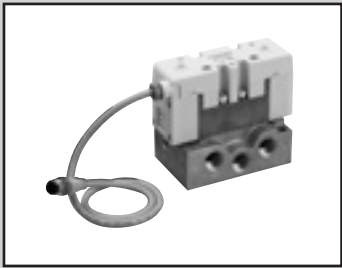


4GA/B
M4GA/B
MN4GA/B
4GA/B
(master)
4GB
With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B
(master)
4F
4F
(master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HNV
HSV
2QV
3QV
SKH
Silencer
TotAirSys
(Total Air)
TotAirSys
(Gamma)
Ending



Discrete valve ISO size 1
I/O connector
Pilot operated 5-port ISO valve

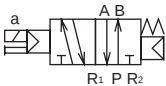
PV5-6R Series

● Cylinder bore size: max. ø100



JIS symbol

- 5-port valve
- 2-position single (FG-S)



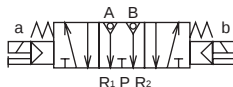
- 2-position double (FG-D)



- 3-position all ports closed (FHG)



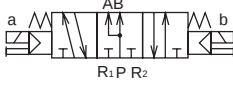
- 3-position all ports closed Non-leaking (FPG)



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



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



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)
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 (*1)
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: The initial value is listed.

Electrical specifications

Item	Description
Rated voltage V	DC 24
Voltage fluctuation range	±10%
Power consumption W(Current value A)	1.2 (0.050) * Value for models with lamp.
Thermal class	B (molded coil)
Wiring method	I/O connector

Performance/characteristics by model

Item	PV5-6R
Port size	Rc1/4, Rc3/8
Response time ms	30 (ON), 40 (OFF)
(*)2	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 at 0.5 MPa working pressure, with no lubrication. It depends on the pressure and the lubricant quality.

Weight

Item	PV5-6R
Weight kg	0.40
(*)1	0.44
	0.46
	1.12

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

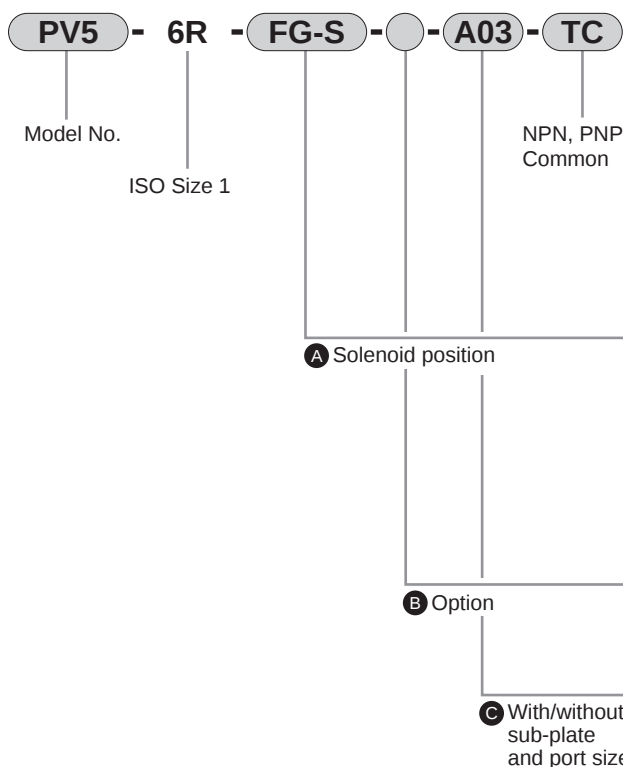
Flow characteristics

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
PV5-6R	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.

How to order I/O connector

● ISO Size 1



Code	Description	Model No.
A Solenoid position		
FG-S	2 position single	●
FG-D	2-position double	●
FHG-D	P pressurized 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	●
B Option		
Blank	No	●
A	Coolant proof	●
C With/without sub-plate and port size		
Blank	Without sub-plate	●
A02	Side piping (Rc1/4 (Rc3/8 for port R only))	●
A03	Side piping Rc3/8	●

[Example of model No.]

PV5-6R-FG-S-A03-TC

Model: PV5/ISO size 1 (I/O connector)

A Solenoid position : P pressurized 2-position single solenoid

C Sub-plate port size : side piping Rc3/8

Remarks

Item	Description
(1) Wiring method	I/O connector (M12) NPN, PNP common type
(2) Rated voltage	24 VDC
(3) Surge suppressor/lamp	Standard with surge suppressor and indicator lamp

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

ISO size 1 sub-plate specifications and how to order

CB1 - **A02**

A Piping connection method

Code	Type	P/A/B port	R1/R2 port	Weight (kg)
A Piping connection method				
A02	Side	Rc1/4	Rc 3/8	0.27
A03	piping	Rc3/8		

CE marking specifications

** - **TC** - **ST**

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

Coolant proof specifications

Select option "A" of Item **B** in How to order.

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G GMF
PV5 GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP NVP
4G*0EJ
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

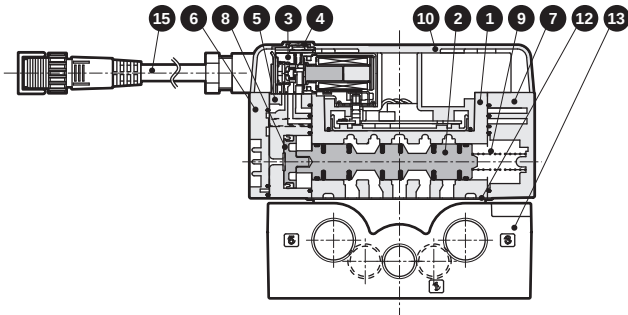
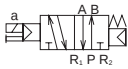
PV5-6R Series

Discrete valve; ISO size 1

Internal structure and parts list: I/O connector

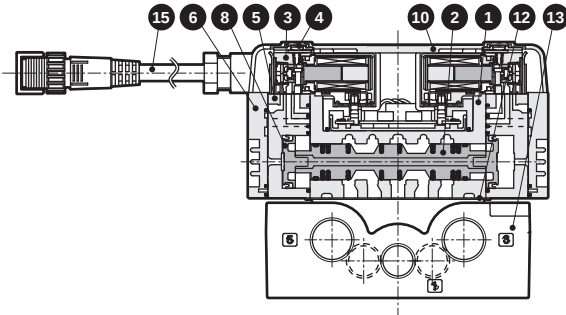
PV5-6R-FG-S

● 2-position single



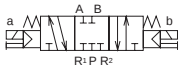
PV5-6R-FG-D

● 2-position double



PV5-6R-FHG-D

● 3-position all ports closed



PV5-6R-FJG-D

● 3-position A/B/R connection



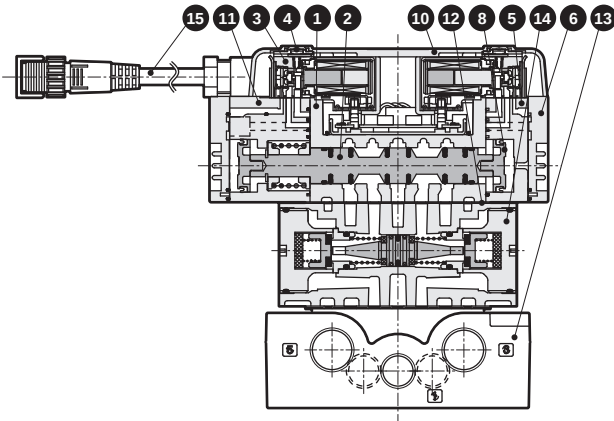
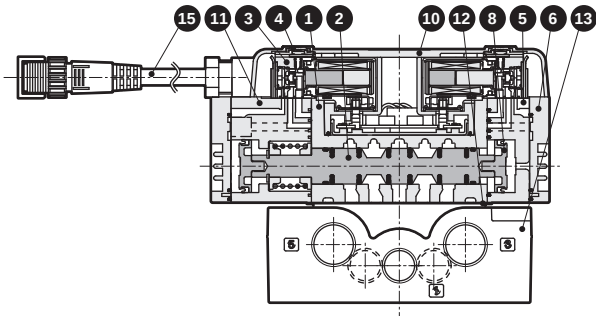
PV5-6R-FIG-D

● 3-position P/A/B connection



PV5-6R-FPG-D

● 3-position all ports closed non-leaking



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	I/O cable assembly	-
8	Piston D assembly	-			

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G GMF
PV5 GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP NVP
4G*0EJ
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

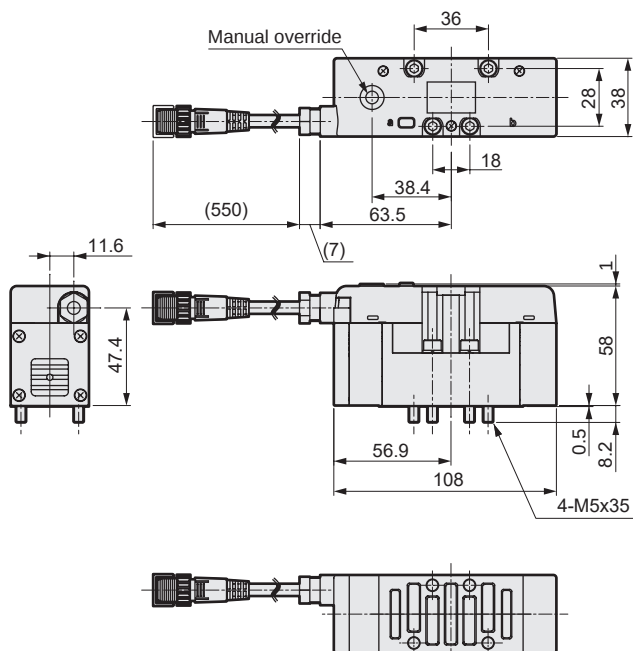
PV5-6R Series

Discrete valve; ISO size 1

Dimensions: I/O connector (without sub-plate)

