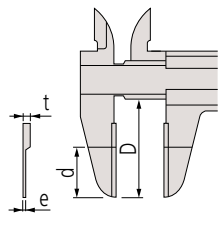
Range	Order No.	Accuracy	Resolution	Mass (g)
0 - 6" / 0 - 150mm	**573-734**	±.001"	.0005" / 0.01mm	168

Metric

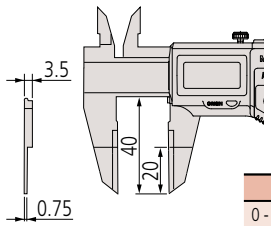
Range	Order No.	Accuracy	Graduation	Mass (g)
0 - 150mm	**536-134**	±0.05mm	0.05mm	130
0 - 200mm	**536-135**	±0.05mm	0.05mm	160
0 - 300mm	**536-136**	±0.08mm	0.05mm	340

DIMENSIONS

Unit: mm



Anlog model



Digital model

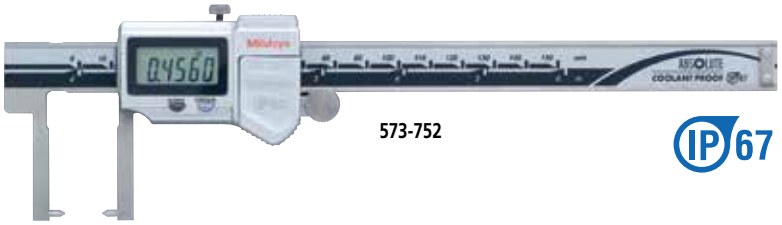
Range	D	d	e	t
0 - 6" / 0 - 150mm	40	20	0.75	3
0 - 200mm	50	25	0.75	3
0 - 300mm	64	30	1	3.8

Neck Caliper

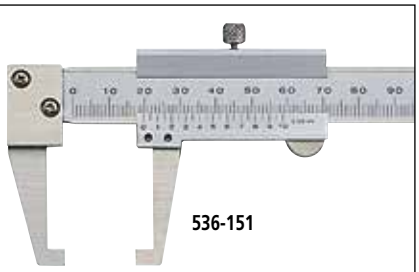
SERIES 573, 536 — ABSOLUTE Digimatic and Vernier Type

FEATURES

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

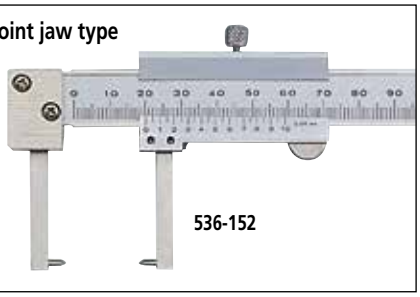


573-752



536-151

Point jaw type



536-152

SPECIFICATIONS

Metric Digital model

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

*Point jaw type

Inch/Metric Digital model

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

*Point jaw type

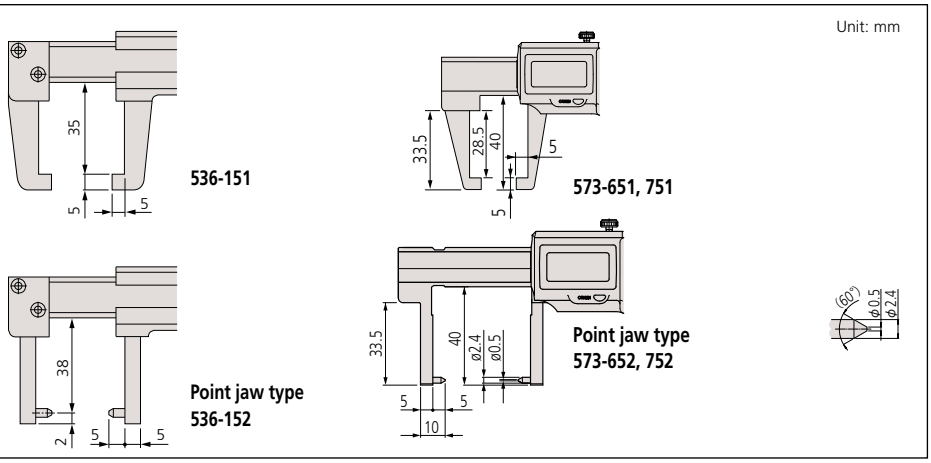
Metric

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

*Point jaw type

DIMENSIONS

Unit: mm



Technical Data

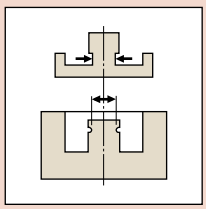
Accuracy: Refer to the list of specifications
Resolution*: 0.01mm or .0005"/0.01mm
Graduation**: 0.05mm
Display*: LCD
Length standard*: ABSOLUTE electrostatic capacitance type linear encoder
Max. response speed*: Unlimited
Battery*: SR44 (1 pc.), **938882**
Battery life*: Approx. 3.5 years under normal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

Function of Digital Model

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

Optional Accessories for Digital Model

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

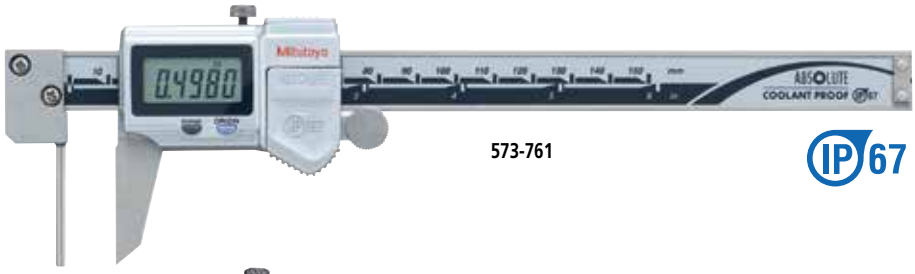


Tube Thickness Caliper

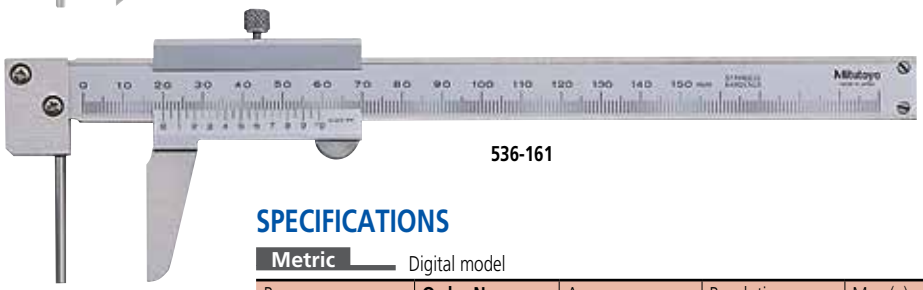
SERIES 573, 536 — ABSOLUTE Digimatic and Vernier Type

FEATURES

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



573-761



536-161

Technical Data

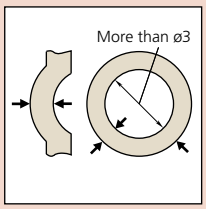
Accuracy: Refer to the list of specifications
Display*: LCD
Length standard: ABSOLUTE electrostatic capacitance type linear encoder
Max. response speed*: Unlimited
Battery*: SR44 (1 pc.), **938882**
Battery life*: Approx. 3.5 years under normal use
*Digital models **Analog models

Function of Digital Model

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

Optional Accessories for Digital Model

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



SPECIFICATIONS

Metric Digital model

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

Inch/Metric Digital model

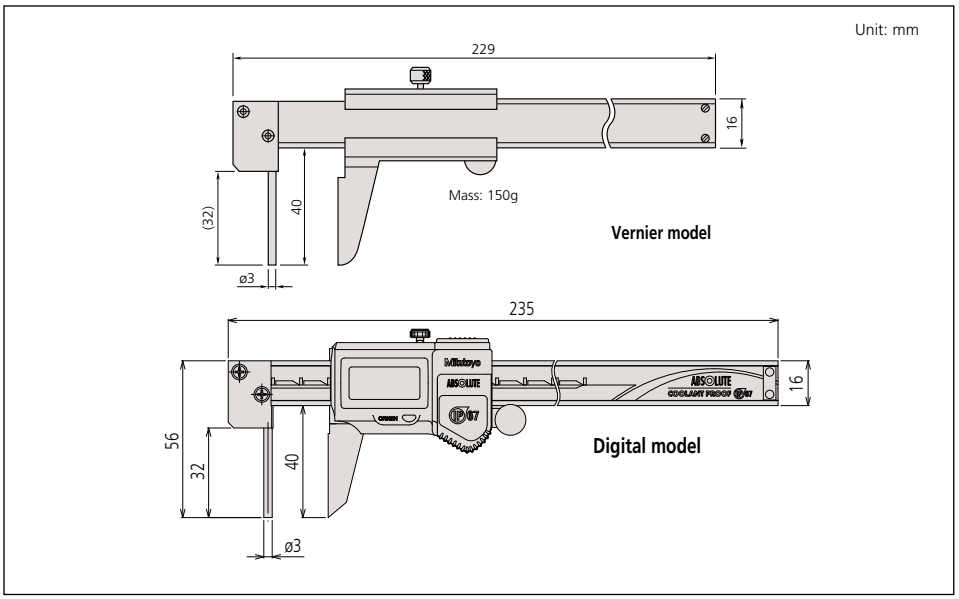
Range	Order No.	Accuracy	Resolution	Mass(g)
0 - 6" / 0 - 150mm	**573-761**	±.002"	.0005" / 0.01mm	167

Metric

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

DIMENSIONS AND MASS

Unit: mm



ABSOLUTE Low-Force Caliper

SERIES 573

FEATURES

- Due to their low measuring force, these calipers are ideal for elastic or resilient workpieces such as plastic parts and rubber parts that standard calipers cannot measure.
- With SPC data output.
- Supplied in fitted plastic case.

573-191-30

SPECIFICATIONS

Metric

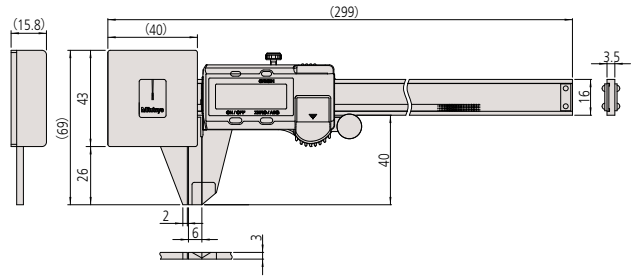
Range	Order No.	Accuracy	Resolution	Mass (g)
0 - 180mm	**573-191-30**	±0.05mm	0.01mm	253

Inch/Metric

Range	Order No.	Accuracy	Resolution	Mass (g)
0 - 7" / 0 - 180mm	**573-291-30**	±.002"	.0005" / 0.01mm	253

DIMENSIONS AND MASS

Unit: mm

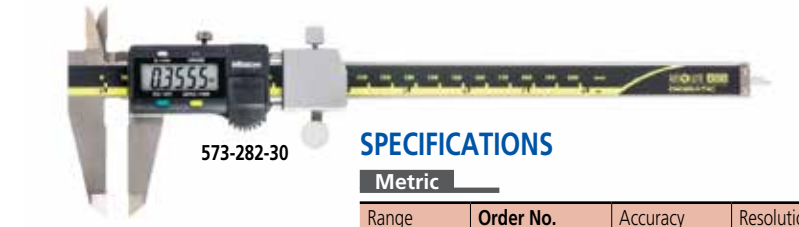


ABSOLUTE Snap Caliper

SERIES 573

FEATURES

- The ABSOLUTE Digimatic snap caliper features a spring-loaded mechanism to allow quick and efficient go/no-go inspection for mass production parts.
- With SPC data output.
- Supplied in fitted plastic case.



573-282-30

SPECIFICATIONS

Metric

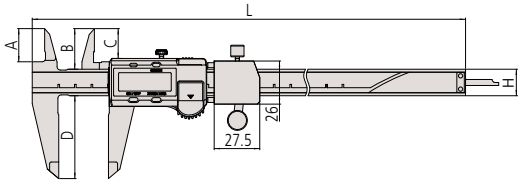
Range	Order No.	Accuracy	Resolution	Mass (g)
0 - 100mm	**573-181-30**	±0.02mm	0.01mm	213
0 - 150mm	**573-182-30**	±0.02mm	0.01mm	233

Inch/Metric

Range	Order No.	Accuracy	Resolution	Mass (g)
0 - 4" / 0 - 100mm	**573-281-30**	±.001"	.0005" / 0.01mm	213
0 - 6" / 0 - 150mm	**573-282-30**	±.001"	.0005" / 0.01mm	233

DIMENSIONS AND MASS

Unit: mm



Range	L	a	b	c	d	Mass (g)
0 - 100mm	233	40	21	16.5	16	213
0 - 150mm	290	50	24.5	20	16	233

SPC

ABSOLUTE® Absolute System Patented by MITUTOYO

Technical Data

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

Function

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

Optional Accessories

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

Measurement procedures

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

SPC

ABSOLUTE® Absolute System Patented by MITUTOYO

Technical Data

Accuracy: Refer to the list of specifications
Resolution: .0005"/0.01mm or 0.01mm
Repeatability: .0005" / 0.01mm
Display: LCD
Length standard: ABSOLUTE Electromagnetic Induction-type Linear Encoder
Measuring force: 7N to 14N (700gf to 1400gf)
Jaw retraction: 2mm
Max. response speed: Unlimited
Battery: SR44 (1 pc.), **938882**
Battery life: Approx. 3.5 years under normal use

Function

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

Optional Accessories

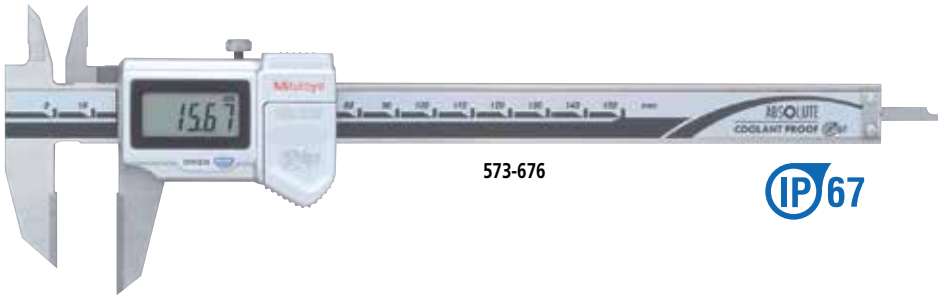
959143: Data hold unit
959149: SPC cable with data switch (40" / 1m)
959150: SPC cable with data switch (80" / 2m)

