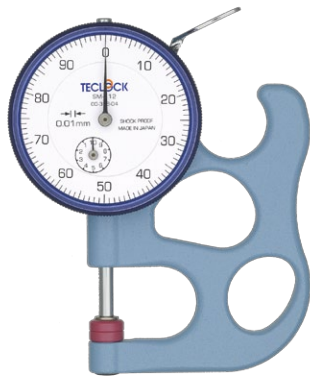


Thickness Gauge

Dial Indicator is used by being fitted to jig etc., while thickness gauge is held with our hand. Holding work piece between stylus and anvil, read the value directly. Contact point moves to upward when lifting lever is pressed down, and contact point returns to “zero” when it is released. As operation is easy, it can measure for a short period compared with micrometer. There are 2 kinds of Dial 0.01mm , 0.001mm for both analog and digital. The stroke depends on size of work piece and a model is available to measure maximum thickness up to 50mm. This can be used for various thickness measurement such as paper, hair, rubber plate metal tube small molded components.

Dial Thickness Gauge

- Suitable for measuring thickness and diameter of metal, lens, rubber, plastic, paper, felt, hair, pearl etc. in actual dimension.
- Ceramic contact point and anvil feature are superior for anti-abrasion and rust. In addition, there are steel FE type and AT type which rarely adheres with adhesion tape.
- As to shape of contact point and anvil, there are standard type and other various kinds.
- Measuring force of standard type is not more than 2.5N as final pressure, low measuring force type of which final pressure is about 0.4N (about 40gf) is also available.



SM-112
Standard type
Graduation 0.01mm
Measuring Range 10mm

All SM series equips ceramic contact point and anvils.

SM-112P
(Direct Reading Graduation)

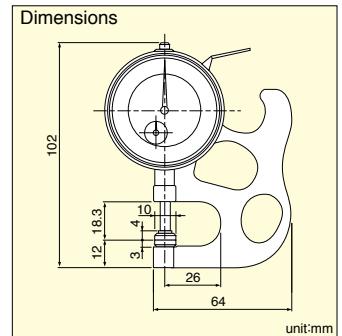


1.17mm reading example

SM-112D
(Coaxial Revolution Pointer)



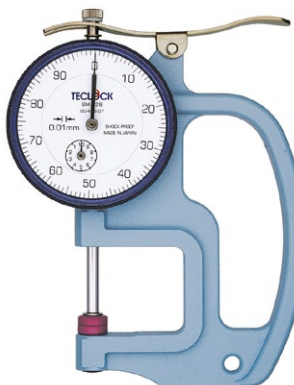
Measuring metal work piece.
The photo shows 5.98mm.



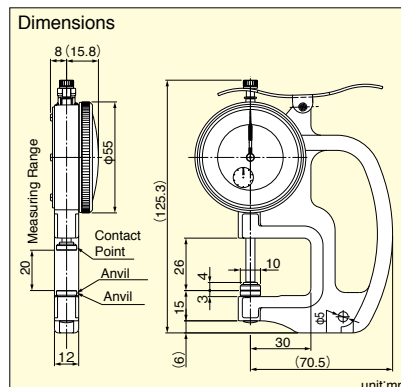
Specifications **SM-112 Series**

Model	Graduation (mm)	Measuring Range (mm)	Accuracy (μm)	Parallelism (μm)	Dial Reading	Measuring Force (N)	Contact Point Form (mm)	Anvil Form (mm)	Weight (g)
SM-112	0.01	10	±15	5	0-50-100	2.5 or less	φ 10 Flat	φ 10 Flat	150
SM-112LS	0.01	10	±15	—	0-50-100	2.5 or less	φ 3.2 Ball	φ 10 Flat	150
SM-112LW	0.01	10	±15	—	0-50-100	2.5 or less	φ 3.2 Ball	φ 3.2 Ball	150
SM-112-3A	0.01	10	±15	5	0-50-100	2.5 or less	φ 5 Flat	φ 5 Flat	150
SM-112-80g	0.01	10	±15	5	0-50-100	Stop Point Measuring Forced 0.8±0.05	φ 10 Flat	φ 10 Flat	150
SM-112P	0.01	10	±15	5	0-0.5-1	2.5 or less	φ 10 Flat	φ 10 Flat	150
SM-112FE	0.01	10	±15	5	0-50-100	2.5 or less	φ 10 Flat	φ 10 Flat	150
SM-112AT	0.01	10	±15	8	0-50-100	0.8 or less	φ 10 Flat	φ 10 Flat	150
SM-112D	0.01	10	±15	5	0-50-100	2.5 or less	φ 10 Flat	φ 10 Flat	155

LS, LW, 3A For more information please refer to P26.



SM-528
Measurement of up to 20mm thick
Graduation 0.01mm
Measuring Range 20mm



Specifications **SM-528 Series**

Model	Graduation (mm)	Measuring Range (mm)	Accuracy (μm)	Parallelism (μm)	Dial Reading	Measuring Force (N)	Contact Point Form (mm)	Anvil Form (mm)	Weight (g)
SM-528	0.01	20	±20	5	0-50-100	3.5 or less	φ 10 Flat	φ 10 Flat	180
SM-528LS	0.01	20	±20	—	0-50-100	3.5 or less	φ 3.2 Ball	φ 10 Flat	180
SM-528LW	0.01	20	±20	—	0-50-100	3.5 or less	φ 3.2 Ball	φ 3.2 Ball	180
SM-528-3A	0.01	20	±20	5	0-50-100	3.5 or less	φ 5 Flat	φ 5 Flat	180
SM-528-80g	0.01	20	±20	5	0-50-100	Stop Point Measuring Forced 0.8±0.05	φ 10 Flat	φ 10 Flat	180
SM-528FE	0.01	20	±20	5	0-50-100	3.5 or less	φ 10 Flat	φ 10 Flat	180

LS, LW, 3A For more information please refer to P26.

