

4

Depth Gauge

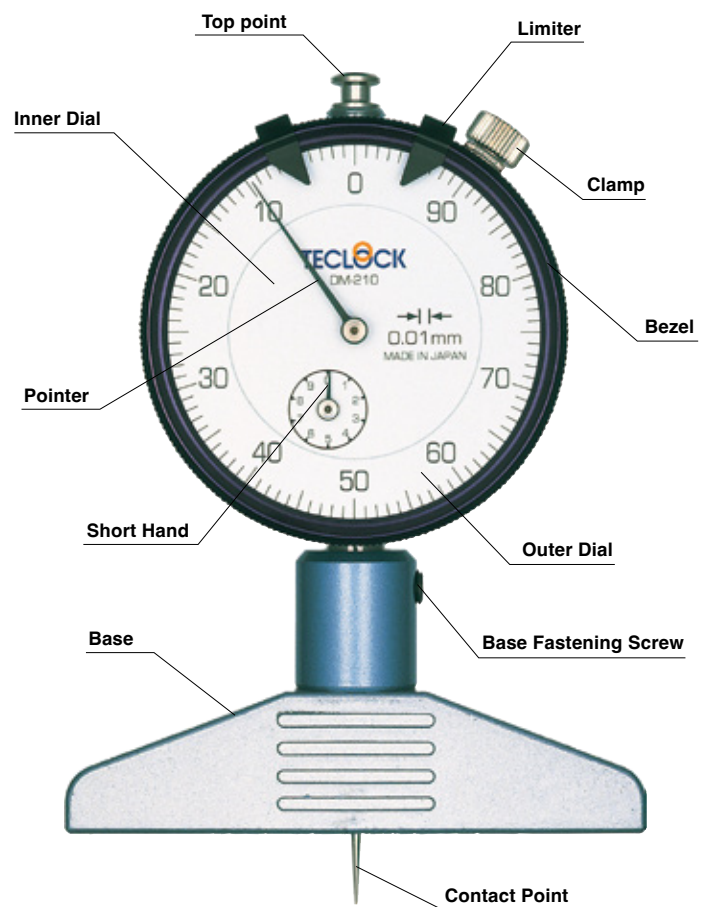
High-precision measurement for depth of holes, grooves and steps

This is an exclusive instrument which measures steps and depth of work piece by hand. Setting "0" by sticking bottom face to measuring basics (zero point) and rotating bezel. (Bezel is fixed by clamp at that time.). Then, it reads with short hand and pointer how contact point is salient from that position.

Analog and Digital models are available and they correspond to usage of shape of contact point and basic size. There are such standard models of stroke of 10mm, 20mm and 30mm and it can comparatively measure depth of 220mm to 240mm by connecting extension rods.



Measuring the concavity depth in work piece of which center is bored. The photo shows 2.03 mm.



Dial Depth Gauge ----- 80-82
 Dial Depth Gauge (Special Model)
 Back plunger type/Round Base type/
 Measurement for printed circuit board/
 Coating Thickness Gauge/Gauge Slide type/
 P Series (0.1mm type) ----- 82-84

Conventional Digital Depth Gauge ----- 84,85
 Standard Digital Depth Gauge ----- 86,87
 Bluetooth Digital Depth Gauge ----- 88-91
 Parts & Accessories ----- 92
 Depth Gauge by Contact Point List ----- 92

Dial Depth Gauge

- Dial Depth Gauge can be used to measure depth and steps of work piece and coating thickness.
- 5-240mm range (with the supplied extension rods) are available for wide application.

- Special order is applicable for contact point and base.
- Low measuring force type is also available, which seldom hurts work piece.
- Lifting lever (Option) can be mounted.

Measuring Range:10mm



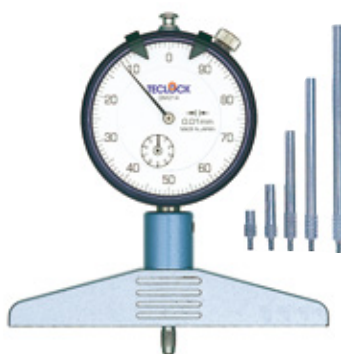
DM-210
Needle Contact Point



DM-211
φ2 Flat Contact Point



DM-213
φ2 Ball Contact Point
·Extension rods options

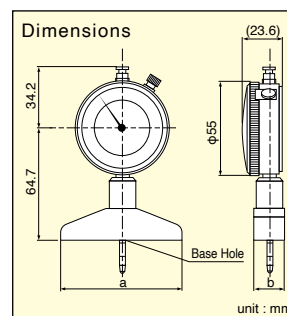


DM-214
Possible depth measurement
of up to 220mm
·with 5-Extension rods

Dimensions Table

Model	Base Form a×b	Base Hole Diameter
DM-210	75×16	2.5
DM-211	75×16	2.5
DM-213	75×16	5.2
DM-214	100×16	5.2

unit : mm



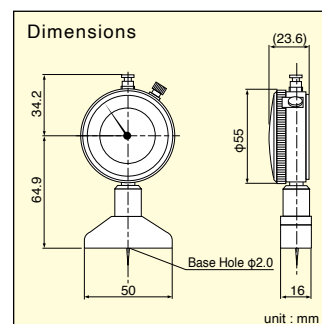
Specifications * Measuring Range : () value is a range by using 5pcs extension rods.

