

Depth Micrometer

SERIES 329, 129, 229 — Interchangeable Rod Type

FEATURES

- $\phi 4$ mm interchangeable rods, with lapped measuring end, provide a wide measuring range.
- The rod length can be adjusted in 25mm increments.
- With ratchet stop for constant force.
- With measuring rod clamp.
- With SPC output (series 329).
- With digit counter (series 229).



SPECIFICATIONS

Metric Digital model		
Range	Order No.	Remarks (base / rod)
0 - 150mm	329-250	101.6 x 16mm w/ 6 rods
0 - 300mm	329-251	101.6 x 16mm w/ 12 rods

Metric Digit counter model		
Range	Order No.	Remarks (base / rod)
0 - 25mm	229-101	63.5 x 16mm w/ 1 rod
0 - 25mm	229-102	101.6 x 16mm w/ 1 rod
0 - 50mm	229-109	63.5 x 16mm w/ 2 rods
0 - 50mm	229-113	101.6 x 16mm w/ 2 rods

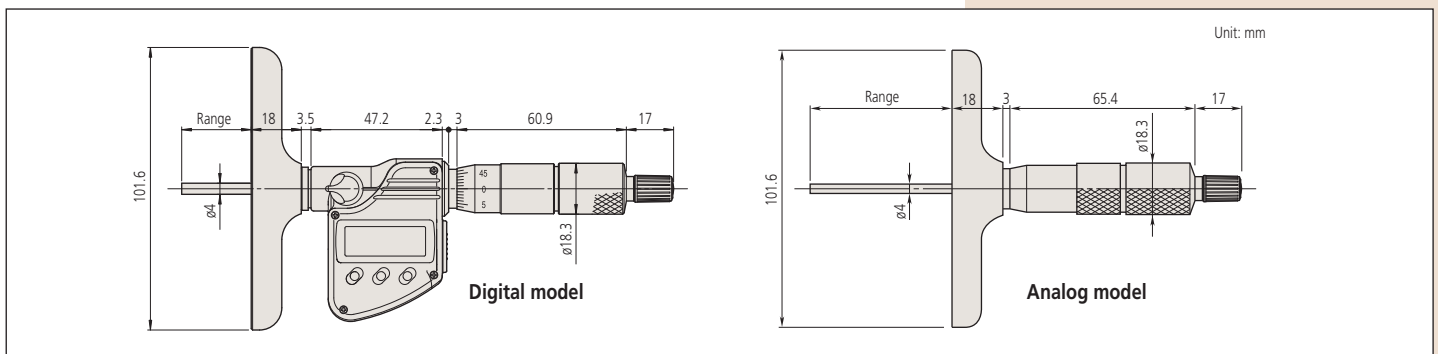
Metric		
Range	Order No.	Remarks (base / rod)
0 - 50mm	129-109	63.5 x 16mm w/ 2 rods
0 - 50mm	129-113	101.6 x 16mm w/ 2 rods
0 - 75mm	129-110	63.5 x 16mm w/ 3 rods
0 - 75mm	129-114	101.6 x 16mm w/ 3 rods
0 - 100mm	129-111	63.5 x 16mm w/ 4 rods
0 - 100mm	129-115	101.6 x 16mm w/ 4 rods
0 - 150mm	129-112	63.5 x 16mm w/ 6 rods
0 - 150mm	129-116	101.6 x 16mm w/ 6 rods

Inch/Metric Digital model		
Range	Order No.	Remarks (base / rod)
0 - 6"	329-350	4" x .63" w/ 6 rods
0 - 12"	329-351	4" x .63" w/ 12 rods

Inch Digit counter model		
Range	Order No.	Remarks (base / rod)
0 - 4"	229-127	2.5" x .63" w/ 4 rods
0 - 4"	229-131	4" x .63" w/ 4 rods
0 - 6"	229-128	2.5" x .63" w/ 6 rods
0 - 6"	229-132	4" x .63" w/ 6 rods

Inch		
Range	Order No.	Remarks (base / rod)
0 - 3"	129-126	2.5" x .63" w/ 3 rods
0 - 3"	129-130	4" x .63" w/ 3 rods
0 - 4"	129-127	2.5" x .63" w/ 4 rods
0 - 4"	129-131	4" x .63" w/ 4 rods
0 - 6"	129-128	2.5" x .63" w/ 6 rods
0 - 6"	129-132	4" x .63" w/ 6 rods
0 - 12"	129-149	2.5" x .63" w/ 12 rods
0 - 12"	129-150	4" x .63" w/ 12 rods

DIMENSION



Technical Data

Accuracy: $\pm 3\mu\text{m}$ for micrometer head feed (excluding quantizing error for digital models)
 $\pm(2+L/75)\mu\text{m}$ for interchangeable rod,
 L = Max. measuring length (mm)
 Fraction rounded up

Resolution*: 0.001mm or .00005"/0.001mm
 (.0001"/0.001mm: **329-351**)

Graduation**: 0.01mm or .001"

Flatness of reference face: 1.3 μm for 63.5mm width base,
 2 μm for 101.6mm width base

Flatness of measuring rod face: 0.3 μm

Parallelism between reference face and measuring rod face:
 (4+L/50) μm , L = Max. measuring length (mm)
 Fraction rounded up