Scribing Caliper

SERIES 573, 536 — ABSOLUTE Digimatic and Vernier Type

FEATURES

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



Technical Data

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

Function

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

Optional Accessories

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

SPECIFICATIONS

Metric Digital model

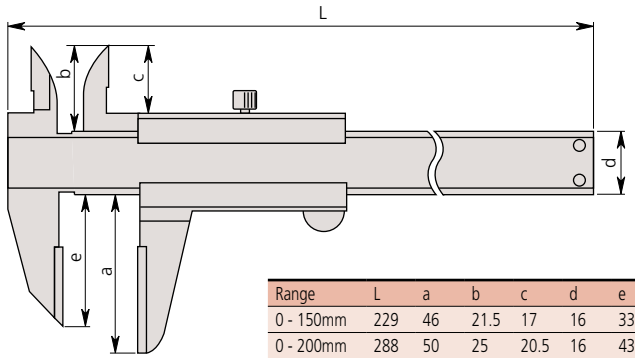
Range	Order No.	Accuracy	Resolution	Mass (g)
0 - 150mm	**573-676**	±0.02mm	0.01mm	166
0 - 200mm	**573-677**	±0.02mm	0.01mm	196
0 - 300mm	**573-679**	±0.03mm	0.01mm	345

Metric Vernier type

Range	Order No.	Accuracy	Graduation	Mass (g)
0 - 150mm	**536-221**	±0.05mm	0.05mm	150
0 - 200mm	**536-222**	±0.05mm	0.05mm	180
0 - 300mm	**536-223**	±0.08mm	0.05mm	355

DIMENSIONS

Unit: mm



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

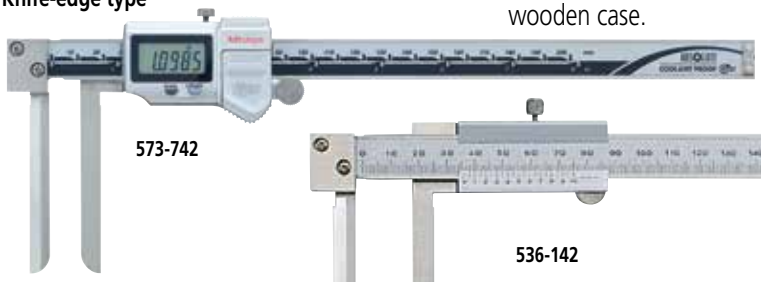
ABSOLUTE Inside Caliper

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

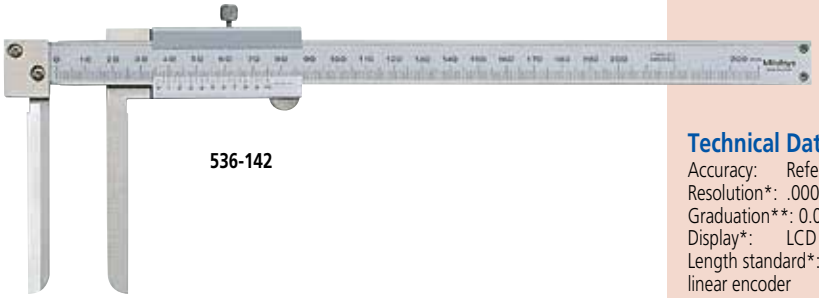
FEATURES

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

Knife-edge type



573-742



536-142

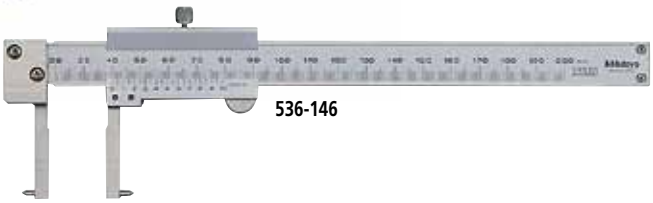
Inside-groove type

573-745

536-145

Point-jaw type

573-746



536-146

SPECIFICATIONS

Metric Digital model

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

Inch/Metric Digital model

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

Metric

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

ABSOLUTE®
Absolute System Patented by MITUTOYO

Technical Data

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

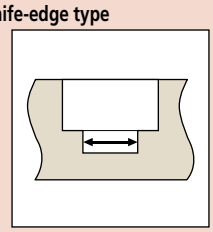
Function of Digital Model

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

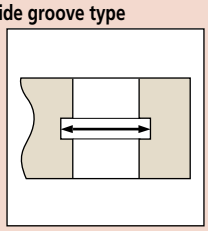
Optional Accessories for Digital Model

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

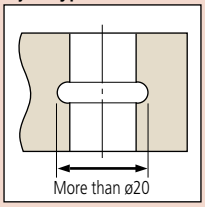
Knife-edge type



Inside groove type



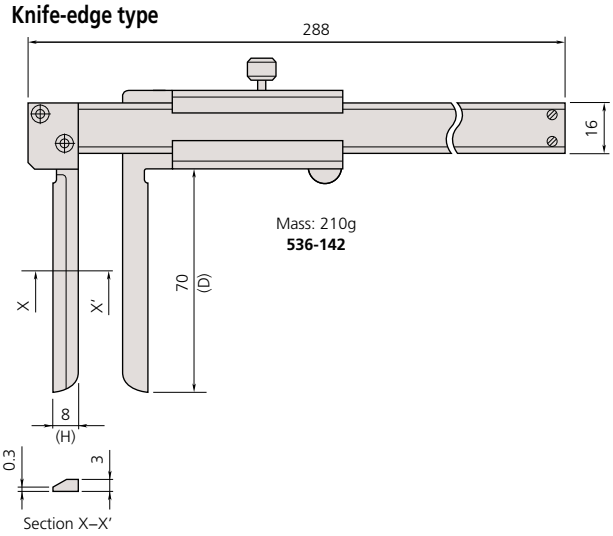
Point jaw type

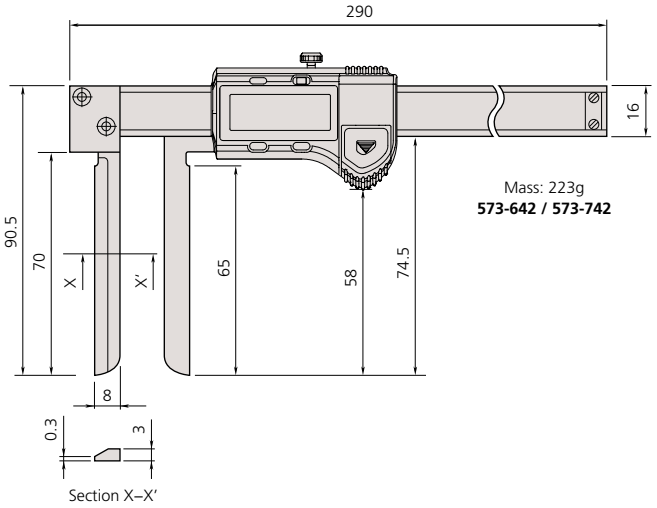


DIMENSIONS AND MASS

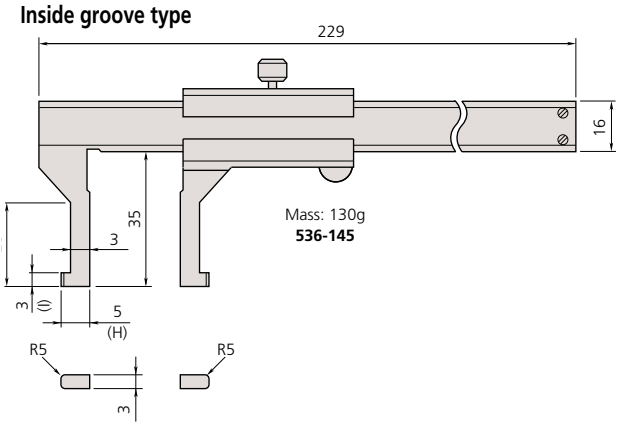
Unit: mm

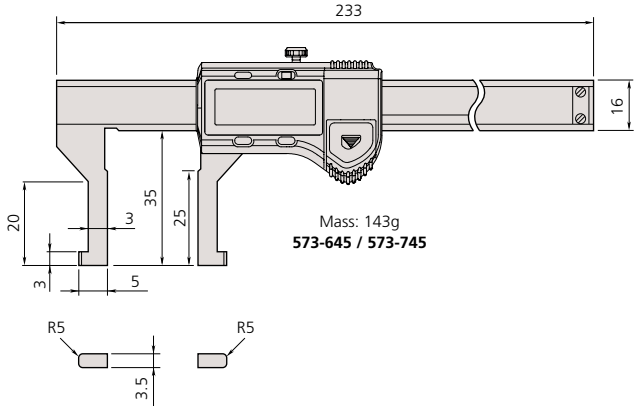
Knife-edge type



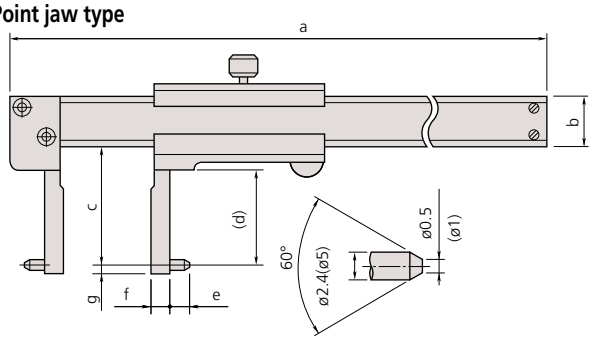


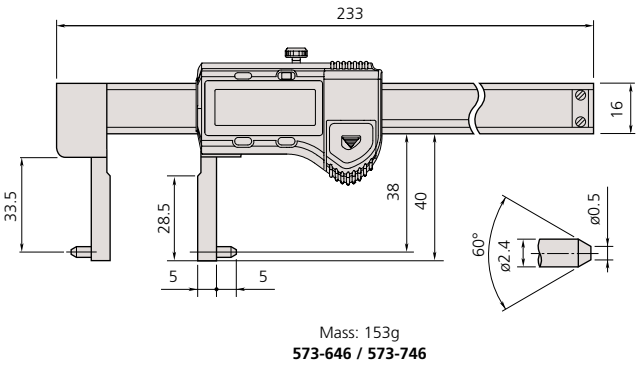
Inside groove type





Point jaw type





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

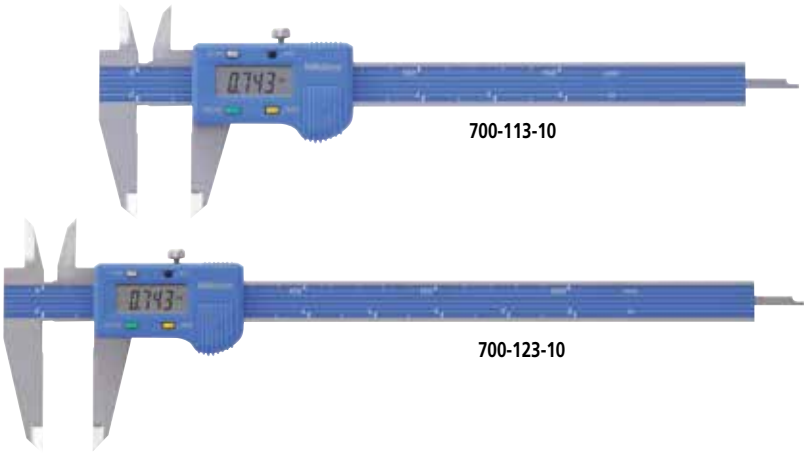
Mitutoyo

MyCAL-Lite

SERIES 700 — Digital Caliper for DIY

FEATURES

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



700-113-10

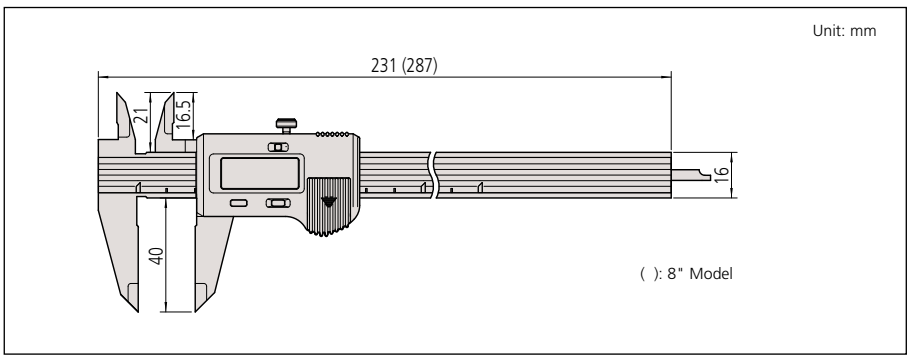
700-123-10

SPECIFICATIONS

Inch/Metric

Range	**Order No.**	Accuracy	Mass (g)
0 - 6″ / 0 - 150mm	**700-113-10**	±.005″ / ±0.2mm	150
0 - 8″ / 0 - 200mm	**700-123-10**	±.005″ / ±0.2mm	170

DIMENSIONS

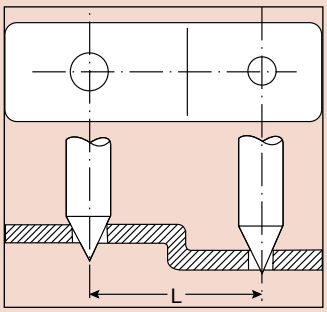


Technical Data

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

Function

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

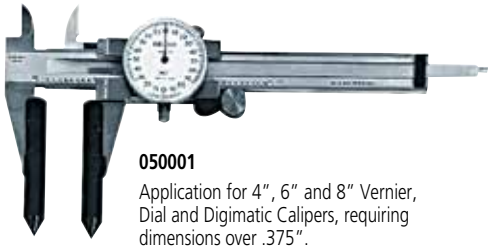


Center Line Gage

Optional Accessories for Caliper

FEATURES

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



050001

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

050018

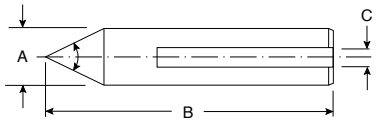
Application for 12″ Vernier, Dial and Digimatic Calipers requiring dimensions over .5″.

SPECIFICATIONS

Center Line Gage

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

DIMENSIONS



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

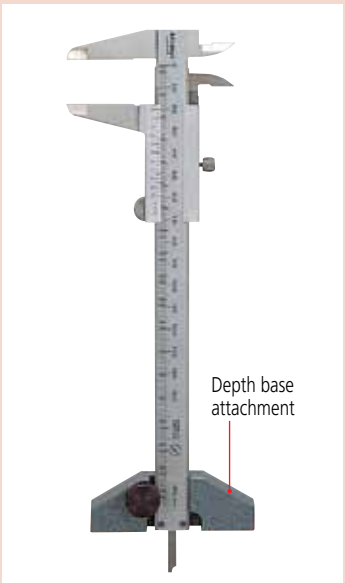
Depth Base Attachment

Optional Accessories for Caliper

FEATURES

- For 4″, 6″, 8″, 12″ / 100mm, 150mm, 200mm, 300mm, vernier, dial and digital calipers which have a depth measuring bar.
- Finely grounded base surface and secure locking clamp.

