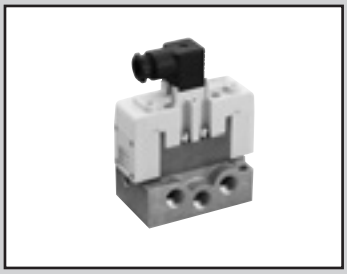


Discrete valve ISO size 1
DIN terminal box
Pilot operated 5-port valve ISO compliant valve

PV5G-6 Series

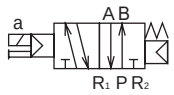
● Cylinder bore size: max. ø100

CE (applied to DC voltage) RoHS

JIS symbol

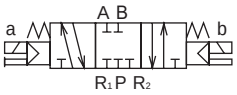
● 5-port valve

2-position single (FG-S)

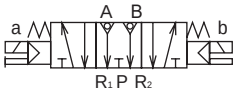


2-position double (FG-D)

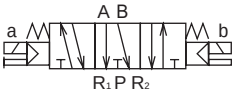
3-position all ports closed (FHG)



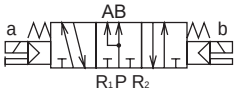
3-position all ports closed Non-leaking (FPG)



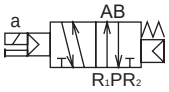
3-position A/B/R connection (FJG)



3-position P/A/B connection (FIG)



2-position single Exhaust pressurized (YZ-S)



2-position double Exhaust pressurized (YZ-D)

Common specifications

Item	Description
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	1.0 (≈150 psi, 10 bar)
Min. working pressure MPa	0.15 (≈22 psi, 1.5 bar) 0.20 (≈29 psi, 2 bar) (3-position) (*1)
Proof pressure MPa	1.50 (≈220 psi, 15 bar)
Ambient temperature °C	-5 (23°F) to 60 (140°F) (no freezing)
Fluid temperature °C	5 (41°F) to 60 (140°F)
Lubrication	Not required
Degree of protection	Dust proof/jet proof (IP65 or equivalent)
Leakage cm^3/min (A, B→R port)	10 (ANR) or less 3-position all ports closed non-leaking type only 0.3 (ANR) or less (*2)
Vibration resistance m/s^2	50 or less
Shock resistance m/s^2	300 or less
Atmosphere	Cannot be used in corrosive gas environment.

*1: With YZ-S only, use with a working pressure of R1 > R2 ≥ 0.15 MPa.
*2: The initial value is listed.

Electrical specifications

Item				Description
Rated voltage	V	AC		100(50/60 Hz) 110(50/60 Hz) 200(50/60 Hz) 220(50/60 Hz)
		DC		12,24
Voltage fluctuation range				±10%
Starting current	A	AC	100 V	0.056/0.044
			110 V	0.051/0.040
			200 V	0.034/0.026
			220 V	0.031/0.024
Holding current	A	AC	100 V	0.028/0.022
			110 V	0.025/0.020
			200 V	0.017/0.013
			220 V	0.015/0.012
		DC	12 V	0.083
			24 V	0.042
Power consumption	W	AC	100 V	1.8/1.4
			110 V	(1.8/1.5)
			200 V	2.1/1.6
			220 V	(2.2/1.7)
Values in ( ) are with lamp		DC	12 V	1(1.2)
			24 V	
Thermal class				B (molded coil)
Wiring method				Electrical plug connector

Performance/characteristics by model

Item			PV5G-6
Port size		(*1)	Rc1/4, Rc3/8
Response time ms (*2)	2-position	Single	30 (ON), 40 (OFF)
		Double	30
	3-position		30 (when ON), 50 (when neutral)

*1: As G and NPT threads can also be used for piping port screws, contact CKD for details.
*2: The response time is the value with a working pressure of 0.5 MPa, no lubrication, and a DC power supply. It depends on the pressure and the lubricant quality.

Weight

Item			PV5G-6
Weight kg (*1)	2-position	Single	0.40
		Double	0.44
	3-position	Other than non-leaking	0.48
		All ports closed non-leaking	1.14

*1: The weight listed is the weight without the sub-plate.

Flow characteristics

Model No.	Port size	Solenoid position	P→A/B		A/B→R1/R2	
			C[dm^3/(s·bar)]	b	C[dm^3/(s·bar)]	b
PV5G-6	Rc1/4	2-position single	6.1	0.28	6.7	0.20
		2-position double	6.1	0.28	6.7	0.20
		3-position all ports closed	5.2	0.32	5.6	0.30
		3-position A/B/R connection	5.1	0.32	6.9	0.16
		3-position P/A/B connection	6.3	0.28	5.9	0.28
		3-position all ports closed non-leaking	3.4	-	3.0	-

*1: Effective cross-sectional area S and sonic conductance C are converted as S ≈ 5.0 x C.

Coolant proof specifications

Can be selected with ”How to order” Item Ⓓ option “A” on page 1474.

CE marking specifications (applies to DC voltage type)

** – **ST**

・Standard voltage of 24 VDC or less is CE marking-compatible even if the model No. is not indicated with "ST".

How to order DIN terminal box

● ISO Size 1

PV5G - 6 - FG-S - 3 - N ( ) - A03

- PV5G: Model No.
- 6: ISO size 1
- FG-S: Ⓐ Solenoid position
- 3: Ⓑ Voltage
- N: Ⓒ Surge suppressor/lamp
- ( ): Ⓓ Option
- A03: Ⓔ With/without sub-plate and port size

Code	Description		Model No. PV5G-6
Ⓐ Solenoid position			
FG-S	P pressurized	2-position single	●
FG-D		2-position double	●
FHG-D		3-position all ports closed	●
FJG-D		3-position ABR connection	●
FIG-D		3-position PAB connection	●
FPG-D		3-position all ports closed non-leaking	●
YZ-S	Exhaust pressurized	2-position single	●
YZ-D		2-position double	●
Ⓑ Voltage			
1	100 VAC		●
2	200 VAC		●
3	24 VDC		●
4	12 VDC		●
5	110 VAC		●
6	220 VAC		●
Ⓒ Surge suppressor/lamp			
Blank	None		●
N	With surge suppressor/lamp (*1)		●
Ⓓ Option			
Blank	None		●
A	Coolant proof		●
Ⓔ With/without sub-plate and port size			
Blank	Without sub-plate		●
A02	Side piping (Rc1/4 (Rc3/8 for R port only))		●
A03	Side piping (Rc3/8)		●

⚠ Precautions for model No. selection

*1: Refer to page 1470 for the circuit diagram with a surge suppressor/lamp.

[Example of model No.]

PV5G-6-FG-S-3-N-A03

Model: PV5G/ISO size 1 (DIN terminal box)

- Ⓐ Solenoid position : P pressurized type 2-position Single solenoid
- Ⓑ Voltage : 24 VDC
- Ⓒ Surge suppressor/indicator lamp : With surge suppressor and indicator lamp
- Ⓓ Option : None
- Ⓔ Sub-plate port size : Side piping (Rc3/8)

ISO size 1 sub-plate specifications and how to order

CB1 - A02

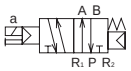
- A02: Ⓐ Piping connection method

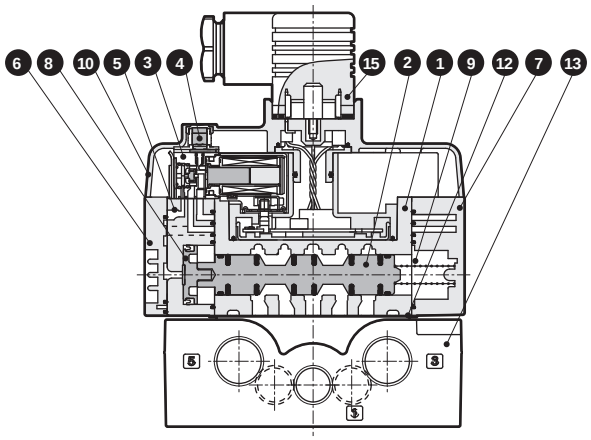
Code	Type	P/A/B port	R1/R2 port	Weight (kg)
Ⓐ Piping connection method				
A02	Side piping	Rc1/4	Rc3/8	0.27
A03		Rc3/8		

Internal structure and parts list: DIN terminal box

PV5G-6-FG-S
● 2-position single

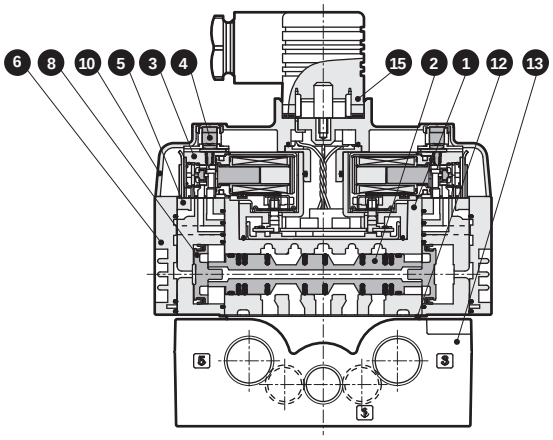
PV5G-6-YZ-S
● 2-position single
Exhaust pressurized





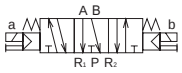
PV5G-6-FG-D
● 2-position double

PV5G-6-YZ-D
● 2-position double
Exhaust pressurized

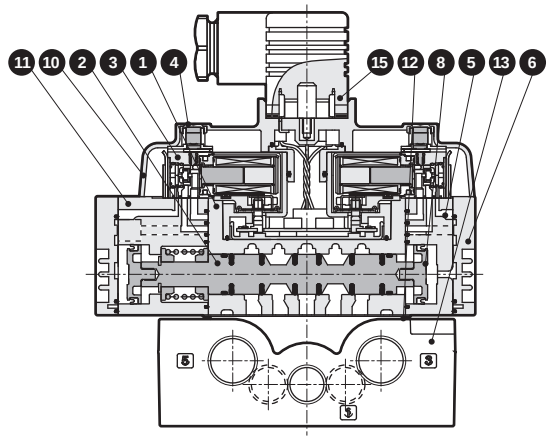


PV5G-6-FHG-D
● 3-position all ports closed

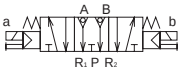
PV5G-6-FJG-D
● 3-position A/B/R connection

