

Depth Gauge



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.

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.

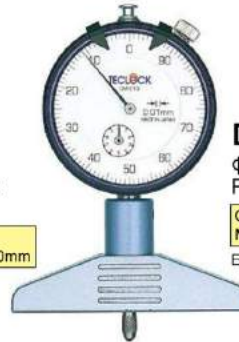
Measuring Range:10mm



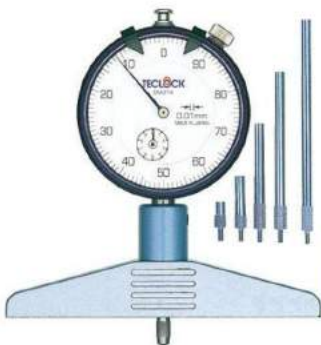
DM-210
Needle Contact Point
Graduation 0.01mm
Measuring Range 10mm



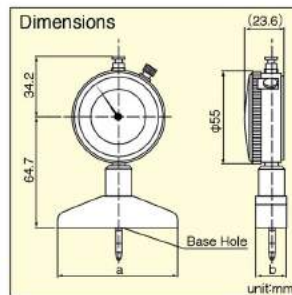
DM-211
φ2 Flat Contact Point
Graduation 0.01mm
Measuring Range 10mm



DM-213
φ2 Ball Contact Point
Graduation 0.01mm
Measuring Range 10mm
Extension rods options

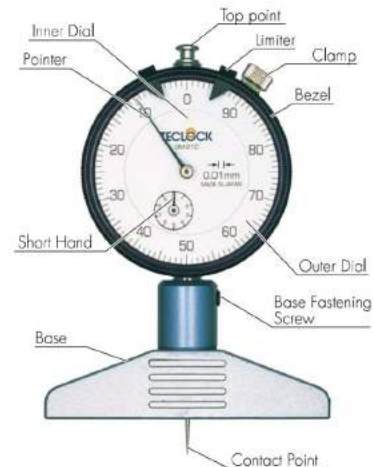


DM-214
Possible depth measurement of up to 220mm
Graduation 0.01mm
Measuring Range 10mm
Indication Range 10mm
with 5-Extension rods



Model	Base Form axb	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



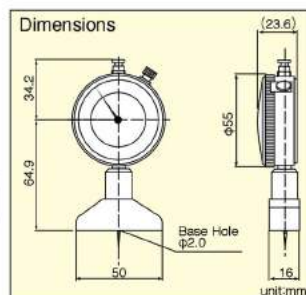
Specifications ※Measuring Range : () value is a range by using 5pcs extension rods.

Model	Graduation (mm)	Measuring Range (mm)	Accuracy (μm)	Contact Point Form (mm)	Standard Contact Point	Measuring Force (N)	Weight (g)
DM-210	0.01	10	±12	Needle	ZS-523	1.4以下	270
DM-211	0.01	10	±12	φ2 Flat	ZS-530	1.4以下	270
DM-213	0.01	10	±12	φ3.2 Ball	ZS-034	1.4以下	270
DM-214	0.01	10(220)	±12	φ3.2 Ball	ZS-034	2.5以下	335

Measuring Range:5mm



DM-250
Small type
Graduation 0.01mm
Measuring Range 5mm



Specifications

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



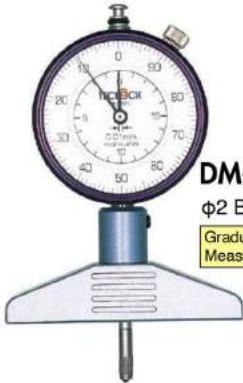
Measuring Range: 20mm / 30mm



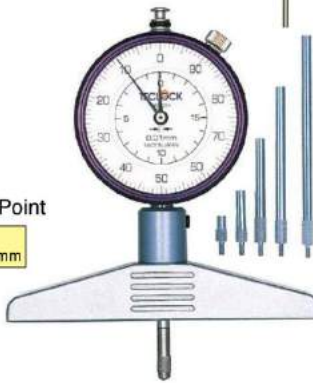
DM-220 / 230
Needle Contact point
Graduation 0.01mm
Measuring Range 20mm/30mm