050084-10



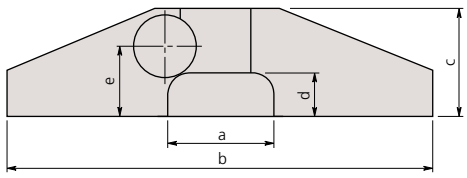
SPECIFICATIONS

Inch/Metric

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

DIMENSIONS

Unit: mm



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

t: Base thickness

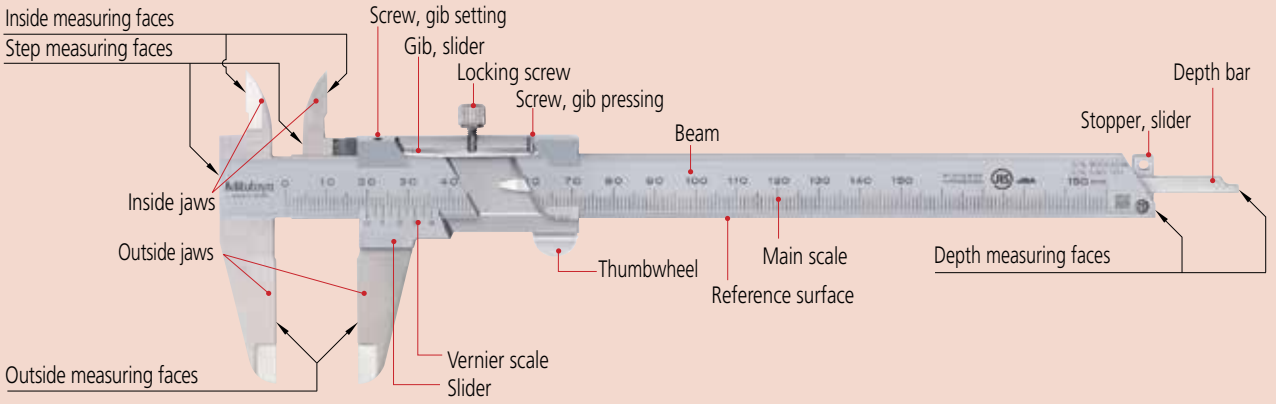
Mitutoyo

Quick Guide to Precision Measuring Instruments

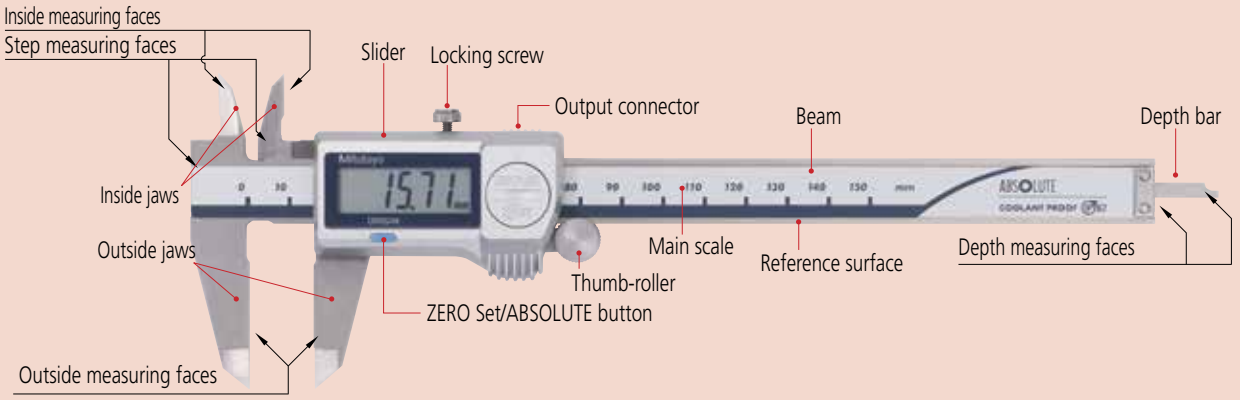
Calipers

Nomenclature

Vernier Caliper

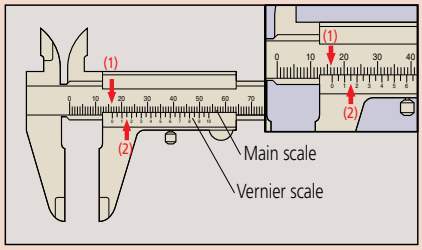


Absolute Digimatic Caliper



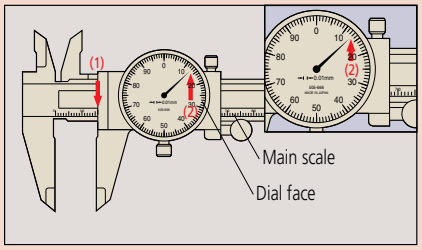
How to Read the Scale

Vernier Calipers



Graduation	0.05mm	
(1) Main scale	16	mm
(2) Vernier	0.15	mm
Reading	16.15	mm

Dial Calipers

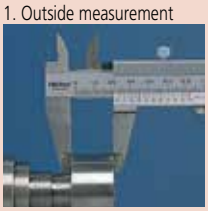


Graduation	0.01mm	
(1) Main scale	16	mm
(2) Dial face	0.13	mm
Reading	16.13	mm

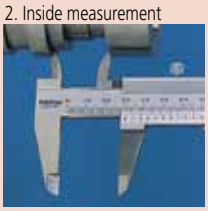
Note) Above left, 0.15 mm (2) is read at the position where a main scale graduation line corresponds with a vernier graduation line.

Measurement applications

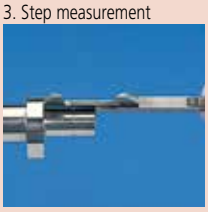
1. Outside measurement



2. Inside measurement



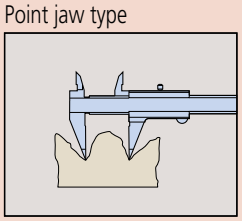
3. Step measurement



4. Depth measurement

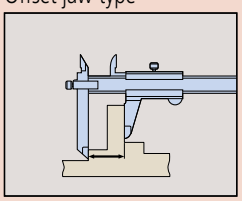
Special Purpose Caliper Applications

Point jaw type



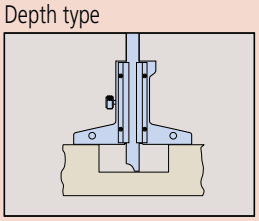
For uneven surface measurement

Offset jaw type



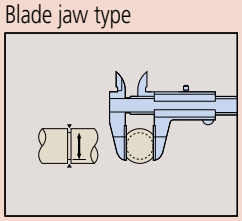
For stepped feature measurement

Depth type



For depth measurement

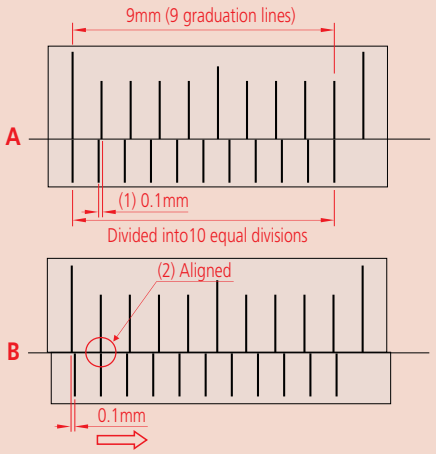
Blade jaw type



For diameter of narrow groove measurement

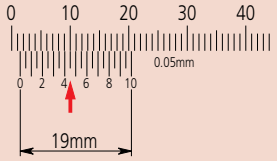
Vernier scale

This is a short auxiliary scale that enables accurate interpolation between the divisions of a longer scale without using mechanical magnification. The principle of operation is that each vernier scale division is slightly smaller than a main scale division, so that successive vernier graduations successively coincide with main scale graduations as one is moved relative to the other. Specifically, n divisions on a vernier scale are the same length as n-1 divisions on the main scale it works with, and n defines the division (or interpolation) ratio. Although n may be any number, in practice it is typically 10, 20, 25, etc., so that the division is a useful decimal fraction. The example below is for n = 10. The main scale is graduated in mm, and so the vernier scale is 9mm (10 divisions) long, the same as 9mm (9 divisions) on the main scale. This produces a difference in length of 0.1mm (1) as shown in figure A (the 1st vernier graduation is aligned with the first main scale graduation). If the vernier scale is slid 0.1mm to the right as shown in figure B, the 2nd graduation line on the vernier scale moves into alignment with the 2nd line on the main scale (2), and so enables easy reading of the 0.1mm displacement.



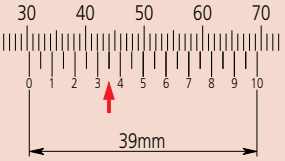
Some early calipers divided 19 divisions on the main scale by 20 vernier divisions to provide 0.05mm resolution. However, the closely spaced lines proved difficult to read and so, since the 1970s, a long vernier scale that uses 39 main scale divisions to spread the lines is generally used instead, as shown below.

● 19mm Vernier scale



Scale reading 1.45mm

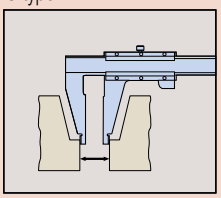
● 39mm vernier scale (long vernier scale)



Scale reading 30.35mm

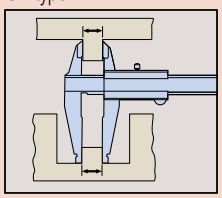
Calipers were made that gave an even finer resolution of 0.02mm. These required a 49-division vernier scale dividing 50 main scale divisions. However, they were difficult to read and are now hard to find since digital calipers with an easily read display and resolution of 0.01mm appeared.

C-type



Standard outside measurement
Inside measurement of a stepped hole
Measurement of a stepped part

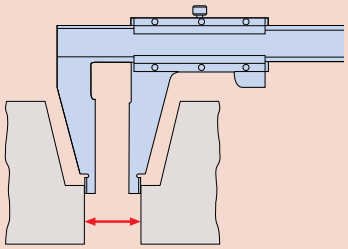
CN-type



Standard outside measurement
Measurement of a stepped hole
Measurement of a stepped part

About Long Calipers

Steel rules are commonly used to roughly measure large workpieces, but if more accuracy is needed, then a long caliper is suitable for the job. A long caliper is convenient for its user friendliness but does require some care during use. In the first place it is important to realize there is no relationship between resolution and accuracy. For details, refer to the values in our catalog. Resolution is constant whereas the accuracy obtainable varies dramatically according to how the caliper is used.
The measuring method with this instrument is a concern since distortion of the main beam causes a large amount of the measurement error, so accuracy will vary greatly depending on the method used for supporting the caliper at the time. Also, be careful not to use too much measuring force when using the outside measuring faces as they are furthest away from the main beam so potential errors will be at a maximum here. This precaution is also necessary when using the tips of the outside measuring faces of a long-jaw caliper.



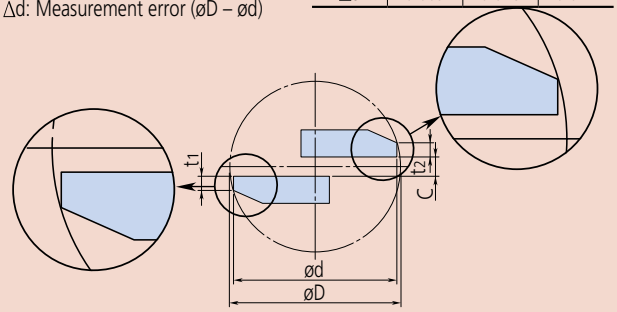
Small hole measurement with an M-type caliper

Structural error (d) occurs when you measure the internal diameter of a small hole.

øD: True internal diameter
ød: Measured diameter
t_1, t_2: Thickness of the inside jaw
C: Distance between the inside jaws
Δd: Measurement error (øD – ød)

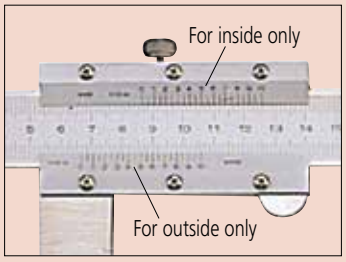
True internal diameter (øD: 5mm)
Unit: mm

t_1+t_2+C	0.3	0.5	0.7
Δd	0.009	0.026	0.047



Inside Measurement with a CM-type Caliper

Because the inside measuring faces of a CM-type caliper are at the tips of the jaws, the measuring face parallelism is heavily affected by measuring force, and this becomes a large factor in the measurement accuracy attainable.
In contrast to an M-type caliper, a CM-type caliper cannot measure a very small hole diameter because it is limited to the size of the stepped jaws, although normally this is not an inconvenience as it would be unusual to have to measure a very small hole with this type of caliper. Of course, the radius of curvature on the inside measuring faces is always small enough to allow correct hole diameter measurements right down to the lowest limit (jaw closure).
Mitutoyo CM-type calipers are provided with an extra scale on the slider for inside measurements so they can be read directly without the need for calculation, just as for an outside measurement. This useful feature eliminates the possibility of error that occurs when having to add the inside-jaw-thickness correction on a single-scale caliper.



Linear Height LH-600E

SERIES 518 — High-Performance 2D Measurement System

FEATURES

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

With power grip

518-351A-21

SPECIFICATIONS

Inch/Metric

Order No.		518-351A-21	518-352A-21 w/power grip
Model		LH-600E	LH-600EG
Measuring Range (stroke)		0-38" (24") / 0-972mm(600mm)	
Resolution (selectable)		.000001"/.00001"/.0001"/.001"/ 0.0001mm/0.001mm/0.01mm/0.1mm	
Accuracy at 20°C	Measuring accuracy	(43+L*)µin / (1.1 + 0.6L**/600)µm	
	Repeatability (2s)	Plane: .000015"/0.4µm Bore: .000035"/0.9µm	
	Perpendicularity	.0002"/5µm	
	Straightness	.0002"/4µm	
Drive Method		Motor Drive (5, 10, 15, 20, 25, 30, 40mm/s=7 steps) / manual	
Measuring Force		1N	
Balancing Method		Counter balance	
Main Unit Floating Method		Full/semi-floating with air	
Air Source		Built-in air compressor	
LCD		TFT LCD (color)	
Language for Display		English/German/French/Spanish/Italian/Japanese	
Number of Programs		50 (max.)	
Number of Datas		60,000 (max.) 1 program 30,000 (Max.)	
Power Supply		AC Adapter/Battery (Ni-MH)	
Power Consumption		43VA	
Operation Time		Approx. 5 hours	
Standard Accessories		ø5 Eccentric probe (**12AAF634**)	
		Probe diameter calibration block (**12AAA715**)	
		Battery (**12AAF712**)	
		AC adapter (**357651**), Power Cable (**02ZAA010**)	
		Clear Cover (**223587**)	
		Conveying handle (**510434**)	
Mass		24kg	24.5kg

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

Mitutoyo guarantees the product quality. PROPRIETARY INSPECTION CERTIFICATE Mitutoyo guarantees the product quality.

