06

Depth Gages

MeasurLink® ENABLED
Data Management Software by Mitutoyo

Measurement Data Network System

MeasurLink® is a measurement data management system based on databases (SQL Server). You can build a network to manage the measurement results and measuring instruments simply by combining the required functions.

MeasurLink® is a registered trademark of Mitutoyo Corporation in Japan and Mitutoyo America Corporation in the United States.

U-WAVE fit

Measurement Data Wireless Communication System

Bluetooth® communication enables wireless transfer of measurement data from Digimatic micrometers and callipers to PCs, smartphones, tablets and such other devices.

IP67

IP Codes

The code indicates the degree of protection against the ingress of foreign materials and water as defined in the IEC standard (IEC 60529). The number indicates the protection level.
(Refer to page 3)

TÜVRheinland CERTIFIED — Dust- and Water-Protected — www.tuv.com ID 0000040191

TÜV Rheinland Certification Marks

All products with the marks have passed the IP test carried out by the German accreditation organization, TÜV Rheinland.

Mitutoyo guarantees the product quality. PROPRIETARY INSPECTION CERTIFICATE

Measuring Instruments Shipped with Inspection Certificate

Mitutoyo guarantees product quality as a leading precision measuring instrument manufacturer and ships measuring instruments with an inspection certificate that includes inspection data so that customers can use them with confidence.

ABSOLUTE™

ABSOLUTE Linear Encoder

Mitutoyo developed the unique ABSOLUTE method to retain position information after the power is turned off.
The origin is set once - thereafter the live position is displayed when the power is turned on.

Depth Micrometer

ABSOLUTE Digimatic Depth Gage

Dial Depth Gage

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Depth Micrometer

Depth Gage (Caliper type)

Depth Gage (Indicator type)

MeasurLink® ENABLED
Data Management Software by Mitutoyo

U-WAVE fit

Depth Micrometer
SERIES 329, 129 — Interchangeable Rod Type

- Interchangeable rods provide a wide measuring range.
- Data output function allows integration into statistical process control and measurement systems. (Refer to page 09-3.)

329-250-30

SPECIFICATIONS

Metric

Code No.	Range (mm)	Resolution (mm)	Base (mm)	Spindle feed error (µm)	Flatness of reference surface (base) (µm)	Flatness of measuring face (rod) (µm)	Parallelism between reference face and measuring rod face (µm)	Zero point error of rods (µm)	No. of rods
Digimatic (LCD)									
329-250-30	0 - 150	0.001	101.6x16	3	2	0.3	7	±4	6
329-251-30	0 - 300						10	±6	12

Inch / Metric

Code No.	Range (in)	Resolution	Base (in)	Spindle feed error	Flatness of reference surface(base) (in)	Flatness of measuring face (rod) (in)	Parallelism between reference face and measuring rod face (in)	Zero point error of rods (in)	No. of rods
Digimatic (LCD)									
329-350-30	0 - 6	0.00005 in/ 0.001 mm	4x0.63	0.00015 in/ 3 µm	0.00008	0.000012	0.00035	±0.0002	6
329-351-30	0 - 12	0.0001 in/ 0.001 mm					0.0005	±0.0003	12

Metric

Code No.	Range (mm)	Graduation (mm)	Base (mm)	Spindle feed error (µm)	Flatness of reference surface (base) (µm)	Flatness of measuring face (rod) (µm)	Parallelism between reference face and measuring rod face (µm)	Zero point error of rods (µm)	No. of rods
Analog									
129-154	0 - 25	0.01	63.5x16	3	1.3	0.3	5	±3	1
129-155			101.6x16		2				
129-109	0 - 50		63.5x16		1.3				2
129-113			101.6x16		2				
129-110	0 - 75		63.5x16		1.3		6		3
129-114			101.6x16		2				
129-111	0 - 100		63.5x16		1.3			±4	4
129-115			101.6x16		2				
129-112	0 - 150		63.5x16		1.3		7		6
129-116			101.6x16		2				
129-152	0 - 300		63.5x16		1.3		10	±6	12
129-153			101.6x16		2				

Inch

Code No.	Range (in)	Graduation (in)	Base (in)	Spindle feed error (in)	Flatness of reference surface(base) (in)	Flatness of measuring face (rod) (in)	Parallelism between reference face and measuring rod face (in)	Zero point error of rods (in)	No. of rods
Analog									
129-129	0 - 2	0.001	4x0.63	0.00015	0.00008	0.000012	0.00025	±0.00015	2
129-126	0 - 3		2.5x0.63		0.00005		0.00030		3
129-130			4x0.63		0.00008				
129-127	0 - 4		2.5x0.63		0.00005			±0.00020	4
129-131			4x0.63		0.00008				
129-128	0 - 6		2.5x0.63		0.00005		0.00035		6
129-132			4x0.63		0.00008				
129-149	0 - 12		2.5x0.63		0.00005		0.00050	±0.00030	12
129-150			4x0.63		0.00008				
129-331	0 - 4		2.4x0.63		0.00005		0.00030	±0.00020	4
129-332	0 - 6						0.00035		6

- Power source: SR44 battery (1 pc.), **938882** included as standard (for operational checks)
- Battery life*: Approx. 2.4 years under normal use

* Digimatic models

- Position detection method: Electromagnetic induction ABSOLUTE encoder
- Standard Accessories: **301336** Spanner, **04GAA274** Spanner, **202863** Hex-Spanner

Functions of series 329

Origin point setting (ABS measurement system):
Resets the ABS origin at the current spindle position to the minimum value of the measuring range and switches to ABS mode.

Zero-setting (INC measurement system):
A brief press on the ZERO/ABS button sets display to zero at the current spindle position and switches to the incremental (INC) measuring mode. A longer press resets to the ABS measuring mode.

Hold:
Pressing the HOLD button freezes the current value in the display. This function is useful for preserving a measurement in situations of poor visibility where the instrument must be moved away from the workpiece before the reading can be recorded.

Data output:
Models equipped with this function have an output port for transferring measurement data to a Statistical Process Control (SPC) system.

Auto power ON / OFF:
The reading on the LCD disappears after this instrument is idle for about 20 minutes, but the reading and measurement mode are retained. Turning the spindle causes the reading to reappear.

Error alarm:
In case of an overflow on the LCD or a computing error, an error message appears on the LCD, and the measuring function stops. This prevents an instrument from giving an erroneous reading. Also, when the battery voltage drops to a certain level, the low-battery-voltage alarm annunciator appears well before the micrometer becomes unusable.

Function lock:
This function allows the PRESET (origin point setting) function and the ZERO (zero-setting) function to be locked to prevent these points being reset accidentally.