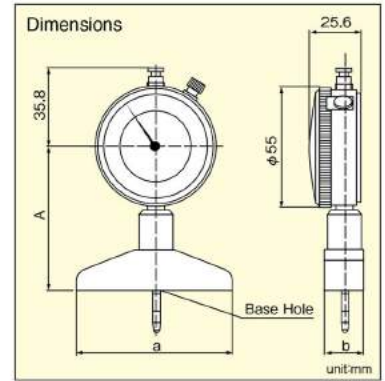
DM-221
φ2 Flat Contact Point
Graduation 0.01mm
Measuring Range 20mm



DM-223
φ2 Ball Contact Point
Graduation 0.01mm
Measuring Range 20mm



DM-224/233/234
Possible depth measurement
of up to 230mm (DM-224) /
240mm (DM-233/234)
Graduation 0.01mm
Measuring Range 230mm/240mm
Indication Range 20mm/30mm
with 5-Extension rods



Dimensions Table

Model	A	Base Form a×b	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)	Accuracy (μm)	Contact Point Form (mm)	Standard Contact Point	Measuring Force (N)	Weight (g)
DM-220	0.01	20	±15	Needle	ZS-543	2.2以下	300
DM-221	0.01	20	±15	φ2 Flat	ZS-541	2.2以下	300
DM-223	0.01	20	±15	φ3.2 Ball	ZS-034	2.2以下	275
DM-224	0.01	20 (230)	±15	φ3.2 Ball	ZS-034	2.5以下	340
DM-230	0.01	30	±35	Needle	ZS-543	2.5以下	315
DM-233	0.01	30 (240)	±35	φ3.2 Ball	ZS-034	2.5以下	315
DM-234	0.01	30 (240)	±35	φ3.2 Ball	ZS-034	2.5以下	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

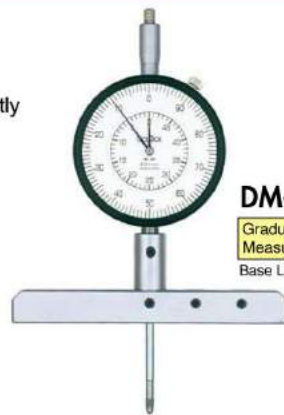


Measuring depth of concavity of work of which center is bored. The photo shows 2.03mm.



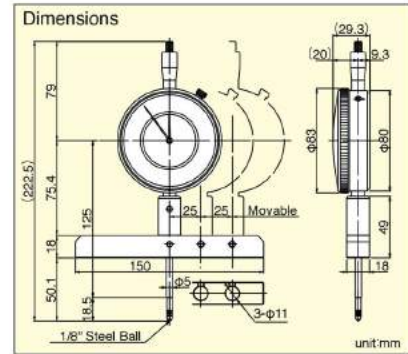
Measuring Range:50mm

- 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

Graduation 0.01mm
Measuring Range 50mm
Base Length 150mm



Specifications

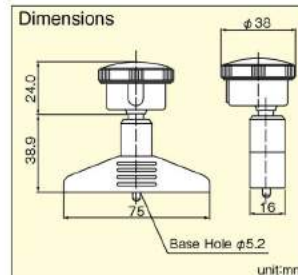
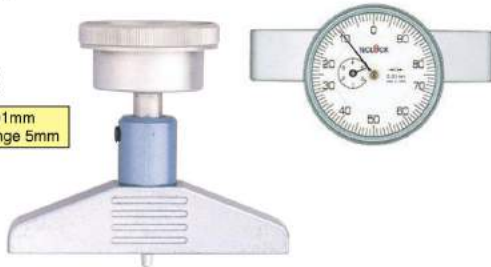
Model	Graduation (mm)	Measuring Range (mm)	Accuracy (μm)	Contact Point Form (mm)	Standard Contact Point	Measuring Force (N)	Weight (g)
DM-295	0.01	50	±50	φ3.2 Ball	ZS-116	2.5以下	750

Dial Depth Gauge (Special)

Back plunger type

DM-273

Graduation 0.01mm
Measuring Range 5mm



Specifications

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

Round Base type

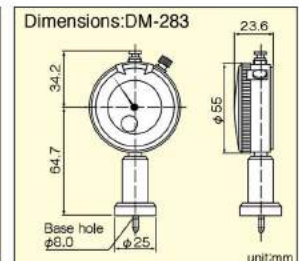
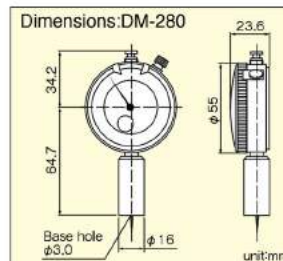
DM-280

