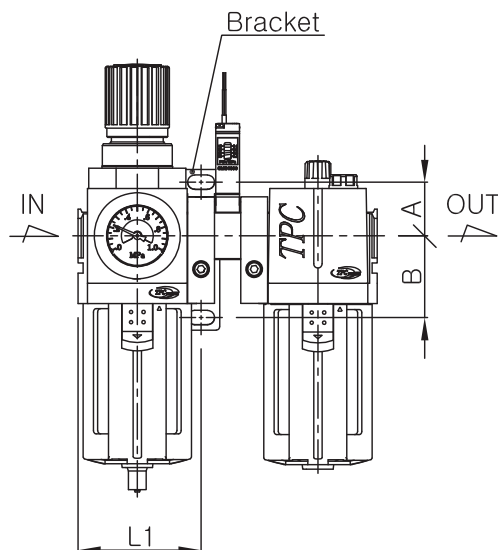
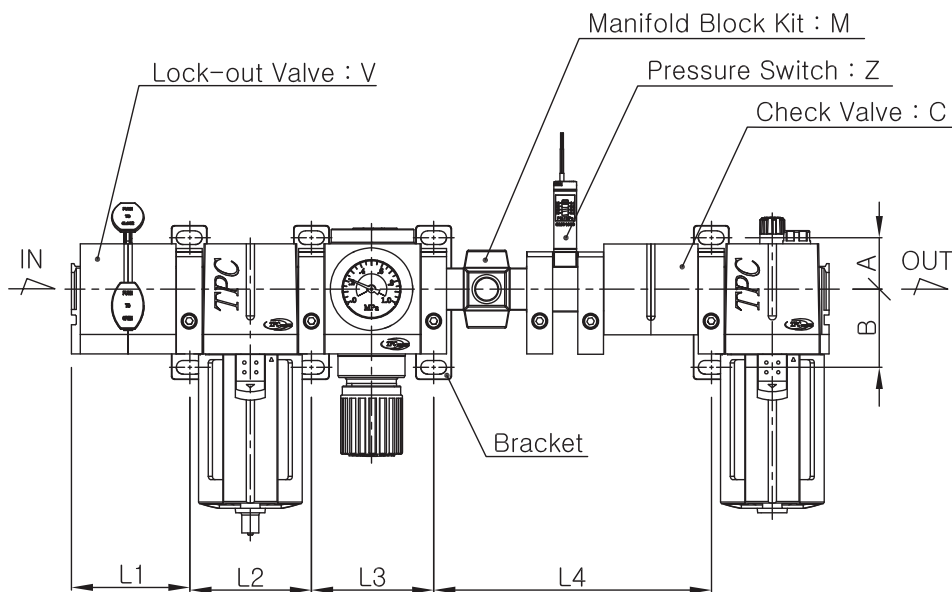


The mounting position of bracket (PC2~PC5 Series)



The mounting position of bracket

Attachment Type	C			M			V			Z			CM			CV				CZ			MV			
	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	L4	L1	L2	L3	L1	L2	L3	L4
PC2	40	40	40	40	40	40	40	40	40	40	40	12	40	40	80	40	40	40	40	40	40	52	40	40	40	40
PC3	56	56	56	56	56	49	56	56	56	56	56	13	56	56	105	56	56	56	56	56	56	69	56	56	56	49
PC4	72.7	75.4	74.4	72.7	75.4	65.4	72.7	75.4	75.4	72.7	75.4	31.4	72.7	75.4	139.8	72.7	75.4	75.4	74.4	72.7	75.4	105.8	72.7	75.4	75.4	65.4
PC5	-	-	-	-	-	-	92.7	95.4	95.4	92.7	95.4	36.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Attachment Type	MZ			VZ				CMV				CMZ			CVZ				MVZ				CMVZ			
	L1	L2	L3	L1	L2	L3	L4	L1	L2	L3	L4	L1	L2	L3	L1	L2	L3	L4	L1	L2	L3	L4	L1	L2	L3	L4
PC2	40	40	52	40	40	40	12	40	40	40	80	40	40	92	40	40	40	52	40	40	40	52	40	40	40	92
PC3	56	56	62	56	56	56	13	56	56	56	105	56	56	118	56	56	56	69	56	56	56	62	56	56	56	118
PC4	72.7	75.4	96.8	72.7	75.4	75.4	31.4	72.7	75.4	75.4	139.8	72.7	75.4	171.2	72.7	75.4	75.4	105.8	72.7	75.4	75.4	96.8	72.7	75.4	75.4	171.2
PC5	-	-	-	92.7	95.4	95.4	36.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Attachment Type	C		V		Z		CV			CZ		VZ		CVZ		
	L1	L2	L1	L2	L1	L2	L1	L2	L3	L1	L2	L1	L2	L1	L2	L3
PC2A	40	40	40	40	40	40	40	40	40	40	52	40	40	40	40	52
PC3A	56	56	56	56	56	56	56	56	56	56	69	56	56	56	56	69
PC4A	72.7	74.4	72.7	75.4	72.7	72.7	75.4	74.4	72.7	105.8	72.7	75.4	72.7	75.4	105.8	
PC5A	-	-	92.7	95.4	92.7	-	-	-	-	-	92.7	95.4	-	-	-	

Attachment Type	M		V		Z		MV			MZ		VZ			MVZ		
	L1	L2	L1	L2	L1	L2	L1	L2	L3	L1	L2	L1	L2	L3	L1	L2	L3
PC2B	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
PC3B	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56
PC4B	72.7	75.4	72.7	75.4	72.7	75.4	72.7	75.4	75.4	72.7	75.4	72.7	75.4	75.4	72.7	75.4	75.4
PC5B	-	-	92.7	95.4	92.7	95.4	-	-	-	-	92.7	95.4	95.4	-	-	-	

L1 : from inlet to the mounting hole of 1st bracket
 L2 : from the mounting hole of 1st bracket to 2nd bracket's
 L3 : from the mounting hole of 2nd bracket to 3rd bracket's
 L4 : from the mounting hole of 3rd bracket to 4th bracket's
 For the size of A and B, please refer to the dimensions.

The mounting position of bracket

Modular Lock Out Valve

This valve provides a safety lockout to prevent accidental machine start-up. When the slider is shifted into the lockout position, inlet air is blocked and downstream air is exhausted to the atmosphere.

□ PLV2



□ PLV3



□ PLV4



□ PLV5



■ Standard Specifications

Specifications	PLV2	PLV3	PLV4	PLV5
Port size	1/8", 1/4"	1/4", 3/8"	3/8", 1/2"	3/4", 1"
RC(PT), NPT, G(PF)				
Type of exhaust	Silencer exhaust			
Proof pressure (MPa)	1.5(200psi)			
Max. operating pressure (MPa)	1.0(140psi)			
Regulating range (MPa)	0.05 ~ 1.0(7~140psi)			
Ambient and media temperature (°C)	-5 ~ 60(23~140°F)			
Weight (kg)	0.1(0.22lb)	0.24(0.53lb)	0.38(0.84lb)	0.88(1.94lb)

■ How to order

PLV 4 — * 04 — *

Series (Lock-out V/V) — **PLV**

Type of series — **4**

2	PC2 Series	4	PC4 Series
3	PC3 Series	5	PC5 Series

Thread — *****

Blank	Rc(PT)
N	NPT
G	G(PF)

Option — **04**

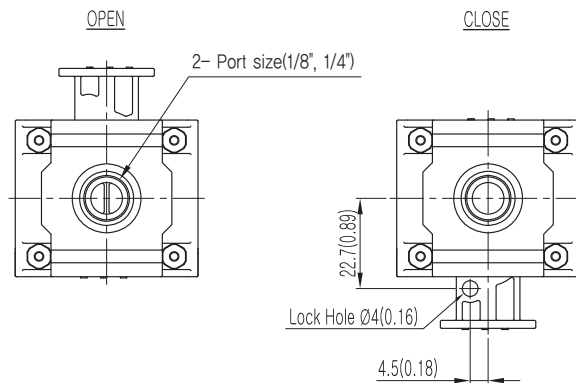
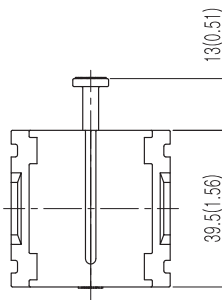
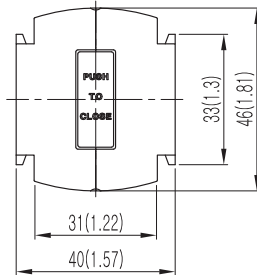
Blank	None
B	Clamp spacer kit

Note1) Separately packed, Not assembled.