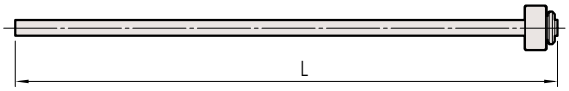
Optional Accessories

Code No.	Type	Description
264-020	—	USB Input Tool Series USB Keyboard Signal Conversion Type **IT-020U**
05CZA662	B	Connection cable (1 m)
05CZA663	B	Connection cable (2 m)
06AFM380B	B	USB Input Tool Direct (2 m)
02AZD730G	IP67	**U-WAVE-T**
02AZD880G	Buzzer	**U-WAVE-T**
02AZE200	—	**U-WAVE-T** mounting bracket
02AZD790B	B	Connection cable for **U-WAVE-T** (160 mm)
02AZE140B	B	Connection cable for **U-WAVE-T** For foot switch
264-622	IP67	**U-WAVE-TM**
264-623	Buzzer	**U-WAVE-TM**
264-626	IP67	**U-WAVE-TMB**
264-627	Buzzer	**U-WAVE-TMB**
02AZF310	IP67	Connecting unit for **U-WAVE-TM**

Depth Micrometer
SERIES 329, 129 — Interchangeable Rod Type

Interchangeable rod (Optional Accessories)

(Check and adjust the origin point before measurement)

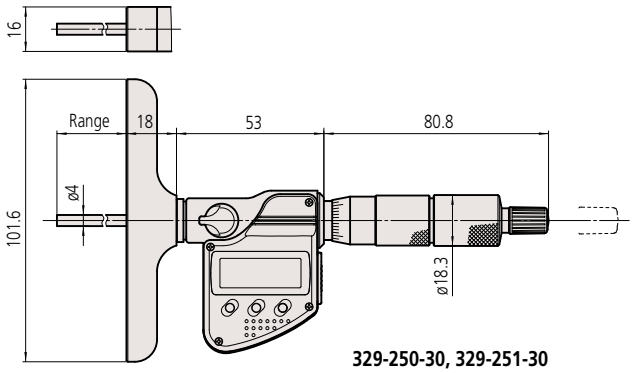


Range (mm)		0 - 25	25 - 50	50 - 75	75 - 100	100 - 125	125 - 150	150 - 175	175 - 200	200 - 225	225 - 250	250 - 275	275 - 300
Analog models	**Code No.**	**983501**	**983503**	**983505**	**983507**	**983509**	**983511**	**983525**	**983527**	**983529**	**983531**	**983533**	**983535**
	L (mm)	104	129	154	179	204	229	254	279	304	329	354	379
Digimatic models	**Code No.**	**983505**	**983507**	**983509**	**983511**	**983525**	**983527**	**983529**	**983531**	**983533**	**983535**	**981781**	**981782**
	L (mm)	154	179	204	229	254	279	304	329	354	379	404	429

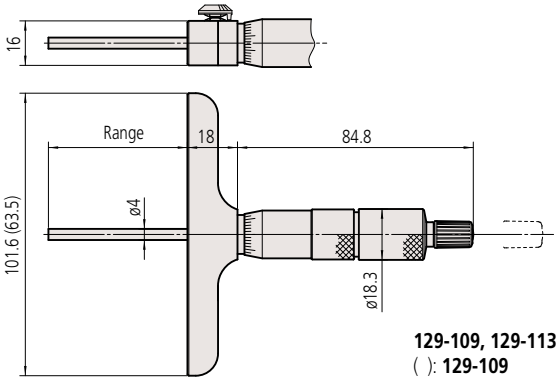
Range (in)		0 - 1	1 - 2	2 - 3	3 - 4	4 - 5	5 - 6	6 - 7	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12
Analog models	**Code No.**	**983502**	**983504**	**983506**	**983508**	**983510**	**983512**	**983526**	**983528**	**983530**	**983532**	**983534**	**983536**
	L (mm)	104.3	129.7	155.1	180.5	205.9	231.3	256.7	282.1	307.5	332.9	358.3	383.7
Digimatic models	**Code No.**	**983506**	**983508**	**983510**	**983512**	**983526**	**983528**	**983530**	**983532**	**983534**	**983536**	**981783**	**981784**
	L (mm)	155.1	180.5	205.9	231.3	256.7	282.1	307.5	332.9	358.3	383.7	409.1	434.5

DIMENSIONS

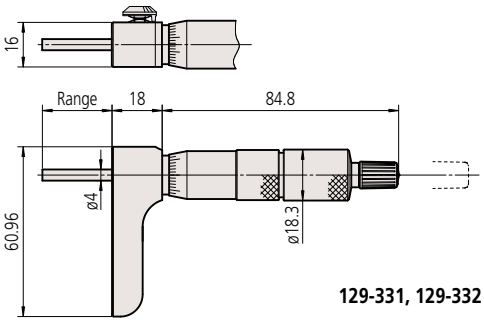
Unit: mm



329-250-30, 329-251-30



129-109, 129-113
( ): **129-109**



129-331, 129-332

Depth Micrometer
SERIES 128

- Measuring rod diameter: ø4 mm.
- With measuring rod clamp.
  Note: The clamp is unseen in the picture.
- Carbide-tipped measuring rod model is available.
- With ratchet stop for constant measuring force.

128-101

128-102

Measurement example

SPECIFICATIONS

Metric

Code No.	Range (mm)	Graduation (mm)	Maximum permissible error J_{MPE} (µm)	Flatness of reference surface (base) (µm)	Flatness of measuring face (rod) (µm)	Parallelism between reference face and measuring rod face (µm)	Base (mm)
128-101	0 - 25	0.01	±3	1.3	0.3	within 5	63.5x16
128-103*							
128-102				2			101.6x16
128-104*							

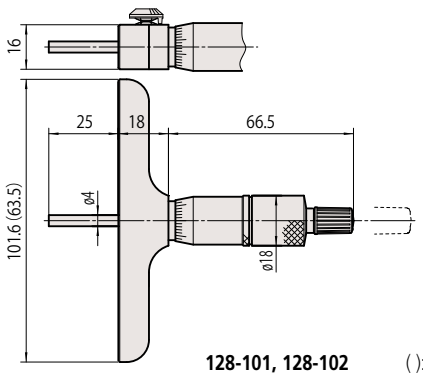
Inch

Code No.	Range (in)	Graduation (in)	Maximum permissible error J_{MPE} (in)	Flatness of reference surface (base) (in)	Flatness of measuring face (rod) (in)	Parallelism between reference face and measuring rod face (in)	Base (in)
128-105	0 - 1	0.001	±0.00015	0.000052	0.000012	within 0.00025	2.5x0.63
128-106				0.00008			4x0.63

• Standard Accessories: **301336** Spanner
* With carbide-tipped measuring rod

DIMENSIONS

Unit: mm



128-101, 128-102 ( ): **128-101**

Depth Micro Checker
SERIES 515

Measurement example

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

515-570

515-571

SPECIFICATIONS

Metric

Code No.	Range (mm)	Block pitch accuracy	Anvil block accuracy (µm)
515-570	0 - 150	±(1 + L/150) µm, L=Length to check (mm)	±0.5
515-571	0 - 300		

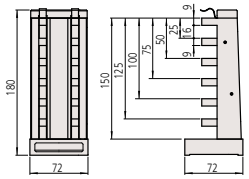
Inch

Code No.	Range (in)	Block pitch accuracy	Anvil block accuracy (µin)
515-575	0 - 6	±(40 + L/0.15) µin, L=Length to check (in)	±20

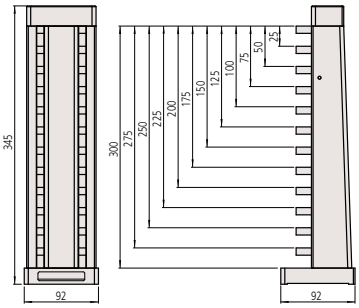
DIMENSIONS

Unit: mm

515-570



515-571



ABSOLUTE Digimatic Depth Gage SERIES 571

- Enables stable depth measurement with a resolution of 0.01 mm.
- Coolant proof type IP67 rated.
- Data output function allows integration into statistical process control and measurement systems.(Refer to page 09-3.)
- Optional longer extension bases are available.