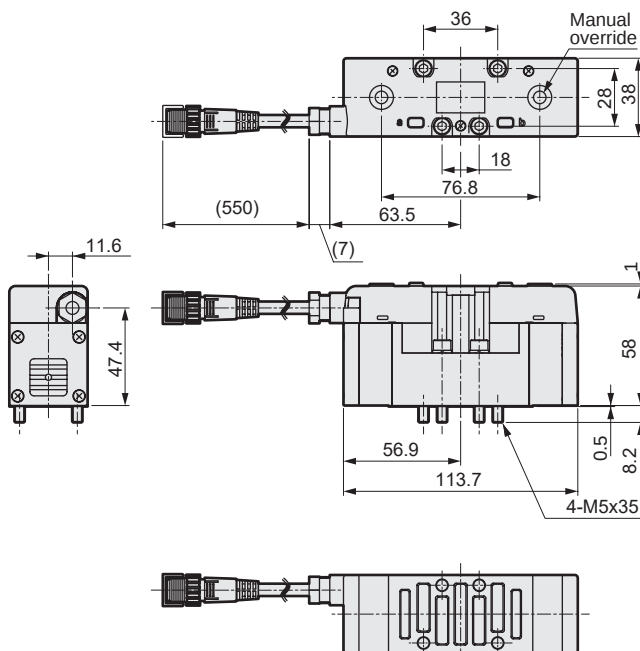
PV5-6R-FG-S

● 2-position single



PV5-6R-FG-D

● 2-position double

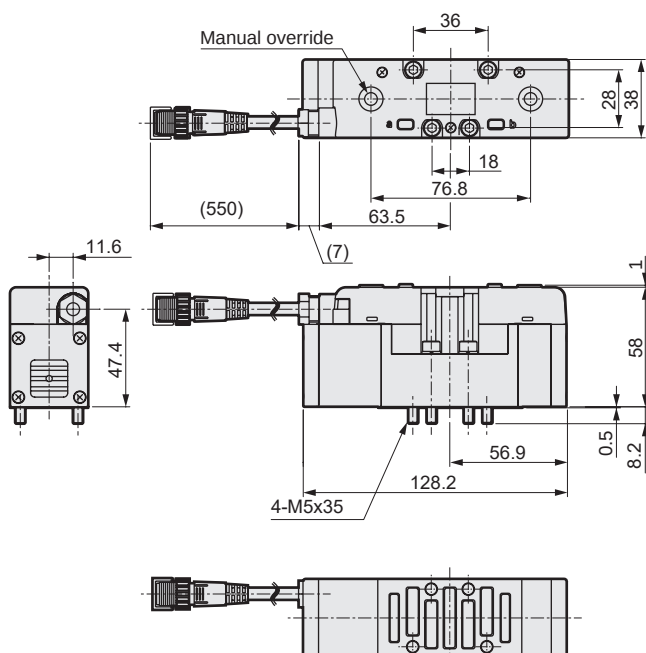


PV5-6R-FHG-D

PV5-6R-FJG-D

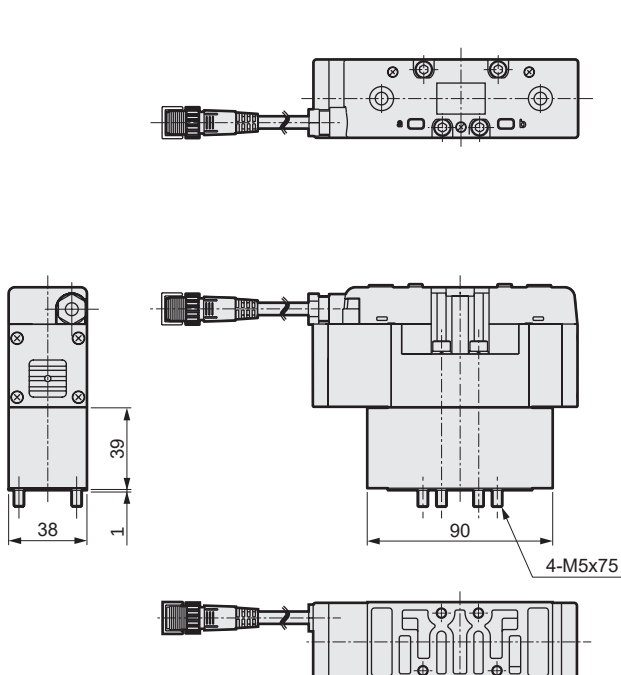
PV5-6R-FIG-D

● 3-position



PV5-6R-FPG-D

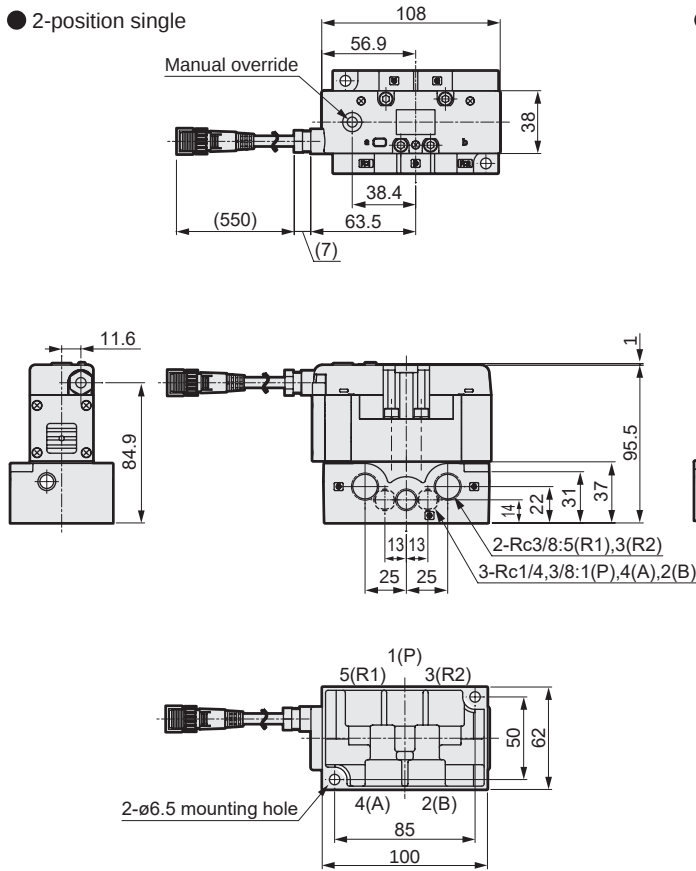
● 3-position/non-leaking



Dimensions: I/O connector (with sub-plate)

