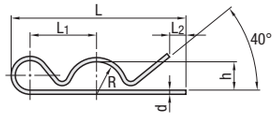
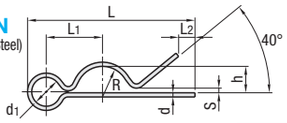
■Hair Pins

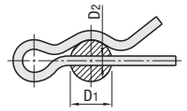
RoHS10

RNPN



JNPN
JNSPN
(Stainless Steel)





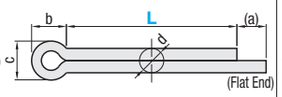
Type	M Material	S Surface Treatment
RNPN	SWRH6	Trivalent Chromate
JNPN	SWRH6	Trivalent Chromate
JNSPN	SUS304	-

Part Number Type	No.	d (Wire Dia.)	L	L1	L2	R	h	D1 (Applicable Shaft Dia.)	D2 (Shaft Bore Dia.)	Unit Price 1~199	Volume Discount Rate 200~500
RNPN	6	1.2	25.2	9.7	3.9	3	1.4	6	1.5		
	8	1.6	33.8	13.1	5.3	4	2.1	8	1.9		
	10	1.8	40.2	15.7	5.7	5	3	10	2.2		
	12	2	46	17.5	6	6	4	12	2.4		

Part Number Type	No.	d (Wire Dia.)	d1	L	L1	L2	R	h	S	D1 (Applicable Shaft Dia.)	D2 (Shaft Bore Dia.)	JNPN Unit Price 1~199	JNPN Volume Discount Rate 200~500	JNSPN Unit Price 1~199	JNSPN Volume Discount Rate 200~500
JNPN JNSPN (Stainless Steel)	4	1	3	16.3	6	1.5	2	1	0.5	4	1.2				
	5			17.9	6.5		2.5	1.5		5					
	6	1.2	3.6	21.2	7.8		3	1.8	0.6	6	1.5				
	8	1.6	4.8	27.7	10.4		4	2.4	0.8	8	1.9				
	10	1.8	5.4	32.6	12.2		5	3.2	0.9	10	2.2				
	12			35.8	13.2		6	4.2		12					

■Cotter Pins

NPN
NSPN
(Stainless Steel)



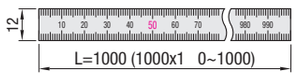
NPN M Material: SWRM
NSPN M Material: SUS304

Part Number Type	No.	L	d	a (Approx.)	b	c	NPN Unit Price 1~199	NPN Volume Discount Rate 200~500	NSPN Unit Price 1~199	NSPN Volume Discount Rate 200~500
NPN NSPN (Stainless Steel)	0.8	8 10 12	0.7	1.6	2.4	1.4				
	1	10 12 15	0.9		3	1.8				
	1.2	10 12 15	1	2.5	3	2				
	1.6	10 12 15	1.4		3.2	2.8				
	2	12 15	1.8		4	3.6				
	2.5	15 20	2.3		5	4.6				
	3.2	20	2.9	3.2	6.4	5.8				
	4	20 25	3.7	4	8	7.4				
	5	35	4.6		10	9.2				

Ordering Example: Part Number - L
RNPN6
NSPN3.2 - 20

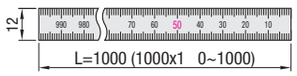
■Scale Tapes

TMEL
(Zero Left End)



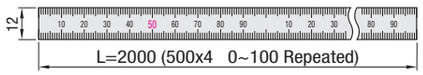
TMELF
(Zero Left End)

TMER
(Zero Right End)



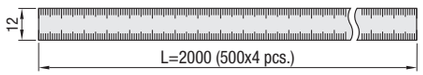
TMERF
(Zero Right End)

TMEPL
(Zero Left End)

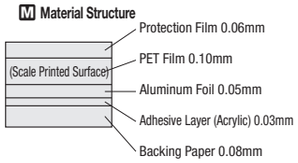


TMEPR
(Zero Right End)

TMEPN
(No Number)



M Material Structure



Zero Point Position (Graduation)	Part Number Type	L	Thickness	Scale Increment	Unit Price
Left End (0 ~ 1000)	TMEL	1000	0.18	1mm Increment	
Right End (0 ~ 1000)	TMER				
Left End (0 ~ 100)	TMEPL	2000			
Right End (0 ~ 100)	TMEPR				
-	TMEPN				
Left End (0~1000,1000~2000)	TMELF				
Right End (0~1000,1000~2000)	TMERF				

•TMER, TMEL, TMEPLTMEPR, TMEPN

Ordering Example: Part Number
TMEPL-2000

•TMERF, TMELF

Ordering Example: Part Number
TMERF-2000

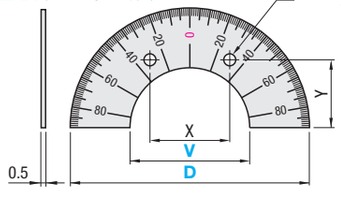
Peel off the surface protection film before use.
Wipe the dirt off the surface.