Graduation 0.01mm
Measuring Range 10mm
Base form φ16mm



DM-283

Graduation 0.01mm
Measuring Range 10mm
Base form φ25mm



Specifications

Model	Graduation (mm)	Measuring Range (mm)	Accuracy (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 Ball	ZS-034	1.4 or less	185



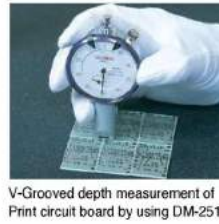
Printed circuit board for measurement



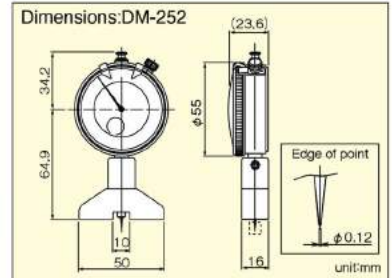
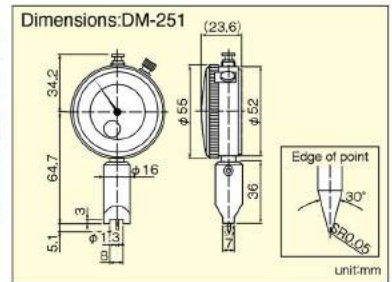
DM-251
Exclusive instrument to measure depth of V-groove of print circuit board.
Graduation 0.01mm
Measuring Range 5mm



DM-252
Convex-concave surface can be measured.
Graduation 0.01mm
Measuring Range Concave 5mm
Convex 4mm



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



Specifications

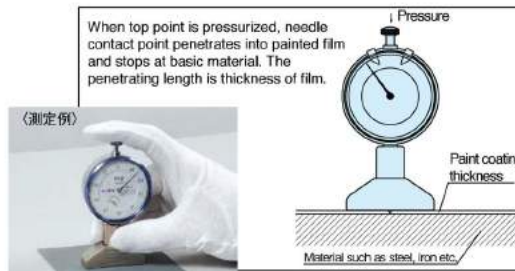
Model	Graduation (mm)	Measuring Range (mm)	Accuracy (μm)	Contact Point Form (mm)	Standard Contact Point	Measuring Force (N)	Weight (g)
DM-251	0.01	5	±10	Special Needle	ZS-106	1.4 or less	165
DM-252	0.01	Concave 5mm Convex 4mm	±10	Needle	ZS-595	1.4 or less	230

Coating Thickness Gauge

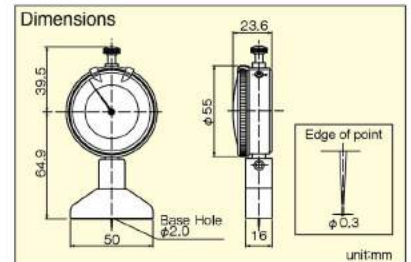
- Exclusive instrument to measure coating thickness of paint, coating materials and sealing materials.
- Handy type and operation is easy.



DM-264
Small-based handy type
Graduation 0.01mm
Measuring Range 5mm



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

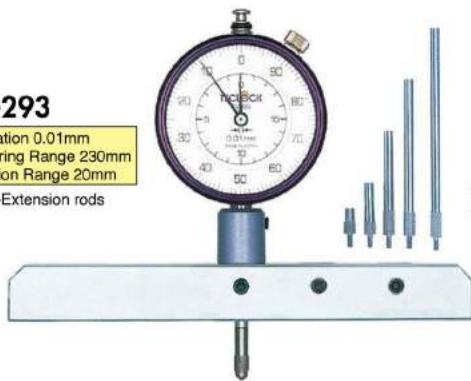


Specifications

Model	Graduation (mm)	Measuring Range (mm)	Accuracy (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

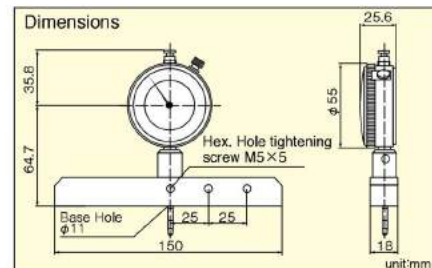
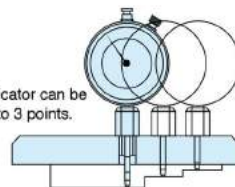
Gauge Slide type

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



DM-293
Graduation 0.01mm
Measuring Range 230mm
Indication Range 20mm
With 5-Extension rods

Dial indicator can be moved to 3 points.