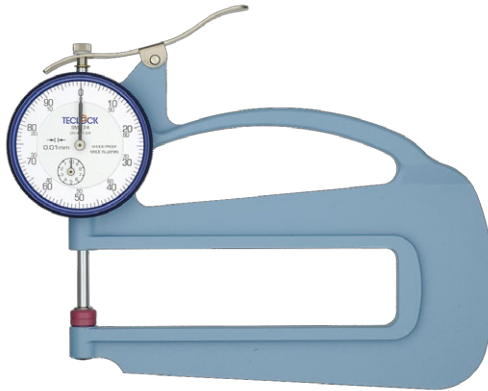
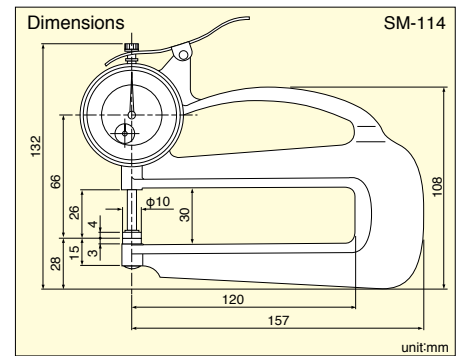
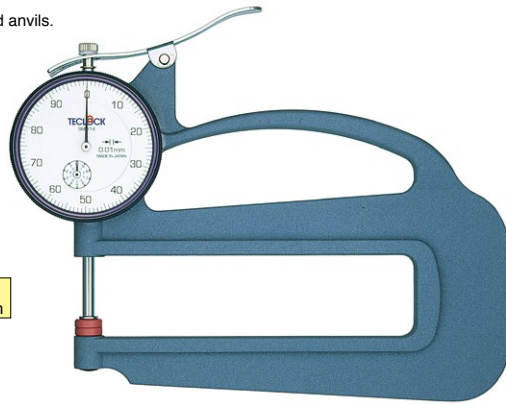


All SM series equips ceramic contact point and anvils.

SM-114

Insertion Depth
120mm

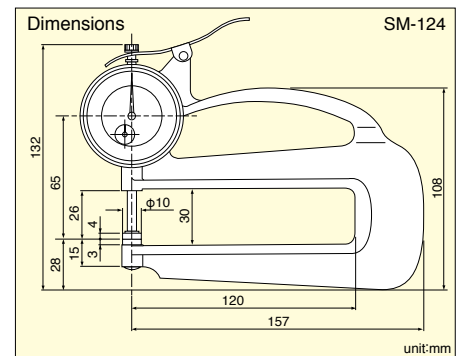
Graduation 0.01mm
Measuring Range 10mm



SM-124

Medium size
Thickness Gauge

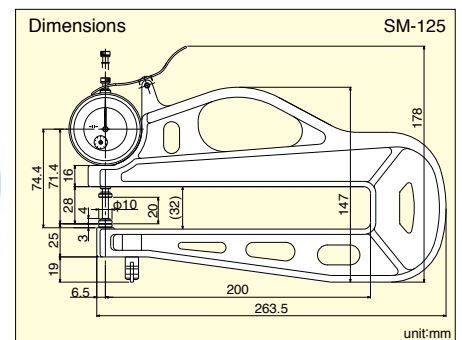
Graduation 0.01mm
Measuring Range 20mm



SM-125

Large size Thickness
Gauge

Graduation 0.01mm
Measuring Range 20mm



This stand is standard accessories.

Specifications

SM-114 Series

Model	Graduation (mm)	Measuring Range (mm)	Accuracy (μm)	Parallelism (μm)	Dial Reading	Measuring Force (N)	Contact Point Form (mm)	Anvil Form (mm)	Weight (g)
SM-114	0.01	10	±15	5	0-50-100	2.5 or less	φ 10 Flat	φ 10 Flat	250
SM-114LS	0.01	10	±15	—	0-50-100	2.5 or less	φ 3.2 Ball	φ 10 Flat	250
SM-114LW	0.01	10	±15	—	0-50-100	2.5 or less	φ 3.2 Ball	φ 3.2 Ball	250
SM-114P	0.01	10	±15	5	0-0.5-1	2.5 or less	φ 10 Flat	φ 10 Flat	250

LS, LW, 3A For more information please refer to P26.

SM-124 Series

Model	Graduation (mm)	Measuring Range (mm)	Accuracy (μm)	Parallelism (μm)	Dial Reading	Measuring Force (N)	Contact Point Form (mm)	Anvil Form (mm)	Weight (g)
SM-124	0.01	20	±20	5	0-50-100	3.5 or less	φ 10 Flat	φ 10 Flat	250
SM-124LS	0.01	20	±20	—	0-50-100	3.5 or less	φ 3.2 Ball	φ 10 Flat	250
SM-124LW	0.01	20	±20	—	0-50-100	3.5 or less	φ 3.2 Ball	φ 3.2 Ball	250

LS, LW, 3A For more information please refer to P26.

SM-125 Series

Model	Graduation (mm)	Measuring Range (mm)	Accuracy (μm)	Parallelism (μm)	Dial Reading	Measuring Force (N)	Contact Point Form (mm)	Anvil Form (mm)	Weight (g)
SM-125	0.01	20	±20	5	0-50-100	3.5 or less	φ 10 Flat	φ 10 Flat	625
SM-125LS	0.01	20	±20	—	0-50-100	3.5 or less	φ 3.2 Ball	φ 10 Flat	625
SM-125LW	0.01	20	±20	—	0-50-100	3.5 or less	φ 3.2 Ball	φ 3.2 Ball	625

LS, LW, 3A For more information please refer to P26.