571-252-20

SPECIFICATIONS

Metric

Code No.	Range (mm)	Resolution (mm)	Base (W×T) (mm)	Maximum permissible error E_{MPE} (mm)*1
571-251-20	0 - 150	0.01	100×6	±0.02
571-252-20	0 - 200			
571-253-20	0 - 300		100×6.3	±0.03

Inch / Metric

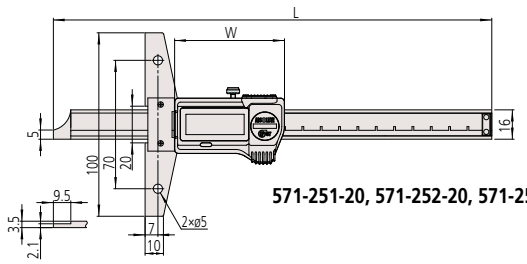
Code No.	Range (in)	Resolution	Base (W×T) (in)	Maximum permissible error E_{MPE} (in)*1
571-261-20	0 - 6	0.0005 in/ 0.01mm	3.93×0.23	±0.001 in/±0.02 mm
571-262-20	0 - 8			
571-263-20	0 - 12		3.93×0.25	±0.0015 in/±0.03 mm

- Dust/Water protection level: IP67*2
- Power source: SR44 battery (1 pc.), **938882** included as standard (for operational checks)
- Position detection method: ABSOLUTE electromagnetic inductive linear encoder
- Battery life: Approx. 5 years
- Response speed: Unlimited

*1 Maximum permissible error, E_{MPE}, is the term defined by ISO 13385-2:2011.
*2 Rustproofing shall be applied after use if caliper was in contact with coolant.

DIMENSIONS

Unit: mm



571-251-20, 571-252-20, 571-253-20

Range (mm)	L	W	Base thickness
0 - 150	239	59.2	6
0 - 200	289		
0 - 300	403	71	6.3

MeasurLink® ENABLED Data Management Software by Mitutoyo

U-WAVE fit

ABSOLUTE™

IP67

Dust- and Water-Protected TÜVRheinland CERTIFIED www.tuv.com ID 0000045042

Measurement example

Optional Accessories

Code No.	Type	Description
264-020	—	USB Input Tool Series USB Keyboard Signal Conversion Type **IT-020U**
05CZA624	A	Connection cable (1 m)
05CZA625	A	Connection cable (2 m)
06AFM380A	A	USB Input Tool Direct (2 m)
02AZD730G	IP67	**U-WAVE-T**
02AZD880G	Buzzer	**U-WAVE-T**
02AZE200	—	**U-WAVE-T** mounting bracket
02AZD790A	A	Connection cable for **U-WAVE-T** (160 mm)
02AZE140A	A	Connection cable for **U-WAVE-T** For foot switch
02AZE140C	C	Connection cable for **U-WAVE-T** For foot switch
264-620	IP67	**U-WAVE-TC**
264-621	Buzzer	**U-WAVE-TC**
264-624	IP67	**U-WAVE-TCB**
264-625	Buzzer	**U-WAVE-TCB**
02AZF310	IP67	Connecting unit for **U-WAVE-TC/TCB**
02AZF300	—	Connecting unit for **U-WAVE-TC**

MeasurLink® ENABLED
Data Management Software by Mitutoyo
U-WAVE fit
ABSOLUTE™

ABSOLUTE Digimatic Depth Gage SERIES 571

- Enables stable depth measurement with a resolution of 0.01 mm.
- Data output function allows integration into statistical process control and measurement systems.(Refer to page 09-3.)
- Optional longer extension bases are available.

571-201-30

Optional Accessories

Code No.	Type	Description
264-020	—	USB Input Tool Series USB Keyboard Signal Conversion Type **IT-020U**
959149	C	Connection cable (1 m)
959150	C	Connection cable (2 m)
06AFM380C	C	USB Input Tool Direct (2 m)
02AZD730G	IP67	**U-WAVE-T**
02AZD880G	Buzzer	**U-WAVE-T**
02AZE200	—	**U-WAVE-T** mounting bracket
02AZE140A	A	Connection cable for **U-WAVE-T** For foot switch
02AZD790C	C	Connection cable for **U-WAVE-T** (160 mm)
02AZE140C	C	Connection cable for **U-WAVE-T** For foot switch
264-620	IP67	**U-WAVE-TC**
264-621	Buzzer	**U-WAVE-TC***
264-624	IP67	**U-WAVE-TCB**
264-625	Buzzer	**U-WAVE-TCB***
02AZF300	—	Connecting unit for **U-WAVE-TC/TCB** (For models with a range up to 300 mm/12 in)
959143	—	Data hold unit

* Cannot be used with **571-20X-10** and **571-21X-10**.

SPECIFICATIONS

Metric

Code No.	Range (mm)	Resolution (mm)	Battery life	Base (W×T) (mm)	Maximum permissible error E_{MPE} (mm)*1
571-201-30	0 - 150	0.01	Approx. 5 years	100×6	±0.02
571-202-30	0 - 200				
571-203-30	0 - 300			100×6.3	±0.03
571-204-10*2	0 - 450		Approx. 3 years	250×10	±0.05
571-205-10*2	0 - 600				
571-206-10*2	0 - 750				±0.06
571-207-10*2	0 - 1000				±0.07

Inch / Metric

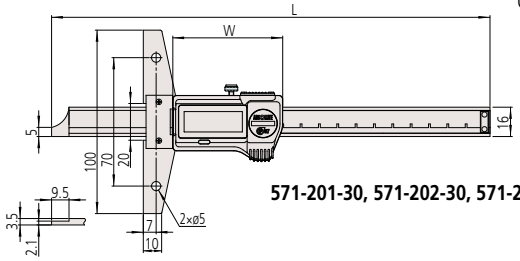
Code No.	Range (in)	Resolution	Battery life	Base (W×T) (in)	Maximum permissible error E_{MPE} (in)*1
571-211-30	0 - 6	0.0005 in/ 0.01mm	Approx. 5 years	3.93×0.23	±0.001 in/±0.02 mm
571-212-30	0 - 8				
571-213-30	0 - 12			3.93×0.25	±0.0015 in/±0.03 mm
571-214-10*2	0 - 18		Approx. 3 years	9.8×0.39	±0.002 in/±0.05 mm
571-215-10*2	0 - 24				
571-216-10*2	0 - 30				±0.0025 in/±0.06 mm
571-217-10*2	0 - 40				±0.0025 in/±0.07 mm