Measuring rod diameter: 4mm

Display*: LCD

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

Battery life*: Approx. 8 months under normal use

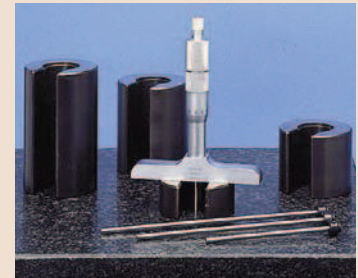
*Digital models **Analog models

Function of Digital Model

Preset, Zero-setting, Data hold, Automatic power ON/OFF,
 Data output, Preset inch/mm conversion (inch/mm models)
 Alarm: Low voltage, Counting value composition error

Optional Accessory for Digital Model

05CZA662: SPC cable with data switch (1m)
05CZA663: SPC cable with data switch (2m)

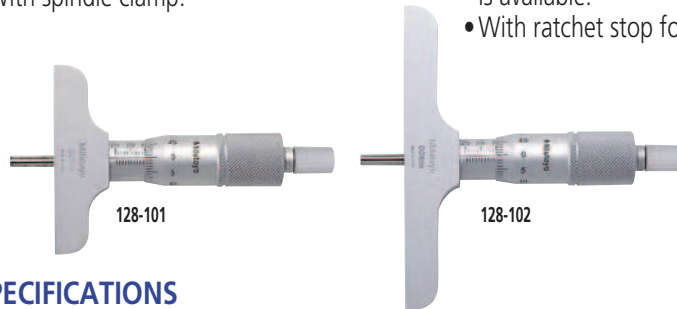


Depth Micrometer

SERIES 128

FEATURES

- $\phi 4$ mm measuring face.
- With spindle clamp.
- With carbide-tipped measuring face model is available.
- With ratchet stop for constant force.



128-101

128-102

SPECIFICATIONS

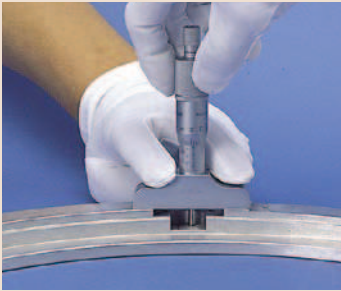
Metric		
Range	Order No.	Remarks (base)
0 - 25mm	128-101	63.5 x 16mm
0 - 25mm	128-103*	63.5 x 16mm
0 - 25mm	128-102	101.6 x 16mm
0 - 25mm	128-104*	101.6 x 16mm

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

*with carbide-tipped measuring rod

Technical Data

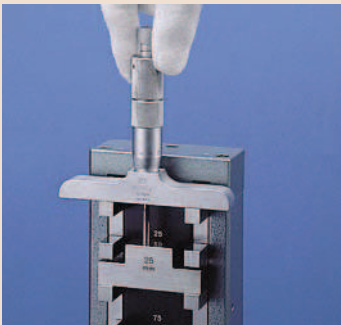
Accuracy: $\pm 3\mu\text{m}$ for micrometer head feed
 Graduation: 0.01mm or .001"
 Flatness of reference face: 1.3 μm for 63.5mm width base,
 2 μm for 101.6mm width base
 Flatness of measuring rod face: 0.3 μm



(Refer to the page 9 for details.)

Technical Data

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

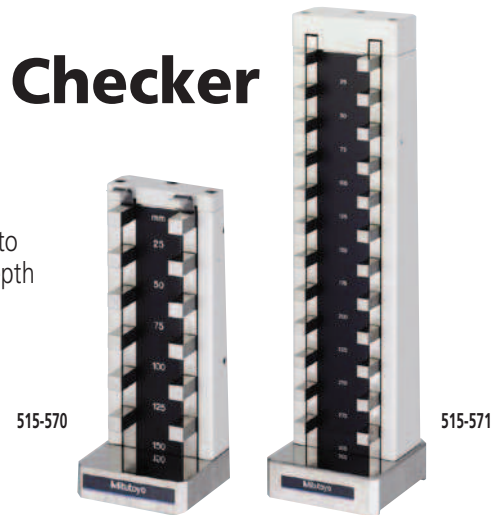


Depth Micro Checker

SERIES 515

FEATURES

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



515-570

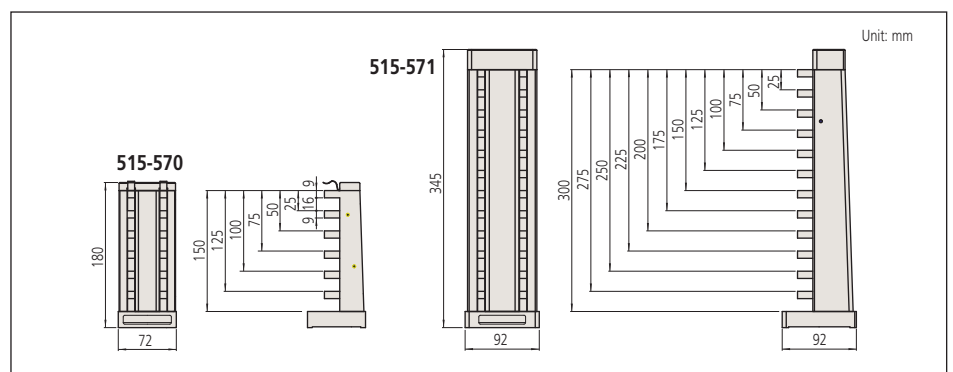
515-571

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"

