




# Flat pads PF series

		Connection type	Top port	Side port	
Simple pad with locking fitting <b>PS</b> φ1.5 ~ 50	⇒P207	Female screw (without connector)	PS-□-F	-	
		Male screw (without connector)	PS-□-M	-	
Pad with locking fitting <b>PF□K</b> φ1.5 ~ 200	⇒P209		Push-in connector	PFTKM	PFYKM
			Barb connector	PFTK	PFYK
Simple pad with spring fitting <b>PSS</b> φ1.5 ~ 15	⇒P219	Male screw (without connector)	PSS-□-PFG-□	-	
Stroke(mm) 3,5					
Pad with spring fitting <b>NAPF□S</b> φ1.5 ~ 8 φ10 ~ 15 φ20 ~ 50 φ60 ~ 95 φ100 ~ 200	⇒P221		Female screw (without connector)	NAPFTS-□-□	NAPFYS-□-□
			Push-in connector	NAPFTS-□-□-O	NAPFYS-□-□-O
			Barb connector	NAPFTS-□-□-T	NAPFYS-□-□-T
			Stroke(mm) 3,6 3,10,15 6,15,30 10,30,50 20,50		
Pad with spring fitting non-rotative type <b>NAPF□H</b> φ1.5 ~ 15 φ20 ~ 50	⇒P226		Female screw (without connector)	NAPFTH-□-□	NAPFYH-□-□
			Push-in connector	NAPFTH-□-□-O	NAPFYH-□-□-O
			Barb connector	NAPFTH-□-□-T	NAPFYH-□-□-T
Stroke(mm) 3,10,15 6,15,30					
Maintenance parts	⇒P207, 209, 219, 221, 226 ⇒P336 ⇒P231	Locking fitting	Male screw	Reference each page	-
			Female screw		Reference each page
			Barb connector		
		Spring type Fitting	Male screw	Reference each page	-
			Push-in connector		Reference each page
			Barb connector		
Setting screw pad		Reference each page PFG			

## Pad material table

●: Standard

○: Made to order

	Material	Indentification	Symble	Round pad																Oval pad								
				1.5A	2A	3.5A	5A	6A	8A	10A	15A	15	20	20B	25	30	40	50	60	80	95	120	150	200	2x4	2x4A	3.5x7	3.5x7A
Standard	Nitrile	Black	N	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Silicone	Transparent white	S	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Urethane	Blue	U	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Fluorine	Black with white dot	F	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Conductive nitrile	Black with blue dot	NE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Conductive silicone	Black with red dot	SE	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

# Simple pad with locking fitting/PS

## How to order

PS - ①  
2A - ②  
M - ③  
N

① Pad diameter (mm)

② Setting screw type

③ Pad rubber material

1.5A	φ1.5	15A	φ15
2A	φ2	15	φ15
3.5A	φ3.5	20	φ20
2 × 4A*	2 × 4	25	φ25
3.5 × 7A*	3.5 × 7	30	φ30
5A	φ5	35	φ35
6A	φ6	40	φ40
8A	φ8	50	φ50
10A	φ10		

M	Male screw
F	Female screw

N	NBR (Nitrile rubber)
S	Silicone rubber
U	Urethane rubber
F	Fluorine rubber
NE	Conductive NBR (Nitrile rubber)
SE	Conductive Silicone rubber

Note) Please consult with us for other material.

Note) \* means oval pad.

## Pad standard specifications

Symbol	Material	Hardness (Hs)	Ambient temperature	Color	Volume resistivity Note 1 · 2
N	NBR (Nitrile rubber)	A55/S	-26 ~ 120°C	Black	-
S	Silicone rubber	A55/S	-60 ~ 250°C	White	-
U	Urethane rubber	A55/S	-20 ~ 75°C	Blue	-
F	Fluorine rubber	A70/S	-10 ~ 230°C	Black with white dot	-
NE	Conductive NBR (Nitrile rubber)	A70/S	-26 ~ 120°C	Black with blue dot	10 <sup>2</sup> ~ 10 <sup>3</sup> Ω · cm
SE	Conductive Silicone rubber	A55/S	-60 ~ 250°C	Black with red dot	10 <sup>2</sup> ~ 10 <sup>4</sup> Ω · cm

Note1) Volume resistivity shows conductivity, resistance value is per cm<sup>3</sup>.

Note2) It is the measured value of in our designated test piece.

## Applicable fitting table

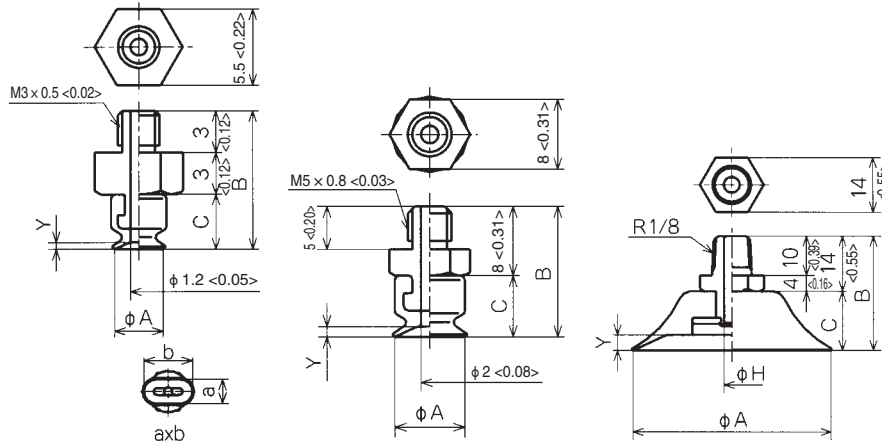
Setting screw	How to order	Round pad														Oval pad	
		1.5A	2A	3.5A	5A	6A	8A	10A	15A	15	20	25	30	40	50	2 × 4A	3.5 × 7A
Male screw	TN-PS-2A-M3	○	○	○													
	TN-PS-10-M5				○	○	○	○	○								
Female screw	TN-PS-2A-M3F	○	○	○													
	TN-PS-10-M5F				○	○	○	○	○								

Note) 15mm pad diameter or above are fixed and cannot be disassembled.

Please purchase pad with its fitting for maintenance.

Dimensions

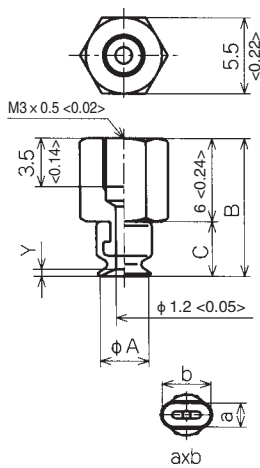
Unit : mm <inch>



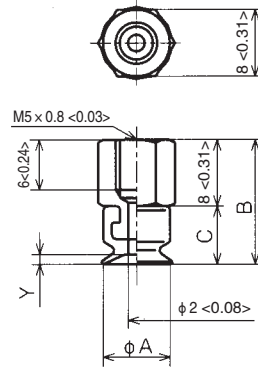
15A/2A/3.5A  
2x4A/3.5x7A -M

5A/6A/8A/10A/15A-M

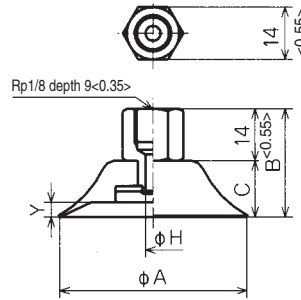
15/20/25/30  
35/40/50 -M



1.5A/2A/3.5A  
2x4A/3.5x7A -F



5A/6A/8A/10A/15A-F



15/20/25/30  
35/40/50 -F

mm

PS	A	B	C	H	Y	Mass(g)
PS-1.5A-M	1.5	10	4	/	0.4	1
PS-2A-M	2	10	4		0.5	1
PS-3.5A-M	3.5	10	4		0.5	1
PS-2x4A-M	2x4	12	6		0.5	1
PS-3.5x7A-M	3.5x7	12	6		0.8	1
PS-5A-M	5	14.5	6.5		0.8	1.5
PS-6A-M	6	14.5	6.5		0.8	1.5
PS-8A-M	8	15	7		1.2	1.5
PS-10A-M	10	15.5	7.5		1.5	1.5
PS-15A-M	15	16	8		2	2
PS-15-M	15	22	8	2	1.9	8
PS-20-M	20	24	10	3	2.3	8
PS-25-M	25	28	14	3	3	12
PS-30-M	30	26	12	3	2	12
PS-35-M	35	28	14	3	3	12
PS-40-M	40	28	14	3	3.5	12
PS-50-M	50	29	15	4	4	17
PS-1.5A-F	1.5	10	4	/	0.4	1.5
PS-2A-F	2	10	4		0.5	1.5
PS-3.5A-F	3.5	10	4		0.5	1.5
PS-2x4A-F	2x4	12	6		0.5	1.5
PS-3.5x7A-F	3.5x7	12	6		0.8	1.5
PS-5A-F	5	14.5	6.5		0.8	2.5
PS-6A-F	6	14.5	6.5		0.8	2.5
PS-8A-F	8	15	7		1.2	2.5
PS-10A-F	10	15.5	7.5		1.5	2.5
PS-15A-F	15	16	8		2	2
PS-15-F	15	22	8	2	1.9	9
PS-20-F	20	24	10	3	2.3	9
PS-25-F	25	28	14	3	3	13
PS-30-F	30	26	12	3	2	13
PS-35-F	35	28	14	3	3	13
PS-40-F	40	28	14	3	3.5	13
PS-50-F	50	29	15	4	4	18

inch

PS	A	B	C	H	Y	Mass(g)
PS-1.5A-M	0.06	0.39	0.16	/	0.02	1
PS-2A-M	0.08	0.39	0.16		0.02	1
PS-3.5A-M	0.14	0.39	0.16		0.02	1
PS-2x4A-M	0.08x0.16	0.47	0.24		0.02	1
PS-3.5x7A-M	0.14x0.28	0.47	0.24		0.03	1
PS-5A-M	0.2	0.57	0.26		0.03	1.5
PS-6A-M	0.24	0.57	0.26		0.03	1.5
PS-8A-M	0.31	0.59	0.28		0.05	1.5
PS-10A-M	0.39	0.61	0.3		0.06	1.5
PS-15A-M	0.59	0.63	0.31		0.08	2
PS-15-M	0.59	0.87	0.31	0.08	0.07	8
PS-20-M	0.79	0.94	0.39	0.12	0.09	8
PS-25-M	0.98	1.1	0.55	0.12	0.12	12
PS-30-M	1.18	1.02	0.47	0.12	0.08	12
PS-35-M	1.38	1.1	0.55	0.12	0.12	12
PS-40-M	1.57	1.1	0.55	0.12	0.14	12
PS-50-M	1.97	1.14	0.59	0.16	0.16	17
PS-1.5A-F	0.06	0.39	0.16	/	0.02	1.5
PS-2A-F	0.08	0.39	0.16		0.02	1.5
PS-3.5A-F	0.14	0.39	0.16		0.02	1.5
PS-2x4A-F	0.08x0.16	0.47	0.24		0.02	1.5
PS-3.5x7A-F	0.14x0.28	0.47	0.24		0.03	1.5
PS-5A-F	0.2	0.57	0.26		0.03	2.5
PS-6A-F	0.24	0.57	0.26		0.03	2.5
PS-8A-F	0.31	0.59	0.28		0.05	2.5
PS-10A-F	0.39	0.61	0.3		0.06	2.5
PS-15A-F	0.59	0.63	0.31		0.08	2
PS-15-F	0.59	0.87	0.31	0.08	0.07	9
PS-20-F	0.79	0.94	0.39	0.12	0.09	9
PS-25-F	0.98	1.1	0.55	0.12	0.12	13
PS-30-F	1.18	1.02	0.47	0.12	0.08	13
PS-35-F	1.38	1.1	0.55	0.12	0.12	13
PS-40-F	1.57	1.1	0.55	0.12	0.14	13
PS-50-F	1.97	1.14	0.59	0.16	0.16	18

# Pad with locking fitting/PFTK · PFYK

## How to order

① ② ③ ④  
 PF T K M - 2A - N

① Vacuum port

T	Top port
Y	Side port

② Connector type

Blank	Barb connector
M	Push-in connector

③ Pad diameter (mm)

1.5A	φ1.5	25	φ25
2A	φ2	30	φ30
3.5A	φ3.5	35	φ35
2×4*	2×4	40	φ40
2×4A*	2×4	50	φ50
3.5×7*	3.5×7	60	φ60
3.5×7A*	3.5×7	80	φ80
5A	φ5	95	φ95
6A	φ6	100	φ100
8A	φ8	150	φ150
10A	φ10	200	φ200
15	φ15		
20	φ20		

④ Pad rubber material

N	NBR (Nitrile rubber)
S	Silicone rubber
U	Urethane rubber
F	Fluorine rubber
NE	Conductive NBR (Nitrile rubber)
SE	Conductive Silicone rubber

Note) Please consult with us for other material.

Note1) \* means oval pad.

Note2) In the case of 2×4, 3.5×7, only "barb connector" is available.

Note3) In the case of 2×4A, 3.5×7, only "push-in connector" is available.

## Fitting specifications

Description		φ1.5 ~ 3.5 × 7		φ5 ~ 10		φ15 ~ 50		φ60 ~ 95		φ100 ~ 200
Vacuum port type		Top port	Side port	Top port	Side port	Side port	Side port	Top port	Side port	Side port
Connection type	Without connector	×	×	×	×	×	×	Rc1/8	Rc1/8	Rc1/8
	Barb connector	φ4 × 2.5	○	○	×	×	×	×	×	×
		φ6 × 4	×	×	○	○ (M5)	○ (M5)	○ (M5)	×	×
	Push-in connector	φ4 × 2.5	○ (M3)	○ (M5)	○ (M5)	○ (M5)	×	×	×	×
φ6 × 4		×	×	×	×	○ (M5)	○ (M5)	×	×	×
Fitting attachment type		Plate	Female screw	Male screw	Female screw	Male screw	Female screw	Male screw	Female screw	Female screw

Note) In the case the vacuum extraction is barb fitting type in vertical direction, with pad diameter under φ8, the fitting and the connector are integrated.

## Pad standard specifications

Symbol	Material	Hardness (Hs)	Ambient temperature	Color	Volume resistivity Note 1 · 2
N	NBR (Nitrile rubber)	A55/S	-26 ~ 120°C	Black	-
S	Silicone rubber	A55/S	-60 ~ 250°C	White	-
U	Urethane rubber	A55/S	-20 ~ 75°C	Blue	-
F	Fluorine rubber	A70/S	-10 ~ 230°C	Black with white dot	-
NE	Conductive NBR (Nitrile rubber)	A70/S	-26 ~ 120°C	Black with blue dot	10 <sup>2</sup> ~ 10 <sup>3</sup> Ω · cm
SE	Conductive Silicone rubber	A55/S	-60 ~ 250°C	Black with red dot	10 <sup>2</sup> ~ 10 <sup>4</sup> Ω · cm

Note1) Volume resistivity shows conductivity, resistance value is per cm<sup>3</sup>.

Note2) It is the measured value of in our designated test piece.