Model	Graduation (mm)	Measuring Range (mm)	Indication Error (μm)	Contact Point Form (mm)	Standard Contact Point	Measuring Force(N)	Weight (g)	Old Model
DM-210	0.01	10	±12	Needle	ZS-523	1.4 or less	240	DM-204
DM-211	0.01	10	±12	φ2 Flat	ZS-530	1.4 or less	240	—
DM-213	0.01	10	±12	φ3.2 Steel Ball	ZS-034	1.4 or less	240	—
DM-214	0.01	10(220)	±12	φ3.2 Steel Ball	ZS-034	2.5 or less	335	—

Measuring Range:5mm



DM-250
Small type



Specifications

Model	Graduation (mm)	Measuring Range (mm)	Indication Error (μm)	Contact Point Form (mm)	Standard Contact Point	Measuring Force(N)	Weight (g)	Old Model
DM-250	0.01	5	±10	Needle	ZS-518	1.4 or less	230	DM-205

Measuring Range:20mm



DM-220
Needle Contact Point



DM-221
φ2 Flat Contact Point



DM-223
φ2 Ball Contact Point



DM-224
Possible depth measurement
of up to 230mm
·with 5-Extension rods



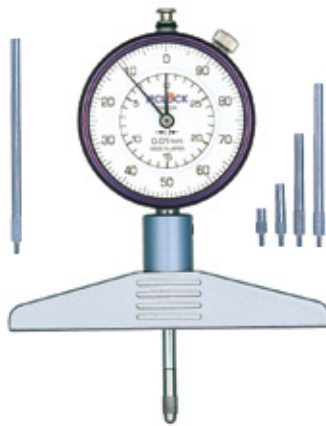
Measuring Range:30mm



DM-230
Needle Contact Point



DM-233
Possible depth measurement
of up to 240mm
·with 5-Extension rods

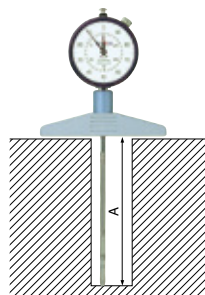
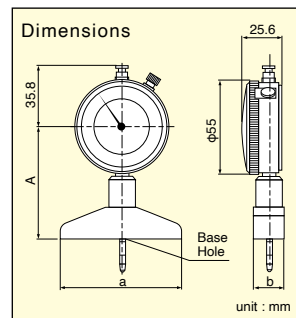


DM-234
Possible depth measurement
of up to 240mm
·with 5-Extension rods

Dimensions Table

Model	A	Base Form axb	Base Hole Diameter
DM-220	84.7	75×16	2.5
DM-221	84.7	75×16	2.5
DM-223	64.7	75×16	5.2
DM-224	64.7	100×16	5.2
DM-230	84.7	75×16	2.5
DM-233	64.7	75×16	5.2
DM-234	64.7	100×16	5.2

unit : mm



Specifications

* Measuring Range : () value is a range by using 5pcs extension rods.

Model	Graduation (mm)	Measuring Range(mm)	Indication Error(μm)	Contact Point Form(mm)	Standard Contact Point	Measuring Force(N)	Weight (g)	Old Model
DM-220	0.01	20	±15	Needle	ZS-543	2.2 or less	300	DM-234
DM-221	0.01	20	±15	φ2 Flat	ZS-541	2.2 or less	300	—
DM-223	0.01	20	±15	φ3.2 Steel Ball	ZS-034	2.2 or less	275	DM-201D
DM-224	0.01	20(230)	±15	φ3.2 Steel Ball	ZS-034	2.5 or less	340	DM-202D
DM-230	0.01	30	±35	Needle	ZS-543	2.5 or less	315	DM-249
DM-233	0.01	30(240)	±35	φ3.2 Steel Ball	ZS-034	2.5 or less	315	DM-248
DM-234	0.01	30(240)	±35	φ3.2 Steel Ball	ZS-034	2.5 or less	355	—

Depth Gauge with Extension Rods

When all of 5 extension rods of depth gauge with extension rods are connected, it can measure the dimension of deep concavity part of bottom. (Standard dimension set up with master gauge is necessary).

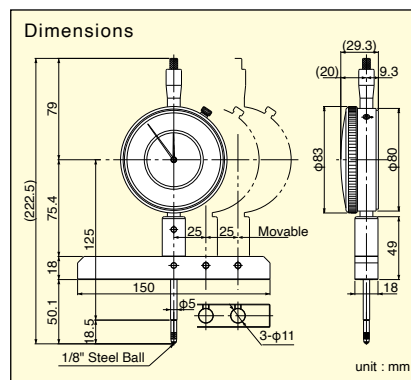
A dimension : Measuring range 10mm Depth Gauge : up to maximum 220mm
Measuring range 20mm Depth Gauge : up to maximum 230mm
Measuring range 30mm Depth Gauge : up to maximum 240mm

Measuring Range:50mm

- A large sized depth gauge measurable 0-50mm (actual dimension) depth directly without any extension rod.
- The dial part is a type movable by inserting it into one of 3 holes.

DM-295

·Base Length 150mm



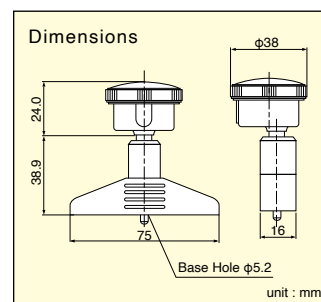
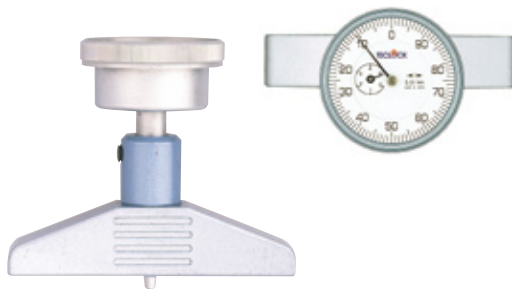
Specifications