- Power source: SR44 battery (1 pc.), **938882** included as standard (for operational checks)
- Position detection method: Electrostatic capacity absolute sensor
- Response speed: Unlimited

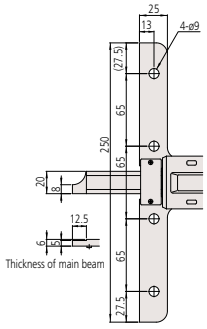
*1 Maximum permissible error, E_{MPE}, is the term defined by ISO 13385-2:2011.
*2 Cannot be used with **U-WAVE-TC**

DIMENSIONS

Unit: mm



571-201-30, 571-202-30, 571-203-30



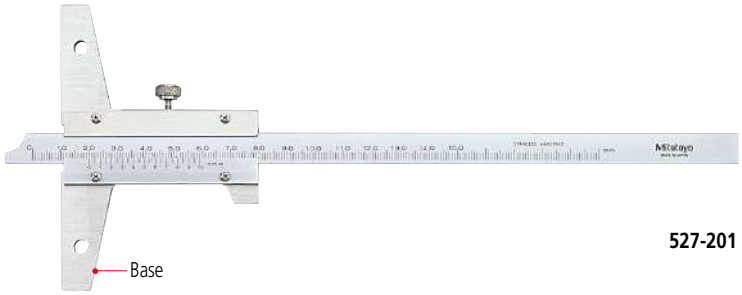
571-204-10, 571-205-10, 571-206-10, 571-207-10

Range (mm)	L	W	Base thickness
0 - 150	239	59.2	6
0 - 200	289		
0 - 300	403	71	6.3
0 - 450	635	94	10
0 - 600	785		
0 - 750	935		
0 - 1000	1200		

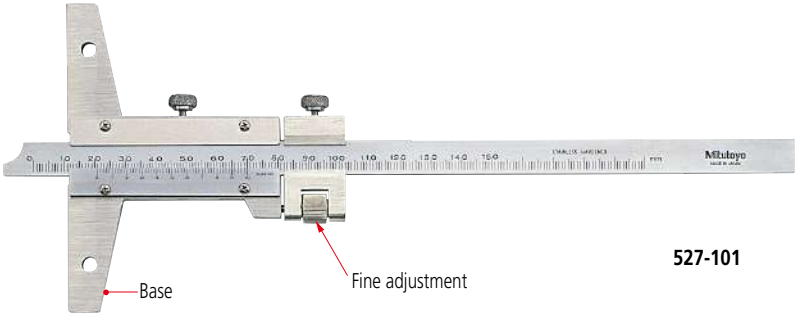
Mitutoyo

Vernier Depth Gage
SERIES 527

- Standard Vernier gage for depth measurement.
- Optional longer extension bases are available.



527-201



527-101

SPECIFICATIONS

Metric

Code No.	Range (mm)	Minimum reading (mm)	Base (W×T) (mm)	Maximum permissible error E_{MPE} (mm)*	Remarks
527-201	0 - 150	0.05	100×6.5	±0.05	—
527-202	0 - 200				
527-203	0 - 300			±0.08	
527-204	0 - 600		250×10	±0.10	
527-205	0 - 1000			±0.15	

Metric

Code No.	Range (mm)	Minimum reading (mm)	Base (W×T) (mm)	Maximum permissible error E_{MPE} (mm)*	Remarks
527-101	0 - 150	0.02	100×6.5	±0.03	with fine adjsutment
527-102	0 - 200				
527-103	0 - 300			±0.04	
527-104	0 - 600		250×10	±0.05	
527-105	0 - 1000			±0.07	

Metric

Code No.	Range (mm)	Minimum reading (mm)	Base (W×T) (mm)	Maximum permissible error E_{MPE} (mm)*	Remarks
527-121	0 - 150	0.02	100×6.5	±0.03	—
527-122	0 - 200				
527-123	0 - 300				

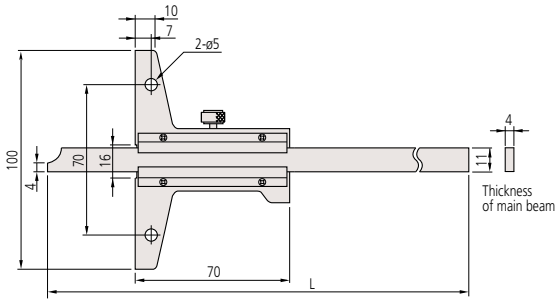
Inch

Code No.	Range (in)	Minimam reading (in)	Base (W×T) (in)	Maximum permissible error E_{MPE} (in)*	Remarks
527-111	0 - 6	0.001	3.93×0.25	±0.001	with fine adjustment
527-112	0 - 8				
527-113	0 - 12		9.8×0.39	±0.0015	
527-114	0 - 24			±0.002	
527-115	0 - 40			±0.003	

* Maximum permissible error, E_{MPE}, is the term defined by ISO 13385-2:2011.

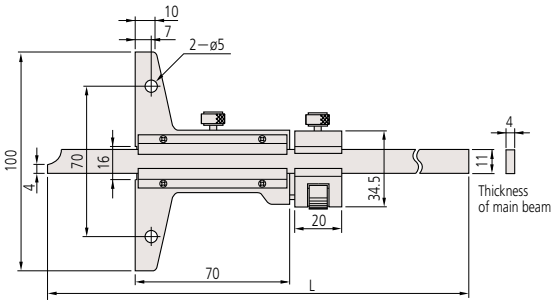
DIMENSIONS

Unit: mm



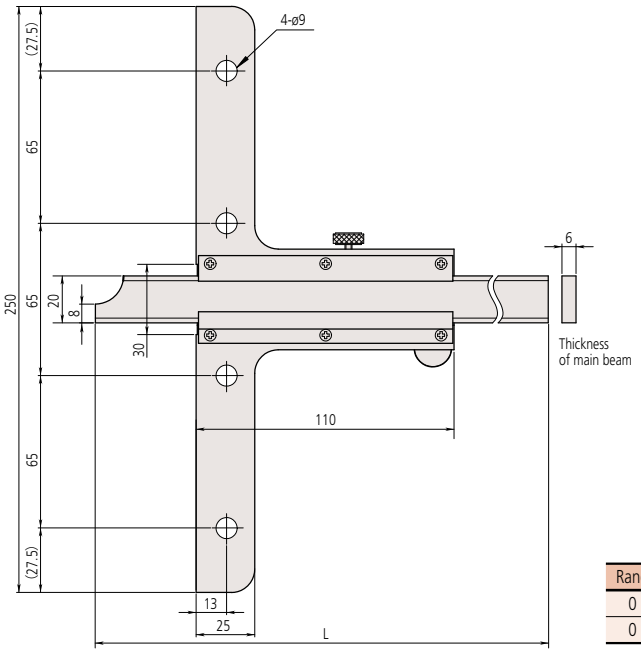
Range (mm)	L
0 - 150	260
0 - 200	310
0 - 300	410

527-201, 527-202, 527-203



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

527-101, 527-102, 527-103



Range (mm)	L
0 - 600	800
0 - 1000	1200

527-204, 527-205, 527-104, 527-105

Depth Gage
SERIES 571 — Hook-end Type

- 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.
- Direct reading of depth measurement is available due to the offset-value setting function.
- Coolant proof type IP67 rated.
- Optional longer extension bases are available.