Applicable fitting table

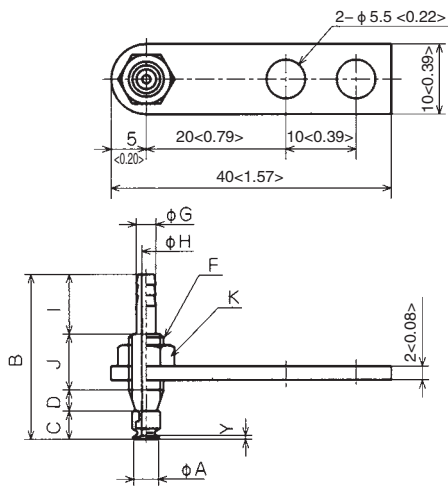
	How to order	Round pad																			Oval pad				
		1.5A	2A	3.5A	5A	6A	8A	10A	15	20	25	30	35	40	50	60	80	95	120	150	200	2×4	3.5×7		
Fitting	Top port	PFTK-1.5A-K	○	○	○																				
		PFTK-5A-K				○	○	○																	
		PFTK-10A-K							○																
		PFTK-15-K								○	○														
		PFTK-25-K										○	○	○	○										
		PFTK-50-K														△									
		PFTK-60-K															○	○	○						
	PFTK-2×4-K																						○		
	PFTK-3.5×7-K																							○	
	PFTKM-1.5A-K	○	○	○																					
	PFTKM-5A-K				○	○	○	○																	
	PFTKM-15-K									○	○														
	PFTKM-25-K											○	○	○	○										
	PFTKM-50-K															○									
PFTKM-2×4A-K																						○	○		
Fitting	Side port	PFYK-1.5A-K	○	○	○																				
		PFYK-5A-K				○	○	○	○																
		PFYK-15-K								○	○														
		PFYK-25-K										○	○	○	○										
		PFYK-50-K														△									
		PFYK-60-K															○	○	○						
		PFYK-120-K																		○	○	○			
	PFYK-2×4-K																						○		
	PFYK-3.5×7-K																							○	
	PFYKM-1.5A-K	○	○	○																					
	PFYKM-5A-K				○	○	○	○																	
	PFYKM-15-K									○	○														
	PFYKM-25-K											○	○	○	○	○									
	PFYKM-2×4A-K																						○	○	
Setting screw	TN-PF-15-M5								○																
	TN-PF-20-M5									○															
	TN-PF-25-M6										○	○	○	○											
	TN-PF-50-M6															○									
	TN-PF-50-M8																△								

- Note 1) Please attach directly to the fitting, pads with diameter from  $\phi$ 1.5 to 10mm.
- Note 2) Please attach to the fitting, pads with diameter from  $\phi$ 15 to 50mm by using a setting screw.
- Note 3) Please note that pad with  $\phi$ 50mm diameter have different thread at top port and side port.
- Note 4) Please screw directly to the fitting, pads with diameter  $\phi$ 60 to 200mm.
- Note 5) Please attach pad with diameter from  $\phi$ 120 to 200mm by using bold part which is delivered with.
- Note 6)  $\phi$ 100mm pad cannot be disassembled from its fitting.

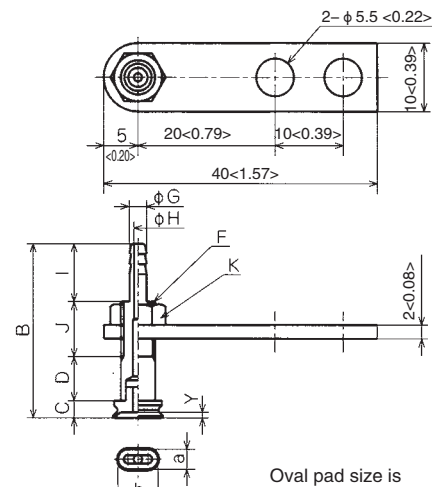
Dimensions

Unit : mm <inch>

Top port/PFTK

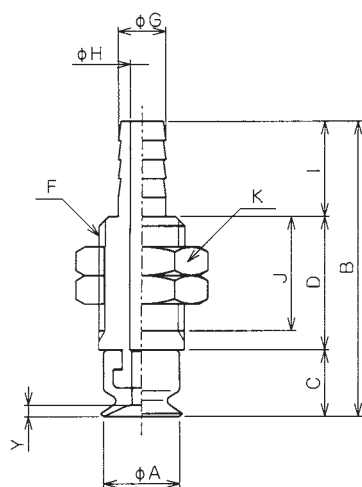


PFTK-1.5A/2A/3.5A

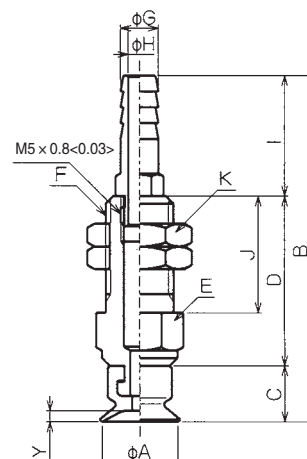


PFTK-2x4/3.5x7

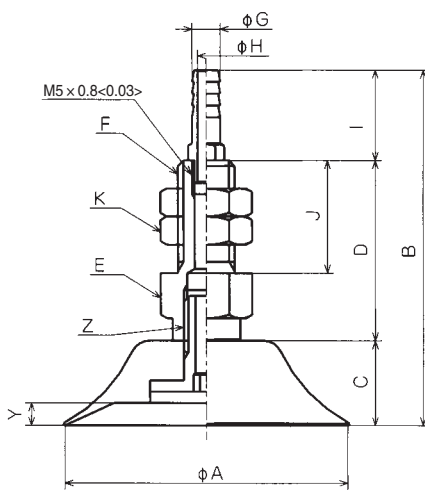
Oval pad size is indicated as a x b.



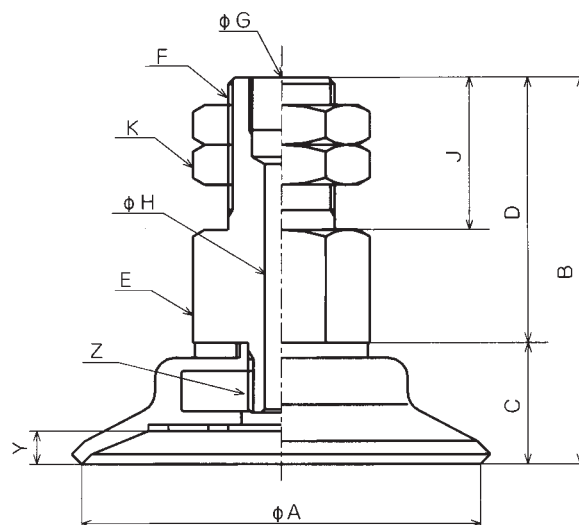
PFTK-5A/6A/8A



PFTK-10A



PFTK-15/20/25/30/35/40/50

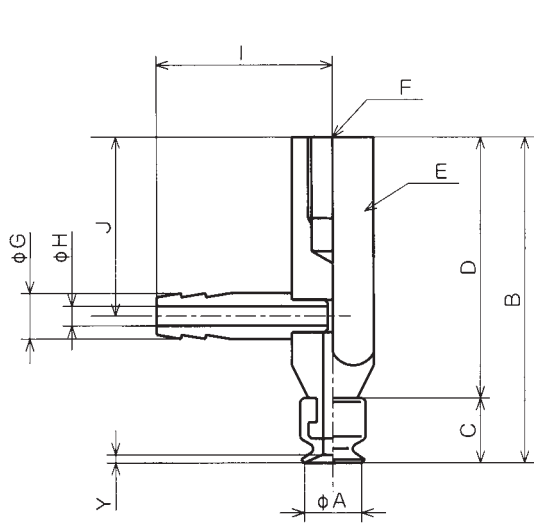


PFTK-60/80/95

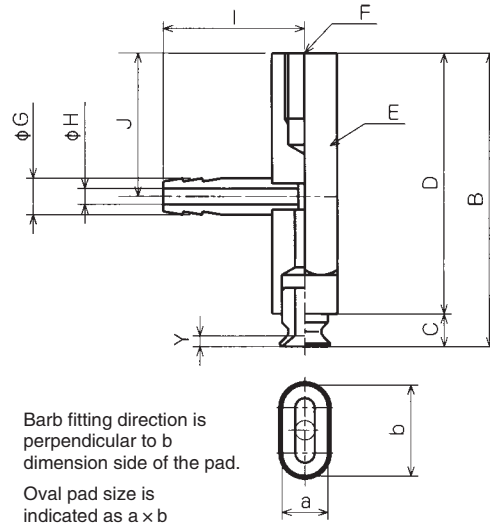
Dimensions

Unit : mm <inch>

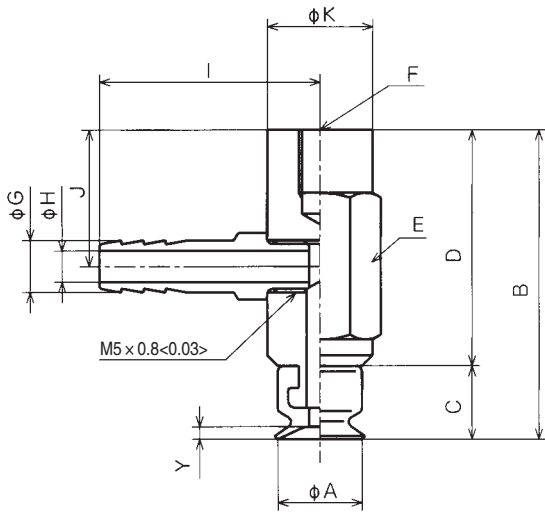
Side port/PFYK



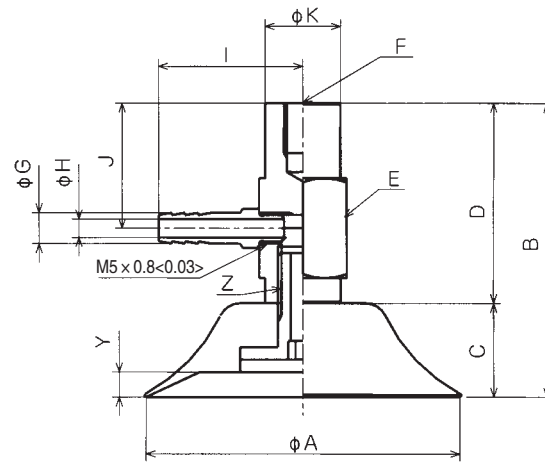
PFYK-1.5A/2A/3.5A



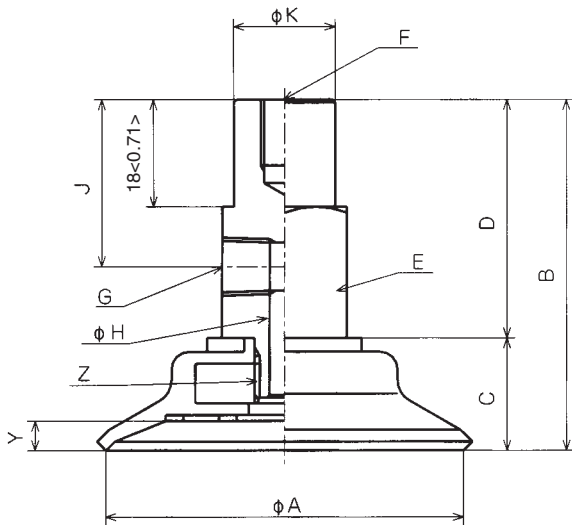
PFYK-2x4/3.5x7



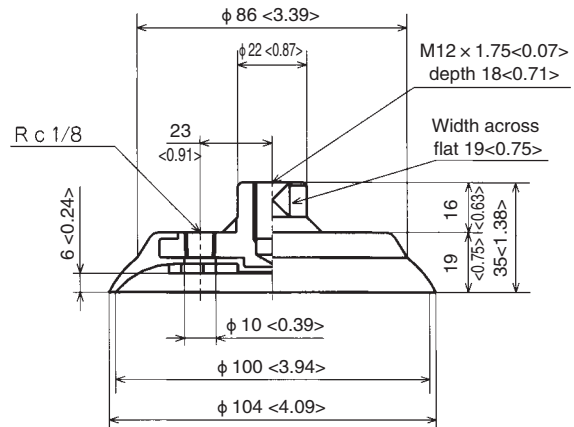
PFYK-5A/6A/8A/10A



PFYK-15/20/25/30/35/40/50



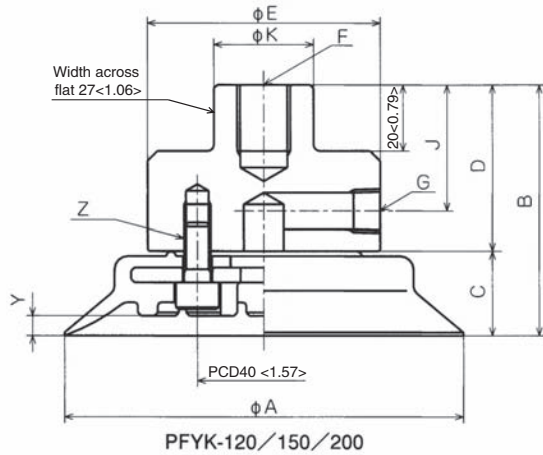
PFYK-60/80/95



PFYK-100

Dimensions

Unit : mm <inch>



mm

PFTK	A	B	C	D	E	F	G	H	I	J	K	Y	Z	Mass(g)	
PFTK-1.5A	1.5	23.5	4	3		M5 x 0.5	2.8	1.2	8.5	8	7H	0.4		8	
PFTK-2A	2	23.5	4	3		M5 x 0.5	2.8	1.2	8.5	8	7H	0.5		8	
PFTK-2 x 4	2 x 4	24.7	1.7	6.5		M5 x 0.5	2.8	1.2	8.5	8	7H	0.5		8	
PFTK-3.5A	3.5	23.5	4	3		M5 x 0.5	2.8	1.2	8.5	8	7H	0.5		8	
PFTK-3.5 x 7	3.5 x 7	25.5	2.5	6.5		M5 x 0.5	2.8	1.2	8.5	8	7H	0.8		8	
PFTK-5A	5	30.5	6.5	14		M9 x 1.0	5	2.5	10	12	12H	0.8		11	
PFTK-6A	6	30.5	6.5	14		M9 x 1.0	5	2.5	10	12	12H	0.8		11	
PFTK-8A	8	31	7	14		M9 x 1.0	5	2.5	10	12	12H	1.2		11	
PFTK-10A	10	41	7.5	22.5		10H	M9 x 1.0	5	3	11	15.5	12H		1.5	15
PFTK-15	15	41	8	22		10H	M8 x 1.25	5	3	11	5	10H		1.9	M5 x 0.8
PFTK-20	20	43	10	22	10H	M8 x 1.25	5	3	11	15	10H	2.3	M5 x 0.8	20	
PFTK-25	25	57	14	32	14H	M10 x 1.5	5	3	11	20	14H	3	M6 x 1.0	40	
PFTK-30	30	55	12	32	14H	M10 x 1.5	5	3	11	20	14H	2	M6 x 1.0	40	
PFTK-35	35	57	14	32	14H	M10 x 1.5	5	3	11	20	14H	3	M6 x 1.0	40	
PFTK-40	40	57	14	32	14H	M10 x 1.5	5	3	11	20	14H	3.5	M6 x 1.0	40	
PFTK-50	50	58	15	32	14H	M10 x 1.5	5	3	11	20	14H	4	M8 x 1.25	50	
PFTK-60	60	58.5	18.5	40	21H	M16 x 1.5	Rc1/8	5		23	21H	5	M10 x 1.25	130	
PFTK-80	80	60.5	20.5	40	21H	M16 x 1.5	Rc1/8	5		23	21H	6	M10 x 1.25	170	
PFTK-95	95	61	21	40	21H	M16 x 1.5	Rc1/8	5		23	21H	6	M10 x 1.25	220	

inch

PFTK	A	B	C	D	E	F	G	H	I	J	K	Y	Z	Mass(g)	
PFTK-1.5A	0.06	0.93	0.16	0.12		M5 x 0.02	0.11	0.05	0.33	0.31	0.28H	0.02		8	
PFTK-2A	0.08	0.93	0.16	0.12		M5 x 0.02	0.11	0.05	0.33	0.31	0.28H	0.02		8	
PFTK-2 x 4	0.08 x 0.16	0.97	0.07	0.26		M5 x 0.02	0.11	0.05	0.33	0.31	0.28H	0.02		8	
PFTK-3.5A	0.14	0.93	0.16	0.12		M5 x 0.02	0.11	0.05	0.33	0.31	0.28H	0.02		8	
PFTK-3.5 x 7	0.14 x 0.28	1	0.1	0.26		M5 x 0.02	0.11	0.05	0.33	0.31	0.28H	0.03		8	
PFTK-5A	0.2	1.2	0.26	0.55		M9 x 0.04	0.2	0.1	0.39	0.47	0.47H	0.03		11	
PFTK-6A	0.24	1.2	0.26	0.55		M9 x 0.04	0.2	0.1	0.39	0.47	0.47H	0.03		11	
PFTK-8A	0.31	1.22	0.28	0.55		M9 x 0.04	0.2	0.1	0.39	0.47	0.47H	0.05		11	
PFTK-10A	0.39	1.61	0.3	0.89		0.39H	M9 x 0.04	0.2	0.12	0.43	0.61	0.47H		0.06	15
PFTK-15	0.59	1.61	0.31	0.87		0.39H	M8 x 0.05	0.2	0.12	0.43	0.2	0.39H		0.07	M5 x 0.03
PFTK-20	0.79	1.69	0.39	0.87	0.39H	M8 x 0.05	0.2	0.12	0.43	0.59	0.39H	0.09	M5 x 0.03	20	
PFTK-25	0.98	2.24	0.55	1.26	0.55H	M10 x 0.06	0.2	0.12	0.43	0.79	0.55H	0.12	M6 x 0.04	40	
PFTK-30	1.18	2.17	0.47	1.26	0.55H	M10 x 0.06	0.2	0.12	0.43	0.79	0.55H	0.08	M6 x 0.04	40	
PFTK-35	1.38	2.24	0.55	1.26	0.55H	M10 x 0.06	0.2	0.12	0.43	0.79	0.55H	0.12	M6 x 0.04	40	
PFTK-40	1.57	2.24	0.55	1.26	0.55H	M10 x 0.06	0.2	0.12	0.43	0.79	0.55H	0.14	M6 x 0.04	40	
PFTK-50	1.97	2.28	0.59	1.26	0.55H	M10 x 0.06	0.2	0.12	0.43	0.79	0.55H	0.16	M6 x 0.05	50	
PFTK-60	2.36	2.3	0.73	1.57	0.83H	M16 x 0.06	Rc1/8	0.2		0.91	0.83H	0.2	M10 x 0.05	130	
PFTK-80	3.15	2.38	0.81	1.57	0.83H	M16 x 0.06	Rc1/8	0.2		0.91	0.83H	0.24	M10 x 0.05	170	
PFTK-95	3.74	2.4	0.83	1.57	0.83H	M16 x 0.06	Rc1/8	0.2		0.91	0.83H	0.24	M10 x 0.05	220	