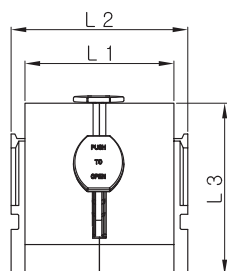
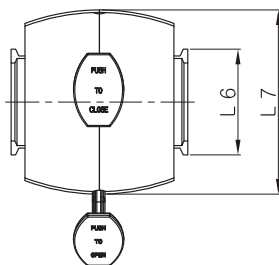
Port size — *****

01	1/8	PC2 Series
02	1/4	PC2, 3 Series
03	3/8	PC3, 4 Series
04	1/2	PC4 Series
06	3/4	PC5 Series
10	1	PC5 Series

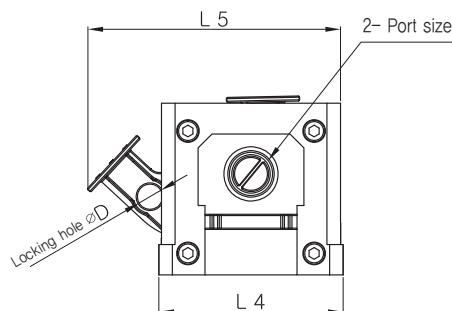
■ **PLV2 Dimensions**



■ **PLV3, 4, 5 Dimensions**



Series	Port size Rc(PT), NPT, G(PF)	Main dimensions							Remarks	
		L 1	L 2	L 3	L 4	L 5	L 6	L 7		D
PLV3	1/4, 3/8	46 (1.81)	56 (2.2)	49 (1.93)	56 (2.2)	70.2 (2.76)	33 (1.3)	56 (2.2)	7.5 (0.3)	
PLV4	3/8, 1/2	59 (2.32)	70 (2.76)	68 (2.68)	73 (2.87)	100 (3.94)	41.9 (1.65)	71 (2.8)	10 (0.39)	
PLV5	3/4, 1	74 (2.91)	89 (3.5)	90 (3.54)	98 (3.86)	131.9 (5.19)	49.6 (1.95)	98 (3.86)	10 (0.39)	



Modular Check Valve

The modular check valve is used to prevent downstream pressure loss. Acting as a one-way directional flow valve, this device is generally installed downstream of the regulator.

□ PCV2



□ PCV4



□ PCV3



■ Standard Specifications

Specifications	PCV2	PCV3	PCV4
Port size (no threads)	1/4" Hole	3/8" Hole	1/2" Hole
Top port size Rc(PT), NPT, G(PF)	1/8", 1/4"	1/8", 1/4"	1/4", 3/8"
Max. flow capacity (N l /min)	1,200 (42scfm)	3,500 (124scfm)	5,000 (177scfm)
Weight (kg)	0.01(0.02lb)	0.23(0.51lb)	0.43(0.95lb)

■ How to order

PCV 4 — 04 — * 03 B

Series
(Check V/V)

Type of series

2	PC2 Series
3	PC3 Series
4	PC4 Series

Port size

02	1/4	PC2 Series
03	3/8	PC3 Series
04	1/2	PC4 Series

Thread

Blank	Rc(PT)
N	NPT
G	G(PF)

Options

Blank	None
B	Clamp spacer kit
R	Flow direction : Right → Left

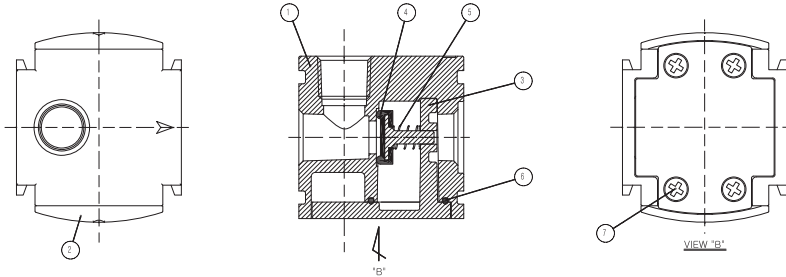
Note1)

Note2) Separately packed, Not assembled.

Top port size

01	1/8	PC2, 3 Series
02	1/4	PC2, 3, 4 Series
03	3/8	PC4 Series

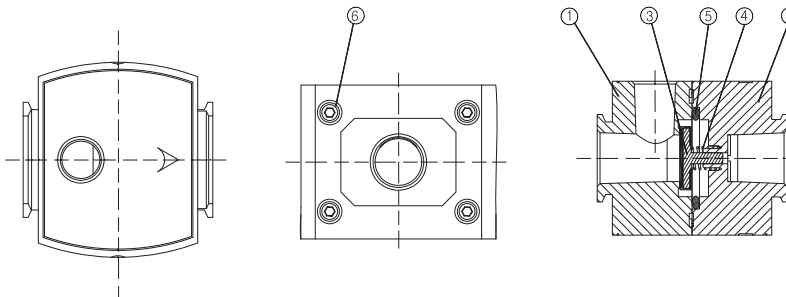
■ PCV2 Construction



Main part list

No.	Description	Material	Remarks
①	Body	Aluminum	
②	F-body cover	Nylon	
③	Body cover	Aluminum	
④	Valve assembly	Brass+NBR	
⑤	Spring	Stainless steel	
⑥	Gasket of body cover	NBR	
⑦	Bolt of cover	Rolled steel	

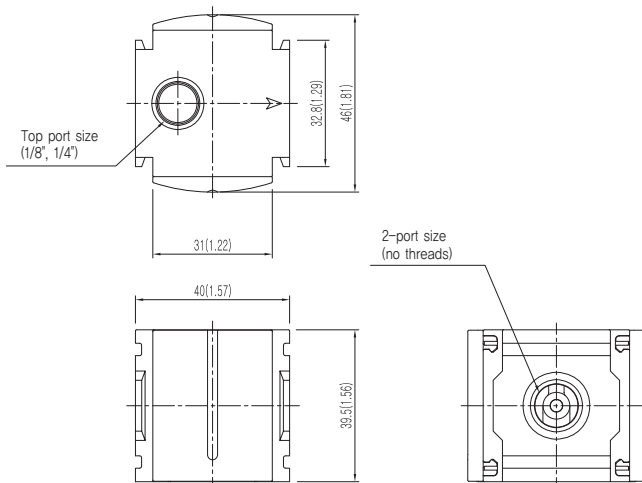
■ PCV3, 4 Construction



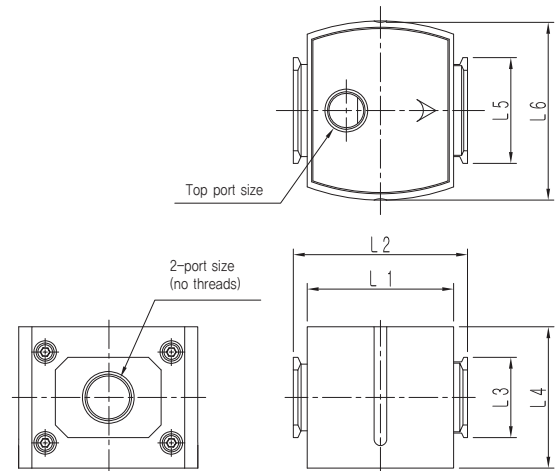
Main part list

No.	Description	Material	Remarks
①	Body R	Aluminum	
②	Body L	Aluminum	
③	Valve assembly	Brass+NBR	
④	Return spring	Stainless steel	
⑤	Gasket	NBR	
⑥	Wrench bolt	Rolled steel	