Model	Graduation (mm)	Measuring Range (mm)	Indication Error (μm)	Contact Point Form (mm)	Standard Contact Point	Measuring Force(N)	Weight (g)	Old Model
DM-295	0.01	50	±50	φ3.2 Steel Ball	ZS-116	2.5 or less	750	-

Dial Depth Gauge (Special)

Back plunger type

DM-273



Specifications

Model	Graduation (mm)	Measuring Range (mm)	Indication Error (μm)	Contact Point Form (mm)	Standard Contact Point	Measuring Force (N)	Weight (g)
DM-273	0.01	5	±10	φ3.2 Steel Ball	ZS-105	1.4 or less	210

Round Base type



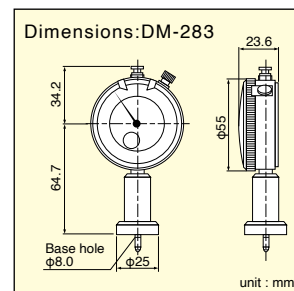
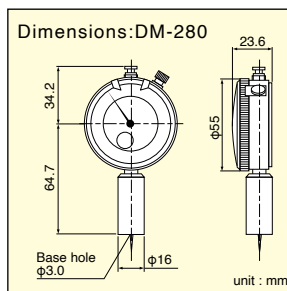
DM-280

·Base form φ16mm



DM-283

·Base form φ25mm



Specifications

Model	Graduation (mm)	Measuring Range (mm)	Indication Error (μm)	Contact Point Form (mm)	Standard Contact Point	Measuring Force (N)	Weight (g)
DM-280	0.01	10	±12	Needle	ZS-523	1.4 or less	175
DM-283	0.01	10	±12	φ3.2 Steel Ball	ZS-034	1.4 or less	185

Measurement for printed circuit board



V-Grooved depth measurement of Print circuit board by using DM-251.

DM-251

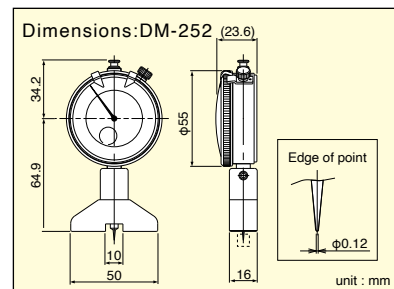
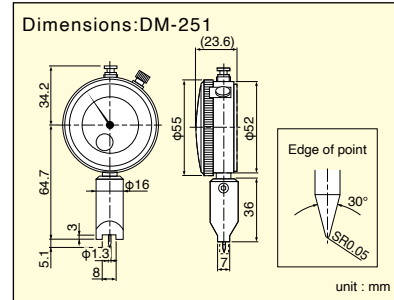
Exclusive instrument to measure depth of V-groove of print circuit board.

Specifications

Model	Graduation (mm)	Measuring Range(mm)	Indication Error(μm)	Contact Point Form(mm)	Standard Contact Point	Measuring Force(N)	Weight (g)
DM-251	0.01	5	±10	Special Needle	ZS-106	1.4 or less	165
DM-252	0.01	Concave 5mm Convex 4mm	±10	Needle	ZS-595	1.4 or less	195

DM-252

Convex-concave surface can be measured.



Coating Thickness Gauge

- Exclusive instrument to measure coating thickness of paint, coating materials and sealing materials.
- Handy type and operation is easy.

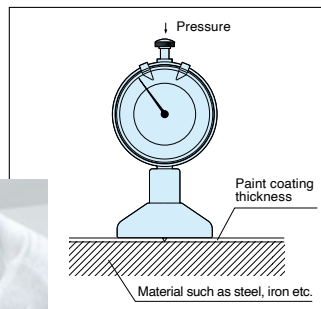


DM-264

Small-based handy type



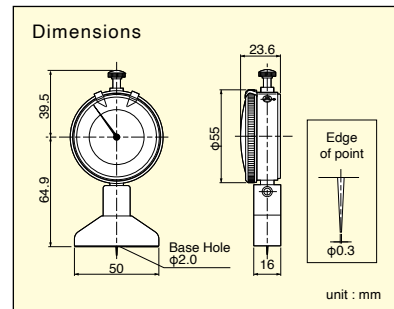
Thickness measurement of painted film waterproof stuff (measuring by pressurization)



When top point is pressurized, needle contact point penetrates into painted film and stops at basic material. The penetrating length is thickness of film.

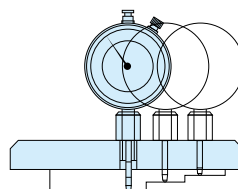
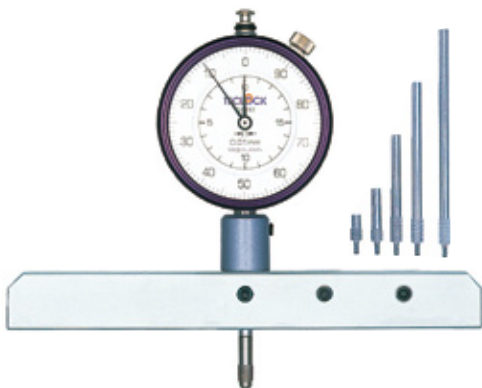
Specifications

Model	Graduation (mm)	Measuring Range(mm)	Indication Error(μm)	Contact Point Form(mm)	Standard Contact Point	Measuring Force(N)	Weight (g)
DM-264	0.01	5	±10	Needle	ZS-518	1.4 or less	230



Gauge Slide type

- Steps measurement can be easily made by moving the gauge to 3 mounting holes.



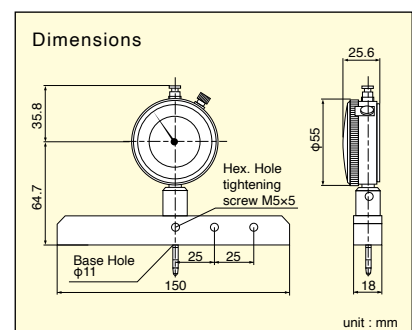
Dial indicator can be moved to 3 points.