DIMENSION

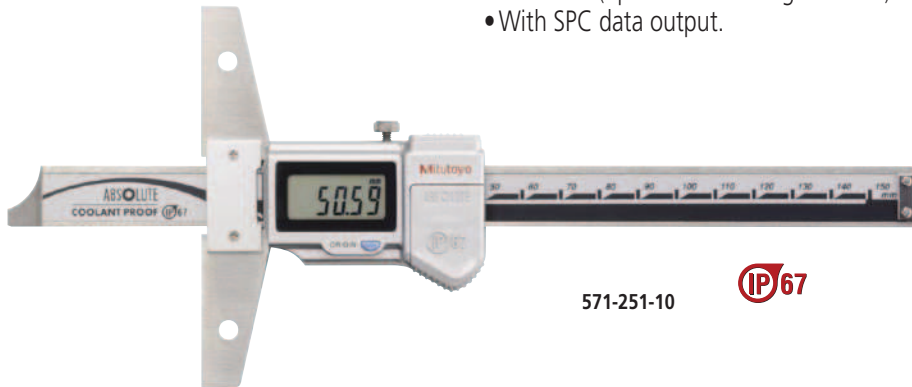


ABSOLUTE Digimatic Depth Gage

SERIES 571

FEATURES

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



SPECIFICATIONS

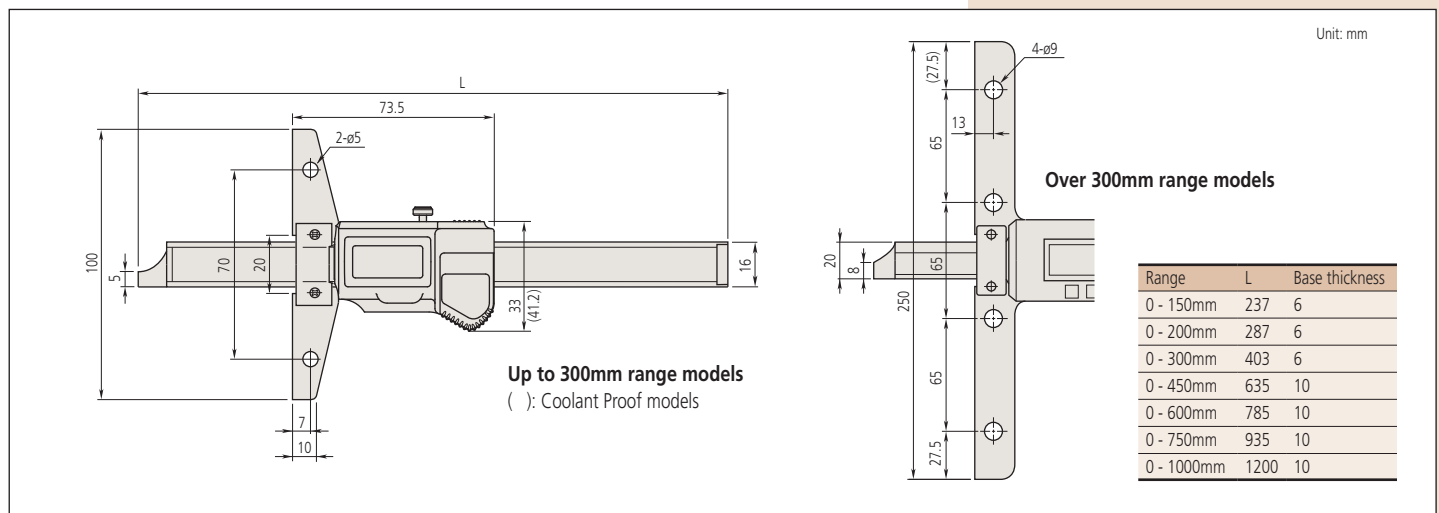
Metric		
Range	Order No.	Base (W x T)
0 - 150mm	571-201-20 / 571-251-10*	100 x 6mm
0 - 200mm	571-202-20 / 571-252-10*	100 x 6mm
0 - 300mm	571-203-20	100 x 6mm
0 - 450mm	571-204-10	250 x 10mm
0 - 600mm	571-205-10	250 x 10mm
0 - 750mm	571-206-10	250 x 10mm
0 - 1000mm	571-207-10	250 x 10mm

*IP67 Coolant Proof model

Inch/Metric		
Range	Order No.	Base (W x T)
0 - 6"	571-211-20 / 571-261-10*	3.93" x .23"
0 - 8"	571-212-20 / 571-262-10*	3.93" x .23"
0 - 12"	571-213-10	3.93" x .23"
0 - 18"	571-214-10	9.8" x .39"
0 - 24"	571-215-10	9.8" x .39"
0 - 30"	571-216-10	9.8" x .39"
0 - 40"	571-217-10	9.8" x .39"

*IP67 Coolant Proof model

DIMENSION



(Refer to the page 9 for details.)



(Refer to the page 9 for details.)

Technical Data

Accuracy: $\pm 0.02\text{mm}$ ($\leq 200\text{mm}$), $\pm 0.03\text{mm}$ ($\leq 300\text{mm}$), $\pm 0.05\text{mm}$ ($\leq 600\text{mm}$), $\pm 0.06\text{mm}$ ($\leq 750\text{mm}$), $\pm 0.07\text{mm}$ ($\leq 1000\text{mm}$) (excluding quantizing error)

Resolution: 0.01mm or .0005"/0.01mm

Repeatability: 0.01mm

Display: LCD

Length standard: ABSOLUTE electrostatic capacitance (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 (inch/mm models)

Alarm: Low voltage, Counting value composition error

Optional Accessory

- 959143:** Data hold unit
- 959149:** SPC cable with data switch (1m)
- 959150:** SPC cable with data switch (2m)
- 05CZA624:** SPC cable with data switch (1m)*
- 05CZA625:** SPC cable with data switch (2m)*
- : Extension base (see page 179.)