Graduation 0.001mm
Measuring Range 10mm
Indication Range 1mm
(Lifting Anvil)

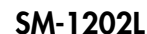
Contact Point, Anvil
=Solid Carbide

*Setting up standard point with block gauge is necessary to measure thickness 1mm and over.



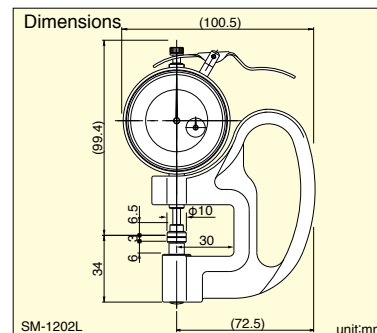
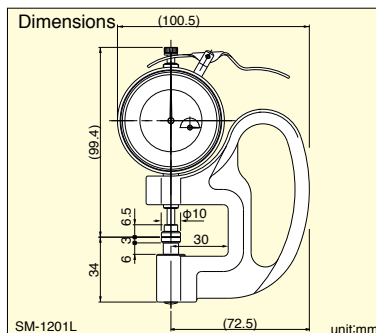
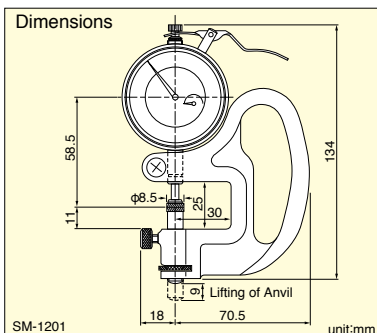
Graduation 0.001mm Measuring Range 1mm

Contact Point, Anvil
= Ceramic



Graduation 0.001mm
Measuring Range 2mm

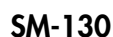
Contact Point, Anvil
= Ceramic

Specifications **SM-1201 Series**

Model	Graduation (mm)	Measuring Range (mm)	Accuracy (µm)	Parallelism (µm)	Dial Reading	Measuring Force (N)	Contact Point Form (mm)	Anvil Form (mm)	Weight (g)
SM-1201	0.001	10	±3	3	0-100-0	1.5 or less	φ 8.5 Flat (Carbide)	φ 8.5 Flat (Carbide)	440
SM-1201LS	0.001	10	±3	—	0-100-0	1.5 or less	φ 3 Ball (Carbide)	φ 8.5 Flat (Carbide)	440
SM-1201LW	0.001	10	±3	—	0-100-0	1.5 or less	φ 3 Ball (Carbide)	φ 3 Ball (Carbide)	440
SM-1201L	0.001	1 (3) *	±3	3	0-100-200	1.5 or less	φ 10 Flat (Ceramic)	φ 10 Flat (Ceramic)	420
SM-1202L	0.001	2 (2) *	±5	3	0-100-200	1.5 or less	φ 10 Flat (Ceramic)	φ 10 Flat (Ceramic)	420

* () is a free-stroke.

LS, LW, 3A For more information please refer to P26.

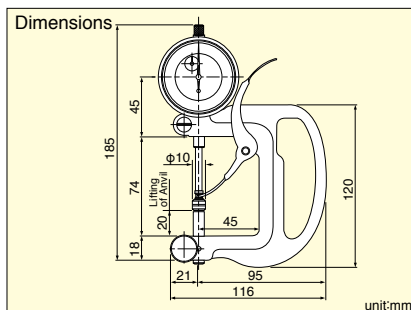


By the lifting of the anvil, can be measured 0~50mm

Graduation 0.01mm
Measuring Range 50mm
Indication Range 30mm
(Lifting Anvil)

Upward Shockproof
Contact Point, Anvil = Ceramic

*Setting up standard point with block gauge is necessary to measure thickness 30mm and over.

Specifications **SM-130 Series**

Model	Graduation (mm)	Measuring Range (mm)	Accuracy (μm)	Parallelism (μm)	Dial Reading	Measuring Force (N)	Contact Point Form (mm)	Anvil Form (mm)	Weight (g)
SM-130	0.01	50	±25	5	±0-50-100	2.2 or less	φ 10 Flat	φ 10 Flat	620
SM-130LS	0.01	50	±25	—	±0-50-100	2.2 or less	φ 3.2 Ball	φ 10 Flat	620
SM-130LW	0.01	50	±25	—	±0-50-100	2.2 or less	φ 3.2 Ball	φ 3.2 Ball	620

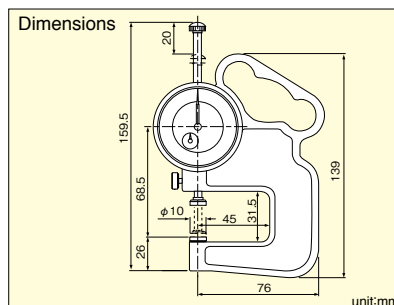
LS, LW, 3A For more information please refer to P26.

Dial Swift Gauge



Graduation 0.01mm
Measuring Range 20mm

Upward Shockproof
Contact Point, Anvil = Ceramic



Specifications

Model	Graduation (mm)	Measuring Range (mm)	Accuracy (μm)	Parallelism (μm)	Dial Reading	Contact Point Form (mm)	Anvil Form (mm)	Weight (g)
SFM-627	0.01	20	±20	5	0-50-100	φ 10 Flat	φ 10 Flat	240



Dial Pipe Gauge



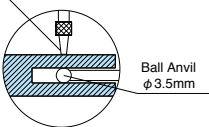
TPM-116

*Suitable for measuring thickness of pipe and curved plate etc.
Radial thickness can be measured up to minimum diameter ϕ 3.5mm.