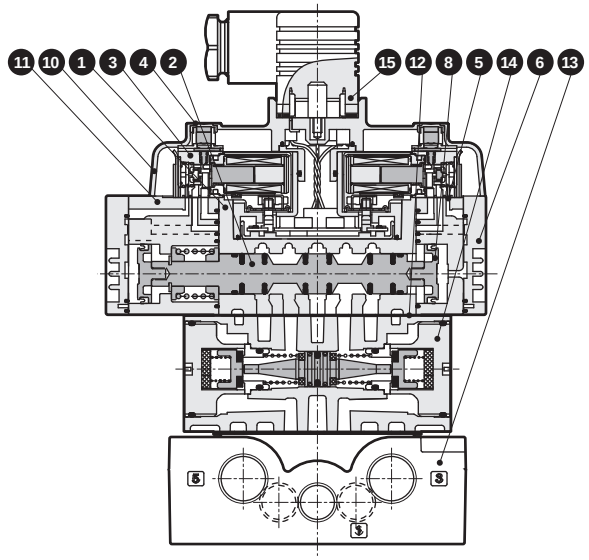


PV5G-6-FIG-D
● 3-position P/A/B connection



PV5G-6-FPG-D
● 3-position all ports closed
Non-leaking type





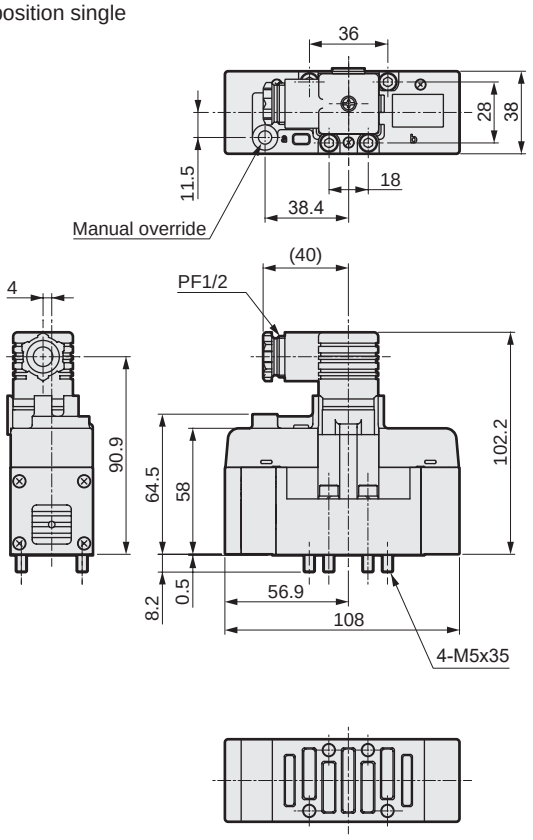
Main parts list

No.	Part name	Material	No.	Part name	Material
1	Body	Aluminum alloy die-casting	9	Spring S	-
2	Spool assembly	-	10	Wiring cover	Resin
3	Pilot valve	-	11	Pilot valve assembly for 3-position	Resin
4	Manual override	-	12	Gasket	-
5	Pilot valve assembly for double	Resin	13	Sub-plate	Aluminum alloy die-casting
6	Cap D	Resin	14	Air pilot check valve	-
7	Cap S	Resin	15	DIN terminal box	-
8	Piston D assembly	-			

Dimensions: DIN terminal box (out sub-plate)

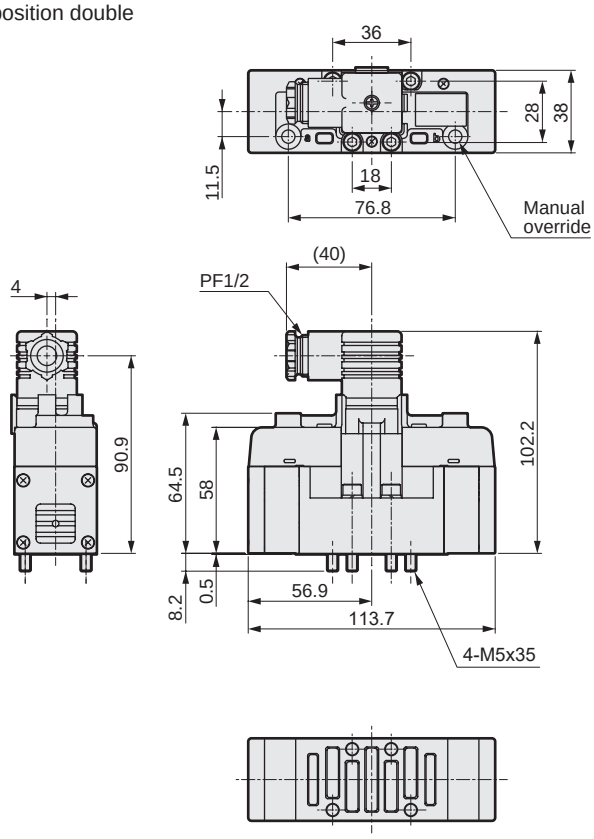
PV5G-6-FG-S-*
PV5G-6-YZ-S-*

● 2-position single



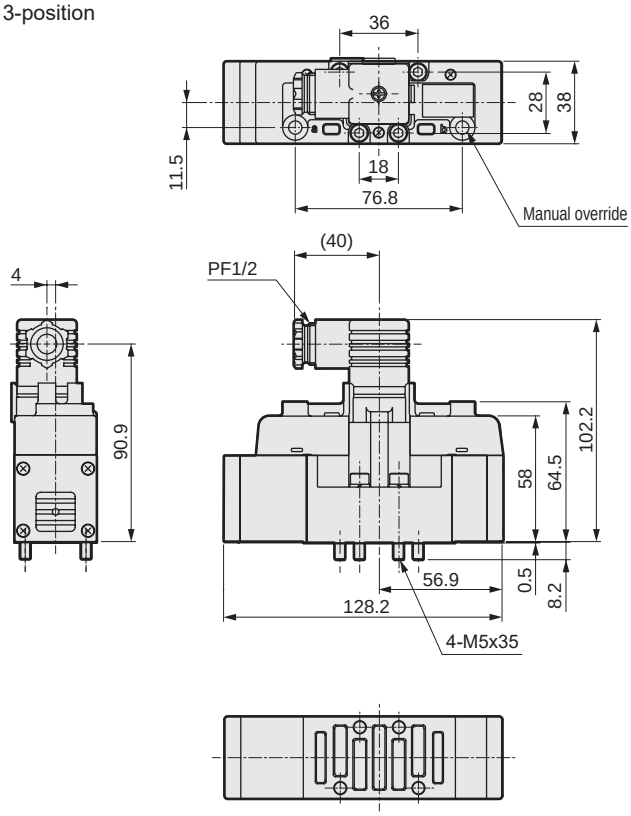
PV5G-6-FG-D-*
PV5G-6-YZ-D-*

● 2-position double



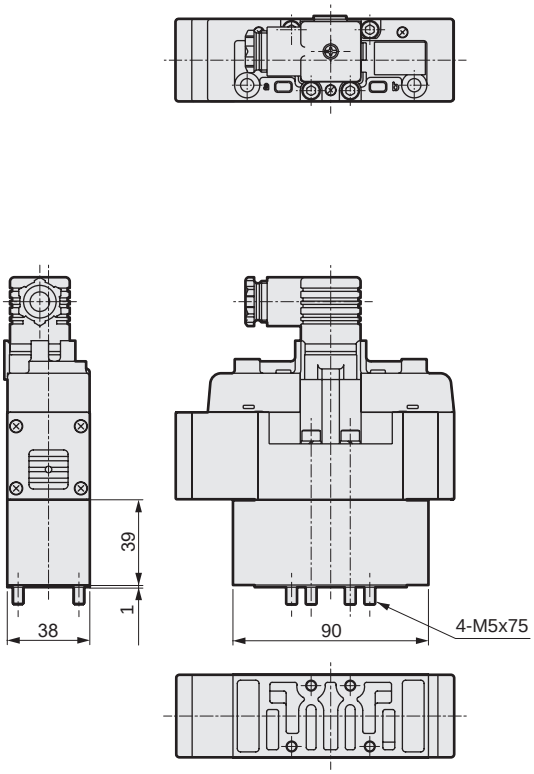
PV5G-6-FHG-D-*
PV5G-6-FJG-D-*
PV5G-6-FIG-D-*

● 3-position



PV5G-6-FPG-D-*

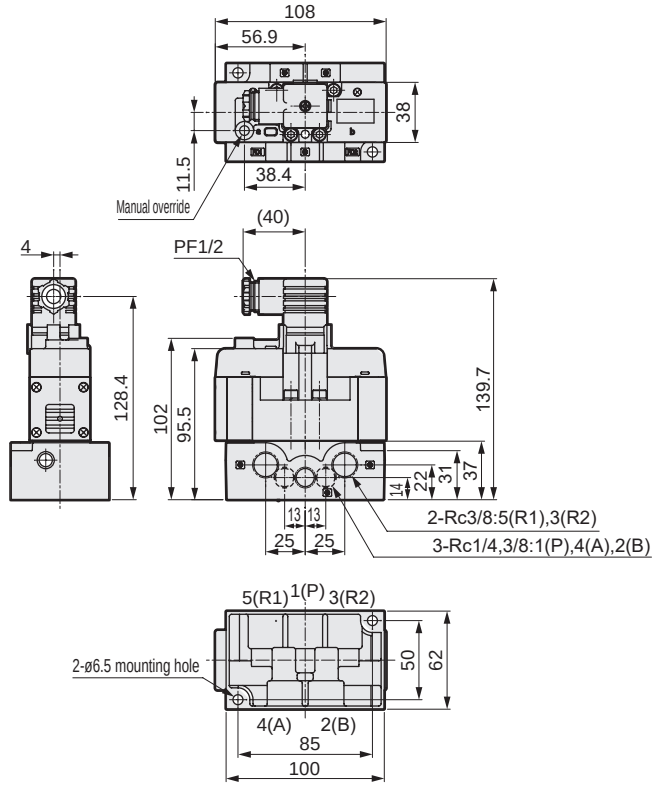
● 3-position/non-leaking



Dimensions: DIN terminal box (with sub-plate)