DM-293

• With 5-Extension rods

Specifications * Measuring Range : () value is a Range by using 5pcs extension rods.

Model	Graduation (mm)	Measuring Range(mm)	Indication Error(μm)	Contact Point Form(mm)	Standard Contact Point	Measuring Force(N)	Weight (g)
DM-293	0.01	20(230)	±15	φ3.2 Steel Ball	ZS-034	2.5 or less	510



P Series (0.1mm type)

- This is direct reading specification of which graduation are 0.1-0.9mm.
- 1-10mm can be read by short hand and figure below can be read by pointer. It prevents misreading.



DM-210P

Standard Base Model

- Measuring Range 10mm
- Needle Contact point



DM-250P

Small Base Model

- Measuring Range 5mm
- φ2 Flat Contact Point



DM-223P

Long Stroke Model

- Measuring Range 20mm
- φ3.2 Ball Contact Point



DM-224P

Long Base Model

- Measuring Range 230mm
- With 5-Extension rods
- φ3.2 Ball Contact Point

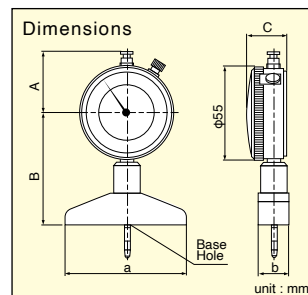
exp. 3.18mm of direct reading.



Dimension Table

Model	A	B	C	Base Form a x b	Base Hole Diameter
DM-210P	34.2	64.7	23.6	75×16	2.5
DM-250P	34.2	64.9	23.6	50×16	2.0
DM-223P	35.8	64.7	25.6	75×16	5.2
DM-224P	35.8	64.7	25.6	100×16	5.2

unit : mm



Specifications

* Measuring Range : () value is a Range by using 5pcs extension rods.

Model	Graduation (mm)	Measuring Range (mm)	Indication Error (μm)	Contact Point Form (mm)	Standard Contact Point	Measuring Force(N)	Weight (g)	Old Model
DM-210P	0.01	10	±12	Needle	ZS-523	1.4 or less	240	DM-204P
DM-250P	0.01	5	±10	Needle	ZS-518	1.4 or less	230	-
DM-223P	0.01	20	±15	φ3.2 Steel Ball	ZS-034	2.2 or less	275	DM-201DP
DM-224P	0.01	20(230)	±15	φ3.2 Steel Ball	ZS-034	2.5 or less	340	DM-202DP

Conventional Digital Depth Gauge

- Digital Exclusive instrument to measure depth and steps of work piece.
- Low cost and conventional model of which preset function is deleted from standard digital depth gauges.
- Operation is equal to standard digital depth gauges, but it

can not measure by installing extension rods. In case that measuring range is over 10mm, please use standard digital depth gauges.

- Printing out of measured data and statistics arithmetic operation can be implemented by connecting it to optional Digital mini-printer SD-763P shown on page 86.

Resolution : 0.01mm



DMD-210S2

Needle Contact Point

- Measuring Range 12mm



DMD-211S2

φ2 Flat Needle Contact Point

- Measuring Range 12mm



DMD-213S2

φ3.2 Steel Ball Contact Point

- Measuring Range 12mm



DMD-250S2

Small Base Model

- Measuring Range 5mm

**DMD-252S2**

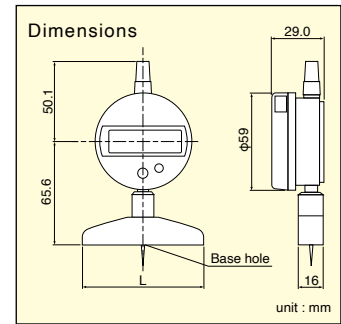
Measurement for Printed Circuit Board

·Measuring Range Concave 5mm
Convex 4mm

Dimension Table

Model	Base Hole Diameter	L
DMD-210S2	2.5	75
DMD-211S2	2.5	75
DMD-213S2	5.2	75
DMD-250S2	2.0	50
DMD-252S2	8.0	50

unit : mm



Specifications

Model	Resolution (mm)	Measuring Range (mm)	Indication Error(μm)	Contact Point Form (or shape) (mm)	Standard Contact Point	Measuring Force(N)	Weight (g)
DMD-210S2	0.01	12	±20	Needle	ZS-523	2.0 or less	280
DMD-211S2	0.01	12	±20	φ2 Flat	ZS-530	2.0 or less	270
DMD-213S2	0.01	12	±20	φ3.2 Steel Ball	ZS-034	2.0 or less	270
DMD-250S2	0.01	5	±20	Needle	ZS-518	2.0 or less	205
DMD-252S2	0.01	Concave 5, Convex 4	±20	Needle	ZS-595	2.0 or less	200

Resolution : 0.001mm
**DMD-2100S2**

Needle Contact Point

·Measuring Range 12mm

**DMD-2110S2**

φ2 Flat Needle Contact Point

·Measuring Range 12mm

**DMD-2130S2**

φ3.2 Steel Ball Contact Point

·Measuring Range 12mm

**DMD-2500S2**

Small Base Model

·Measuring Range 5mm

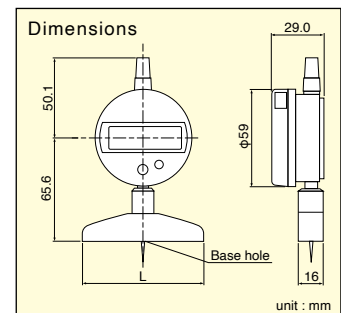
**DMD-2520S2**

Measurement for Printed Circuit Board

·Measuring Range Concave 5mm
Convex 4mm

Dimension Table

Model	Base Hole Diameter	L
DMD-2100S2	2.5	75
DMD-2110S2	2.5	75
DMD-2130S2	5.2	75
DMD-2500S2	2.0	50
DMD-2520S2	8.0	50



