

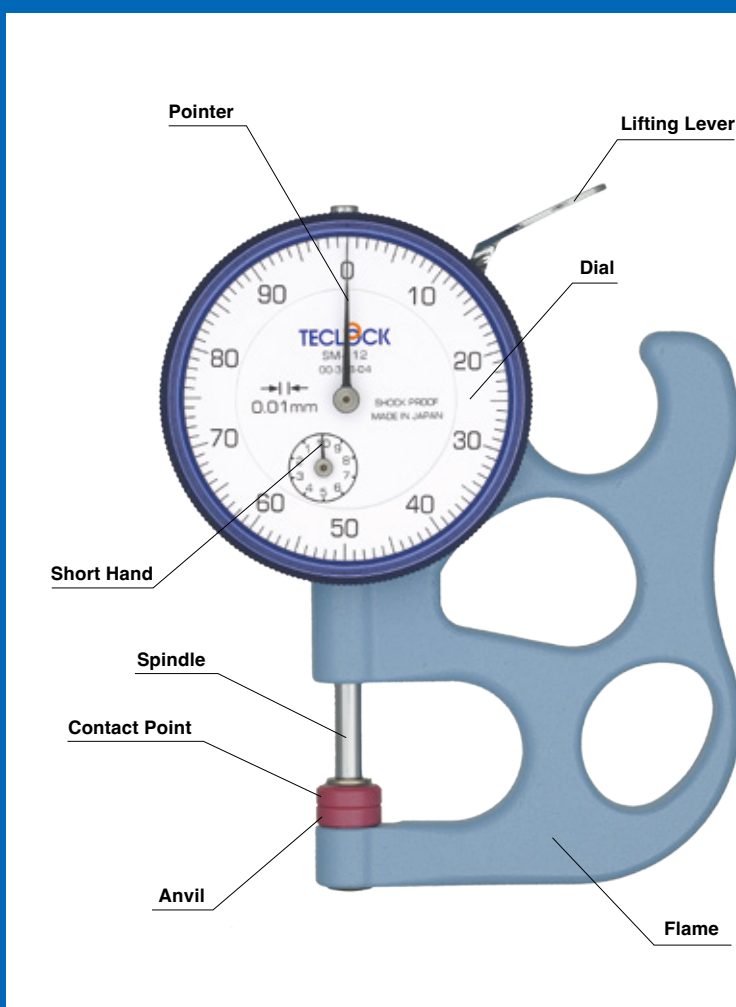
# 3 Thickness Gauge

High-precision measurement for papers, films and parts thickness

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.



Measuring metal work piece. The photo shows 5.98mm.

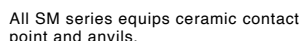


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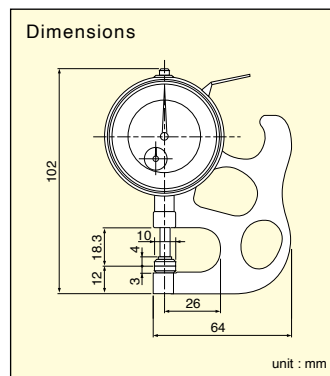
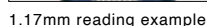
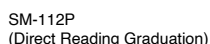
- Suitable for measuring thickness and diameter of metal, lens, rubber, plastic, paper, felt, hair and pearl etc. In actual dimension.
- Ceramic contact point and anvil feature are superior for anti-abrasion and dust. In addition, there are steel FE type and AT type which rarely adheres with adhesion tape.

- As to shape of contact point and anvil, there are standard type and other various kinds.



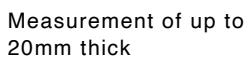
## Standard type

- Graduation 0.01mm
- Measuring Range 10mm

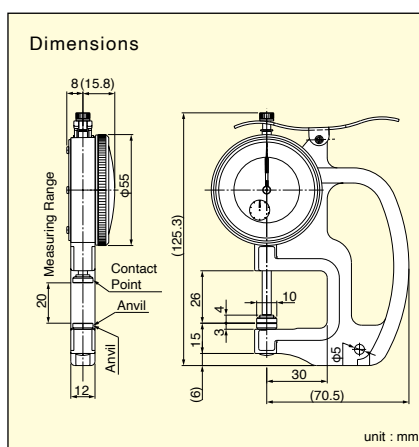


Model	Graduation (mm)	Measuring Range (mm)	Indication Error(μm)	Parallelism (μm)	Dial Reading	Measuring Force (N)	Contact Point Form (mm)	Anvil Form (mm)	Weight (g)
SM-112	0.01	10	±15	5	0-50-100	2.5 or less	φ10 Flat	φ10 Flat	150
SM-112LS	0.01	10	±15	—	0-50-100	2.5 or less	φ3.2 Ball	φ10 Flat	150
SM-112LW	0.01	10	±15	—	0-50-100	2.5 or less	φ3.2 Ball	φ3.2 Ball	150
SM-112-3A	0.01	10	±15	5	0-50-100	2.5 or less	φ5 Flat	φ5 Flat	150
SM-112-80g	0.01	10	±15	5	0-50-100	Stop Point Measuring Forced 0.8±0.05	φ10 Flat	φ10 Flat	150
SM-112P	0.01	10	±15	5	0-0.5-1	2.5 or less	φ10 Flat	φ10 Flat	150
SM-112FE	0.01	10	±15	5	0-50-100	2.5 or less	φ10 Flat	φ10 Flat	150
SM-112AT	0.01	10	±15	8	0-50-100	0.8 or less	φ10 Flat	φ10 Flat	150
SM-112D	0.01	10	±15	5	0-50-100	2.5 or less	φ10 Flat	φ10 Flat	155

LS, LW, 3A For more information please refer to P77.



- Graduation 0.01mm
- Measuring Range 20mm
- Ceramic Contact Point and Anvil

Specifications **SM-528 Series**

Model	Graduation (mm)	Measuring Range (mm)	Indication Error(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	φ10 Flat	φ10 Flat	180
SM-528LS	0.01	20	±20	—	0-50-100	3.5 or less	φ3.2 Ball	φ10 Flat	180
SM-528LW	0.01	20	±20	—	0-50-100	3.5 or less	φ3.2 Ball	φ3.2 Ball	180
SM-528-3A	0.01	20	±20	5	0-50-100	3.5 or less	φ5 Flat	φ5 Flat	180
SM-528-80g	0.01	20	±20	5	0-50-100	Stop Point Measuring Forced 0.8±0.05	φ10 Flat	φ10 Flat	180
SM-528FE	0.01	20	±20	5	0-50-100		φ10 Flat	φ10 Flat	180

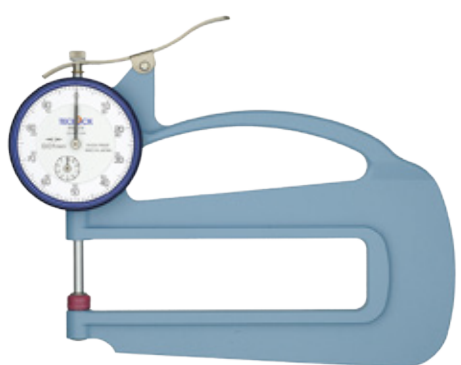
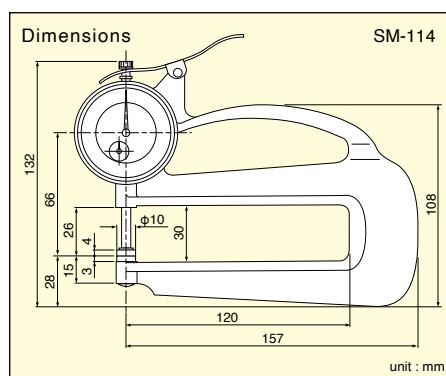
LS, LW, 3A For more information please refer to P77.