Graduation 0.01mm
Measuring Range 10mm

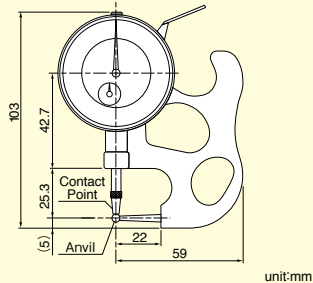
Upward Shockproof
Anvil fixed type

Edge of point
 ϕ 2.5mm Flat



Ball Anvil
 ϕ 3.5mm

Dimensions:TPM-116



unit:mm

The special order if the following hole diameter ϕ 3.5mm.



TPM-617

Graduation 0.01mm
Measuring Range 10mm

Anvil replaceable type (ϕ 0.5, ϕ 1.0, ϕ 2.0mm)



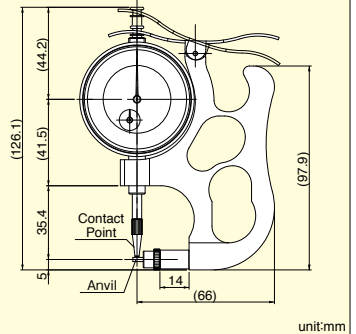
TPM-618

Graduation 0.01mm
Measuring Range 10mm

Anvil replaceable type
(option)

Anvil ϕ 5mm

Dimensions:TPM-617/618



unit:mm

Relation between Anvil diameter and Work inserting depth

Anvil dia.	Depth	Anvil dia.	Depth
ϕ 0.5	2mm	ϕ 5.0	8mm
ϕ 1.0	3mm	ϕ 7.0	8mm
ϕ 2.0	3mm	ϕ 10.0	8mm

unit:mm

Specifications

Model	Graduation (mm)	Measuring Range (mm)	Accuracy (μ m)	Parallelism (μ m)	Dial Reading	Measuring Force (N)	Contact Point Form (mm)	Anvil Form (mm)	Weight (g)
TPM-116	0.01	10	± 15	—	0-50-100	2.3 or less	ϕ 2.5 Flat	ϕ 3.5 Ball	145
TPM-617	0.01	10	± 15	—	0-50-100	1.5 or less	ϕ 1.6 Ball	ϕ 0.5, 1.0, 2.0 replaceable	190
TPM-618	0.01	10	± 15	—	0-50-100	1.5 or less	ϕ 1.6 Ball	ϕ 5.0 (ϕ 7.0, 10.0 replaceable)*	195

*Anvils of ϕ 7 and ϕ 10.0 are optional.

Digital Pipe Gauge



TPD-617J

Graduation 0.01mm
Measuring Range 12mm

Anvil replaceable type



TPD-618J

Graduation 0.01mm
Measuring Range 12mm

Anvil replaceable type
(option)

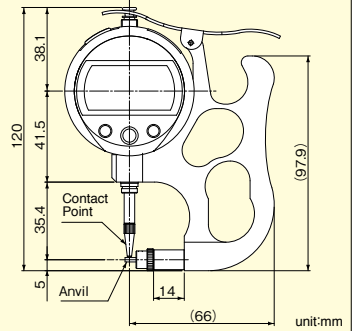
Relation between Anvil diameter and Work inserting depth

Anvil dia.	Depth	Anvil dia.	Depth
ϕ 0.5	2mm	ϕ 5.0	8mm
ϕ 1.0	3mm	ϕ 7.0	8mm
ϕ 2.0	3mm	ϕ 10.0	8mm

unit:mm

All SM series equips ceramic contact point and anvils.

Dimensions:TPD-617J/618J



unit:mm

Specifications

Model	Graduation (mm)	Measuring Range (mm)	Accuracy (μ m)	Parallelism (μ m)	Measuring Force (N)	Contact Point Form (mm)	Anvil Form (mm)	Weight (g)
TPD-617J	0.01	12	± 20	—	1.5 or less	ϕ 1.6 Ball	ϕ 0.5, 1.0, 2.0 replaceable	255
TPD-618J	0.01	12	± 20	—	1.5 or less	ϕ 1.6 Ball	ϕ 5.0 (ϕ 7.0, 10.0 replaceable)*	260

*Anvils of ϕ 7 and ϕ 10.0 are optional.



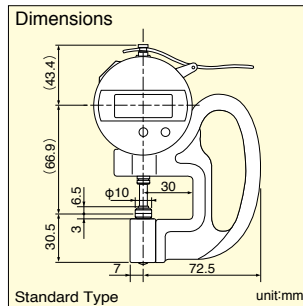
Conventional Digital Thickness Gauge

- Digital display for error-free reading



SMD-540S2

Resolution 0.01mm
Measuring Range 12mm



- Measurement force cannot be changed.
Low measurement force is required, check a standard type.

