

# Depth Micrometer

## SERIES 329, 129 — Interchangeable Rod Type

### FEATURES

- $\varnothing 4\text{mm}$  interchangeable rods, with lapped measuring end, provide a wide measuring range in 25mm increments.
- Ratchet stop provides constant force.
- Measuring rod lock.
- SPC output (Series 329).



### SPECIFICATIONS

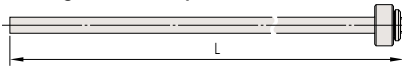
Metric	Digital model		
Range	Order No.	Base	No. of rods
0 - 150mm	329-250-10	101.6 x 16mm	6
0 - 300mm	329-251-10	101.6 x 16mm	12

Inch/Metric	Digital model		
Range	Order No.	Base	No. of rods
0 - 6"	329-350-10	4" x .63"	6
0 - 12"	329-351-10	4" x .63"	12

Metric			
Range	Order No.	Base	No. of rods
0 - 25mm	129-154	63.5 x 16mm	
0 - 25mm	129-155	101.6 x 16mm	
0 - 50mm	129-109	63.5 x 16mm	2
0 - 50mm	129-113	101.6 x 16mm	2
0 - 75mm	129-110	63.5 x 16mm	3
0 - 75mm	129-114	101.6 x 16mm	3
0 - 100mm	129-111	63.5 x 16mm	4
0 - 100mm	129-115	101.6 x 16mm	4
0 - 150mm	129-112	63.5 x 16mm	6
0 - 150mm	129-116	101.6 x 16mm	6
0 - 300mm	129-152	63.5 x 16mm	12
0 - 300mm	129-153	101.6 x 16mm	12

Inch			
Range	Order No.	Base	No. of rods
0 - 2"	129-129	4" x .63"	2
0 - 3"	129-126	2.5" x .63"	3
0 - 3"	129-130	4" x .63"	3
0 - 4"	129-127	2.5" x .63"	4
0 - 4"	129-131	4" x .63"	4
0 - 6"	129-128	2.5" x .63"	6
0 - 6"	129-132	4" x .63"	6
0 - 12"	129-149	2.5" x .63"	12
0 - 12"	129-150	4" x .63"	12

### Interchangeable rod (Optional Accessories)

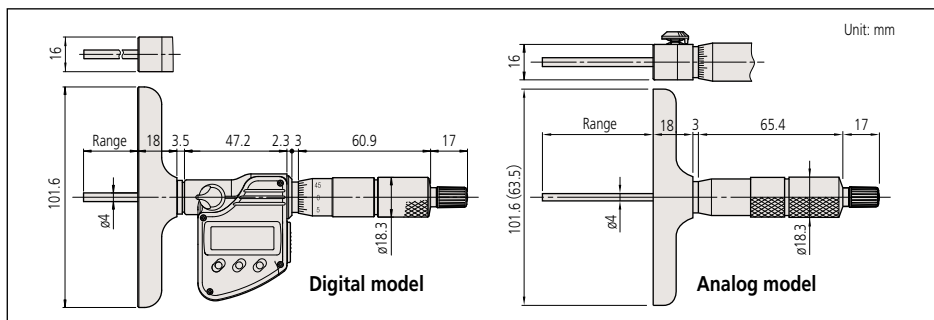


Range		0 - 25mm	25 - 50mm	50 - 75mm	75 - 100mm	100 - 125mm	125 - 150mm	150 - 175mm	175 - 200mm	200 - 225mm	225 - 250mm	250 - 275mm	275 - 300mm
For digital model	Order No.	983501	983503	983505	983507	983509	983511	983525	983527	983529	983531	983533	983535
	L	104mm	129mm	154mm	179mm	204mm	229mm	254mm	279mm	304mm	329mm	354mm	379mm
For analog model	Order No.	983505	983507	983509	983511	983525	983527	983529	983531	983533	983535	981781	981782
	L	154mm	179mm	204mm	229mm	254mm	279mm	304mm	329mm	354mm	379mm	404mm	429mm