*For Coolant Proof models



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

Vernier Depth Gage

SERIES 527

FEATURES

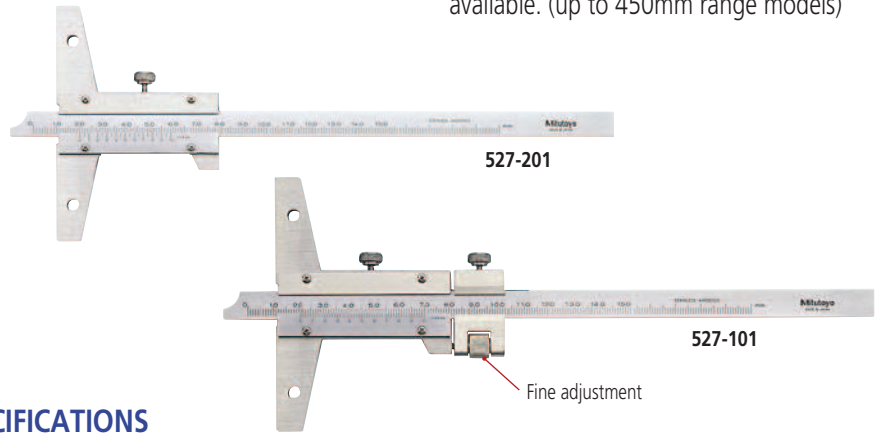
- Base and measuring faces are hardened and micro-lapped.
- Made of hardened stainless steel.
- Optional wider extension base are available. (up to 450mm range models)

Technical Data

Accuracy: Refer to the list of specifications.
 Graduation: 0.05mm, 0.02mm or .001"

Optional Accessory

—: Extension base (see page 179.)



SPECIFICATIONS

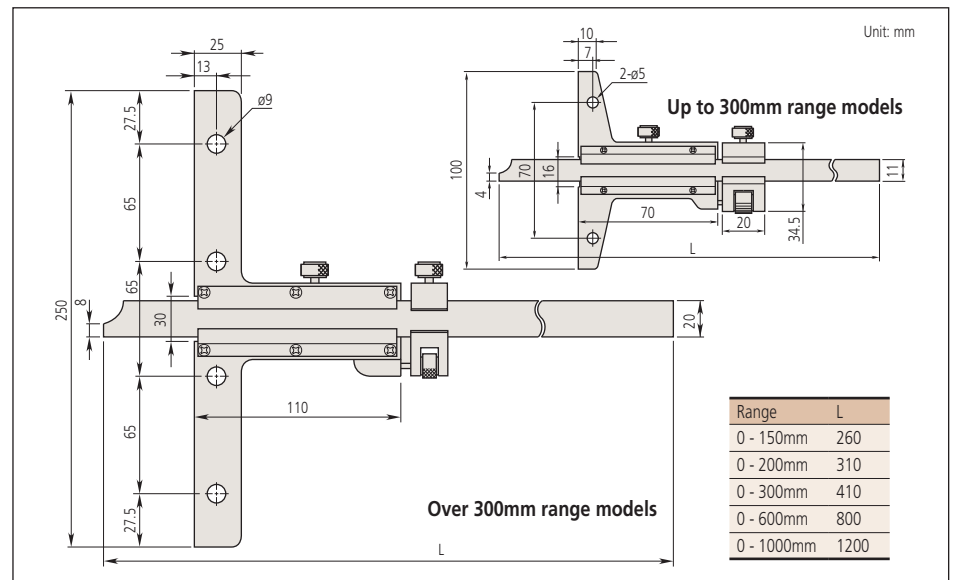
Metric

Range	Order No.	Vernier reading	Accuracy	Remarks [base (W x T) / others]
0 - 150mm	527-201	0.05mm	±0.05mm	100 x 6.5mm —
0 - 150mm	527-121	0.02mm	±0.03mm	100 x 6.5mm —
0 - 150mm	527-101	0.02mm	±0.03mm	100 x 6.5mm with fine adjustment
0 - 200mm	527-202	0.05mm	±0.05mm	100 x 6.5mm —
0 - 200mm	527-122	0.02mm	±0.03mm	100 x 6.5mm —
0 - 200mm	527-102	0.02mm	±0.03mm	100 x 6.5mm with fine adjustment
0 - 300mm	527-203	0.05mm	±0.08mm	100 x 6.5mm —
0 - 300mm	527-123	0.02mm	±0.04mm	100 x 6.5mm —
0 - 300mm	527-103	0.02mm	±0.04mm	100 x 6.5mm with fine adjustment
0 - 600mm	527-204	0.05mm	±0.10mm	250 x 10mm —
0 - 600mm	527-104	0.02mm	±0.05mm	250 x 10mm with fine adjustment
0 - 1000mm	527-205	0.05mm	±0.15mm	250 x 10mm —
0 - 1000mm	527-105	0.02mm	±0.07mm	250 x 10mm with fine adjustment

Inch

Range	Order No.	Vernier reading	Accuracy	Remarks [base (W x T) / others]
0 - 6"	527-111	.001"	±.001"	3.93" x .25" with fine adjustment
0 - 8"	527-112	.001"	±.001"	3.93" x .25" with fine adjustment
0 - 12"	527-113	.001"	±.0015"	9.8" x .39" with fine adjustment
0 - 24"	527-114	.001"	±.002"	9.8" x .39" with fine adjustment
0 - 40"	527-115	.001"	±.003"	9.8" x .39" with fine adjustment