Specifications

Model	Resolution (mm)	Measuring Range (mm)	Accuracy* (μm)	Parallelism (μm)	Measuring Force (N)	Contact Point Form (mm)	Anvil Form (mm)	Weight (g)
SMD-540S2	0.01	12	±20	5	2.0 or less	φ 10 Flat	φ 10 Flat	250
SMD-540S2-LS	0.01	12	±20	—	2.0 or less	φ 3.2 Ball	φ 10 Flat	250
SMD-540S2-LW	0.01	12	±20	—	2.0 or less	φ 3.2 Ball	φ 3.2 Ball	250
SMD-540S2-3A	0.01	12	±20	5	2.0 or less	φ 5 Flat	φ 5 Flat	250

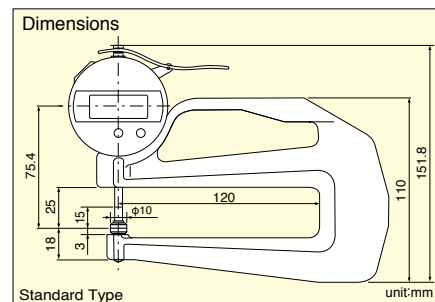
LS, LW, 3A For more information please refer to P26.

* The quantizing error is not included.



SMD-550S2

Resolution 0.01mm
Measuring Range 12mm



Specifications

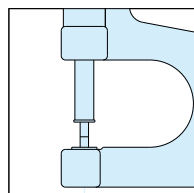
Model	Resolution (mm)	Measuring Range (mm)	Accuracy* (μm)	Parallelism (μm)	Measuring Force (N)	Contact Point Form (mm)	Anvil Form (mm)	Weight (g)
SMD-550S2	0.01	12	±20	5	2.0 or less	φ 10 Flat	φ 10 Flat	400
SMD-550S2-LS	0.01	12	±20	—	2.0 or less	φ 3.2 Ball	φ 10 Flat	400
SMD-550S2-LW	0.01	12	±20	—	2.0 or less	φ 3.2 Ball	φ 3.2 Ball	400
SMD-550S2-3A	0.01	12	±20	5	2.0 or less	φ 5 Flat	φ 5 Flat	400

LS, LW, 3A For more information please refer to P26.

* The quantizing error is not included.

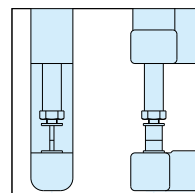
Special order product of Dial Thickness Gauge / Digital Thickness Gauge

1. Instruct dimension and shape of anvil and contact point by referring to the figure in the right and P26.
2. Instruct necessary measuring range.
3. In case that there is direction like blade type, instruct "parallel" or "right angle" based on graduation face as front face standard.
4. In case of requesting shape of anvil and contact point rather than figure in the right or change of measuring force, please contact our nearest branch for you.



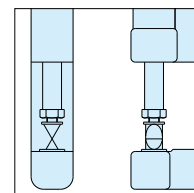
NE (needle) type

This is top and bottom needle type(cylinder).
Instruct diameter



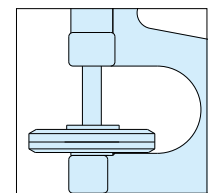
BL (blade) type

This is top and bottom blade type(blade). Instruct width and thickness.



KN (knife edge) type

This is top and bottom knife edge type. Instruct width and angle.



LD (large diameter flat) type

This is top and bottom disc type(cylinder).
Instruct diameter.

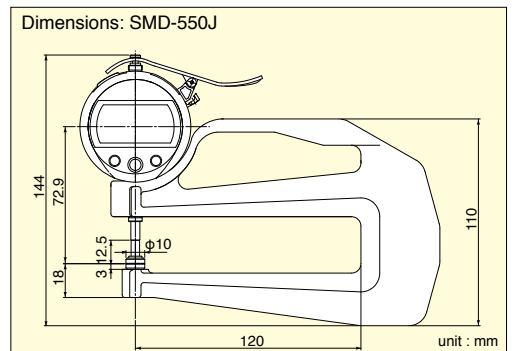
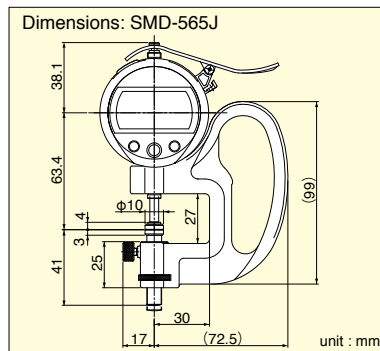
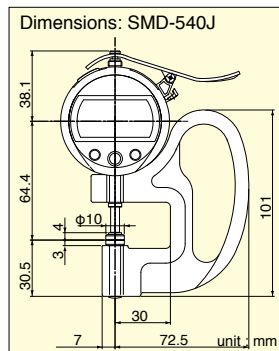


Standard Digital Thickness Gauge

- 0.01mm and 0.001mm graduation are available.
- 0.001mm model which can measure up to 15mm thickness as maximum by lifting anvil.



PRINTER (Option)
Printer for Digital Thickness Gauges
Digital Mini-Printer SD-763P and
connecting cable ZE-018.
Refer to the details on page 52.



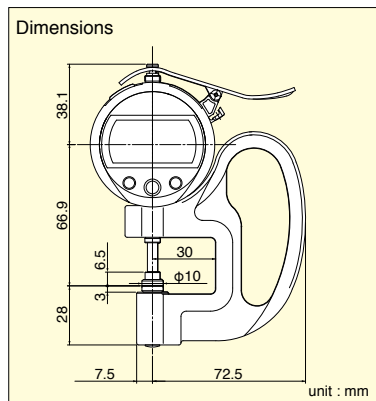
Specifications

Model	Resolution (mm)	Measuring Range (mm) () : Indicating Range*1	Accuracy*2 (μm)	Parallelism (μm)	Measuring Force (N)	Contact Point Form / Anvil Form (mm)	Weight (g)
SMD-540J	0.01	12	±20	5	1.0 or less	φ 10 Flat	290
SMD-550J	0.01	12	±20	5	1.0 or less	φ 10 Flat	440
SMD-565J	0.001	15 (12)	±3	3	1.5 or less	φ 10 Flat	470

*1 Indicating value in () is a measuring range of digital sensor. *2 The quantizing error is not included.

