

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

SM-112P
(Direct Reading Graduation)

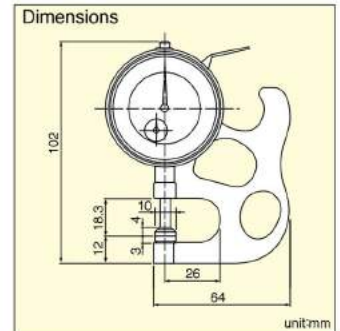


1.17mm reading example

SM-112D
(Coaxial Revolution Pointer)



Measuring metal work piece.
The photo shows 5.98mm.



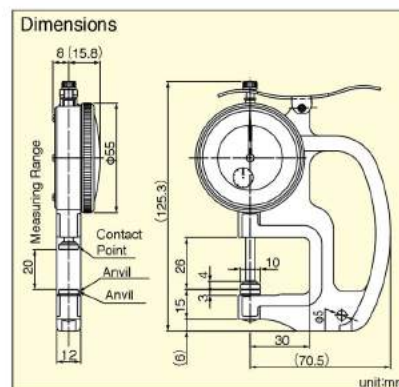
Specifications SM-112 Series

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	145
SM-112LS	0.01	10	± 15	—	0-50-100	2.5 or less	ϕ 3.2 Ball	ϕ 10 Flat	145
SM-112LW	0.01	10	± 15	—	0-50-100	2.5 or less	ϕ 3.2 Ball	ϕ 3.2 Ball	145
SM-112-3A	0.01	10	± 15	5	0-50-100	2.5 or less	ϕ 5 Flat	ϕ 5 Flat	145
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	145
SM-112P	0.01	10	± 15	5	0-0.5-1	2.5 or less	ϕ 10 Flat	ϕ 10 Flat	145
SM-112FE	0.01	10	± 15	5	0-50-100	2.5 or less	ϕ 10 Flat	ϕ 10 Flat	145
SM-112AT	0.01	10	± 15	8	0-50-100	0.8 or less	ϕ 10 Flat	ϕ 10 Flat	145
SM-112D	0.01	10	± 15	5	0-50-100	2.5 or less	ϕ 10 Flat	ϕ 10 Flat	145

LS, LW, 3A For more information about the see (P**)



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	200
SM-528LS	0.01	20	± 20	—	0-50-100	3.5 or less	ϕ 3.2 Ball	ϕ 10 Flat	200
SM-528LW	0.01	20	± 20	—	0-50-100	3.5 or less	ϕ 3.2 Ball	ϕ 3.2 Ball	200
SM-528-3A	0.01	20	± 20	5	0-50-100	3.5 or less	ϕ 5 Flat	ϕ 5 Flat	200
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	200
SM-528FE	0.01	20	± 20	5	0-50-100	3.5 or less	ϕ 10 Flat	ϕ 10 Flat	200

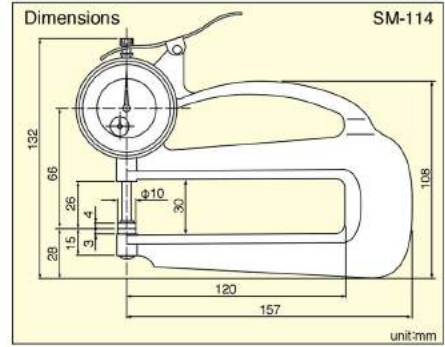
LS, LW, 3A For more information about the see (P**)



SM-114

Insertion Depth
120mm

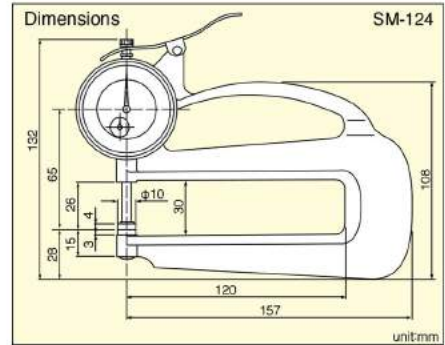
Graduation 0.01mm
Measuring Range 10mm



SM-124

Medium size
Thickness Gauge

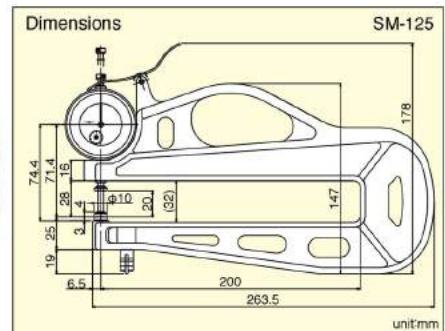
Graduation 0.01mm
Measuring Range 20mm



SM-125

Large size Thickness
Gauge

Graduation 0.01mm
Measuring Range 20mm



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	270
SM-114LS	0.01	10	±15	—	0-50-100	2.5 or less	φ 3.2 Ball	φ 10 Flat	270
SM-114LW	0.01	10	±15	—	0-50-100	2.5 or less	φ 3.2 Ball	φ 3.2 Ball	270
SM-114P	0.01	10	±15	5	0-0.5-1	2.5 or less	φ 10 Flat	φ 10 Flat	270