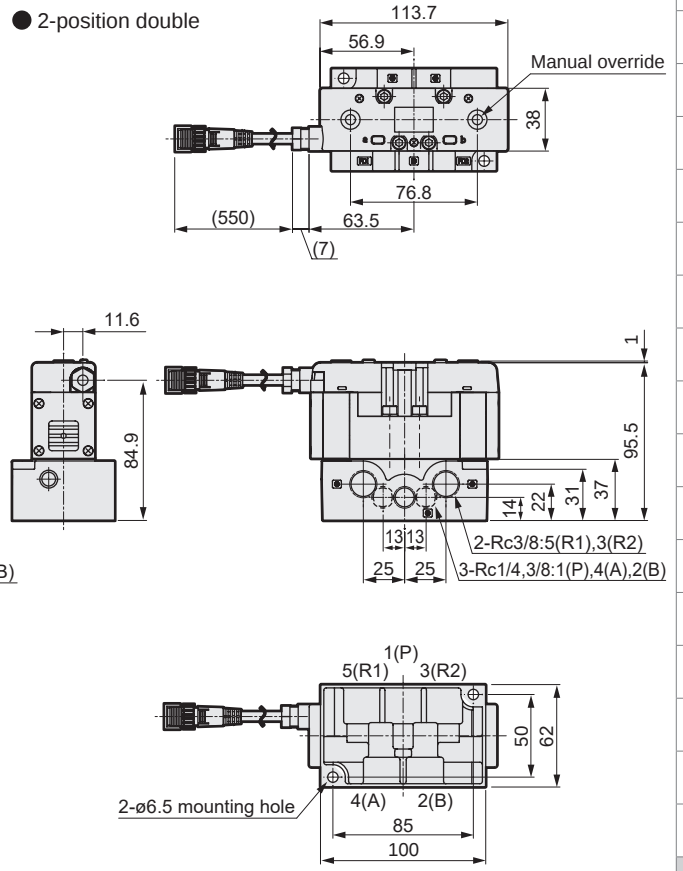
PV5-6R-FG-S-*

● 2-position single



PV5-6R-FG-D-*

● 2-position double

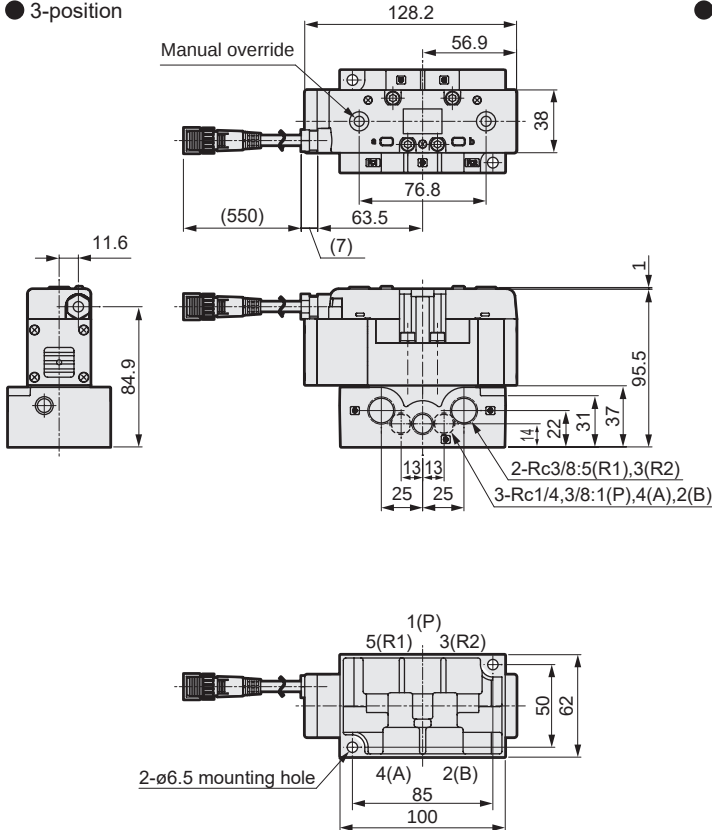


PV5-6R-FHG-D-*

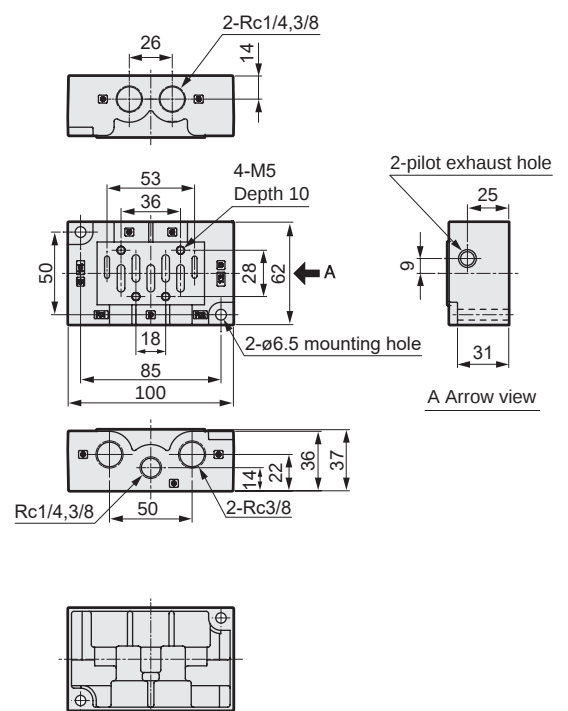
PV5-6R-FJG-D-*

PV5-6R-FIG-D-*

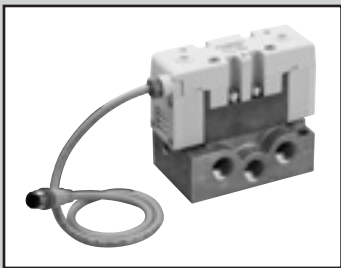
● 3-position



● Sub-plate dimensions



4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4C*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending



Discrete valve ISO size 2
I/O connector
Pilot operated 5-port ISO valve

PV5-8R Series

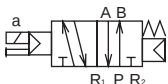
● Cylinder bore size: max. ø160



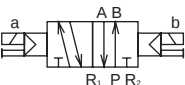
JIS symbol

● 5-port valve

2-position single (FG-S)



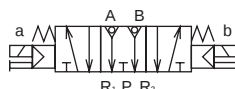
2-position double (FG-D)



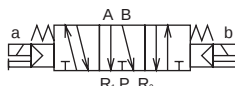
3-position all ports closed (FHG)



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



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



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



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)
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 (*1)
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: The initial value is listed.

Electrical specifications

Item	Description
Rated voltage V DC	24
Voltage fluctuation range	±10%
Power consumption W (Current value A)	1.2 (0.050) * Value for models with lamp.
Thermal class	B (molded coil)
Wiring method	I/O connector

Performance/characteristics by model

Item	PV5-8R
Port size	Rc3/8, Rc1/2, Rc3/4
Response time ms	40 (ON), 60 (OFF)
(*2)	40
(*2)	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 at 0.5 MPa working pressure, with no lubrication. It depends on the pressure and the lubricant quality.

Weight

Item	PV5-8R
Weight kg	0.62
(*1)	0.66
(*1)	0.69
(*1)	1.34

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

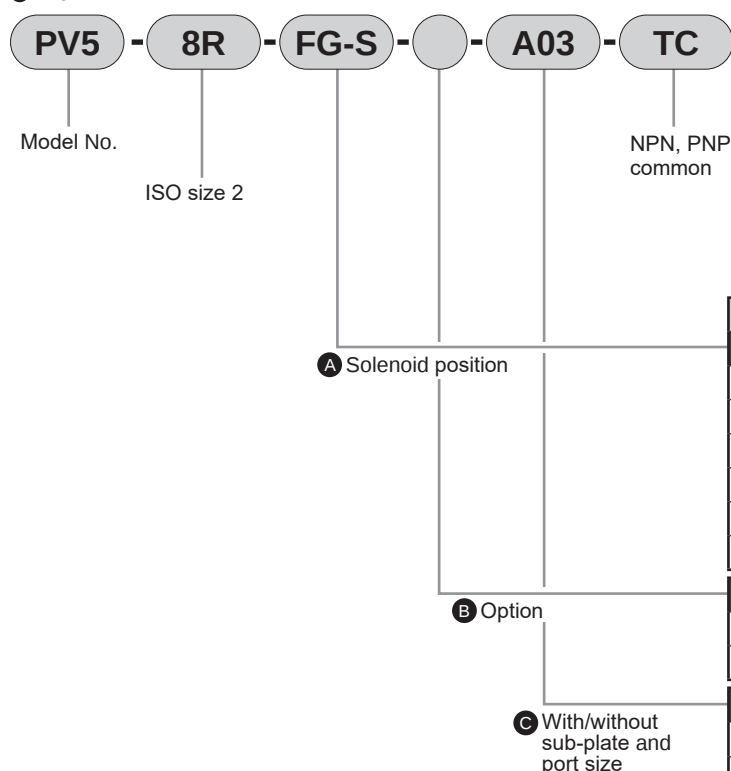
Flow characteristics

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
PV5-8R	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.

How to order I/O connector

● ISO size 2



		Model No.
Code	Description	PV5-8R
A Solenoid position		
FG-S	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	●
B Option		
Blank	None	●
A	Coolant proof	●
C 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)	●

[Example of model No.]

PV5-8R-FG-S-A03-TC

Model: PV5/ISO size 2 (I/O connector)

- A** Solenoid position : P pressurized 2-position single solenoid
- C** Sub-plate port size: side piping Rc3/8
R port Rc1/2

Remarks

Item	Description
(1) Wiring method	I/O connector (M12) NPN, PNP common
(2) Voltage	24 VDC
(3) Surge suppressor/lamp	Standard with surge suppressor and indicator lamp

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

ISO size 2 sub-plate specifications and how to order

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

CE marking specifications

** - TC - **ST**

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

Coolant proof specifications

Select option "A" of Item **B** in How to order.

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HNV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

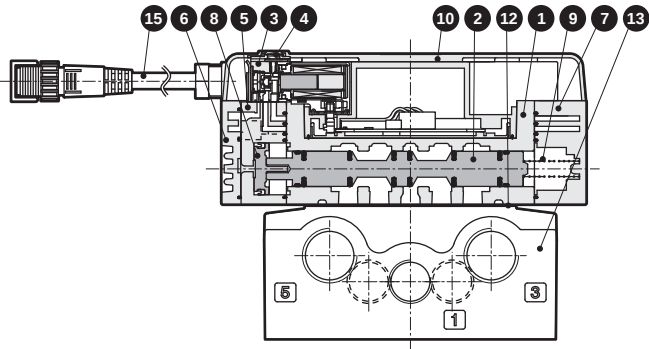
PV5-8R Series

Discrete valve; ISO size 2

Internal structure and parts list: I/O connector

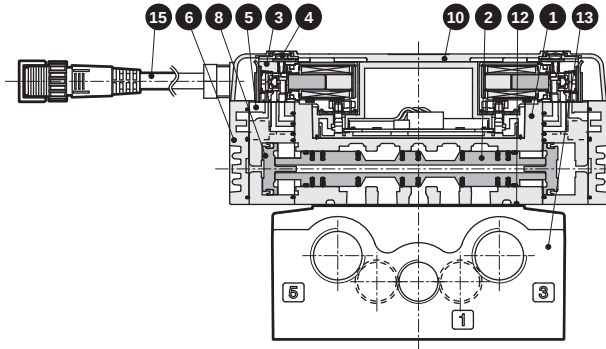
PV5-8R-FG-S

● 2-position single



PV5-8R-FG-D

● 2-position double



PV5-8R-FHG-D

● 3-position all ports closed



PV5-8R-FJG-D

● 3-position A/B/R connection



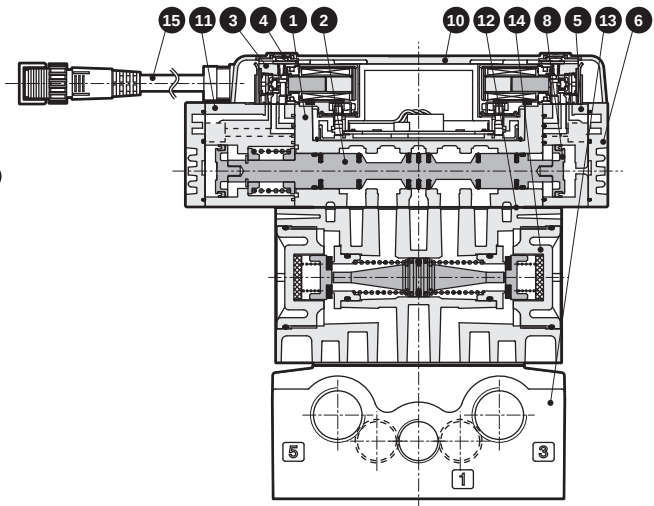
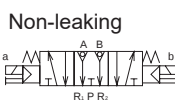
PV5-8R-FIG-D