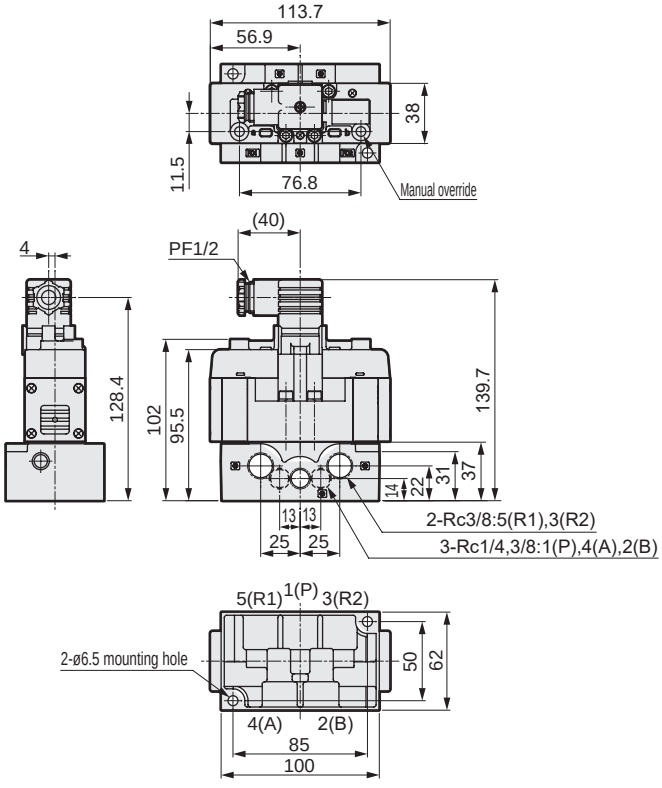
PV5G-6-FG-S-*-*
PV5G-6-YZ-S-*-*

● 2-position single



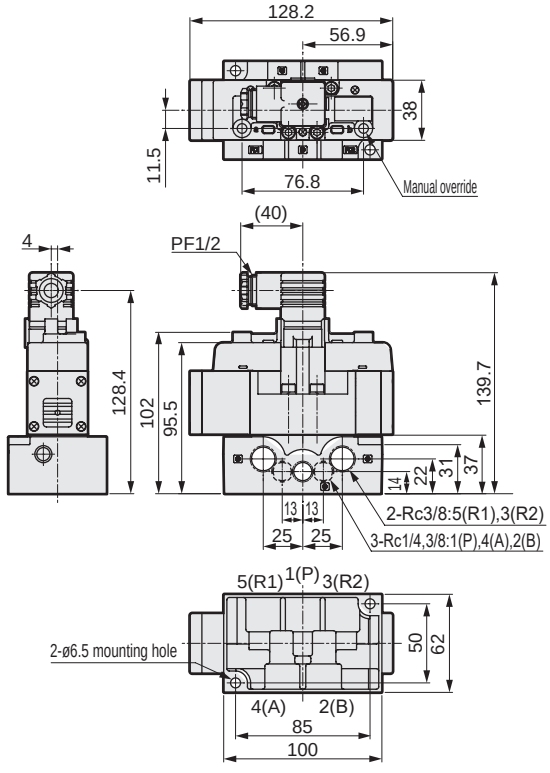
PV5G-6-FG-D-*-*
PV5G-6-YZ-D-*-*

● 2-position double

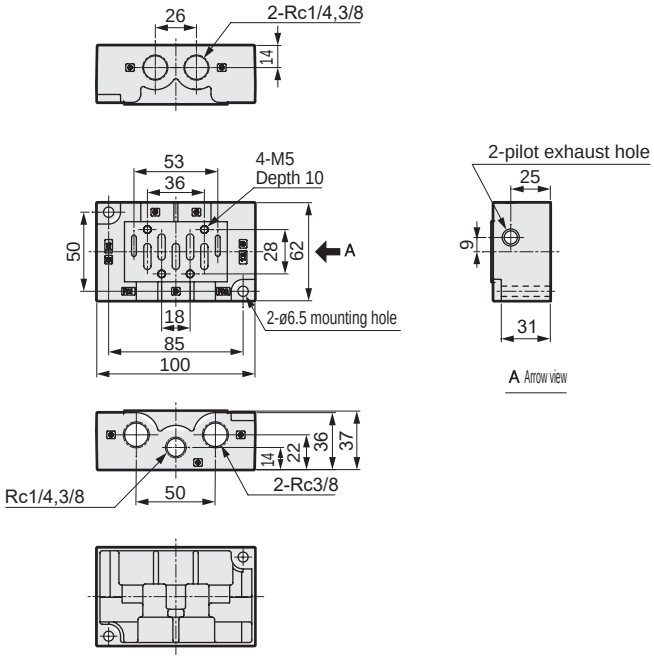


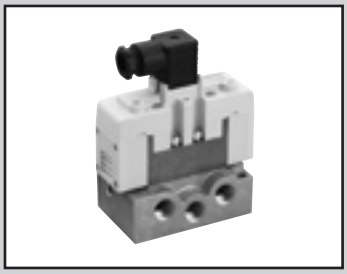
PV5G-6-FHG-D-*-*
PV5G-6-FJG-D-*-*
PV5G-6-FIG-D-*-*

● 3-position



● Sub-plate dimensions





Discrete valve ISO size 2
DIN terminal box
Pilot operated 5-port valve ISO compliant valve

PV5G-8 Series

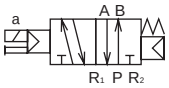
● Cylinder bore size: max. ø160

CE (applied to DC voltage type) RoHS

JIS symbol

● 5-port valve

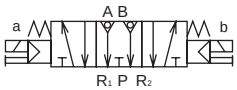
2-position single (FG-S)



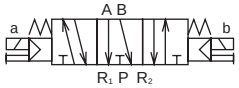
2-position double (FG-D)

3-position all ports closed (FHG)

3-position all ports closed Non-leaking (FPG)

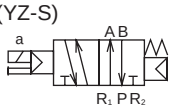


3-position A/B/R connection (FJG)

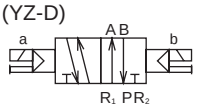


3-position P/A/B connection (FIG)

2-position single Exhaust pressurized (YZ-S)



2-position double Exhaust pressurized (YZ-D)



Common specifications

Item	Description
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	1.0
Min. working pressure MPa	0.15 0.20 (3-position) (*1)
Proof pressure MPa	1.50
Ambient temperature °C	-5 to 60 (no freezing)
Fluid temperature °C	5 to 60
Lubrication	Not required
Degree of protection	Dust proof/jet proof (IP65 or equivalent)
Leakage cm^3/min (A, B→R port)	10 (ANR) or less 3-position all ports closed non-leaking only 0.3 (ANR) or less (*2)
Vibration resistance m/s^2	50 or less
Shock resistance m/s^2	300 or less
Atmosphere	Cannot be used in corrosive gas environment.

*1: With YZ-S only, use the unit with a working pressure of R1 > R2 ≥ 0.15 MPa.
*2: The initial value is listed.

Electrical specifications

Item				Description
Rated voltage	V	AC		100(50/60 Hz) 110(50/60 Hz) 200(50/60 Hz) 220(50/60 Hz)
		DC		12,24
Voltage fluctuation range				±10%
Starting current	A	AC	100 V	0.056/0.044
			110 V	0.051/0.040
			200 V	0.034/0.026
			220 V	0.031/0.024
Holding current	A	AC	100 V	0.028/0.022
			110 V	0.025/0.020
			200 V	0.017/0.013
			220 V	0.015/0.012
		DC	12 V	0.083
			24 V	0.042
Power consumption	W	AC	100 V	1.8/1.4
			110 V	(1.8/1.5)
			200 V	2.1/1.6
			220 V	(2.2/1.7)
Values in ( ) are with lamp		DC	12 V	1(1.2)
			24 V	
Thermal class				B (molded coil)
Wiring method				Electrical plug connector

Performance/characteristics by model

Item			PV5G-8
Port size		(*1)	Rc3/8, Rc1/2, Rc3/4
Response time ms (*2)	2-position	Single	40 (ON), 60 (OFF)
		Double	40
	3-position		40 (when ON), 60 (when neutral)

*1: As G and NPT threads can also be used for piping port screws, contact CKD for details.
*2: The response time is the value with a working pressure of 0.5 MPa, no lubrication, and a DC power supply. It depends on the pressure and the lubricant quality.

Weight

Item			PV5G-8
Weight kg (*1)	2-position	Single	0.63
		Double	0.67
	3-position	Other than non-leaking	0.70
		All ports closed non-leaking type	1.35

*1: The weight listed is the weight without the sub-plate.

Flow characteristics

Model No.	Port size	Solenoid position	P→A/B		A/B→R1/R2	
			C[dm³/(s·bar)]	b	C[dm³/(s·bar)]	b
PV5G-8	Rc3/8	2-position single	10.7	0.17	13.0	0.19
		2-position double	10.7	0.17	13.0	0.19
		3-position all ports closed	10.0	0.16	11.0	0.25
		3-position A/B/R connection	9.9	0.14	13.0	0.16
		3-position P/A/B connection	11.0	0.12	12.0	0.21
		3-position all ports closed non-leaking	6.6	-	6.2	-

*1: Effective cross-sectional area S and sonic conductance C are converted as S ≈ 5.0 x C.

Coolant proof specifications

Select the option “A” of item Ⓓ in How to order on page 1480.

CE marking specifications

** – ST

• Standard voltage of 24 VDC or less is CE marking-compatible even if the model No. is not indicated with "ST".

How to order DIN terminal box

● ISO size 2

PV5G - 8 - FG-S - 3 - N ○ - A03

- PV5G: Model No.
- 8: ISO size 2
- Ⓐ FG-S: Solenoid position
- Ⓑ 3: Voltage
- Ⓒ N: Surge suppressor/lamp
- Ⓓ ○: Option
- Ⓔ A03: With/without sub-plate and port size

Code	Description		Model No. PV5G-8
Ⓐ Solenoid position			
FG-S	P pressurized	2-position single	●
FG-D		2-position double	●
FHG-D		3-position all ports closed	●
FJG-D		3-position ABR connection	●
FIG-D		3-position PAB connection	●
FPG-D		3-position all ports closed non-leaking	●
YZ-S	Exhaust pressurized	2-position single	●
YZ-D		2-position double	●
Ⓑ Voltage			
1	100 VAC		●
2	200 VAC		●
3	24 VDC		●
4	12 VDC		●
5	110 VAC		●
6	220 VAC		●
Ⓒ Surge suppressor/lamp			
Blank	None		●
N	With surge suppressor/lamp (*1)		●
Ⓓ Option			
Blank	None		●
A	Coolant proof		●
Ⓔ With/without sub-plate and port size			
Blank	Without sub-plate		●
A03	Side piping Rc3/8 (Rc1/2 for R port only)		●
A04	Side piping (Rc1/2)		●
A06	Side piping (Rc3/4)		●

⚠ Precautions for model No. selection

*1: Refer to page 1470 for the circuit diagram with a surge suppressor/lamp.

[Example of model No.]

PV5G-8-FG-S-3-N-A03

Model: PV5G/ISO size 2 (DIN terminal box)

- Ⓐ Solenoid position : P pressurized 2-position Single solenoid
- Ⓑ Voltage : 24 VDC
- Ⓒ Surge suppressor/lamp : With surge suppressor and indicator lamp
- Ⓓ Option : None
- Ⓔ Sub-plate port size : Side piping (Rc3/8) R port Rc1/2

ISO size 2 sub-plate specifications and how to order

CB2 - A03

- CB2: Ⓐ Piping connection method

Code	Type	P/A/B port	R1/R2 port	Weight (kg)
Ⓐ Piping connection method				
A03	Side piping	Rc3/8	Rc1/2	0.49
A04		Rc1/2		
A06		Rc3/4	Rc3/4	1.40

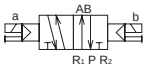
Internal structure and parts list: DIN terminal box

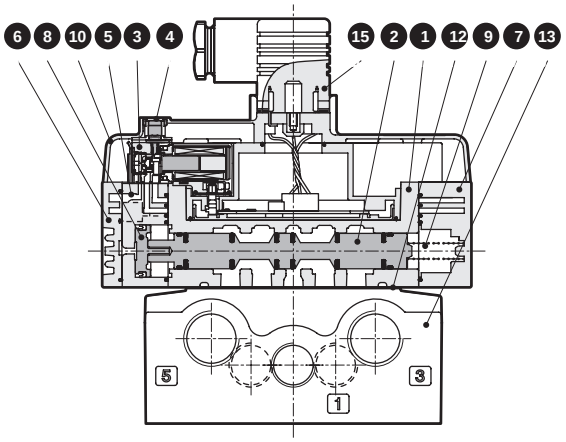
PV5G-8-FG-S
● 2-position single

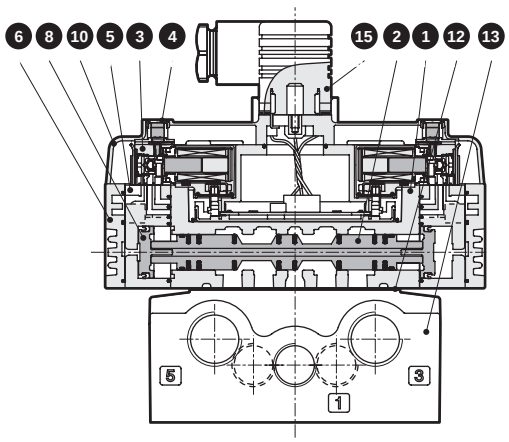
PV5G-8-FG-D
● 2-position double

PV5G-8-YZ-S
● 2-position single
Exhaust pressurized

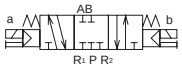
PV5G-8-YZ-D
● 2-position double
Exhaust pressurized