■ PCV2 Dimensions



■ PCV3, 4 Dimensions



Series	Main dimensions						Remarks	
	port size (no threads)	Top port size R(PT),NPT,G(PF)	L 1	L 2	L 3	L 4		L 5
PCV3	3/8"	1/8, 1/4	46 (1.81)	56 (2.2)	45 (1.77)	49 (1.93)	33 (1.3)	56 (2.2)
PCV4	1/2"	1/4, 3/8	58 (2.28)	69 (2.72)	31.8 (1.25)	56 (2.2)	41.9 (1.65)	71 (2.8)

Modular Manifold Block

□ MB2



Standard Specifications

Specifications	MB2	MB3	MB4
Port size Rc(PT), NPT, G(PF)	1/4"	1/4", 3/8"	3/8", 1/2"
Top port size Rc(PT), NPT, G(PF)	1/8", 1/4"	1/8", 1/4"	1/4", 3/8"
Weight (kg)	0.09(0.2lb)	0.14(0.31lb)	0.17(0.37lb)

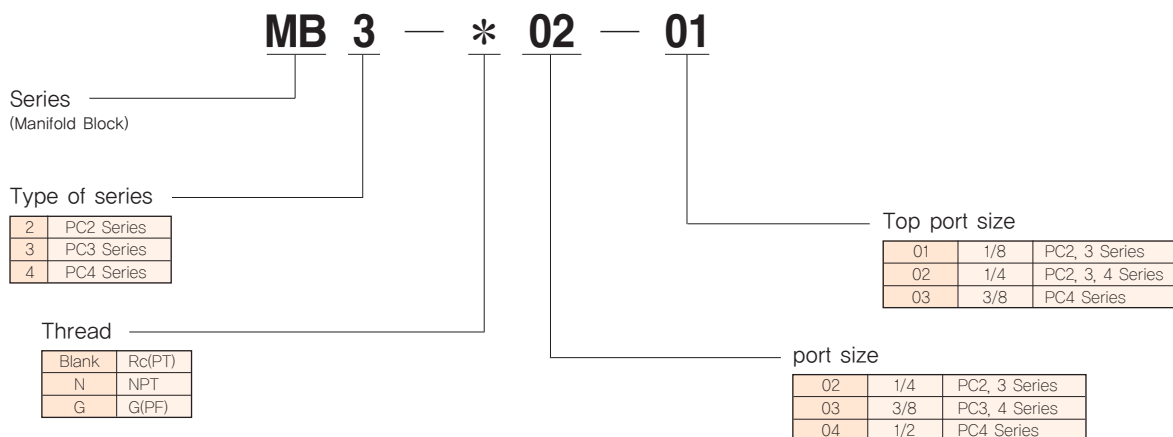
□ MB3



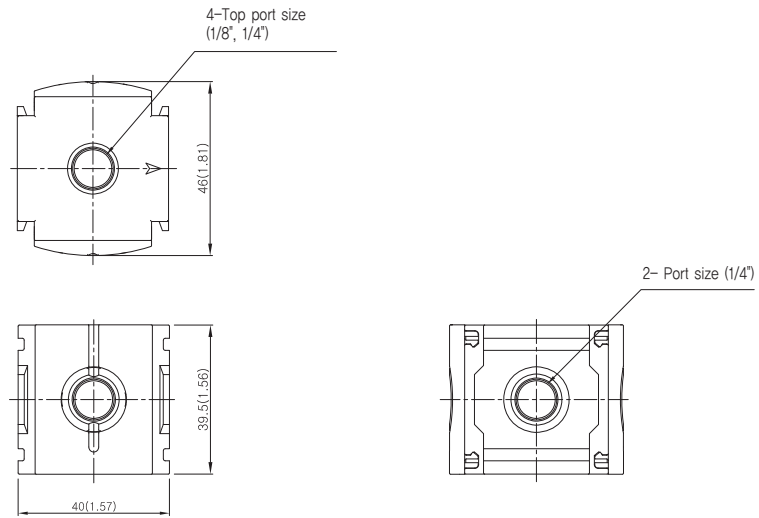
□ MB4



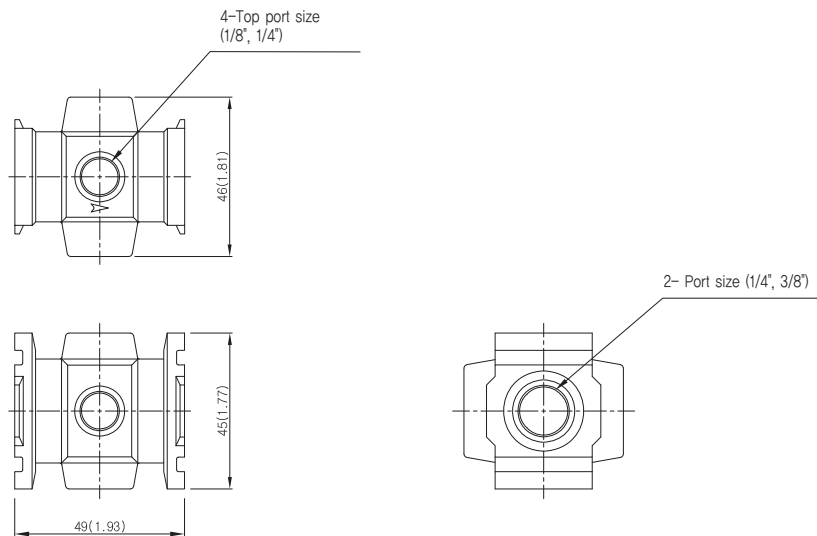
How to order



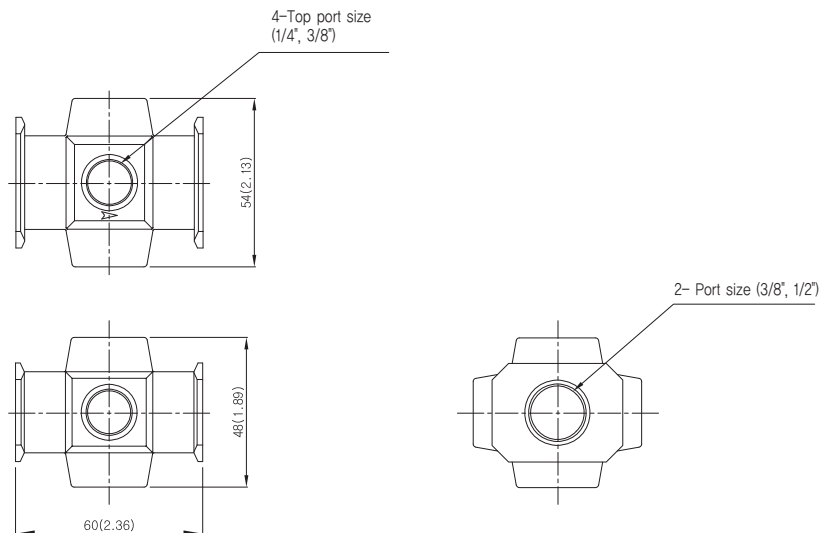
■ **MB2 Dimensions**



■ **MB3 Dimensions**



■ **MB4 Dimensions**



Modular Pipe Adapter

Standard Specifications

Specifications	PA2	PA3	PA4	PA5
Port size	1/8", 1/4"	1/4", 3/8"	3/8", 1/2"	3/4", 1"
Rc(PT), NPT, G(PF)	3/8"	1/2"	3/4"	
Weight (kg)	0.03(0.07lb)	0.04(0.09lb)	0.07(0.15lb)	0.13(0.29lb)

□ PA2



□ PA3



□ PA4



□ PA5



How to order

PA 3 — * 02 — R

Series
(Pipe Adapter)

Type of series

2	PC2 Series
3	PC3 Series
4	PC4 Series
5	PC5 Series

Thread

Blank	Rc(PT)
N	NPT
G	G(PF)

Options

Blank	for left side	PC2,3,4,5 Series
R	for right side	PC2,3 Series

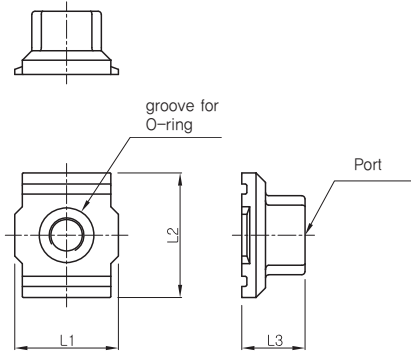
* PC4 & PC5: C compatible with both right and left side.