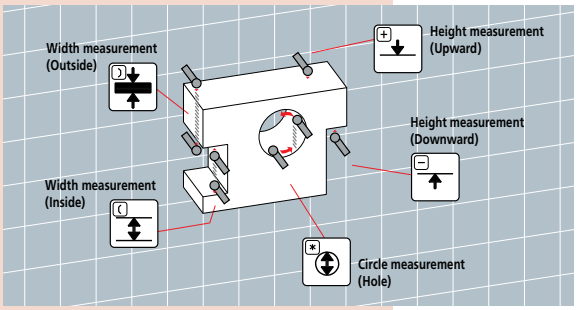
Technical Data

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

5.7" color LCD

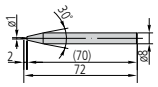
Optional Accessories

12AAF712:	Battery pack
12AAA797	Thermal printer (120V)
12AAA802	Thermal printing paper (10pcs.)
12AAA804	Cable for page printer** (2m)
12AAA807	RS-232C cable (80" / 2m)
12AAA808	RS-232C cable (160" / 4m)

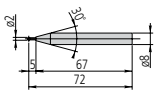


Optional probes and calibration blocks

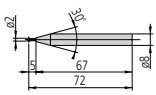
12AAF666
ø1 ball probe



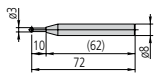
957261
ø2 ball probe



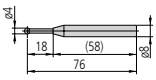
12AAF667
ø2 ruby ball probe



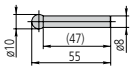
957262
ø3 ball probe



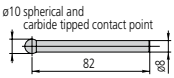
957263
ø4 ball probe



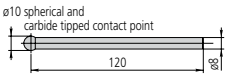
12AAB552
ø10 ball probe, L=55



12AAF668
ø10 ball probe, L=82



12AAF669
ø10 ball probe, L=120

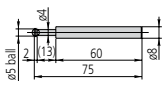


932361
Mu-checker lever head holder
CMM ball and disk hard probes are available.

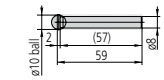
12AAA787
Block for calibrating probe diameter (applicable to taper probe)

K650986
Styli Kit M3

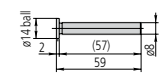
12AAF670
ø5 disk probe



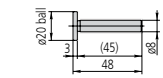
12AAF671
ø10 disk probe



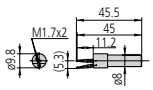
957264
ø14 disk probe



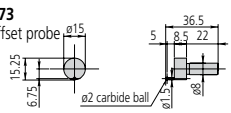
957265
ø20 disk probe



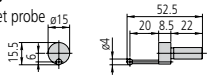
12AAF672
ø1 ball offset probe*
*test indicator stylus (103017)



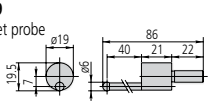
12AAF673
ø2 ball offset probe



12AAA788
ø4 ball offset probe



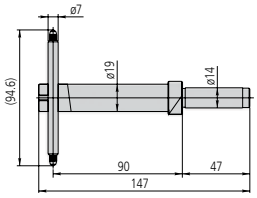
12AAA789
ø6 ball offset probe



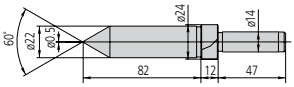
226117
M2 CMM stylus adapter

226118
M3 CMM stylus adapter

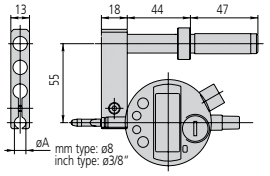
12AAC072 Depth probe



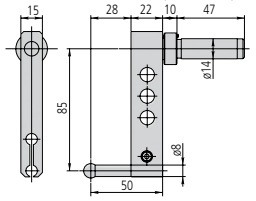
12AAC073 ø20 taper probe



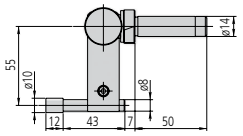
12AAA792 Dial indicator (ø8 stem) holder
12AAA837 Dial indicator (ø3/8"stem) holder



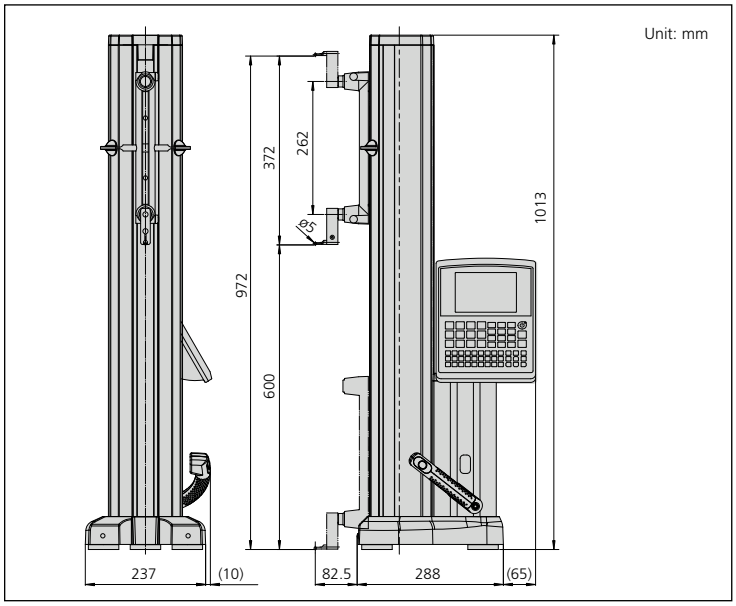
12AAA793 Probe extension holder (85mm/3.3")



12AAB136 ø10 cylindrical probe



DIMENSIONS AND MASS



Mitutoyo

QM-Height

SERIES 518 — High-Precision ABSOLUTE Digital Height Gage

FEATURES

- Newly developed high-accuracy and high-resolution ABSOLUTE linear encoder for position detection.
- Easy reference icon keys.
- Possible to measure inside/outside diameter via unique process (detect the circle apex and process by tracing measurement).
- Various types of optional probes are available.
- Large size LCD with back light.
- Go/no-go judgment is performed by setting the upper and lower tolerances. If a result is out of tolerance, the display backlighting changes from green to red, so tolerance judgment can be made at a glance.
- Slider elevation knob (for travel) / wheel (for measurement).
- With SPC and USB output.

64PKA130A

64PKA129A

SPC

ABSOLUTE®
Absolute System Patented by MITUTOYO

Technical Data

Measuring range*:	0 - 18.3" or 0 - 28.1" 0 - 465mm or 0 - 715mm
Slider stroke:	14" / 350mm or 24" / 600mm
Resolution:	.00005" / .0001" / .0002" / 0.001 / 0.005mm or 0.001 / 0.005mm
Accuracy at 20°C:	Refer to the list of specifications
Guiding method:	Roller bearing
Drive method:	Manual
Length standard:	ABSOLUTE electromagnetic induction-type linear encoder
Measuring force:	1.5±0.5N
Display:	LCD
Power supply:	AC adapter (06AEG180JA) 120V battery (LR6x4)

Battery operation time: Refer to the list of specifications

* Maximum values are obtained with the probe at the highest position. Any change of the probe orientation requires the coordinate system be re-zeroed. With the probe in the highest position, minimum measurable height is 4.53"/115mm.

SPECIFICATIONS

Inch/Metric

Order No.	64PKA094A	64PKA095A	64PKA129A	64PKA130A
Model	QMH-14"A	QMH-24"A	QMH-14"B	QMH-24"B
Range	0 - 14"/ 0-350mm	0 - 24"/ 0-600mm	0 - 14"/ 0-350mm	0 - 24"/ 0-600mm
Resolution	0.001 / 0.0005mm /.00005" / .0001"			
Accuracy at 20°C Accuracy*1	±(2.4+2.1L/600)µm L = Measuring length (mm)			
Repeatability*1	2σ≦1.8µm			
Perpendicularity	7µm	12µm	7µm	12µm
Guiding method	Roller bearing			
Drive method	Manual operation			
Scale type	Electromagnetic induction-type ABSOLUTE linear encoder			
Measuring force	1.5±0.5(N)			
Data output	Digimatic output/USB			
Pneumatic floating system	NA		Included (for movement only)	
Power supply	AC adapter battery / (LR6 x 4) Standard accessory / Nickel metal hydride battery (x4)			
Battery life	Approx. 300 hours (Not using pneumatic floating system)			
	Approx. 80 hours (Using pneumatic floating system regularly)			
Standard accessories	Stepped probe (05H2A148) Probe diameter calibration block (12AAA715) LR6 Battery / AC Adapter (06AEG180JA) 120V			
Mass	55.16 lbs (25kg)	63.93 lbs (29kg)	57.32 lbs (26kg)	66.14 lbs (30kg)
Dimensions	41.85"x21.85x18.94" 1063(W)x555(D)x481(H)	51.02"x21.85x18.94" 1296(W)x555(D)x481(H)	41.85"x21.85x18.94" 1063(W)x555(D)x481(H)	51.02"x21.85x18.94" 1296(W)x555(D)x481(H)
Main Unit	518-231	518-233	518-235	518-237

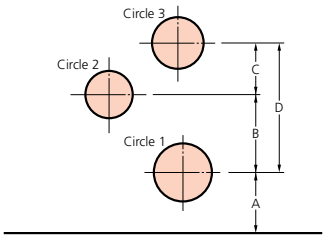
*1 Guaranteed when using the standard eccentric ø5 probe.

Optional Accessories

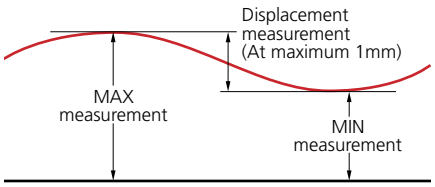
12AAC072: Depth probe
12AAA792: Dial indicator (ø8mm stem) holder
12AAA837: Dial indicator (ø3/8"stem) holder
12AAA793: Probe extension holder (3.3" / 85mm)
12AAF667: ø2mm ruby ball probe
957261: ø2mm ball probe
957262: ø3mm ball probe
957263: ø4mm ball probe
05HAA394: ø5mm ball probe (for 05HZA148)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

Circle pitch measurement

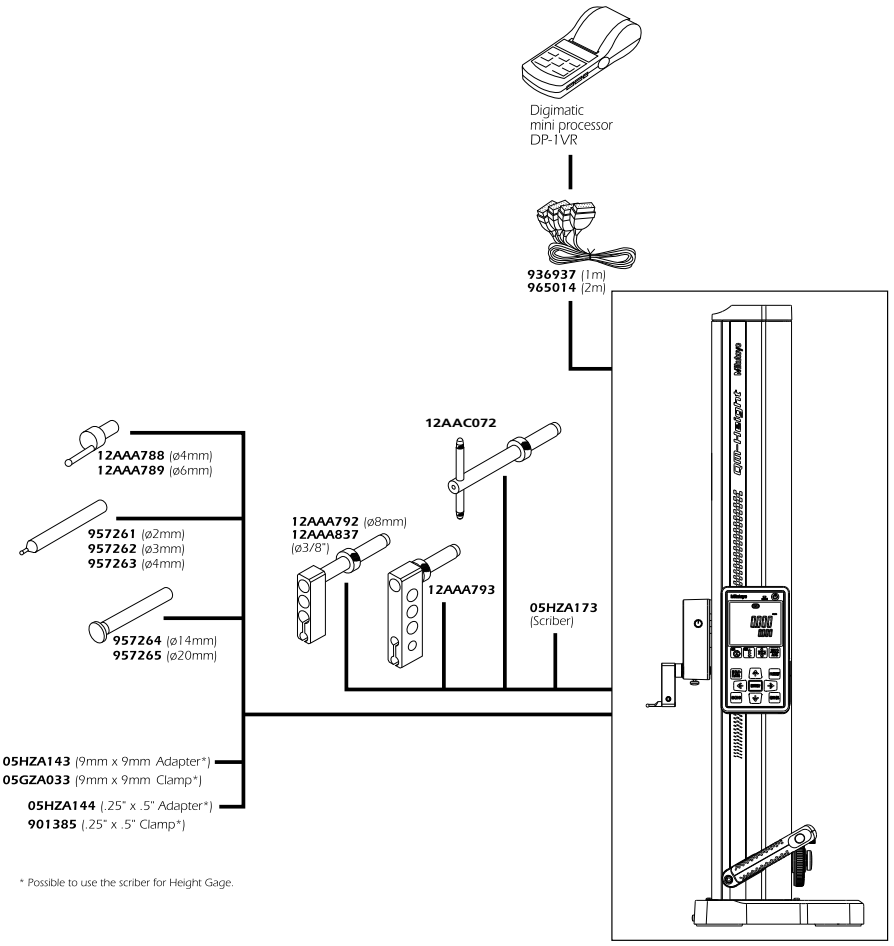
The length A, B, C and D can be determined by measuring circles 1 to 3 once each, using the memory of measuring data together with the calculation function. (A maximum of nine circle measurements can be saved.)



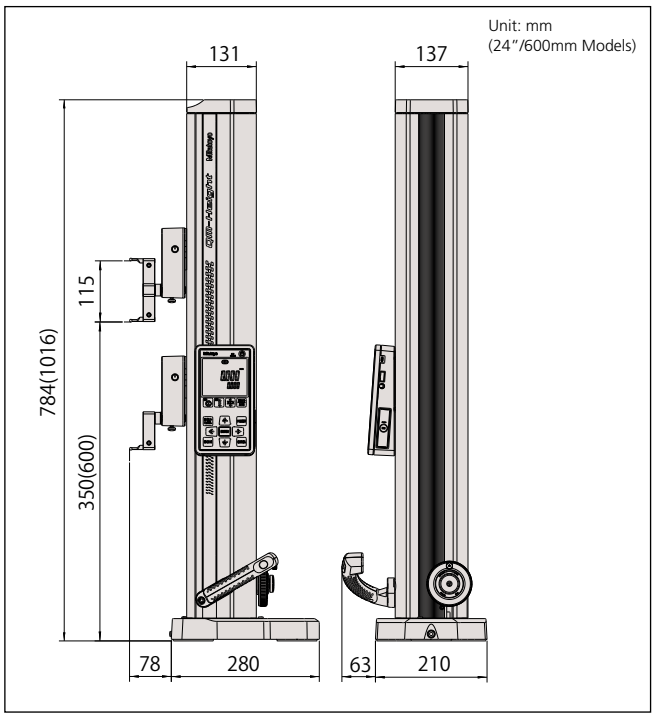
Maximum/minimum and displacement measurement



Inside diameter measurement



DIMENSIONS



Digimatic Height Gage

SERIES 192 — Multi-Function Type with SPC Data Output

FEATURES

- Highly versatile multi-function type.
- Carbide-tipped long scriber is provided.
- Rigid construction ensures repeatable measurement.
- Switchable resolution (.0002"/0.005mm or .0005"/0.01mm)
- Coarse/fine feed switching.
- Bi-directional touch-signal probe is an optional accessory. It can quickly and accurately measure steps, inside width and outside width.
- With SPC data output.
- Two preset reference heights.