Range		0 - 1"	1 - 2"	2 - 3"	3 - 4"	4 - 5"	5 - 6"	6 - 7"	7 - 8"	8 - 9"	9 - 10"	10 - 11"	11 - 12"
For digital model	Order No.	983502	983504	983506	983508	983510	983512	983526	983528	983530	983532	983534	983536
	L	104.3mm	129.7mm	155.1mm	180.5mm	205.9mm	231.3mm	256.7mm	282.1mm	307.5mm	332.9mm	358.3mm	383.7mm
For analog model	Order No.	983506	983508	983510	983512	983526	983528	983530	983532	983534	983536	981783	981784
	L	155.1mm	180.5mm	205.9mm	231.3mm	256.7mm	282.1mm	307.5mm	332.9mm	358.3mm	383.7mm	409.1mm	434.5mm

### DIMENSIONS



### Technical Data

Accuracy:  $\pm 3\mu\text{m}/\pm .00015"$  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)  
 $\pm [.0001+.00005 (R/3)]"$   
 R = Max. measuring length (inch)  
 Fraction rounded up

Resolution\*: 0.001mm or .00005"/0.001mm  
 (.0001"/0.001mm: **329-351-10**)

Graduation\*\*: 0.01mm or .001"

Flatness of reference face: 1.3 $\mu\text{m}$  (.00005") for 63.5mm (2.5") width base,  
 2 $\mu\text{m}$  (.0001") for 101.6mm (4") width base

Flatness of measuring rod face: 0.3 $\mu\text{m}$

Parallelism between reference face and measuring rod face: (4+L/50) $\mu\text{m}$ , L = Max. measuring length (mm)  
 $[.00016+.00004 (R/2)]"$ , R = Max. measuring length (inch)  
 Fraction rounded up

Measuring rod diameter:  $\varnothing 4\text{mm}$

Display\*: LCD

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

Battery life\*: Approx. 1.2 years under normal use

\*Digital models \*\*Analog models

### Functions of Digital Model

2-point Preset, Zero-setting, Data hold, Automatic power ON/OFF, Data output, Preset inch/mm conversion (inch/mm models) Function lock

Alarm: Low voltage, Counting value composition error

### Optional Accessories for Digital Model

- 05CZA662**: SPC cable with data switch (1m)
- 05CZA663**: SPC cable with data switch (2m)
- 02AZD790B**: SPC cable for U-WAVE w/ data switch (160mm)

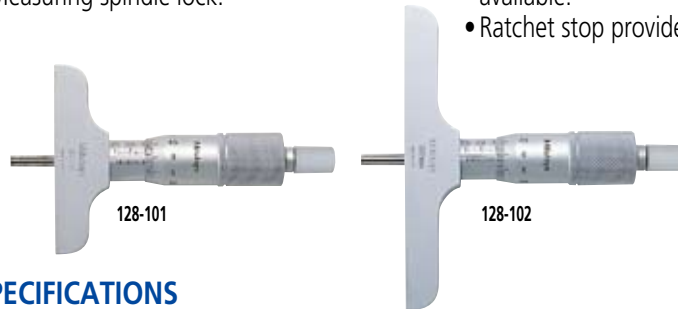


# Depth Micrometer

## SERIES 128

### FEATURES

- $\varnothing 4$ mm measuring spindle.
- Measuring spindle lock.
- Carbide-tipped measuring spindle model is available.
- Ratchet stop provides constant force.



### Technical Data

Accuracy:  $\pm 3\mu\text{m}$  ( $\pm .00015''$ ) for micrometer head feed  
 Graduation: 0.01mm or .001"  
 Flatness of reference face:  $1.3\mu\text{m}$  (.00005") for 63.5mm (2.5") width base,  $2\mu\text{m}$  (.00008") for 101.6mm (4") width base  
 Flatness of measuring rod face:  $0.3\mu\text{m}$



### SPECIFICATIONS

Metric		
Range	Order No.	Base
0 - 25mm	<b>128-101</b>	63.5 x 16mm
0 - 25mm	<b>128-103*</b>	63.5 x 16mm
0 - 25mm	<b>128-102</b>	101.6 x 16mm
0 - 25mm	<b>128-104*</b>	101.6 x 16mm

Inch		
Range	Order No.	Base
0 - 1"	<b>128-105</b>	2.5" x .63"
0 - 1"	<b>128-106</b>	4" x .63"

\*with carbide-tipped measuring spindle

# Depth Micro Checker

## SERIES 515

### FEATURES

- The Depth Micro Checker is designed to check and help set the range-end points of a depth micrometer.



(Refer to page VIII for details.)