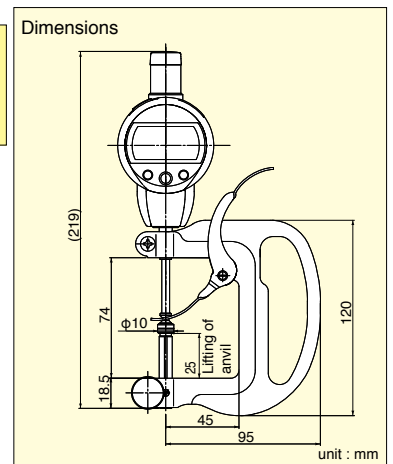
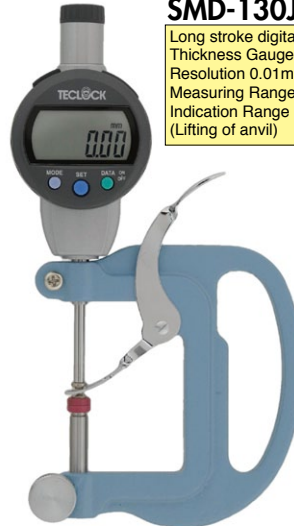
SMD-565J-L

Conventional type of Model : SMD-565J but without Anvil Adjustment.
Resolution 0.001mm
Measuring Range 12mm



SMD-130J

Long stroke digital Thickness Gauge.
Resolution 0.01mm
Measuring Range 50mm
Indication Range 25mm (Lifting of anvil)



Specifications

Model	Resolution (mm)	Measuring Range (mm) () : Indicating Range*1	Accuracy*2 (μm)	Parallelism (μm)	Measuring Force (N)	Contact Point Form	Anvil Form (mm)	Weight (g)
SMD-565J-L	0.001	12	±3	3	1.5 or less	φ 10 Flat	φ 10 Flat	415
SMD-130J	0.01	50 (25)	±20	5	2.0 or less	φ 10 Flat	φ 10 Flat	610

*1 Indicating value in () is a measuring range of digital sensor. *2 The quantizing error is not included.



Constant Pressured Thickness Measuring Instrument

Thickness measuring method for tested piece for physical test such as rubber, heat plasticity Elastomer, plastic film, cloth, textile, leathers are ruled in detail by JIS or ISO. PG/PF series are digital type thickness measuring instrument in compliance with these major standard.

Stand type (fixed type) and frame type (handy type) are widely used for test & research dept., quality control dept. and manufacturing dept.

Features

- Wide range of line-up complying with various standard of the field are available.
- High accuracy digital type with weight type for all the versions realizing stable static load, which is not got by analog type utilizing gears or springs.
- PG series uses micro-granite which is superior for abrasion resistance, chemical resistance, impact resistance in addition to high unstriated for measurable table. It can avoid scratches and stains for metal.
- Stainless steel is used for contact point and anvil (excluding partial model). Acid resistance, alkali proof, water resistance are improved.

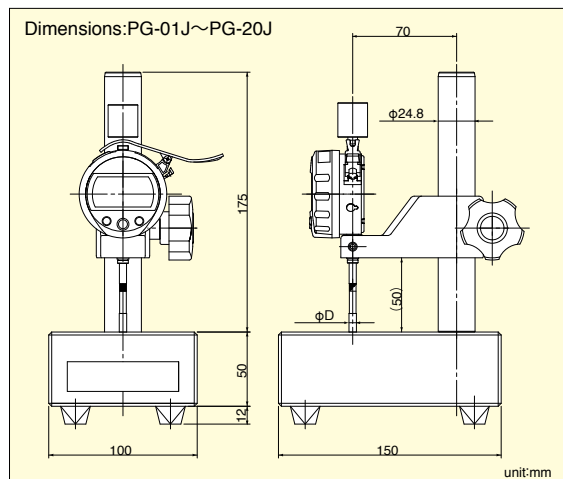
- Power source is silver oxide batteries (SR-44) which is convenient to carry.
- This makes treating statistics of measured data possible with connected to optional printer SD-763P.
- Contact point and measuring pressure can be changed. (However, it is not equivalent to standard)
- Please refer to page 25 for specifications of each model.

PG Series stand type

PG-20J

JIS K 6250 Method A

PG-20 is the thickness measuring instrument compliant with A Law for measuring thickness which is standardized in JIS K 6250 (ruled in physical test method general rule of rubber for vulcanized rubber and thermoplastic rubber.) This is sheet block compatible type which can measure both thickness of test piece hardness IRHD below 35 and over 35 by this one unit. Contact point is diameter 5mm and pressure can be changed by only attaching and detaching weights.