571-254-20

SPECIFICATIONS

Metric

Code No.	Range (mm): L1 (L2 and L3)	Resolution (mm)	Base (W×T) (mm)	Maximum permissible error E_{MPE} (mm)*1
571-254-20	10.1 - 160 (0 - 150)	0.01	100×6	±0.03
571-255-20	10.1 - 210 (0 - 200)			

Inch / Metric

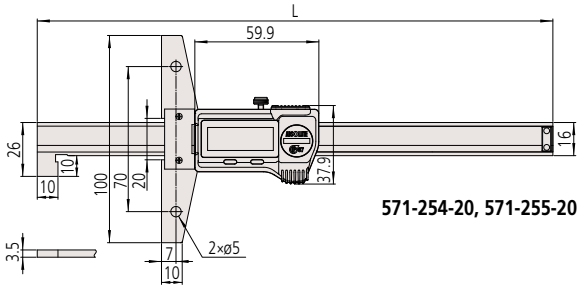
Code No.	Range: L1 (L2 and L3)	Resolution	Base (W×T) (mm)	Maximum permissible error E_{MPE}*1
571-264-20	0.4 in - 6.4 in (0 - 6 in)	0.0005 in/0.01 mm	100×6	±0.0015 in/±0.03 mm
571-265-20	0.4 in - 8.4 in (0 - 8 in)			

- Dust/Water protection level: IP67*2
- Power source: SR44 battery (1 pc.), **938882** included as standard (for operational checks)
- Position detection method: ABSOLUTE electromagnetic inductive linear encoder
- Battery life: Approx. 5 years
- Response speed: Unlimited

*1 Maximum permissible error, E_{MPE}, is the term defined by ISO 13385-2:2011.
*2 Rustproofing shall be applied after use if caliper was in contact with coolant.

DIMENSIONS

Unit: mm



571-254-20, 571-255-20

Range (mm)	L
0 - 150	249
0 - 200	299

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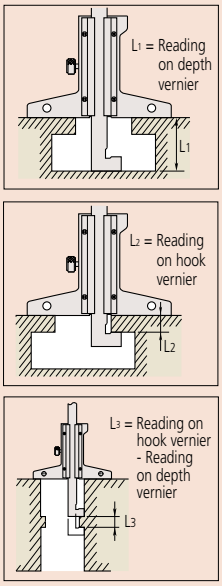
Typical applications

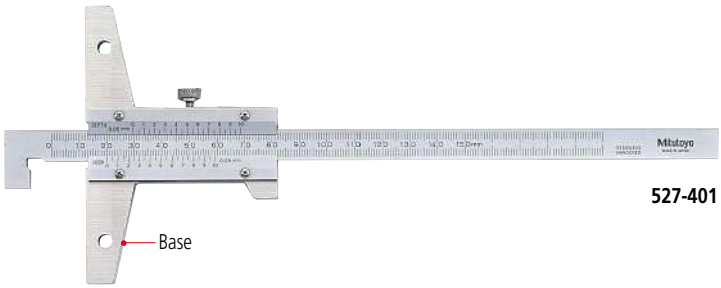


Optional Accessories

Code No.	Type	Description
264-020	—	USB Input Tool Series USB Keyboard Signal Conversion Type **IT-020U**
05CZA624	A	Connection cable (1 m)
05CZA625	A	Connection cable (2 m)
06AFM380A	A	USB Input Tool Direct (2 m)
02AZD730G	IP67	**U-WAVE-T**
02AZD880G	Buzzer	**U-WAVE-T**
02AZE200	—	**U-WAVE-T** mounting bracket
02AZD790A	A	Connection cable for **U-WAVE-T** (160 mm)
02AZE140A	A	Connection cable for **U-WAVE-T** For foot switch
264-620	IP67	**U-WAVE-TC**
264-621	Buzzer	**U-WAVE-TC**
264-624	IP67	**U-WAVE-TCB**
264-625	Buzzer	**U-WAVE-TCB**
02AZF310	IP67	Connecting unit for **U-WAVE-TC/TCB**

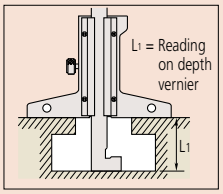
Depth Gage
SERIES 527 — Hook-end Type

- 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.
- Depth can be directly measured with the upper Vernier of the slider and thickness with the lower Vernier.
- Optional longer extension bases are available. (Refer to page 06-15.)

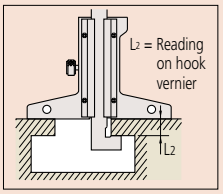


527-401

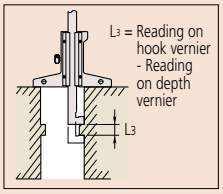
Typical applications



Vernier



Vernier



Vernier (both instances)

SPECIFICATIONS

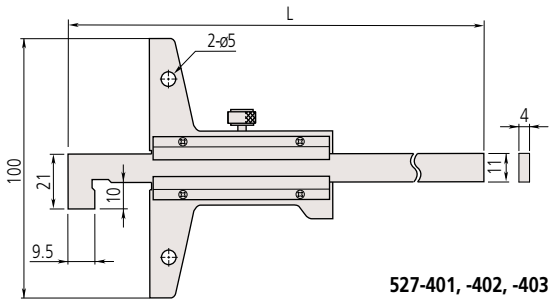
Metric

Code No.	Range (mm): L1 (L2 and L3)	Resolution/Graduation (mm)	Base (W×T) (mm)	Maximum permissible error E_{MPE} (mm)*
527-401	10 - 150 (0 - 150)	0.05	100×6.5	±0.05
527-402	10 - 200 (0 - 200)			
527-403	10 - 300 (0 - 300)			±0.08
527-411	10 - 150 (0 - 150)	0.02		±0.03
527-412	10 - 200 (0 - 200)			
527-413	10 - 300 (0 - 300)			±0.04

* Maximum permissible error, E_{MPE}, is the term defined by ISO 13385-2:2011.

DIMENSIONS

Unit: mm



527-401, -402, -403

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

Depth Gage
SERIES 571 — Pin-end Type

- ABSOLUTE Point-Type Digimatic Depth Gage is suitable for measuring inside narrow holes.
- Optional longer extension bases are available.
- Data output function allows integration into statistical process control and measurement systems.(Refer to page 09-3.)
- Coolant proof type IP67 rated.