### Technical Data

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

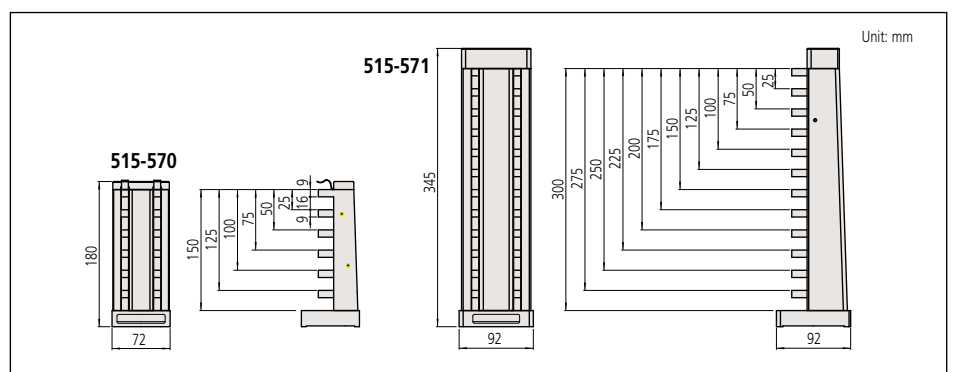


### SPECIFICATIONS

Metric		
Range	Order No.	Reference checking lengths available
0 - 150mm	<b>515-570</b>	25, 50, 75, 100, 125, 150mm
0 - 300mm	<b>515-571</b>	25, 50, 75, 100, 125, 150, 175, 200, 225, 250, 275, 300mm

Inch		
Range	Order No.	Reference checking lengths available
0 - 6"	<b>515-575</b>	1", 2", 3", 4", 5", 6"

### DIMENSIONS



# ABSOLUTE Digimatic Depth Gage

## SERIES 571

### FEATURES

- The ABSOLUTE Digimatic Depth Gage keeps 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 bases are available. (up to 450mm range models)
- SPC data output.



571-251-10 **IP67**



571-201-20

### SPECIFICATIONS

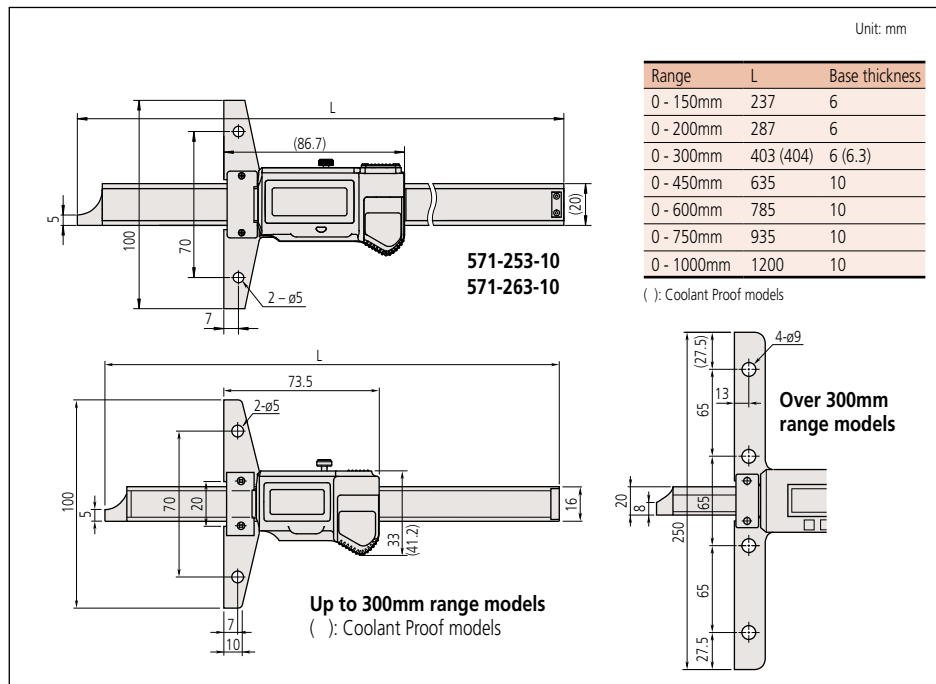
Metric		
Range	Order No.	Base (W x T)
0 - 150mm	<b>571-201-20 / 571-251-10*</b>	100 x 6mm
0 - 200mm	<b>571-202-20 / 571-252-10*</b>	100 x 6mm
0 - 300mm	<b>571-203-20 / 571-253-10*</b>	100 x 6 (6.3)mm
0 - 450mm	<b>571-204-10</b>	250 x 10mm
0 - 600mm	<b>571-205-10</b>	250 x 10mm
0 - 750mm	<b>571-206-10</b>	250 x 10mm
0 - 1000mm	<b>571-207-10</b>	250 x 10mm