Port size

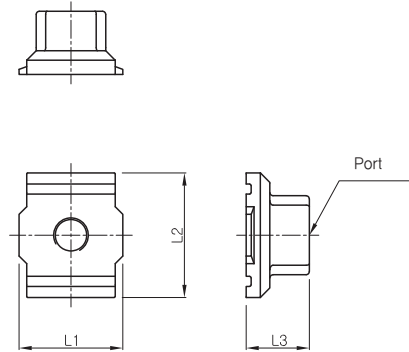
01	1/8	PC2 Series
02	1/4	PC2, 3 Series
03	3/8	PC2, 3, 4 Series
04	1/2	PC3, 4 Series
06	3/4	PC4, 5 Series
10	1	PC5 Series

■ PA2, 3 Dimensions

(For left side)



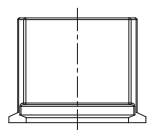
(For right side)



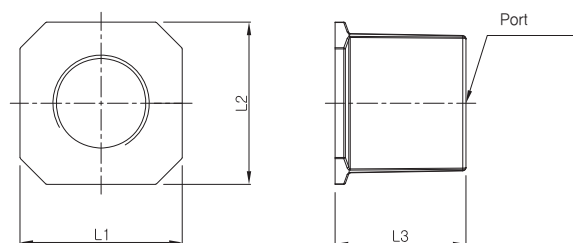
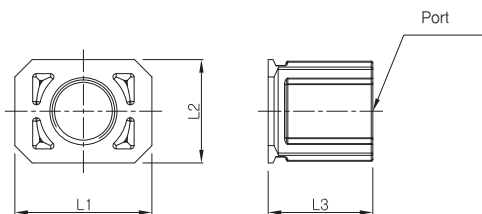
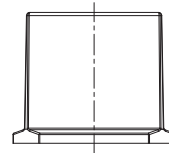
Series	Main dimensions			
	Port size Rc(PT),NPT,G(PF)	L1	L2	L3
PA2	1/8, 1/4, 3/8	32.8 (1.29)	39.4 (1.55)	20 (0.79)
PA3	1/4, 3/8, 1/2	33 (1.3)	45 (1.77)	25 (0.98)

■ PA4, 5 Dimensions

(PA4)



(PA5)



Series	Main dimensions			
	Port size Rc(PT),NPT,G(PF)	L1	L2	L3
PA4	3/8, 1/2, 3/4	41.9 (1.65)	31.6 (1.24)	32 (1.26)
PA5	3/4, 1	49.6 (1.95)	49.6 (1.95)	40 (1.57)

Slow-Start Valve



<Grommet type>



<Din type>

Standard Specifications

Fluid	Air	
Operating pressure range	0.3~1.0 MPa(44~140psi) (3~10 kgf/cm ²)	
Max fluid and ambient temperature	Max 50°C(122°F)	
Allowable voltage	-15 ~ +10 % of rated voltage	
Max. operating frequency	2 positions	5 c/s
	3 positions	3 c/s
Min. operating frequency	1 time per 30 days(based on KS B6356)	
Lubrication	Non lube	
Impact / Vibration resistance	30G / 5G (8.3~200 Hz)	
Protection structure	Dust proof	
Position of installation	No restriction (horizontal, vertical)	
Manual operation	Non Locking	
Lead wire	Grommet, Din terminal	
Voltage	24V DC, 12V DC	
Effective cross section (Cv)	Over 63 mm ² (3.5) (0.098 in ²)	
Power consumption (AC)	Inrush	5.6 VA(50 Hz), 5.0 VA(60 Hz)
	Holding	3.3 VA(50 Hz), 2.3 VA(60 Hz)
Power consumption (DC)	1.8W / 2W(Lamp)	

How to order

SSV 4 — 5 DZ * — * 04 *

Series
(Slow-Start Valve)

F4 Series

Voltage

1	AC110V (50/60Hz)
2	AC220V (50/60Hz)
3	AC120V (50/60Hz)
4	AC240V (50/60Hz)
5	DC24V
6	DC12V
7	DC6V
8	AC24V (50/60Hz)
9	DC100V

Electrical entry

G	Grommet type
DZ	Din type connector attached (with indicator light/surge voltage suppressor)
N	Din connector type (No connector included)

Note1) The grommet has direct coupling type lead wire, but without indicator light.

Note1)

Pressure gauge

Blank	None
P	With pressure gauge

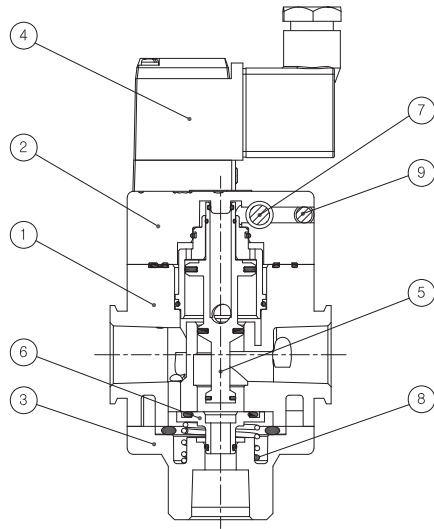
Threads

Blank	Rc (PT)
N	NPT
G	G (PF)

Manual override

Blank	Non-locking push type
C	Locking(Rotation type)

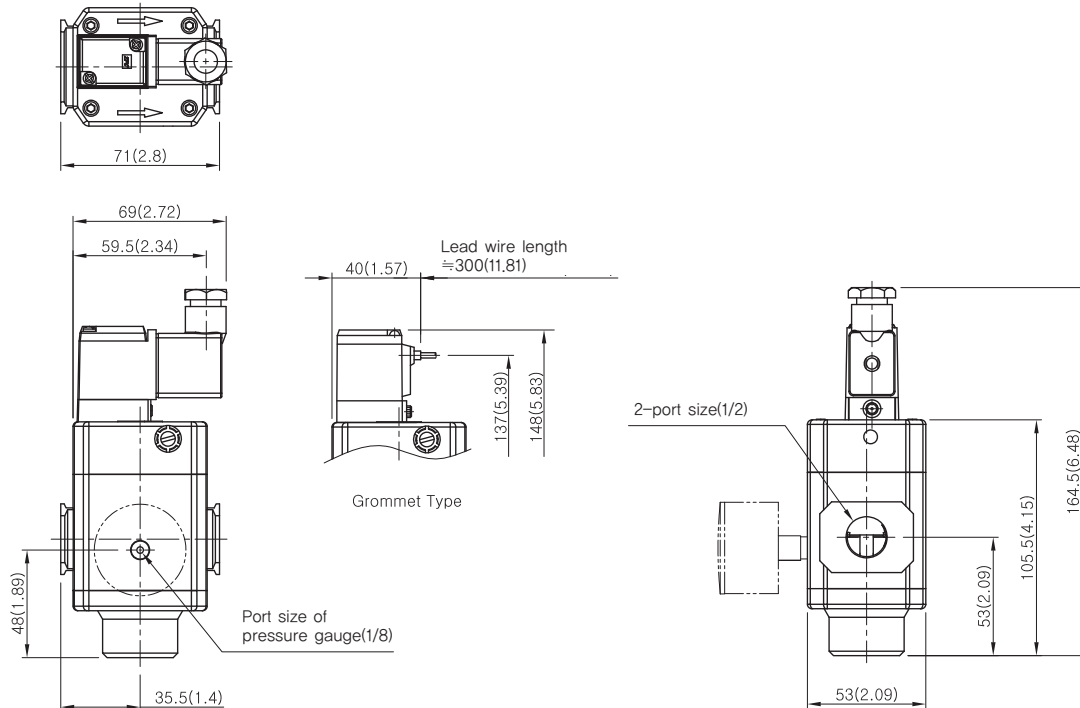
■ Construction



Main Parts / Parts List

No.	Description	Material	Remarks
①	Body	Aluminum	
②	T-Cover	Aluminum	
③	B-Cover	Aluminum	
④	Pilot ass'y	-	
⑤	Piston	Aluminum	
⑥	Poppet	Brass	
⑦	Needle	Brass	
⑧	Poppet Spring	Stainless steel	
⑨	Steel ball	Stainless steel	