DIMENSION

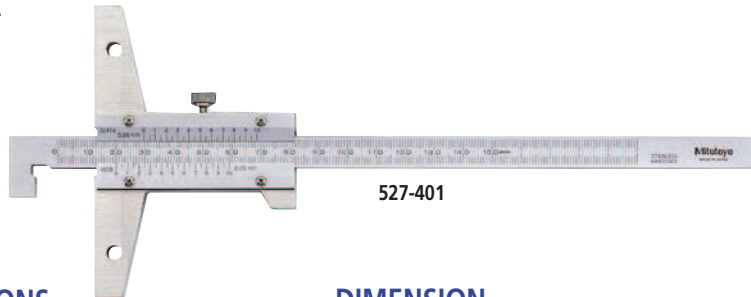


Vernier Depth Gage

SERIES 527 — Hook End Type

FEATURES

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

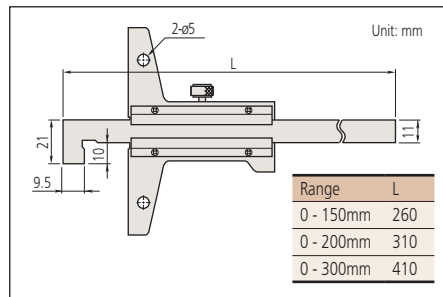


SPECIFICATIONS

Metric			
Range	Order No.	Vernier reading	Accuracy
0 - 150mm	527-401	0.05mm	±0.05mm
0 - 200mm	527-402	0.05mm	±0.05mm
0 - 300mm	527-403	0.05mm	±0.08mm

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

DIMENSION

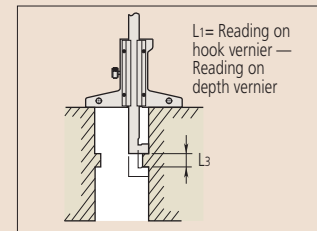
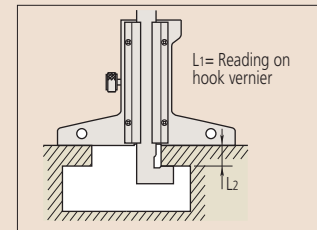
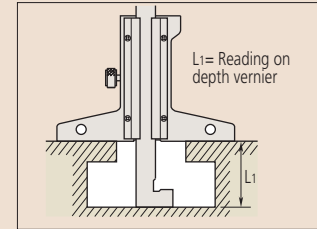


Technical Data

Accuracy: Refer to the list of specifications.
 Graduation: 0.05mm or 0.02mm
 Base size: 100 x 6.5mm (W x T)

Optional Accessory

—: Extension base (see page 179.)

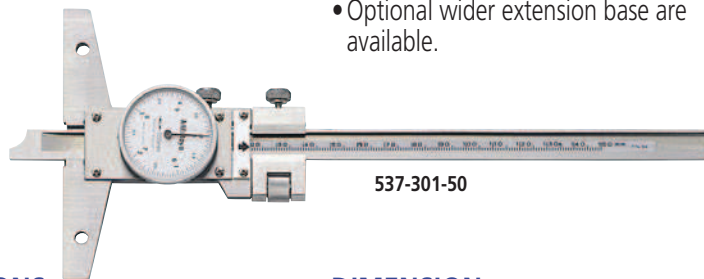


Dial Depth Gage

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.

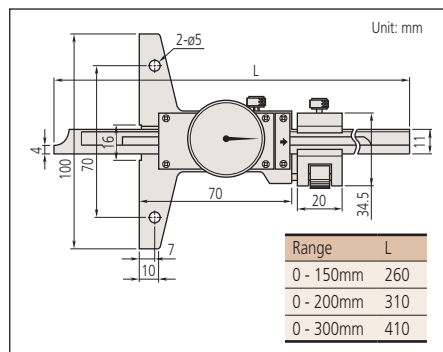


SPECIFICATIONS

Metric			
Range	Order No.	Dial reading	Accuracy
0 - 150mm	527-301-50	0.05mm	±0.05mm
0 - 200mm	527-302-50	0.05mm	±0.05mm
0 - 300mm	527-303-50	0.05mm	±0.08mm

Inch			
Range	Order No.	Dial reading	Accuracy
0 - 6"	527-311-50	.001"	±.001"
0 - 8"	527-312-50	.001"	±.001"
0 - 12"	527-313-50	.001"	±.0015"

DIMENSION

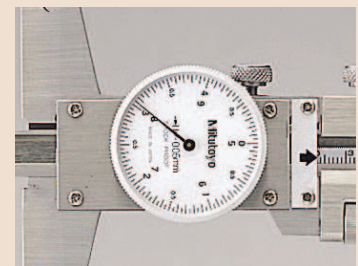


Technical Data

Accuracy: Refer to the list of specifications.
 Dial reading: 0.05mm or .001"
 Base size: 100 x 6.5mm (W x T)

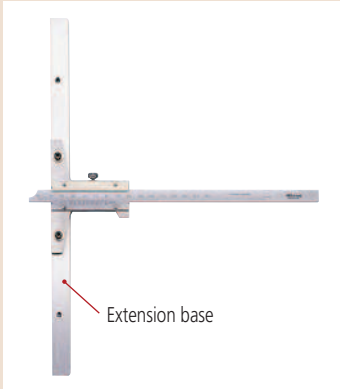
Optional Accessory

—: Extension base (see page 179.)