\*IP67 Coolant Proof model

Inch/Metric		
Range	Order No.	Base (W x T)
0 - 6"	<b>571-211-20 / 571-261-10*</b>	3.93" x .23"
0 - 8"	<b>571-212-20 / 571-262-10*</b>	3.93" x .23"
0 - 12"	<b>571-213-10 / 571-263-10*</b>	3.93" x .23"
0 - 18"	<b>571-214-10</b>	9.8" x .39"
0 - 24"	<b>571-215-10</b>	9.8" x .39"
0 - 30"	<b>571-216-10</b>	9.8" x .39"
0 - 40"	<b>571-217-10</b>	9.8" x .39"

\*IP67 Coolant Proof model

### DIMENSIONS



(Refer to page VIII for details.)



(Refer to page VIII 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

Scale type: ABSOLUTE electrostatic (electromagnetic)\* type linear encoder

Max. response speed: Unlimited

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

Battery life: Approx. 20,000 hours [3 years (1 year: 300mm / 12" models)]\* under normal use

Dust/Water protection level: IP67\*

\*Coolant Proof models

### Functions

Origin-set, Zero-setting, Automatic power on/off, Data output, inch/mm conversion (inch/mm models)

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)

**02AZD790C:** SPC cable for U-WAVE w/ data switch (160mm)

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

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

**02AZD790A:** SPC cable for U-WAVE w/ data switch (160mm)\*

—: Extension base (see page D-55.)

\*For Coolant Proof models



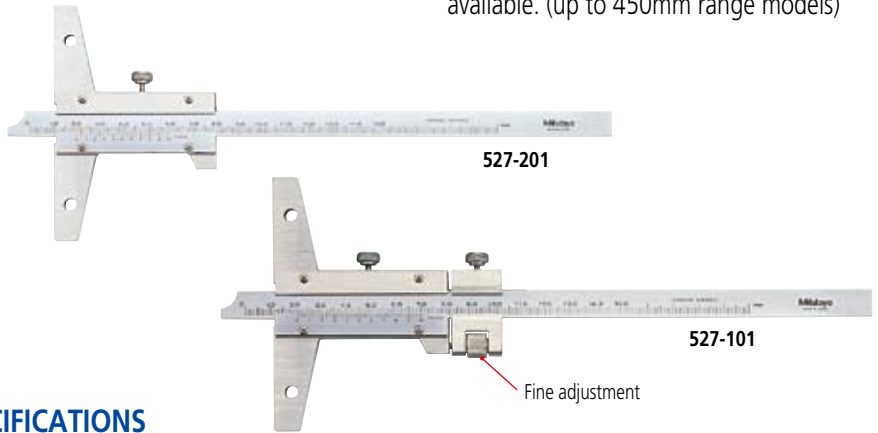
Measurement data output function is available with a water-resistant SPC cable.

# Vernier Depth Gage

## SERIES 527

### FEATURES

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



### Technical Data

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

### Optional Accessories

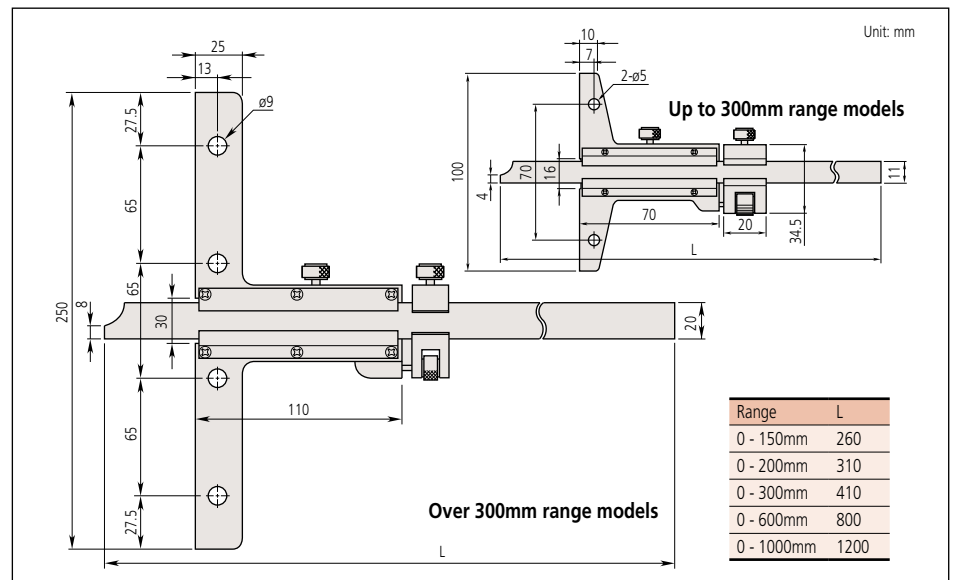
—: Extension base (see page D-55.)