● 3-position P/A/B connection



PV5-8R-FPG-D

● 3-position all ports closed



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	I/O cable assembly	-
8	Piston D assembly	-			

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G GMF
PV5 GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP NVP
4G*0EJ
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

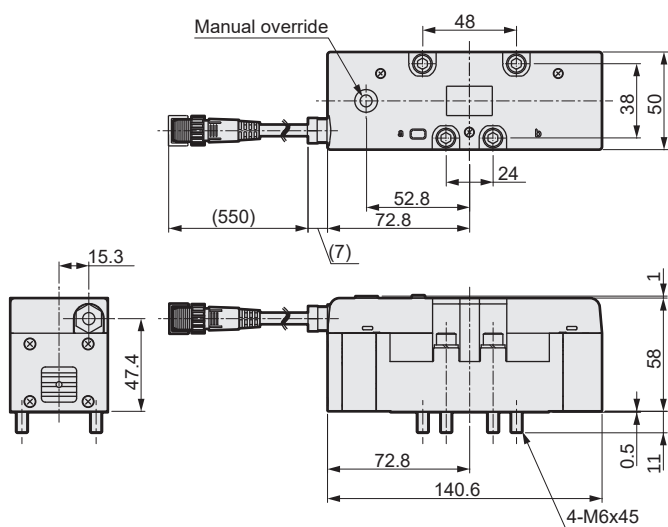
PV5-8R Series

Discrete valve; ISO size 2

Dimensions: I/O connector (without sub-plate)

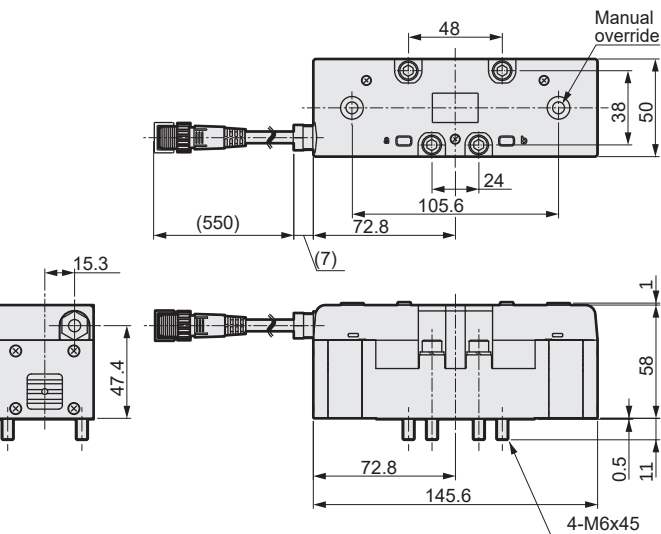
PV5-8R-FG-S

● 2-position single



PV5-8R-FG-D

● 2-position double

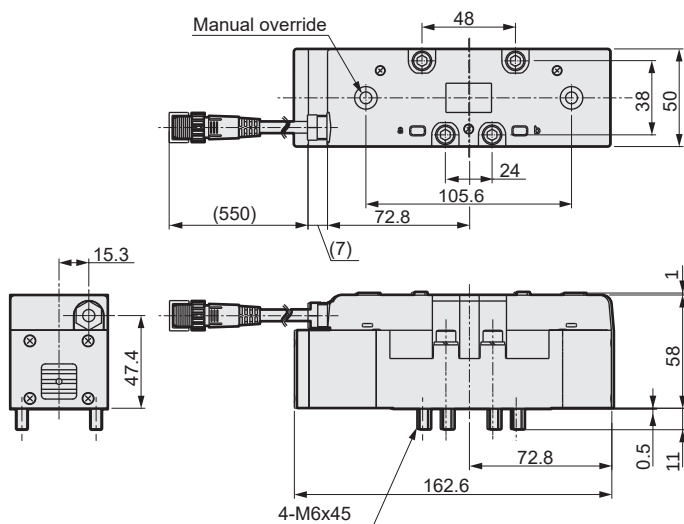


PV5-8R-FHG-D

PV5-8R-FJG-D

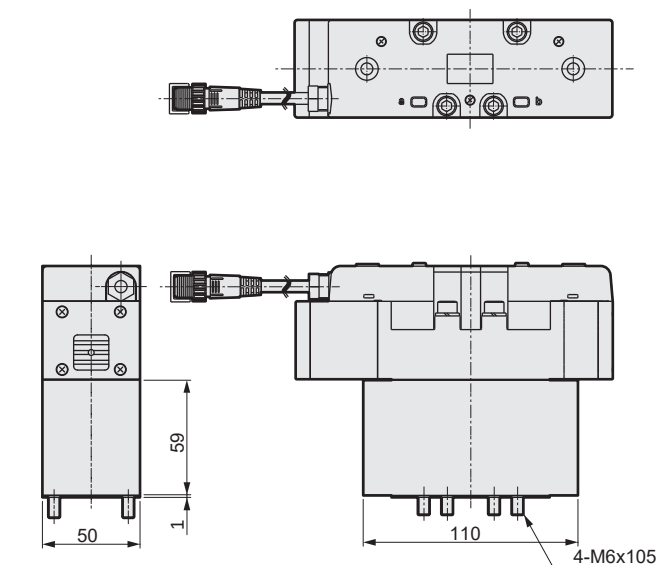
PV5-8R-FIG-D

● 3-position



PV5-8R-FPG-D

● 3-position/non-leaking



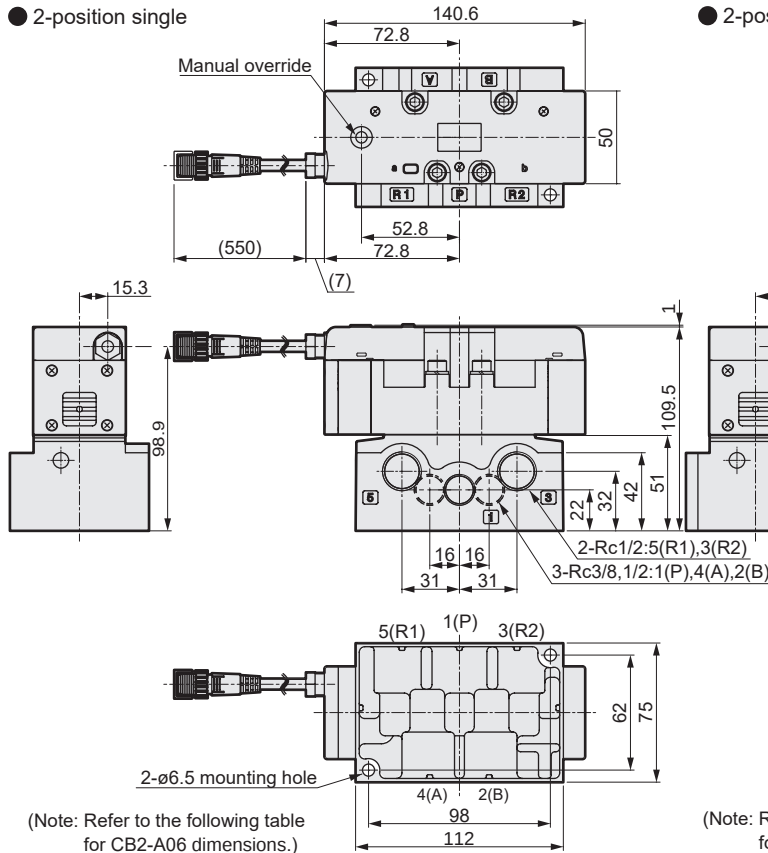
PV5-8R Series

Discrete valve; ISO size 2

Dimensions: I/O connector (with sub-plate)