### SM-114

Insertion Depth  
120mm

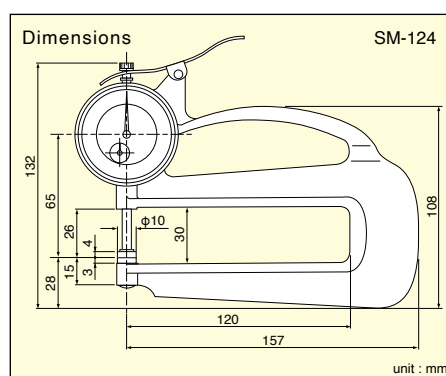
- Graduation 0.01mm
- Measuring Range 10mm
- Ceramic Contact Point and Anvil



### SM-124

Medium size  
Thickness Gauge

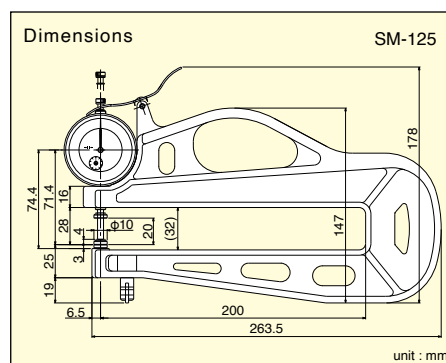
- Graduation 0.01mm
- Measuring Range 20mm
- Ceramic Contact Point and Anvil



### SM-125

Large size Thickness  
Gauge

- Graduation 0.01mm
- Measuring Range 20mm
- Ceramic Contact Point and Anvil with Stand



This stand is standard accessories.

#### Specifications

##### SM-114 Series

Model	Graduation (mm)	Measuring Range(mm)	Indication Error(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	φ10 Flat	φ10 Flat	250
SM-114LS	0.01	10	±15	—	0-50-100	2.5 or less	φ3.2 Ball	φ10 Flat	250
SM-114LW	0.01	10	±15	—	0-50-100	2.5 or less	φ3.2 Ball	φ3.2 Ball	250
SM-114P	0.01	10	±15	5	0-0.5-1	2.5 or less	φ10 Flat	φ10 Flat	250

LS, LW, 3A For more information please refer to P77.

##### SM-124 Series

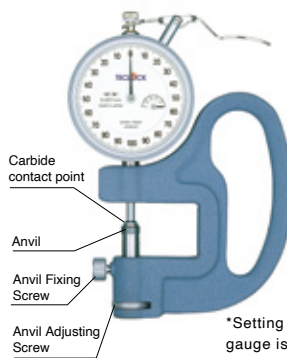
Model	Graduation (mm)	Measuring Range(mm)	Indication Error(μm)	Parallelism (μm)	Dial Reading	Measuring Force (N)	Contact Point Form(mm)	Anvil Form (mm)	Weight (g)
SM-124	0.01	20	±20	5	0-50-100	3.5 or less	φ10 Flat	φ10 Flat	250
SM-124LS	0.01	20	±20	—	0-50-100	3.5 or less	φ3.2 Ball	φ10 Flat	250
SM-124LW	0.01	20	±20	—	0-50-100	3.5 or less	φ3.2 Ball	φ3.2 Ball	250

LS, LW, 3A For more information please refer to P77.

##### SM-125 Series

Model	Graduation (mm)	Measuring Range(mm)	Indication Error(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	φ10 Flat	φ10 Flat	625
SM-125LS	0.01	20	±20	—	0-50-100	3.5 or less	φ3.2 Ball	φ10 Flat	625
SM-125LW	0.01	20	±20	—	0-50-100	3.5 or less	φ3.2 Ball	φ3.2 Ball	625

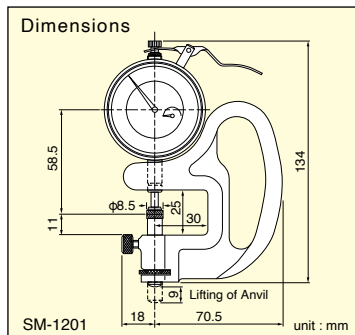
LS, LW, 3A For more information please refer to P77.



### SM-1201 Symmetrical Dial

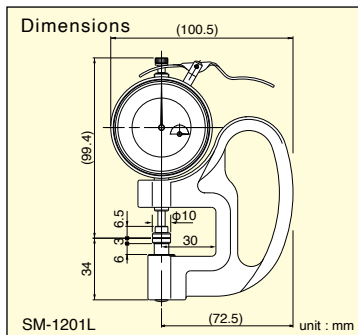
- Graduation 0.001mm
- Measuring Range 10mm
- Indication Range 1mm (Lifting Anvil)
- Contact Point, Anvil = Solid Carbide

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



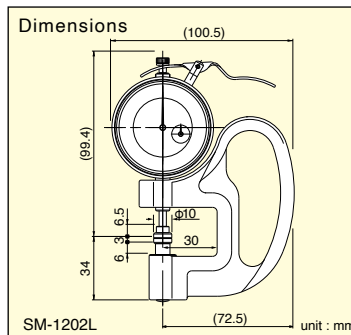
### SM-1201L Continuous Dial

- Graduation 0.001mm
- Measuring Range 1mm
- Contact Point, Anvil = Ceramic



### SM-1202L

- Graduation 0.001mm
- Measuring Range 2mm
- Contact Point, Anvil = Ceramic

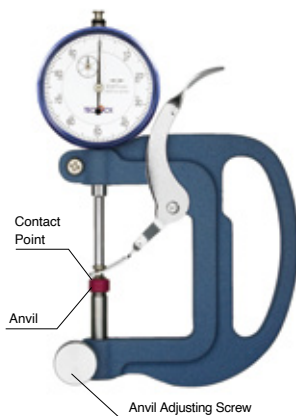


#### Specifications SM-1201 Series

Model	Graduation (mm)	Measuring Range(mm)	Indication Error(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	φ8.5 Flat (Carbide)	φ8.5 Flat (Carbide)	440
SM-1201LS	0.001	10	±3	—	0-100-0	1.5 or less	φ3 Ball (Carbide)	φ8.5 Flat (Carbide)	440
SM-1201LW	0.001	10	±3	—	0-100-0	1.5 or less	φ3 Ball (Carbide)	φ3 Ball (Carbide)	440
SM-1201L	0.001	1(3)*	±3	3	0-100-200	1.5 or less	φ10 Flat (Ceramic)	φ10 Flat (Ceramic)	420
SM-1202L	0.001	2(2)*	±5	3	0-100-200	1.5 or less	φ10 Flat (Ceramic)	φ10 Flat (Ceramic)	420

\* ( ) is a free-stroke.