192-670-10

SPECIFICATIONS

Inch/Metric

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

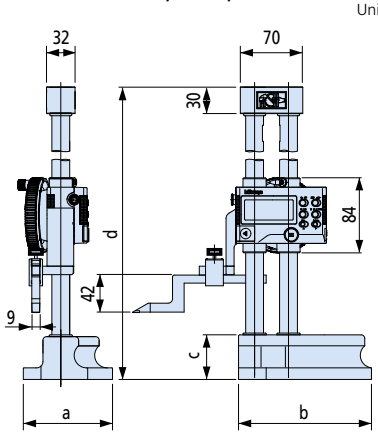
Metric

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

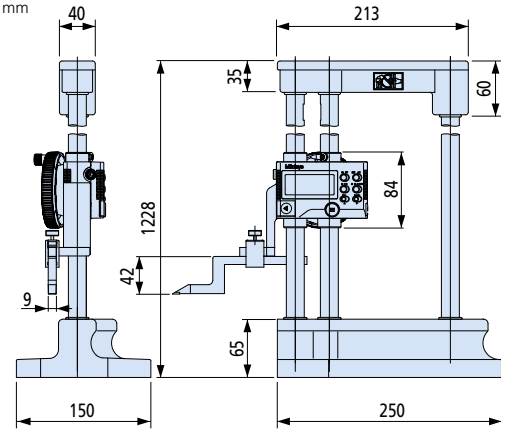
DIMENSIONS

0 - 12" / 0 - 300mm, 0 - 18", 0 - 24" / 0 - 600mm

Unit: mm



0 - 40" / 0 - 1000mm



Range	a	b	c	d
0-12"/ 0-300mm	100	149	50	510
0-18"/ 0-450mm	120	180	54	649
0-24"/ 0-600mm	120	180	54	802

SPC

Technical Data

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

Function

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

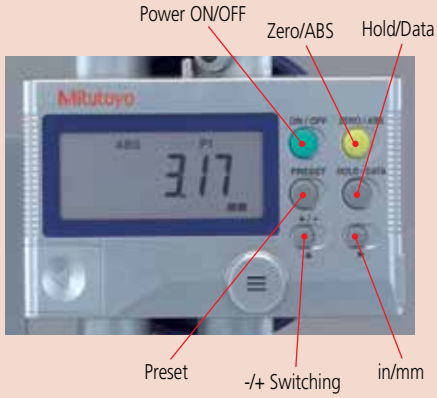
Standard Scriber Provided

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

Optional Accessories

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

Shown with optional touch-signal probe



SPC

Digimatic Height Gage

SERIES 192 — Standard Type with SPC Data Output

FEATURES

- Switchable resolution (.0002"/0.005mm or .0005"/0.01mm)
- Easy-to-use standard type.
- Carbide-tipped scriber is provided.
- Double-column structure ensures high measuring accuracy.
- Coarse/fine feed switching.
- Two preset reference heights.

Technical Data

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

Function

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

Standard Scriber Provided

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

Optional Accessories

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

192-630-10

SPECIFICATIONS

Inch/Metric

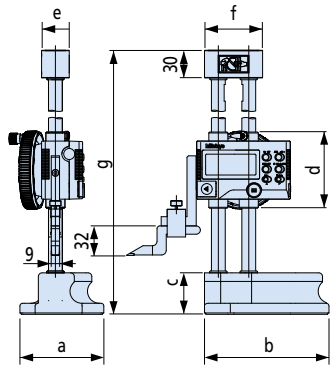
Range	Order No.	Accuracy	Resolution	Mass (kg)
0-12"/0-300mm	**192-630-10**	±001"	.0005"(0.01mm) [.0002"(0.005mm) Switchable)]	4.7
0-18"/0-450mm	**192-631-10**	±002"	.0005"(0.01mm) [.0002"(0.005mm) Switchable)]	7.5
0-24"/0-600mm	**192-632-10**	±002"	.0005"(0.01mm) [.0002"(0.005mm) Switchable)]	8.3
0-40"/0-1000mm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

Metric

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

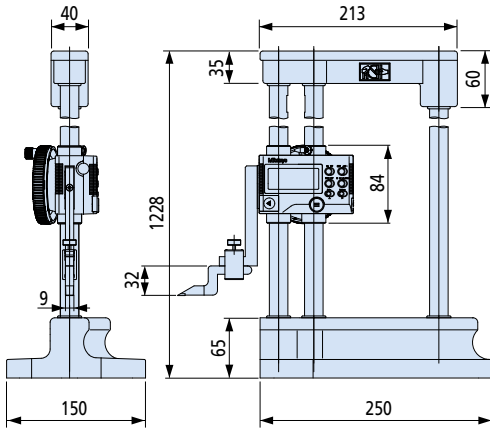
DIMENSIONS

0 - 12" / 0 - 300mm, 0 - 18", 0 - 24" / 0 - 600mm



0 - 40" / 0 - 1000mm

Unit: mm



Range	a	b	c	d	e	f	g
0-12"/ 0-300mm	91	135	45	83	30	63	475
0-18"/ 0-450mm	120	180	54	84	32	70	649
0-24"/ 0-600mm	120	180	54	84	32	70	802

Mitutoyo

Dial Height Gage

SERIES 192 — with Digital Counter

FEATURES

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

192-150

SPECIFICATIONS

Metric

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

Inch

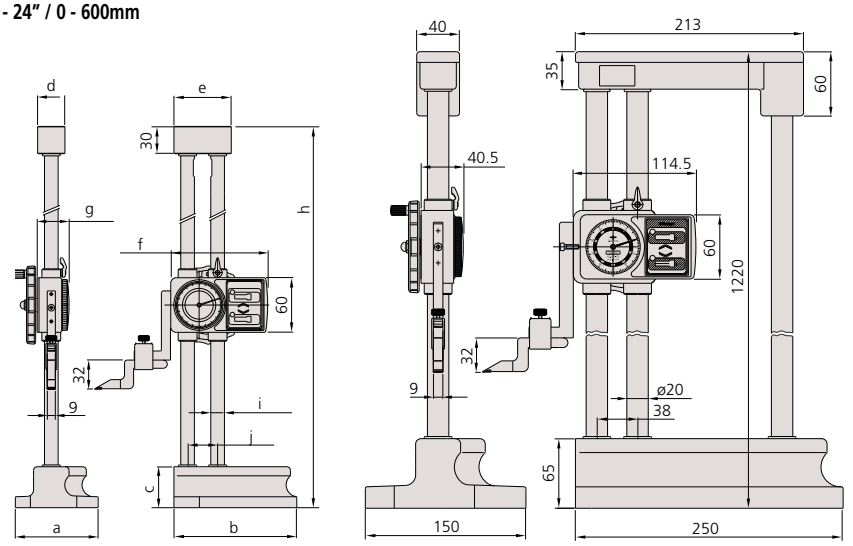
Range	Order No.	Accuracy	Graduation	Mass (kg)
0 - 12"	**192-150**	±.0015"	.001"	4.2
0 - 18"	**192-151**	±.002"	.001"	9.2
0 - 24"	**192-152**	±.002"	.001"	9.8
0 - 40"	**192-153**	±.003"	.001"	17.0

DIMENSIONS

0 - 12" / 0 - 300mm, 0 - 18" / 0 - 450mm
0 - 24" / 0 - 600mm

0 - 40" / 0 - 1000mm

Unit: mm



Range	a	b	c	d	e	f	g	h	i	j
0-12"/ 0-300mm	91	135	45	30	63	106.5	35.5	470	ø15	33
0-18"/ 0-450mm	120	180	54	32	70	114.5	40.5	645	ø20	38
0-24"/ 0-600mm	120	180	54	32	70	114.5	40.5	798	ø20	38

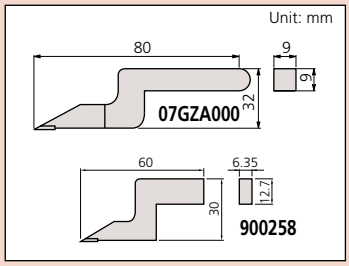
Technical Data

Dial reading: 0.01mm or .001"

Standard Scriber Provided

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

Dimension of scriber



Optional Accessories

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

Comfortable grip base

Easy and secure clamping

Easy and error-free reading

ABSOLUTE Digimatic Height Gage

SERIES 570 — with ABSOLUTE Linear Encoder

FEATURES

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

SPECIFICATIONS

Metric

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

Inch/Metric

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

Technical Data

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

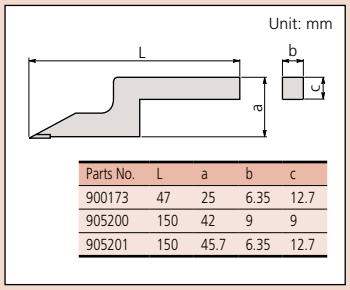
Function

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

Standard Scriber Provided

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

Dimension of scriber

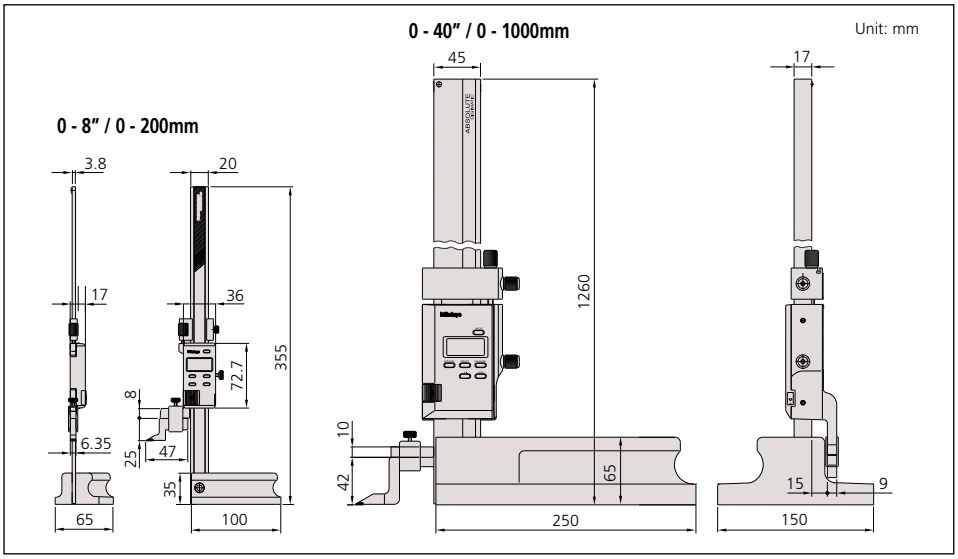


Parts No.	L	a	b	c
900173	47	25	6.35	12.7
905200	150	42	9	9
905201	150	45.7	6.35	12.7

Optional Accessories

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

DIMENSIONS



ABSOLUTE Digimatic Height Gage

SERIES 570 — with ABSOLUTE Linear Encoder

FEATURES

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

SPECIFICATIONS

Metric

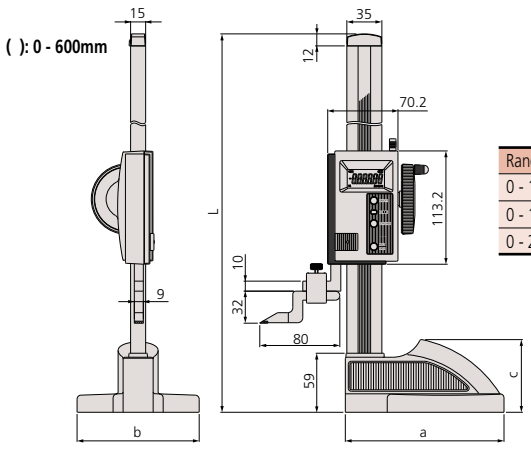
Range	Order No.	Accuracy	Resolution
0 - 300mm	**570-302**	±0.03mm	0.01mm
0 - 600mm	**570-304**	±0.05mm	0.01mm

Inch/Metric

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

DIMENSIONS AND MASS

Unit: mm



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

Technical Data

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

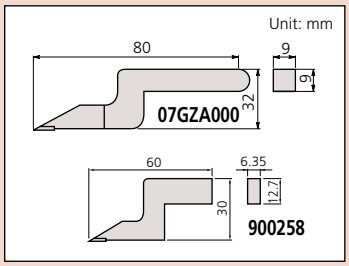
Function

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

Standard Scriber Provided

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

Dimension of scriber



Optional Accessories

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


Large, smooth slider-feed wheel


Large clamp lever


Comfortable grip base

Vernier Height Gage

SERIES 514 — Standard Height Gage with Adjustable Main Scale

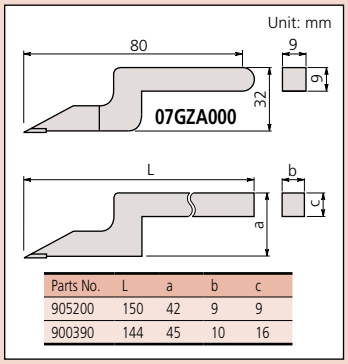
Technical Data

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

Standard Scriber Provided

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

Dimension of scriber



Parts No.	L	a	b	c
905200	150	42	9	9
900390	144	45	10	16

Optional Accessories

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

FEATURES

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

SPECIFICATIONS

Metric

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

Inch/Metric Inch model with inch/metric dual scale

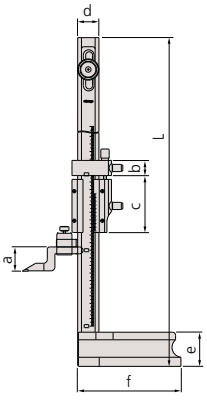
Range	Order No.	Accuracy	Graduation	Mass (kg)
0 - 12" / 0 - 300mm	**514-103**	±.002"	.001" / 0.02mm	3.1
0 - 18" / 0 - 450mm	**514-105**	±.002"	.001" / 0.02mm	3.4
0 - 24" / 0 - 600mm	**514-107**	±.002"	.001" / 0.02mm	7.4
0 - 40" / 0 - 1000mm	**514-109**	±.003"	.001" / 0.02mm	20.0