Suction pads



mm

PFYK	A	B	C	D	E	F	G	H	I	J	K	Y	Z	Mass(g)
PFYK-1.5A	1.5	20	4	16	5H	M3 depth 5	2.8	1.2	11	11	/	0.4	/	3
PFYK-2A	2	20	4	16	5H	M3 depth 5	2.8	1.2	11	11		0.5		3
PFYK-2 x 4	2 x 4	21.7	1.7	20	5H	M3 depth 5	2.8	1.2	11	11		0.5		3
PFYK-3.5A	3.5	20	4	16	5H	M3 depth 5	2.8	1.2	11	11		0.5		3
PFYK-3.5 x 7	3.5 x 7	22.5	2.5	20	5H	M3 depth 5	2.8	1.2	11	11	0.8	3		
PFYK-5A	5	29	6.5	22.5	10H	M4 depth 6	5	3	16	13	10	0.8	16	
PFYK-6A	6	29	6.5	22.5	10H	M4 depth 6	5	3	16	13	10	0.8	16	
PFYK-8A	8	29.5	7	22.5	10H	M4 depth 6	5	3	16	13	10	1.2	16	
PFYK-10A	10	30	7.5	22.5	10H	M4 depth 6	5	3	16	13	10	1.5	16	
PFYK-15	15	30	8	22	10H	M4 depth 6	5	3	16	14	10	1.9	M5 x 0.8	20
PFYK-20	20	32	10	22	10H	M4 depth 6	5	3	16	14	10	2.3	M5 x 0.8	20
PFYK-25	25	46	14	32	14H	M6 depth 8	5	3	18	20	12	3	M6 x 1.0	40
PFYK-30	30	44	12	32	14H	M6 depth 8	5	3	18	20	12	2	M6 x 1.0	40
PFYK-35	35	46	14	32	14H	M6 depth 8	5	3	18	20	12	3	M6 x 1.0	40
PFYK-40	40	46	14	32	14H	M6 depth 8	5	3	18	20	12	3.5	M6 x 1.0	50
PFYK-50	50	47	15	32	14H	M6 depth 8	5	3	18	20	12	4	M8 x 1.25	55
PFYK-60	60	58.5	18.5	40	21H	M8 depth 11	Rc1/8	5	/	28	17	5	M10 x 1.25	120
PFYK-80	80	60.5	20.5	40	21H	M8 depth 11	Rc1/8	5		28	17	6	M10 x 1.25	160
PFYK-95	95	61	21	40	21H	M8 depth 11	Rc1/8	5		28	17	6	M10 x 1.25	210
PFYK-100														140
PFYK-120	120	75.5	25.5	50	64.5	M16 depth 20	Rc1/8	/	/	38	30	6	4-M8	640
PFYK-150	150	82.5	32.5	50	64.5	M16 depth 20	Rc1/8			38	30	9	4-M8	910
PFYK-200	200	87.5	37.5	50	64.5	M16 depth 20	Rc1/8			38	30	13	4-M8	1200

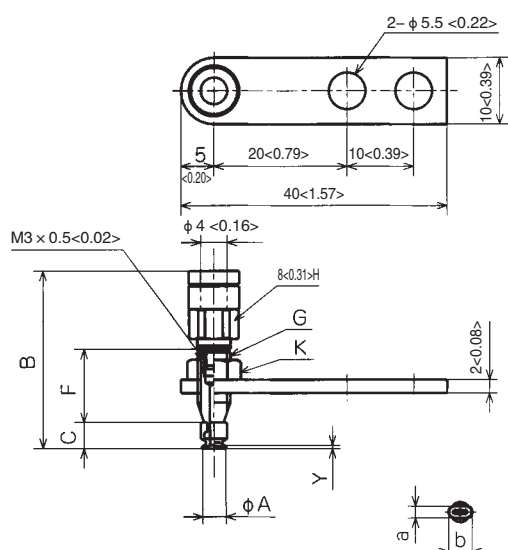
inch

PFYK	A	B	C	D	E	F	G	H	I	J	K	Y	Z	Mass(g)
PFYK-1.5A	0.06	0.79	0.16	0.63	0.2H	M3 depth 0.2	0.11	0.05	0.43	0.43	/	0.02	/	3
PFYK-2A	0.08	0.79	0.16	0.63	0.2H	M3 depth 0.2	0.11	0.05	0.43	0.43		0.02		3
PFYK-2 x 4	0.08 x 0.16	0.85	0.07	0.79	0.2H	M3 depth 0.2	0.11	0.05	0.43	0.43		0.02		3
PFYK-3.5A	0.14	0.79	0.16	0.63	0.2H	M3 depth 0.2	0.11	0.05	0.43	0.43		0.02		3
PFYK-3.5 x 7	0.14 x 0.28	0.89	0.1	0.79	0.2H	M3 depth 0.2	0.11	0.05	0.43	0.43	0.03	3		
PFYK-5A	0.2	1.14	0.26	0.89	0.39H	M4 depth 0.24	0.2	0.12	0.63	0.51	0.39	0.03	16	
PFYK-6A	0.24	1.14	0.26	0.89	0.39H	M4 depth 0.24	0.2	0.12	0.63	0.51	0.39	0.03	16	
PFYK-8A	0.31	1.16	0.28	0.89	0.39H	M4 depth 0.24	0.2	0.12	0.63	0.51	0.39	0.05	16	
PFYK-10A	0.39	1.18	0.3	0.89	0.39H	M4 depth 0.24	0.2	0.12	0.63	0.51	0.39	0.06	16	
PFYK-15	0.59	1.18	0.31	0.87	0.39H	M4 depth 0.24	0.2	0.12	0.63	0.55	0.39	0.07	M5 x 0.03	20
PFYK-20	0.79	1.26	0.39	0.87	0.39H	M4 depth 0.24	0.2	0.12	0.63	0.55	0.39	0.09	M5 x 0.03	20
PFYK-25	0.98	1.81	0.55	1.26	0.55H	M6 depth 0.31	0.2	0.12	0.71	0.79	0.47	0.12	M6 x 0.04	40
PFYK-30	1.18	1.73	0.47	1.26	0.55H	M6 depth 0.31	0.2	0.12	0.71	0.79	0.47	0.08	M6 x 0.04	40
PFYK-35	1.38	1.81	0.55	1.26	0.55H	M6 depth 0.31	0.2	0.12	0.71	0.79	0.47	0.12	M6 x 0.04	40
PFYK-40	1.57	1.81	0.55	1.26	0.55H	M6 depth 0.31	0.2	0.12	0.71	0.79	0.47	0.14	M6 x 0.04	50
PFYK-50	1.97	1.85	0.59	1.26	0.55H	M6 depth 0.31	0.2	0.12	0.71	0.79	0.47	0.16	M8 x 0.05	55
PFYK-60	2.36	2.3	0.73	1.57	0.83H	M8 depth 0.43	Rc1/8	0.2	/	1.1	0.67	0.2	M10 x 0.05	120
PFYK-80	3.15	2.38	0.81	1.57	0.83H	M8 depth 0.43	Rc1/8	0.2		1.1	0.67	0.24	M10 x 0.05	160
PFYK-95	3.74	2.4	0.83	1.57	0.83H	M8 depth 0.43	Rc1/8	0.2		1.1	0.67	0.24	M10 x 0.05	210
PFYK-100														140
PFYK-120	4.72	2.97	1	1.97	2.54	M16 depth 0.79	Rc1/8	/	/	1.5	1.18	0.24	4-M8	640
PFYK-150	5.91	3.25	1.28	1.97	2.54	M16 depth 0.79	Rc1/8			1.5	1.18	0.35	4-M8	910
PFYK-200	7.87	3.44	1.48	1.97	2.54	M16 depth 0.79	Rc1/8			1.5	1.18	0.51	4-M8	1200

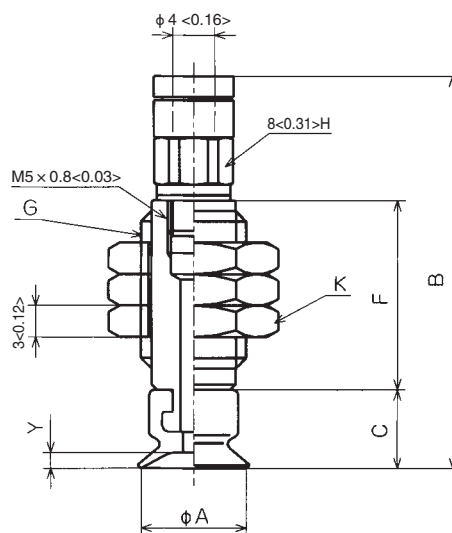
Dimensions

Unit : mm <inch>

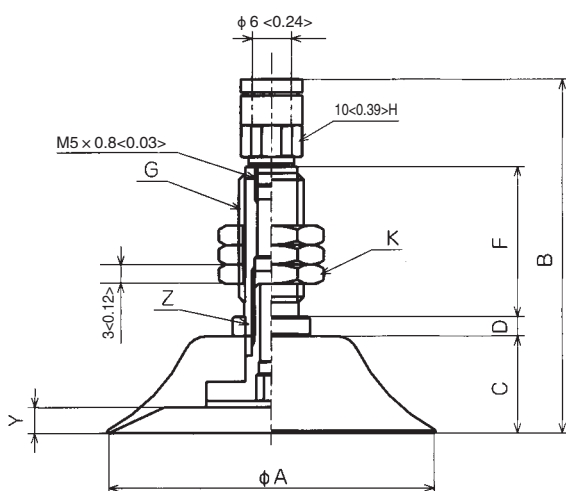
PFTKM



PFTKM-1.5A/2A/2x4A/3.5A/3.5x7A



PFTKM-5A/6A/8A/10A



PFTKM-15/20/25/30/35/40/50

mm

PFTKM	A	B	C	D	F	G	K	Y	Z
PFTKM-1.5A	1.5	27.5	4		11	M5 x 0.5	7H	0.4	
PFTKM-2A	2	27.5	4		11	M5 x 0.5	7H	0.5	
PFTKM-2 x 4A	2 x 4	27.5	6		9	M5 x 0.5	7H	0.5	
PFTKM-3.5A	3.5	27.5	4		11	M5 x 0.5	7H	0.5	
PFTKM-3.5 x 7A	3.5 x 7	27.5	6		9	M5 x 0.5	7H	0.8	
PFTKM-5A	5	37.5	6.5		18	M10 x 1.5	14H	0.8	
PFTKM-6A	6	37.5	6.5		18	M10 x 1.5	14H	0.8	
PFTKM-8A	8	38	7		18	M10 x 1.5	14H	1.2	
PFTKM-10A	10	38.5	7.5		18	M10 x 1.5	14H	1.5	
PFTKM-15	15	48	8		3	23	M10 x 1.5	14H	
PFTKM-20	20	50	10	3	23	M10 x 1.5	14H	2.3	M5 x 0.8
PFTKM-25	25	54	14	3	23	M10 x 1.5	14H	3	M6 x 1.0
PFTKM-30	30	52	12	3	23	M10 x 1.5	14H	2	M6 x 1.0
PFTKM-35	35	54	14	3	23	M10 x 1.5	14H	3	M6 x 1.0
PFTKM-40	40	54	14	3	23	M10 x 1.5	14H	3.5	M6 x 1.0
PFTKM-50	50	55	15	3	23	M10 x 1.5	14H	4	M6 x 1.0

Suction pads

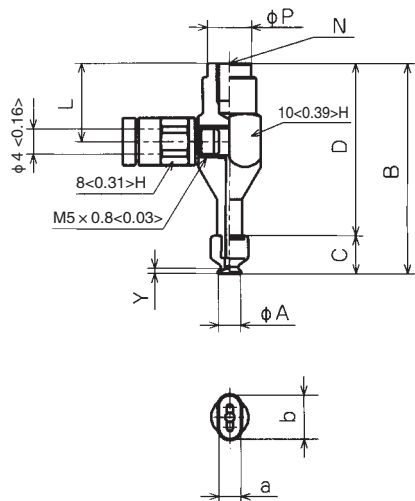
inch

PFTKM	A	B	C	D	F	G	K	Y	Z
PFTKM-1.5A	0.06	1.08	0.16		0.43	M5 × 0.02	0.28H	0.02	
PFTKM-2A	0.08	1.08	0.16		0.43	M5 × 0.02	0.28H	0.02	
PFTKM-2 × 4A	0.08 × 0.16	1.08	0.24		0.35	M5 × 0.02	0.28H	0.02	
PFTKM-3.5A	0.14	1.08	0.16		0.43	M5 × 0.02	0.28H	0.02	
PFTKM-3.5 × 7A	0.14 × 0.28	1.08	0.24		0.35	M5 × 0.02	0.28H	0.03	
PFTKM-5A	0.2	1.48	0.26		0.71	M10 × 0.06	0.55H	0.03	
PFTKM-6A	0.24	1.48	0.26		0.71	M10 × 0.06	0.55H	0.03	
PFTKM-8A	0.31	1.5	0.28		0.71	M10 × 0.06	0.55H	0.05	
PFTKM-10A	0.39	1.52	0.3		0.71	M10 × 0.06	0.55H	0.06	
PFTKM-15	0.59	1.89	0.31		0.12	0.91	M10 × 0.06	0.55H	
PFTKM-20	0.79	1.97	0.39	0.12	0.91	M10 × 0.06	0.55H	0.09	M5 × 0.03
PFTKM-25	0.98	2.13	0.55	0.12	0.91	M10 × 0.06	0.55H	0.12	M6 × 0.04
PFTKM-30	1.18	2.05	0.47	0.12	0.91	M10 × 0.06	0.55H	0.08	M6 × 0.04
PFTKM-35	1.38	2.13	0.55	0.12	0.91	M10 × 0.06	0.55H	0.12	M6 × 0.04
PFTKM-40	1.57	2.13	0.55	0.12	0.91	M10 × 0.06	0.55H	0.14	M6 × 0.04
PFTKM-50	1.97	2.17	0.59	0.12	0.91	M10 × 0.06	0.55H	0.16	M6 × 0.04