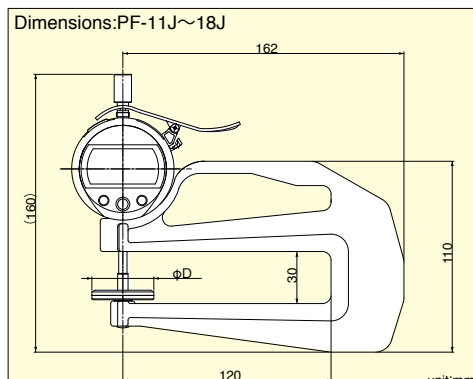
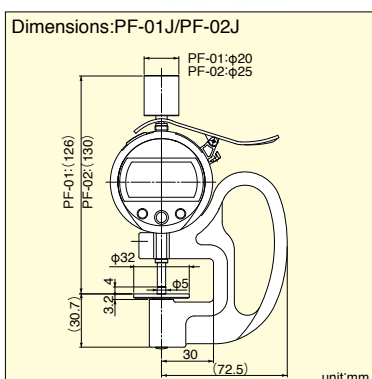


PF Series frame type

PF-02J



PF-11J





Specifications

Model		Reference Standard		Resolution (Mm)	Measuring Range (Mm)	Load (Measuring Force)	Contact Point Φd (Mm)	Measured Pressure
Stand-type	Frame-type	JIS	Measured Item					
PG-01J	PF-01J	K6732-1996	Poly Vinyl Chloride Films For Agriculture	0.001	12	0.8N (80gf) or less	φ5	
PG-02J	PF-02J	K6783-1994	Ethylene / Vinyl Acetate Copolymer Films For Agriculture	0.001	12	1.22±0.14mN (125gf±15gf)	φ5	
		Z1702-1994	Polyethylene Films For Packaging			1226±143mN (125gf±15gf)		
		Z1709-1995	Heat Shrinkable Plastic Films For Packaging					
PG-11J	PF-11J	K6400-1997	Flexible Polyurethane Foam	0.01	12	0.363N (37gf)	φ35.7	0.363kPa (3.7gf/cm²)
PG-12J	PF-12J	K6301-1995	Vulcanized Rubber	0.01	12	0.785N (80gf)	φ5	
PG-13J	PF-13J	K6328-1999	Rubber Coated Fabrics	0.01	12	0.785N (80gf)	φ10	
		K6250-2006	Rubber / For A Method (Less Than Irhd 35)					
PG-14J	PF-14J	L1086-2007	Fusible Interlining Fabrics (Non Woven Textile)	0.01	12	0.394N (40gf)	φ16	2kPa (20gf/cm²)
PG-15J	PF-15J	L1086-1999	Fusible Interlining Fabrics (Ordinary Textile)	0.01	12	2.35N (240gf)	φ11.3	23.5kPa (240gf/cm²)
		L1096-2007	Woven Fabrics (Ordinary Textile)					
		L1018-1999	Knitted Fabrics (Ordinary Knit)					
PG-16J	PF-16J	L1086-2007	Fusible Interlining Fabrics (Ordinary Knitting Fabric)	0.01	12	0.343N (35gf)	φ25.2	0.7kPa (7gf/cm²)
		L1096-1999	Woven Fabrics (Crinose Textile)					
PG-17J	PF-17J	K6505-1995	Man-made Upper Material Of Shoes	0.01	12	3.85±0.1N (390gf±10gf)	φ10	49.03±1.177kPa (500±12gf/cm²)
		K6550-1994	Leathers					
PG-18J	PF-18J	K6250-2006	Rubber A Method (35 Irhd And Over)	0.01	13	0.431N (44±10gf)	φ5	(35 IRHD and over) 22±5kPa (2.24±0.51gf/mm²)
PG-20J	—	K6250-2006	Rubber A Method For Both (Less Than 35 Irhd, 35 Irhd And Over)	0.01	13	0.196±0.038N (20±3.9gf)	φ5	(Less than 35 IRHD) 10±2kPa (1.02±0.20gf/mm²)
						0.431±0.098N (44±10gf)		(35 IRHD and over) 22±5kPa (2.24±0.51gf/mm²)

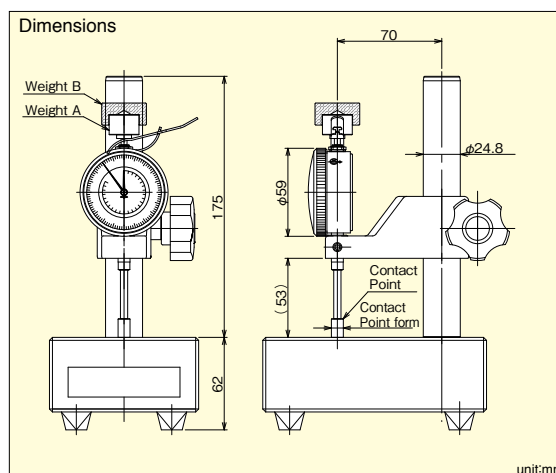
Aluminium alloy is used for material of contact point (including anvil) of PG-11J and PF-11J. Contact point for other model are all stainless steel.
PG-13 and PF-13 can be also used for IRHD below 35 of JIS K 6250 A law.

- PF series can be used by being fixed to stand (Option).



Constant pressured thickness measuring instrument of the plate-cylindrical shape test piece (JIS K 6250 method A)

Hardness 35 for IRHD below-or more of vulcanized rubber.

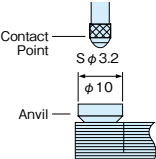
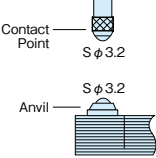
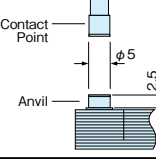
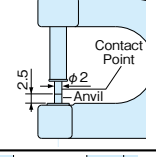
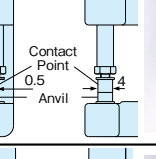
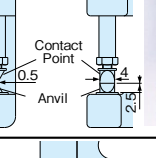
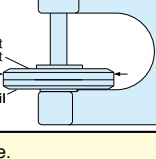


Specifications

Model	Less than 35 IRHD	35 IRHD and over	Graduatoun	Measuring Range	Contact Point Form
PGM-20-5	10±2kPa (20gf)	22±5kPa (44gf)	0.01mm	25mm	φ5mm
PGM-20-8	10±2kPa (51gf)	22±5kPa (113gf)	0.01mm	25mm	φ8mm