DIMENSIONS

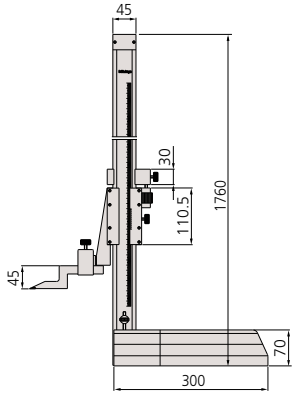
Unit: mm

Range	L	a	b	c	d	e	f
0 - 12" 0 - 300mm	525	32	20	70	28	45	135
0 - 18" 0 - 450mm	675	32	20	70	28	45	135
0 - 24" 0 - 600mm	870	32	24	85	35	54	180
0 - 40" 0 - 1000mm	1340	42	30	110	45	65	250

0 - 40" / 0 - 1000mm



0 - 1500mm



Mitutoyo

Vernier Height Gage

SERIES 506 — Light-Weight Height Gage

FEATURES

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

506-207

506-208

SPECIFICATIONS

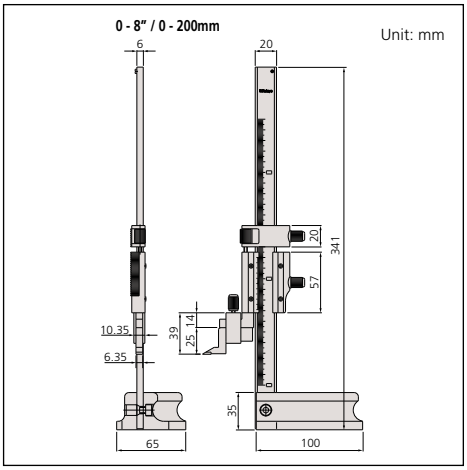
Metric

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

Inch/Metric Inch model with inch/metric double scale

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

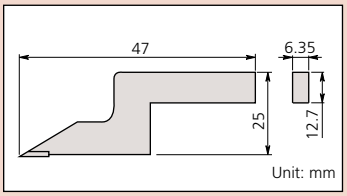
DIMENSIONS



Standard Scriber Provided

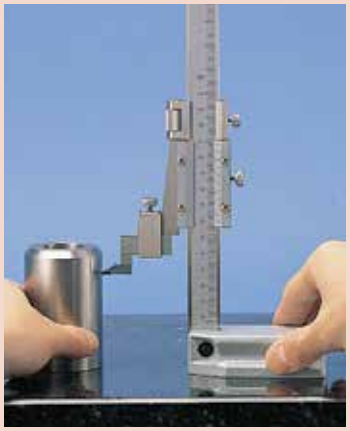
Carbide-tipped scriber (**900173**) and scriber clamp (**901338**)

Dimension of scriber



Optional Accessories

953639: Holding bar for test indicator (length: 2" / 50mm)
900322: Swivel clamp used with holding bar

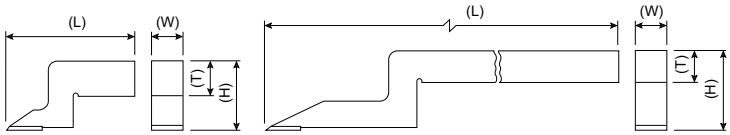


Carbide-Tipped Scriber

Optional Accessory for Height Gage

FEATURES

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



DIMENSIONS

Metric

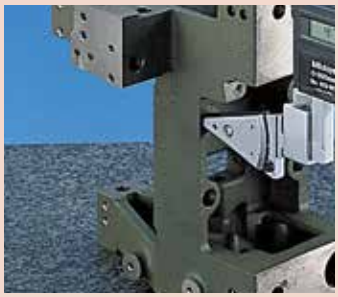
Scriber Order No.	Clamp Order No.	Scriber Dimensions (mm)			
		Length	Height	Width	Thickness
900167	05GZA033	143	23	9	9
07GZA000	07GZA002	80	32	9	9
905200	05GZA033	150	42	9	9
900390	905008	144	45	10	16

Inch

Scriber Order No.	Clamp Order No.	Scriber Dimensions (inch)			
		Length	Height	Width	Thickness
900258	901385	2.4	1.2	.25	.5
905201	901385	5.9	1.77	.25	.5
900172	901385	5.3	1.0	.25	.5
900173	901338	1.9	1.0	.25	.5

Optional Accessories

Optional Accessories for Height Gage



Center Master

- Allows quick measurement of center-to-center distance between holes.
- Measurable hole diameters: .040" to 1.50" / ø1 - ø38mm.

SPECIFICATIONS

Order No.	Remarks
951144	With metric-type holding bar (9x9mm cross-section)
900581	With inch-type holding bar (.25x.5" cross-section)

Depth Gage Attachment

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

SPECIFICATIONS

Order No.	Remarks
900764	With metric-type holding bar (9x9mm cross-section)
900878	With inch-type holding bar (.25x.5" cross-section)

Contact Sensor

- The contact sensor eliminates errors caused by jacking-up the height gage while taking measurements. When the scriber of a height gage touches a conductive workpiece, an indicator will light up to indicate that measurement can be taken, which results in consistent height measurement.

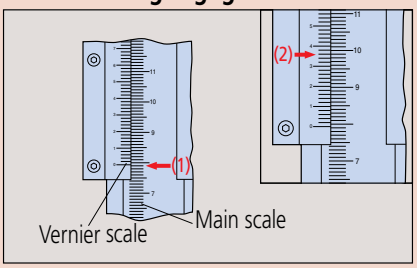
SPECIFICATIONS

Order No.	Remarks
900872	Battery (2pcs. SR44, required) is not included

Mitutoyo

How to read

●Vernier Height gage



Graduation	0.02mm
(1) Main scale	79 mm
(2) Vernier	0.36 mm
Reading	79.36 mm

General notes on use of Height Gages

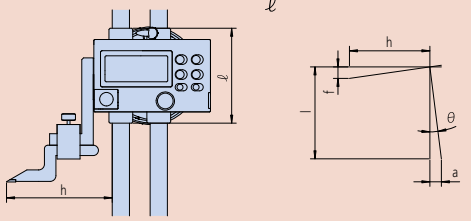
1. Potential causes of error

Like the caliper, the error factors involved include parallax effects, error caused by excessive measuring force due to the fact that a height gage does not conform to Abbe's Principle, and differential thermal expansion due to a temperature difference between the height gage and workpiece.
There are also other error factors caused by the structure of the height gage. In particular, the error factors related to a warped reference edge and scriber installation described below should be studied before use.

2. Reference edge (column) warping and scriber installation

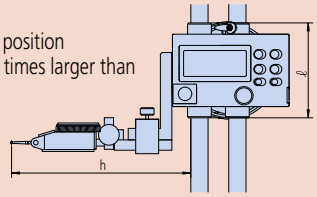
Like the caliper, and as shown in the following figure, measurement errors result when using the height gage if the reference column, which guides the slider, becomes warped. This error can be represented by the same calculation formula for errors caused by nonconformance to Abbe's Principle.

$$f = h\theta = h\frac{a}{\ell}$$



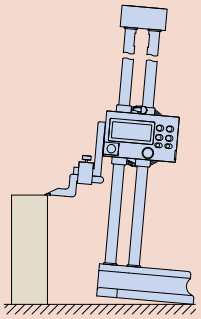
Installing the scriber (or a lever-type dial indicator) requires careful consideration because it affects the size of any error due to a warped reference column by increasing dimension h in the above formula. In other words, if an optional long scriber or lever-type dial indicator is used, the measurement error becomes larger.

Example: Effect of measuring point position
When h is 150 mm, the error is 1.5 times larger than when h is 100 mm.



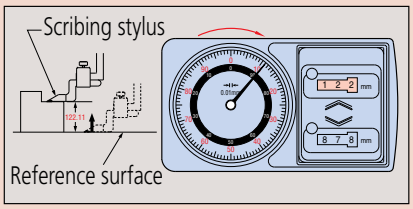
3. Lifting of the base from the reference surface

When setting the scriber height from a gauge block stack, or from a workpiece feature, the base may lift from the surface plate if excessive downwards force is used on the slider, and this results in measurement error. For accurate setting, move the slider slowly downwards while moving the scriber tip to and fro over the gauge block surface (or feature). The correct setting is when the scriber is just felt to lightly touch as it moves over the edge of the surface.
It is also necessary to make sure that the surface plate and height gage base reference surface are free of dust or burrs before use.



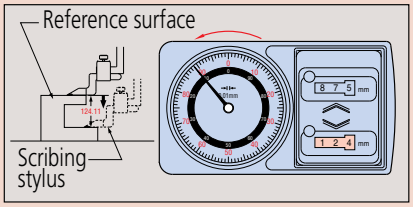
●Mechanical Digit Height gage

Measuring upwards from a reference surface



Counter	122	mm
Dial	0.11	mm
Reading	122.11	mm

Measuring downwards from a reference surface



Counter	124	mm
Dial	0.11	mm
Reading	124.11	mm

4. Error due to inclination of the main scale (column)

According to JIS standards, the perpendicularity of the column reference edge to the base reference surface should be better than:

$$\left(0.01+\frac{L}{1000}\right)\text{mm}$$ L indicates the measuring length (unit: mm)

This is not a very onerous specification. For example, the perpendicularity limit allowable is 0.61 mm when L is 600 mm. This is because this error factor has a small influence and does not change the inclination of the slider, unlike a warped column.

5. Relationship between accuracy and temperature

Height gages are made of several materials. Note that some combinations of workpiece material, room temperature, and workpiece temperature may affect measuring accuracy if this effect is not allowed for by performing a correction calculation.

6. The tip of a height gage scriber is very sharp and must be handled carefully if personal injury is to be avoided.

7. Do not damage a digital height gage scale by engraving an identification number or other information on it with an electric marker pen.

8. Carefully handle a height gage so as not to drop it or bump it against anything.

Notes on using the height gage

1. Keep the column, which guides the slider, clean. If dust or dirt accumulates on it, sliding becomes difficult, leading to errors in setting and measuring.
2. When scribing, securely lock the slider in position using the clamping arrangements provided. It is advisable to confirm the setting after clamping because the act of clamping on some height gages can alter the setting slightly. If this is so, allowance must be made when setting to allow for this effect.
3. Parallelism between the scriber measuring face and the base reference surface should be 0.01 mm or better.
   Remove any dust or burrs on the mounting surface when installing the scriber or lever-type dial indicator before measurement. Keep the scriber and other parts securely fixed in place during measurement.
4. If the main scale of the height gage can be moved, move it as required to set the zero point, and securely tighten the fixing nuts.
5. Errors due to parallax error are not negligible. When reading a value, always look straight at the graduations.
6. Handling after use: Completely wipe away any water and oil. Lightly apply a thin coating of anti-corrosion oil and let dry before storage.
7. Notes on storage:
   Avoid direct sunlight, high temperatures, low temperatures, and high humidity during storage.
   If a digital height gage will not be used for more than three months, remove the battery before storage.
   If a protective cover is provided, use the cover during storage to prevent dust from adhering to the column.

CERA Caliper Checker

SERIES 515

FEATURES

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

515-555

SPECIFICATIONS

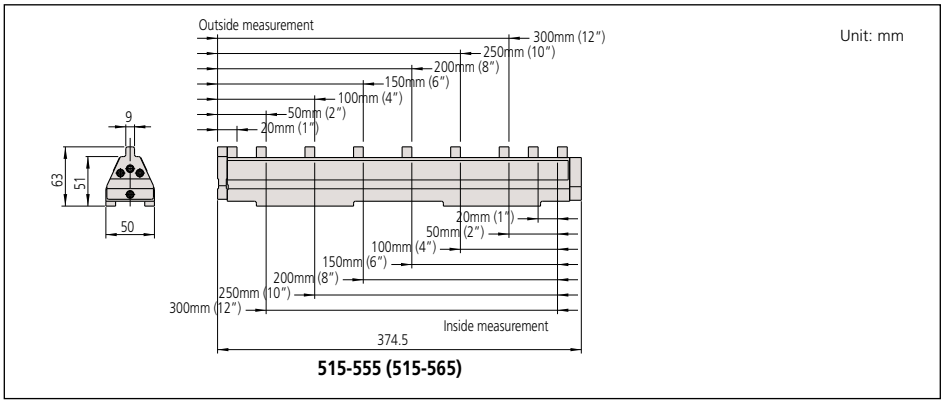
Metric

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

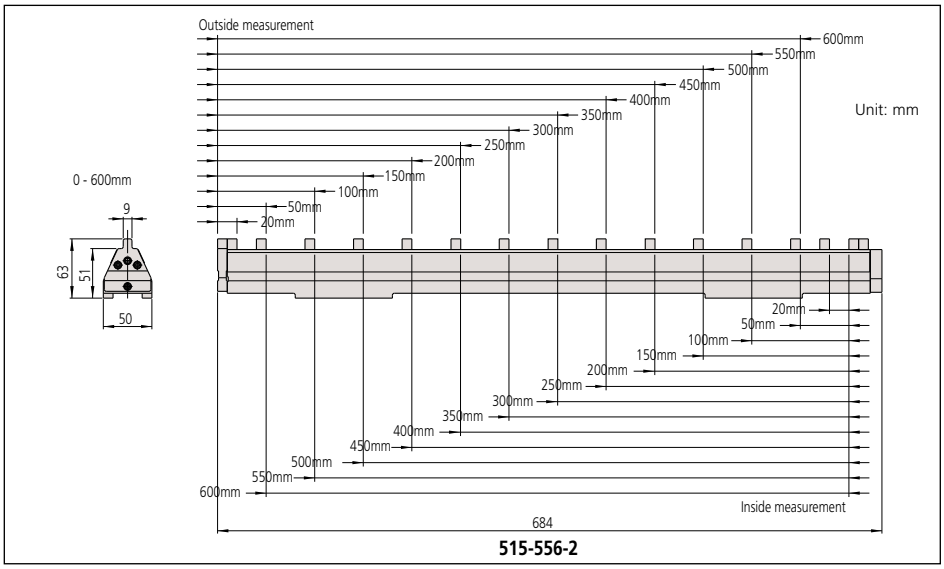
Inch

Range	Order No.	Remarks (length to check)	Mass (kg)
0 - 12″	**515-565**	Outside measurement: 1″, 2″, 4″, 6″, 8″, 10″, 12″ Inside measurement: 1″, 2″, 4″, 6″, 8″, 10″, 12″	4.0

DIMENSIONS



515-555 (515-565)



515-556-2

Technical Data

Block pitch accuracy: ±0.005mm for range up to 300mm
±.0002″ for range up to 12 ″
±0.007mm for range up to 600mm
Parallelism of blocks: 0.002mm for range up to 300mm
0.004mm for range up to 600mm

Optional Accessories

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

Used for caliper

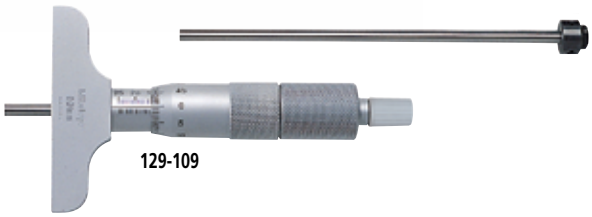
Used for height gage

Depth Micrometer

SERIES 329, 129 — Interchangeable Rod Type

FEATURES

- ø4mm interchangeable rods, with lapped measuring end, provide a wide measuring range.
- The rod length can be adjusted in 1″ or 25mm increments.
- With ratchet stop for constant force.
- With measuring rod clamp.
- With SPC output (Series 329).
- Supplied in fitted plastic case.