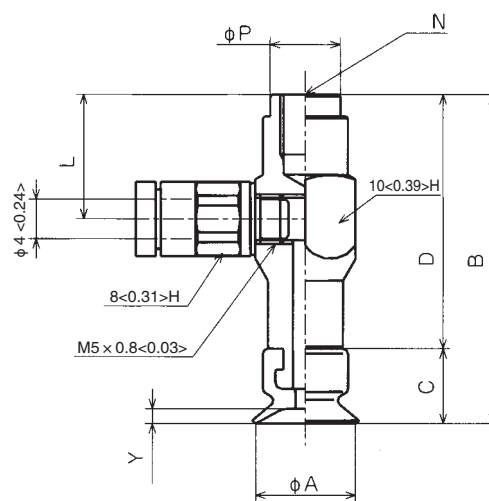
Dimensions

Unit : mm <inch>

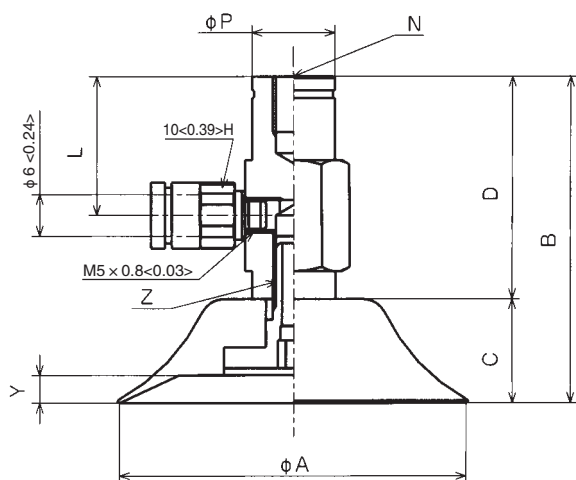
PFYKM



PFYKM-2A / 2X4A / 3.5A / 3.5X7A



PFYKM-5A / 6A / 8A / 10A



PFYKM-15 / 20 / 25 / 30 / 35 / 40 / 50

mm

PFYKM	A	B	C	D	L	N	P	Y	Z
PFYKM-1.5A	1.5	31.5	4	27.5	12.5	M4 depth 6	7	0.4	
PFYKM-2A	2	31.5	4	27.5	12.5	M4 depth 6	7	0.5	
PFYKM-2 x 4A	2 x 4	33.5	6	27.5	12.5	M4 depth 6	7	0.5	
PFYKM-3.5A	3.5	31.5	4	27.5	12.5	M4 depth 6	7	0.5	
PFYKM-3.5 x 7A	3.5 x 7	33.5	6	27.5	12.5	M4 depth 6	7	0.8	
PFYKM-5A	5	32	6.5	25.5	12.5	M5 depth 6	7	0.8	
PFYKM-6A	6	32	6.5	25.5	12.5	M5 depth 6	7	0.8	
PFYKM-8A	8	32.5	7	25.5	12.5	M5 depth 6	7	1.2	
PFYKM-10A	10	33	7.5	25.5	12.5	M5 depth 6	7	1.5	
PFYKM-15	15	30	8	22	14	M6 depth 6	9	1.9	
PFYKM-20	20	32	10	22	14	M6 depth 6	9	2.3	M5 x 0.8
PFYKM-25	25	46	14	32	20	M6 depth 8	12	3	M6 x 1.0
PFYKM-30	30	44	12	32	20	M6 depth 8	12	2	M6 x 1.0
PFYKM-35	35	46	14	32	20	M6 depth 8	12	3	M6 x 1.0
PFYKM-40	40	46	14	32	20	M6 depth 8	12	3.5	M6 x 1.0
PFYKM-50	50	47	15	32	20	M6 depth 8	12	4	M6 x 1.0

Suction pads

inch

PFYKM	A	B	C	D	L	N	P	Y	Z
PFYKM-1.5A	0.06	1.24	0.16	1.08	0.49	M4 depth 0.24	0.28	0.02	
PFYKM-2A	0.08	1.24	0.16	1.08	0.49	M4 depth 0.24	0.28	0.02	
PFYKM-2 x 4A	0.08 x 0.16	1.32	0.24	1.08	0.49	M4 depth 0.24	0.28	0.02	
PFYKM-3.5A	0.14	1.24	0.16	1.08	0.49	M4 depth 0.24	0.28	0.02	
PFYKM-3.5 x 7A	0.14 x 0.28	1.32	0.24	1.08	0.49	M4 depth 0.24	0.28	0.03	
PFYKM-5A	0.2	1.26	0.26	1	0.49	M5 depth 0.2	0.28	0.03	
PFYKM-6A	0.24	1.26	0.26	1	0.49	M5 depth 0.2	0.28	0.03	
PFYKM-8A	0.31	1.28	0.28	1	0.49	M5 depth 0.2	0.28	0.05	
PFYKM-10A	0.39	1.3	0.3	1	0.49	M5 depth 0.2	0.28	0.06	
PFYKM-15	0.59	1.18	0.31	0.87	0.55	M6 depth 0.2	0.35	0.07	
PFYKM-20	0.79	1.26	0.39	0.87	0.55	M6 depth 0.2	0.35	0.09	M5 x 0.03
PFYKM-25	0.98	1.81	0.55	1.26	0.79	M6 depth 0.31	0.47	0.12	M6 x 0.04
PFYKM-30	1.18	1.73	0.47	1.26	0.79	M6 depth 0.31	0.47	0.08	M6 x 0.04
PFYKM-35	1.38	1.81	0.55	1.26	0.79	M6 depth 0.31	0.47	0.12	M6 x 0.04
PFYKM-40	1.57	1.81	0.55	1.26	0.79	M6 depth 0.31	0.47	0.14	M6 x 0.04
PFYKM-50	1.97	1.85	0.59	1.26	0.79	M6 depth 0.31	0.47	0.16	M6 x 0.04

# Simple pad with spring fitting/PSS

## How to order

PSS - ① S3 - PFG - ② 1.5A - ③ N

① Stroke

Stroke	Description	Description
S3	3mm Stroke	Description $\phi 1.5 \sim \phi 3.5$
L3	3mm Stroke	Description $\phi 5 \sim \phi 15$
S5	5mm Stroke	Description $\phi 1.5 \sim \phi 3.5$
L5	5mm Stroke	Description $\phi 5 \sim \phi 15$

② Pad diameter (mm)

1.5A	$\phi 1.5$
2A	$\phi 2$
3.5A	$\phi 3.5$
5A	$\phi 5$
6A	$\phi 6$
8A	$\phi 8$
10A	$\phi 10$
15A	$\phi 15$

③ Pad rubber material

N	NBR (Nitrile rubber)
S	Silicone rubber
U	Urethane rubber
F	Fluorine rubber
NE	Conductive NBR (Nitrile rubber)
SE	Conductive Silicone rubber

Note) Please consult with us for other material.

## Pad standard specifications

Symbol	Material	Hardness (Hs)	Ambient temperature	Color	Volume resistivity Note 1 · 2
N	NBR (Nitrile rubber)	A55/S	-26 ~ 120°C	Black	-
S	Silicone rubber	A55/S	-60 ~ 250°C	White	-
U	Urethane rubber	A55/S	-20 ~ 75°C	Blue	-
F	Fluorine rubber	A70/S	-10 ~ 230°C	Black with white dot	-
NE	Conductive NBR (Nitrile rubber)	A70/S	-26 ~ 120°C	Black with blue dot	$10^2 \sim 10^3 \Omega \cdot \text{cm}$
SE	Conductive Silicone rubber	A55/S	-60 ~ 250°C	Black with red dot	$10^2 \sim 10^4 \Omega \cdot \text{cm}$

Note1) Volume resistivity shows conductivity, resistance value is per  $\text{cm}^3$ .

Note2) It is the measured value of in our designated test piece.

## Applicable fitting table

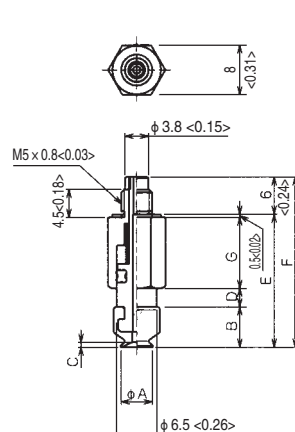
	How to order	Round pad							
		1.5A	2A	3.5A	5A	6A	8A	10A	15A
Fitting	PSS-S3	○	○	○					
	PSS-L3				○	○	○	○	○
	PSS-S5	○	○	○					
	PSS-L5				○	○	○	○	○

Note) Pad is attached directly to the fitting.

Please attach with a torque of 0.58 ~ 0.68 N · m.

## Dimensions

Unit : mm <inch>



PSS	A	B	C	D	E	F	G	F <sup>1</sup>	F <sup>2</sup>	Mass(g)
PSS-S3-PFG-1.5A	1.5	4	0.4	3	19	25	11.5	1.5	2.3	5.5
PSS-S3-PFG-2A	2	4	0.5	3	19	25	11.5	1.5	2.3	5.5
PSS-S3-PFG-3.5A	3.5	4	0.5	3	19	25	11.5	1.5	2.3	5.5
PSS-L3-PFG-5A	5	6.5	0.8	3	21.5	27.5	11.5	1.5	2.3	6
PSS-L3-PFG-6A	6	6.5	0.8	3	21.5	27.5	11.5	1.5	2.3	6
PSS-L3-PFG-8A	8	7	1.2	3	22	28	11.5	1.5	2.3	6
PSS-L3-PFG-10A	10	7.5	1.5	3	22.5	28.5	11.5	1.5	2.3	10
PSS-L3-PFG-15A	15	8	2	3	23	29	11.5	1.5	2.3	10
PSS-S5-PFG-1.5A	1.5	4	0.4	5	23	29	13.5	1.5	2.3	6.5
PSS-S5-PFG-2A	2	4	0.5	5	23	29	13.5	1.5	2.3	6.5
PSS-S5-PFG-3.5A	3.5	4	0.5	5	23	29	13.5	1.5	2.3	6.5
PSS-L5-PFG-5A	5	6.5	0.8	5	25.5	31.5	13.5	1.5	2.3	7
PSS-L5-PFG-6A	6	6.5	0.8	5	25.5	31.5	13.5	1.5	2.3	7
PSS-L5-PFG-8A	8	7	1.2	5	26	32	13.5	1.5	2.3	7
PSS-L5-PFG-10A	10	7.5	1.5	5	26.5	32.5	13.5	1.5	2.3	11
PSS-L5-PFG-15A	15	8	2	5	27	33	13.5	1.5	2.3	11

Note) Symbol F<sup>1</sup> in the table shows a spring load (N) at 0 stroke, and F<sup>2</sup> at full stroke.  
In the terms of structure, when the works is being absorbed, the stroke will rise.

inch

PSS	A	B	C	D	E	F	G	F <sup>1</sup>	F <sup>2</sup>	Mass(g)
PSS-S3-PFG-1.5A	0.06	0.16	0.02	0.12	0.75	0.98	0.45	1.5	2.3	5.5
PSS-S3-PFG-2A	0.08	0.16	0.02	0.12	0.75	0.98	0.45	1.5	2.3	5.5
PSS-S3-PFG-3.5A	0.14	0.16	0.02	0.12	0.75	0.98	0.45	1.5	2.3	5.5
PSS-L3-PFG-5A	0.2	0.26	0.03	0.12	0.85	1.08	0.45	1.5	2.3	6
PSS-L3-PFG-6A	0.24	0.26	0.03	0.12	0.85	1.08	0.45	1.5	2.3	6
PSS-L3-PFG-8A	0.31	0.28	0.05	0.12	0.87	1.1	0.45	1.5	2.3	6
PSS-L3-PFG-10A	0.39	0.3	0.06	0.12	0.89	1.12	0.45	1.5	2.3	10
PSS-L3-PFG-15A	0.59	0.31	0.08	0.12	0.91	1.14	0.45	1.5	2.3	10
PSS-S5-PFG-1.5A	0.06	0.16	0.02	0.2	0.91	1.14	0.53	1.5	2.3	6.5
PSS-S5-PFG-2A	0.08	0.16	0.02	0.2	0.91	1.14	0.53	1.5	2.3	6.5
PSS-S5-PFG-3.5A	0.14	0.16	0.02	0.2	0.91	1.14	0.53	1.5	2.3	6.5
PSS-L5-PFG-5A	0.2	0.26	0.03	0.2	1	1.24	0.53	1.5	2.3	7
PSS-L5-PFG-6A	0.24	0.26	0.03	0.2	1	1.24	0.53	1.5	2.3	7
PSS-L5-PFG-8A	0.31	0.28	0.05	0.2	1.02	1.26	0.53	1.5	2.3	7
PSS-L5-PFG-10A	0.39	0.3	0.06	0.2	1.04	1.28	0.53	1.5	2.3	11
PSS-L5-PFG-15A	0.59	0.31	0.08	0.2	1.06	1.3	0.53	1.5	2.3	11

Note) Symbol F<sup>1</sup> in the table shows a spring load (N) at 0 stroke, and F<sup>2</sup> at full stroke.  
 In the terms of structure, when the works is being absorbed, the stroke will rise.

# Pad with spring fitting/NAPFTS · YS

## How to order

NAPF <sup>①</sup>T <sup>②</sup>S - <sup>③</sup>2A-3 - <sup>④</sup>N - T

① Vacuum port

T	Top port
Y	Side port

② Pad diameter - stroke (mm)

1.5A-3	φ1.5-3	20B-6	φ20-6	60-10	φ60-10
1.5A-6	φ1.5-6	20B-15	φ20-15	60-30	φ60-30
2A-3	φ2-3	20B-30	φ20-30	60-50	φ60-50
2A-6	φ2-6	25-6	φ25-6	80-10	φ80-10
3.5A-3	φ3.5-3	25-15	φ25-15	80-30	φ80-30
3.5A-6	φ3.5-6	25-30	φ25-30	80-50	φ80-50
5A-3	φ5-3	30-6	φ30-6	95-10	φ95-10
5A-6	φ5-6	30-15	φ30-15	95-30	φ95-30
6A-3	φ6-3	30-30	φ30-30	95-50	φ95-50
6A-6	φ6-6	35-6	φ35-6	120-20	φ120-20
8A-3	φ8-3	35-15	φ35-15	120-50	φ120-50
8A-6	φ8-6	35-30	φ35-30	150-20	φ150-20
10A-3	φ10-3	40-6	φ40-6	150-50	φ150-50
10A-10	φ10-10	40-15	φ40-15	200-20	φ200-20
10A-15	φ10-15	40-30	φ40-30	200-50	φ200-50
15A-3	φ15-3	50-6	φ50-6		
15A-10	φ15-10	50-15	φ50-15		
15A-15	φ15-15	50-30	φ50-30		

③ Pad rubber material

N	NBR (Nitrile rubber)
S	Silicone rubber
U	Urethane rubber
F	Fluorine rubber
NE	Conductive NBR (Nitrile rubber)
SE	Conductive Silicone rubber

Note) Please consult with us for other material.

④ Connector

Blank	Without
T	Barb connector
O	Push-in connector

## Fitting specifications

Description		φ1.5 ~ 8		φ10 ~ 15		φ20 ~ 50		φ60 ~ 95		φ120 ~ 200	
Vacuum port type		Top port	Side port	Top port	Side port	Top port	Side port	Top port	Side port	Side port	
Connection type	Without connector	M3	M3	M5	M5	M5	M5	Rc1/8	Rc1/8	Rc1/4	
	Barb connector	φ4 × 2.5	○ (M3)	○ (M3)	×	×	×	×	×	×	×
		φ6 × 4	×	×	○ (M5)	○ (M5)	○ (M5)	○ (M5)	×	×	×
	Push-in connector	φ4 × 2.5	○ (M3)	○ (M3)	×	×	×	×	×	×	×
φ6 × 4		×	×	○ (M5)	○ (M5)	○ (M5)	○ (M5)	×	×	×	
Fitting attachment type		Female screw	Female screw	Female screw	Female screw	Female screw	Female screw	Female screw	Female screw	Female screw	

Note) Dry bearing is used for pads from φ10mm.

## Pad standard specifications

Symbol	Material	Hardness (Hs)	Ambient temperature	Color	Volume resistivity Note 1 · 2
N	NBR (Nitrile rubber)	A55/S	-26 ~ 120°C	Black	-
S	Silicone rubber	A55/S	-60 ~ 250°C	White	-
U	Urethane rubber	A55/S	-20 ~ 75°C	Blue	-
F	Fluorine rubber	A70/S	-10 ~ 230°C	Black with white dot	-
NE	Conductive NBR (Nitrile rubber)	A70/S	-26 ~ 120°C	Black with blue dot	10 <sup>2</sup> ~ 10 <sup>3</sup> Ω · cm
SE	Conductive Silicone rubber	A55/S	-60 ~ 250°C	Black with red dot	10 <sup>2</sup> ~ 10 <sup>4</sup> Ω · cm

Note1) Volume resistivity shows conductivity, resistance value is per cm<sup>3</sup>.