LS, LW, 3A For more information please refer to P77.



### SM-130

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

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

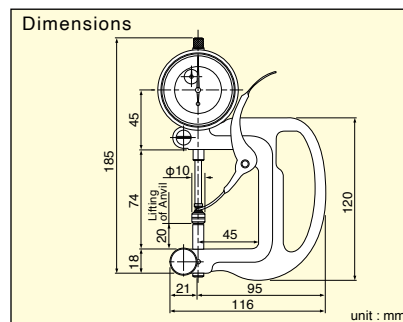
· Upward Shockproof Contact Point, Anvil = Ceramic

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

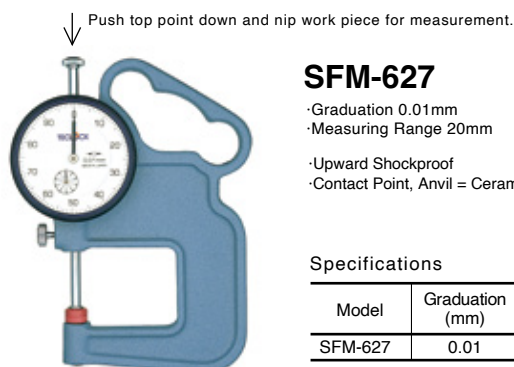
#### Specifications SM-130 Series

Model	Graduation (mm)	Measuring Range (mm)	Indication Error (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	φ10 Flat	φ10 Flat	620
SM-130LS	0.01	50	±25	—	±0-50-100	2.2 or less	φ3.2 Ball	φ10 Flat	620
SM-130LW	0.01	50	±25	—	±0-50-100	2.2 or less	φ3.2 Ball	φ3.2 Ball	620

LS, LW, 3A For more information please refer to P77.



## Dial Swift Gauge



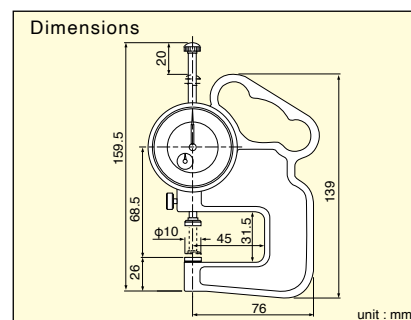
### SFM-627

- Graduation 0.01mm
- Measuring Range 20mm

· Upward Shockproof  
· Contact Point, Anvil = Ceramic

#### Specifications

Model	Graduation (mm)	Measuring Range (mm)	Indication Error(μm)	Parallelism (μm)	Dial Reading	Contact Point Form(mm)	Anvil Form (mm)	Weight (g)
SFM-627	0.01	20	±20	5	0-50-100	φ10 Flat	φ10 Flat	240





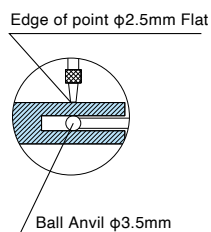
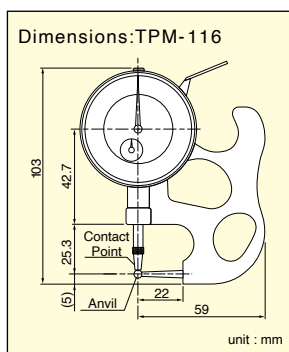
# Dial Pipe Gauge



## TPM-116

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

- Graduation 0.01mm
- Measuring Range 10mm
- Upward Shockproof Anvil fixed type



The special order if the following hole diameter  $\phi$  3.5mm.



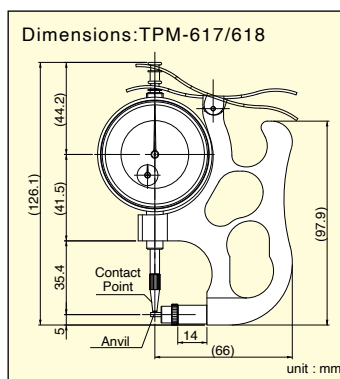
## TPM-617

- Graduation 0.01mm
- Measuring Range 10mm
- Anvil replaceable type ( $\phi$ 0.5,  $\phi$ 1.0,  $\phi$ 2.0mm)



## 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
$\phi$ 0.5	2	$\phi$ 5.0	8
$\phi$ 1.0	3	$\phi$ 7.0	8
$\phi$ 2.0	3	$\phi$ 10.0	8

unit : mm

### Specifications

Model	Graduation (mm)	Measuring Range (mm)	Indication Error ( $\mu$ m)	Parallelism ( $\mu$ 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	$\phi$ 2.5 Flat	$\phi$ 3.5 Ball	145
TPM-617	0.01	10	$\pm 15$	—	0-50-100	1.5 or less	$\phi$ 1.6 Ball	$\phi$ 0.5, 1.0, 2.0 replaceable	190
TPM-618	0.01	10	$\pm 15$	—	0-50-100	1.5 or less	$\phi$ 1.6 Ball	$\phi$ 5.0 ( $\phi$ 7.0, 10.0) replaceable*	195

\*Anvils of  $\phi$ 7 and  $\phi$ 10.0 are optional.

# Digital Pipe Gauge



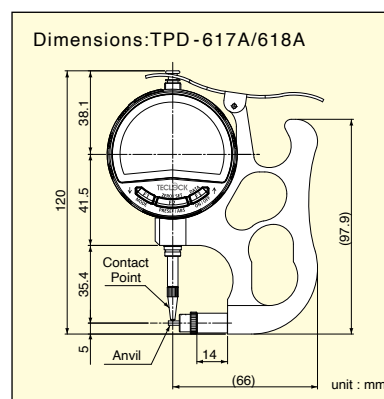
## TPD-617A

- Resolution 0.01mm
- Measuring Range 12mm
- Anvil replaceable type



## TPD-618A

- Resolution 0.01mm
- Measuring Range 12mm
- Anvil replaceable type (option)



Relation between Anvil diameter and Work inserting depth

Anvil dia.	Depth	Anvil dia.	Depth
$\phi$ 0.5	2mm	$\phi$ 5.0	8mm
$\phi$ 1.0	3mm	$\phi$ 7.0	8mm
$\phi$ 2.0	3mm	$\phi$ 10.0	8mm

unit : mm

### Specifications

Model	Graduation (mm)	Measuring Range (mm)	Indication Error ( $\mu$ m)	Parallelism ( $\mu$ m)	Measuring Force (N)	Contact Point Form (mm)	Anvil Form (mm)	Weight (g)
TPD-617A	0.01	12	$\pm 20$	—	1.5	$\phi$ 1.6 Ball	$\phi$ 0.5, 1.0, 2.0 replaceable	255
TPD-618A	0.01	12	$\pm 20$	—	1.5	$\phi$ 1.6 Ball	$\phi$ 5.0 ( $\phi$ 7.0, 10.0) replaceable*	260

\*Anvils of  $\phi$ 7 and  $\phi$ 10.0 are optional.