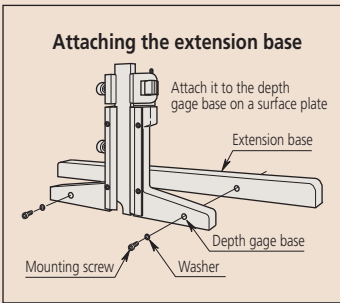


Extension Bases

Optional Accessory for Depth Gage



Extension base



Attaching the extension base

FEATURES

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



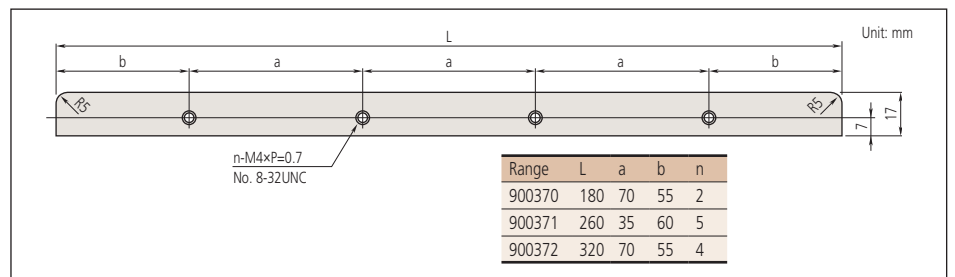
900372

SPECIFICATIONS

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

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

DIMENSION

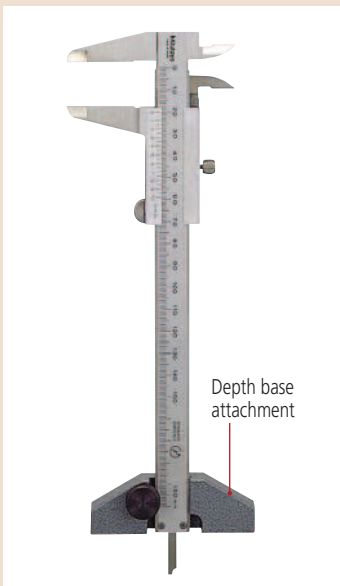


Depth Base Attachment

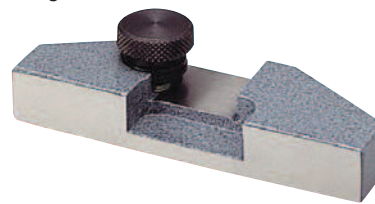
Optional Accessory for Caliper

FEATURES

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



Depth base attachment

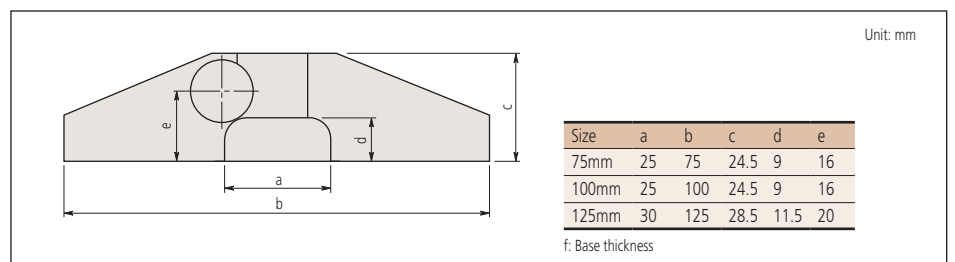


050084

SPECIFICATIONS

Metric		
Size	Order No.	Remarks (applicable measuring range of caliper)
75mm	050083	100mm, 15mm, 200mm, 4", 6" and 8"
100mm	050084	100mm, 15mm, 200mm, 4", 6" and 8"
125mm	050085	300mm and 12"

DIMENSION

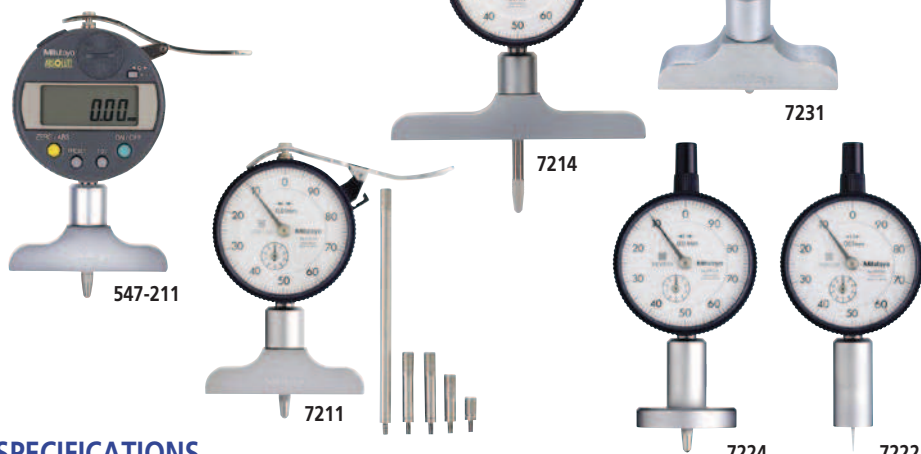


ABSOLUTE Digimatic/Dial Depth Gage

SERIES 547, 7

FEATURES

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



SPECIFICATIONS

Metric Digital Type					
Range	Order No.	Stroke	Accuracy	Extension rod	Base (W x T, flatness)
0 - 200mm	547-211	12mm	±20µm	5 pcs. (10, 20, 30, 30, 100mm)	63.5 x 16mm, 5µm
0 - 200mm	547-212	12mm	±20µm	5 pcs. (10, 20, 30, 30, 100mm)	101.6 x 16mm, 5µm
0 - 200mm	547-251	12mm	±5µm	5 pcs. (10, 20, 30, 30, 100mm)	63.5 x 16mm, 2µm
0 - 200mm	547-252	12mm	±5µm	5 pcs. (10, 20, 30, 30, 100mm)	101.6 x 16mm, 2µm