SPECIFICATIONS

Metric Digimatic model

Range	Order No.	Base Size	Rod Qty.
0 - 150mm	**329-250-30**	101.6x16mm	6 rods
0 - 300mm	**329-251-30**	101.6x16mm	12 rods

Metric

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

Inch/Metric Digimatic model

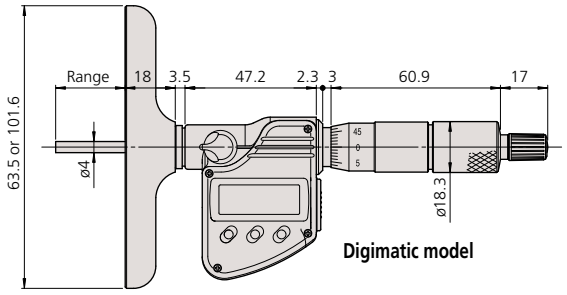
Range	Order No.	Base Size	Rod Qty.
0 - 6″ / 0 - 152.4mm	**329-350-30**	4″x.63″	6 rods
0 - 12″ / 0 - 304.8mm	**329-351-30**	4″x.63″	12 rods

Inch

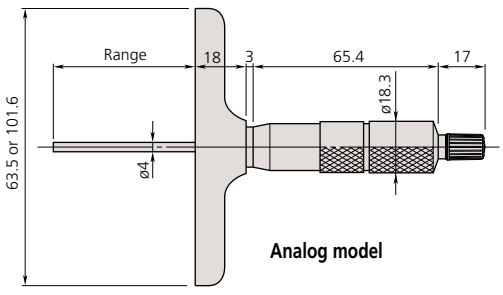
Range	Order No.	Base Size	Rod Qty.
0 - 4″	**129-127**	2.5″x.63″	4 rods
0 - 4″	**129-131**	4″x.63″	4 rods
0 - 6″	**129-128**	2.5″x.63″	6 rods
0 - 6″	**129-132**	4″x.63″	6 rods
0 - 12″	**129-149**	2.5″x.63″	12 rods
0 - 12″	**129-150**	4″x.63″	12 rods

DIMENSIONS

Unit: mm



Digimatic model



Analog model

Technical Data

Accuracy: ±.00015″/3µm for micrometer head feed
±[.00008 + (.00004xR/3)]″
R= max. measuring length (inch)
±(2+L/75)µm for interchangeable rod,
L=Max. measuring length (mm)
Resolution*: .00005″/0.001mm or 0.001mm
Graduation**: .001″ or 0.01mm
Flatness of reference surface (base):
.00005″/1.3µm for 2.5″/63.5mm wide base
.00008″/2µm for 4″/.6mm wide base
Flatness of measuring face (rod):
.000012″/0.3µm
Parallelism between reference face and measuring rod face:
[.00016 + (.00004 x R/2)]″
R=max. measuring range (inch)
(4+L/50)µm
L=Max. measuring length (mm)
Zero point error of rods:
±.0002″/4µm for 0-6″/0-150mm models
±.0003″/6µm for 0-12″/0-300mm models
Measuring rod diameter: .157″/4mm
Display*: LCD
Battery*: SR44 (1 pc.), **938882**
Battery life*: Approx. 2.4 years under normal use
*Digital models **Analog models

Function of Digimatic Model

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

Optional Accessories for Digimatic Model

05CZA662: SPC cable with data switch (40″ / 1m)
05CZA663: SPC cable with data switch (80″ / 2m)

Depth Micrometer

SERIES 128

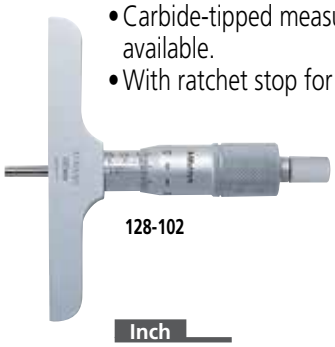
Technical Data

Accuracy: ±3µm for micrometer head feed
Graduation: .001″ or 0.01mm
Flatness of reference face: 1.3µm for 63.5mm width base,
2µm for 101.6mm width base
Flatness of measuring rod face: 0.3µm
Parallelism between reference face and measuring rod face:
(4+L/50)µm, L=Max. measuring length (mm)
Measuring rod diameter: 4mm

FEATURES

- ø4mm measuring rod.
- With measuring rod clamp.
- Carbide-tipped measuring rod model is available.
- With ratchet stop for constant force.

128-101



128-102

SPECIFICATIONS

Metric

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

*with carbide-tipped measuring rod

Inch

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

Depth Micro Checker

SERIES 515

FEATURES

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

515-570

515-571

SPECIFICATIONS

Metric

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

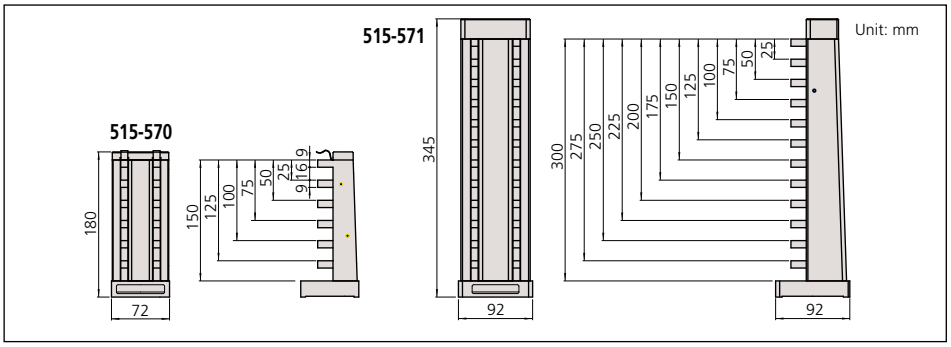
Inch

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

Technical Data

Block pitch accuracy: ±(1+L/150)µm,
L=Length to check (mm)
Anvil block accuracy: ±0.5µm

DIMENSIONS



ABSOLUTE Digimatic Depth Gage

SERIES 571

FEATURES

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

571-263-10

571-201-30

SPECIFICATIONS

Metric

Range	Order No.	Resolution	Accuracy	Mass(g)
0 - 150mm	**571-201-30**	0.01mm	±0.02mm	192
0 - 150mm	**571-251-10***	0.01mm	±0.02mm	199
0 - 200mm	**571-202-30**	0.01mm	±0.02mm	212
0 - 200mm	**571-252-10***	0.01mm	±0.02mm	219
0 - 300mm	**571-203-20**	0.01mm	±0.03mm	310
0 - 300mm	**571-253-10***	0.01mm	±0.03mm	320
0 - 450mm	**571-204-10**	0.01mm	±0.05mm	1270
0 - 600mm	**571-205-10**	0.01mm	±0.05mm	1400
0 - 750mm	**571-206-10**	0.01mm	±0.06mm	1530
0 - 1000mm	**571-207-10**	0.01mm	±0.07mm	1760

*IP67 Coolant-Proof model

Inch/Metric

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

*IP67 Coolant-Proof model

ABSOLUTE®
Absolute System Patented by MITUTOYO

Technical Data

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

Function

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

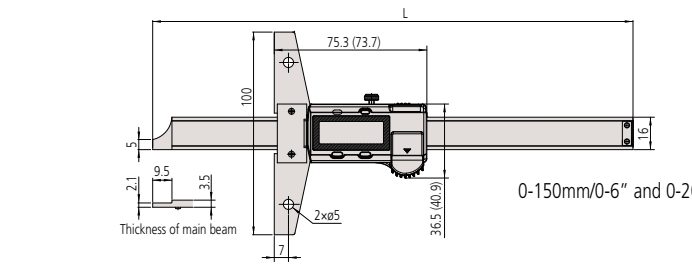
Optional Accessories

959143: Data hold unit
959149: SPC cable with data switch (40″ / 1m)
959150: SPC cable with data switch (80″ / 2m)
05CZA624: SPC cable with data switch (40″ / 1m)*
05CZA625: SPC cable with data switch (80″ / 2m)*
———: Extension base (see page D-56.)
*For IP-67 models

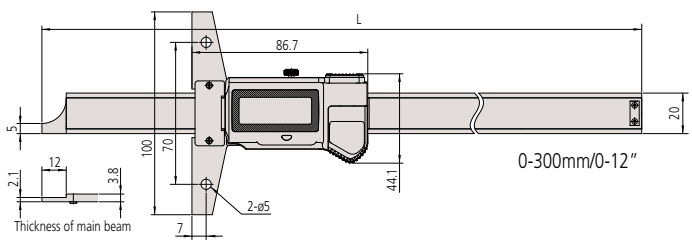
Measurement data output function is available with a water-resistant SPC cable.

DIMENSIONS

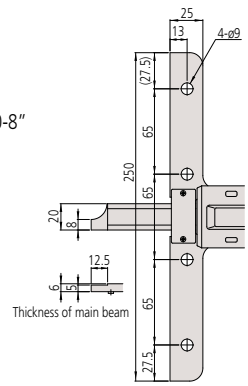
Unit: mm



0-150mm/0-6″ and 0-200mm/0-8″



0-300mm/0-12″



0-450mm/0-18″ and larger

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

Tire Tread Depth Gage

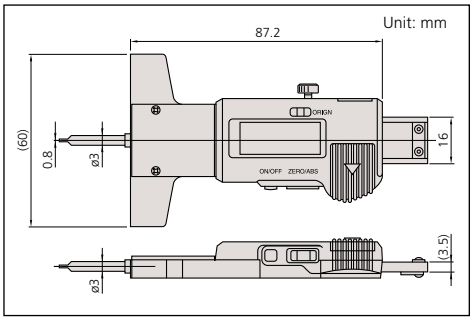
SERIES 571

FEATURES

- ABSOLUTE Digimatic Tread Depth Gage can keep track of the origin point, once set, for the life of the battery.
- Specially designed to measure tire tread depth.
- With SPC data output.

571-100MOT-10

DIMENSIONS



SPECIFICATIONS

Metric

Range	Order No.	Resolution	Accuracy
0 - 25mm	**571-100MOT-10**	0.01mm	±0.02mm

Inch/Metric

Range	Order No.	Resolution	Accuracy
0 - 1" / 0 - 25mm	**571-200MOT-10**	.0005" / 0.01mm	±.0005"

Technical Data

Accuracy: Refer to the list of specifications
Resolution: .0005"/0.01mm or 0.01mm
Display: LCD
Battery: SR44 (1 pc.), **938882**
Battery life: Approx. 2000 hours

Function

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

Optional Accessories

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

ABSOLUTE Point-Type Digimatic Depth Gage

SERIES 571

FEATURES

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

571-311-10

SPECIFICATIONS

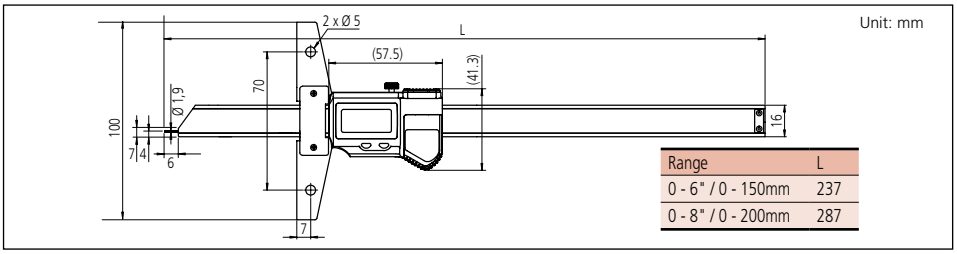
Metric

Range	Order No.	Resolution	Accuracy	Mass(g)
0-150mm	**571-301-10**	0.01mm	±0.02mm	207
0-200mm	**571-302-10**	0.01mm	±0.02mm	227

Inch/Metric

Range	Order No.	Resolution	Accuracy	Mass(g)
0-6"/0-150mm	**571-311-10**	.0005" / 0.01mm	±.001"/±0.02mm	207
0-8"/0-200mm	**571-312-10**	.0005" / 0.01mm	±.001"/±0.02mm	227

DIMENSIONS



Range	L
0 - 6" / 0 - 150mm	237
0 - 8" / 0 - 200mm	287

Technical Data

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

Function

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

Optional Accessories

05CZA624: SPC cable with data switch (40" / 1m)
05CZA625: SPC cable with data switch (80" / 2m)
———: Extension base (see page D-56.)

05CZA624

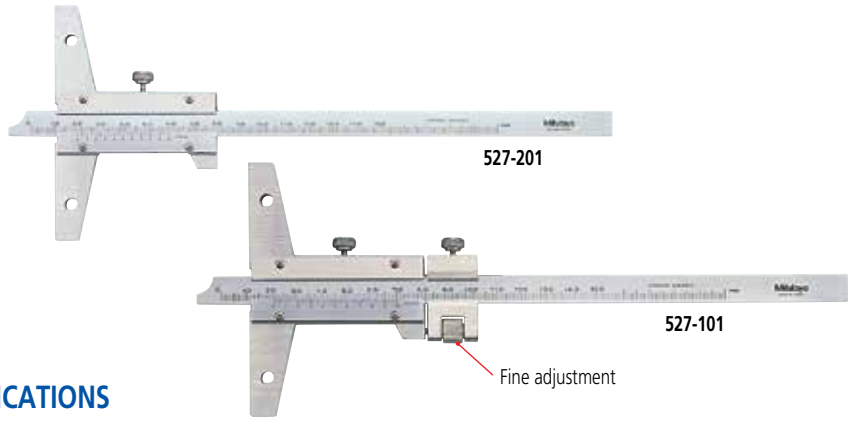
Measurement data output function is available with a water-resistant SPC cable.