Specifications

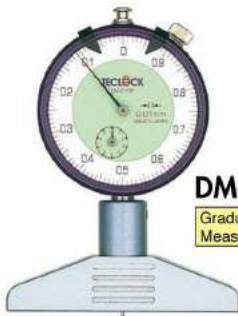
※Measuring Range: () value is a Range by using 5pcs extension rods.

Model	Graduation (mm)	Measuring Range (mm)	Accuracy (μm)	Contact Point Form (mm)	Standard Contact Point	Measuring Force (N)	Weight (g)
DM-293	0.01	20(230)	±15	φ3.2 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

Graduation 0.01mm
Measuring Range 10mm



DM-250P

Graduation 0.01mm
Measuring Range 5mm

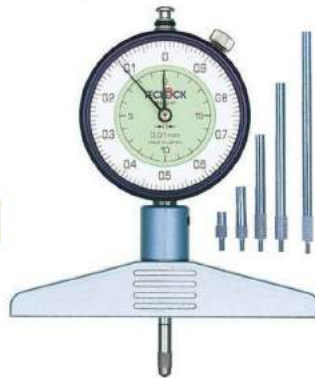


exp. 3.18mm of direct reading.



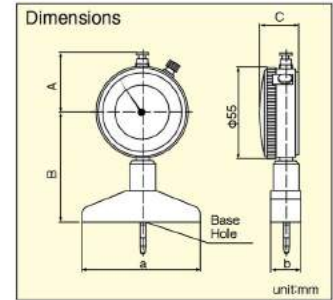
DM-223P

Graduation 0.01mm
Measuring Range 20mm



DM-224P

Graduation 0.01mm
Measuring Range 230mm
Indication Range 20mm
With 5-Extension rods



Dimension Table

Model	A	B	C	Base Form axb	Base Hole Diameter
DM-210P	34.2	64.7	23.6	75x16	2.5
DM-250P	34.2	64.9	23.6	50x16	2.0
DM-223P	35.8	64.7	25.6	75x16	5.2
DM-224P	35.8	64.7	25.6	100x16	5.2

unit:mm

Specifications

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

Model	Graduation (mm)	Measuring Range (mm)	Accuracy (μm)	Contact Point Form (mm)	Standard Contact Point	Measuring Force (N)	Weight (g)
DM-210P	0.01	10	+12	Needle	ZS-523	1.4 or less	270
DM-250P	0.01	5	±10	Needle	ZS-518	1.4 or less	230
DM-223P	0.01	20	+15	φ3.2 Ball	ZS-034	2.2 or less	275
DM-224P	0.01	20(230)	+15	φ3.2 Ball	ZS-034	2.5 or less	340



Conventional Digital Depth Gauge

- Digital Exclusive instrument to measure depth and steps of workpiece.
- 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 42.

0.01mm Conventional Digital Depth Gauge



DMD-210S₂
Needle Contact Points
Resolution 0.01mm
Measuring Range 10mm



DMD-211S₂
φ2 Flat Needle Contact Point
Resolution 0.01mm
Measuring Range 10mm



DMD-213S₂
φ3.2 Steel Ball Contact Point
Resolution 0.01mm
Measuring Range 10mm



DMD-250S₂
Needle Contact Points
Resolution 0.01mm
Measuring Range 5mm



DMD-252S₂
φ3.2 Steel Ball Contact
Resolution 0.01mm
Measuring Range Concave 5mm
Convex 4mm

0.001mm Conventional Digital Depth Gauge



DMD-2100S₂
Needle Contact Points
Resolution 0.001mm
Measuring Range 10mm



DMD-2110S₂
φ2 Flat Needle Contact Point
Resolution 0.001mm
Measuring Range 10mm



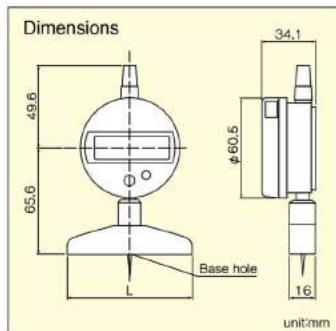
DMD-2130S₂
φ3.2 Steel Ball Contact Point
Resolution 0.001mm
Measuring Range 10mm