0.01mm graduation 0.001mm graduation

Inch/Metric Digital Type					
Range	Order No.	Stroke	Accuracy	Extension rod	Base (W x T, flatness)
0 - 8"	547-217	.5"	±.001"	4 pcs. (.5", 1", 2", 4")	2.5" x .63", .0002"
0 - 8"	547-218	.5"	±.001"	4 pcs. (.5", 1", 2", 4")	4" x .63", .0002"
0 - 8"	547-257	.5"	±.0003"	4 pcs. (.5", 1", 2", 4")	2.5" x .63", .00008"
0 - 8"	547-258	.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.	Stroke	Accuracy	Extension rod	Base (W x T, flatness)
0 - 10mm	7210*	10mm	±15µm	—	40 x 16mm, 5µm
0 - 200mm	7211	10mm	±15µm	5 pcs. (10, 20, 30, 30, 100mm)	63.5 x 16mm, 5µm
0 - 200mm	7212	10mm	±15µm	5 pcs. (10, 20, 30, 30, 100mm)	101.6 x 16mm, 5µm
0 - 210mm	7213	30mm	±30µm	3 pcs. (30, 60, 90mm)	63.5 x 16mm, 5µm
0 - 210mm	7214	30mm	±30µm	3 pcs. (30, 60, 90mm)	101.6 x 16mm, 5µm
0 - 200mm	7220	10mm	±15µm	5 pcs. (10, 20, 30, 30, 100mm)	100 x 18mm, 5µm
0 - 200mm	7221	10mm	±15µm	5 pcs. (10, 20, 30, 30, 100mm)	150 x 18mm, 5µm
0 - 10mm	7222*	10mm	±15µm	5 pcs. (10, 20, 30, 30, 100mm)	ø16mm, 5µm
0 - 10mm	7223	10mm	±15µm	5 pcs. (10, 20, 30, 30, 100mm)	ø25mm, 5µm
0 - 10mm	7224	10mm	±15µm	5 pcs. (10, 20, 30, 30, 100mm)	ø40mm, 5µm
0 - 200mm	7231	5mm	±15µm	5 pcs. (10, 20, 30, 30, 100mm)	63.5 x 16mm, 5µm

*with needle probe

Inch Dial Type					
Range	Order No.	Stroke	Accuracy	Extension rod	Base (W x T, flatness)
0 - .4"	7217S	1"	±.002"	4 pcs. (.5", 1", 2", 4")	2.5" x .63", .0002"
0 - .4"	7218S	1"	±.002"	4 pcs. (.5", 1", 2", 4")	4" x .63", .0002"
0 - 8"	7217	1"	±.002"	3 pcs. (1", 2", 4")	2.5" x .63", .0002"
0 - 8"	7218	1"	±.002"	3 pcs. (1", 2", 4")	4" x .63", .0002"
0 - 8"	7237	.2"	±.002"	4 pcs. (.5", 1", 2", 4")	2.5" x .63", .0002"
0 - 8"	7238	.2"	±.002"	4 pcs. (.5", 1", 2", 4")	4" x .63", .0002"



(Refer to the page 9 for details.)

Technical Data of Digital Mode

Accuracy: Refer to the list of specifications.
(excluding quantizing error for digital models)
Resolution: 0.001mm, 0.01mm, .00005"/0.001mm or .0005"/0.01mm
Flatness of base face: 5µm or 2µm
Contact point: Carbide-tipped ball point or needle
Measuring force: 1.5N
Display: LCD
Battery: SR44 (1 pc.), 938882
Battery life: Approx. 5000 hours under normal use