### SPECIFICATIONS

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

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

### DIMENSIONS

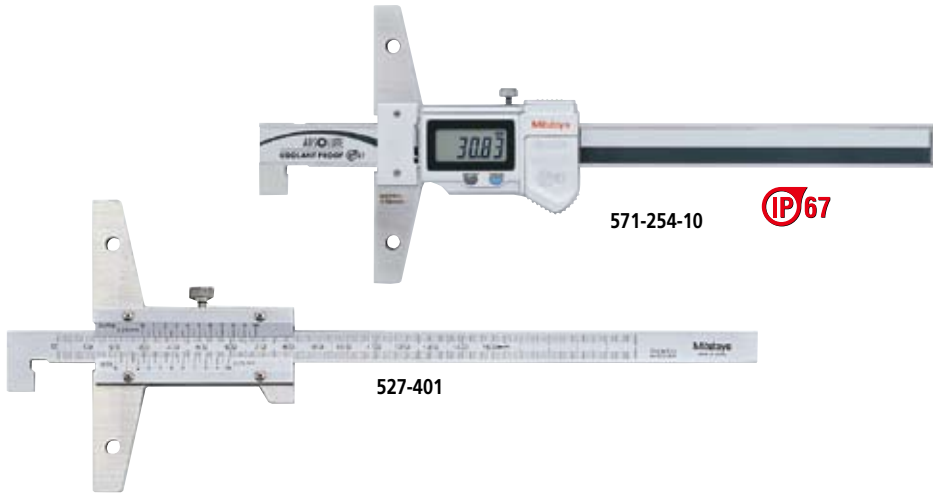


# Depth Gage

## SERIES 527, 571 — 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.
- Fine-adjustment models are available.
- Optional wider extension bases are available.
- SPC output (Series 571).



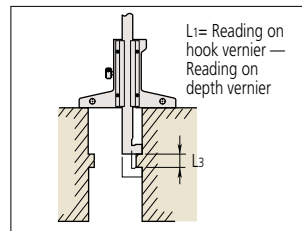
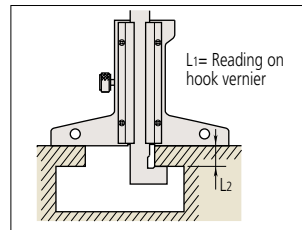
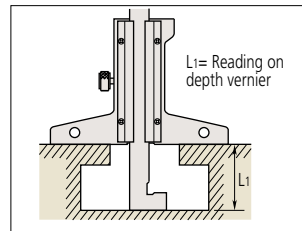
### SPECIFICATIONS

Metric		Digital model	
Range: L1 (L2 and L3)	Order No.	Resolution	Accuracy
10 - 160mm (0 - 150mm)	<b>571-254-10</b>	0.01mm	±0.03mm
10 - 210mm (0 - 200mm)	<b>571-255-10</b>	0.01mm	±0.03mm