Specifications

Model	Resolution (mm)	Measuring Range (mm)	Indication Error(μm)	Contact Point Form (or shape) (mm)	Standard Contact Point	Measuring Force(N)	Weight (g)
DMD-2100S2	0.001	12	±5	Needle	ZS-523	2.0 or less	300
DMD-2110S2	0.001	12	±5	φ2 Flat	ZS-530	2.0 or less	300
DMD-2130S2	0.001	12	±5	φ3.2 Steel Ball	ZS-034	2.0 or less	300
DMD-2500S2	0.001	5	±5	Needle	ZS-518	2.0 or less	235
DMD-2520S2	0.001	Concave 5, Convex 4	±5	Needle	ZS-595	2.0 or less	230

Standard Digital Depth Gauge

- Digital Depth Gauge can be used for direct measuring depth and steps of work piece.
- Printing out of measured data and statistics arithmetic operation can be implemented by connecting it to optional Digital mini-printer SD-763P shown on page 52.

- Extension rods can be used by Preset function. (Expect DMD-210A, DMD-211A, DMD-240A, DMD-2100A, and DMD-240A).

Resolution : 0.01mm



DMD-210A
Needle Contact Point

·Measuring Range 12mm



DMD-211A
φ2 Flat Needle Contact Point

·Measuring Range 12mm



DMD-213A
φ3.2 Steel Ball Contact Point

·Measuring Range 12mm



DMD-214A
φ3.2 Steel Ball Contact Point

·Measuring Range 220mm
·With 5-Extension rods



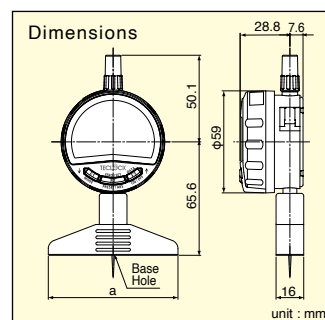
DMD-215A
Large Base Model

·Measuring Range 220mm
·With 5-Extension rods

Dimension Table

Model	Base form a×b	Base Hole Diameter
DMD-210A	75×16	2.5
DMD-211A	75×16	2.5
DMD-213A	75×16	5.2
DMD-214A	75×16	5.2
DMD-215A	100×16	5.2

unit : mm



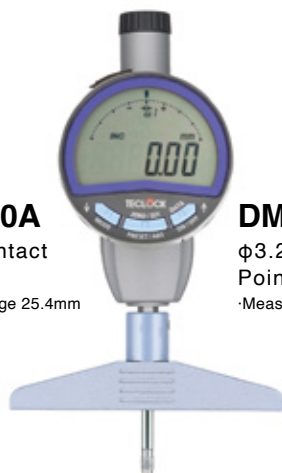
Specifications * Measuring Range : () value is a Range by using 5pcs extension rods.

Model	Resolution (mm)	Measuring Range(mm)	Indication Error(μm)	Contact Point Form (or shape) (mm)	Standard Contact Point	Measuring Force(N)	Weight (g)	Old Model
DMD-210A	0.01	12	±20	Needle	ZS-523	1.0 or less	310	DMD-204
DMD-211A	0.01	12	±20	φ2 Flat	ZS-530	1.0 or less	310	DMD-216
DMD-213A	0.01	12	±20	φ3.2 Steel Ball	ZS-034	1.0 or less	310	DMD-218
DMD-214A	0.01	12(220)	±20	φ3.2 Steel Ball	ZS-034	2.3 or less	335	-
DMD-215A	0.01	12(220)	±20	φ3.2 Steel Ball	ZS-034	2.3 or less	375	DMD-291



DMD-240A
Needle Contact Point

·Measuring Range 25.4mm



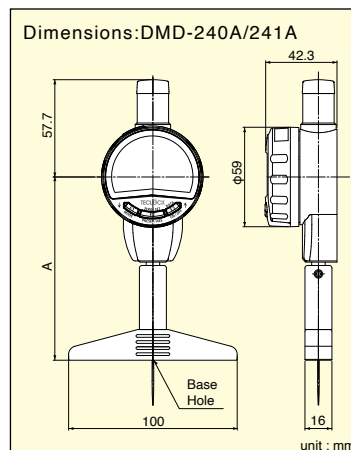
DMD-241A
φ3.2 Steel Ball Contact Point

·Measuring Range 25.4mm

Dimension Table

Model	A	Base Hole Diameter
DMD-240A	108.7	2.5
DMD-241A	88.7	5.2

unit : mm



Specifications

Model	Resolution (mm)	Measuring Range(mm)	Indication Error(μm)	Contact Point Form (or shape) (mm)	Standard Contact Point	Measuring Force(N)	Weight (g)
DMD-240A	0.01	25.4	±20	Needle	ZS-113	1.6 or less	390
DMD-241A	0.01	25.4	±20	φ3.2 Steel Ball	ZS-600	1.6 or less	370



NEW

Features

- Easy measurement of depth and steps in a work piece.
- Compact model with Mini indicator.
- IP67.
- One-touch data sending to PC by built-in Bluetooth.
- Data management by SmartMeasure Lite (free).