# Conventional Digital Thickness Gauge

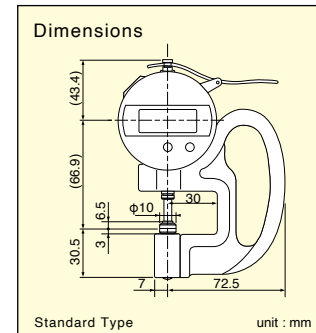
- Digital display for error-free reading
- Measurement force cannot be changed. Low measurement force is required, check a standard type.



## SMD-540S2

### Insertion Depth 30mm Model

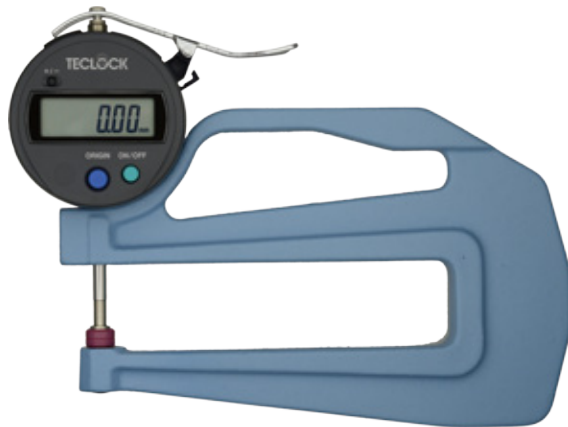
- Resolution 0.01mm
- Measuring Range 12mm
- Ceramic Contact Point and Anvil



### Specifications

Model	Resolution (mm)	Measuring Range(mm)	Indication Error (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	φ10 Flat	φ10 Flat	250
SMD-540S2-LS	0.01	12	±20	—	2.0 or less	φ3.2 Ball	φ10 Flat	250
SMD-540S2-LW	0.01	12	±20	—	2.0 or less	φ3.2 Ball	φ3.2 Ball	250
SMD-540S2-3A	0.01	12	±20	5	2.0 or less	φ5 Flat	φ5 Flat	250

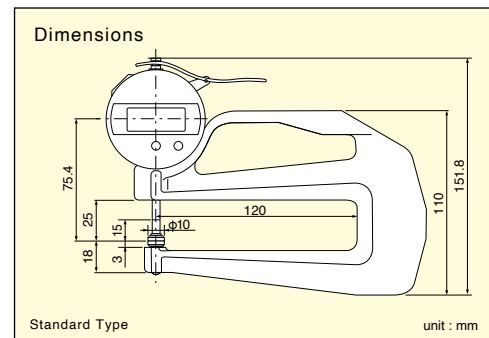
LS, LW, 3A For more information, refer to P77.



## SMD-550S2

### Insertion Depth 120mm Model

- Resolution 0.01mm
- Measuring Range 12mm
- Ceramic Contact Point and Anvil



### Specifications

Model	Resolution (mm)	Measuring Range(mm)	Indication Error (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	φ10 Flat	φ10 Flat	400
SMD-550S2-LS	0.01	12	±20	—	2.0 or less	φ3.2 Ball	φ10 Flat	400
SMD-550S2-LW	0.01	12	±20	—	2.0 or less	φ3.2 Ball	φ3.2 Ball	400
SMD-550S2-3A	0.01	12	±20	5	2.0 or less	φ5 Flat	φ5 Flat	400

LS, LW, 3A For more information, refer to P77.

# Standard Digital Thickness Gauge



• 0.01mm and 0.001mm resolution are available.

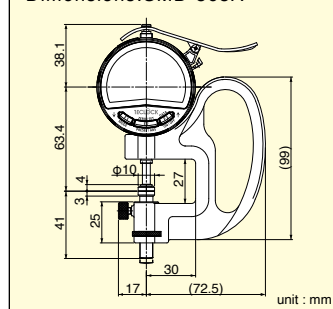


## SMD-565A

By the lifting of the anvil, can be measured 0-15mm

- Resolution 0.001mm
- Measuring Range 15mm
- Indication Range 12mm (Lifting of anvil)
- Ceramic Contact Point and Anvil

Dimensions:SMD-565A

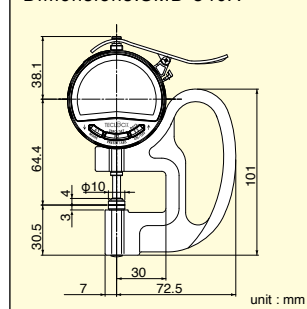


## SMD-540A

Insertion Depth 30mm Model

- Resolution 0.01mm
- Measuring Range 12mm
- Ceramic Contact Point and Anvil

Dimensions:SMD-540A

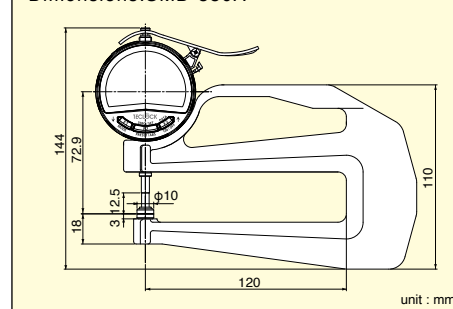


## SMD-550A

Insertion Depth 120mm Model

- Resolution 0.01mm
- Measuring Range 12mm
- Ceramic Contact Point and Anvil

Dimensions:SMD-550A



### Specifications

Model	Resolution (mm)	Measuring Range (mm) ( ) : Indicating Range*1	Indication Error (μm)	Parallelism (μm)	Measuring Force (N)	Contact Point Form / Anvil Form(mm)	Weight (g)
SMD-540A	0.01	12	±20	5	1.0 or less	φ10 Flat	290
SMD-550A	0.01	12	±20	5	1.0 or less	φ10 Flat	440
SMD-565A	0.001	15(12)	±3	3	1.5 or less	φ10 Flat	470

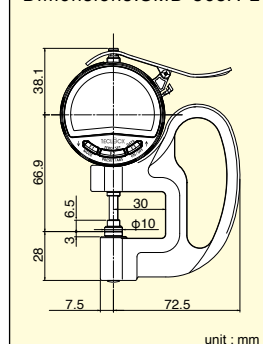
\*1 Indicating value in ( ) is a measuring range of digital sensor.