■ Dimensions



Pressure Switch



Standard Specifications

Fluid	Air
Ambient and fluid temperature (°C)	-5 ~60(23~140°F) (Non-freezing)
Operating pressure range (MPa)	0.1 ~ 0.4(15~60psi)
Proof pressure (MPa)	1.0(140psi)
Max. pressure (MPa)	0.7(100psi)
Hysteresis (MPa)	0.16(24psi)
Scale variation (MPa)	±0.05(7psi)
Repeatability (MPa)	±0.05(7psi)
Contact	1a
Lead wire length	1m(39.75in) standard (grommet type)
Port size R(PT), NPT	1/8"
Weight (kg)	0.042(0.09lb)

Auto-switch specification

Applied model	W8H	
Voltage	DC24V	AC110V
Electric current	5~40mA	5~20mA

How to order

SMS 1000 — R1 — 1 L

Series
(Pressure Switch)

Type of port

R1	R(PT) 1/8 Bracket
N1	NPT 1/8 Bracket
S2	PC2 series Adapter
S3	PC3 series Adapter
S4	PC4 series Adapter
S5	PC5 series Adapter

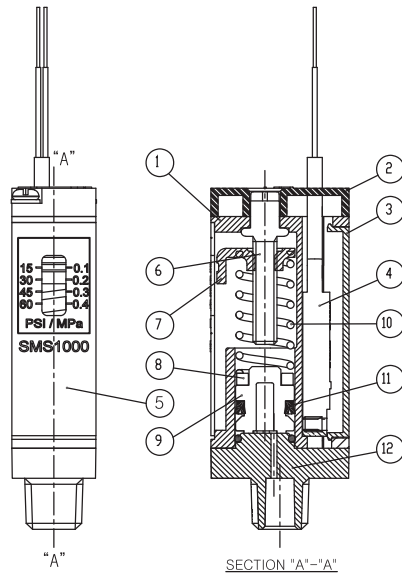
Lead wire length

Blank	1m(39,37in) (standard)
L	3m(118,11in)
Z	5m(196,85in)

Voltage

1	AC110V
5	DC24V

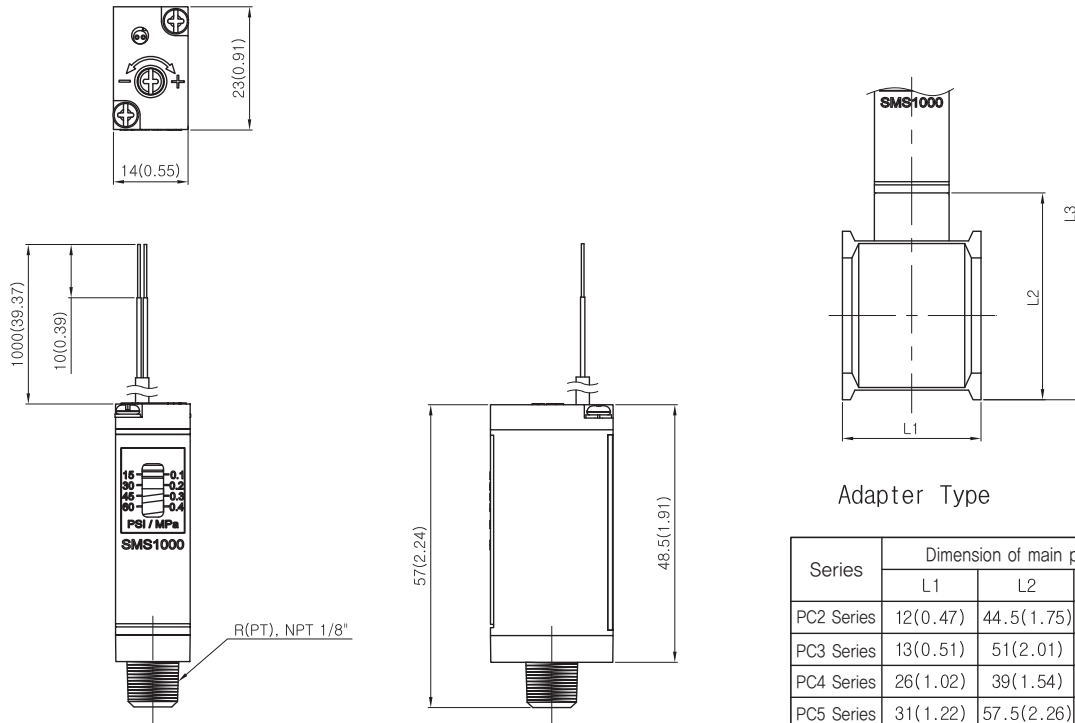
Construction



Main Parts / Parts List

No.	Description	Material	Remarks
①	Body	Nylon	
②	Top cover	Resin	
③	Body back cover	Resin	
④	Auto switch ass'y	-	
⑤	Name plate	Resin	
⑥	Adjustment screw	Rolled steel	
⑦	Pointer	Rolled steel	
⑧	Magnet	Rare earth magnet	
⑨	Piston	Polyacetal	
⑩	Spring	SUS304	
⑪	Miniseal Y type	NBR	
⑫	PT fittings	Zinc die cast	

Dimensions



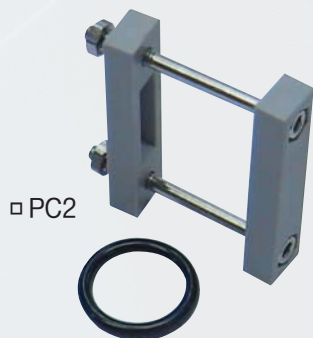
Bracket Type

Adapter Type

Series	Dimension of main parts			Remarks
	L1	L2	L3	
PC2 Series	12(0.47)	44.5(1.75)	88(3.46)	
PC3 Series	13(0.51)	51(2.01)	94.5(3.72)	
PC4 Series	26(1.02)	39(1.54)	82(3.23)	
PC5 Series	31(1.22)	57.5(2.26)	101(3.98)	

Accessories

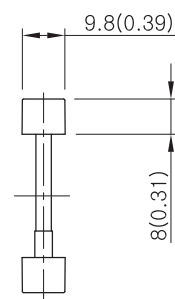
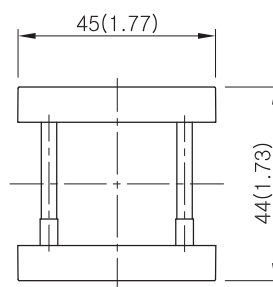
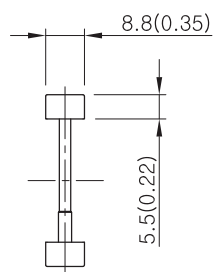
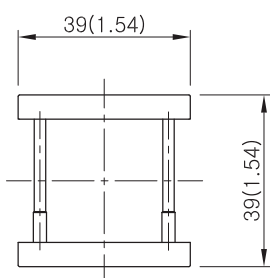
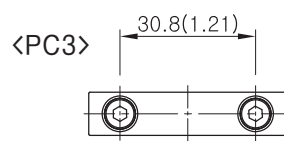
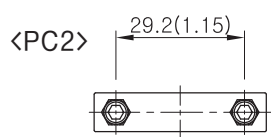
Modular Clamp Spacer kit



Standard Specifications

Specifications	PC2	PC3	PC4	PC5
Item number	PC2A-33A002	PC3A-33A002	PC4A-33A002	PC5A-33A002
Material	Nylon	Aluminum	Aluminum+Zinc	Aluminum