571-302-20

SPECIFICATIONS

Metric

Code No.	Range (mm): L1 (L2 and L3)	Resolution (mm)	Base (W×T) (mm)	Maximum permissible error E_{MPE} (mm)*1
571-301-20	0 - 150	0.01	100×6	±0.02
571-302-20	0 - 200			

Inch / Metric

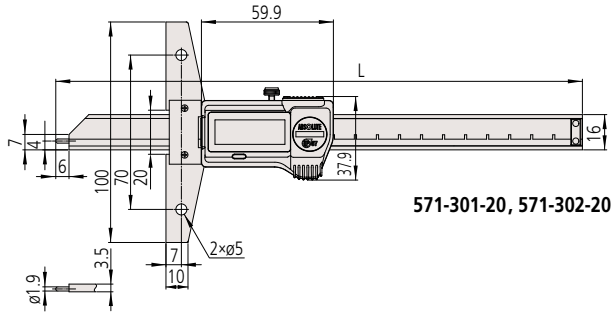
Code No.	Range: L1 (L2 and L3)	Resolution	Base (W×T) (mm)	Maximum permissible error E_{MPE}*1
571-311-20	0 - 150 mm/0 - 6 in	0.0005 in/0.01 mm	100×6	±0.001 in/±0.02 mm
571-312-20	0 - 200 mm/0 - 8 in			

- Dust/Water protection level: IP67*2
- Power source: SR44 battery (1 pc.), **938882** included as standard (for operational checks)
- Position detection method: ABSOLUTE electromagnetic inductive linear encoder
- Battery life: Approx. 5 years
- Response speed: Unlimited

*1 Maximum permissible error, E_{MPE}, is the term defined by ISO 13385-2:2011.
*2 Rustproofing shall be applied after use if caliper was in contact with coolant.

DIMENSIONS

Unit: mm



571-301-20, 571-302-20

Range (mm)	L
0 - 150	239
0 - 200	289

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Optional Accessories

Code No.	Type	Description
264-020	—	USB Input Tool Series USB Keyboard Signal Conversion Type **IT-020U**
05CZA624	A	Connection cable for **IT/DP/MUX** (1 m)
05CZA625	A	Connection cable for **IT/DP/MUX** (2 m)
06AFM380A	A	USB Input Tool Direct (2 m)
02AZD730G	IP67	**U-WAVE-T**
02AZD880G	Buzzer	**U-WAVE-T**
02AZE200	—	**U-WAVE-T** mounting bracket
02AZD790A	A	Connection cable for **U-WAVE-T** (160 mm)
02AZE140A	A	Connection cable for **U-WAVE-T** For foot switch
264-620	IP67	**U-WAVE-TC**
264-621	Buzzer	**U-WAVE-TC**
264-624	IP67	**U-WAVE-TCB**
264-625	Buzzer	**U-WAVE-TCB**
02AZF310	IP67	Connecting unit for **U-WAVE-TC/TCB**

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Mini Depth Gage
SERIES 571

- Digital display with 0.01 mm resolution.
- Enables measurement of tread depth.
- ABSOLUTE Digimatic Depth Gage.
- Data output function allows integration into statistical process control and measurement systems.(Refer to page 09-3.)
- Coolant proof type IP67 rated.

Measurement example

571-100-20

Optional Accessories

Code No.	Type	Description
264-020	—	USB Input Tool Series USB Keyboard Signal Conversion Type **IT-020U**
05CZA624	A	Connection cable for **IT/DP/MUX** (1 m)
05CZA625	A	Connection cable for **IT/DP/MUX** (2 m)
06AFM380A	A	USB Input Tool Direct (2 m)
02AZD730G	IP67	**U-WAVE-T**
02AZD880G	Buzzer	**U-WAVE-T**
02AZE200	—	**U-WAVE-T** mounting bracket
02AZD790A	A	Connection cable for **U-WAVE-T** (160 mm)
02AZE140A	A	Connection cable for **U-WAVE-T** For foot switch
264-620	IP67	**U-WAVE-TC**
264-621	Buzzer	**U-WAVE-TC**
264-624	IP67	**U-WAVE-TCB**
264-625	Buzzer	**U-WAVE-TCB**
02AZF310	IP67	Connecting unit for **U-WAVE-TC/TCB**

SPECIFICATIONS

Metric

Code No.	Range (mm)	Resolution (mm)	Base (mm)	Maximum permissible error E_{MPE} (mm)*1
571-100-20	0 - 25	0.01	60 (thickness 6.65)	±0.02

Inch/Metric

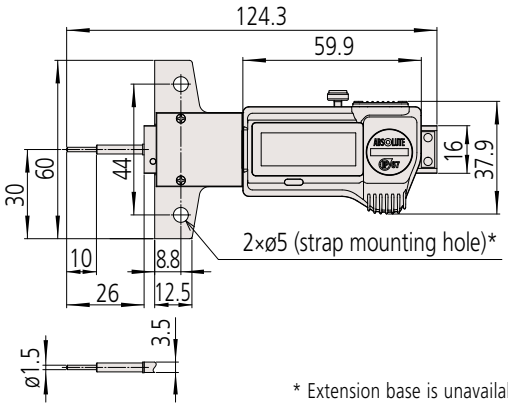
Code No.	Range (in)	Resolution (in)	Base (in)	Maximum permissible error E_{MPE} (in)*1
571-200-20	0 - 1	0.0005	2.36	±0.001

- Dust/Water protection level: IP67*2
- Power source: SR44 battery (1 pc.), **938882** included as standard (for operational checks)
- Position detection method: ABSOLUTE electromagnetic inductive linear encoder
- Battery life: Approx. 5 years under normal use.
- Response speed: Unlimited

*1 Maximum permissible error, E_{MPE}, is the term defined by ISO 13385-2:2011.
*2 Rustproofing shall be applied after use if caliper was in contact with coolant.

DIMENSIONS

Unit: mm



* Extension base is unavailable.

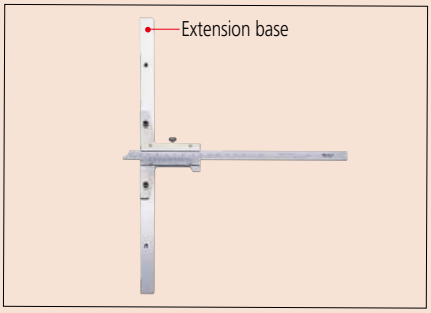
Mitutoyo

Extension Bases
Optional Accessory for Depth Gage

- Attaches to the base (reference face) plate of a depth gage to extend its span.
- These Extension Bases can be attached to 300 mm or less range models.
- For over 300 mm range models, special-size extensions are available as shown on the left.

900372

Example of attaching the extension base



Special size / specifications

Extension bases, to size of specifications other than standard, available by special order. Please consult your local Mitutoyo Sales Office.