LS, LW, 3A For more information about the see (P**)

SM-124 Series

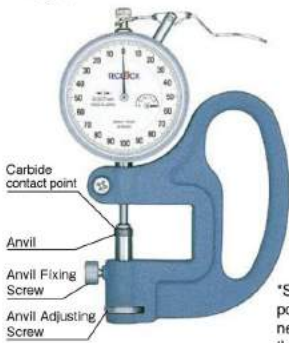
Model	Graduation (mm)	Measuring Range (mm)	Accuracy (µm)	Parallelism (µm)	Dial Reading	Measuring Force (N)	Contact Point Form (mm)	Anvil Form (mm)	Weight (g)
SM-124	0.01	20	±20	5	0-50-100	3.5 or less	φ 10 Flat	φ 10 Flat	270
SM-124LS	0.01	20	±20	—	0-50-100	3.5 or less	φ 3.2 Ball	φ 10 Flat	270
SM-124LW	0.01	20	±20	—	0-50-100	3.5 or less	φ 3.2 Ball	φ 3.2 Ball	270

LS, LW, 3A For more information about the see (P**)

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	440
SM-125LS	0.01	20	±20	—	0-50-100	3.5 or less	φ 3.2 Ball	φ 10 Flat	440
SM-125LW	0.01	20	±20	—	0-50-100	3.5 or less	φ 3.2 Ball	φ 3.2 Ball	440

LS, LW, 3A For more information about the see (P**)

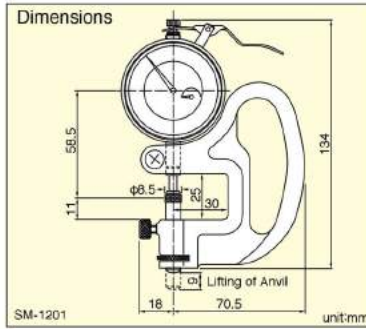


SM-1201 Symmetrical Dial

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

Contact Point, Anvil
= Solid Carbide

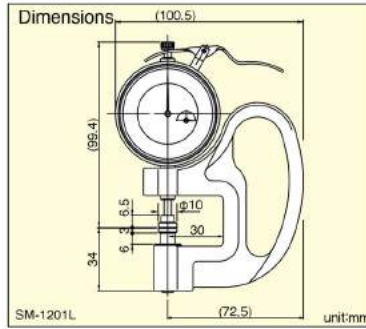
*Setting up standard point with block gauge is necessary to measure thickness 1mm and over.



SM-1201L Continuous Dial

Graduation 0.001mm
Measuring Range 1mm

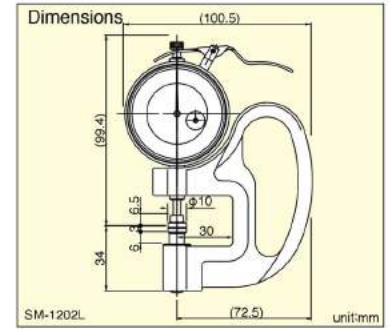
Contact Point, Anvil
= Ceramic



SM-1202L

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 For more information about the see (P**)



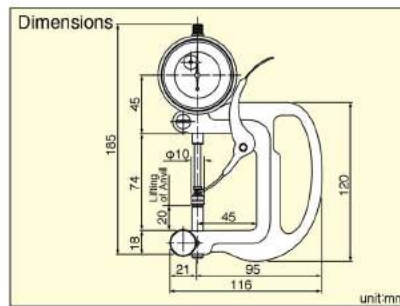
SM-130

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 For more information about the see (P**)

Dial Swift Gauge

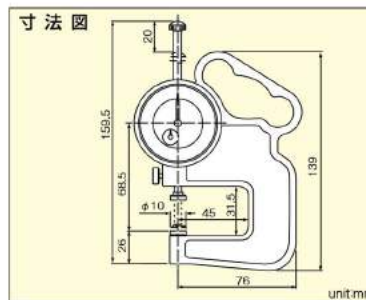
↓ Push top point down and nip workpiece for measurement.