## SMD-565A-L

- Conversional type without Anvil Adjustment.
- Resolution 0.001mm
- Measuring Range 12mm
- Ceramic Contact Point and Anvil



Dimensions:SMD-565A-L

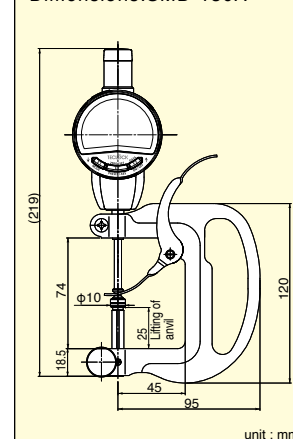


## SMD-130A

- Long stroke 25mm
- Resolution 0.01mm
- Measuring Range 50mm (Lifting of anvil)
- Ceramic Contact Point and Anvil



Dimensions:SMD-130A



### Specifications

Model	Resolution (mm)	Measuring Range (mm) ( ) : Indicating Range*1	Indication Error (μm)	Parallelism (μm)	Measuring Force (N)	Contact Point Form / Anvil Form(mm)	Weight (g)
SMD-565A-L	0.001	12	±3	3	1.5 or less	φ10 Flat	415
SMD-130A	0.01	50(25)	±20	5	2.0 or less	φ10 Flat	610

\*1 Indicating value in ( ) is a measuring range of digital sensor.

# Bluetooth Digital Thickness Gauge

**NEW**

## Ultra Light Compact Series

### Features

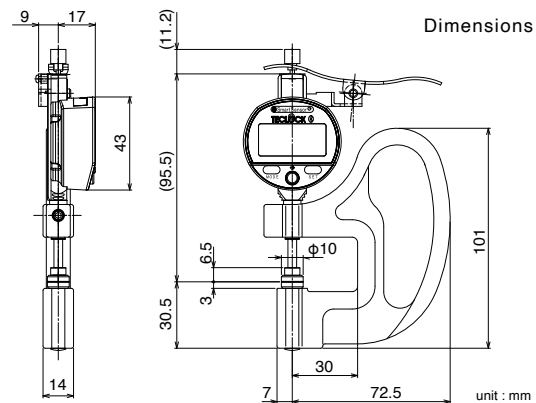
- High precision measurement for papers, films and parts thickness.
- $\phi 45\text{mm}$  Mini-Indicator.
- IP67.
- One-touch data sending to PC by built-in Bluetooth.
- Data management by SmartMeasure Lite (free).



Ultra Light 176g



SSS-540



### Specifications

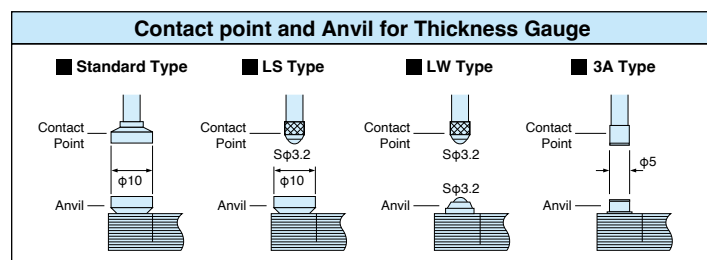
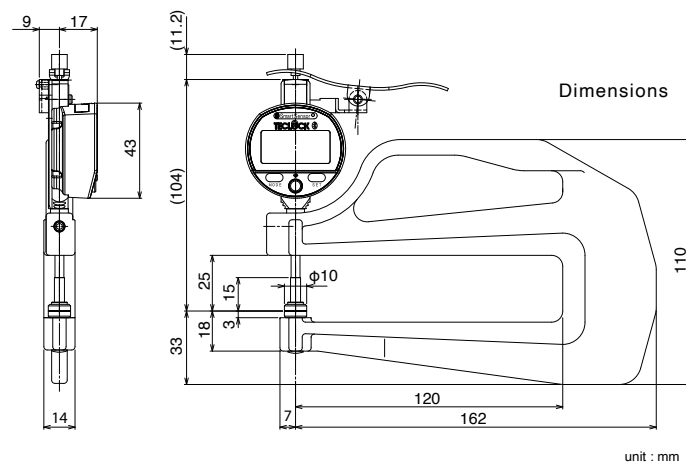
Model	Resolution (mm)	Measuring Range(mm)	Indication Error ( $\mu\text{m}$ )	Measuring Force(N)	Standard Contact Point(mm)	Anvil Form (mm)	Insertion Depth(mm)	Weight (g)
SMD-540	0.01	12	$\pm 20$	1.2 or less	$\phi 10$ Flat	$\phi 10$ Flat	30	176
SMD-540-LS	0.01	12	$\pm 20$	1.2 or less	$\phi 3.2$ Ball	$\phi 10$ Flat	30	176
SMD-540-LW	0.01	12	$\pm 20$	1.2 or less	$\phi 3.2$ Ball	$\phi 3.2$ Ball	30	176
SMD-540-3A	0.01	12	$\pm 20$	1.2 or less	$\phi 5$ Flat	$\phi 5$ Flat	30	176



Insertion Depth 120mm



SSS-550


 $\phi 10$  Flat : Ceramic  $\phi 3.2$  Ball : Ball  $\phi 5$  Flat : SK4 Hardened


### Specifications

Model	Resolution (mm)	Measuring Range(mm)	Indication Error ( $\mu\text{m}$ )	Measuring Force(N)	Standard Contact Point(mm)	Anvil Form (mm)	Insertion Depth(mm)	Weight (g)
SSS-550	0.01	12	$\pm 20$	1.2 or less	$\phi 10$ Flat	$\phi 10$ Flat	120	344
SSS-550-LS	0.01	12	$\pm 20$	1.2 or less	$\phi 3.2$ Ball	$\phi 10$ Flat	120	344
SSS-550-LW	0.01	12	$\pm 20$	1.2 or less	$\phi 3.2$ Ball	$\phi 3.2$ Ball	120	344
SSS-550-3A	0.01	12	$\pm 20$	1.2 or less	$\phi 5$ Flat	$\phi 5$ Flat	120	344

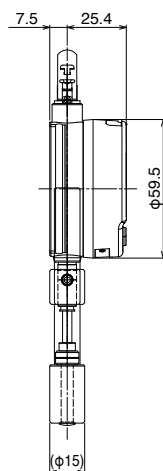




- High precision measurement for papers, films and parts thickness.
- High resolution 1/1000mm.
- IP54.
- One-touch data sending to PC by built-in Bluetooth.
- Data management by SmartMeasure Lite (free).