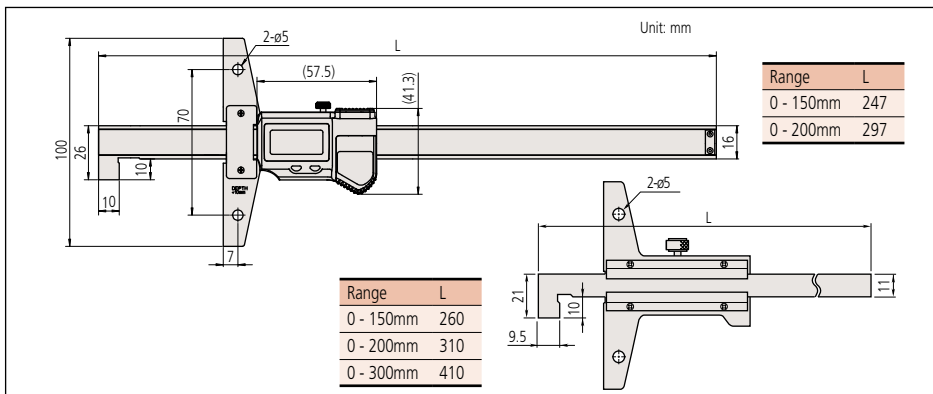
Inch/Metric		Digital model	
Range: L1 (L2 and L3)	Order No.	Resolution	Accuracy
.4" - 6.4" (0 - 6")	<b>571-264-10</b>	.0005" / 0.01mm	±0.03mm
.4" - 8.4" (0 - 8")	<b>571-265-10</b>	.0005" / 0.01mm	±0.03mm

Metric		with fine adjustment	
Range: L1 (L2 and L3)	Order No.	Vernier reading	Accuracy
10 - 150mm (0 - 150mm)	<b>527-401</b>	0.05mm	±0.05mm
10 - 200mm (0 - 200mm)	<b>527-402</b>	0.05mm	±0.05mm
10 - 300mm (0 - 300mm)	<b>527-403</b>	0.05mm	±0.08mm

Metric		with fine adjustment	
Range: L1 (L2 and L3)	Order No.	Vernier reading	Accuracy
10 - 150mm (0 - 150mm)	<b>527-411</b>	0.02mm	±0.03mm
10 - 200mm (0 - 200mm)	<b>527-412</b>	0.02mm	±0.03mm
10 - 300mm (0 - 300mm)	<b>527-413</b>	0.02mm	±0.04mm



### DIMENSIONS



(Refer to the VIII for details.)



(Refer to page VIII for details.)

### Technical Data

Accuracy: Refer to the list of specifications.  
(excluding quantizing error for digital models)  
Resolution\*: 0.01mm or .0005"/0.01mm  
Graduation\*\*: 0.05mm or 0.02mm  
Repeatability\*: 0.01mm  
Display\*: LCD  
Scale type\*: ABSOLUTE electromagnetic linear encoder  
Max. response speed\*: Unlimited  
Battery\*: SR44 (1 pc.), **938882**  
Battery life\*: Approx. 3 years under normal use  
Dust/Water protection level\*: IP67  
\*Digital models \*\*Analog models

### Functions of Digital Model

Origin-set, Zero-setting, 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 (1m)\*  
**05CZA625**: SPC cable with data switch (2m)\*  
**02AZD790A**: SPC cable for U-WAVE w/ data switch (160mm)\*  
\_\_\_\_\_ : Extension base (see page D-55.)

\*For digital models

# Dial Depth Gage

**SERIES 527 — with Fine Adjustment**

## 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



## FEATURES

- Easy-to-read dial.
- Made of hardened stainless steel.
- Base and measuring faces are hardened and micro-lapped.
- Optional wider extension bases are available.