DMD-2500S₂
Needle Contact Points
Resolution 0.001mm
Measuring Range 5mm



DMD-2520S₂
φ3.2 Steel Ball Contact Point
Resolution 0.001mm
Measuring Range Concave 5mm
Convex 4mm



Dimension Table

Model	Base Hole Diameter	L
DMD-210S ₂	φ2.5	75
DMD-211S ₂	φ2.5	75
DMD-213S ₂	φ5.2	75
DMD-250S ₂	φ2.0	50
DMD-252S ₂	φ8.0	50
DMD-2100S ₂	φ2.5	75
DMD-2110S ₂	φ2.5	75
DMD-2130S ₂	φ5.2	75
DMD-2500S ₂	φ2.0	50
DMD-2520S ₂	φ8.0	50

Specifications

Model	Resolution (mm)	Measuring Range (mm)	Accuracy* (μm)	Contact Point Form (or shape) (mm)	Standard Contact Point	Measuring Force (N)	Weight (g)
DMD-210S ₂	0.01	10	±20	Needle	ZS-523	2.0 or less	270
DMD-211S ₂	0.01	10	±20	φ2 Flat	ZS-530	2.0 or less	270
DMD-213S ₂	0.01	10	±20	φ3.2 Steel Ball	ZS-034	2.0 or less	270
DMD-250S ₂	0.01	5	±20	Needle	ZS-518	2.0 or less	205
DMD-252S ₂	0.01	Concave 5, Convex 4	±20	Needle	ZS-595	2.0 or less	200
DMD-2100S ₂	0.001	10	±5	Needle	ZS-523	2.0 or less	300
DMD-2110S ₂	0.001	10	±5	φ2 Flat	ZS-530	2.0 or less	300
DMD-2130S ₂	0.001	10	±5	φ3.2 Steel Ball	ZS-034	2.0 or less	300
DMD-2500S ₂	0.001	5	±5	Needle	ZS-518	2.0 or less	235
DMD-2520S ₂	0.001	Concave 5, Convex 4	±5	Needle	ZS-595	2.0 or less	230

*The quantizing error function is not included.



Standard Digital Depth Gauge

- Digital Depth Gauge can be used for direct measuring depth and steps of workpiece.
- 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 42.
- Extension rods can be used by Preset function. (excepting DMD-210J, DMD-211J and DMD-2100J).

0.01mm Standard Digital Depth Gauge



DMD-210J
Needle Contact Points
Resolution 0.01mm
Measuring Range 12mm



DMD-211J
φ2 Flat Needle Contact Point
Resolution 0.01mm
Measuring Range 12mm



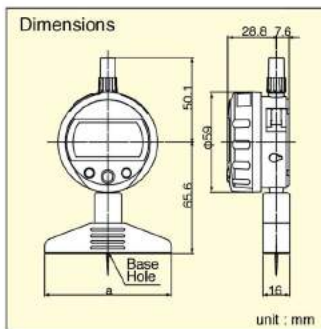
DMD-213J
φ3.2 Steel Ball Contact Point
Resolution 0.01mm
Measuring Range 12mm



DMD-214J
φ3.2 Steel Ball Contact Point
Resolution 0.01mm
Measuring Range 220mm
Indication Range 12mm
With 5-Extension rods



DMD-215J
φ3.2 Steel Ball Contact Point
Resolution 0.01mm
Measuring Range 220mm
Indication Range 12mm
With 5-Extension rods



Dimensions

Model	Base form a×b	Base hole diameter
DMD-210J	75×16	φ2.5
DMD-211J	75×16	φ2.5
DMD-213J	75×16	φ5.2
DMD-214J	75×16	φ5.2
DMD-215J	100×16	φ5.2