Dimensions

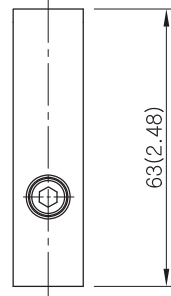


▣ **Dimensions**

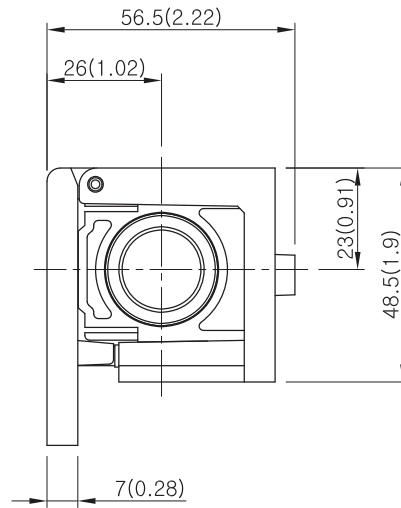
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16(0.63)



63(2.48)



56.5(2.22)

26(1.02)

23(0.91)

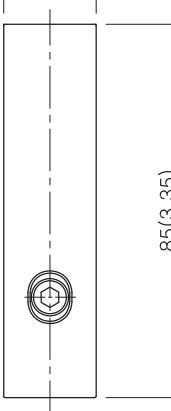
48.5(1.9)

7(0.28)

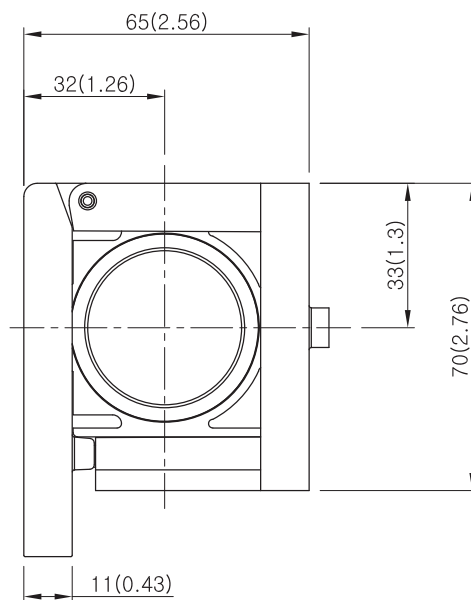
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21(0.83)



85(3.35)



65(2.56)

32(1.26)

33(1.3)

70(2.76)

11(0.43)

Accessories

T-Bracket assembly

Standard Specifications

Specifications	PC2	PC3	PC4	PC5
Item number	PC2A-33A002	PC3A-33A002	PC4A-33A002	PC5A-33A002
Material	Nylon	Aluminum	Aluminum+Zinc	Aluminum



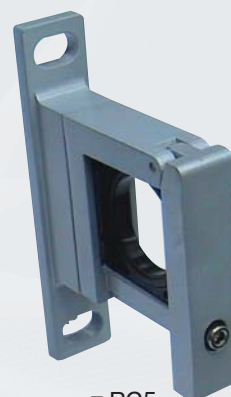
□ PC2



□ PC3



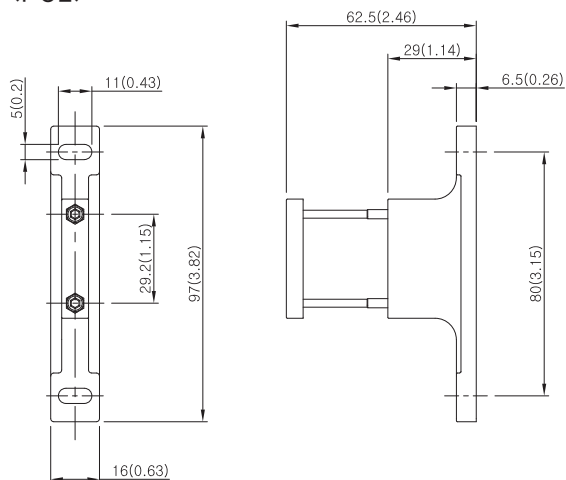
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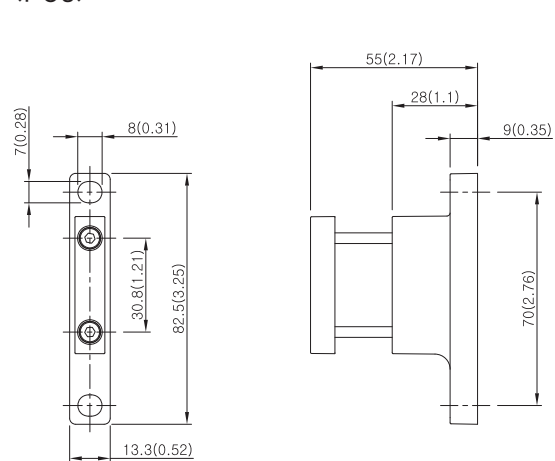
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Dimensions

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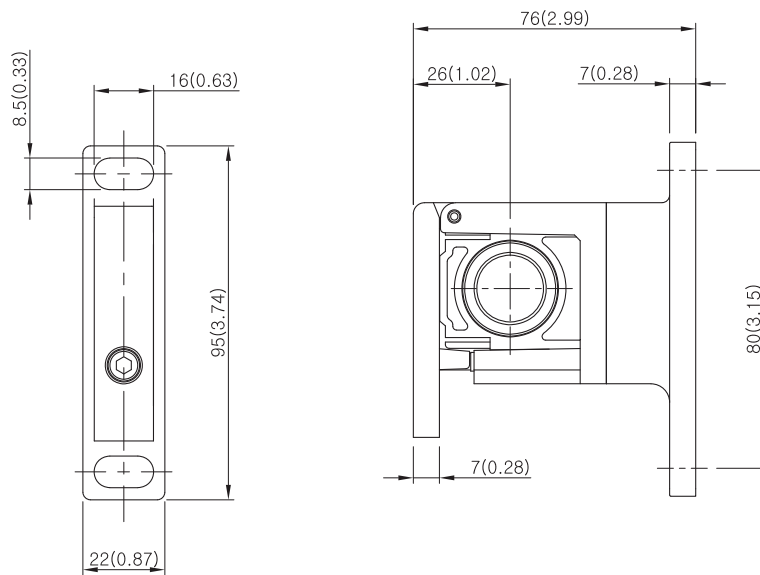


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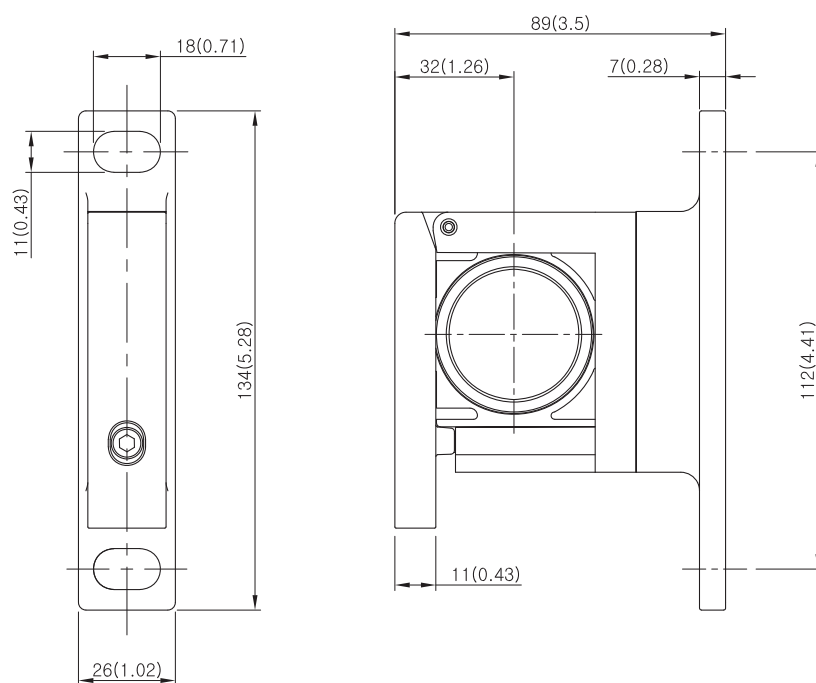