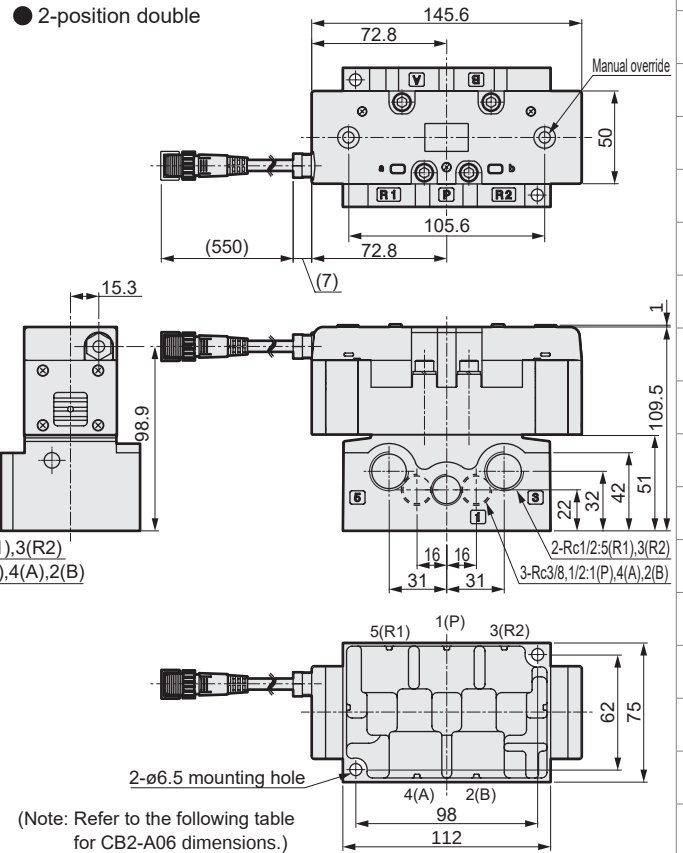
PV5-8R-FG-S-*

● 2-position single



PV5-8R-FG-D-*

● 2-position double

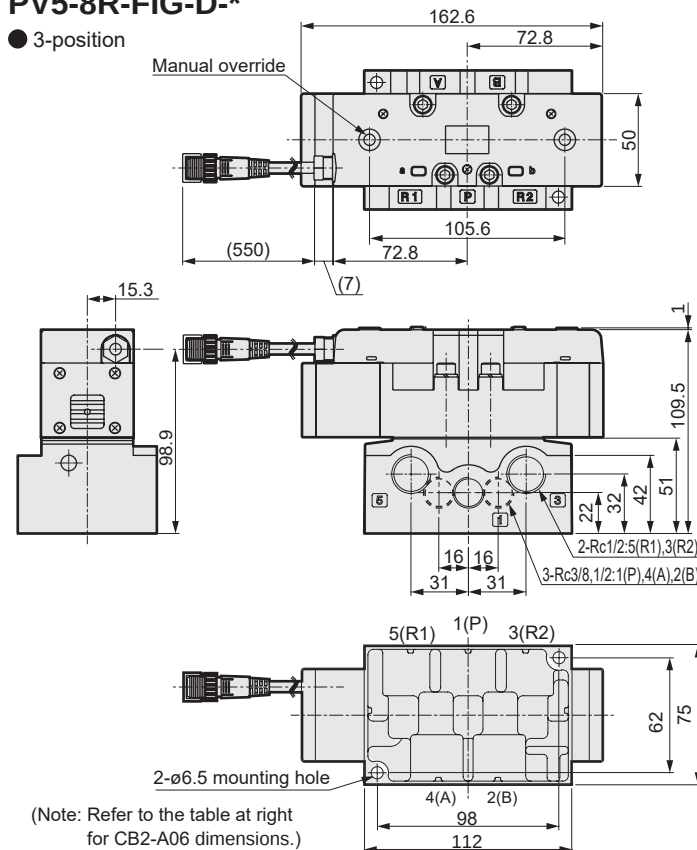


PV5-8R-FHG-D-*

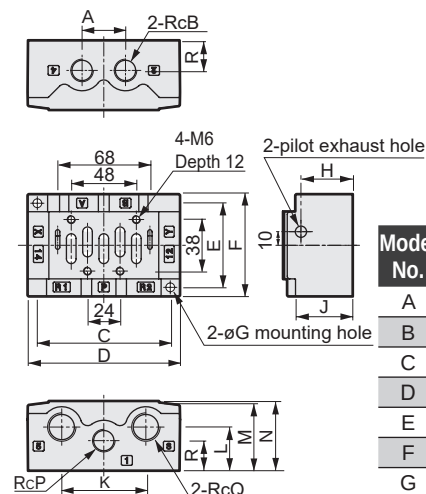
PV5-8R-FJG-D-*

PV5-8R-FIG-D-*

● 3-position



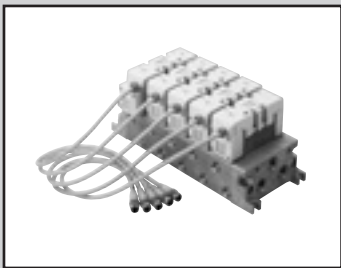
● Sub-plate dimensions (CB2-*)



Model No.	CB2-03	CB2-04	CB2-06
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	

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4C*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB
With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HNV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending



Individual wiring manifold ISO size 1
I/O connector
Pilot operated 5-port ISO 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)
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 (*1)
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: The initial value is listed.

Electrical specifications

Item	Description
Rated voltage V DC	24
Voltage fluctuation range	±10%
Power consumption W (Current value A)	1.2 (0.050) * Value for models with a lamp.
Thermal class	B (molded coil)
Wiring method	I/O 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-position	Single 30 (ON), 40 (OFF) Double 30
(*2) ms	3-position	30 (when ON), 50 (when neutral)

*2: The response time is the value at 0.5 MPa working pressure, with no lubrication. 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						

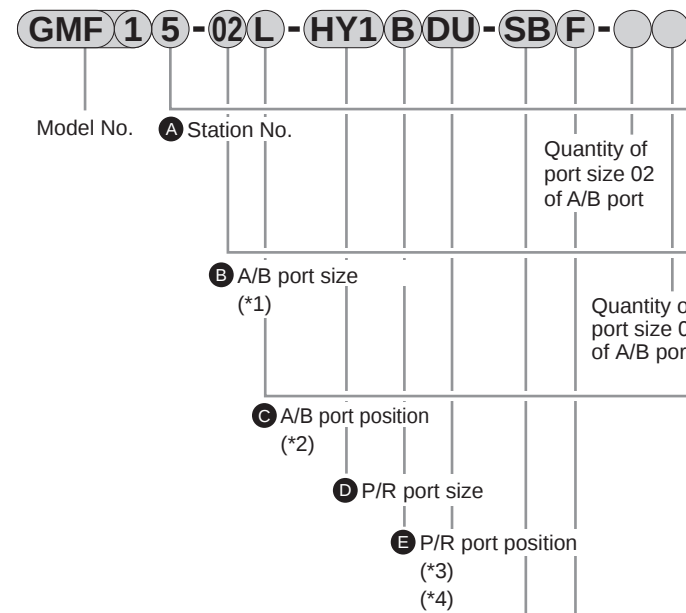
Flow characteristics

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 I/O connector

● ISO Size 1



⚠ Precautions for model No. selection

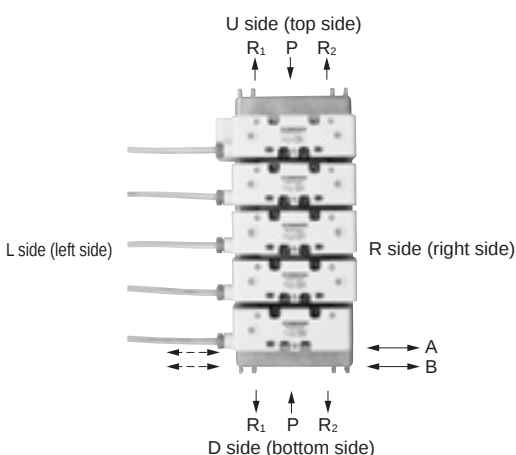
- *1: HX is a mixture of bore sizes. Contact CKD for details.
- *2: The instructions of **C** indicate the port positions. Those other than the instructions will all be plugs.
- *3: The instructions of **E** indicate the port positions. The opposite side of the instructions will be plugs.
- *4: When **G** 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

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



Code		Description	Model No.
A Station No.			GMF1
1	1 station		●
to	to		
10	10 stations		
B A/B port size			
02	Rc1/4		●
03	Rc3/8		●
HX1	Rc1/4 and Rc3/8 mixture		●
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) (rear side not available)		●
D P/R port size			
03	Rc3/8		●
04	Rc1/2		●
HY1	Rc3/8 and Rc1/2 mixture		●
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			
Blank	When other than HY1 is selected with D		●
DU	Rc3/8 on bottom, Rc1/2 on top		●
UD	Rc3/8 on top, Rc1/2 on bottom		●
G Silencer box			
Blank	None		●
SB	Yes (D side installation)		●
H Option			
Blank	None		●
F	P/A/B port filter integrated		●

The valve body must be prepared separately. For how to order valves, refer to page 1501. For arrangement of manifolds with valve bodies, **the manifold specifications sheet** on page 1524 **will be necessary** in addition to each model No.