Example of special size

Measuring range of depth gage	L (mm)
300 mm or less	400
	500
	600
450 mm or more	400
	500
	600
	700
	800

SPECIFICATIONS

Metric

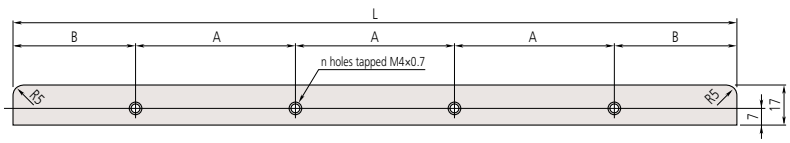
Code No.	Size L (mm)	Thickness (mm)	Material	n
900370	180	8	SUS	2
900371	260			5
900372	320			4

Inch

Code No.	Size L (in)	Thickness (in)	Material	n
900367	7	0.3	SUS	2
900368	10			5
900369	12			4

DIMENSIONS

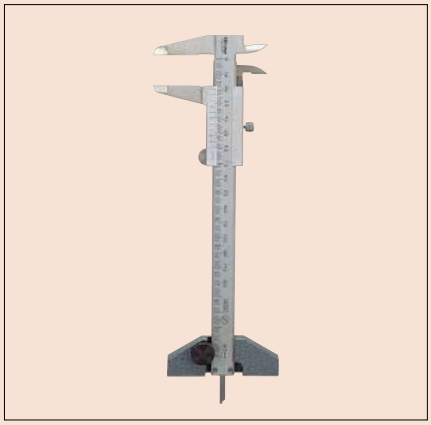
Unit: mm



Code No.	A	B	L	n
900370	70	55	180	2
900371	35	60	260	5
900372	70	55	320	4

Depth Gage Attachment
Optional Accessory for Calipers

Example of attaching the depth gage attachment



- Attaching this depth gage attachment to the depth measurement face of the caliper makes depth measurement accurate and secure.

050084-10

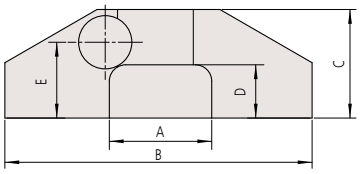
SPECIFICATIONS

Metric

Code No.	Size (mm)	Applicable measuring range of caliper
050083-10	75	100 mm, 150 mm, 200 mm, 4 in, 6 in and 8 in
050084-10	100	100 mm, 150 mm, 200 mm, 4 in, 6 in and 8 in
050085-10	125	300 mm (12 in)

DIMENSIONS

Unit: mm



Size (mm)	A	B	C	D	E	T
75	25	75	26.5	13	18.5	12
100		100				
125	30	125	28.5		20	14

T: Base thickness

Mitutoyo

Dial Depth Gage
SERIES 7

- Optimal for hole, narrow groove and step measurement.

7211A

7214A

7222A

7224A

7231A

SPECIFICATIONS

Metric

Code No.	Range (mm)	Graduation (mm)	Stroke (mm)	Accuracy (µm)	Measuring force (N)	Base			
						W (mm)	T (mm)	Flatness (µm)	Mounting position of a dial indicator
7210A	0 - 10	0.01	10	±15	1.4	40	16	5	1
7211A	0 - 200					63.5			
7212A						101.6			
7213A	0 - 210		30	±30	2.5	63.5			
7214A						101.6			
7220A	0 - 200		10	±15	1.4	100	18		2
7221A						150			3
7222A	0 - 10					ø16			1
7223A						ø25			
7224A						ø40			
7231A	0 - 200		5			63.5	16		

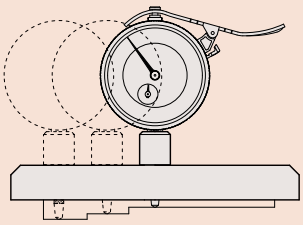
Code No.	Contact point*1	Extension rod*2	Indicator*3 (dial indicator)
7210A	Provided with a needle point (**137413**)	—	**2902AB** for Depth Gage
7211A	Provided with a carbide-tipped ball point (**21JAA224**)	5 pcs. (10, 20, 30, 30, 100 mm)	**2902AB** for Depth Gage
7212A			
7213A	Provided with a carbide-tipped ball point (**21JAA225**)	3 pcs. (30, 60, 90 mm)	**2952AB** for Depth Gage
7214A			
7220A	Provided with a carbide-tipped ball point (**21JAA224**)	5 pcs. (10, 20, 30, 30, 100 mm)	**2902AB** for Depth Gage
7221A			
7222A	Provided with a needle point (**137413**)	—	**2902AB** for Depth Gage
7223A	Provided with a carbide-tipped ball point (**21JAA224**: 17 mm)		
7224A			
7231A		5 pcs. (10, 20, 30, 30, 100 mm) Interchangeable contact point (**21JAA226**)	**1162A** for Depth Gage (Back plunger type)

*1 Caution should be exercised when exchanging a contact point of a Depth Gage (Dial/Digimatic Indicator):
- If a different size contact point is mounted, displacement of the contact point from the base contact surface will be changed and as a result, measurement range may not be maintained.
- A contact point cannot be mounted to a Depth Gage if its diameter is too large for the hole diameter of the base.
- Parallelism adjustment with the bottom face of the base is required when mounting a flat contact point such as the flat/needle or carbide-tipped contact point.

*2 Caution should be exercised when using an extension rod:
- If the total length of the extension rod exceeds 110 mm (4.5 in) use the instrument in a vertical position (contact point downward).
- Use a master gage (such as gauge blocks) to perform zero-setting when the extension rod is mounted. (Master gage is an optional accessory.)

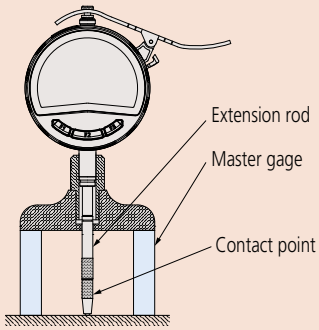
*3 Caution should be exercised when indicators are used on a Depth Gage:
- When the indicator is exchanged and a longer extension rod is connected, the contact-point may deflect significantly with an adverse effect on measuring accuracy.
- **Code No.543-710B/543-712B** for Depth Gage has a measuring force less than 1.5 N. (Refer to page 06-19.)

Typical application



7220A and **7221A** allow the mounting position of a dial indicator to be varied.

When using an extension rod



SPECIFICATIONS

Inch

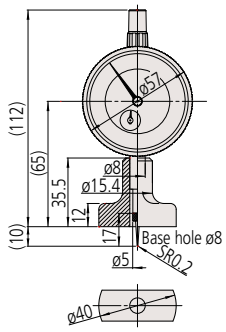
Code No.	Range (in)	Graduation (in)	Stroke (in)	Accuracy (in)	Measuring force (N)	Base W (in)	Base T (in)	Base Flatness (in)	Base Mounting position of a dial indicator
7217A	0 - 8	0.001	1	±0.002	2.0	2.5	0.63	0.0002	1
7218A						4			
7237A			0.2		1.4	2.5			
7238A						4			

Code No.	Contact point*	Extension rod*	Indicator* (dial indicator)
7217A	Provided with a carbide-tipped ball point (**21JZA242**: 0.7 in)	3 pcs. (1 in, 2 in, 4 in)	**2904AB** for Depth Gage
7218A			
7237A		4 pcs. (0.5 in, 1 in, 2 in, 4 in) Interchangeable contact point (**21JZA243**: 0.9 in)	**1168A** for Depth Gage (Back plunger type)
7238A			

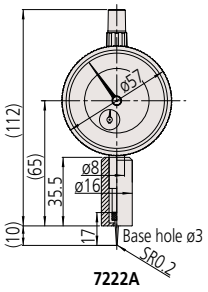
* Refer to corresponding notes on page 06-17.