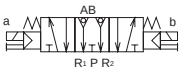




PV5G-8-FHG-D
● 3-position all ports closed

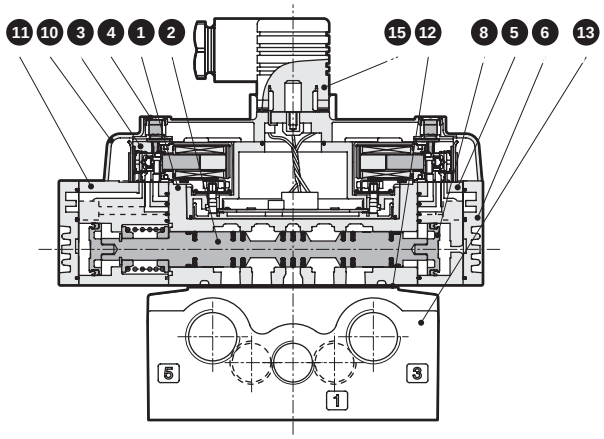


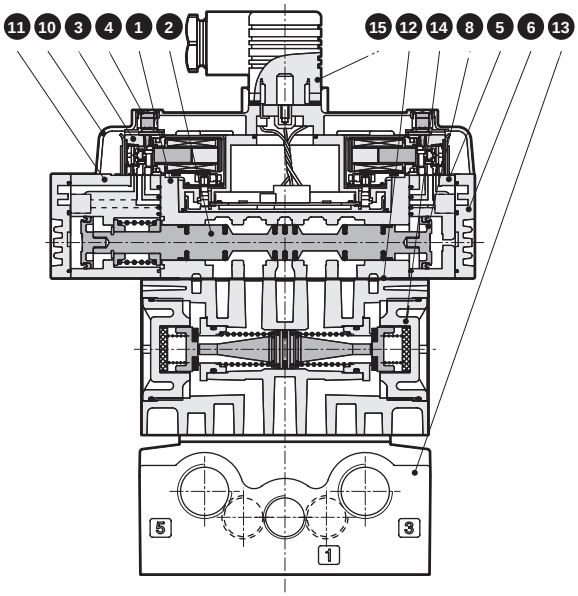
PV5G-8-FPG-D
● 3-position all ports closed
non-leaking



PV5G-8-FJG-D
● 3-position A/B/R connection

PV5G-8-FIG-D
● 3-position P/A/B connection





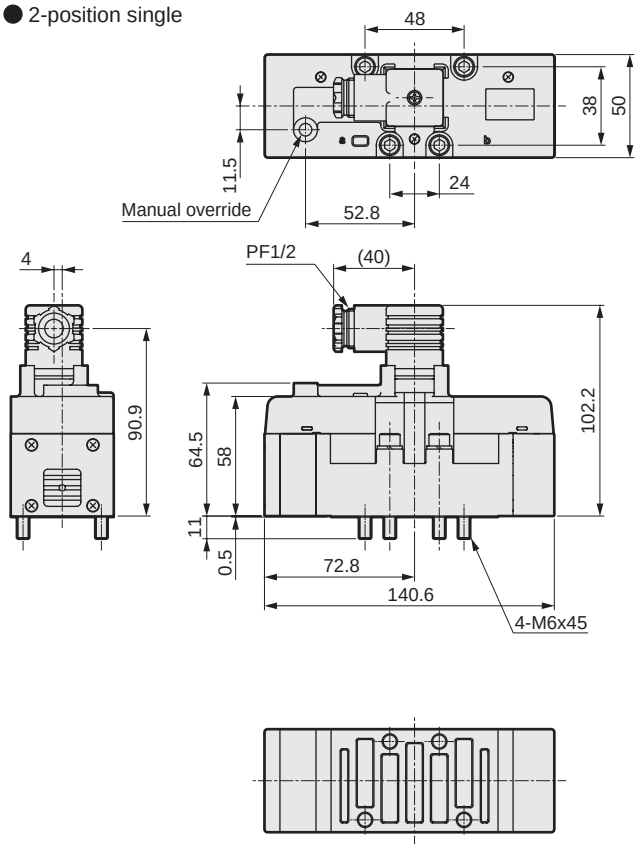
Main parts list

No.	Part name	Material	No.	Part name	Material
1	Body	Aluminum alloy die-casting	9	Spring S	-
2	Spool assembly	-	10	Wiring cover	Resin
3	Pilot valve	-	11	Pilot valve assembly for 3-position	Resin
4	Manual override	-	12	Gasket	-
5	Pilot valve assembly for double	Resin	13	Sub-plate	Aluminum alloy die-casting
6	Cap D	Resin	14	Air pilot check valve	-
7	Cap S	Resin	15	DIN terminal box	-
8	Piston D assembly	-			

Dimensions: DIN terminal box (without sub-plate)

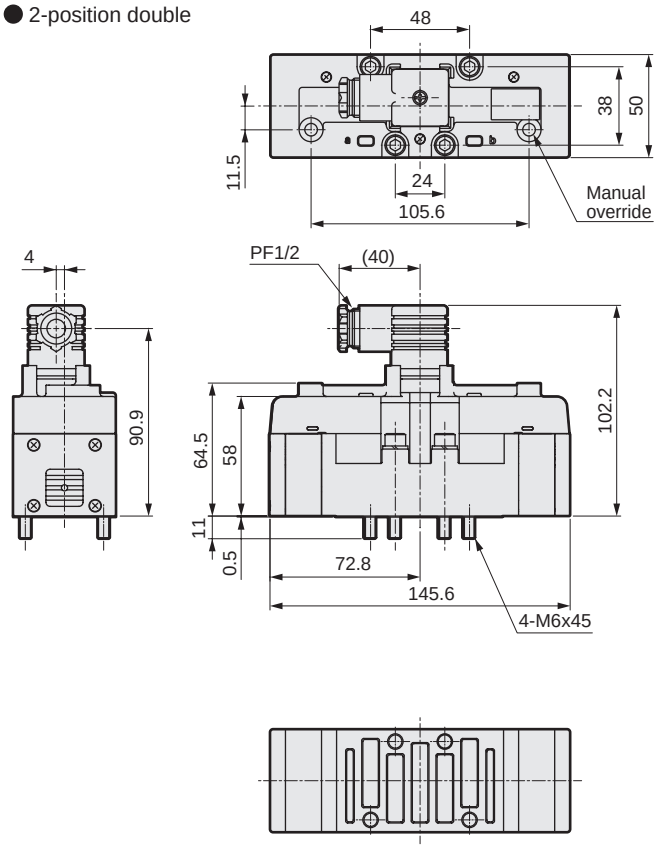
PV5G-8-FG-S-*
PV5G-8-YZ-S-*

● 2-position single



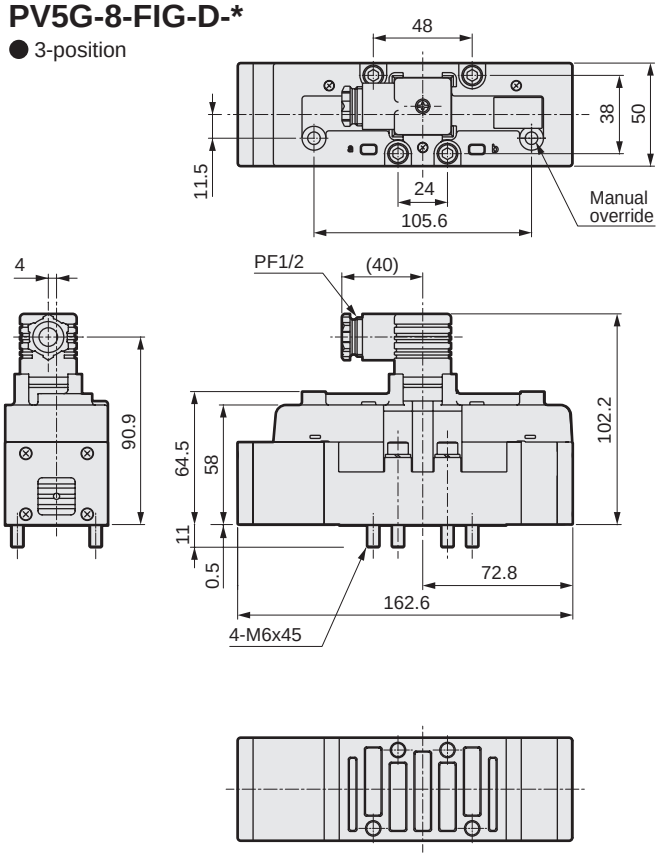
PV5G-8-FG-D-*
PV5G-8-YZ-D-*

● 2-position double



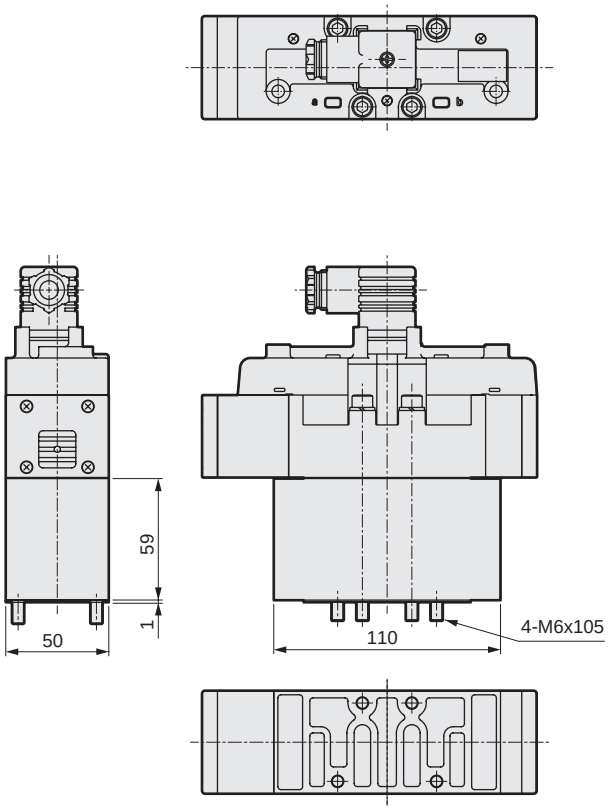
PV5G-8-FHG-D-*
PV5G-8-FJG-D-*
PV5G-8-FIG-D-*

● 3-position



PV5G-8-FPG-D-*

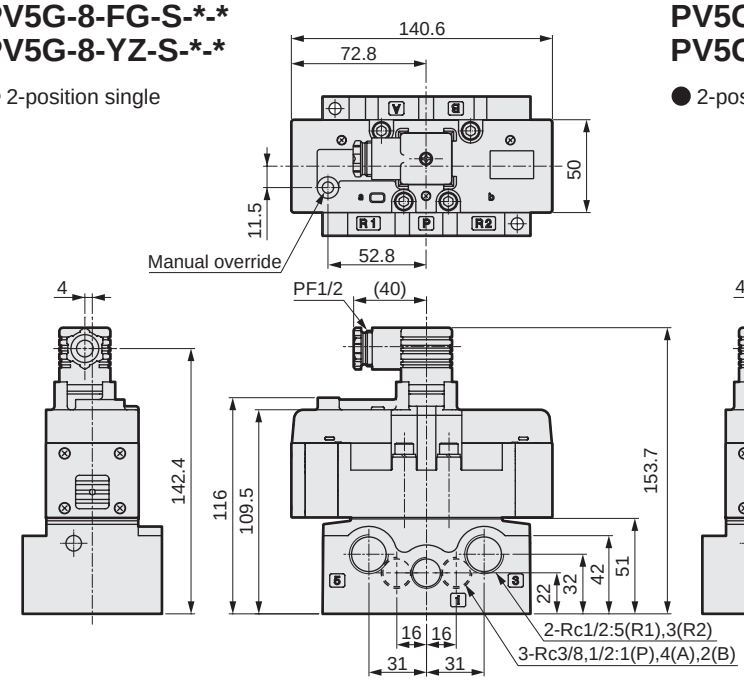
● 3-position/non-leaking

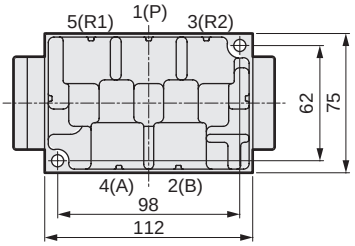


Dimensions: DIN terminal box (with sub-plate)