**SSS-5650**

[illegible]

unit : mm

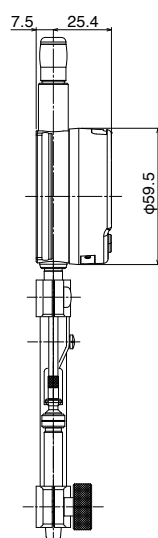
Model	Resolution (mm)	Measuring Range(mm)	Indication Error (μm)	Measuring Force(N)	Standard Contact Point(mm)	Anvil Form (mm)	Insertion Depth(mm)	Weight (g)
SSS-5650	0.001	12	±3	1.2 or less	φ10 Flat	φ10 Flat	30	380

## ■ Long Stroke Model

- High precision measurement for papers, films and parts thickness.
- Measuring Range 50mm , Indication Range 25mm(Lifting of anvil).
- IP54.
- One-touch data sending to PC by built-in Bluetooth.
- Data management by SmartMeasure Lite (free).



**SSS-130**



Technical drawing of the TECLOCK T-9000 digital depth gauge. The drawing shows the front view of the tool with various dimensions indicated in millimeters (mm). The main body has a total height of 18.5 mm. The dial assembly is mounted on a vertical rod. The dial itself has a diameter of 74 mm. The distance from the base of the dial to the center of the rod is 9.5 mm. The distance from the base of the dial to the center of the rod is also labeled as 25.5 mm. The distance from the base of the dial to the center of the rod is also labeled as 25 mm. The distance from the base of the dial to the center of the rod is also labeled as 45 mm. The distance from the base of the dial to the center of the rod is also labeled as 95 mm. The distance from the base of the dial to the center of the rod is also labeled as 120 mm.

Dimension	Value (mm)
Total Height	18.5
Dial Diameter	74
Distance from Base to Rod Center	9.5
Distance from Base to Rod Center (Alternative)	25.5
Distance from Base to Rod Center (Alternative)	25
Distance from Base to Rod Center (Alternative)	45
Distance from Base to Rod Center (Alternative)	95
Distance from Base to Rod Center (Alternative)	120

unit : mm

\* Measuring Range: Indicating value in ( ) is a measuring range of digital sensor.

Model	Resolution (mm)	Measuring Range(mm)	Indication Error ( $\mu$ m)	Measuring Force(N)	Standard Contact Point(mm)	Anvil Form (mm)	Insertion Depth(mm)	Weight (g)
SSS-130	0.01	50(25)	$\pm 20$	1.2 or less	$\phi 10$ Flat	$\phi 10$ Flat	45	543

# 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.
- 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.

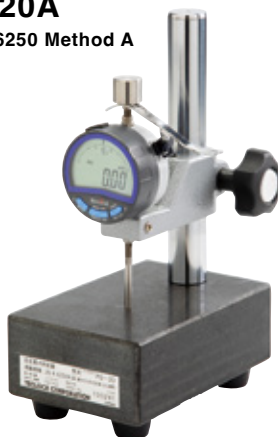
## PG Series stand type

PG-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.)

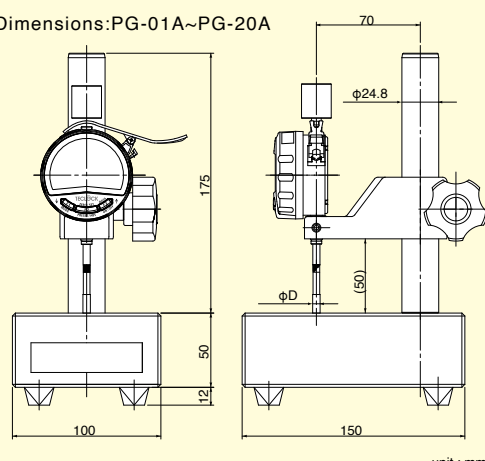
This is sheet block compatible type which can measure both thickness of test piece hardness IRHD below 35 and over 35 by this one unit.

Contact point is diameter 5mm and pressure can be changed by only attaching and detaching weights.