DIMENSIONS

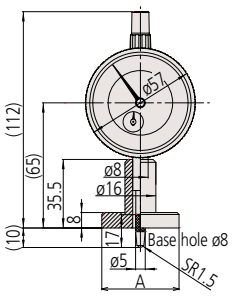
Unit: mm



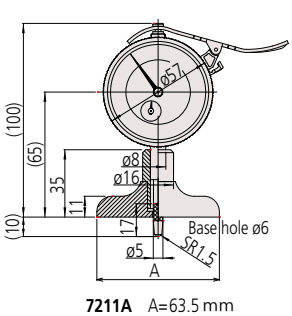
7210A



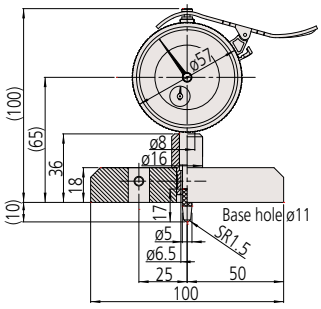
7222A



7223A A=ø25 mm
7224A A=ø40 mm

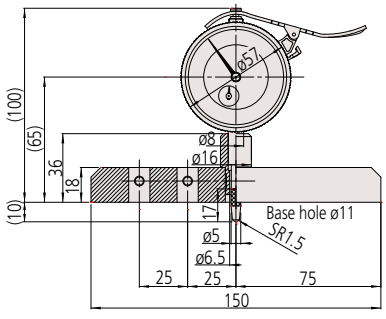


7213A, 7217A A=63.5 mm
7214A, 7218A A=101.6 mm

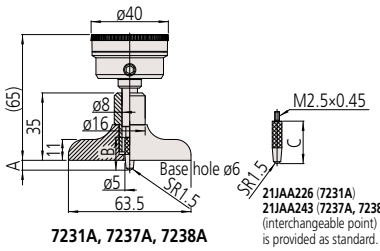


7220A

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



7221A



7231A, 7237A, 7238A

21JAA226 (**7231A**)
21JAA243 (**7237A, 7238A**)
(interchangeable point)
is provided as standard.

Code No.	A	B	C
7231A	(5)	17	22
7237A, 7238A	0.21 in	0.7 in	0.9 in

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ABSOLUTE™

ABSOLUTE Digimatic Depth Gage SERIES 547

- Easy-to-read digital display effectively prevents misreading.
- An analog bar indicator on the LCD is convenient for observing subtle movements such as the approach to tolerance.
- Data output function allows integration into statistical process control and measurement systems.(Refer to page 09-3.)

547-211A

SPECIFICATIONS

Metric

Code No.	Range (mm)	Resolution (mm)	Stroke (mm)	Accuracy (µm)	Measuring force (N)	Base W (mm)	Base T (mm)	Base flatness (µm)
547-211A	0 - 200	0.01	12.7	±20	1.5 or less	63.5	16	5
547-212A						101.6		
547-251A		0.0005 (0.001/0.01 mm selectable)		±5		63.5		2
547-252A						101.6		

Code No.	Contact point*	Extension rod*	Indicator*
547-211A	Provided with a carbide-tipped ball point (**21JAA224**)	5 pcs. (10, 20, 30, 30, 100 mm)	**543-710B**
547-212A			
547-251A			**543-700B**
547-252A			

Inch/Metric

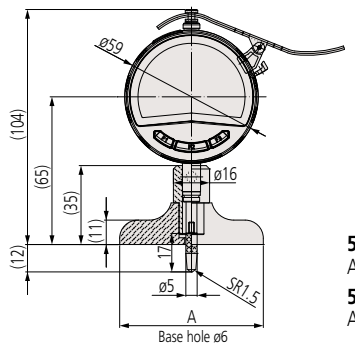
Code No.	Range (in)	Resolution	Stroke (in)	Accuracy (in)	Measuring force (N)	Base W (in)	Base T (in)	Base flatness (in)
547-217A	0 - 8	0.0005 in/0.01 mm	0.5	±0.001	1.5 or less	2.5	0.63	0.0002
547-218A						4		
547-257A		0.00002 in (0.00005/0.0001/0.0005 in 0.0005/0.001/0.01 mm selectable)		±0.0002		2.5		0.00008
547-258A						4		

Code No.	Contact point*	Extension rod*	Indicator*
547-217A	Provided with a carbide-tipped ball point (**21JZA242**)	4 pcs. (0.5 in, 1 in, 2 in, 4 in)	**543-712B**
547-218A			
547-257A			**543-702B**
547-258A			

* Refer to corresponding notes on page 06-17.

DIMENSIONS

Unit: mm



547-211A、547-251A
A=63.5 mm

547-212A、547-252A
A=101.6 mm

Functions

- Peak detection (MAX/MIN)
- Runout range measurement (MAX - MIN)
- Zero-setting (INC system)
- Presetting (ABS system)
- Measuring direction switching
- Tolerance judgment
- Resolution switching
  (For 0.0005 mm or 0.00002 inch resolution type)
- Simple calculation: f(x) =Ax
- Function Lock
- Calibration schedule warning
- Auto power OFF
- Data output
- Display value holding (when no external device is connected)
- 330° rotary display
- Low battery/voltage alarm display
- Error alarm display

Optional Accessories

Code No.	Type	Description
264-020	—	USB Input Tool Series USB Keyboard Signal Conversion Type **IT-020U**
06AGL011	SF	Connection cable (1 m)
06AGL021	SF	Connection cable (2 m)
06AGQ001F	SF	USB Input Tool Direct* (2 m)
02AZG011	SF	Connection cable for **U-WAVE-T** (160 mm)
02AZG021	SF	Connection cable for **U-WAVE-T** (160 mm) For foot switch
264-622	IP67	**U-WAVE-TM**
264-623	Buzzer	**U-WAVE-TM**
02AZD810D	—	**U-WAVE-R**
02AZF670	—	**U-WAVE-TM** mounting bracket For Digimatic Indicator
264-626	IP67	**U-WAVE-TMB**
264-627	Buzzer	**U-WAVE-TMB**
02AZF700	—	Connecting unit for **U-WAVE-TM/TMB** (for **ID-C/ID-F** Series 12.7 mm/0.5 inch type only)

* One **06AGQ001F** is necessary for each Digimatic indicator.