* Use as measuring tool for adjustment of machines and equipment.

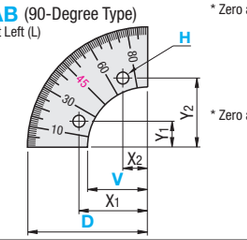
■Angle Scales - Plate Type

RoHS10

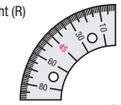
MEAA (180-Degree Type)



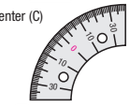
MEAB (90-Degree Type)
* Zero at Left (L)



* Zero at Right (R)



* Zero at Center (C)



M Material: SUS304
No Tape

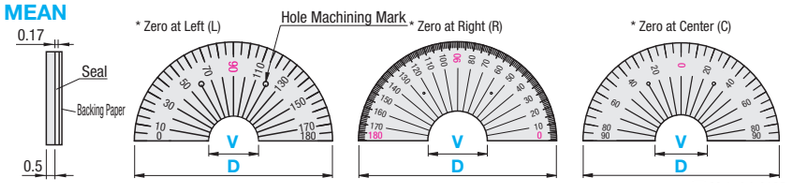
Part Number Type	Graduation Direction	D	V	H	X	Y	Unit Price
MEAA 180 Degree Type	C (Zero at Center)	40	20	3	13.5	11.5	
		60	30		20	17	
		100	50		36	26	
		140	80		48	40	

Part Number Type	Graduation Direction	D	V	H	X1	Y1	X2	Y2	Unit Price
MEAB 90-Degree Type	L (Zero at Left) R (Zero at Right) C (Zero at Center)	20	10	3	12	5	5	12	
		30	15		17	7	7	17	
		50	25		29	12	12	29	
		70	40		43	18	18	43	

Ordering Example: Part Number - V - H
MEABC50 - 25 - 3

■Angle Scales - Double-Sided Adhesive Tape

MEAN



For D40 and D60, angle graduations are marked in 5 degree increment. For D100 and D140, angle graduations are marked in 1 degree increment.

M Material: A1050P
With Tape

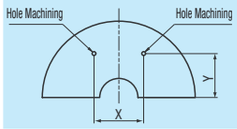
Part Number Type	Graduation Direction	D	V Selection	Unit Price
MEAN	L (Zero at Left) C (Zero at Center) R (Zero at Right)	40	10 12 16 20	
		60	16 20 25 30	
		100	30 35 40 50	
		140	40 50 60 80	

Ordering Example: Part Number - V
MEANC60 - 25

Zero position changes depending on the scale direction.
Similar products are available. For Adjusting Collars P.1155

Alterations: Part Number - V - (HC)
MEANC140 - 60 - HC

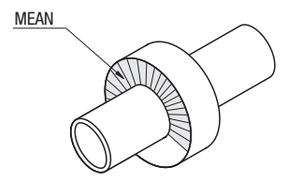
Alterations	Code	Spec.
Hole Machining	HC	Adds mounting holes at hole machining marks. MEAN: Ø3.5x2 places. Adhesive tape is affixed to the back. (Mounting Hole Dimension Diagram)



D	X	Y
40	13.5	11.5
60	20	17
100	36	26
140	51	36

Available for MEAN only.

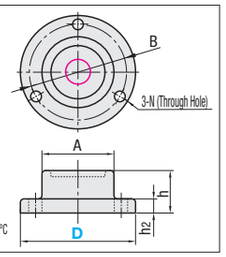
Example



■Bubble Levels (Mounting Type)

RoHS10

SMTP



M Material
A5052B
Glass

S Surface Treatment
Black Anodize

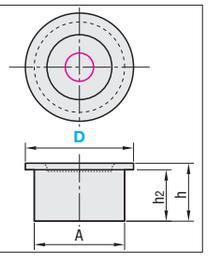
Max. Operating Temperature: 55°C

Part Number Type	D	A	B	h	h2	Mounting Hole (N)	Sensitivity	Unit Price
SMTP	28	16	22	10.5	3.5	2	38°12′ (R-180)	
	32	20	27	12.0	4.0	3	38°12′ (R-180)	

■Bubble Levels (Embedded Type)

RoHS10

SMH



M Material
ABS Plastic
Glass

Max. Operating Temperature: 55°C

Part Number Type	D	A	h	h2	Sensitivity	Unit Price
SMH	20	16.7	11	9.5	38°12′ (R-180)	

■Bubble Levels
• Level the surface to be mounted prior to placing the bubble level, then mount while adjusting the bubble level so the air bubble stays within the red circle in the center.
• When the bubble moves 2mm away from the center, the mounting surface is inclined approximately 0.6 degrees.
Mounting interface of these bubble levels have no accuracies built-in. Upon installation, customer adjustment required.

Ordering Example: Part Number
SMTP28