**PG-20A**  
JIS K 6250 Method A

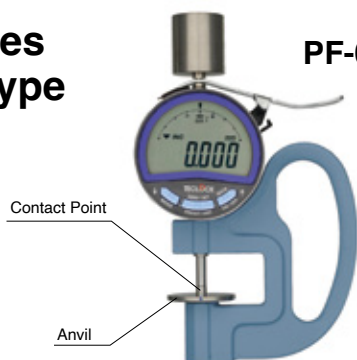


Dimensions: PG-01A~PG-20A

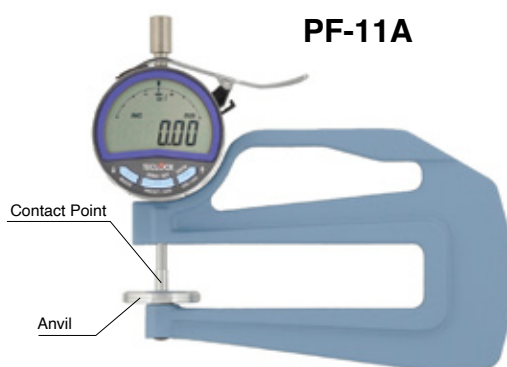


## PF Series frame type

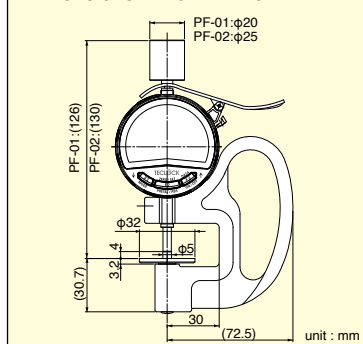
**PF-02A**



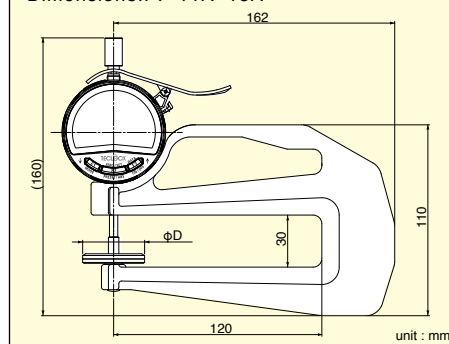
**PF-11A**



Dimensions: PF-01A/PF-02A



Dimensions: PF-11A~18A



# 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-01A	PF-01A	K6732-1996	Poly vinyl chloride films for agriculture	0.001	12	0.8N(80±5gf)	φ5	
PG-02A	PF-02A	K6783-1994	Ethylene / vinyl acetate copolymer films for agriculture	0.001	12	1.22±0.14N (125±15gf)	φ5	
		Z1702-1994	Polyethylene film for packaging			1226±147mN (125±15gf)		
		Z1709-1995	Heat shrinkable plastic films for packaging					
PG-11A	PF-11A	K6400-1-2004	Flexible polyurethane foam	0.01	12	0.363N(37gf)	φ35.7	0.363kPa (3.7gf/cm <sup>2</sup> )
		K6402-1976	Flexible polyurethane foam for garments					
PG-12A	PF-12A	K6301-1995	Vulcanized rubber	0.01	12	0.785N(80gf)	φ5	
PG-13A	PF-13A	K6404-2-3-1999	Rubber or plastics coated fabrics	0.01	12	0.785N(80gf)	φ10	10±1kPa
		K6328-1999	Rubber coated fabrics					10±2kPa
		K6250-2006	Rubber A method(less than 35 IRHD)					2kPa
PG-14A	PF-14A	L1086-2007	Fusible interlining fabrics (Nonwoven textile)	0.01	12	0.394N(40gf)	φ16	
PG-15A	PF-15A	L1086-2007	Fusible interlining fabrics (Ordinary textile)	0.01	12	2.35N(240gf)	φ11.3	23.6kPa
		L1096-1999	Woven fabrics (Ordinary textile)					23.5kPa (240gf/cm <sup>2</sup> )
PG-16A	PF-16A	L1018-1999	Knitted fabrics (Ordinary knit)	0.01	12	0.343N(35gf)	φ25.2	0.7kPa (7gf/cm <sup>2</sup> )
		L1086-2007	Fusible interlining fabrics (Ordinary knitting fabric)					0.7kPa
		L1096-1999	Woven fabrics (Crinose textile)					0.7kPa(7gf/cm <sup>2</sup> )
PG-17A	PF-17A	K6505-1995	Man-made upper material of shoes	0.01	12	3.854±0.098N (393gf±10gf)	φ10	49.03±1.177kPa (500±12gf/cm <sup>2</sup> )
		K6550-1994	Leathers			3.85±0.1N(390gf±10gf)		
PG-18A	PF-18A	K6250-2006	Rubber A method (35 IRHD or more)	0.01	13	0.431N(44±10gf)	φ5	(35 IRHD and over) 22±5kPa (2.24±0.51gf/mm <sup>2</sup> )
PG-20A	-	K6250-2006	Rubber A method for both (less than 35 IRHD, 35 IRHD or more)	0.01	13	0.196±0.038N (20±3.9gf)	φ5	(Less than 35 IRHD) 10±2kPa (1.02±0.20gf/mm <sup>2</sup> )
						0.431±0.098N (44±10gf)		(35 IRHD and over) 22±5kPa (2.24±0.51gf/mm <sup>2</sup> )

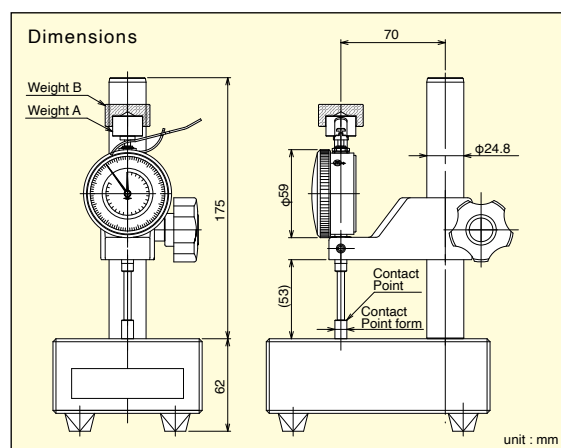
Aluminium alloy is used for material of contact point (including anvil) of PG-11A and PF-11A. Contact point for other model are all stainless steel.  
PG-13 and PF-13 can be also used for IRHD below 35 of JIS K 6250 A law.

- 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

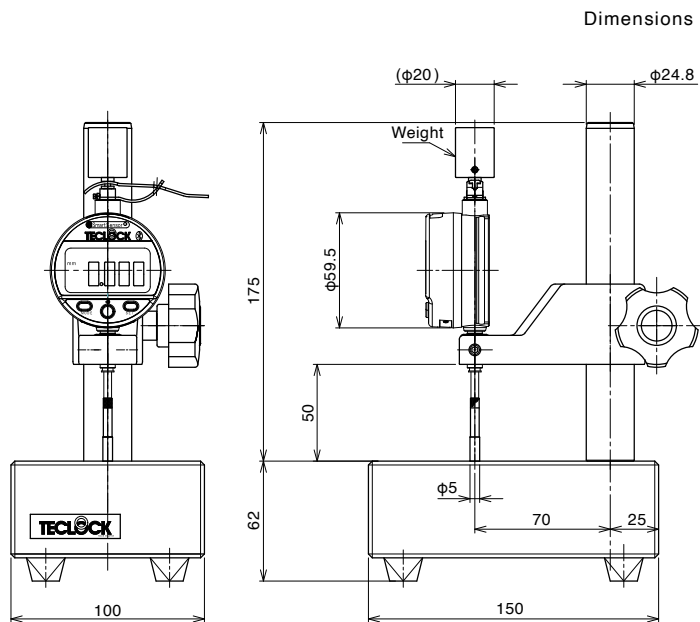
# Bluetooth Digital Constant Pressured Thickness Gauge

**NEW**

## Standard Model

### Features

- Wide range of line-up by JIS or ISO.
- High accuracy digital type with weight type for stable static load.
- Uses micro-granite which is superior for abrasion resistance, chemical resistance and impact resistance in addition to high unstriated.
- Stainless steel is used for Contact point and Anvil.
- One-touch data sending to PC by built-in Bluetooth.
- Data management by SmartMeasure Lite (free).


**SSPG-01**


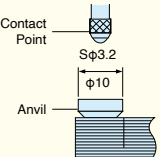
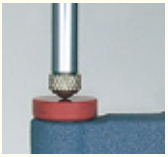
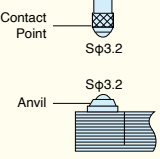

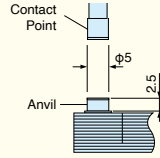

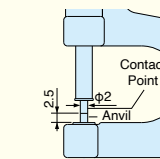

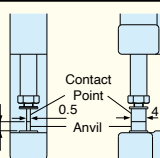

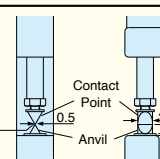
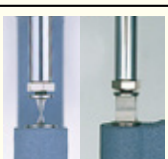
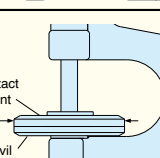