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/INAP
NVP
4C*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

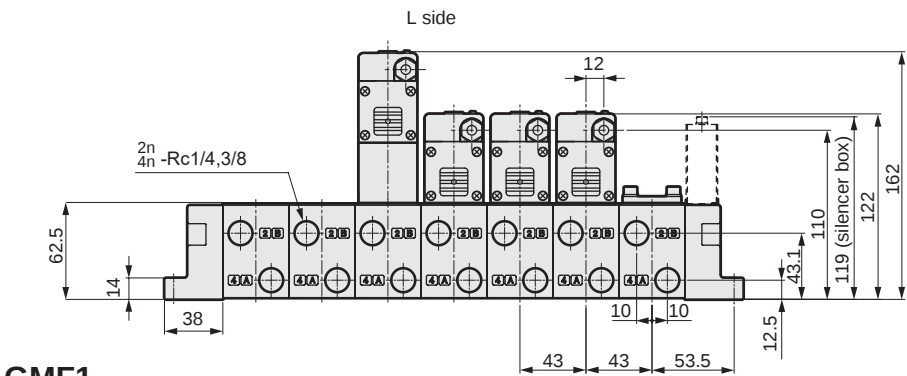
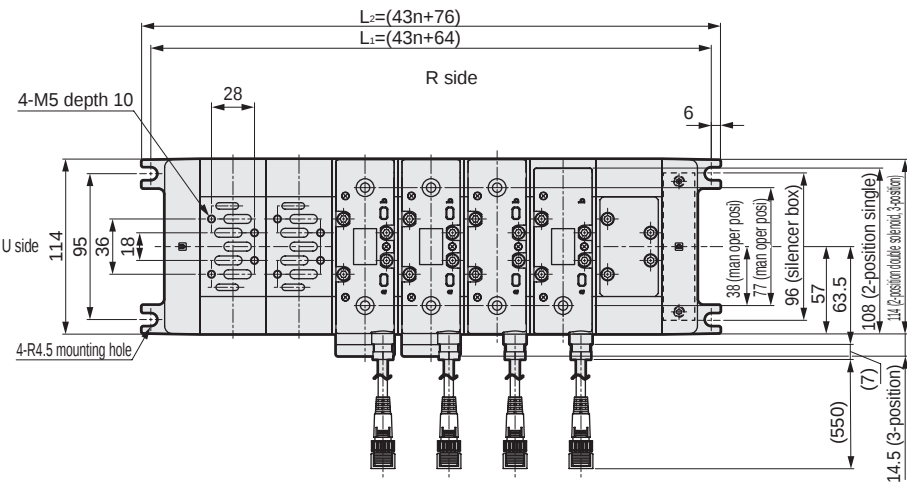
GMF1 Series

Individual wiring manifold; ISO size 1

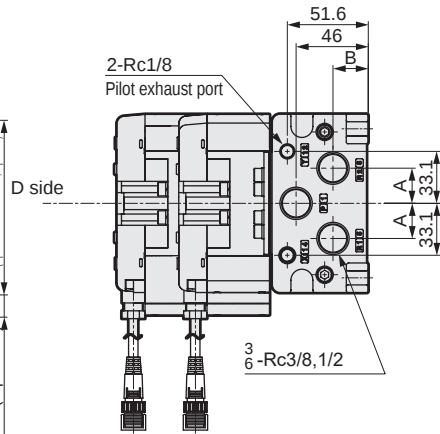
Dimensions: I/O connector

GMF1

● Common exhaust

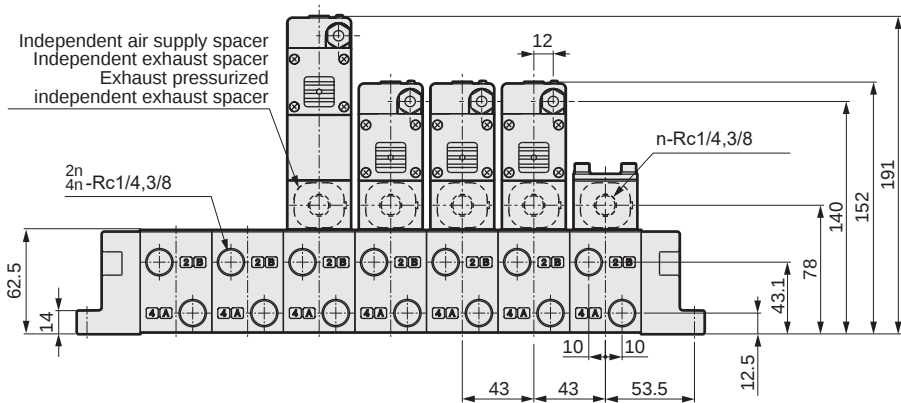


P/R port size	A	B
Rc3/8	18.4	23.5
Rc1/2	22.4	22.5



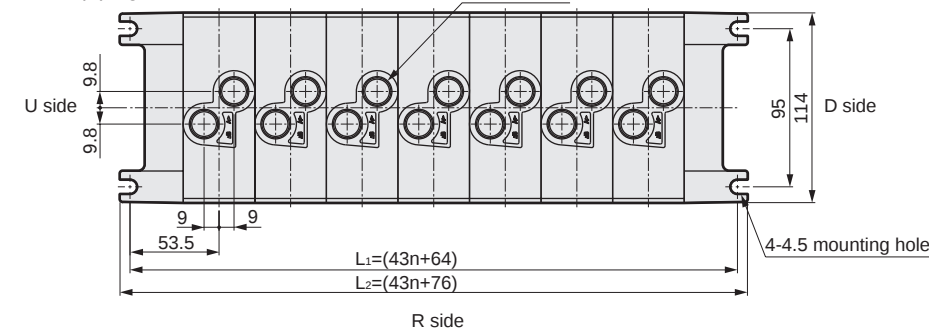
GMF1

● Individual exhaust



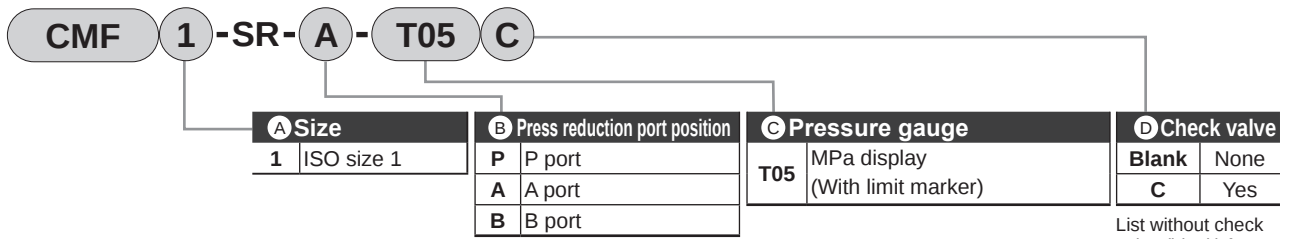
GMF1

● Rear piping



How to order

- Spacer regulator

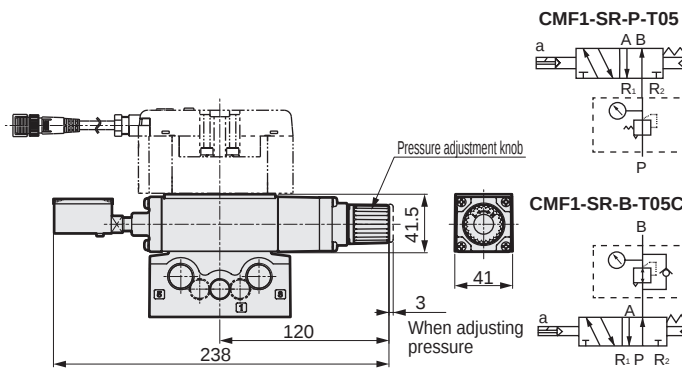


* Note that the direction of the pressure gauge is different with **CMF1-SR-A-T05C**.

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

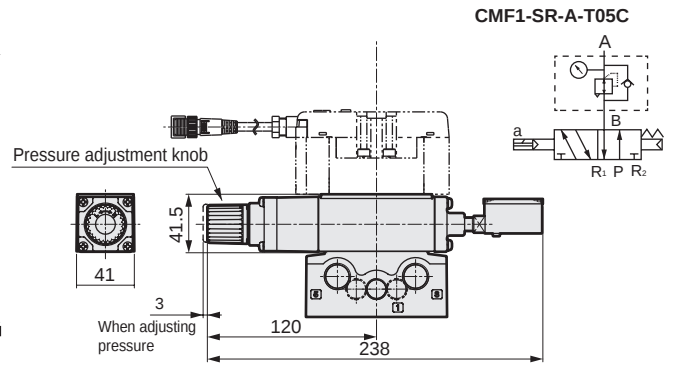
- Spacer regulator

- JIS symbol



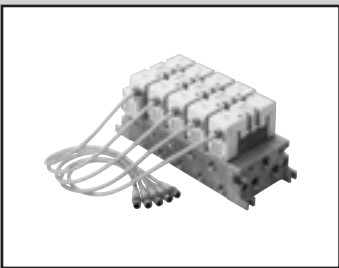
CMF1-SR-A-T05C

- JIS symbol



4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G GMF
PV5 GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HNV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending



Individual wiring manifold ISO size 2
I/O connector
Pilot operated 5-port ISO valve

GMF2 Series

● Cylinder bore size: max. ø160



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)	
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 (*1)	
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: The initial value is listed.

Electrical specifications

Item	Description	
Rated voltage V	DC	24
Voltage fluctuation range	±10%	
Power consumption W (Current value A)	1.2 (0.050) * Value for models with lamp.	
Thermal class	B (molded coil)	
Wiring method	I/O connector	

Individual specifications

Item		GMF1
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			GMF1
Response time	2-position	Single	40 (ON), 60 (OFF)
		Double	40
(*2) ms	3-position		40 (when ON), 60 (when neutral)

*2: The response time is the value at 0.5 MPa working pressure, with no lubrication. 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 I/O connector

● ISO size 2



Model No.