Note2) It is the measured value of in our designated test piece.



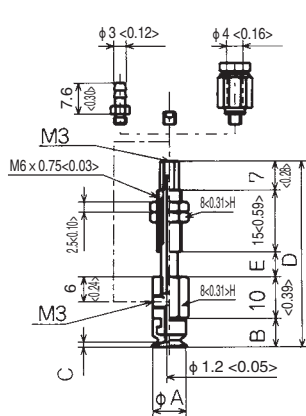
Applicable fitting table

	How to order	Round pad																				
		1.5A	2A	3.5A	5A	6A	8A	10A	15A	20B	25	30	35	40	50	60	80	95	120	150	200	
Fitting	Top port	NAPFTS-1.5A-3-K	○	○	○																	
		NAPFTS-1.5A-6-K	○	○	○																	
		NAPFTS-5A-3-K				○	○	○														
		NAPFTS-5A-6-K				○	○	○														
		NAPFTS-10A-3-K							○	○												
		NAPFTS-10A-10-K							○	○												
		NAPFTS-10A-15-K							○	○												
		NAPFTS-20B-6-K									○	○	○	○	○	○						
		NAPFTS-20B-15-K									○	○	○	○	○	○						
		NAPFTS-20B-30-K									○	○	○	○	○	○						
		NAPFTS-60-10-K															○	○	○			
		NAPFTS-60-30-K															○	○	○			
		NAPFTS-60-50-K															○	○	○			
		NAPFTS-120-20-K																		○	○	○
		NAPFTS-120-50-K																		○	○	○
Fitting	Side port	NAPFYS-1.5A-3-K	○	○	○																	
		NAPFYS-1.5A-6-K	○	○	○																	
		NAPFYS-5A-3-K				○	○	○														
		NAPFYS-5A-6-K				○	○	○														
		NAPFYS-10A-3-K							○	○												
		NAPFYS-10A-10-K							○	○												
		NAPFYS-10A-15-K							○	○												
		NAPFYS-20B-6-K									○	○	○	○	○	○						
		NAPFYS-20B-15-K									○	○	○	○	○	○						
		NAPFYS-20B-30-K									○	○	○	○	○	○						
		NAPFYS-60-10-K															○	○	○			
		NAPFYS-60-30-K															○	○	○			
		NAPFYS-60-50-K															○	○	○			
		NAPFYS-120-20-K																		○	○	○
		NAPFYS-120-50-K																		○	○	○
Setting screw	TN-PF-25-M6									○	○	○	○	○								
	TN-PF-50-M6														○							

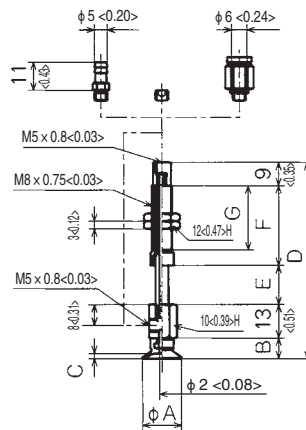
- Note 1) Please attach directly to the fitting, pads with diameter from  $\phi$ 1.5 to 15mm.
- Note 2) Please attach to the fitting, pads with diameter from  $\phi$ 20 to 50mm by using a setting screw.
- Note 3) For pad with diameter from 60mm to 95mm, please screw the pad directly to the fitting.
- Note 4) For 120mm diameter pad or above, attach the pad to the bolt with the delivered screws.
- Note 5) The mounting torque of the H8 nut for NAPFT/YS-1.5A/5A-# type should be 2.0n · m or below. Otherwise, malfunction would occur.

Dimensions

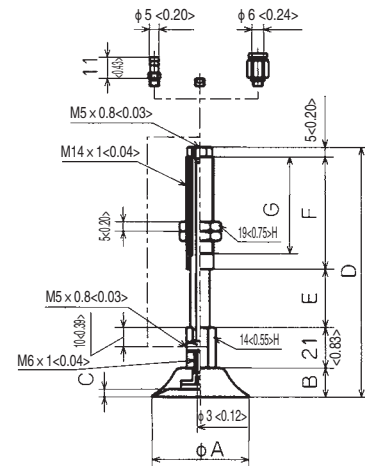
Unit : mm <inch>



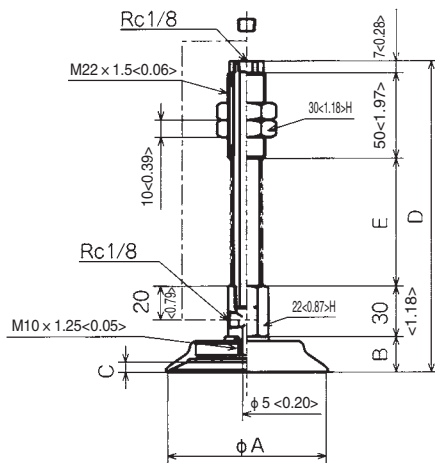
1.5A/2A/3.5A/5A/6A/8A



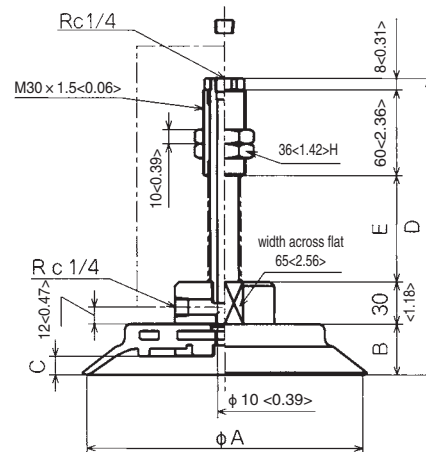
10A/15A



20B/25/30/35/40/50



60/80/95



120/150/200

mm

NAPFT/YS	A	B	C	D	E	F	G	F <sup>1</sup>	F <sup>2</sup>	Mass(g)		
NAPFT/YS-1.5A-3	1.5	4	0.4	39	3			0.49	0.59	6		
NAPFT/YS-1.5A-6	1.5	4	0.4	42	6			0.49	0.69	6		
NAPFT/YS-2A-3	2	4	0.5	39	3			0.49	0.59	6		
NAPFT/YS-2A-6	2	4	0.5	42	6			0.49	0.69	6		
NAPFT/YS-3.5A-3	3.5	4	0.5	39	3			0.49	0.59	6		
NAPFT/YS-3.5A-6	3.5	4	0.5	42	6			0.49	0.69	6		
NAPFT/YS-5A-3	5	6.5	0.8	41.5	3			0.49	0.59	7		
NAPFT/YS-5A-6	5	6.5	0.8	44.5	6			0.49	0.69	7		
NAPFT/YS-6A-3	6	6.5	0.8	41.5	3			0.49	0.59	7		
NAPFT/YS-6A-6	6	6.5	0.8	44.5	6			0.49	0.69	7		
NAPFT/YS-8A-3	8	7	1.2	42	3			0.49	0.59	7		
NAPFT/YS-8A-6	8	7	1.2	45	6			0.49	0.69	7		
NAPFT/YS-10A-3	10	7.5	1.5	55.5	3			23	17	0.61	0.77	18
NAPFT/YS-10A-10	10	7.5	1.5	62.5	10			23	17	0.61	1.17	18.5
NAPFT/YS-10A-15	10	7.5	1.5	75	15	30.5	24.5	0.64	1.17	21		
NAPFT/YS-15A-3	15	8	2	56	3	23	17	0.61	0.77	18		
NAPFT/YS-15A-10	15	8	2	63	10	23	17	0.61	1.17	18.5		
NAPFT/YS-15A-15	15	8	2	75.5	15	30.5	24.5	0.64	1.17	21		
NAPFT/YS-20B-6	20	12.5	2.3	80.5	6	36	28	2.45	3.43	65.5		
NAPFT/YS-20B-15	20	12.5	2.3	89.5	15	36	28	2.45	4.9	70.5		
NAPFT/YS-20B-30	20	12.5	2.3	126.5	30	58	50	2.9	5.88	95.5		
NAPFT/YS-25-6	25	14	3	82	6	36	28	2.45	3.43	66		
NAPFT/YS-25-15	25	14	3	91	15	36	28	2.45	4.9	71		
NAPFT/YS-25-30	25	14	3	128	30	58	50	2.9	5.88	96		
NAPFT/YS-30-6	30	12	2	80	6	36	28	2.45	3.43	67		
NAPFT/YS-30-15	30	12	2	89	15	36	28	2.45	4.9	72		
NAPFT/YS-30-30	30	12	2	126	30	58	50	2.9	5.88	97		
NAPFT/YS-35-6	35	14	3	82	6	36	28	2.45	3.43	69.5		
NAPFT/YS-35-15	35	14	3	91	15	36	28	2.45	4.9	74.5		
NAPFT/YS-35-30	35	14	3	128	30	58	50	2.9	5.88	99.5		
NAPFT/YS-40-6	40	14	3.5	82	6	36	28	2.45	3.43	71		
NAPFT/YS-40-15	40	14	3.5	91	15	36	28	2.45	4.9	76		
NAPFT/YS-40-30	40	14	3.5	128	30	58	50	2.9	5.88	101		
NAPFT/YS-50-6	50	15	4	83	6	36	28	2.45	3.43	80		
NAPFT/YS-50-15	50	15	4	92	15	36	28	2.45	4.9	85		
NAPFT/YS-50-30	50	15	4	129	30	58	50	2.9	5.88	110		
NAPFT/YS-60-10	60	18.5	5	125.5	20			8.82	11.8	282.5		
NAPFT/YS-60-30	60	18.5	5	155.5	50			6.76	15.6	316.5		
NAPFT/YS-60-50	60	18.5	5	180.5	75			8.33	19.6	343.5		
NAPFT/YS-80-10	80	20.5	6	127.5	20			8.82	11.8	310.5		
NAPFT/YS-80-30	80	20.5	6	157.5	50			6.76	15.6	344.5		
NAPFT/YS-80-50	80	20.5	6	182.5	75			8.33	19.6	371.5		
NAPFT/YS-95-10	95	21	6	128	20			8.82	11.8	350.5		
NAPFT/YS-95-30	95	21	6	158	50			6.76	15.6	384.5		
NAPFT/YS-95-50	95	21	6	182	75			8.33	19.6	411.5		
NAPFT/YS-120-20	120	24	6	157	35			15.6	29.4	1165		
NAPFT/YS-120-50	120	24	6	197	75			14.7	29.4	1246		
NAPFT/YS-150-20	150	31	9	164	35			15.6	29.4	1389		
NAPFT/YS-150-50	150	31	9	204	75			14.7	29.4	1470		
NAPFT/YS-200-20	200	36	13	169	35			15.6	29.4	1755		
NAPFT/YS-200-50	200	36	13	209	75	14.7	29.4	1836				

Note) Symbol F<sup>1</sup> in the table shows a spring load (N) at 0 stroke, and F<sup>2</sup> at full stroke.

inch

NAPFT/YS	A	B	C	D	E	F	G	F <sup>1</sup>	F <sup>2</sup>	Mass(g)		
NAPFT/YS-1.5A-3	0.06	0.16	0.02	1.54	0.12			0.49	0.59	6		
NAPFT/YS-1.5A-6	0.06	0.16	0.02	1.65	0.24			0.49	0.69	6		
NAPFT/YS-2A-3	0.08	0.16	0.02	1.54	0.12			0.49	0.59	6		
NAPFT/YS-2A-6	0.08	0.16	0.02	1.65	0.24			0.49	0.69	6		
NAPFT/YS-3.5A-3	0.14	0.16	0.02	1.54	0.12			0.49	0.59	6		
NAPFT/YS-3.5A-6	0.14	0.16	0.02	1.65	0.24			0.49	0.69	6		
NAPFT/YS-5A-3	0.2	0.26	0.03	1.63	0.12			0.49	0.59	7		
NAPFT/YS-5A-6	0.2	0.26	0.03	1.75	0.24			0.49	0.69	7		
NAPFT/YS-6A-3	0.24	0.26	0.03	1.63	0.12			0.49	0.59	7		
NAPFT/YS-6A-6	0.24	0.26	0.03	1.75	0.24			0.49	0.69	7		
NAPFT/YS-8A-3	0.31	0.28	0.05	1.65	0.12			0.49	0.59	7		
NAPFT/YS-8A-6	0.31	0.28	0.05	1.77	0.24			0.49	0.69	7		
NAPFT/YS-10A-3	0.39	0.3	0.06	2.19	0.12			0.91	0.67	0.61	0.77	18
NAPFT/YS-10A-6	0.39	0.3	0.06	2.46	0.39			0.91	0.67	0.61	1.17	18.5
NAPFT/YS-10A-15	0.39	0.3	0.06	2.95	0.59	1.2	0.96	0.64	1.17	21		
NAPFT/YS-15A-3	0.59	0.31	0.08	2.2	0.12	0.91	0.67	0.61	0.77	18		
NAPFT/YS-15A-10	0.59	0.31	0.08	2.48	0.39	0.91	0.67	0.61	1.17	18.5		
NAPFT/YS-15A-15	0.59	0.31	0.08	2.97	0.59	1.2	0.96	0.64	1.17	21		
NAPFT/YS-20B-6	0.79	0.49	0.09	3.17	0.24	1.42	1.1	2.45	3.43	65.5		
NAPFT/YS-20B-15	0.79	0.49	0.09	3.52	0.59	1.42	1.1	2.45	4.9	70.5		
NAPFT/YS-20B-30	0.79	0.49	0.09	4.98	1.18	2.28	1.97	2.9	5.88	95.5		
NAPFT/YS-25-6	0.98	0.55	0.12	3.23	0.24	1.42	1.1	2.45	3.43	66		
NAPFT/YS-25-15	0.98	0.55	0.12	3.58	0.59	1.42	1.1	2.45	4.9	71		
NAPFT/YS-25-30	0.98	0.55	0.12	5.04	1.18	2.28	1.97	2.9	5.88	96		
NAPFT/YS-30-6	1.18	0.47	0.08	3.15	0.24	1.42	1.1	2.45	3.43	67		
NAPFT/YS-30-15	1.18	0.47	0.08	3.5	0.59	1.42	1.1	2.45	4.9	72		
NAPFT/YS-30-30	1.18	0.47	0.08	4.96	1.18	2.28	1.97	2.9	5.88	97		
NAPFT/YS-35-6	1.38	0.55	0.12	3.23	0.24	1.42	1.1	2.45	3.43	69.5		
NAPFT/YS-35-15	1.38	0.55	0.12	3.58	0.59	1.42	1.1	2.45	4.9	74.5		
NAPFT/YS-35-30	1.38	0.55	0.12	5.04	1.18	2.28	1.97	2.9	5.88	99.5		
NAPFT/YS-40-6	1.57	0.55	0.14	3.23	0.24	1.42	1.1	2.45	3.43	71		
NAPFT/YS-40-15	1.57	0.55	0.14	3.58	0.59	1.42	1.1	2.45	4.9	76		
NAPFT/YS-40-30	1.57	0.55	0.14	5.04	1.18	2.28	1.97	2.9	5.88	101		
NAPFT/YS-50-6	1.97	0.59	0.16	3.27	0.24	1.42	1.1	2.45	3.43	80		
NAPFT/YS-50-15	1.97	0.59	0.16	3.62	0.59	1.42	1.1	2.45	4.9	85		
NAPFT/YS-50-30	1.97	0.59	0.16	5.08	1.18	2.28	1.97	2.9	5.88	110		
NAPFT/YS-60-10	2.36	0.73	0.2	4.94	0.79			8.82	11.8	282.5		
NAPFT/YS-60-30	2.36	0.73	0.2	6.12	1.97			6.76	15.6	316.5		
NAPFT/YS-60-50	2.36	0.73	0.2	7.11	2.95			8.33	19.6	343.5		
NAPFT/YS-80-10	3.15	0.81	0.24	5.02	0.79			8.82	11.8	310.5		
NAPFT/YS-80-30	3.15	0.81	0.24	6.2	1.97			6.76	15.6	344.5		
NAPFT/YS-80-50	3.15	0.81	0.24	7.19	2.95			8.33	19.6	371.5		
NAPFT/YS-95-10	3.74	0.83	0.24	5.04	0.79			8.82	11.8	350.5		
NAPFT/YS-95-30	3.74	0.83	0.24	6.22	1.97			6.76	15.6	384.5		
NAPFT/YS-95-50	3.74	0.83	0.24	7.17	2.95			8.33	19.6	411.5		
NAPFT/YS-120-20	4.72	0.94	0.24	6.18	1.38			15.6	29.4	1165		
NAPFT/YS-120-50	4.72	0.94	0.24	7.76	2.95			14.7	29.4	1246		
NAPFT/YS-150-20	5.91	1.22	0.35	6.46	1.38			15.6	29.4	1389		
NAPFT/YS-150-50	5.91	1.22	0.35	8.03	2.95			14.7	29.4	1470		
NAPFT/YS-200-20	7.87	1.42	0.51	6.65	1.38			15.6	29.4	1755		
NAPFT/YS-200-50	7.87	1.42	0.51	8.23	2.95	14.7	29.4	1836				

Note) Symbol F<sup>1</sup> in the table shows a spring load (N) at 0 stroke, and F<sup>2</sup> at full stroke.