SSD-210



SSD-211
φ2 Flat Needle
Contact Point



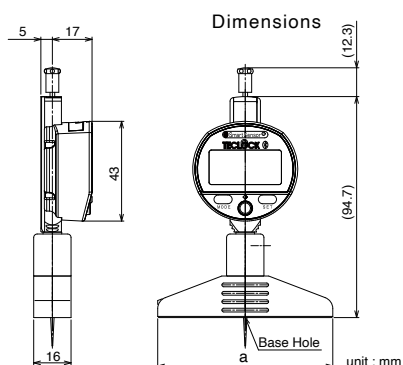
SSD-213
 ϕ 3.2 Steel Ball
 Contact Point



SSD-214
With 5-Extension rods

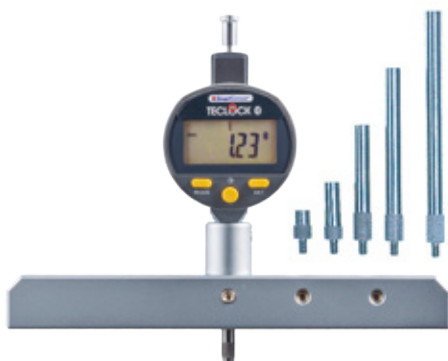


SSD-215
Large Base • With
Extension rods

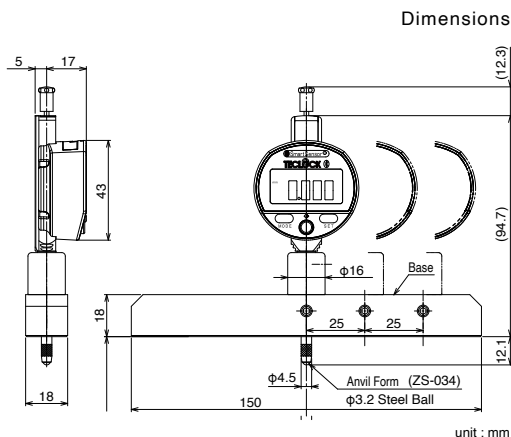


Features

- Easy measurement of depth and steps in a work piece.
- Can be moved to 3 positions.
- IP67.
- One-touch data sending to PC by built-in Bluetooth.
- Data management by SmartMeasure Lite (free).



SSD-293
Base Length 150mm
With 5-Extension rods



Specifications * Measuring Range:()value is Range by using 5pcs extension rods.

Model	Resolution (mm)	Measuring Range (mm)	Indication Error (μm)	Contact Point Form (mm)	Extension rods	Base Shape (mm)	Base Hole Diameter (mm)	Weight (g)
SSD-293	0.01	12(220)	±20	Φ3.2 Steel Ball	5	150×18	Φ11.0	450

Small Base type Compact Series

Features

- Easy measurement of depth and steps in a work piece.
- Measurement for printed circuit board.
- Compact model with Mini indicator.
- IP67.
- One-touch data sending to PC by built-in Bluetooth.
- Data management by SmartMeasure Lite (free).



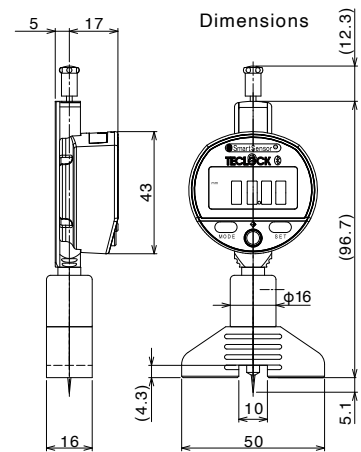
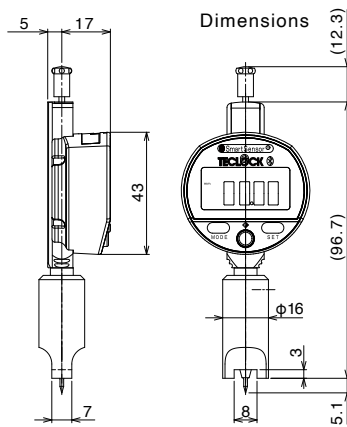
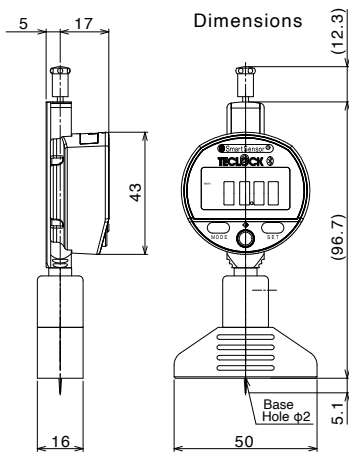
SSD-250
Needle Contact
Point



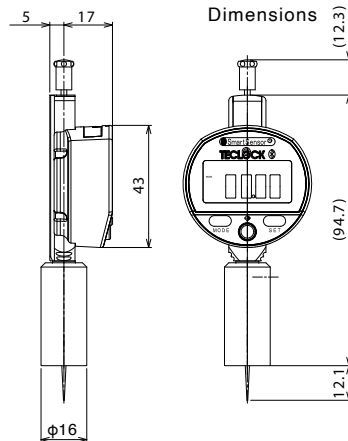
SSD-251
V-groove of print
circuit board



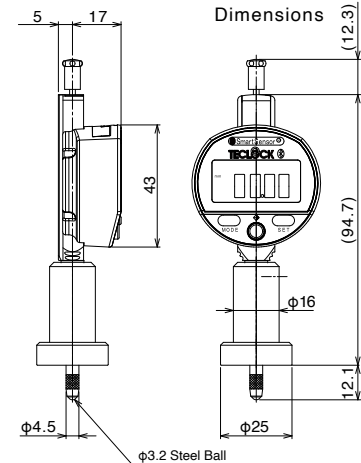
SSD-252
Measurement for
Convex-concave
surface