A Station No.

B A/B port size
(*1)

C A/B port position
(*2)

D P/R port size

E P/R port position
(*3)
(*4)

F HY configuration

G Silencer box

H Option

Quantity of
port size 03
of A/B port

Quantity of
port size 04
of A/B port

Model No.

GMF2

Code	Description	GMF2
A Station No.		
1	1 station	●
to	to	
10	10 stations	
B A/B port size		
03	Rc3/8	●
04	Rc1/2	●
HX2	Rc3/8 and Rc1/2 mixture	●
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) (rear side not available)	●
D P/R port size		
04	Rc1/2	●
06	Rc3/4	●
HY2	Rc1/2 and Rc3/4 mixture	●
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		
Blank	When other than HY2 is selected with D	●
DU	Rc1/2 on bottom, Rc3/4 on top	●
UD	Rc1/2 on top, Rc3/4 on bottom	●
G Silencer box		
Blank	None	●
SB	Yes (D side installation)	●
H Option		
Blank	None	●
F	P/A/B port filter integrated	●

⚠ Precautions for model No. selection

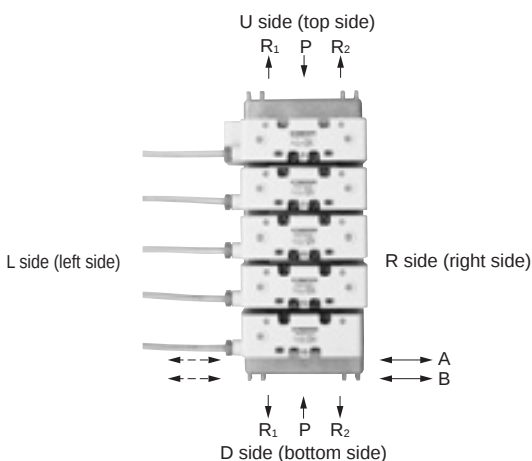
- *1: HX is a mixture of bore sizes. Contact CKD for details.
- *2: The instructions of C indicate the port positions. Those other than the instructions will all be plugs.
- *3: The instructions of E indicate the port positions. The opposite side of the instructions will be plugs.
- *4: When G is with 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

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



The valve body must be prepared separately. For how to order valves, refer to page 1507. For arrangement of manifolds with valve bodies, **the manifold specifications sheet** on page 1525 **will be necessary** in addition to each model No.

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G GMF
PV5 GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP NVP
4C*0EJ
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

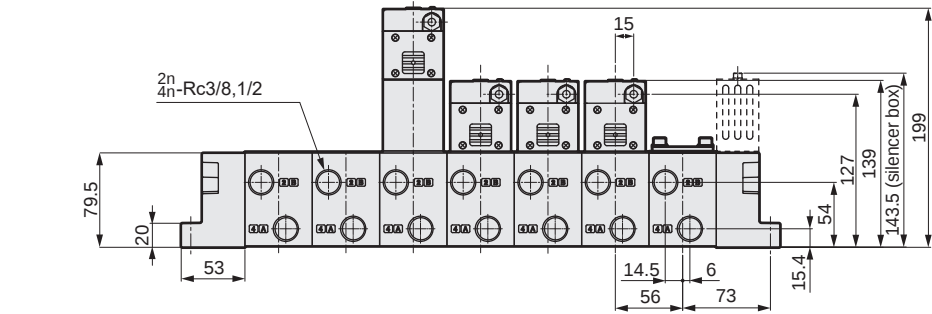
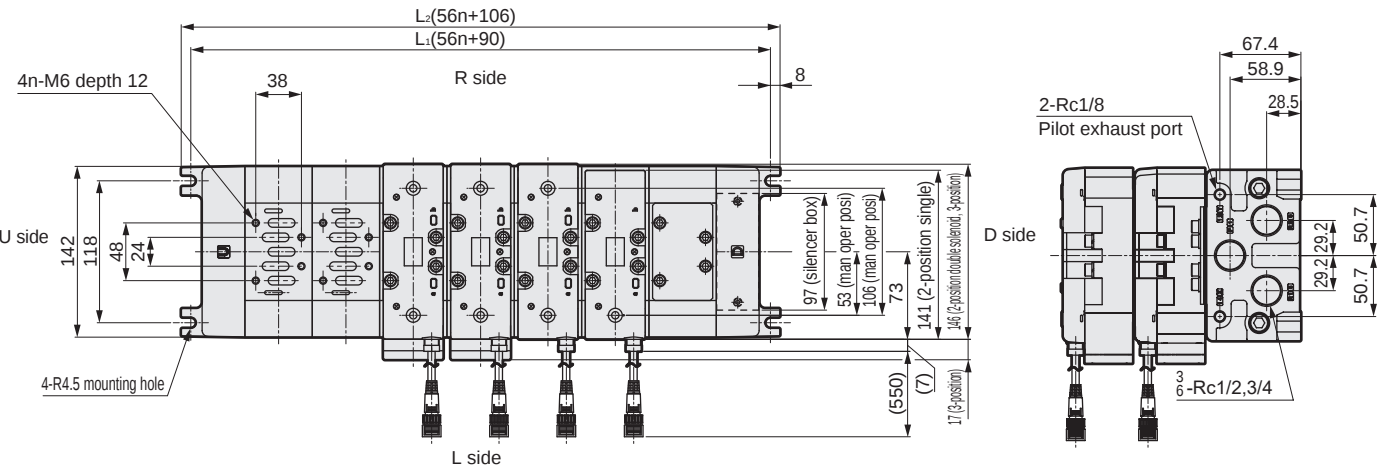
GMF2 Series