PV5G-8-FG-S-*-*
PV5G-8-YZ-S-*-*

● 2-position single

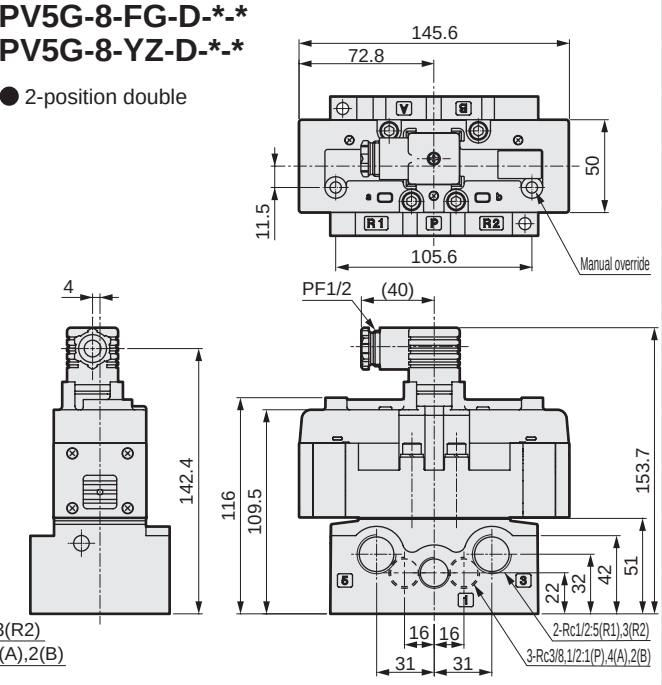


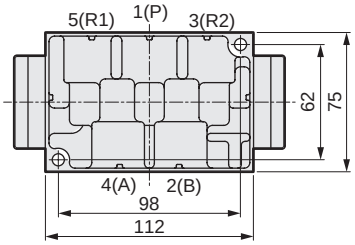


(Note: Refer to the following table for CB2-A06 dimensions.)

PV5G-8-FG-D-*-*
PV5G-8-YZ-D-*-*

● 2-position double

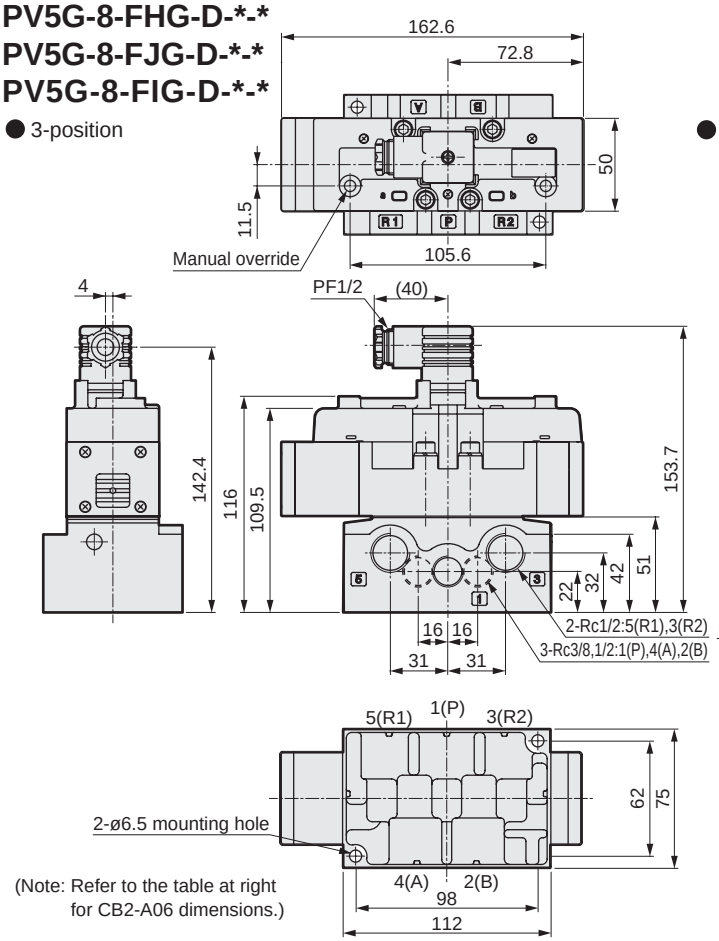




(Note: Refer to the following table for CB2-A06 dimensions.)

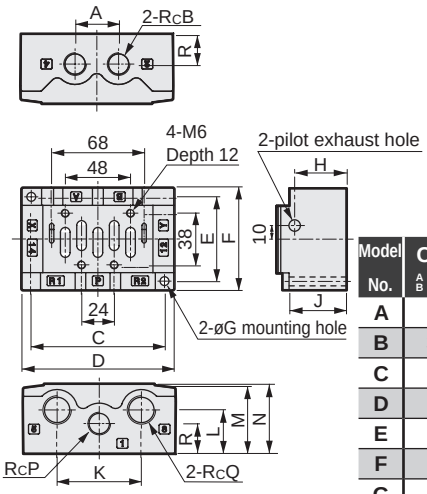
PV5G-8-FHG-D-*-*
PV5G-8-FJG-D-*-*
PV5G-8-FIG-D-*-*

● 3-position

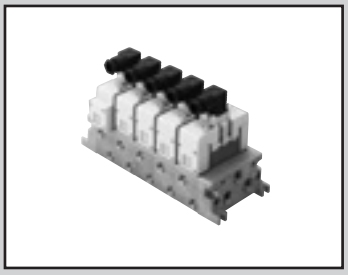


(Note: Refer to the table at right for CB2-A06 dimensions.)

● Sub-plate dimensions (CB2-*)



Model No.	CB2- A/B 03	CB2- A/B 04	CB2 A/B 06
A	32		40
B	3/8	1/2	3/4
C	98		128
D	112		142
E	62		72
F	75		86
G	6.5		7.5
H	38		53
J	42		55
K	62		84
L	32		42
M	50		62
N	51		63
P	3/8	1/2	3/4
Q	1/2		3/4
R	22		30



Individual wiring manifold ISO size 1
DIN terminal box
Pilot operated 5-port valve ISO compliant valve

GMF1 Series

● Cylinder bore size: max. ø100

RoHS

Common specifications

Item	Description
Manifold method	Manifold integrated
Manifold	Common supply/common exhaust Common supply/individual exhaust Individual supply/common exhaust Individual supply/individual exhaust Different pressure supply
Station No.	1 to 10 stations
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	1.0 (≈150 psi, 10 bar)
Min. working pressure MPa	0.15 (≈22 psi, 1.5 bar) 0.20 (≈29 psi, 2 bar) (3-position) (*1)
Proof pressure MPa	1.50 (≈220 psi, 15 bar)
Ambient temperature °C	-5 (23°F) to 60 (140°F) (no freezing)
Fluid temperature °C	5 (41°F) to 60 (140°F)
Lubrication	Not required
Degree of protection	Dust proof/jet proof (IP65 or equivalent)
Leakage (A, B→R port) cm^3/min	10 (ANR) or less 3-position all ports closed non-leaking only 0.3 (ANR) or less (*2)
Vibration resistance m/s^2	50 or less
Shock resistance m/s^2	300 or less
Atmosphere	Cannot be used in corrosive gas environment.

*1: With YZ-S only, use with a working pressure of R1 > R2 ≥ 0.15 MPa.
*2: The initial value is listed.

Electrical specifications

Item			Description
Rated voltage V	AC		100(50/60 Hz) 110(50/60 Hz) 200(50/60 Hz) 220(50/60 Hz)
	DC		12,24
Voltage fluctuation range			±10%
Starting current A	AC	100 V	0.056/0.044
		110 V	0.051/0.040
		200 V	0.034/0.026
		220 V	0.031/0.024
Holding current A	AC	100 V	0.028/0.022
		110 V	0.025/0.020
		200 V	0.017/0.013
		220 V	0.015/0.012
	DC	12 V	0.083
		24 V	0.042
Power consumption W	AC	100 V	1.8/1.4
		110 V	(1.8/1.5)
		200 V	2.1/1.6
		220 V	(2.2/1.7)
Values in ( ) are with lamp	DC	12 V	1(1.2)
		24 V	
Thermal class			B (molded coil)
Wiring method			Electrical plug connector

Individual specifications

Item		GMF1
Port size	P/R1/R2 port	Rc3/8, Rc1/2
(*1)	A/B port	Rc1/4, Rc3/8

*1: As G and NPT threads can also be used for piping port screws, contact CKD for details.

Performance/Characteristics

Item			GMF1
Response time (*2) ms	2-position	Single	30 (ON), 40 (OFF)
		Double	30
	3-position		30 (when ON), 50 (when neutral)

*2: The response time is the value with a working pressure of 0.5 MPa, no lubrication, and a DC power supply.
It depends on the pressure and the lubricant quality.

Weight

Manifold base	Station No.	1	2	3	4	5	6	7	8	9	10
(kg)		1.04	1.50	1.95	2.40	2.85	3.30	3.75	4.20	4.65	5.10
Silencer box	Model No.	SB									
Added to manifold base assembly (kg)		0.13									
Spacer	Model No.	P		R		SR		PC			
(kg)		0.22		0.22		0.64		0.25			

Flow characteristics

Model No.	Port size	Solenoid position	P→A/B		A/B→R1/R2	
			C[dm^3/(s·bar)]	b	C[dm^3/(s·bar)]	b
GMF1	Rc1/4	2-position single	4.8	0.25	5.2	0.26
		2-position double	4.8	0.25	5.2	0.26
		3-position all ports closed	4.4	0.27	4.7	0.27
		3-position A/B/R connection	4.4	0.25	5.3	0.25
		3-position P/A/B connection	4.8	0.27	4.7	0.27
		3-position all ports closed non-leaking	3.2	-	2.8	-

*1: Effective cross-sectional area S and sonic conductance C are converted as S ≈ 5.0 x C.