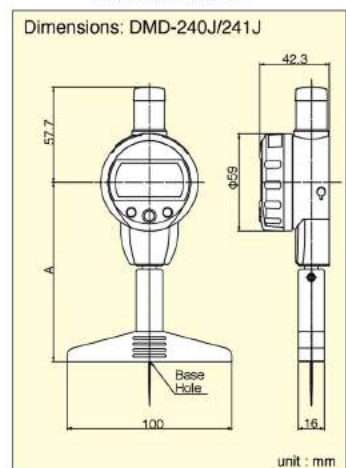
unit : mm



DMD-240J
Needle Contact Points
Resolution 0.01mm
Measuring Range 25.4mm



DMD-241J
φ3.2 Steel Ball Contact Point
Resolution 0.01mm
Measuring Range 25.4mm



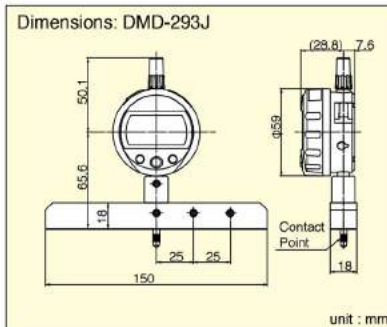
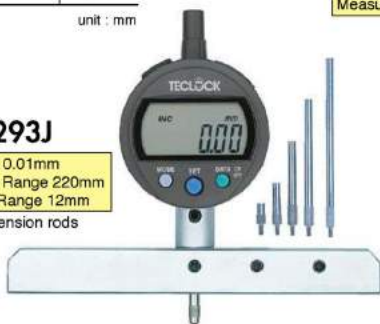
Dimensions: DMD-240J/241J

Model	A
DMD-240J	108.7
DMD-241J	88.7

unit : mm

DMD-293J

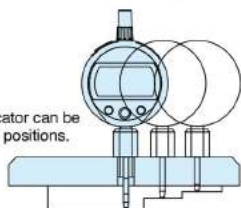
Resolution 0.01mm
Measuring Range 220mm
Indication Range 12mm
With 5-Extension rods



Dimensions: DMD-293J

unit : mm

Digital indicator can be moved to 3 positions.



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

Model	Resolution (mm)	Measuring Range (mm)	Accuracy* (μm)	Contact Point Form (or shape) (mm)	Standard Contact Point	Measuring Force (N)	Weight (g)
DMD-210J	0.01	12	±20	Needle	ZS-523	1.0 or less	310
DMD-211J	0.01	12	±20	φ2 Flat	ZS-530	1.0 or less	310
DMD-213J	0.01	12	±20	φ3.2 Steel Ball	ZS-034	1.0 or less	310
DMD-214J	0.01	12(220)※	±20	φ3.2 Steel Ball	ZS-034	2.3 or less	335
DMD-215J	0.01	12(220)※	±20	φ3.2 Steel Ball	ZS-034	2.3 or less	375
DMD-240J	0.01	25.4	±20	Needle	ZS-113	1.6 or less	390
DMD-241J	0.01	25.4	±20	φ3.2 Steel Ball	ZS-600	1.6 or less	370
DMD-293J	0.01	12(220)※	±20	φ3.2 Steel Ball	ZS-034	2.3 or less	545

*The quantizing error function is not included.



0.001mm Standard Digital Depth Gauge



DMD-2100J
Needle Contact Points
Resolution 0.001mm
Measuring Range 12mm



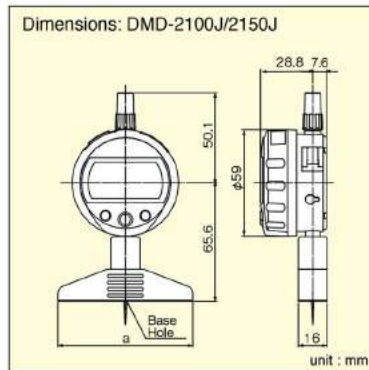
DMD-2150J
φ3.2 Steel Ball Contact Point
Resolution 0.001mm
Measuring Range 220mm
Indication Range 12mm
With 5-Extension rods