SFM-627

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



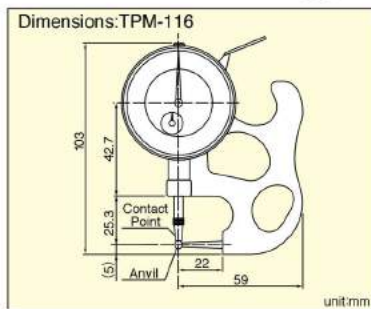
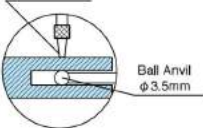
TPM-116

*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



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



TPM-617

Graduation 0.01mm
Measuring Range 10mm

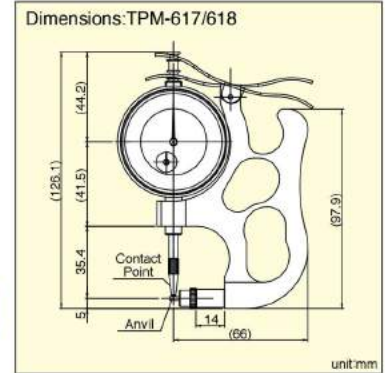
Anvil replaceable type



TPM-618

Graduation 0.01mm
Measuring Range 10mm

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

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	\pm 15	—	0-50-100	2.3 or less	ϕ 2.5 Flat	ϕ 3.5 Ball	160
TPM-617	0.01	10	\pm 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	\pm 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



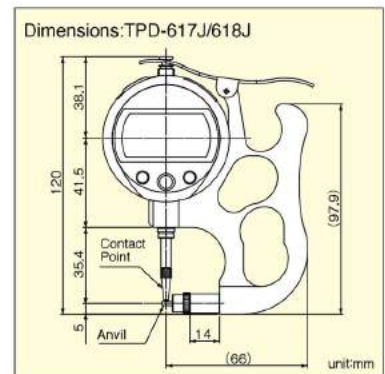
TPD-618J

Graduation 0.01mm
Measuring Range 12mm

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)	Measuring Force (N)	Contact Point Form (mm)	Anvil Form (mm)	Weight (g)
TPD-617J	0.01	12	\pm 20	—	1.5 or less	ϕ 1.6 Ball	ϕ 0.5, 1.0, 2.0 replaceable	255
TPD-618J	0.01	12	\pm 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.

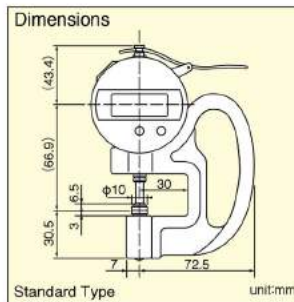


Conventional Digital Thickness Gauge

- Digital display for error-free reading



SMD-540S2
Resolution 0.01mm
Measuring Range 12mm



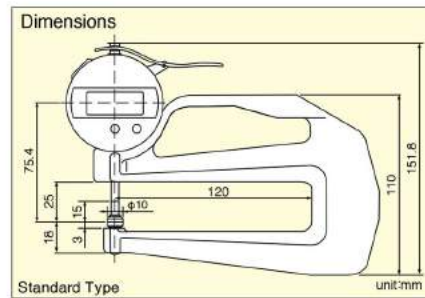
Specifications

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 about the see (P**) * The quantizing error is not included.



SMD-550S2
Resolution 0.01mm
Measuring Range 12mm



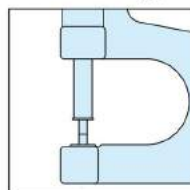
Specifications

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

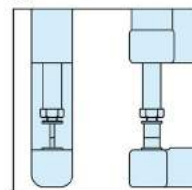
LS, LW, 3A For more information about the see (P**) * The quantizing error is not included.

Special order product of Dial Thickness Gauge / Digital Thickness Gauge

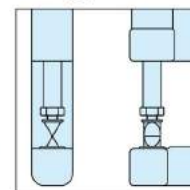
1. Instruct dimension and shape of anvil and contact point by referring to the figure in the right and P46.
2. Instruct necessary measuring range.
3. In case that there is direction like blade type, instruct "parallel" or "right angle" based on graduation face as front face standard.
4. In case of requesting shape of anvil and contact point rather than figure in the right or change of measuring force, please contact our nearest branch for you.