Technical Data of Dial Mode

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

Function of Digital Model

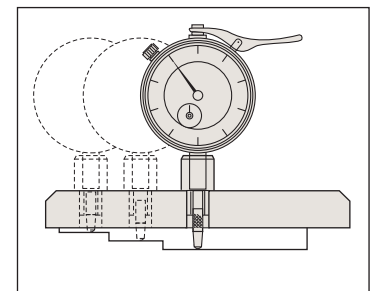
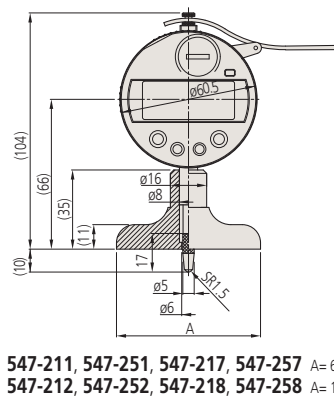
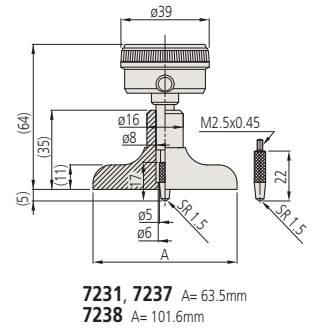
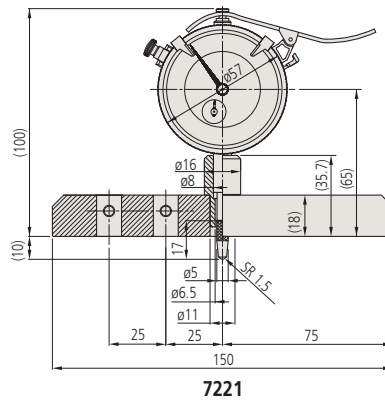
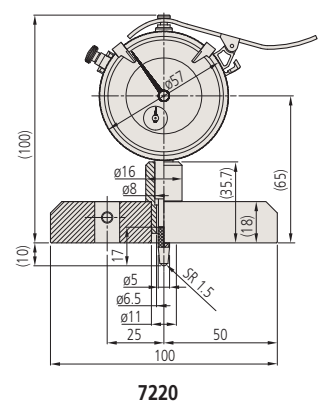
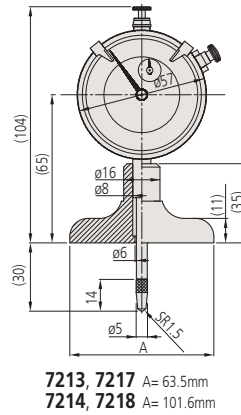
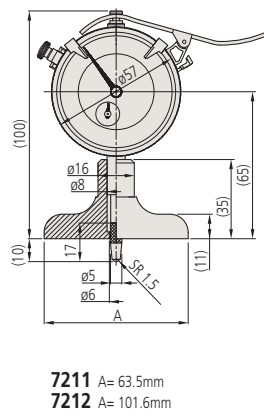
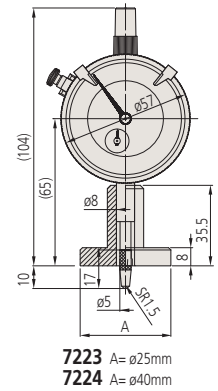
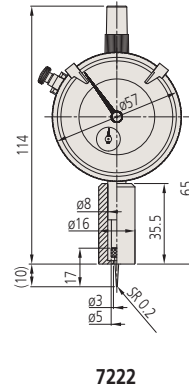
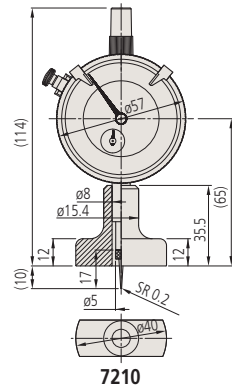
Origin-set, Zero-setting, Data hold, Data output, inch/mm conversion (inch/mm models)
Alarm: Low voltage, Counting value composition error

Optional Accessory for Digital Model

905338: SPC cable (1m)
905409: SPC cable (2m)

DIMENSION

Unit: mm



Tire Thread Depth Gage

SERIES 571, 700

FEATURES

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

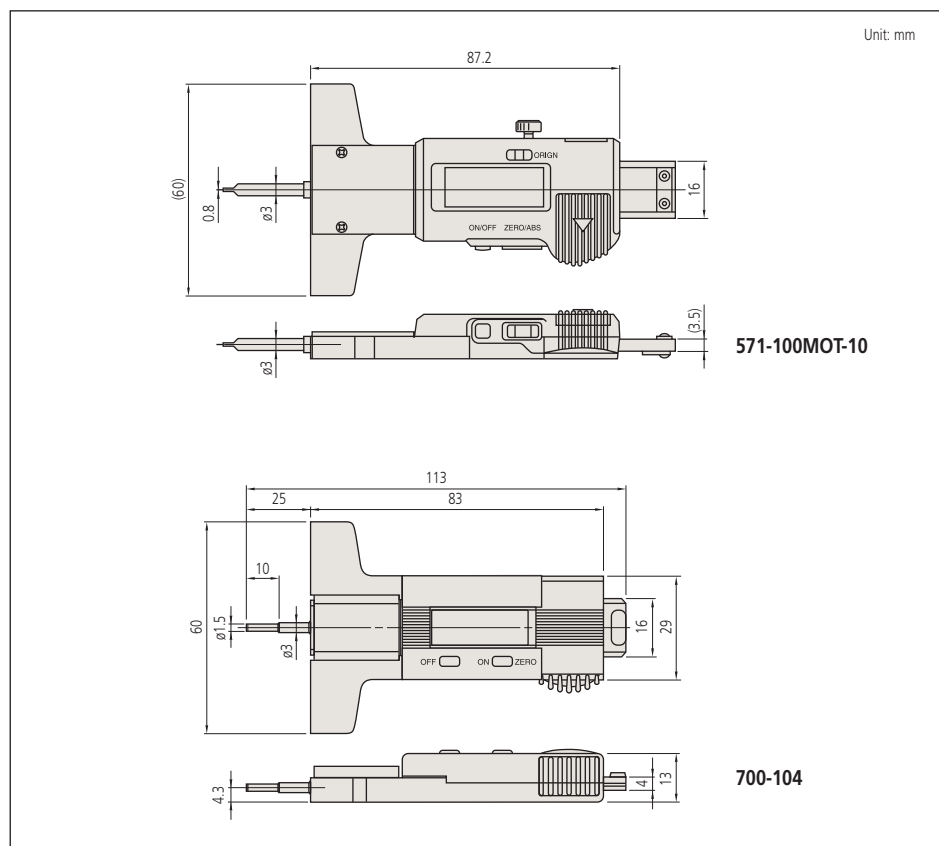


SPECIFICATIONS

Metric		
Range	Order No.	Accuracy
0 - 25mm	571-100MOT-10	±0.02mm
0 - 25mm	700-104	±0.2mm

Inch/Metric		
Range	Order No.	Accuracy
0 - 1"	571-200MOT-10	±.0005"
0 - 1"	700-105	±.008"

DIMENSION



SPC

ABSOLUTE[®]
Absolute System Patented by MITUTOYO

(Refer to the page 9 for details.)

Technical Data

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

Function

Origin-set*, Zero-setting, Data output* Power ON/OFF,
inch/mm conversion (inch/mm models)
Alarm: Low voltage, Counting value composition error
*series 571

Optional Accessory for series 571

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