■ **Dimensions**

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<PC5>



T-Bracket assembly

Accessories

L-Bracket unit



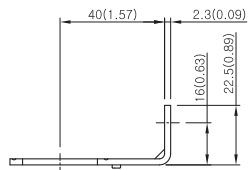
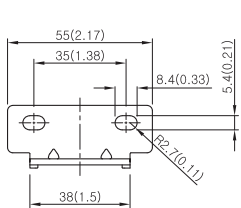
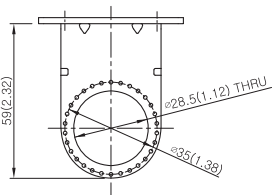
Standard Specifications

Specifications	PC2	PC3	PC4	PC5
Item number	PR2-33-001-01	PR3-33-001-01	PR4-33-001-01	PR5-33-001-01
Material	Rolled steel	Rolled steel	Rolled steel	Rolled steel

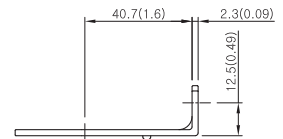
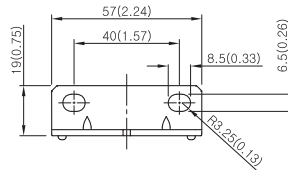
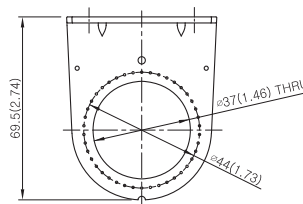


Dimensions

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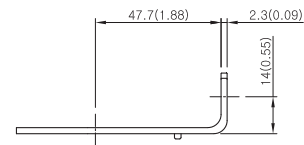
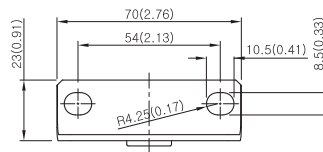
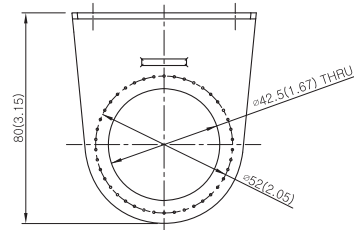


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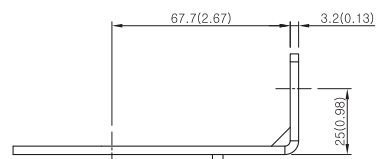
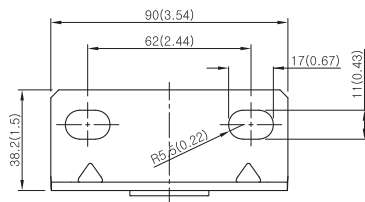
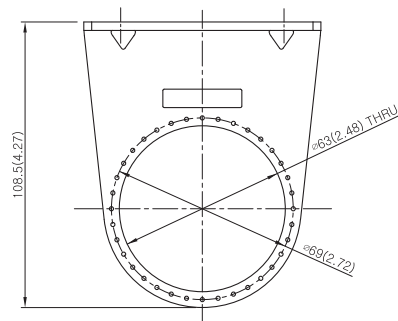


■ **Dimensions**

<PC4>



<PC5>



L-Bracket unit

Accessories

C-Bracket unit



□ PC2



□ PC3



□ PC4



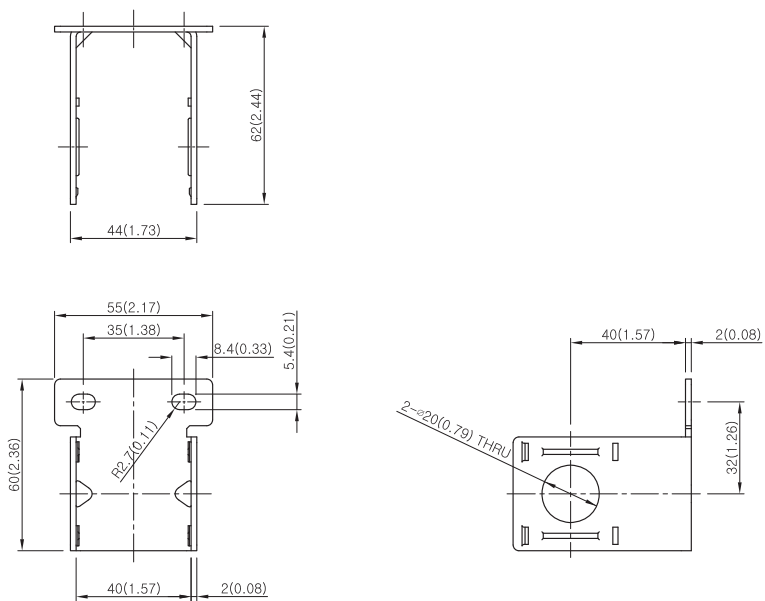
□ PC5

Standard Specifications

Specifications	PC2	PC3	PC4	PC5
Item number	PF2-33-001-01	PF3-33-001-01	PF4-33-001-01	PF5-33-001-01
Material	Rolled steel	Rolled steel	Rolled steel	Rolled steel

Dimensions

<PC2>

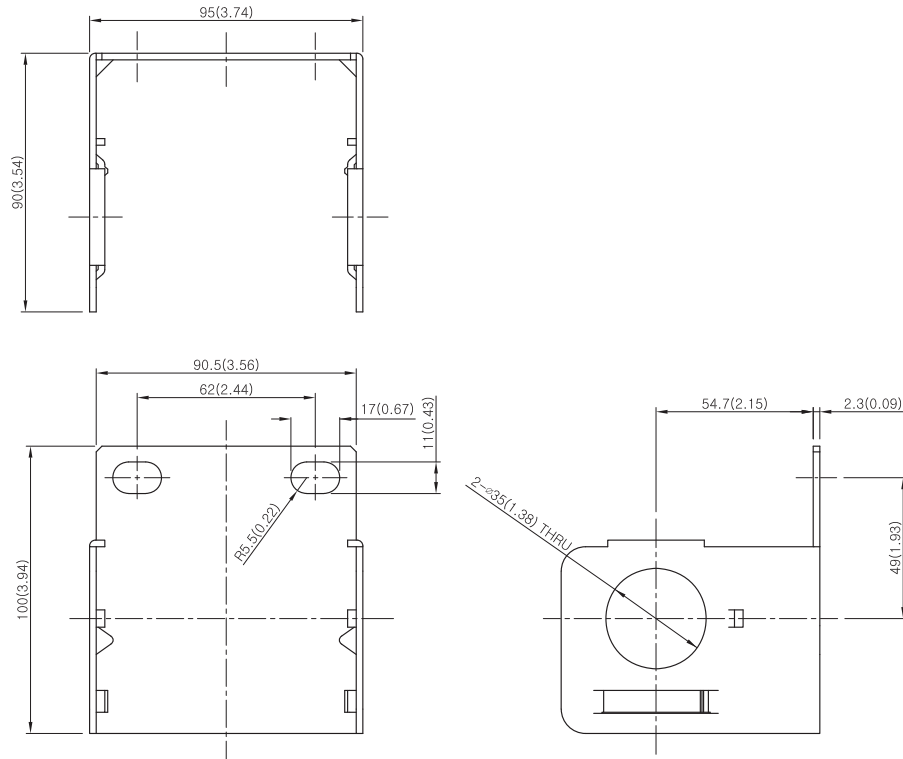


Accessories

C-Bracket unit

■ Dimensions

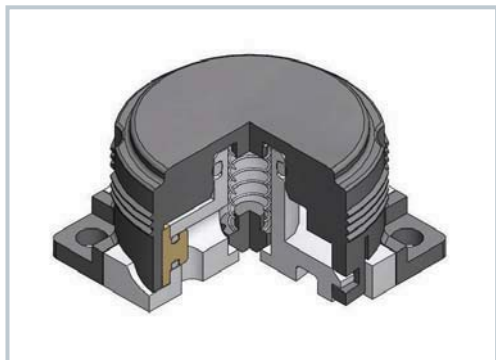
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Option

Built-in Check Valve, Tamper Resistant Kit

Built-In Check Valve

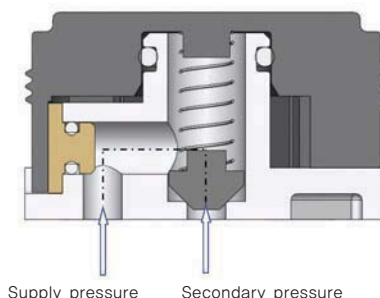


Built-In Check Valve exhausts pressure which is the minimum upstream pressure at which the valve will operate and prevents a counter flow of the fluid.