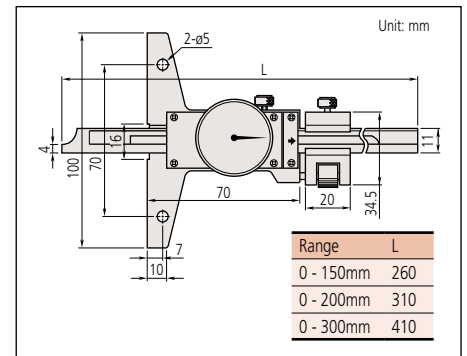
527-301-50

## SPECIFICATIONS

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

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

## DIMENSIONS



# Extension Bases

**Optional Accessories for Depth Gage**

## FEATURES

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



Extension base



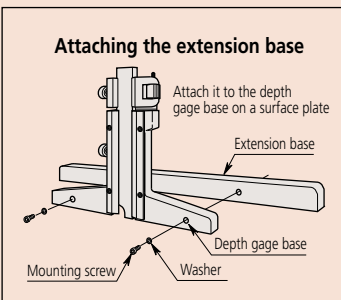
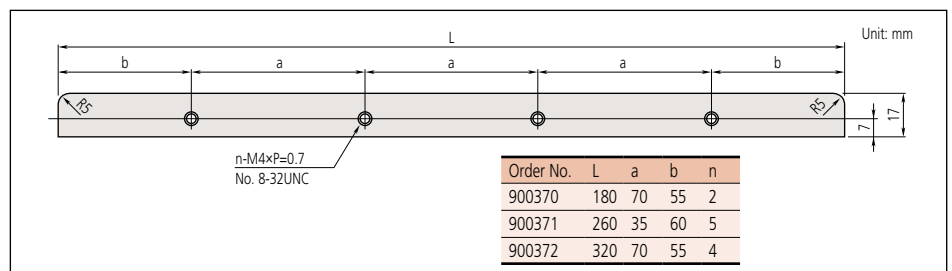
900372

## SPECIFICATIONS

Metric			
Size L	Order No.	Dimensions a, b	n
180mm	<b>900370</b>	70mm, 55mm	2
260mm	<b>900371</b>	35mm, 60mm	5
320mm	<b>900372</b>	70mm, 55mm	4

Inch			
Size L	Order No.	Dimensions a, b	n
7"	<b>900367</b>	2.76", 2.17"	2
10"	<b>900368</b>	1.38", 2.36"	5
12"	<b>900369</b>	2.76", 2.17"	4

## DIMENSIONS

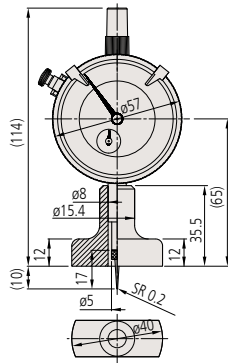




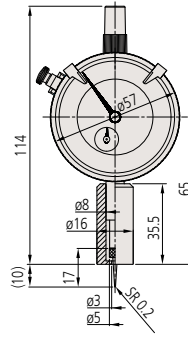


## DIMENSIONS

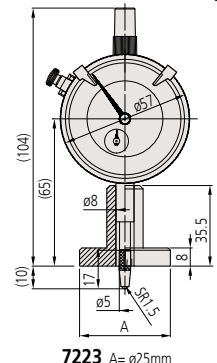
Unit: mm



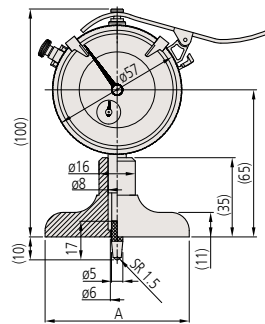
**7210**



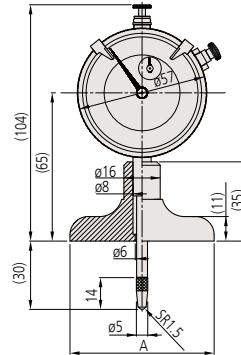
**7222**



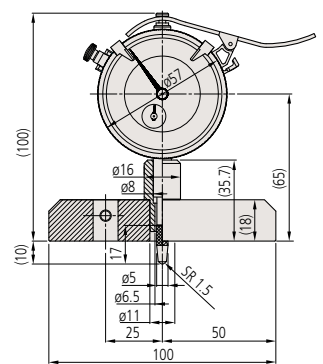
**7223** A= ø25mm  
**7224** A= ø40mm



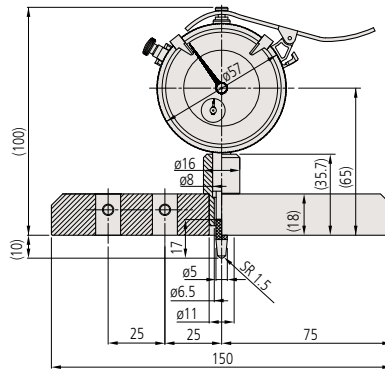
**7211** A= 63.5mm  
**7212** A= 101.6mm



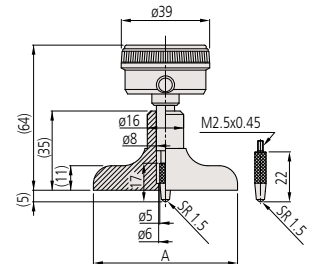
**7213, 7217S** A= 63.5mm  
**7214, 7218S** A= 101.6mm