How to order DIN terminal box

● ISO Size 1

GMF1 5 - 02 L - HY1 B DU - SB F - ○ ○

Model No. Ⓐ Station No. Ⓑ A/B port size (*1) Ⓒ A/B port position (*2) Ⓓ P/R port size Ⓔ P/R port position (*3) (*4) Ⓕ HY configuration Ⓖ Silencer box Ⓗ Option

Quantity of port size 02 of A/B port

Quantity of port size 03 of A/B port

Code	Description	Model No. GMF1
Ⓐ Station No.		
1	1 station	●
to	to	●
10	10 stations	●
Ⓑ A/B port size		
02	Rc 1/4	●
03	Rc 3/8	●
HX1	Rc 1/4 and Rc 3/8 mixture	●
Ⓒ A/B port position		
Blank	Right	●
L	Left and right sides (select position with manifold specifications)	●
H	Left	●
Z	Rear side	●
T	Free selection (plug attached) (rear side not available)	●
Ⓓ P/R port size		
03	Rc3/8	●
04	Rc1/2	●
HY1	Rc3/8 and Rc1/2 mixture	●
Ⓔ P/R port position		
B	Top and bottom sides	●
D	Bottom side	●
U	Top side	●
E	P on top, R on bottom	●
F	P on bottom, R on top	●
T	Free selection (plug attached)	●
Ⓕ HY configuration		
Blank	When other than HY1 is selected with Ⓓ	●
DU	Rc 3/8 on bottom, Rc 1/2 on top	●
UD	Rc 3/8 on top, Rc 1/2 on bottom	●
Ⓖ Silencer box		
Blank	None	●
SB	Yes (D side installation)	●
Ⓗ Option		
Blank	None	●
F	P/A/B port filter integrated	●

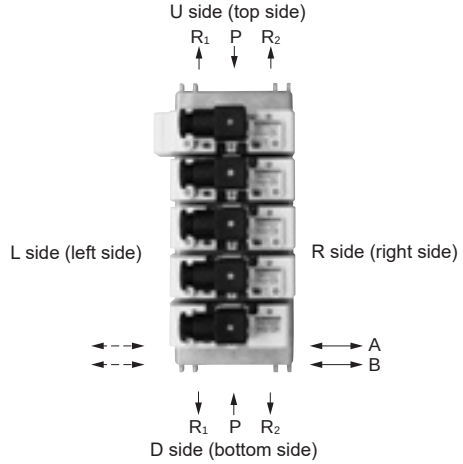
Precautions for model No. selection

*1: HX is a mixture of bore sizes. Contact CKD for details.
*2: The instructions of Ⓒ indicate the port positions. Those other than the instructions will all be plugs.
*3: The instructions of Ⓔ indicate the port positions. The opposite side of the instructions will be plugs.
*4: When Ⓖ is with silencer box, this will be position selection for the P-port which can be selected from B, D, U, and T.
The R port is assembled with a plug for both the top and bottom.

[Example of model No.]
GMF15-02L-HY1BDU-SBF

Model: Manifold ISO size 1

Ⓐ Station No. : 5 stations
Ⓑ Ⓒ A/B port : Rc1/4 (left and right both sides piping)
Ⓓ Ⓔ Ⓕ P/R port : Rc3/8 and Rc1/2 mixture
(Rc3/8 for bottom side piping and Rc1/2 for top side piping)
Ⓖ Silencer box : Yes (D side installation)
Ⓗ Option : P/A/B-port filter integrated



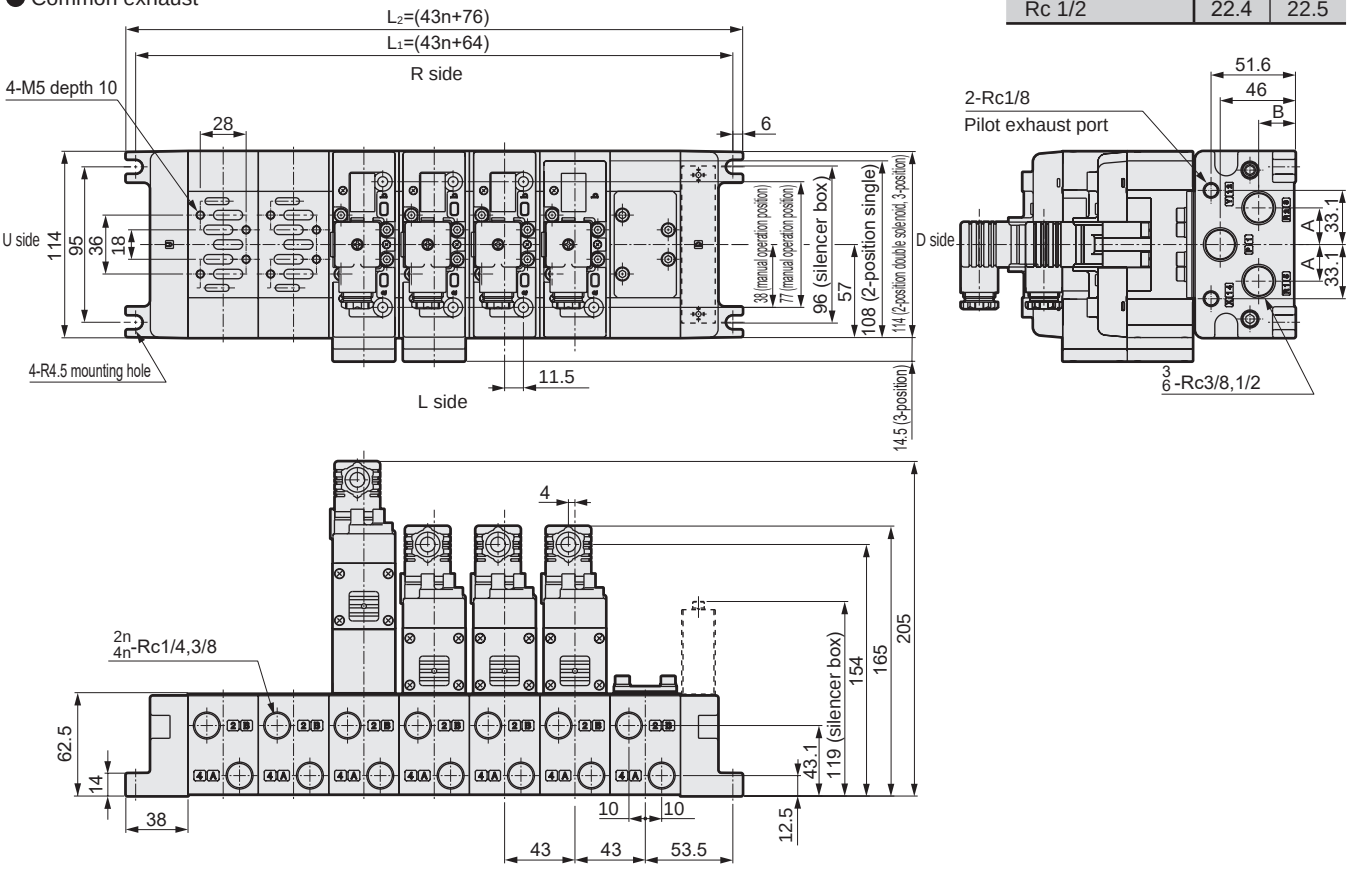
The valve body must be prepared separately. For how to order valves, refer to page 1474. For arrangement of manifolds with valve bodies, **the manifold specifications sheet** on page 1496 **will be necessary** in addition to each model No.

Dimensions: DIN terminal box

GMF1

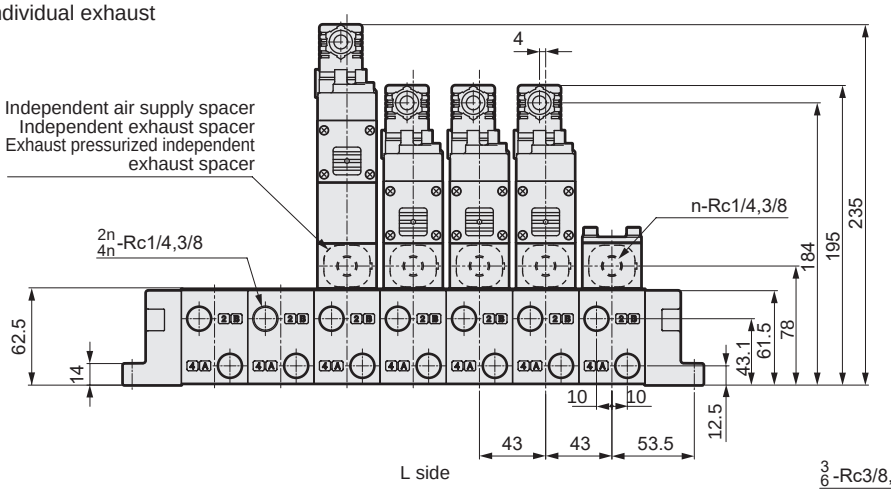
● Common exhaust

P/R port size	A	B
Rc 3/8	18.4	23.5
Rc 1/2	22.4	22.5



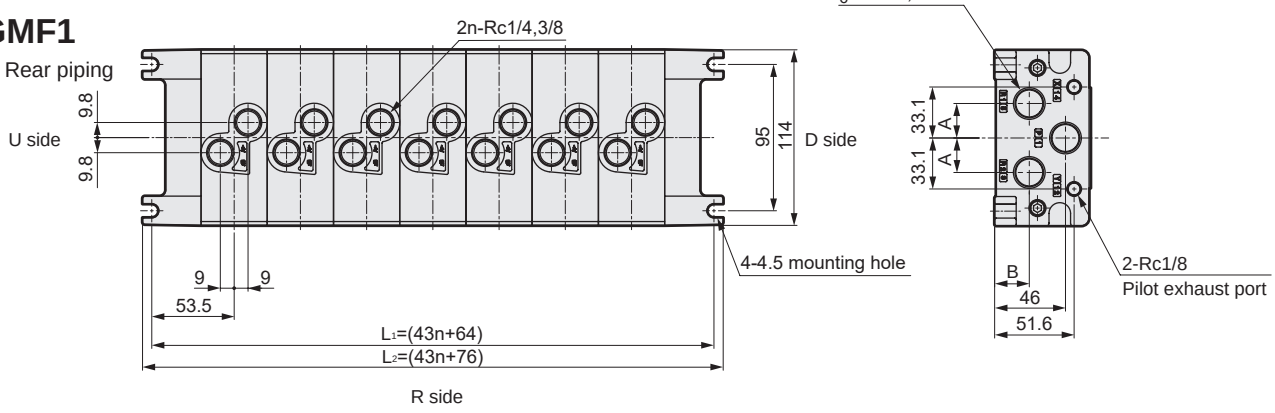
GMF1

● Individual exhaust



GMF1

● Rear piping



How to order

● Spacer regulator

CMF 1 - SR - A - T05 C

Ⓐ Size	
1	ISO size 1

Ⓑ Press reduction port position	
P	P port
A	A port
B	B port

Ⓒ Pressure gauge	
T05	MPa display (With limit marker)

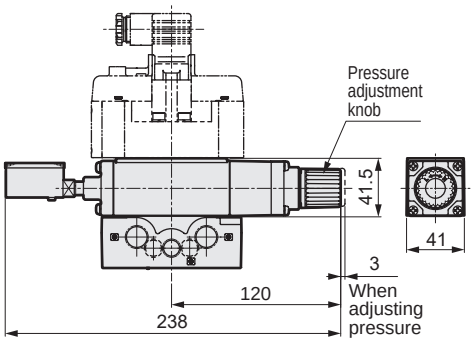
Ⓓ Check valve	
Blank	None
C	Yes

List without check valve (blank) for SR-P and list with check valve (C) for SR-A and SR-B.

* Note that the direction of the pressure gauge is different with **CMF1-SR-A-T05C**.

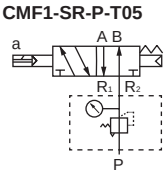
CMF1-SR-P-T05
CMF1-SR-B-T05C

● Spacer regulator

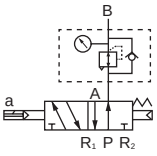


● JIS symbol

CMF1-SR-P-T05



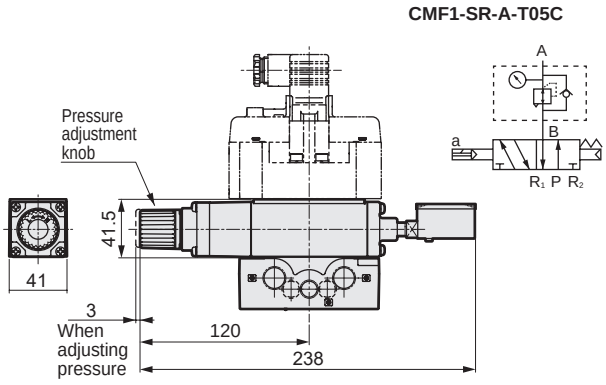
CMF1-SR-B-T05C

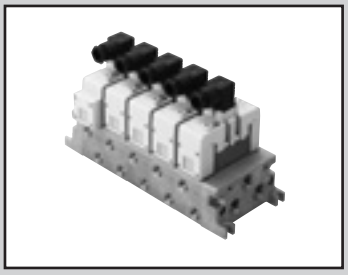


CMF1-SR-A-T05C

● JIS symbol

CMF1-SR-A-T05C





Individual wiring manifold ISO size 2
DIN terminal box
Pilot operated 5-port ISO valve

GMF2 Series

● Cylinder bore size: max. ø160

RoHS

Common specifications

Item	Description
Manifold method	Manifold integrated
Manifold	Common supply/common exhaust Common supply/individual exhaust Individual supply/common exhaust Individual supply/individual exhaust Different pressure supply
Station No.	1 to 10 stations
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	1.0 (≈150 psi, 10 bar)
Min. working pressure MPa	0.15 (≈22 psi, 1.5 bar) 0.20 (≈29 psi, 2 bar) (3-position) (*1)
Proof pressure MPa	1.50 (≈220 psi, 15 bar)
Ambient temperature °C	-5 (23°F) to 60 (140°F) (no freezing)
Fluid temperature °C	5 (41°F) to 60 (140°F)
Lubrication	Not required
Degree of protection	Dust proof/jet proof (IP65 or equivalent)
Leakage cm^3/min (A, B→R port)	10 (ANR) or less 3-position all ports closed non-leaking only 0.3 (ANR) or less (*2)
Vibration resistance m/s^2	50 or less
Shock resistance m/s^2	300 or less
Atmosphere	Cannot be used in corrosive gas environment.

*1: With YZ-S only, use with a working pressure of R1 > R2 ≥ 0.15 MPa.
*2: The initial value is listed.

Electrical specifications

Item				Description
Rated voltage	V	AC		100(50/60 Hz) 110(50/60 Hz) 200(50/60 Hz) 220(50/60 Hz)
		DC		12,24
Voltage fluctuation range				±10%
Starting current	A	AC	100 V	0.056/0.044
			110 V	0.051/0.040
			200 V	0.034/0.026
			220 V	0.031/0.024
Holding current	A	AC	100 V	0.028/0.022
			110 V	0.025/0.020
			200 V	0.017/0.013
			220 V	0.015/0.012
		DC	12 V	0.083
			24 V	0.042
Power consumption	W	AC	100 V	1.8/1.4
			110 V	(1.8/1.5)
			200 V	2.1/1.6
			220 V	(2.2/1.7)
Values in ( ) are with lamp		DC	12 V	1(1.2)
			24 V	
Thermal class				B (molded coil)
Wiring method				Electrical plug connector

Individual specifications

Item		GMF2
Port size	P/R1/R2 port	Rc1/2, Rc3/4
(*1)	A/B port	Rc3/8, Rc1/2

*1: As G and NPT threads can also be used for piping port screws, contact CKD for details.

Performance/Characteristics

Item			GMF2
Response time (*2) ms	2-position	Single	40 (ON), 60 (OFF)
		Double	40
	3-position		40 (when ON), 60 (when neutral)

*2: The response time is the value with a working pressure of 0.5 MPa, no lubrication, and a DC power supply.
It depends on the pressure and the lubricant quality.

Weight

Manifold base	Station No.	1	2	3	4	5	6	7	8	9	10
(kg)		2.30	3.17	4.04	4.91	5.79	6.66	7.53	8.40	9.27	10.14
Silencer box	Model No.	SB									
Added to manifold base assembly (kg)		0.17									
Spacer	Model No.	P		R		SR		PC			
(kg)		0.41		0.41		1.18		0.54			

Flow characteristics

Model No.	Port size	Solenoid position	P→A/B		A/B→R1/R2	
			C[dm^3/(s·bar)]	b	C[dm^3/(s·bar)]	b
GMF2	Rc3/8	2-position single	9.7	0.12	11.0	0.14
		2-position double	9.7	0.12	11.0	0.14
		3-position all ports closed	9.2	0.12	10.1	0.15
		3-position A/B/R connection	9.2	0.11	11.6	0.11
		3-position P/A/B connection	9.6	0.11	10.2	0.18
		3-position all ports closed non-leaking	6.2	-	5.9	-

*1: Effective cross-sectional area S and sonic conductance C are converted as S ≈ 5.0 x C.

How to order DIN terminal box

● ISO size 2

GMF2 5 - 03 L - 04 B ( ) - SB F - ( )

Model No. Ⓐ Station No. | Quantity of port size 03 of A/B port | Ⓑ A/B port size (*1) | Quantity of port size 04 of A/B port | Ⓒ A/B port position (*2) | Ⓓ P/R port size | Ⓔ P/R port position (*3) (*4) | Ⓕ HY configuration | Ⓖ Silencer box | Ⓗ Option

Code	Description	Model No. GMF2
Ⓐ Station No.		
1	1 station	●
to	to	●
10	10 stations	●
Ⓑ A/B port size		
03	Rc3/8	●
04	Rc1/2	●
HX2	Rc3/8 and Rc 1/2 mixture	●
Ⓒ A/B port size		
Blank	Right	●
L	Left and right sides (select position with manifold specifications)	●
H	Left	●
Z	Rear side	●
T	Free selection (plug attached)	●
Ⓓ P/R port size		
04	Rc1/2	●
06	Rc3/4	●
HY2	Rc1/2 and Rc 3/4 mixture	●
Ⓔ P/R port position		
B	Top and bottom sides	●
D	Bottom side	●
U	Top side	●
E	P on top, R on bottom	●
F	P on bottom, R on top	●
T	Free selection (plug attached)	●
Ⓕ HY configuration		
Blank	When other than HY2 is selected with Ⓓ	●
DU	Rc1/2 on bottom, Rc3/4 on top	●
UD	Rc1/2 on top, Rc3/4 on bottom	●
Ⓖ Silencer box		
Blank	None	●
SB	Yes (D side installation)	●
Ⓗ Option		
Blank	None	●
F	P/A/B port filter integrated	●

Precautions for model No. selection

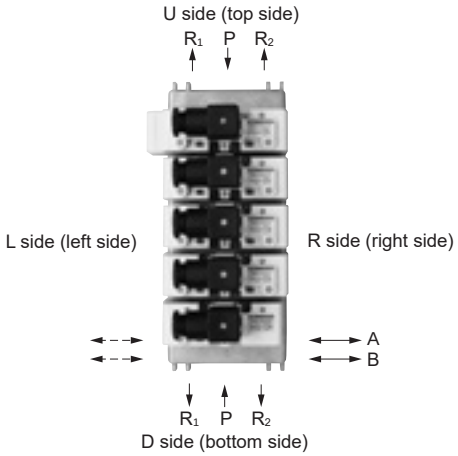
*1: HX is a mixture of bore sizes. Contact CKD for details.
*2: The instructions of Ⓒ indicate the port positions.
Those other than the instructions will all be plugs.
*3: The instructions of Ⓔ indicate the port positions.
The opposite side of the instructions will be plugs.
*4: When Ⓖ is with silencer box, this will be position selection for the P-port which can be selected from B, D, U, and T.
The R port is assembled with a plug for both the top and bottom.

[Example of model No.]

GMF25-03L-04B-SBF

Model: Manifold ISO size 2

Ⓐ Station No. : 5 stations
ⒷⒸ A/B port : Rc3/8 (left and right both sides piping)
ⒹⒺ P/R port : Rc1/2 (top and bottom both sides piping)
Ⓖ Silencer box : Yes (D side installation)
Ⓗ Option : P/A/B-port filter integrated

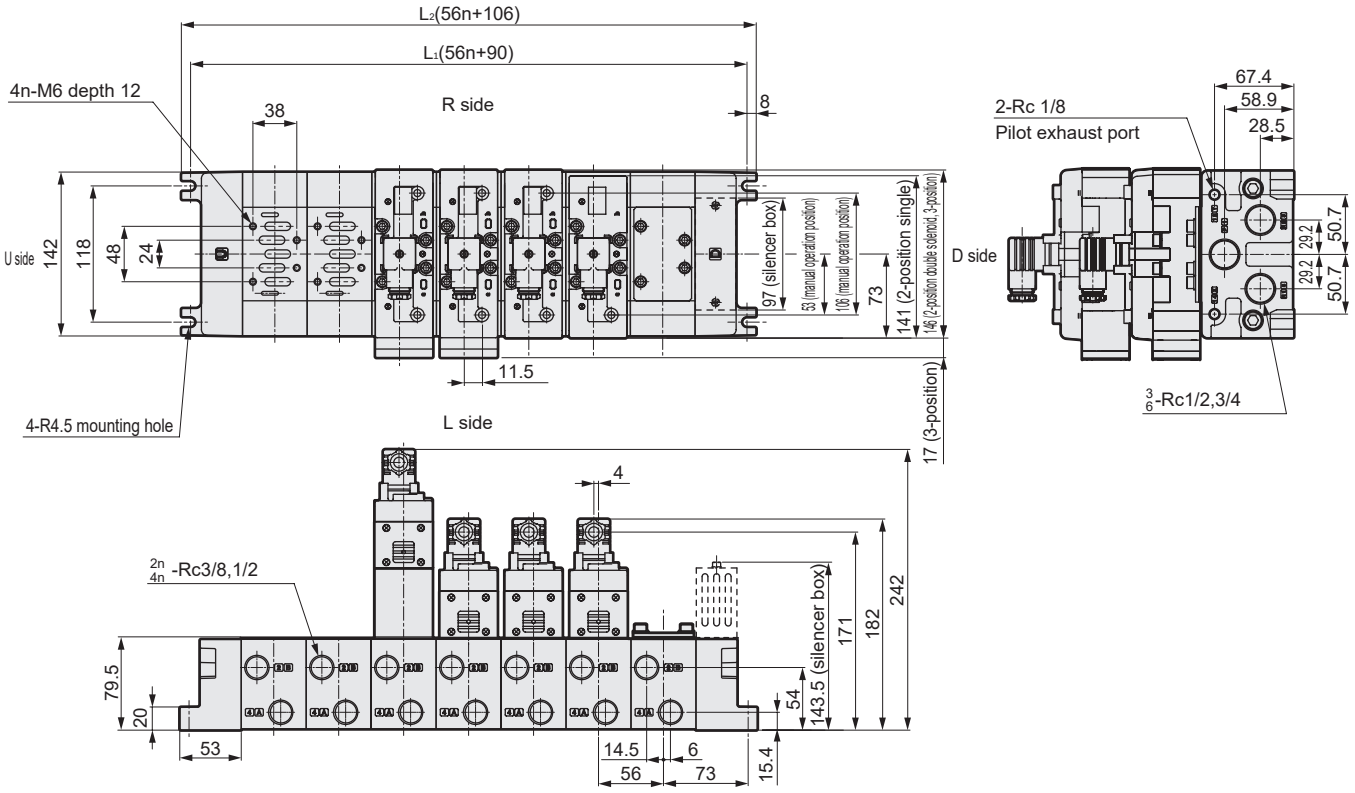


The valve body must be prepared separately. For how to order valves, refer to page 1480. For arrangement of manifolds with valve bodies, **the manifold specifications sheet** on page 1497 **will be necessary** in addition to each model No.

Dimensions: DIN terminal box

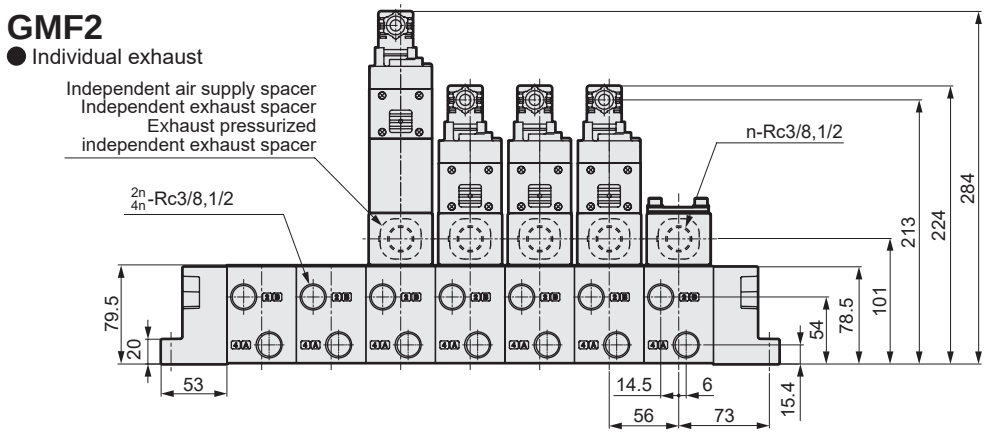
GMF2

● Common exhaust



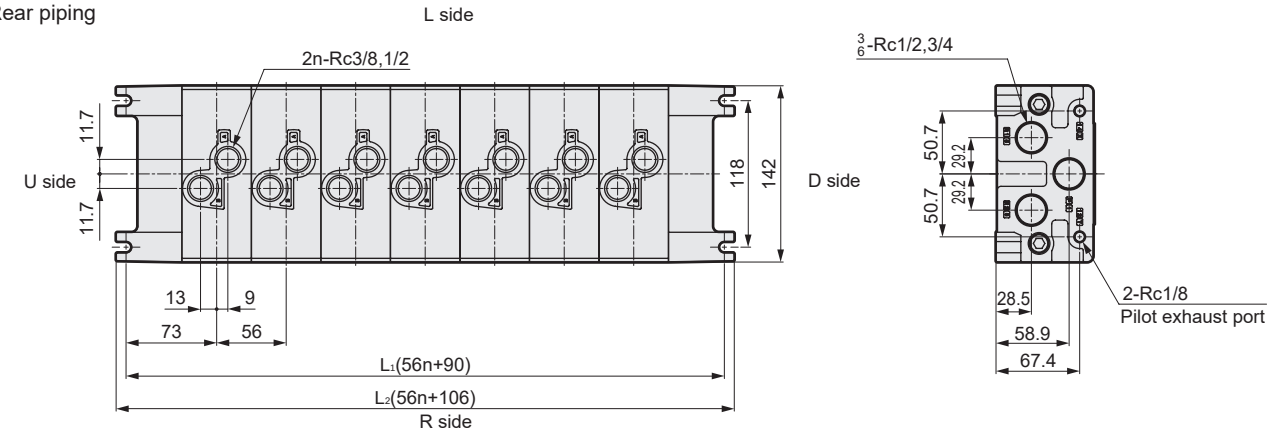
GMF2

● Individual exhaust



GMF2

● Rear piping



How to order

● Spacer regulator

CMF 2 - SR - A - T05 C

Ⓐ Size	
2	ISO size 2

Ⓑ Press reduction port position	
P	P port
A	A port
B	B port

Ⓒ Pressure gauge	
T05	MPa display (With limit marker)

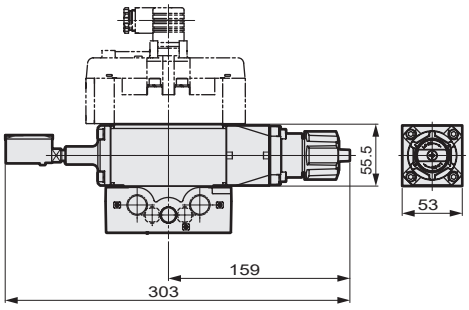
Ⓓ Check valve	
Blank	None
C	Yes

List without check valve (blank) for SR-P and list with check valve (C) for SR-A and SR-B.

* Note that the direction of the pressure gauge is different with **CMF2-SR-A-T05C**.

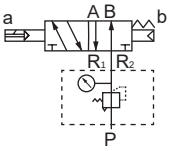
CMF2-SR-P-T05
CMF2-SR-B-T05C

● Spacer regulator

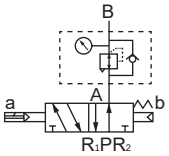


● JIS symbol

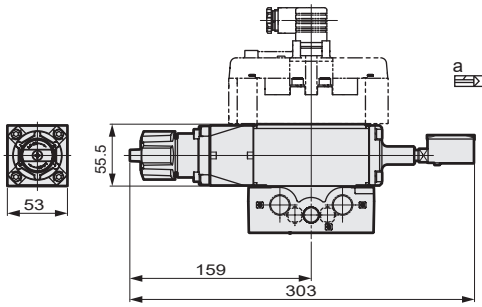
CMF2-SR-P-T05



CMF2-SR-B-T05C

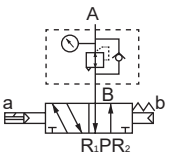


CMF2-SR-A-T05C



● JIS symbol

CMF2-SR-A-T05C



How to order DIN terminal box

GMFZ (5) - (HX3) (L) - (HY3) (B) (DU) (F) - ( ) ( )

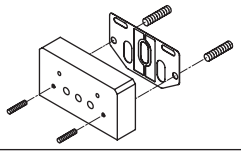
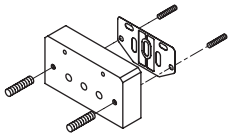
- GMFZ: ISO size 1/2 mix manifolds
- (5): Station No.
- (HX3): A/B port size
- (L): A/B port position (*1)
- (HY3): P/R port size
- (B): P/R port position (*2)
- (DU): HY configuration
- (F): Option
- ( ): Quantity of size 1
- ( ): Quantity of size 2

Code	Description	Model No. GMFZ
A Station No.		
2	2 stations	●
to	to	●
10	10 stations	●
B A/B port size		
HX3	Size 1: 02/size 2: 03	●
HX4	Size 1: 02/size 2: 04	●
HX5	Size 1: 03/size 2: 03	●
HX6	Size 1: 03/size 2: 04	●
C A/B port position		
Blank	Right	●
L	Left and right sides (select position with manifold specifications)	●
H	Left	●
Z	Rear side	●
T	Free selection (plug attached)	●
D P/R port size		
HY3	Size 1: 03/size 2: 04	●
HY4	Size 1: 03/size 2: 06	●
HY5	Size 1: 04/size 2: 04	●
HY6	Size 1: 04/size 2: 06	●
E P/R port position		
B	Top and bottom sides	●
D	Bottom side	●
U	Top side	●
E	P on top, R on bottom	●
F	P on bottom, R on top	●
T	Free selection (plug attached)	●
F HY configuration		
DU	Smaller bore size on bottom, larger bore size on top, or 1 on bottom, 2 on top	●
UD	Smaller bore size on top, larger bore size on bottom, or 1 on top, 2 on bottom	●
G Option		
Blank	None	●
F	P/A/B port filter integrated	●

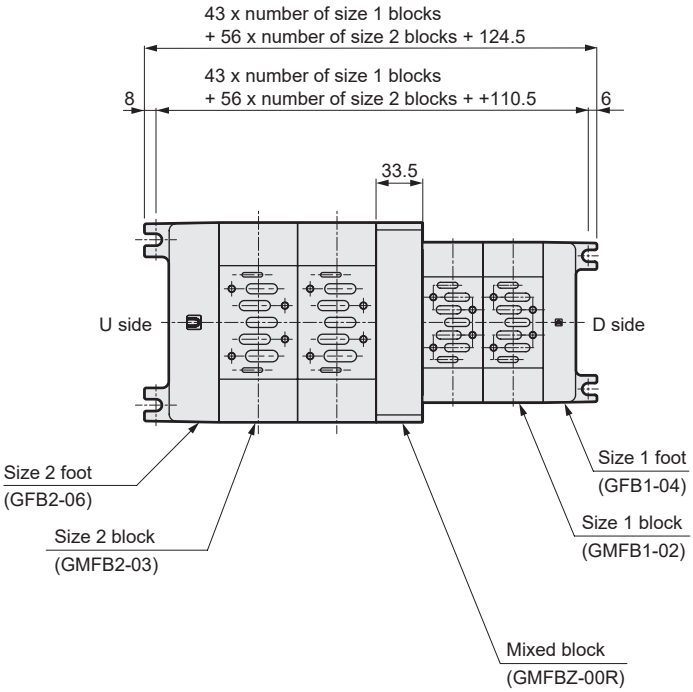
⚠ Precautions for model No. selection

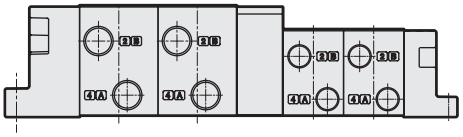
*1: Instructions of C will be port positions. Those other than the instructions will all be plugs.
*2: Instructions of E will be port positions. The opposite side of the instructions will be plugs.

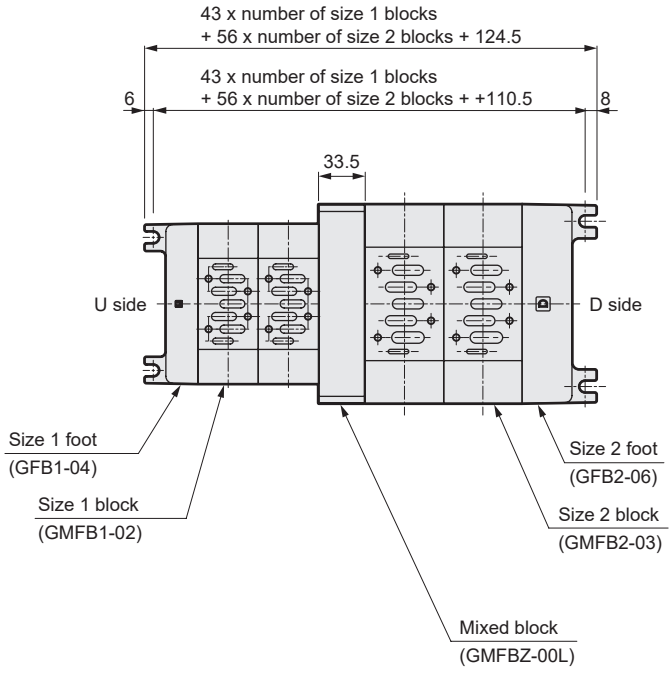
The valve body must be prepared separately. For how to order valves, refer to pages 1474 and 1480. For arrangement of manifolds with valve bodies, **the manifold specifications sheet** on page 1498 **will be necessary** in addition to each model No.

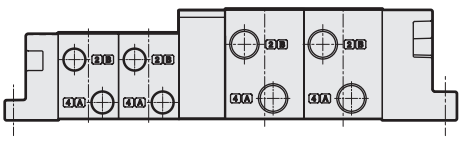
No	Item	Model No.	Fig.	Remarks
1	ISO size 1/2 mixed block	**GMFBZ-00L**		U side size 1 D side size 2 for mixed block with bolts and gasket
		GMFBZ-00R		U side size 2 D side size 1 for mixed block with bolts and gasket

Mix manifold outline drawing









* The dimensions for the size 1/2 feet and the blocks are as listed on pages 1486 and 1490.