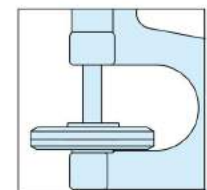
NE (needle) type
This is top and bottom needle type(cylinder). Instruct diameter



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.

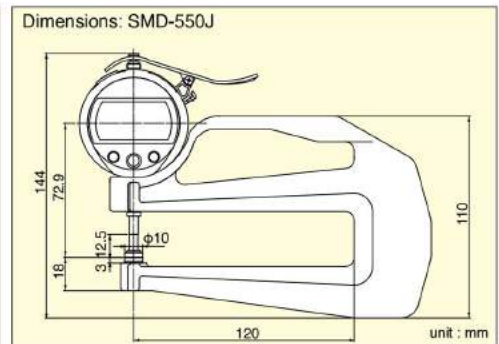
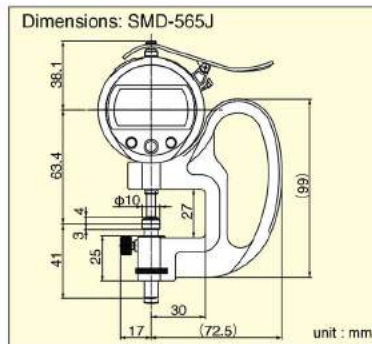
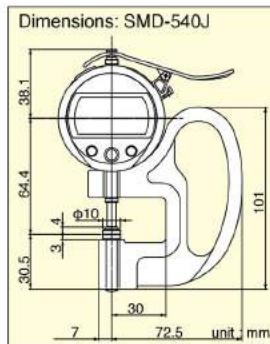


Standard Digital Thickness Gauge

- 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.



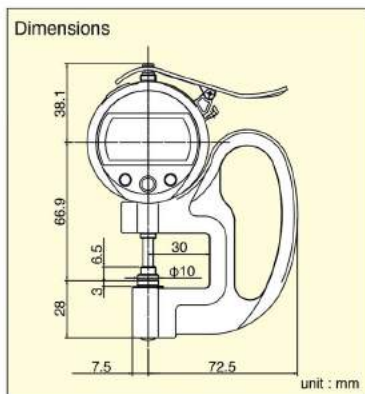
Specifications

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.

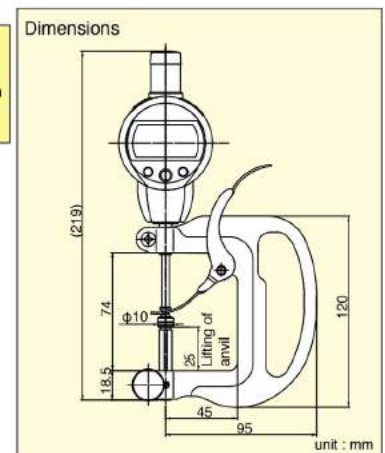
SMD-565J-L

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 Indicating 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 (mm)	Anvil Form (mm)	Weight (g)
SMD-565J-L	0.001	12	±3	3	1.5 or less	φ 10 Flat	φ 10 Flat	410
SMD-130J	0.01	50 (25)	±20	5	2.0 or less	φ 10 Flat	φ 10 Flat	610

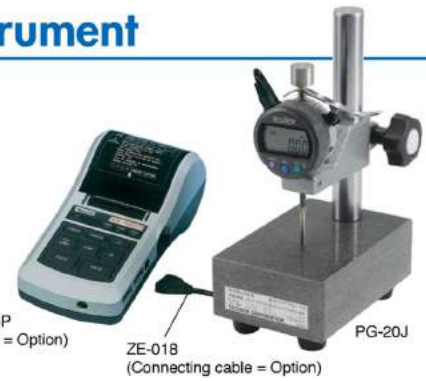
^{*1} Indicating value in () is a measuring range of digital sensor. ^{*2} The quantizing error is not included.



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.



SD-763P (Printer = Option) ZE-018 (Connecting cable = Option) PG-20J

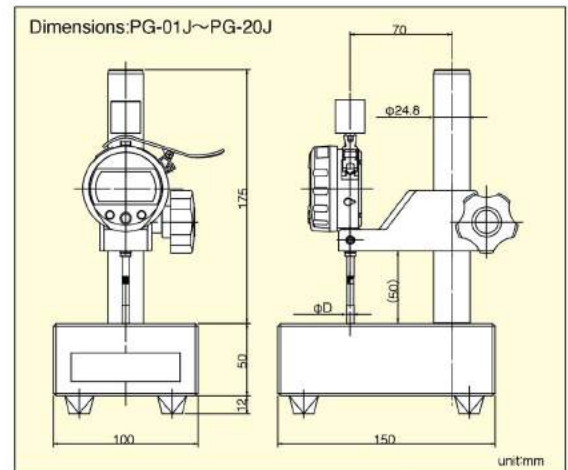
Features

- 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 the next page for specifications of each model.