SSD-280
Round Base type
·Base form $\phi 16\text{mm}$



SSD-283
Round Base type
·Base form $\phi 25\text{mm}$



unit : mm

Specifications

Model	Resolution (mm)	Measuring Range (mm)	Indication Error(μm)	Contact Point Form(mm)	Extension rods	Base Shape (mm)	Base Hole Diameter(mm)	Weight (g)
SSD-250	0.01	5	± 20	Needle	—	50×16	$\phi 2.0$	160
SSD-251	0.01	5	± 20	Special Needle	—	Special $\phi 16$ Cylinder	Special	130
SSD-252	0.01	Concave 5, Convex 4	± 20	Needle	—	50×16	Special	160
SSD-280	0.01	12	± 20	Needle	—	$\phi 16$ Cylinder	$\phi 3.0$	140
SSD-283	0.01	12	± 20	$\phi 3.2$ Steel Ball	—	$\phi 25$ Cylinder	$\phi 8.0$	150

1/1000mm High-precision Compact Series

Features

- Easy measurement of depth and steps in a work piece.
- Compact model with Mini indicator.
- IP67.
- One-touch data sending to PC by built-in Bluetooth.
- Data management by SmartMeasure Lite (free).



SSD-2100M
Needle



SSD-2110M
φ2 Needle



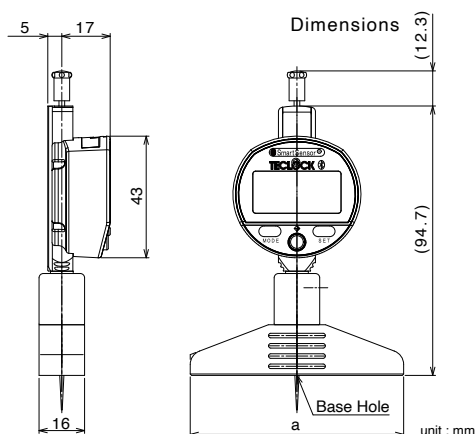
SSD-2130M
φ3.2 Steel Ball



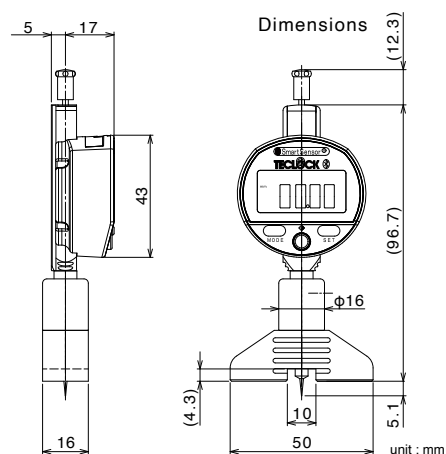
SSD-2500M
Needle



SSD-2520M
Measurement for
Convex-concave
surface



SSD-2100M, SSD-2110M, SSD-2130M, SSD-2500M



SSD-2520M

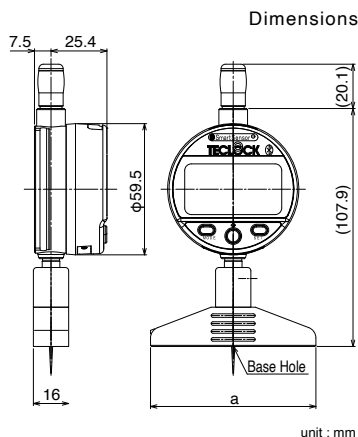
Specifications

Model	Resolution (mm)	Measuring Range (mm)	Indication Error(μm)	Contact Point Form(mm)	Extension rods	Base Shape (mm)	Base Hole Diameter(mm)	Weight (g)
SSD-2100M	0.001	12	±6	Needle	—	75×16	φ2.5	214
SSD-2110M	0.001	12	±6	φ2 Flat	—	75×16	φ5.2	214
SSD-2130M	0.001	12	±6	φ3.2 Steel Ball	—	75×16	φ5.2	214
SSD-2500M	0.001	5	±6	Needle	—	50×16	φ2.0	149
SSD-2520M	0.001	Concave 5, Convex 4	±6	Needle	—	50×16	φ8.0	144

1/1000mm High-precision Standard Series

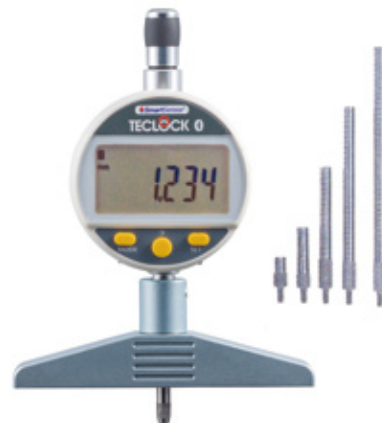
Features

- Easy measurement of depth and steps in a work piece.
- 1/1000mm High-precision model.
- One-touch data sending to PC by built-in Bluetooth.
- Data management by SmartMeasure Lite (free).



unit : mm

SSD-2100
Needle



SSD-2150
Large Base•
With Extension rods

Specifications * Measuring Range : () value is a Range by using 5pcs extension rods.

Model	Resolution (mm)	Measuring Range (mm)	Indication Error (μm)	Contact Point Form (mm)	Extension rods	Base Shape (mm)	Base Hole Diameter (mm)	Weight (g)
SSD-2100	0.001	12	±5	Needle	—	75×16	φ2.5	262
SSD-2150	0.001	12(220)	±5	φ3.2 Steel Ball	5	100×16	φ5.2	323

25mm Long Stroke Type

Features

- Easy measurement of depth and steps in a work piece.
- Compact and Long stroke type.
- 1/1000mm High-precision model.
- One-touch data sending to PC by built-in Bluetooth.
- Data management by SmartMeasure Lite (free).