Specifications

Fluid	Air
Ambient and fluid temperature (°C)	-5~60(23~140°F) (Non-freezing)
Operating pressure range (MPa)	under 0.15(20psi)
Applicable standard	PC2-5 series

Construction



Tamper Resistant Kit

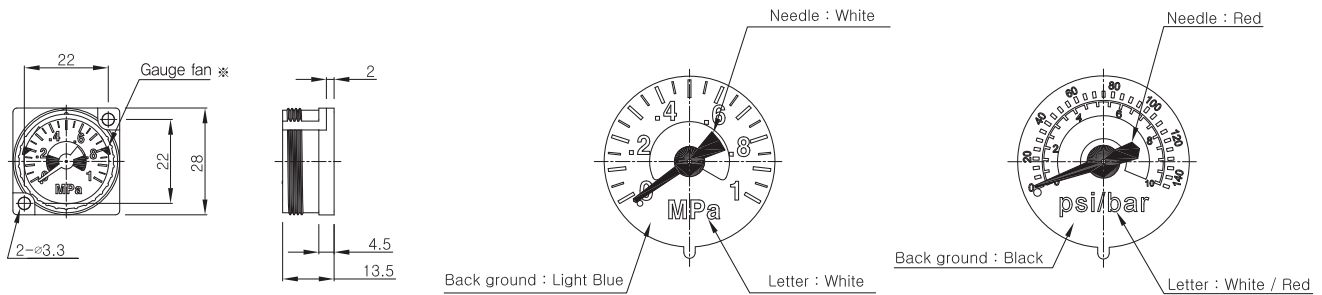


It helps prevent unauthorized adjustment to the pressure setting.

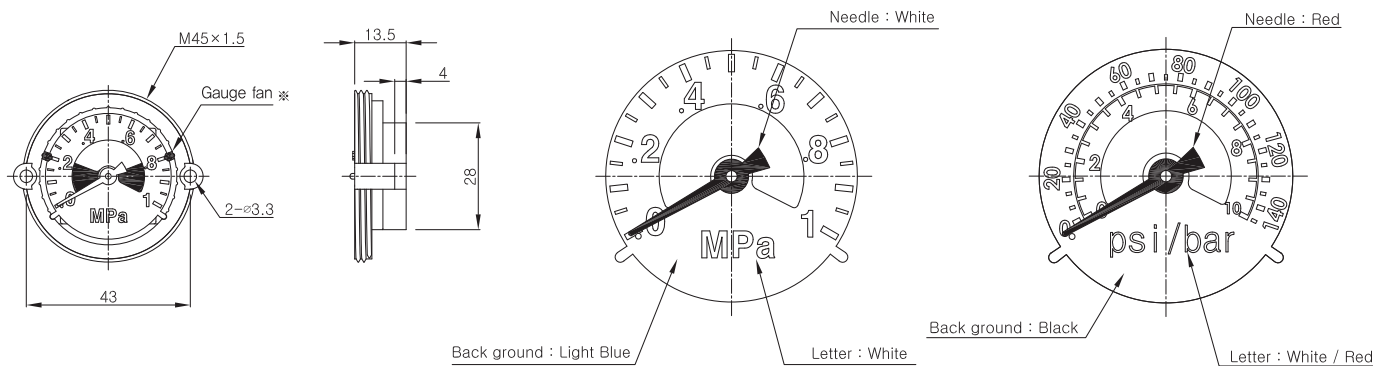


Option Pressure Gauge

Integral pressure gauge(φ24)



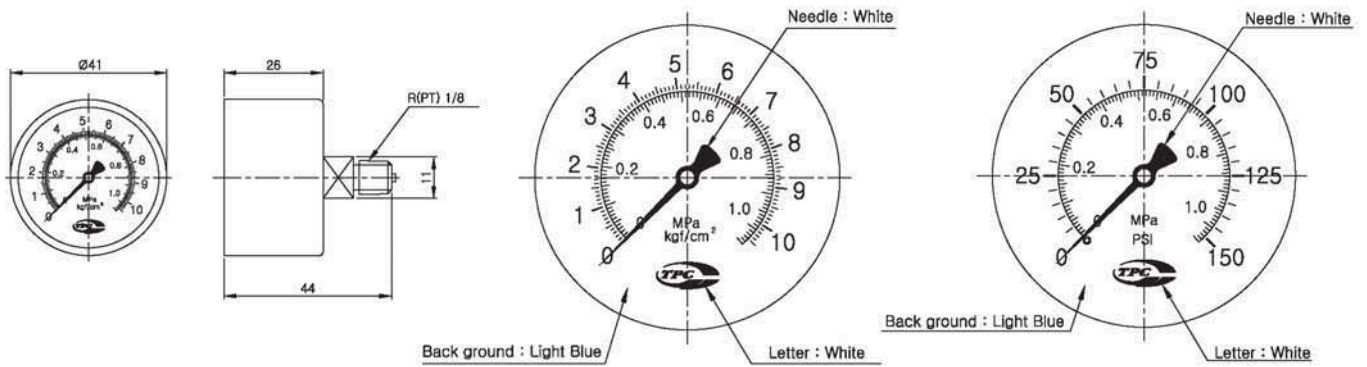
Integral pressure gauge(φ36)



※ The settable gauge fan for the regulator and piggyback regulator contains a visual reference that allows the user to display specific pressure ranges that is needed for certain applications.

Gauge	Pressure range	Applicable standard	Remarks
Integral pressure gauge(φ24)	Max 1.0	PC2, 3 series	Not sold separately
Integral pressure gauge(φ36)	(140 psi)	PC4, 5 series	

Pressure gauge



Item no	Pressure range(MPa)	Applicable standard	Remarks
PR2-49-002-01	Max 0.2(30psi)	PC2~PC5 series	Sold separately
PR2-49-004-01	Max 0.4(60psi)		
PR2-49-010	Max 1.0(140psi)		

Precautions

Products Precautions for Slow Start Valve

■ Manual operation

[Lock C type]

Turn manual button on the pilot valve coil side clockwise (to digit "0") using a screwdriver
Manual operation shall be released if the button is turned counterclockwise (to digit "1")

[Non-Lock Push]

Press manual button on the pilot valve coil side using device such as driver. It immediately returns to automatic after releasing the manual button.

■ Piping line

- 1) The arrow "→" indicates the flow direction of the compressed air.
No. 1 (P) port inlet is on the opposite direction of the arrow and
No. 2 (A) port outlet is on the arrow direction.
No. 3 (R) port exhaust is on the vertical direction to the arrow direction.
- 2) Check No. 1 (P) port which is the inlet of the compressed air and connect it.
Air leakage shall occur if air is supplied from other port.
- 2) Connect this product to the outlet of the F.R.L, if F.R.L. combination set is needed.
- 3) Connect lubricator to the inlet of this product if connection of lubricator is needed.
If lubricator is connected to the outlet, oil shall flow back to the exhaust.

■ Use environment

- 1) Take actions against freezing if this product is used at low temperature.
- 2) Attach silencer to No. 3(R) port if the product is used in dusty area or valve switchover noise is serious.

■ Wiring and use precautions

- 1) Be care of safety of operation of driving device when electronic valve or driving device is connected to the outlet of the product.
- 2) Consult us if electronic valve is continuously used. Otherwise the capacity of electronic valve shall deteriorate and other peripherals shall be badly affected due to the over heat of coil and resulting temperature increase.
- 3) When electronic valve is used on the secondary side of this product, use electronic valve after confirming that the outlet pressure equals to the inlet pressure through pressure gauge.
- 4) If pressure remained at outlet (port No. 2), low speed air supply function does not work even though the pilot valve operates.