PG Series stand type

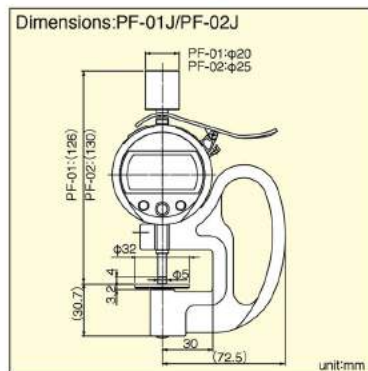
PG-20J

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.

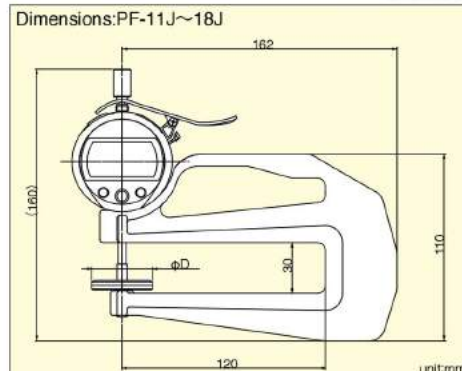


PF Series frame type

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	K6400-1987	Flexible Polyurethane Foam	0.01	12	0.363N (37gf)	φ35.7	0.363kPa (3.7gf/cm ²)
PG-12J	PF-12J	K6301-1995	Vulcanized Rubber	0.01	12	0.785N (80gf)	φ5	
PG-13J	PF-13J	K6328-1990	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/cm ²)
PG-15J	PF-15J	L1086-1999	Fusible Interlining Fabrics (Ordinary Textile)	0.01	12	2.35N (240gf)	φ11.3	23.5kPa (240gf/cm ²)
		L1096-2007	Woven Fabrics (Ordinary Textile)					
PG-16J	PF-16J	L1018-1999	Knitted Fabrics (Ordinary Knit)	0.01	12	0.343N (35gf)	φ25.2	0.7kPa (7gf/cm ²)
		L1086-2007	Fusible Interlining Fabrics (Ordinary Knitting Fabric)					
		L1096-1999	Woven Fabrics (Crimose 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/cm ²)
		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/mm ²)
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/mm ²)
						0.431±0.098N (44±10gf)		(35 IRHD and over) 22±5kPa (2.24±0.51gf/mm ²)

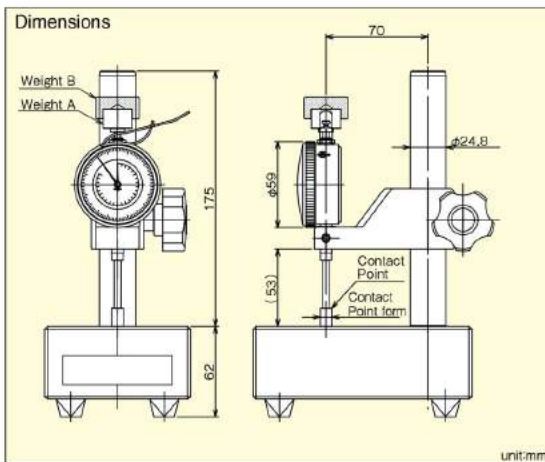
Aluminium alloy is used for material of contact point (including anvil) of PG-11J and PF-11J. Contact point for other model are all stainless steel.
 PG-13 and PF-13 can be also used for IRHD below 35 of JIS K 6250 A law.

• 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	Graduation	Measuring Range	Contact Point Form
PGM-20-5	10±2kPa (20gf)	22±5kPa (44gf)	0.01 mm	25mm	φ5mm
PGM-20-8	10±2kPa (51gf)	22±5kPa (113gf)	0.01 mm	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
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
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

Contact Point
Anvil

Ceramic
Ceramic

LS type

Contact Point
Anvil

φ3.2 Steel Ball
Ceramic

LW type

Contact Point
Anvil

φ3.2 Steel Ball
φ3.2 Steel Ball

3A type

Contact Point
Anvil

SK4 Hardened
SK4 Hardened

Anvil impossible replaces because of the adhesion.

FE type
φ10 flat steel

SK4 Hardened
SK4 Hardened

AT type
φ10 flat steel

Specialized Coating