Connector mass(g)

	Tube O.D φ 4	Tube O.D φ 6
T	0.5	1.5
O	3.0	4.0

Suction pads

# Pad with spring fitting, non-rotative/NAPFTH · YH

## How to order

NAPF <sup>①</sup> T H - <sup>②</sup> 2A-3 - <sup>③</sup> N - <sup>④</sup> T

① Vacuum port

T	Top port
Y	Side port

② Pad diameter - stroke (mm)

1.5A-3	φ1.5-3	10A-3	φ10-3
1.5A-10	φ1.5-10	10A-10	φ10-10
1.5A-15	φ1.5-15	10A-15	φ10-15
2A-3	φ2-3	15A-3	φ15-3
2A-10	φ2-10	15A-10	φ15-10
2A-15	φ2-15	15A-15	φ15-15
3.5A-3	φ3.5-3	20B-6	φ20B-6
3.5A-10	φ3.5-10	20B-15	φ20B-15
3.5A-15	φ3.5-15	20B-30	φ20B-30
2 × 4A-3	2 × 4-3	25-6	φ25-6
2 × 4A-10	2 × 4-10	25-15	φ25-15
2 × 4A-15	2 × 4-15	25-30	φ25-30
3.5 × 7A-3	3.5 × 7-3	30-6	φ30-6
3.5 × 7A-10	3.5 × 7-10	30-15	φ30-15
3.5 × 7A-15	3.5 × 7-15	30-30	φ30-30
5A-3	φ5-3	35-6	φ35-6
5A-10	φ5-10	35-15	φ35-15
5A-15	φ5-15	35-30	φ35-30
6A-3	φ6-3	40-6	φ40-6
6A-10	φ6-10	40-15	φ40-15
6A-15	φ6-15	40-30	φ40-30
8A-3	φ8-3	50-6	φ50-6
8A-10	φ8-10	50-15	φ50-15
8A-15	φ8-15	50-30	φ50-30

③ Pad rubber material

N	NBR (Nitrile rubber)
S	Silicone rubber
U	Urethane rubber
F	Fluorine rubber
NE	Conductive NBR (Nitrile rubber)
SE	Conductive Silicone rubber

Note) Please consult with us for other material.

④ Connector

Blank	Without
T	Barb connector
O	Push-in connector

## Fitting specifications

Description		φ1.5 ~ 3.5, 2 × 4, 3.5 × 7		φ5 ~ 15		φ20 ~ 50		
Vacuum port type		Top port	Side port	Top port	Side port	Top port	Side port	
Connection type	Without connector	M3	M3	M5	M5	M5	M5	
	Barb connector	φ4 × 2.5	○ (M3)	○ (M3)	×	×	×	×
		φ6 × 4	×	×	○ (M5)	○ (M5)	○ (M5)	○ (M5)
	Push-in connector	φ4 × 2.5	○ (M3)	○ (M3)	×	×	×	×
φ6 × 4		×	×	○ (M5)	○ (M5)	○ (M5)	○ (M5)	
Fitting attachment type		Female screw	Female screw	Female screw	Female screw	Female screw	Female screw	

## Pad standard specifications

Symbol	Material	Hardness (Hs)	Ambient temperature	Color	Volume resistivity Note 1 · 2
N	NBR (Nitrile rubber)	A55/S	-26 ~ 120°C	Black	-
S	Silicone rubber	A55/S	-60 ~ 250°C	White	-
U	Urethane rubber	A55/S	-20 ~ 75°C	Blue	-
F	Fluorine rubber	A70/S	-10 ~ 230°C	Black with white dot	-
NE	Conductive NBR (Nitrile rubber)	A70/S	-26 ~ 120°C	Black with blue dot	10 <sup>2</sup> ~ 10 <sup>3</sup> Ω · cm
SE	Conductive Silicone rubber	A55/S	-60 ~ 250°C	Black with red dot	10 <sup>2</sup> ~ 10 <sup>4</sup> Ω · cm

Note1) Volume resistivity shows conductivity, resistance value is per cm<sup>3</sup>.

Note2) It is the measured value of in our designated test piece.

### Applicable fitting table

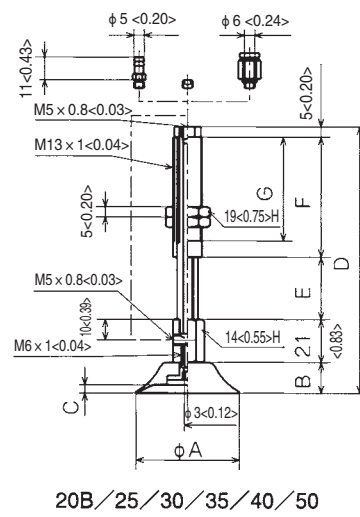
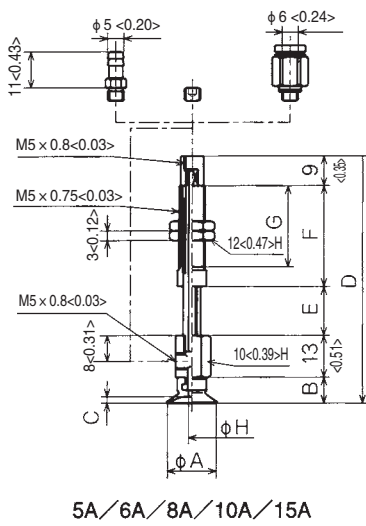
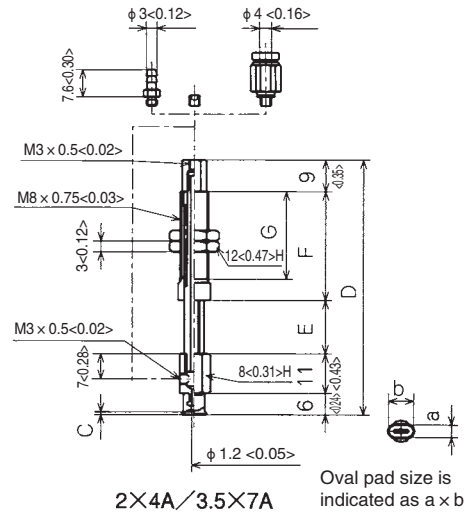
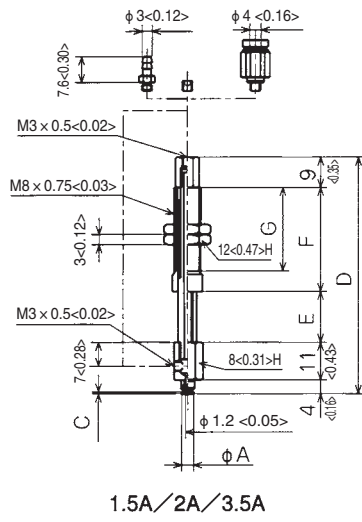
	How to order	Round pad														Oval pad		
		1.5A	2A	3.5A	5A	6A	8A	10A	15A	20B	25	30	35	40	50	2 × 4A	3.5 × 7A	
Fitting	Top port	NAPFTH-1.5A-3-K	○	○	○													
		NAPFTH-1.5A-10-K	○	○	○													
		NAPFTH-2A-15-K	○	○	○													
		NAPFTH-5A-3-K				○	○	○	○	○								
		NAPFTH-5A-10-K				○	○	○	○	○								
		NAPFTH-5A-15-K				○	○	○	○	○								
		NAPFTH-20B-6-K									○	○	○	○	○	○		
		NAPFTH-20B-15-K									○	○	○	○	○	○		
		NAPFTH-20B-30-K									○	○	○	○	○	○		
		NAPFTH-2 × 4A-3-K															○	○
		NAPFTH-2 × 4A-10-K															○	○
	NAPFTH-2 × 4A-15-K															○	○	
	Side port	NAPFYH-1.5A-3-K	○	○	○													
		NAPFYH-1.5A-10-K	○	○	○													
		NAPFYH-1.5A-15-K	○	○	○													
		NAPFYH-5A-3-K				○	○	○	○	○								
		NAPFYH-5A-10-K				○	○	○	○	○								
		NAPFYH-5A-15-K				○	○	○	○	○								
		NAPFYH-20B-6-K									○	○	○	○	○	○		
		NAPFYH-20B-15-K									○	○	○	○	○	○		
		NAPFYH-20B-30-K									○	○	○	○	○	○		
		NAPFYH-2 × 4A-3-K															○	○
NAPFYH-2 × 4A-10-K																○	○	
NAPFYH-2 × 4A-15-K															○	○		
Setting screw	TN-PF-25-M6									○	○	○	○	○				
	TN-PF-50-M6													○				

Note 1) Please attach directly to the fitting, pads with diameter from  $\phi$ 1.5 to 15mm.

Note 2) Please attach to the fitting, pads with diameter from  $\phi$ 20 to 50mm by using a setting screw.

Dimensions

Unit : mm <inch>



mm

NAPFT/YH	A	B	C	D	E	F	G	H	F <sup>1</sup>	F <sup>2</sup>	Mass(g)		
NAPFT/YH-1.5A-3	1.5	6.5	0.4	50	3	23	17	1.4	0.27	0.43	15.5		
NAPFT/YH-1.5A-10	1.5		0.4	57	10	23	17		0.27	0.82	17		
NAPFT/YH-1.5A-15	1.5		0.4	69.5	15	30.5	24.5		0.29	0.83	20		
NAPFT/YH-2A-3	2		0.5	50	3	23	17		0.27	0.43	15.5		
NAPFT/YH-2A-10	2		0.5	57	10	23	17		0.27	0.82	17		
NAPFT/YH-2A-15	2		0.5	69.5	15	30.5	24.5		0.29	0.83	20		
NAPFT/YH-3.5A-3	3.5		0.5	50	3	23	17		0.27	0.43	15.5		
NAPFT/YH-3.5A-10	3.5		0.5	57	10	23	17		0.27	0.82	17		
NAPFT/YH-3.5A-15	3.5		0.5	69.5	15	30.5	24.5		0.29	0.83	20		
NAPFT/YH-2x4A-3	2x4		0.5	52	3	23	17		0.27	0.43	16.5		
NAPFT/YH-2x4A-10	2x4		0.5	59	10	23	17		0.27	0.82	17		
NAPFT/YH-2x4A-15	2x4		0.5	71.5	15	30.5	24.5		0.29	0.83	20		
NAPFT/YH-3.5x7A-3	3.5x7		0.8	52	3	23	17		0.27	0.43	16.5		
NAPFT/YH-3.5x7A-10	3.5x7		0.8	59	10	23	17		0.27	0.82	17		
NAPFT/YH-3.5x7A-15	3.5x7		0.8	71.5	15	30.5	24.5		0.29	0.83	20		
NAPFT/YH-5A-3	5		6.5	0.8	54.5	3	23		17	1.4	0.61	0.77	18
NAPFT/YH-5A-10	5		6.5	0.8	61.5	10	23		17	1.4	0.61	1.17	18.5
NAPFT/YH-5A-15	5		6.5	0.8	74	15	30.5		24.5	1.4	0.64	1.17	21.5
NAPFT/YH-6A-3	6	6.5	0.8	54.5	3	23	17	2	0.61	0.77	18		
NAPFT/YH-6A-10	6	6.5	0.8	61.5	10	23	17	2	0.61	1.17	18.5		
NAPFT/YH-6A-15	6	6.5	0.8	74	15	30.5	24.5	2	0.64	1.17	21.5		
NAPFT/YH-8A-3	8	7	1.2	55	3	23	17	2	0.61	0.77	18		
NAPFT/YH-8A-10	8	7	1.2	62	10	23	17	2	0.61	1.17	18.5		
NAPFT/YH-8A-15	8	7	1.2	74.5	15	30.5	24.5	2	0.64	1.17	21.5		
NAPFT/YH-10A-3	10	7.5	1.5	55.5	3	23	17	2	0.61	0.77	18.5		
NAPFT/YH-10A-10	10	7.5	1.5	62.5	10	23	17	2	0.61	1.17	19		
NAPFT/YH-10A-15	10	7.5	1.5	75	15	30.5	24.5	2	0.64	1.17	22		
NAPFT/YH-15A-3	15	8	2	56	3	23	17	2	0.61	0.77	18.5		
NAPFT/YH-15A-10	15	8	2	63	10	23	17	2	0.61	1.17	19		
NAPFT/YH-15A-15	15	8	2	75.5	15	30.5	24.5	2	0.64	1.17	22		
NAPFT/YH-20B-6	20	12.5	2.3	80.5	6	36	28	2.9	2.45	3.43	64		
NAPFT/YH-20B-15	20	12.5	2.3	89.5	15	36	28		2.45	4.9	69		
NAPFT/YH-20B-30	20	12.5	2.3	126.5	30	58	50		2.9	5.88	93		
NAPFT/YH-25-6	25	14	3	82	6	36	28		2.45	3.43	64.5		
NAPFT/YH-25-15	25	14	3	91	15	36	28		2.45	4.9	69.5		
NAPFT/YH-25-30	25	14	3	128	30	58	50		2.9	5.88	93.5		
NAPFT/YH-30-6	30	12	2	80	6	36	28		2.45	3.43	65.5		
NAPFT/YH-30-15	30	12	2	89	15	36	28		2.45	4.9	70.5		
NAPFT/YH-30-30	30	12	2	126	30	58	50		2.9	5.88	94.5		
NAPFT/YH-35-6	35	14	3	82	6	36	28		2.45	3.43	68		
NAPFT/YH-35-15	35	14	3	91	15	36	28		2.45	4.9	73		
NAPFT/YH-35-30	35	14	3	128	30	58	50		2.9	5.88	97		
NAPFT/YH-40-6	40	14	3.5	82	6	36	28		2.45	3.43	69.5		
NAPFT/YH-40-15	40	14	3.5	91	15	36	28		2.45	4.9	74.5		
NAPFT/YH-40-30	40	14	3.5	128	30	58	50		2.9	5.88	98.5		
NAPFT/YH-50-6	50	15	4	83	6	36	28		2.45	3.43	78		
NAPFT/YH-50-15	50	15	4	92	15	36	28		2.45	4.9	83		
NAPFT/YH-50-30	50	15	4	129	30	58	50		2.9	5.88	107		

Note) Symbol F<sup>1</sup> in the table shows a spring load (N) at 0 stroke, and F<sup>2</sup> at full stroke.



inch

NAPFT/YH	A	B	C	D	E	F	G	H	F <sup>1</sup>	F <sup>2</sup>	Mass(g)		
NAPFT/YH-1.5A-3	0.06	0.06	0.02	1.97	0.12	0.91	0.67	0.06	0.27	0.43	15.5		
NAPFT/YH-1.5A-10	0.06		0.02	2.24	0.39	0.91	0.67		0.27	0.82	17		
NAPFT/YH-1.5A-15	0.06		0.02	2.74	0.59	1.2	0.96		0.29	0.83	20		
NAPFT/YH-2A-3	0.08		0.02	1.97	0.12	0.91	0.67		0.27	0.43	15.5		
NAPFT/YH-2A-10	0.08		0.02	2.24	0.39	0.91	0.67		0.27	0.82	17		
NAPFT/YH-2A-15	0.08		0.02	2.74	0.59	1.2	0.96		0.29	0.83	20		
NAPFT/YH-3.5A-3	0.14		0.02	1.97	0.12	0.91	0.67		0.27	0.43	15.5		
NAPFT/YH-3.5A-10	0.14		0.02	2.24	0.39	0.91	0.67		0.27	0.82	17		
NAPFT/YH-3.5A-15	0.14		0.02	2.74	0.59	1.2	0.96		0.29	0.83	20		
NAPFT/YH-2 x 4A-3	0.08 x 0.16		0.02	2.05	0.12	0.91	0.67		0.27	0.43	16.5		
NAPFT/YH-2 x 4A-10	0.08 x 0.16		0.02	2.32	0.39	0.91	0.67		0.27	0.82	17		
NAPFT/YH-2 x 4A-15	0.08 x 0.16		0.02	2.81	0.59	1.2	0.96		0.29	0.83	20		
NAPFT/YH-3.5 x 7A-3	0.14 x 0.28		0.03	2.05	0.12	0.91	0.67		0.27	0.43	16.5		
NAPFT/YH-3.5 x 7A-10	0.14 x 0.28		0.03	2.32	0.39	0.91	0.67		0.27	0.82	17		
NAPFT/YH-3.5 x 7A-15	0.14 x 0.28		0.03	2.81	0.59	1.2	0.96		0.29	0.83	20		
NAPFT/YH-5A-3	0.2		0.26	0.03	2.15	0.12	0.91		0.67	0.06	0.61	0.77	18
NAPFT/YH-5A-10	0.2		0.26	0.03	2.42	0.39	0.91		0.67	0.06	0.61	1.17	18.5
NAPFT/YH-5A-15	0.2		0.26	0.03	2.91	0.59	1.2		0.96	0.06	0.64	1.17	21.5
NAPFT/YH-6A-3	0.24	0.26	0.03	2.15	0.12	0.91	0.67	0.08	0.61	0.77	18		
NAPFT/YH-6A-10	0.24	0.26	0.03	2.42	0.39	0.91	0.67	0.08	0.61	1.17	18.5		
NAPFT/YH-6A-15	0.24	0.26	0.03	2.91	0.59	1.2	0.96	0.08	0.64	1.17	21.5		
NAPFT/YH-8A-3	0.31	0.28	0.05	2.17	0.12	0.91	0.67	0.08	0.61	0.77	18		
NAPFT/YH-8A-10	0.31	0.28	0.05	2.44	0.39	0.91	0.67	0.08	0.61	1.17	18.5		
NAPFT/YH-8A-15	0.31	0.28	0.05	2.93	0.59	1.2	0.96	0.08	0.64	1.17	21.5		
NAPFT/YH-10A-3	0.39	0.3	0.06	2.19	0.12	0.91	0.67	0.08	0.61	0.77	18.5		
NAPFT/YH-10A-10	0.39	0.3	0.06	2.46	0.39	0.91	0.67	0.08	0.61	1.17	19		
NAPFT/YH-10A-15	0.39	0.3	0.06	2.95	0.59	1.2	0.96	0.08	0.64	1.17	22		
NAPFT/YH-15A-3	0.59	0.31	0.08	2.2	0.12	0.91	0.67	0.08	0.61	0.77	18.5		
NAPFT/YH-15A-10	0.59	0.31	0.08	2.48	0.39	0.91	0.67	0.08	0.61	1.17	19		
NAPFT/YH-15A-15	0.59	0.31	0.08	2.97	0.59	1.2	0.96	0.08	0.64	1.17	22		
NAPFT/YH-20B-6	0.79	0.49	0.09	3.17	0.24	1.42	1.1	0.08	2.45	3.43	64		
NAPFT/YH-20B-15	0.79	0.49	0.09	3.52	0.59	1.42	1.1		2.45	4.9	69		
NAPFT/YH-20B-30	0.79	0.49	0.09	4.98	1.18	2.28	1.97		2.9	5.88	93		
NAPFT/YH-25-6	0.98	0.55	0.12	3.23	0.24	1.42	1.1		2.45	3.43	64.5		
NAPFT/YH-25-15	0.98	0.55	0.12	3.58	0.59	1.42	1.1		2.45	4.9	69.5		
NAPFT/YH-25-30	0.98	0.55	0.12	5.04	1.18	2.28	1.97		2.9	5.88	93.5		
NAPFT/YH-30-6	1.18	0.47	0.08	3.15	0.24	1.42	1.1		2.45	3.43	65.5		
NAPFT/YH-30-15	1.18	0.47	0.08	3.5	0.59	1.42	1.1		2.45	4.9	70.5		
NAPFT/YH-30-30	1.18	0.47	0.08	4.96	1.18	2.28	1.97		2.9	5.88	94.5		
NAPFT/YH-35-6	1.38	0.55	0.12	3.23	0.24	1.42	1.1		2.45	3.43	68		
NAPFT/YH-35-15	1.38	0.55	0.12	3.58	0.59	1.42	1.1		2.45	4.9	73		
NAPFT/YH-35-30	1.38	0.55	0.12	5.04	1.18	2.28	1.97		2.9	5.88	97		
NAPFT/YH-40-6	1.57	0.55	0.14	3.23	0.24	1.42	1.1		2.45	3.43	69.5		
NAPFT/YH-40-15	1.57	0.55	0.14	3.58	0.59	1.42	1.1		2.45	4.9	74.5		
NAPFT/YH-40-30	1.57	0.55	0.14	5.04	1.18	2.28	1.97		2.9	5.88	98.5		
NAPFT/YH-50-6	1.97	0.59	0.16	3.27	0.24	1.42	1.1		2.45	3.43	78		
NAPFT/YH-50-15	1.97	0.59	0.16	3.62	0.59	1.42	1.1		2.45	4.9	83		
NAPFT/YH-50-30	1.97	0.59	0.16	5.08	1.18	2.28	1.97		2.9	5.88	107		

Note) Symbol F<sup>1</sup> in the table shows a spring load (N) at 0 stroke, and F<sup>2</sup> at full stroke.

Connector mass(g)

	Tube O.D φ 4	Tube O.D φ 6
T	0.5	1.5
O	3.0	4.0

# Flat pad/PFG

## How to order

PFG - ①  
2A - ②  
N

① Pad diameter (mm)

1.5A	φ1.5	20B	φ20
2A	φ2	20	φ20
2 × 4A	2 × 4	25	φ25
2 × 4	2.2 × 4.2	30	φ29
3.5A	φ3.5	35	φ35
3.5 × 7A	3.5 × 7	40	φ40
3.5 × 7	3.5 × 7	50	φ50
5A	φ5	60	φ60
6A	φ6	80	φ80
8A	φ8	95	φ93
10A	φ10	120	φ120
15A	φ15	150	φ150
15	φ15	200	φ200

② Pad rubber material

N	NBR (Nitrile rubber)
S	Silicone rubber
U	Urethane rubber
F	Fluorine rubber
NE	Conductive NBR (Nitrile rubber)
SE	Conductive Silicone rubber

Note) Please consult with us for other material.

## Pad standard specifications

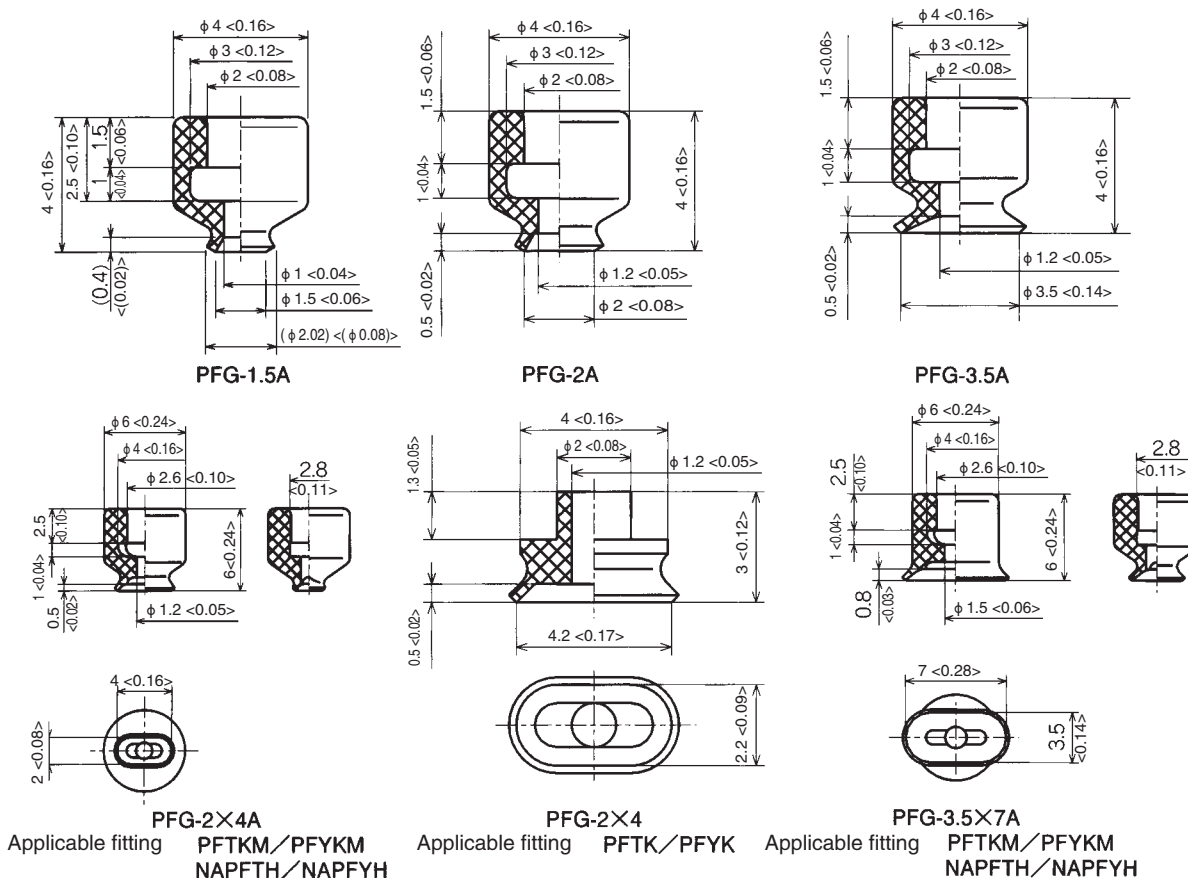
Symbol	Material	Hardness (Hs)	Ambient temperature	Color	Volume resistivity Note 1 · 2
N	NBR (Nitrile rubber)	A55/S	-26 ~ 120°C	Black	-
S	Silicone rubber	A55/S	-60 ~ 250°C	White	-
U	Urethane rubber	A55/S	-20 ~ 75°C	Blue	-
F	Fluorine rubber	A70/S	-10 ~ 230°C	Black with white dot	-
NE	Conductive NBR (Nitrile rubber)	A70/S	-26 ~ 120°C	Black with blue dot	10 <sup>2</sup> ~ 10 <sup>3</sup> Ω · cm
SE	Conductive Silicone rubber	A55/S	-60 ~ 250°C	Black with red dot	10 <sup>2</sup> ~ 10 <sup>4</sup> Ω · cm

Note1) Volume resistivity shows conductivity, resistance value is per cm<sup>3</sup>.

Note2) It is the measured value of in our designated test piece.

## Dimensions

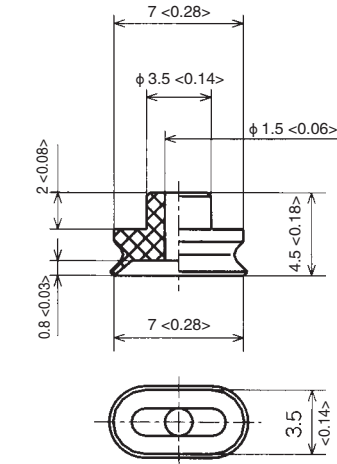
Unit : mm <inch>



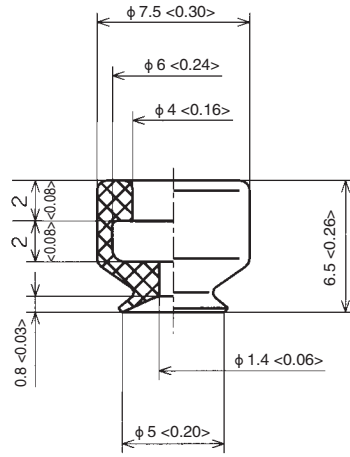
Suction pads

Dimensions

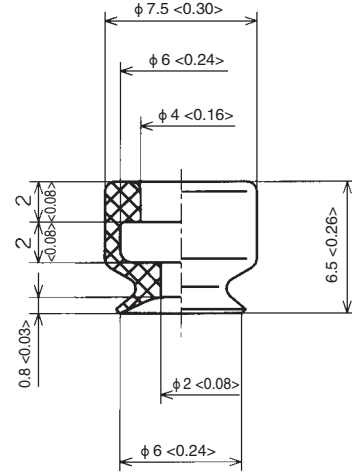
Unit : mm <inch>



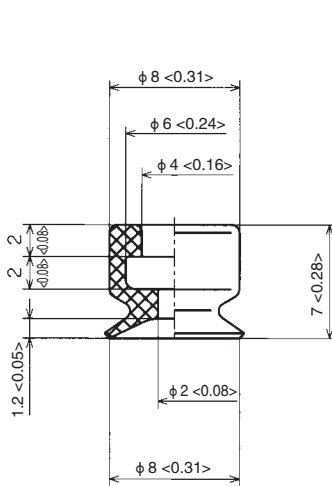
**PFG-3.5x7**  
Applicable fitting PFTK/PFYK



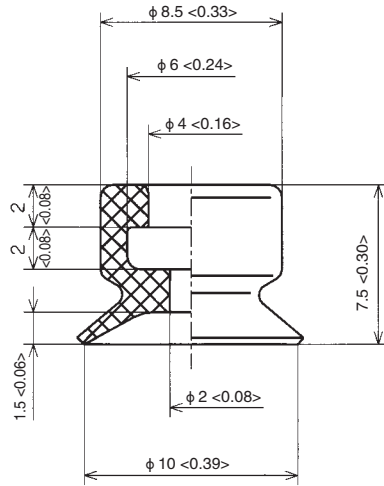
**PFG-5A**



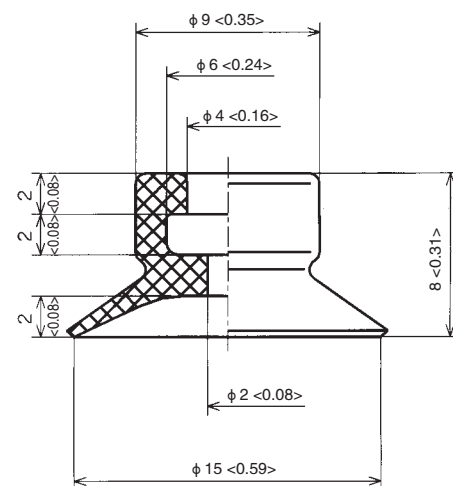
**PFG-6A**



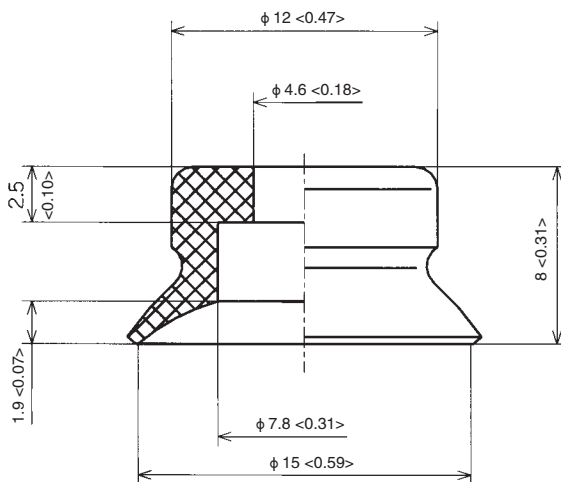
**PFG-8A**



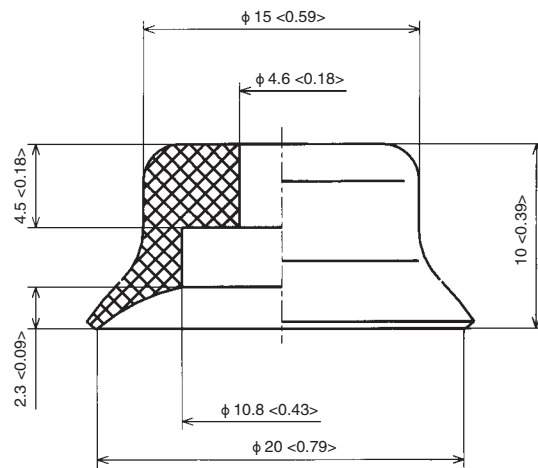
**PFG-10A**



**PFG-15A**  
Applicable fitting NAPFTS/NAPFYS  
NAPFTH/NAPFYH



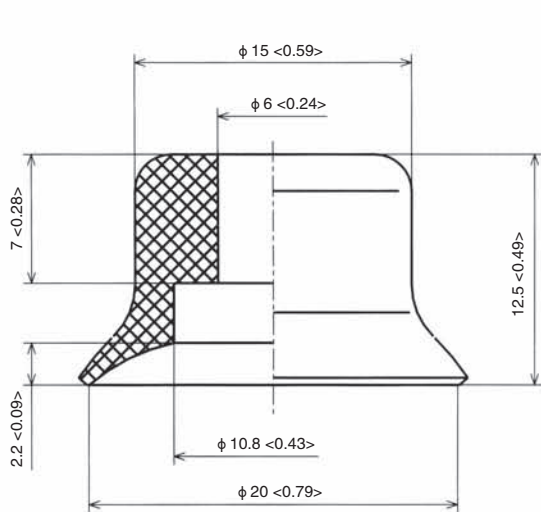
**PFG-15**  
Applicable fitting PFTK/PFYK  
PFTKM/PFYKM



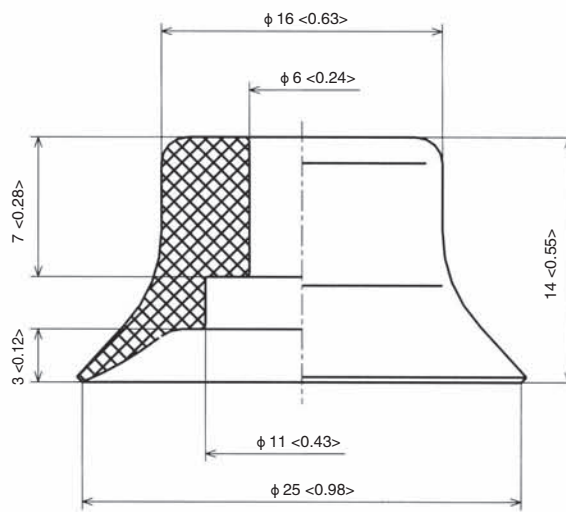
**PFG-20**  
Applicable fitting PFTK/PFYK  
PFTKM/PFYKM

Dimensions

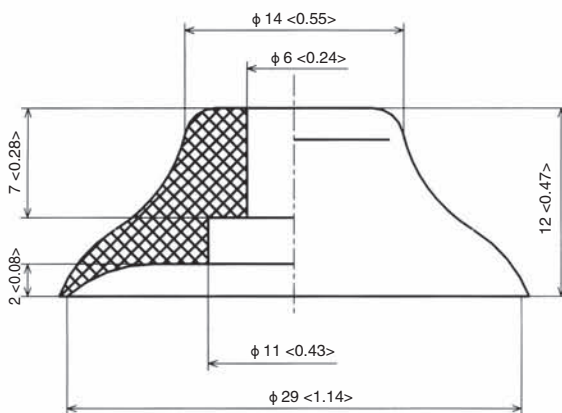
Unit : mm <inch>



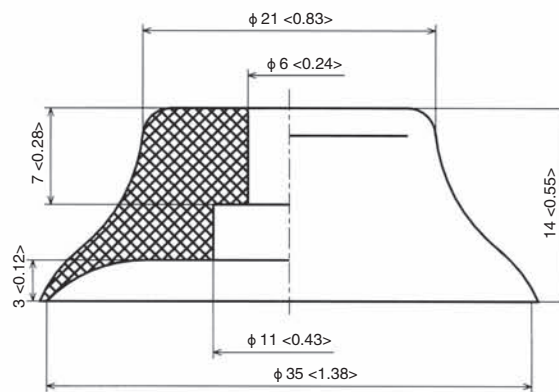
PFG-20B  
Applicable fitting NAPFTS/NAPFYS  
NAPFTH/NAPFYH



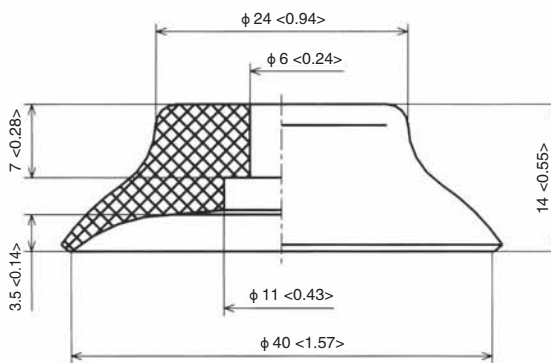
PFG-25



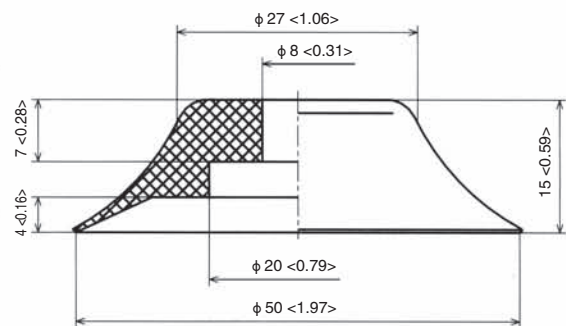
PFG-30



PFG-35



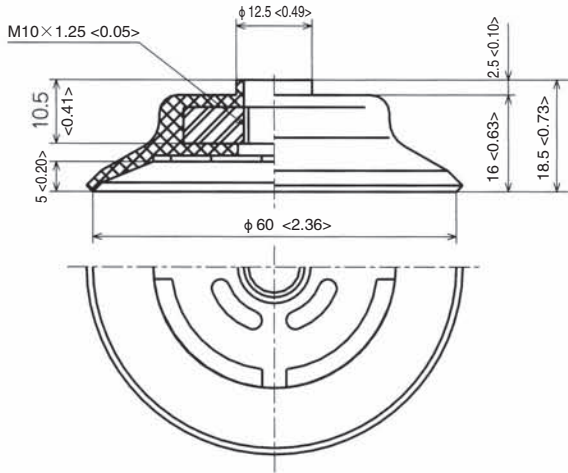
PFG-40



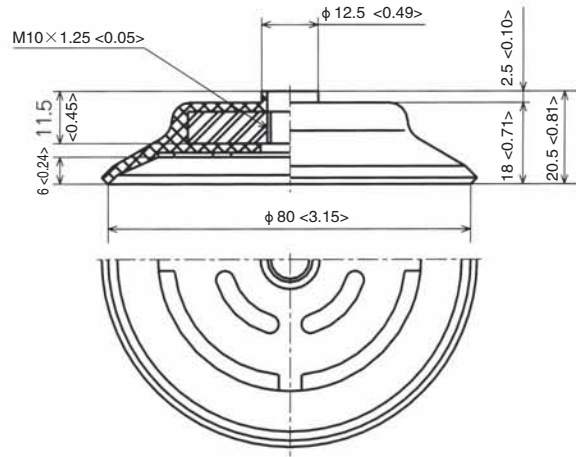
PFG-50

Dimensions

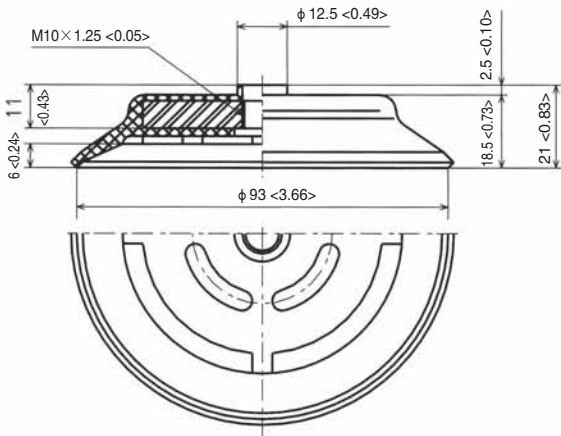
Unit : mm <inch>



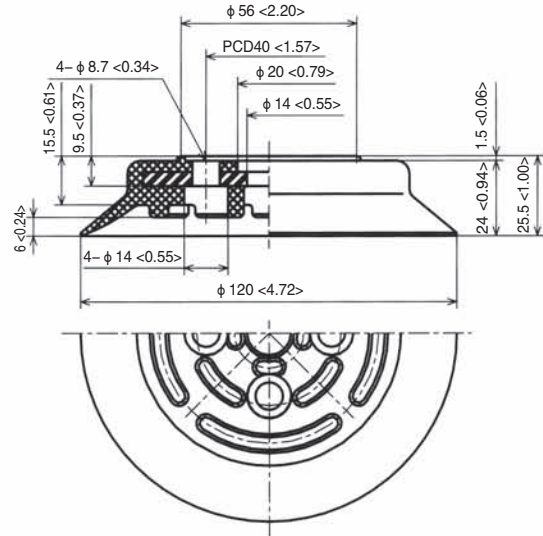
PFG-60



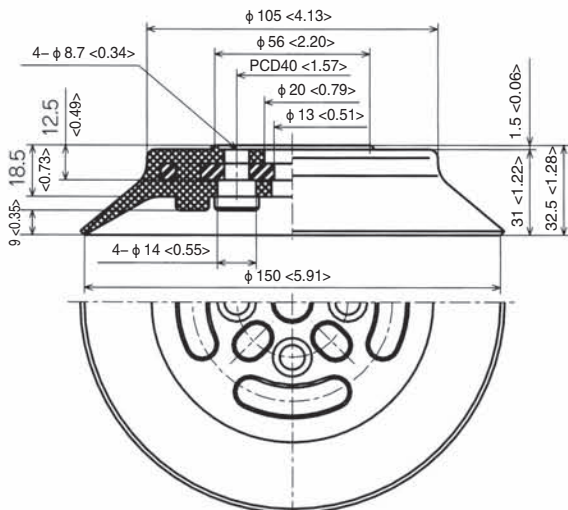
PFG-80



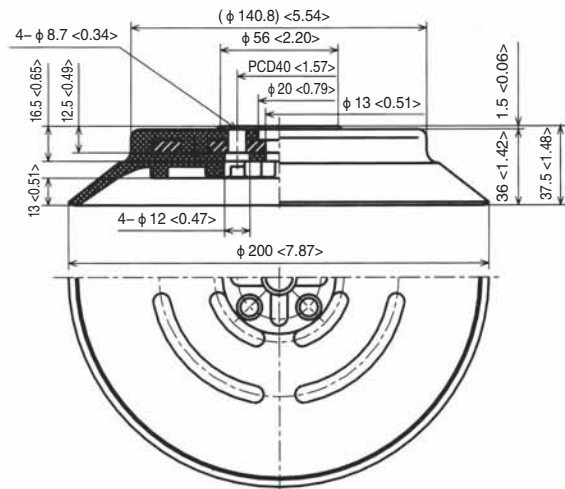
PFG-95



PFG-120



PFG-150



PFG-200

# Flat pad/PFG

## How to order Note) Only Pad

PFG - 1 - N

① Pad diameter (mm)

1	φ1
1.5	φ1.5
2	φ2
3.5	φ3.5
5	φ5
6	φ6
8	φ8
10	φ10

② Pad rubber material

N	NBR (Nitrile rubber)
S	Silicone rubber
U	Urethane rubber
F	Fluorine rubber
NE	Conductive NBR (Nitrile rubber)
SE	Conductive Silicone rubber

Note) Please consult with us for other material.

## Pad standard specifications

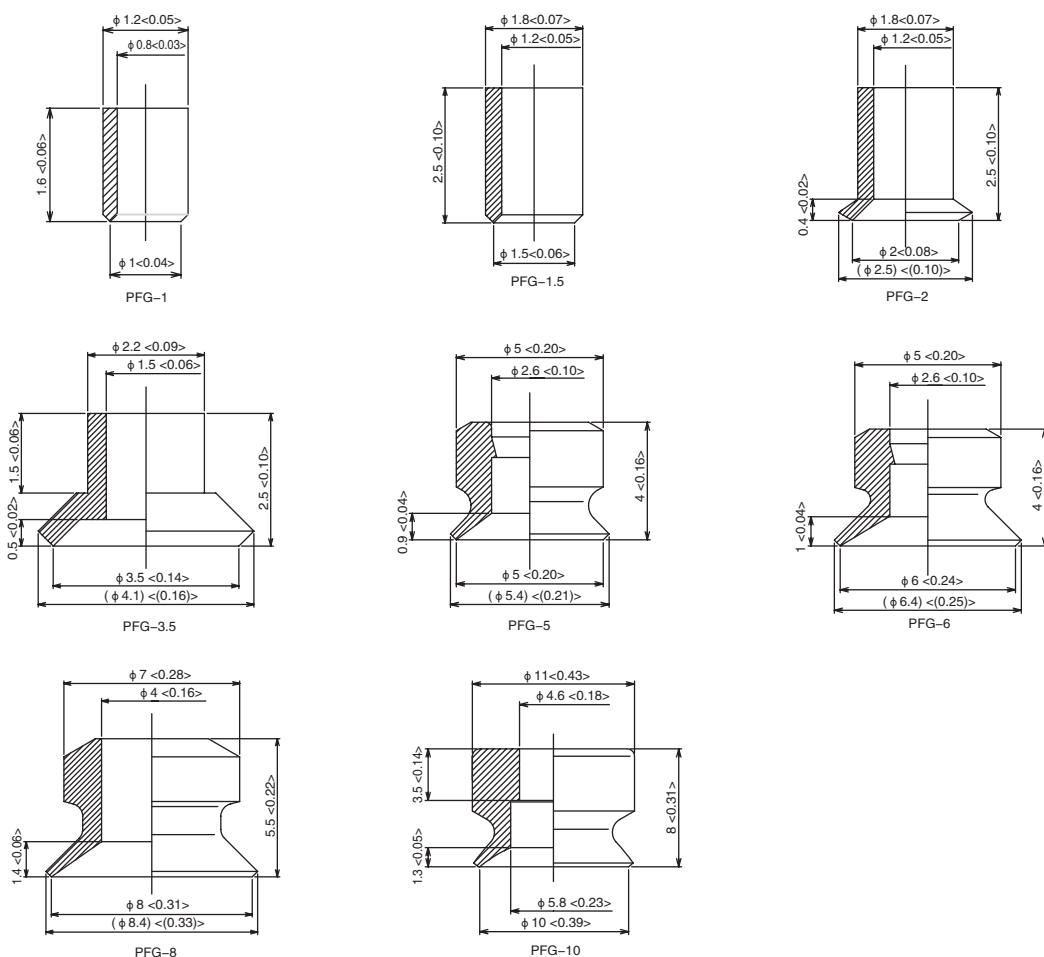
Symbol	Material	Hardness (Hs)	Ambient temperature	Color	Volume resistivity Note 1 · 2
N	NBR (Nitrile rubber)	A55/S	-26 ~ 120°C	Black	-
S	Silicone rubber	A55/S	-60 ~ 250°C	White	-
U	Urethane rubber	A55/S	-20 ~ 75°C	Blue	-
F	Fluorine rubber	A70/S	-10 ~ 230°C	Black with white dot	-
NE	Conductive NBR (Nitrile rubber)	A70/S	-26 ~ 120°C	Black with blue dot	10 <sup>2</sup> ~ 10 <sup>3</sup> Ω · cm
SE	Conductive Silicone rubber	A55/S	-60 ~ 250°C	Black with red dot	10 <sup>2</sup> ~ 10 <sup>4</sup> Ω · cm

Note1) Volume resistivity shows conductivity, resistance value is per cm<sup>3</sup>.

Note2) It is the measured value of in our designated test piece.

## Dimensions

Unit : mm <inch>



Suction pads