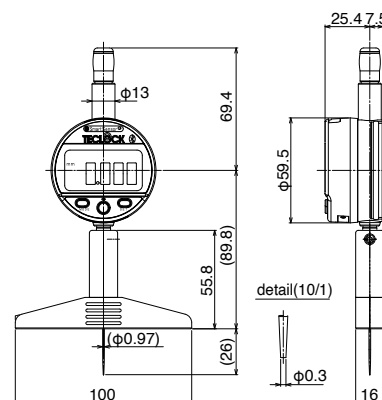


SSD-2400
Needle

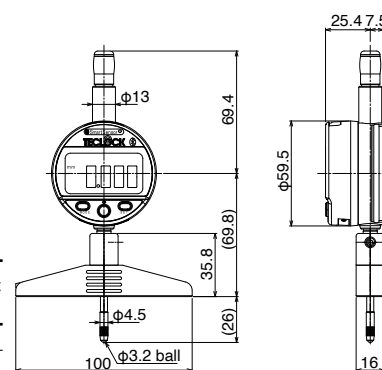


SSD-2410
φ3.2 Steel Ball

Dimensions : SSD-2400



Dimensions : SSD-2410



unit : mm

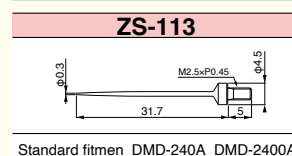
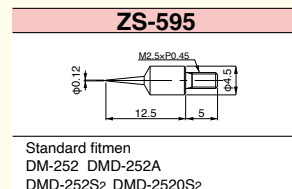
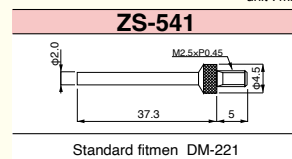
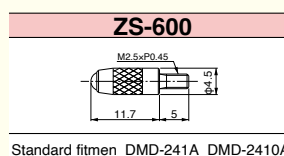
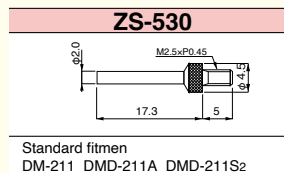
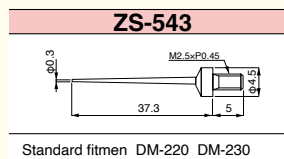
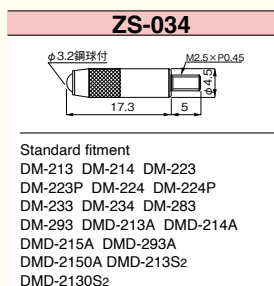
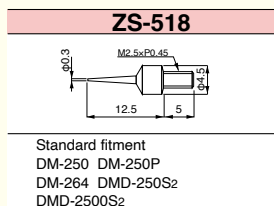
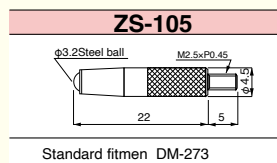
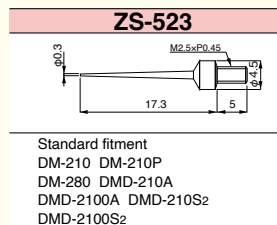
Specifications

Model	Resolution (mm)	Measuring Range (mm)	Indication Error (μm)	Contact Point Form (mm)	Extension rods	Base Shape (mm)	Base Hole Diameter (mm)	Weight (g)
SSD-2400	0.001	25	±6	Needle	—	100×16	φ2.5	327
SSD-2410	0.001	25	±6	φ3.2 Steel Ball	—	100×16	φ5.2	307

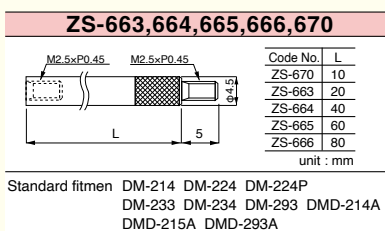
Parts & Accessories

Contact Point

unit : mm



Extension Rods



Depth Gauge by Contact Point List

Model	Base hole diameter	Standard contact point	Mountable contact point	Model	Base hole diameter	Standard contact point	Mountable contact point	Model	Base hole diameter	Standard contact point	Mountable contact point
DM-210	φ2.5	ZS-523	ZS-527 ZS-528 ZS-530	DM-213	φ5.2	ZS-034	ZS-527 ZS-528 ZS-530 ZS-594	DM-251	φ5.2	ZS-106	—
DM-210P				DM-214				DM-252	φ8.0	ZS-595	—
DMD-210S ₂				DM-223				DMD-252S ₂			
DMD-210A				DM-224				DMD-2520S ₂	φ5.2	ZS-105	—
DMD-2100S ₂				DM-233				DM-273			
DMD-2100A	φ2.5	ZS-530	ZS-527 ZS-528 ZS-523	DM-234				DM-280	φ3.0	ZS-523	ZS-527 ZS-528 ZS-530
DM-211				DM-223P				DM-283	φ8.0	ZS-034	ZS-527 ZS-528 ZS-530 ZS-523
DMD-211A				DM-224P							
DMD-211S ₂				DM-293							
DMD-2110S ₂				DMD-213S ₂				DM-264	φ2.0	ZS-518	—
				DMD-213A	φ2.0	ZS-518	—	DMD-240A	φ2.5	ZS-113	—
				DMD-2130S ₂				DMD-2400A			
				DMD-214A				DMD-241A	φ5.2	ZS-600	—
				DMD-215A				DMD-2410A			
				DMD-2150A							
				DMD-293A							
				DM-250							
				DM-250P							
				DMD-250S ₂							
				DMD-2500S ₂							