Vernier Depth Gage

SERIES 527

FEATURES

- Made of hardened stainless steel.
- Base and measuring faces are hardened and micro-lapped.
- Optional wider extension base are available. (up to 450mm range models)



SPECIFICATIONS

Metric

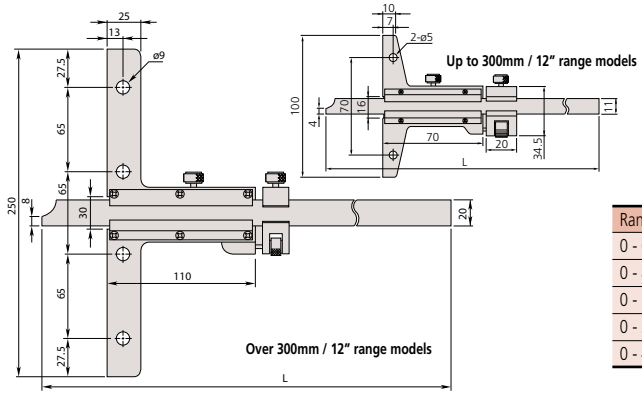
Range	Order No.	Vernier reading	Accuracy	Mass (g)	Remarks
0 - 150mm	**527-201**	0.05mm	±0.05mm	240	———
0 - 150mm	**527-121**	0.02mm	±0.03mm	215	———
0 - 150mm	**527-101**	0.02mm	±0.03mm	280	with fine adjustment
0 - 200mm	**527-202**	0.05mm	±0.05mm	260	———
0 - 200mm	**527-122**	0.02mm	±0.03mm	230	———
0 - 200mm	**527-102**	0.02mm	±0.03mm	300	with fine adjustment
0 - 300mm	**527-203**	0.05mm	±0.08mm	300	———
0 - 300mm	**527-123**	0.02mm	±0.04mm	265	———
0 - 300mm	**527-103**	0.02mm	±0.04mm	350	with fine adjustment
0 - 600mm	**527-204**	0.05mm	±0.10mm	1511	———
0 - 600mm	**527-104**	0.02mm	±0.05mm	1511	with fine adjustment
0 - 1000mm	**527-205**	0.05mm	±0.15mm	1880	———
0 - 1000mm	**527-105**	0.02mm	±0.07mm	1880	with fine adjustment

Inch

Range	Order No.	Vernier reading	Accuracy	Mass (g)	Remarks
0 - 6″	**527-111**	.001″	±.001″	280	with fine adjustment
0 - 8″	**527-112**	.001″	±.001″	300	with fine adjustment
0 - 12″	**527-113**	.001″	±.0015″	350	with fine adjustment
0 - 24″	**527-114**	.001″	±.002″	1511	with fine adjustment
0 - 40″	**527-115**	.001″	±.003″	1880	with fine adjustment

DIMENSIONS

Unit: mm



Range	L
0 - 6″ / 0 - 150mm	260
0 - 8″/ 0 - 200mm	310
0 - 12″ / 0 - 300mm	410
0 - 24″/ 0 - 600mm	800
0 - 40″/ 0 - 1000mm	1200

Technical Data

Graduation: .001″ or 0.05mm, 0.02mm

Optional Accessories

———: Extension base (see page D-56.)

Vernier Depth Gage

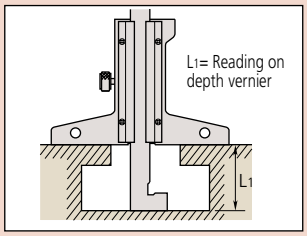
SERIES 527 — Hook-End Type

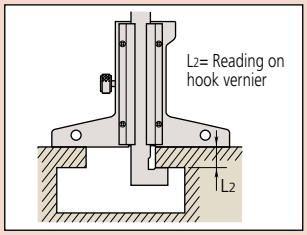
Technical Data

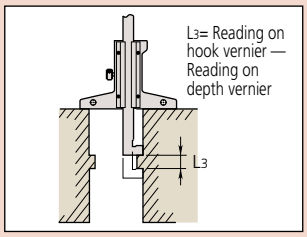
Graduation: 0.05mm or 0.02mm
Base size: 100x6.5mm (WxT)

Optional Accessory

———: Extension base (see page D-56.)

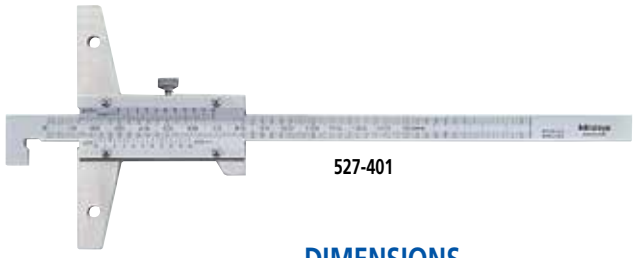






FEATURES

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



527-401

SPECIFICATIONS

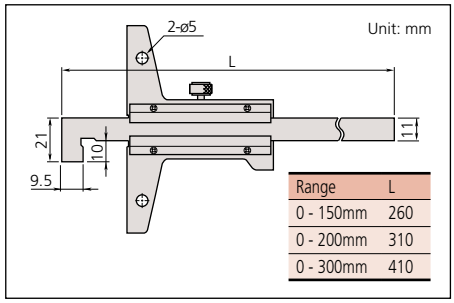
Metric

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

Metric with fine adjustment

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

DIMENSIONS



Range	L
0 - 150mm	260
0 - 200mm	310
0 - 300mm	410

ABSOLUTE Digimatic Depth Gage

SERIES 571 — Hook-End Type

FEATURES

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

571-264-10

Technical Data

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

Function

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

Optional Accessories

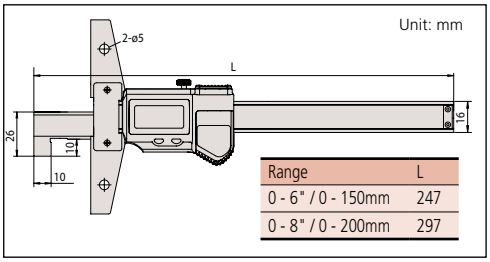
05CZA624: SPC cable with data switch (40" / 1m)
05CZA625: SPC cable with data switch (80" / 2m)
———: Extension base (see page D-56.)

SPECIFICATIONS

Inch/Metric

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

DIMENSIONS



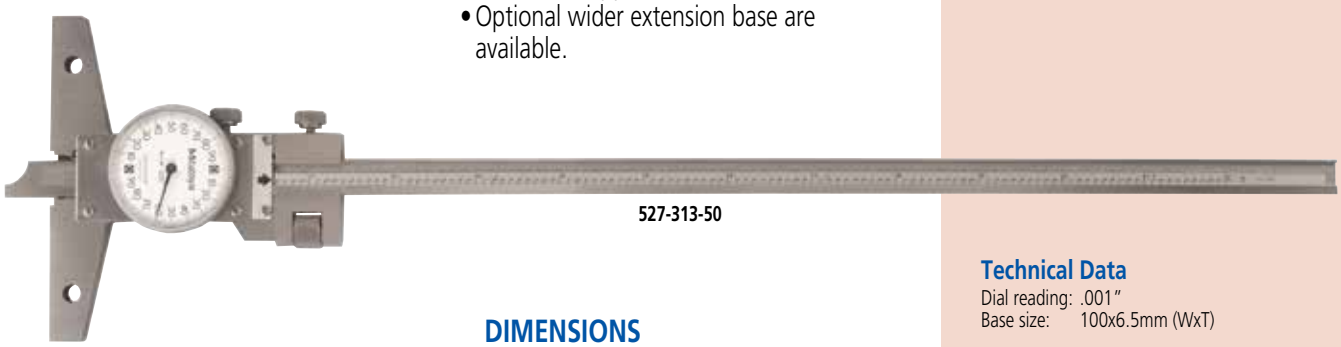
Range	L
0 - 6" / 0 - 150mm	247
0 - 8" / 0 - 200mm	297

Dial Depth Gage

SERIES 527 — With Fine Adjustment

FEATURES

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



527-313-50

Technical Data

Dial reading: .001″
Base size: 100x6.5mm (WxT)

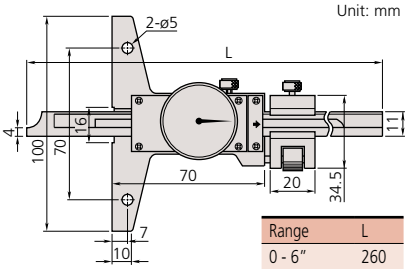
SPECIFICATIONS

Inch

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

DIMENSIONS

Unit: mm



Range	L
0 - 6″	260
0 - 8″	310
0 - 12″	410

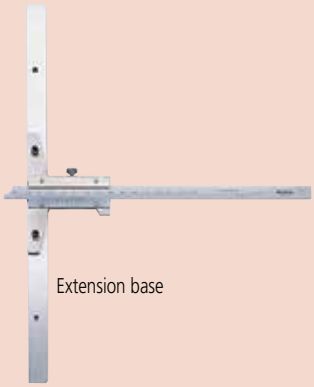
Extension Bases

Optional Accessory for Depth Gage

FEATURES

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

900372



Extension base

SPECIFICATIONS

Metric

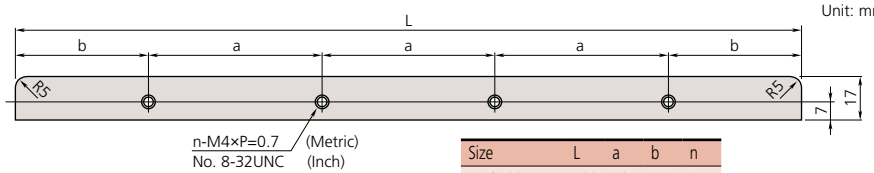
Size	Order No.	Remarks (dimension a, b / n)	
180mm	**900370**	70mm, 55mm	2
260mm	**900371**	35mm, 60mm	5
320mm	**900372**	70mm, 55mm	4

Inch

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

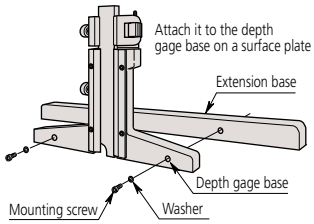
DIMENSIONS

Unit: mm



Size	L	a	b	n
7″ / 180mm	180	70	55	2
10″ / 260mm	260	35	60	5
12″ / 320mm	320	70	55	4

Attaching the extension base



ABSOLUTE Digimatic/Dial Depth Gage

SERIES 547, 7

SPC

ABSOLUTE®
Absolute System Patented by MITUTOYO

Technical Data

Accuracy: Refer to the list of specifications
Resolution*: .0005"/0.01mm or 0.001mm, 0.01mm, .00005"/0.001mm
Dial reading**: .001" or 0.01mm
Flatness of base face: 5µm
Contact point: Carbide-tipped ball point or needle point (**7210**, **7222**)
Measuring force: 1.4N, 1.5N (digital model), 2.5N (**7213**, **7214**, **7217S**, **7218S**)
Display*: LCD
Battery*: SR44 (1 pc.), **938882**
Battery life*: Approx. 3.5 years under normal use
*Digital models **Dial models

Technical Data of Dial Mode

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

Function of Digimatic Model

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

Optional Accessories for Digimatic Model

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

Base Only (3/8" dia. hole)

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

FEATURES

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

SPECIFICATIONS

Metric Digimatic model

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

0.01mm graduation 0.001mm graduation

Inch/Metric Digimatic model

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

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

Metric Dial Type

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

*with needle probe

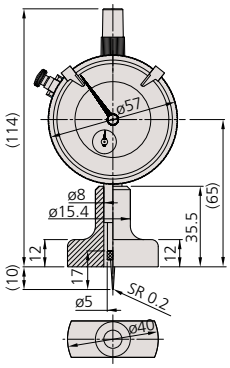
Inch Dial Type

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

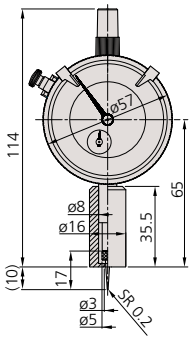
Mitutoyo

DIMENSIONS

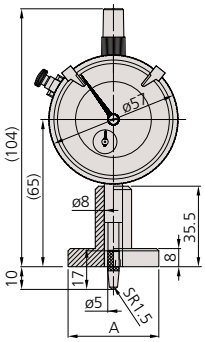
Unit: mm



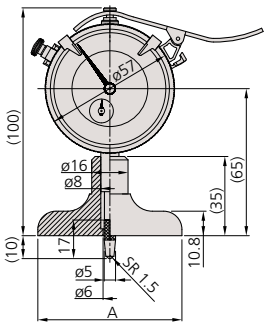
7210



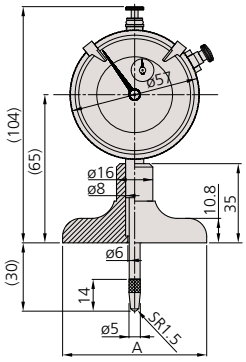
7222



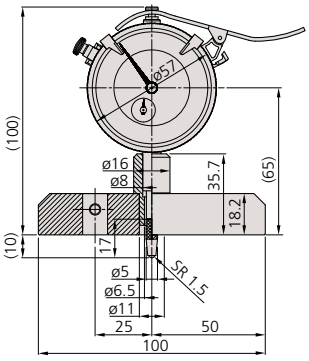
7223 A= ø25mm
7224 A= ø40mm



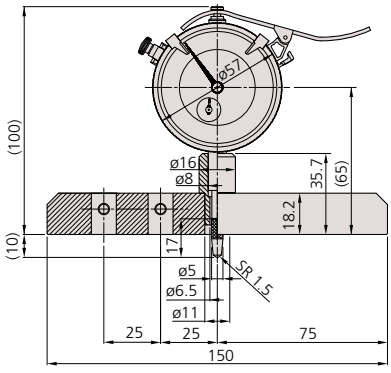
7211 A= 63.5mm
7212 A= 101.6mm



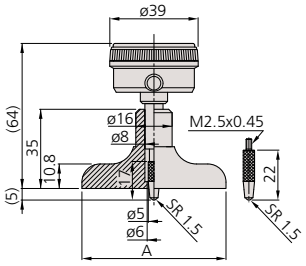
7213, **7217S** A= 63.5mm
7214, **7218S** A= 101.6mm



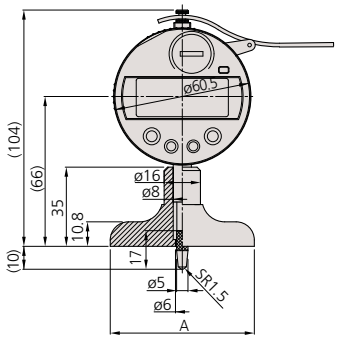
7220

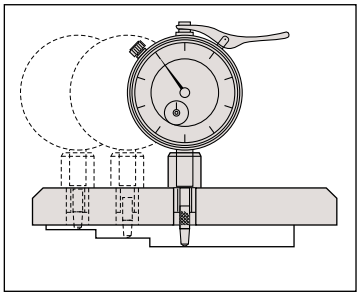


7221



7237T, 7231 A=63.5mm
7238T A=101.6mm





547-211, **547-251**, **547-217S**, **547-257S** A= 63.5mm
547-212, **547-252**, **547-218S**, **547-258S** A= 101.6mm