unit : mm

## Specifications

Model	Reference Standard		Resolution (mm)	Measuring Range (mm)	Load (Measuring Force)	Contact Point Φd (mm)	Measured Pressure
	JIS	Measured Item					
SSPG-01	K6732-1996	Poly vinyl chloride films for agriculture	0.001	12	0.8N(80±5gf)	φ5	
SSPG-02	K6783-1994	Ethylene / vinyl acetate copolymer films for agriculture	0.001	12	1.22±0.14 (125±15gf)	φ5	
	Z1702-1994	Polyethylene film for packaging					
	Z1709-1995	Heat shrinkable plastic films for packaging					
SSPG-11	K6400-1-2004	Flexible polyurethane foam	0.01	12	0.363N(37gf)	φ35.7	0.363kPa(3.7gf/cm²)
	K6402-1976	Flexible polyurethane foam for garments					
SSPG-12	K6301-1995	Vulcanized rubber	0.01	12	0.785N(80gf)	φ5	
SSPG-13	K6404-2-3-1999	Rubber or plastics coated fabrics	0.01	12	0.785N(80gf)	φ10	10±1kPa
	K6328-1999	Rubber coated fabrics					10±2kPa
	K6250-2006	Rubber A method(less than 35 IRHD)					
SSPG-14	L1086-2007	Fusible interlining fabrics (Nonwoven textile)	0.01	12	0.394N(40gf)	φ16	2kPa
SSPG-15	L1086-2007	Fusible interlining fabrics (Ordinary textile)	0.01	12	2.35N(240gf)	φ11.3	23.6kPa
	L1096-1999	Woven fabrics (Ordinary textile)					23.5kPa(240gf/cm²)
SSPG-16	L1018-1999	Knitted fabrics (Ordinary knit)	0.01	12	0.343N(35gf)	φ25.2	0.7kPa(7gf/cm²)
	L1086-2007	Fusible interlining fabrics (Ordinary knitting fabric)					0.7kPa
	L1096-1999	Woven fabrics (Crinose textile)					0.7kPa(7gf/cm²)
SSPG-17	K6505-1995	Man-made upper material of shoes	0.01	12	3.854±0.098N (393±10gf)	φ10	49.03±1.177kPa (500±12gf/cm²)
	K6550-1994	Leathers			3.85±0.1N (390±10gf)		
SSPG-18	K6250-2006	Rubber A method (35 IRHD or more)	0.01	13	0.431N(44±10gf)	φ5	(35 IRHD and over) 22±5kPa(2.24±0.51gf/mm²)

\* Product Weight = nearly 3.7 kg (Stand and Indicator etc. weight) + weight for Load

# Thickness Gauge Special Product List

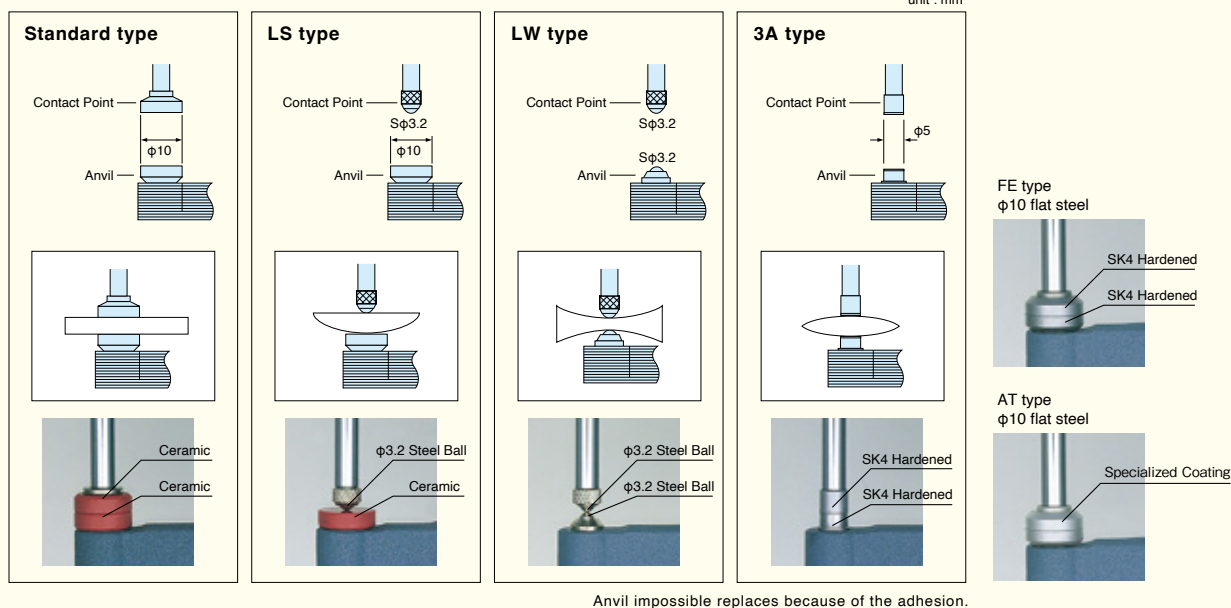
Type	Adaptation models	Graduation (mm)	Measuring Range(mm)	Contact Point (mm)	Anvil Form (mm)
<b>LS type</b> Contact point is spherical, the anvil is flat.  	SM-112LS	0.01	10	φ3.2 Ball	φ10 Flat
	SM-528LS	0.01	20	φ3.2 Ball	φ10 Flat
	SM-114LS	0.01	10	φ3.2 Ball	φ10 Flat
	SM-124LS	0.01	20	φ3.2 Ball	φ10 Flat
	SM-130LS	0.01	50	φ3.2 Ball	φ10 Flat
	SMD-540S <sub>2</sub> -LS	0.01	12	φ3.2 Ball	φ10 Flat
<b>LW type</b> 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)
<b>3A type</b> 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-540S <sub>2</sub> -3A	0.01	12	φ5 Flat	φ5 Flat
	SMD-550S <sub>2</sub> -3A	0.01	12	φ5 Flat	φ5 Flat
<b>NE needle type</b> 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-540S <sub>2</sub> -NE	0.01	12	φ2 Flat	φ2 Flat
	SMD-550S <sub>2</sub> -NE	0.01	12	φ2 Flat	φ2 Flat
<b>BL blade type</b> 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-540S <sub>2</sub> -BL	0.01	10	t0.5/w4	t0.5/w4
	SMD-550S <sub>2</sub> -BL	0.01	10	t0.5/w4	t0.5/w4
<b>KN blade type</b> 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-540S <sub>2</sub> -KN	0.01	10	t0.5/w4/30°	t0.5/w4/30°
	SMD-550S <sub>2</sub> -KN	0.01	10	t0.5/w4/30°	t0.5/w4/30°
<b>LD flat disk type</b> 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-540S <sub>2</sub> -LD	0.01	12	φ30	φ30
	SMD-550S <sub>2</sub> -LD	0.01	12	φ30	φ30

• SM is Analog Type, SMD is Digital type.



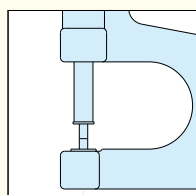
# Parts & Accessories

## Contact Point, Anvil of Symbol and Shapes



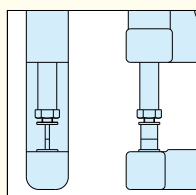
## Special order product of Dial Thickness Gauge / Digital Thickness Gauge

1. Instruct dimension and shape of anvil and contact point by referring to the figure in the right and P77.
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.



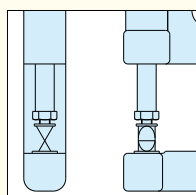
**NE (needle) type**

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



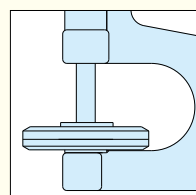
**BL (blade) type**

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.