DMD-2400J
Needle contact points
Resolution 0.001mm
Measuring Range 25.4mm



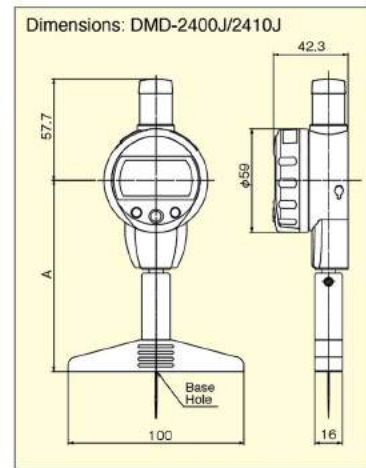
DMD-2410J
φ3.2 Steel Ball Contact Point
Resolution 0.001mm
Measuring Range 25.4mm



Dimension Table

Model	Base Foam a×b	Base Hole Diameter
DMD-2100J	75×16	φ2.5
DMD-2150J	100×16	φ5.2

unit : mm



Dimension Table

Model	A
DMD-2400J	108.7
DMD-2410J	88.7

unit : mm

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

Model	Resolution (mm)	Measuring Range (mm)	Accuracy* (μm)	Contact Point Form (or shape) (mm)	Standard Contact Point	Measuring Force (N)	Weight (g)
DMD-2100J	0.001	12	±5	Needle	ZS-523	1.0 or less	310
DMD-2150J	0.001	12(220)※	±5	φ3.2 Steel Ball	ZS-034	2.3 or less	375
DMD-2400J	0.001	25.4	±5	Needle	ZS-113	1.6 or less	390
DMD-2410J	0.001	25.4	±5	φ3.2 Steel Ball	ZS-600	1.6 or less	370

*The quantizing error function is not included.

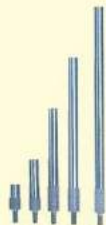


Parts & Accessories

Contact Point

ZS-523		ZS-518		ZS-543		ZS-541	
	Standard fitment DM-210 DM-210P DM-280 DMD-210J DMD-2100J DMD-210S2 DMD-2100S2		Standard fitment DM-250 DM-250P DM-264 DMD-250S2 DMD-2500S2		Standard fitment DM-220 DM-230		Standard fitment DM-221
ZS-105		ZS-034		ZS-530		ZS-595	
	Standard fitment DM-273		Standard fitment DM-213 DM-214 DM-223 DM-223P DM-224 DM-224P DM-233 DM-234 DM-283 DM-293 DMD-213J DMD-214J DMD-215J DMD-293J DMD-2150J DMD-213S2 DMD-2130S2		Standard fitment DM-211 DMD-211J DMD-211S2		Standard fitment DM-252 DMD-252J DMD-252S2 DMD-2520S2
ZS-600		ZS-113					
	Standard fitment DMD-241J DMD-2410J		Standard fitment DMD-240J DMD-2400J				

Extension Rods



ZS-904
(Set of 5)

ZS-663,664,665,666,670	
	Code No. L ZS-670 10 ZS-663 20 ZS-664 40 ZS-665 60 ZS-666 80 Unit:mm
Standard fitment	DM-214 DM-224 DM-224P DM-233 DM-234 DM-293 DMD-214J DMD-215J DMD-293J

Depth Gauge by Contact Point List

Model	Base hole diameter	Standard contact point	Can be mounted contact point	Model	Base hole diameter	Standard contact point	Can be mounted contact point	Model	Base hole diameter	Standard contact point	Can be mounted 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-523 ZS-594	DM-251	φ5.2	ZS-106	—
DM-210P				DM-214				DM-252	φ8.0	ZS-595	—
DMD-210S2				DM-223				DMD-252S2			
DMD-210J				DM-224				DMD-2520S2			
DMD-2100S2				DM-233				DM-273	φ5.2	ZS-105	—
DMD-2100J				DM-234				DM-280	φ3.0	ZS-523	ZS-527 ZS-528 ZS-530
DM-211	DM-223P										
DMD-211J	DM-224P										
DMD-211S2	DM-293										
DMD-2110S2	DMD-213S2										
	DMD-213J										
	DMD-2130S2	DM-283	φ8.0	ZS-034				ZS-527 ZS-528 ZS-530 ZS-523			
	DMD-214J										
	DMD-214J										
	DMD-215J										
	DMD-2150J										
	DMD-293J										
	DM-250	DM-264	φ2.0	ZS-518	—						
	DM-250P										
	DMD-250S2										
	DMD-2500S2										
						DM-240J	φ2.5	ZS-113	—		
										DMD-2400J	
		DMD-241J									
		DMD-2410J	φ5.2	ZS-600	—						