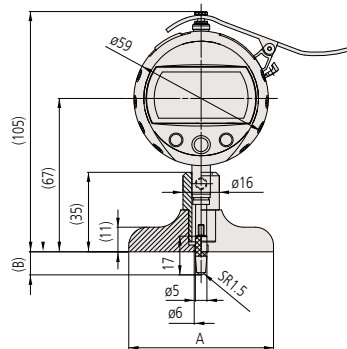
**7220**



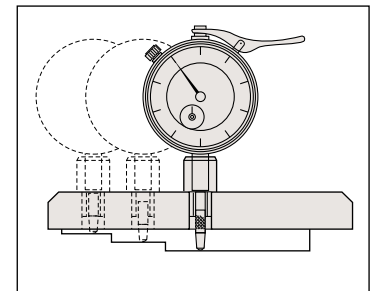
**7221**



**7231, 7237** A= 63.5mm  
**7238** 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  
**(547-211, 547-212, 547-251, 547-252** B= 12mm  
**547-217S, 547-218S, 547-257S, 547-258S** B= 12.9mm)





# Tire Tread Depth Gage

**SERIES 571, 700**

## FEATURES

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



700-104

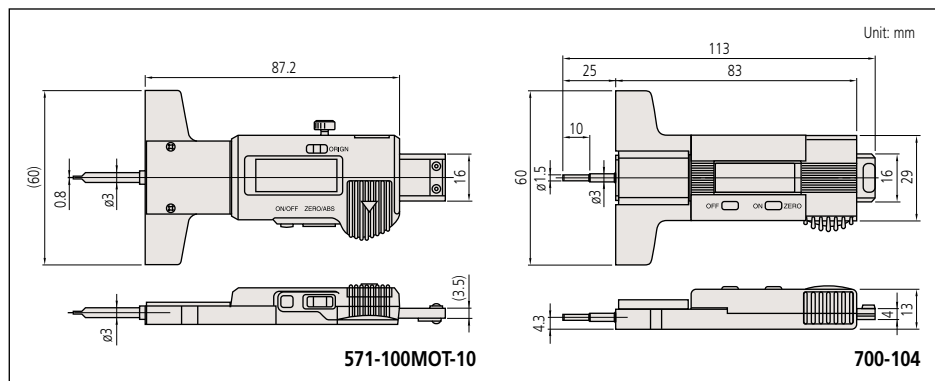


## SPECIFICATIONS

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

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

## DIMENSIONS



571-100MOT-10

700-104

# Depth Base Attachment

**Optional Accessory for Calipers**

## 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.



050084-10



Depth base attachment

## SPECIFICATIONS

Metric		
Size	Order No.	Applicable measuring range of caliper
75mm	<b>050083-10</b>	100mm, 15mm, 200mm, 4", 6" and 8"
100mm	<b>050084-10</b>	100mm, 15mm, 200mm, 4", 6" and 8"
125mm	<b>050085-10</b>	300mm and 12"



Absolute System Patented by MITUTOYO

(Refer to page VIII for details.)

## Technical Data

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

## Functions

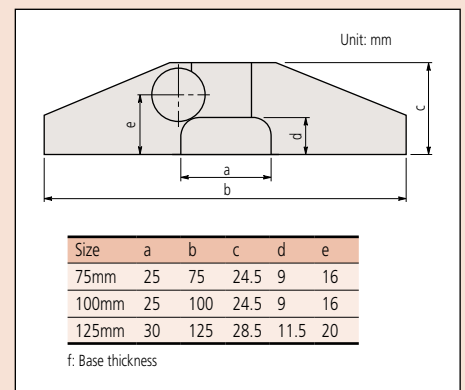
Origin-set\*, Zero-setting, Data output\* Power ON/OFF, inch/mm conversion (inch/mm models)  
 Alarm: Low voltage, Counting value composition error  
 \* Series 571

## Optional Accessories for Series 571

- 959143:** Data hold unit
- 959149:** SPC cable with data switch (1m)
- 959150:** SPC cable with data switch (2m)
- 02AZD790C:** SPC cable for U-WAVE w/ data switch (160mm)



## DIMENSIONS



Size	a	b	c	d	e
75mm	25	75	24.5	9	16
100mm	25	100	24.5	9	16
125mm	30	125	28.5	11.5	20

f: Base thickness