Thickness Gauge Special Product List

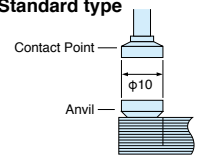
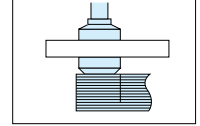
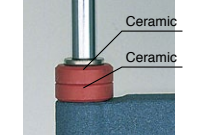
Type	Adaptation models	Graduation (mm)	Measuring Range (mm)	Contact Point (mm)	Anvil Form (mm)
LS type Contact point is spherical, the anvil is flat. 	SM-112LS	0.01	10	φ3.2 Ball	φ10 Flat
	SM-528LS	0.01	20	φ3.2 Ball	φ10 Flat
	SM-114LS	0.01	10	φ3.2 Ball	φ10 Flat
	SM-124LS	0.01	20	φ3.2 Ball	φ10 Flat
	SM-130LS	0.01	50	φ3.2 Ball	φ10 Flat
	SM-1201LS	0.001	10	φ3.2 Ball	φ10 Flat
	SMD-540S2-LS	0.01	12	φ3.2 Ball	φ10 Flat
	SMD-550S2-LS	0.01	12	φ3.2 Ball	φ10 Flat
LW type Contact point: anvil with spherical. 	SM-112LW	0.01	10	φ3.2 Ball	φ3.2 Ball
	SM-528LW	0.01	20	φ3.2 Ball	φ3.2 Ball
	SM-114LW	0.01	10	φ3.2 Ball	φ3.2 Ball
	SM-124LW	0.01	20	φ3.2 Ball	φ3.2 Ball
	SM-130LW	0.01	50	φ3.2 Ball	φ3.2 Ball
	SM-1201LW	0.001	10	φ3 Ball (Carbide)	φ3 Ball (Carbide)
	SMD-540S2-LW	0.01	12	φ3.2 Ball	φ3.2 Ball
	SMD-550S2-LW	0.01	12	φ3.2 Ball	φ3.2 Ball
3A type Upper and lower both φ5 flat. 	SM-112-3A	0.01	10	φ5 Flat	φ5 Flat
	SM-528-3A	0.01	20	φ5 Flat	φ5 Flat
	SMD-540S2-3A	0.01	12	φ5 Flat	φ5 Flat
	SMD-550S2-3A	0.01	12	φ5 Flat	φ5 Flat
NE (needle) type Upper and lower with needle type. 	SM-112NE	0.01	10	φ2 Flat	φ2 Flat
	SM-528NE	0.01	20	φ2 Flat	φ2 Flat
	SM-114NE	0.01	10	φ2 Flat	φ2 Flat
	SMD-540S2-NE	0.01	12	φ2 Flat	φ2 Flat
	SMD-550S2-NE	0.01	12	φ2 Flat	φ2 Flat
BL (blade) type Upper and lower with blade type. 	SM-112BL	0.01	7	t0.5/w4	t0.5/w4
	SM-528BL	0.01	17	t0.5/w4	t0.5/w4
	SM-114BL	0.01	7	t0.5/w4	t0.5/w4
	SMD-540S2-BL	0.01	10	t0.5/w4	t0.5/w4
	SMD-550S2-BL	0.01	10	t0.5/w4	t0.5/w4
KN (blade) type Upper and lower with blade type. 	SM-112KN	0.01	7	t0.5/w4/30°	t0.5/w4/30°
	SM-528KN	0.01	17	t0.5/w4/30°	t0.5/w4/30°
	SM-114KN	0.01	7	t0.5/w4/30°	t0.5/w4/30°
	SMD-540S2-KN	0.01	10	t0.5/w4/30°	t0.5/w4/30°
	SMD-550S2-KN	0.01	10	t0.5/w4/30°	t0.5/w4/30°
LD (flat disk) type Upper and lower with a flat disk type. 	SM-112LD	0.01	10	φ30	φ30
	SM-528LD	0.01	20	φ30	φ30
	SM-114LD	0.01	10	φ30	φ30
	SMD-540S2-LD	0.01	12	φ30	φ30
	SMD-550S2-LD	0.01	12	φ30	φ30

●SM is Analog Type, SMD is Digital type.

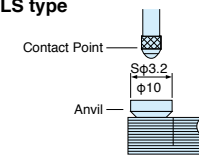
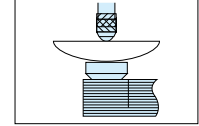
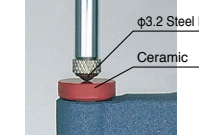
Parts & Accessories

Contact Point, Anvil of Symbol and Shapes

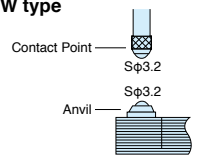
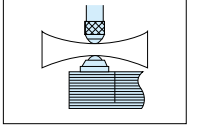
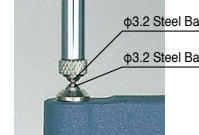
Standard type

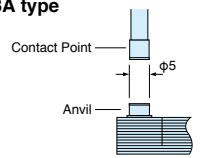
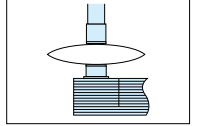
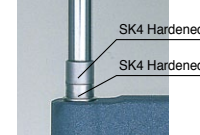
LS type

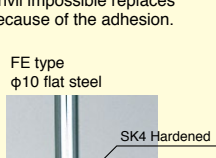
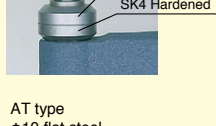
LW type

3A type

FE type
φ10 flat steel

AT type
φ10 flat steel