Individual wiring manifold; ISO size 2

Dimensions: I/O connector

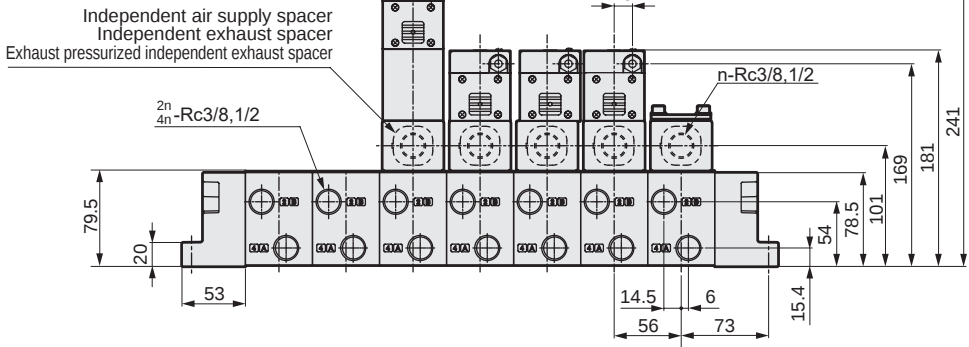
GMF2

● Common exhaust



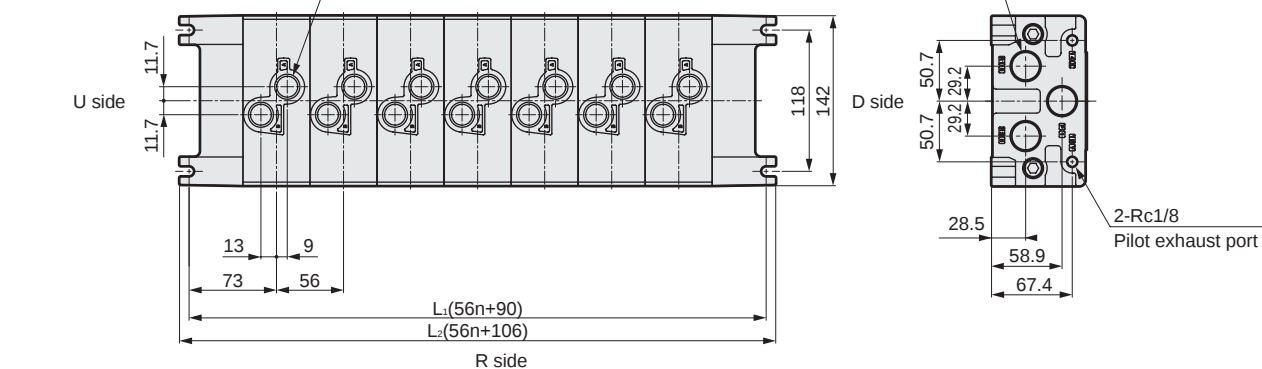
GMF2

● Individual exhaust



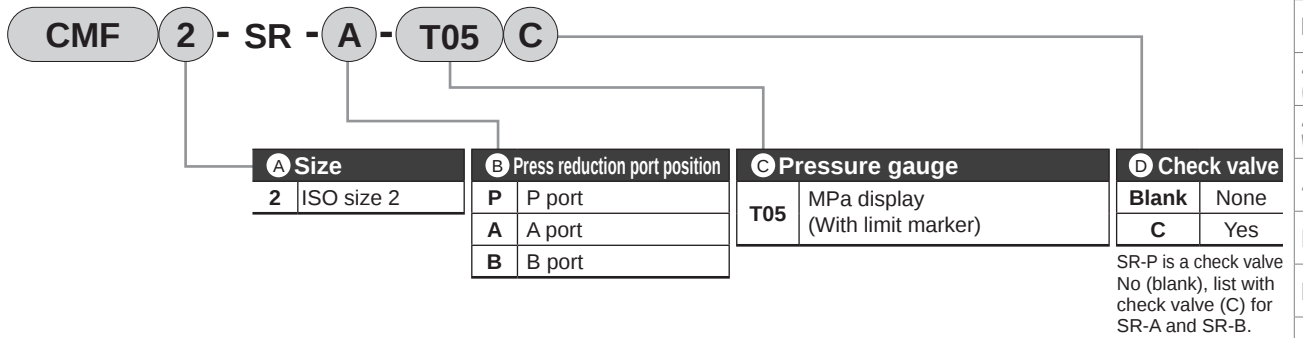
GMF2

● Rear piping



How to order

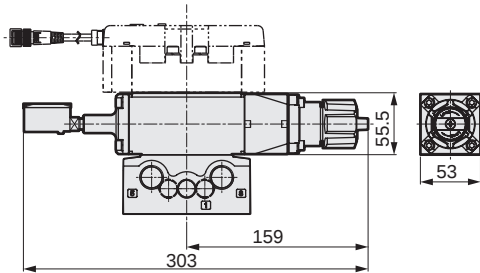
● Spacer regulator



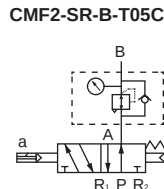
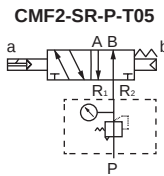
* Note that the direction of the pressure gauge is different with **CMF2-SR-A-T05C**.

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

● Spacer regulator

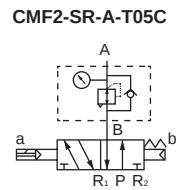
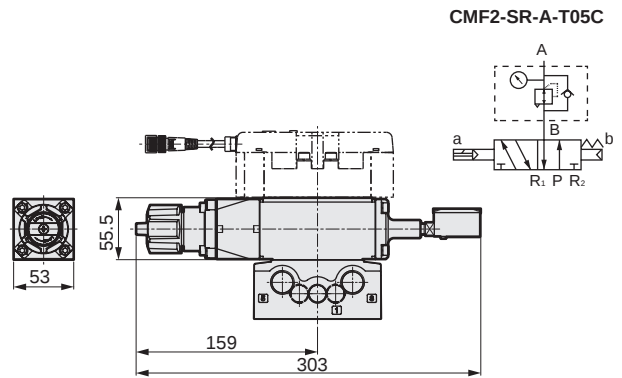


● JIS symbol



CMF2-SR-A-T05C

● JIS symbol



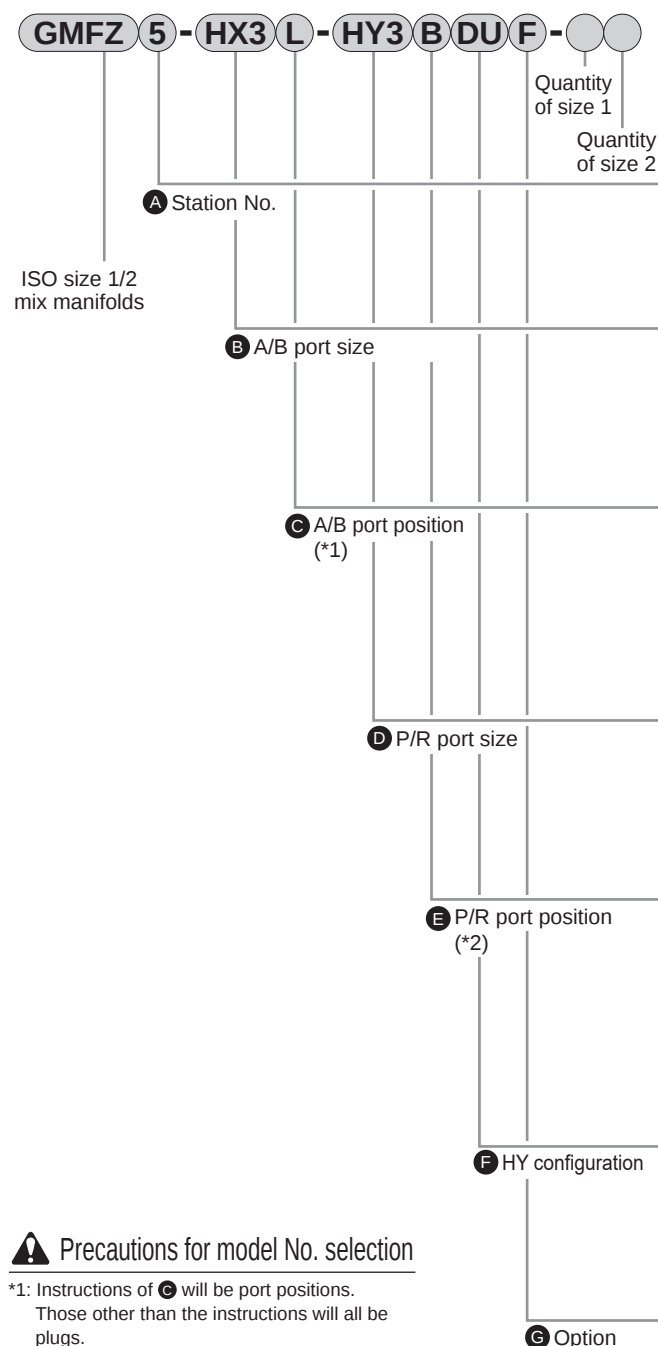
4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

GMFZ Series

Mix manifold; ISO size 1/2 mixture

How to order I/O connector

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G GMF
PV5 GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP NVP
4G*0EJ
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending



⚠ Precautions for model No. selection

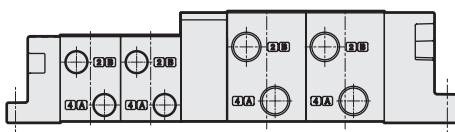
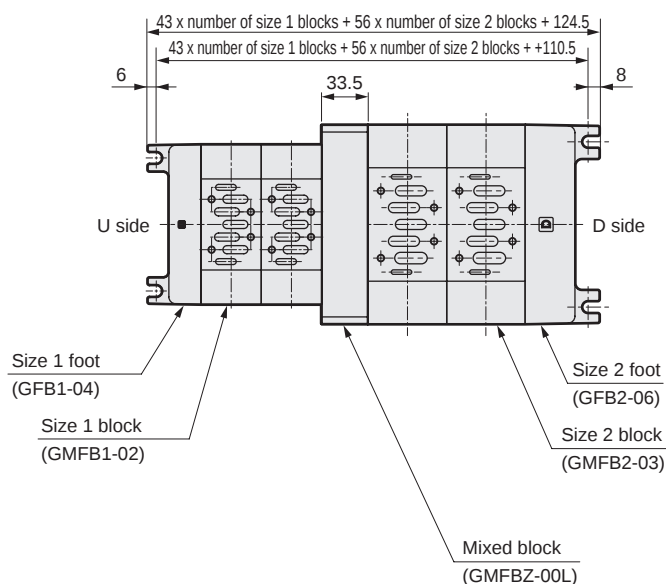
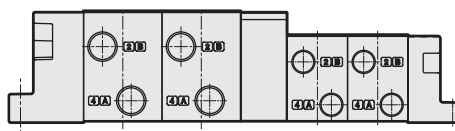
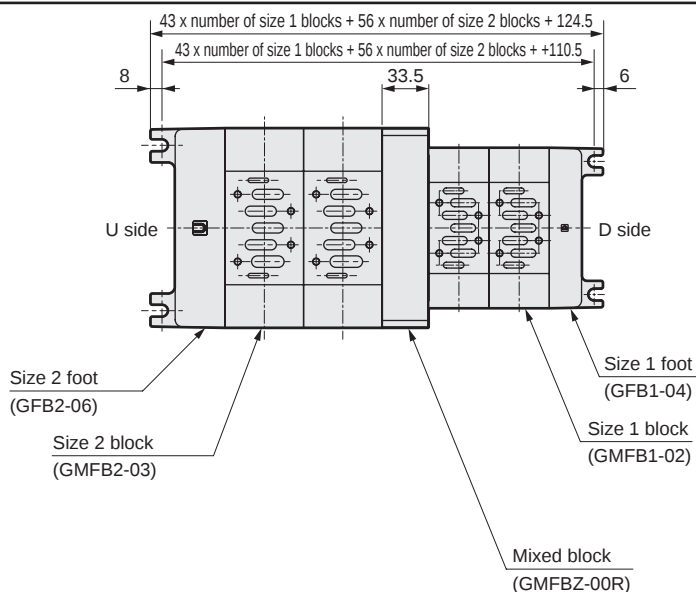
- *1: Instructions of **C** will be port positions. Those other than the instructions will all be plugs.
- *2: Instructions of **E** will be port positions. The opposite side of the instructions will be plugs.

Code		Description	Model No.
A Station No.			GMFZ
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) (rear side not available)		●
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		●

The valve body must be prepared separately. For how to order valves, refer to pages 1501 and 1507. For arrangement of manifolds with valve bodies, **the manifold specifications sheet** on page 1526 **will be necessary** in addition to each model No.

No	Item	Model No.	Fig.	Remarks
1	ISO sizes 1/2 mix 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 types of blocks are as listed on pages 1514 and 1518.

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending