

Individual wiring manifold ISO size 1
DIN terminal box type
5 port pilot operated valve ISO conformed valve

CMF1 Series

● Applicable cylinder bore size: Max. $\varnothing 100$



Common specifications

Descriptions	
Manifold method	Manifold integrated
Manifold type	Common supply / common exhaust, common supply / individual exhaust Individual supply / common exhaust, individual supply / individual exhaust Multi-pressure air supply
Station number	1 to 10 stations
Type of valve and operator	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) Note 1
Withstanding pressure MPa	1.50
Ambient temperature °C	-5 to 60 (no freezing)
Fluid temperature °C	5 to 60
Lubrication	Not required
Protective structure	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-leak type only 0.3 (ANR) or less Note 2
Vibration/impact m/s ²	50 or less / 300 or less
Working environment	Use in the environment containing corrosive gas is not permissible.

Note 1: Use the supply pressure at $R1 > R2 \geq 0.15$ MPa only for YZ-S.
Note 2: Indicates the default.

Electric specifications

Descriptions				
Rated voltage V	AC	100 (50 / 60 Hz)		
		110 (50 / 60 Hz)		
	DC	12, 24		
Rated voltage fluctuation range	±10%			
Apparent power VA (Ampere A) Note 3	AC	Without light	With light	
		100 V	2.3 (0.023)	2.4 (0.024)
	DC	110 V	2.5 (0.023)	2.6 (0.024)
		12 V	1.0 (0.083)	1.2 (0.100)
Power consumption (Ampere A) W	24 V	1.0 (0.042)	1.2 (0.050)	
Heat proof class	B (molded coil)			
Wiring methods	Electric plug connector			

Note 3: The AC type current is the holding current.

Individual specifications

Descriptions	CMF1	
Port size Note 1	P/R1/R2 port	Rc3/8, Rc1/2
	A/B port	Rc1/4 Rc3/8
Response time Note 2 ms	2-position	30 (when ON), 40 (when OFF)
	3-position	30 (when ON), 60 (when neutral)

Note 1: G threads and NPT threads are available for the piping port threads. Contact CKD for information.

Note 2: Response time is the value at an air supply of 0.5 MPa, and oil-free. The value will change based on quality of pressure and oil.

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
CMF1	Rc1/4	2-position single solenoid	4.8	0.25	5.2	0.26
		2-position double solenoid	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-leak	3.2	-	2.8	-

Note 1: Effective sectional area S and sonic conductance C are converted as $S \doteq 5.0 \times C$.

Control unit specifications

Control unit component	Descriptions	
Air filter (with automatic drain / manual drain)	Filtration rating	5 μm
Regulator	Setting pressure (secondary pressure)	0.1 to 0.83 MPa
	Pressure adjusting range	0.1 to 0.8 MPa
Pressure switch	Contact configuration	1C
	Rated current (inductive load)	125 VAC and 250 VAC 15 A
Air release valve (only single)	Working pressure range	0.15 to 1.0 MPa

- Refer to the Pneumatic, Vacuum, and Auxiliary Components (No. CB-024SA) for specifications of the pressure switch APE-8F*.
- PV5G-6-FG-S*-N is used for air release valve.

MN3E0
MN4E0
4GA/B
M4GA/B
MN4GA/B
4GA/B
(Master)
W4GA/B2
W4GB4
MN3S0
MN4S0
4TB
4L2-4/
LMF0
4SA/B0
4SA/B1
4KA/B
4F
PV5G/
CMF
PV5/
CMF
3MA/B0
3PA/B
P/M/B
NP/NAP/
NVP
4F*0E
HNV
HSV
2QV
3QV
SKH
PCD/
FS/FD
Ending

Individual wiring manifold
5 port pilot operated valve

CMF1 Series

Individual wiring manifold: ISO size 1

DIN terminal box type (without control unit) How to order

● ISO size 1

CMF 1 5 - 02 L - HY1 B DU - SB

Model no.

CMF1

Model no. **A** Station number

B A/B port size
Note 1

C A/B port position
Note 2

D P/R port size

E P/R port position
Note 3
Note 4

F HY configuration

G Silencer box
Note 5

⚠ Note on model no. selection

Note 1: The port size for HX is mixed. Contact CKD for details.

Note 2: "C" indicates the port position.

All positions are plugged unless otherwise indicated.

Note 3: "E" indicates the port position.

The opposite side of the indication is plugged.

Note 4: If "G," type with silencer box is selected, the P port position can be selected. Select from B, D, U, or T.

Note 5: If "G," type with silencer box is selected, the top and bottom are both assembled with plugs.

<Example of model number>

CMF15-02L-HY1BDU-SB

Model: Manifold ISO size 1

A Station number : 5 stations

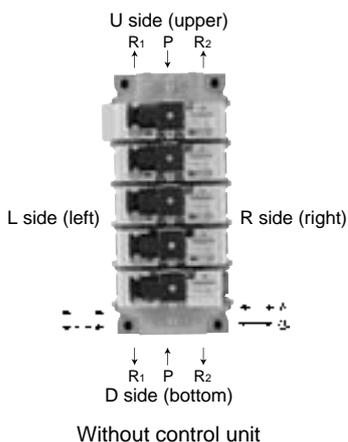
B C A/B port : Rc1/4 (both left-right sides porting)

D E F P/R port : Rc3/8, Rc1/2 mix
(Rc3/8 bottom, Rc1/2 upper)

G Silencer box : Selected (D side installation)

Symbol	Descriptions	Model no.
A Station number		
1	1 station	●
to	to	
10	10 stations	
B A/B port size		
02	Rc1/4	●
03	Rc3/8	●
HX1	Rc1/4, Rc3/8 mix	●
C A/B port position		
Blank	Right	●
L	Left/right sides (select position with manifold specifications)	●
H	Left	●
Z	Rear	●
T	Flexible selection (plug attached)	●
D P/R port size		
03	Rc3/8	●
04	Rc1/2	●
HY1	Rc3/8, Rc1/2 mix	●
E P/R port position		
B	Upper / bottom sides	●
D	Bottom side	●
U	Upper side	●
E	P upper, R bottom	●
F	P bottom, R upper	●
T	Flexible selection (plug attached)	●
F HY configuration		
Blank	When HY1 is not selected for "D"	●
DU	Rc3/8 bottom, Rc1/2 upper	●
UD	Rc3/8 upper, Rc1/2 bottom	●
G Silencer box		
Blank	None	●
SB	Selected (D side installation)	●

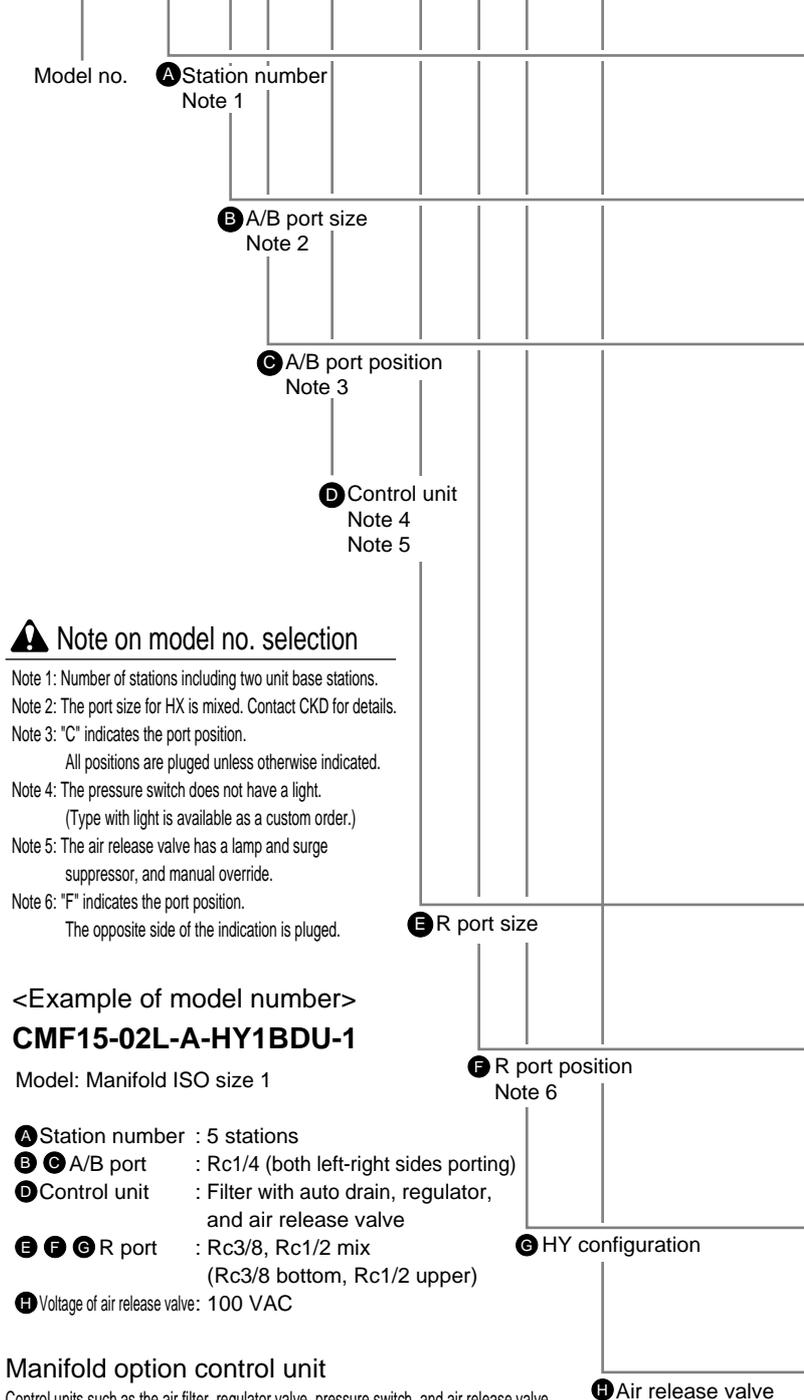
The valve is ordered separately. Refer to page 984 for details on How to order. When ordering a manifold with a valve, each model no. and **the manifold specifications given** on page 1010 **are required.**



How to order DIN terminal box type (with control unit)

● ISO size 1

CMF 1 5 - 02 L - A - HY1 B DU - 1



Note on model no. selection

- Note 1: Number of stations including two unit base stations.
- Note 2: The port size for HX is mixed. Contact CKD for details.
- Note 3: "C" indicates the port position.
All positions are plugged unless otherwise indicated.
- Note 4: The pressure switch does not have a light.
(Type with light is available as a custom order.)
- Note 5: The air release valve has a lamp and surge suppressor, and manual override.
- Note 6: "F" indicates the port position.
The opposite side of the indication is plugged.

<Example of model number>

CMF15-02L-A-HY1BDU-1

Model: Manifold ISO size 1

- A** Station number : 5 stations
- B C** A/B port : Rc1/4 (both left-right sides porting)
- D** Control unit : Filter with auto drain, regulator, and air release valve
- E F G** R port : Rc3/8, Rc1/2 mix (Rc3/8 bottom, Rc1/2 upper)
- H** Voltage of air release valve: 100 VAC

Manifold option control unit

Control units such as the air filter, regulator valve, pressure switch, and air release valve can be mounted onto the manifold as units, thus simplifying piping work.

Control unit	D	A	AP	M	MP	F	G	C
Filter regulator with auto drain CMF1-AFR-3F	○	○	-	-	○	-	-	-
Filter regulator with manual drain CMF1-AFR-3E	-	-	○	○	-	○	-	-
Installation spacer CMF1-FRB-D	○	○	○	○	○	○	○	○
Air release valve PV5G-6-FG-S-*N	○	○	○	○	-	-	-	○
Release valve spacer block CMF1-VP	-	-	-	-	○	○	-	-
FR spacer block CMF1-FR	-	-	-	-	-	-	-	○
Pressure switch APE-8F	-	○	-	○	-	-	-	-

H Air release valve



Symbol	Descriptions	CMF1
A Station number		
3	3 stations	●
to	to	
10	10 stations	
B A/B port size		
02	Rc1/4	●
03	Rc3/8	●
HX1	Rc1/4, Rc3/8 mix	●
C A/B port position		
Blank	Right	●
L	Left/right sides (select position with manifold specifications)	●
H	Left	●
Z	Rear	●
T	Flexible selection (plug attached)	●
D Control unit (R): Regulator (A): Air release valve (P): Pressure switch		
A	Filter with auto drain (R) (A)	●
AP	Filter with auto drain (R) (A) (P)	●
M	Filter with manual drain (R) (A)	●
MP	Filter with manual drain (R) (A) (P)	●
F	Filter with auto drain (Air release valve plug) (R)	●
G	Filter with manual drain (Air release valve plug) (R)	●
C	With air release valve (A)	●
E R port size		
03	Rc3/8	●
04	Rc1/2	●
HY1	Rc3/8, Rc1/2 mix	●
F R port position		
B	R upper / bottom	●
D	R bottom	●
U	R upper	●
T	Flexible selection (plug attached)	●
G HY configuration		
Blank	When HY1 is not selected for "E"	●
DU	Rc3/8 bottom, Rc1/2 upper	●
UD	Rc3/8 upper, Rc1/2 bottom	●
H Air release valve		
Blank	Without air release valve	●
1	100 VAC	●
3	24 VDC	●
4	12 VDC	●
5	110 VAC	●

The valve is ordered separately. Refer to page 984 for how to order the valve.

When ordering a manifold with a valve, each model no. and the manifold specifications given on page 1011 are required.

MN3E0
MN4E0
4GA/B
M4GA/B
MN4GA/B
4GA/B (Master)
W4GA/B2
W4GB4
MN3S0
MN4S0
4TB
4L2-4/LMF0
4SA/B0
4SA/B1
4KA/B
4F
PV5G/CMF
PV5/CMF
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*0E
HMV
HSV
2QV
3QV
SKH
PCD/FS/FD
Ending

Individual wiring manifold
5 port pilot operated valve

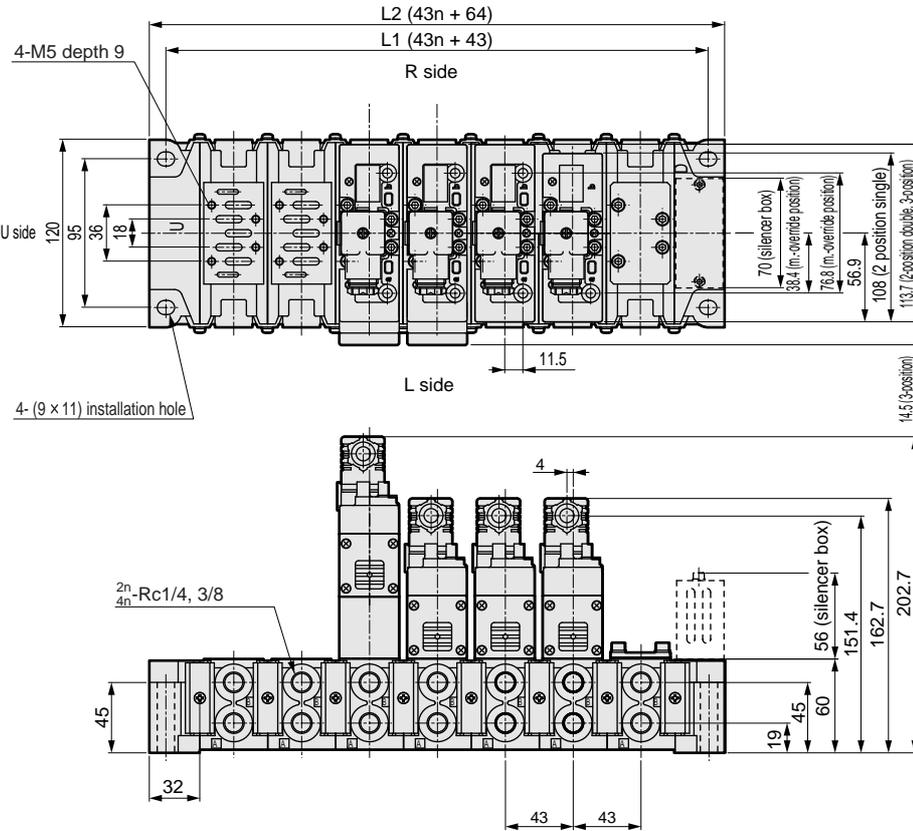
CMF1 Series

Individual wiring manifold: ISO size 1

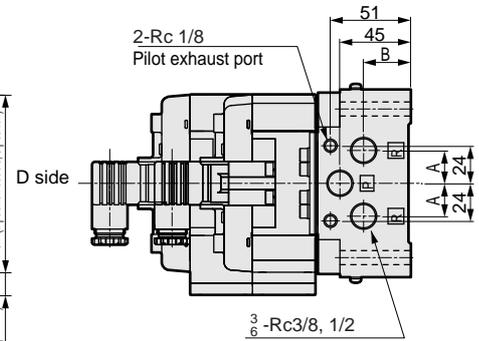
Dimensions: DIN terminal box type

CMF1

● Common exhaust

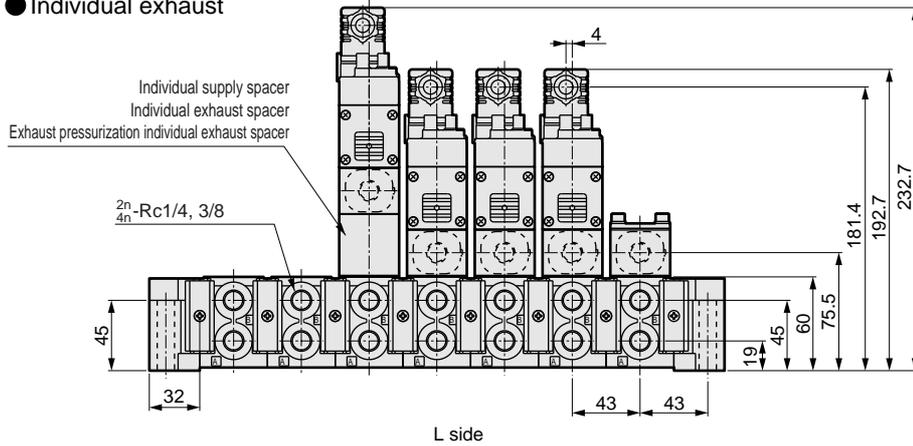


P/R port size	A	B
Rc3/8	21	30
Rc1/2	26	26



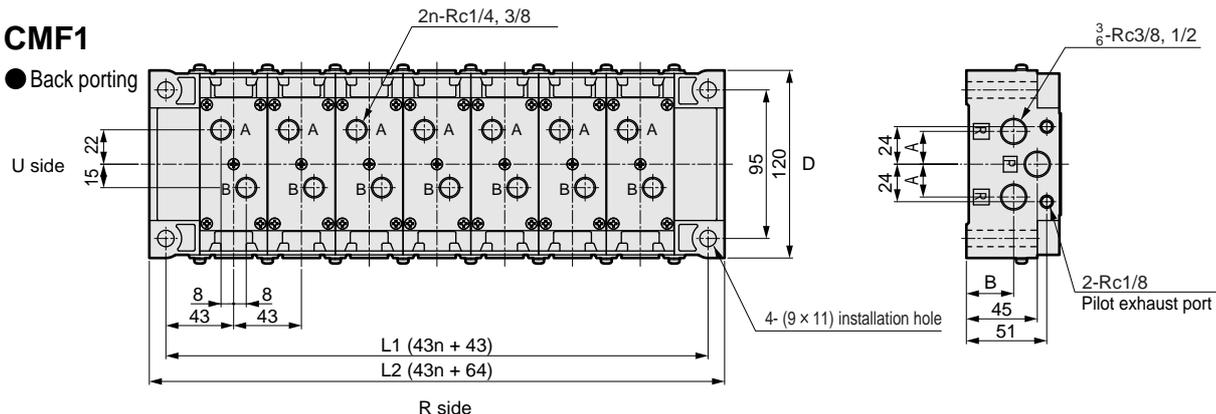
CMF1

● Individual exhaust



CMF1

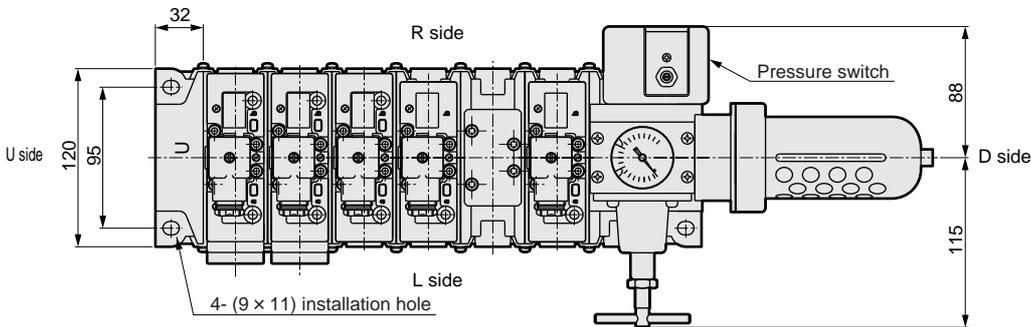
● Back porting



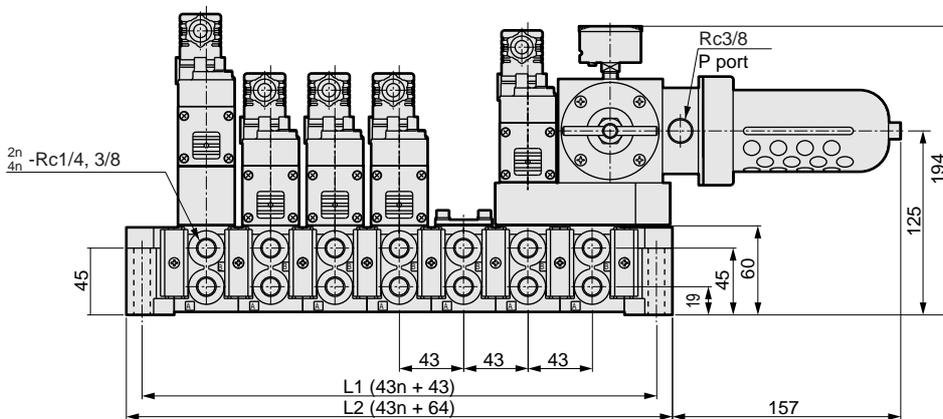
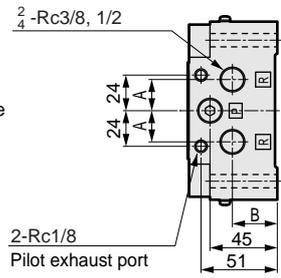
Individual wiring manifold: ISO size 1

Dimensions: DIN terminal box type

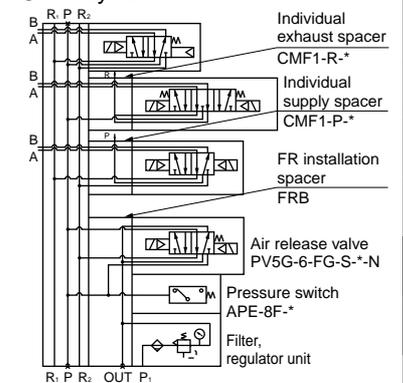
● With control unit



P/R port size	A	B
Rc3/8	21	30
Rc1/2	26	26



● JIS symbol



How to order *Spacer type regulator is still available for purchase.

● Spacer type regulator



A Size
1 ISO size 1

B Decompression port position
P P port
A A port
B B port

C Pressure gauge
T05 MPa display (With limit mark)

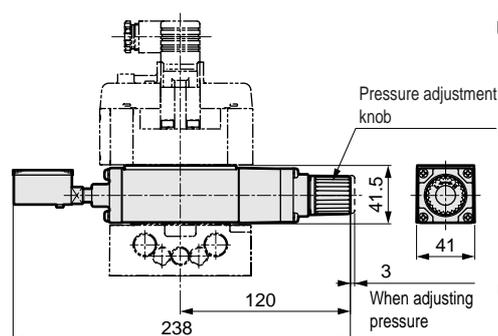
D Check valve
Blank None
C Selected

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

Indicate without a check valve (no symbol) for SR-P and with a check valve (C) for SR-A and SR-B.

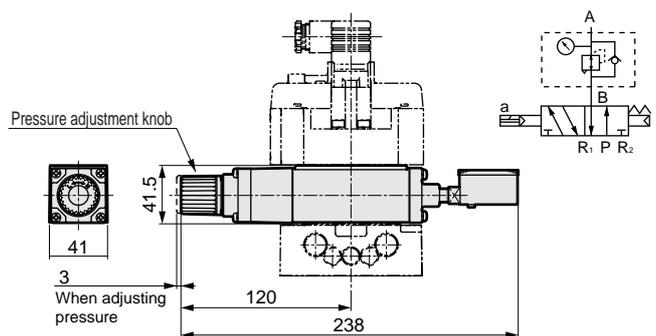
CMF1-SR-P-T05 CMF1-SR-B-T05C

● Spacer type regulator



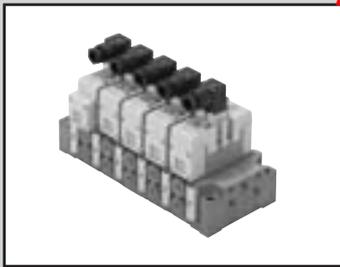
CMF1-SR-A-T05C

● JIS symbol



MN3E0
MN4E0
4GA/B
M4GA/B
MN4GA/B
4GA/B (Master)
W4GA/B2
W4GB4
MN3S0
MN4S0
4TB
4L2-4/
LMF0
4SA/B0
4SA/B1
4KA/B
4F
PV5G/
CMF
PV5/
CMF
3MA/B0
3PA/B
P/M/B
NP/NAP/
NVP
4F*OE
HMV
HSV
2QV
3QV
SKH
PCD/
FS/FD
Ending

Individual wiring manifold
5 port pilot operated valve



Individual wiring manifold ISO size 2
DIN terminal box type
5 port pilot operated valve ISO conformed valve

CMF2 Series

● Applicable cylinder bore size: Max. $\varnothing 160$



Common specifications

Descriptions	
Manifold method	Manifold integrated
Manifold type	Common supply / common exhaust, common supply / individual exhaust Individual supply / common exhaust, individual supply / individual exhaust Multi-pressure air supply
Station number	1 to 10 stations
Type of valve and operator	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) Note 1
Withstanding pressure MPa	1.50
Ambient temperature °C	-5 to 60 (no freezing)
Fluid temperature °C	5 to 60
Lubrication	Not required
Protective structure	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-leak type only 0.3 (ANR) or less Note 2
Vibration/impact m/s ²	50 or less / 300 or less
Working environment	Use in the environment containing corrosive gas is not permissible.

Note 1: Use the supply pressure at $R1 > R2 \geq 0.15$ MPa only for YZ-S.
Note 2: Indicates the default.

Electric specifications

Descriptions				
Rated voltage V	AC	100 (50 / 60 Hz) 110 (50 / 60 Hz)		
	DC	12, 24		
Rated voltage fluctuation range	$\pm 10\%$			
Apparent power VA (Ampere A) Note 3	AC	Without light	With light	
		100 V	2.3 (0.023)	2.4 (0.024)
Power consumption W (Ampere A)	DC	110 V	2.5 (0.023)	2.6 (0.024)
		12 V	1.0 (0.083)	1.2 (0.100)
Heat proof class	Wiring methods	24 V	1.0 (0.042)	1.2 (0.050)
		B (molded coil)		
		Electric plug connector		

Note 3: The AC type current is the holding current.

Individual specifications

Descriptions	CMF2		
Port size Note 1	P/R1/R2 port	Rc1/2, Rc3/4	
	A/B port	Rc3/8 Rc1/2	
Response time Note 2 ms	2-position	Single solenoid	40 (when ON), 60 (when OFF)
		Double solenoid	40
	3-position	40 (when ON), 60 (when neutral)	

Note 1: G threads and NPT threads are available for the piping port threads. Contact CKD for information.

Note 2: Response time is the value at an air supply of 0.5 MPa, and oil-free. The value will change based on quality of pressure and oil.

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
CMF2	Rc3/8	2-position single solenoid	9.7	0.12	11.0	0.14
		2-position double solenoid	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-leak	6.2	-	5.9	-

Note 1: Effective sectional area S and sonic conductance C are converted as $S \cong 5.0 \times C$.

MN3E0
MN4E0
4GA/B
M4GA/B
MN4GA/B
4GA/B (Master)
W4GA/B2
W4GB4
MN3S0
MN4S0
4TB
4L2-4/LMF0
4SA/B0
4SA/B1
4KA/B
4F
PV5G/CMF
PV5/CMF
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*0E
HMV
HSV
2QV
3QV
SKH
PCD/FS/FD
Ending

Individual wiring manifold
5 port pilot operated valve

CMF2 Series

Individual wiring manifold: ISO size 2

How to order DIN terminal box type

● ISO size 2

CMF 2 5 - 03 L - 04 B - SB

Model no.

A Station number

B A/B port size
Note 1

C A/B port position
Note 2

D P/R port size

E P/R port position
Note 3
Note 4

F HY configuration

G Silencer box
Note 5

⚠ Note on model no. selection

Note 1: The port size for HX is mixed. Contact CKD for details.

Note 2: "C" indicates the port position. All positions are plugged unless otherwise indicated.

Note 3: "E" indicates the port position. The opposite side of the indication is plugged.

Note 4: If "G", type with silencer box is selected, the P port position can be selected. Select from B, D, U, or T.

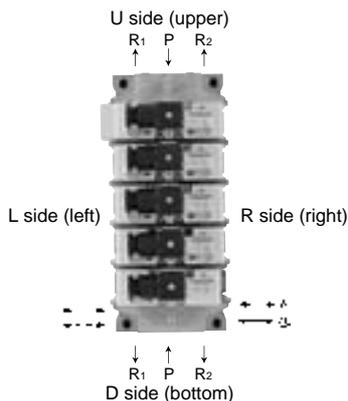
Note 5: If "G," type with silencer box is selected, the top and bottom are both assembled with plugs.

<Example of model number>

CMF25-03L-04B-SB

Model: Manifold ISO size 2

- A** Station number : 5 stations
- B C** A/B port : Rc3/8 (both left-right sides porting)
- D E** P/R port : Rc1/2 (both upper-bottom sides porting)
- G** Silencer box : Selected (D side installation)



Without control unit

Model no.

CMF2

Symbol	Descriptions	Model no.
A Station number		
1	1 station	●
to	to	
10	10 stations	
B A/B port size		
03	Rc3/8	●
04	Rc1/2	●
HX2	Rc1/2, Rc3/8 mix	●
C A/B port position		
Blank	Right	●
L	Left/right sides (select position with manifold specifications)	●
H	Left	●
Z	Rear	●
T	Flexible selection (plug attached)	●
D P/R port size		
04	Rc1/2	●
06	Rc3/4	●
HY2	Rc1/2, Rc3/4 mix	●
E P/R port position		
B	Upper / bottom sides	●
D	Bottom side	●
U	Upper side	●
E	P upper, R bottom	●
F	P bottom, R upper	●
T	Flexible selection (plug attached)	●
F HY configuration		
Blank	When HY2 is not selected for "D"	●
DU	Rc1/2 bottom, Rc3/4 upper	●
UD	Rc1/2 upper, Rc3/4 bottom	●
G Silencer box		
Blank	None	●
SB	Selected (D side installation)	●

The valve is ordered separately. Refer to page 990 for how to order the valve. When ordering a manifold with a valve, each model no. and **the manifold specifications given** on page 1012 **are required**.

2014/4/30 Discontinued

MEMO

	MN3E0 MN4E0
	4GA/B
	M4GA/B
	MN4GA/B
	4GA/B (Master)
	W4GA/B2
	W4GB4
	MN3S0 MN4S0
	4TB
	4L2-4/ LMF0
	4SA/B0
	4SA/B1
	4KA/B
	4F
	PV5G/ CMF
	PV5/ CMF
	3MA/B0
	3PA/B
	P/M/B
	NP/NAP/ NVP
	4F*0E
	HMV HSV
	2QV 3QV
	SKH
	PCD/ FS/FD
	Ending
	Individual wiring manifold 5 port pilot operated valve

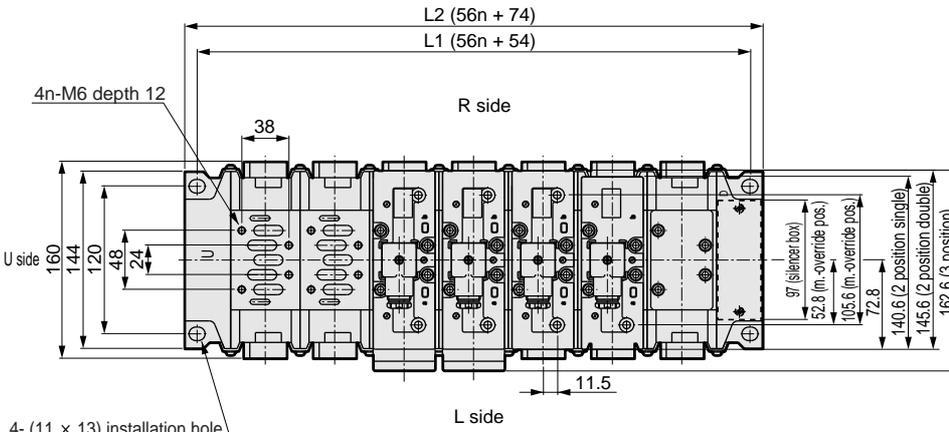
CMF2 Series

Individual wiring manifold: ISO size 2

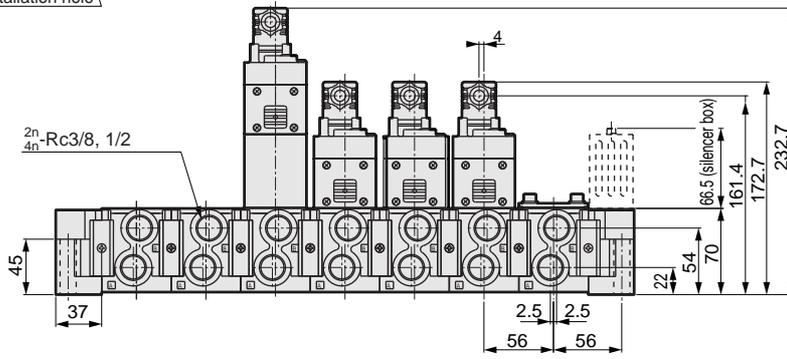
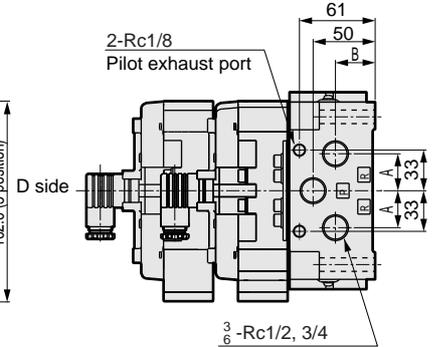
Dimensions: DIN terminal box type

CMF2

● Common exhaust



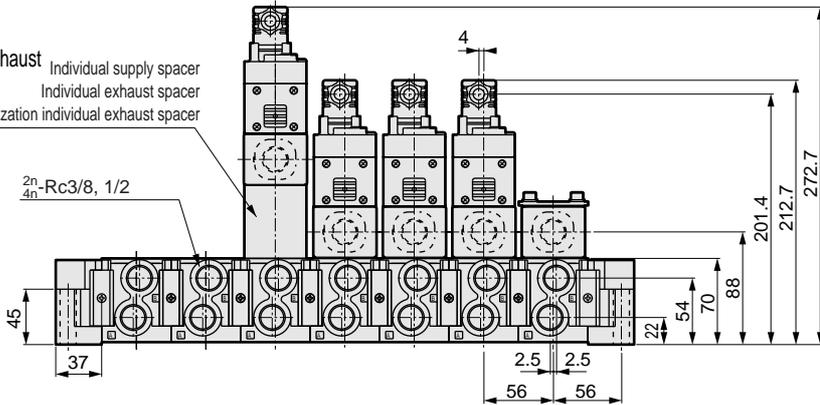
P/R port size	A	B
Rc1/2	30	32
Rc3/4	37	25



CMF2

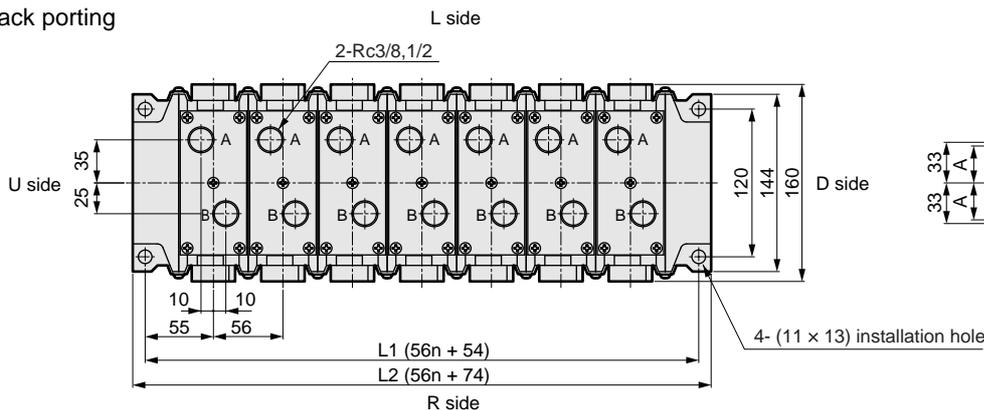
● Individual exhaust

Individual supply spacer
Individual exhaust spacer
Exhaust pressurization individual exhaust spacer



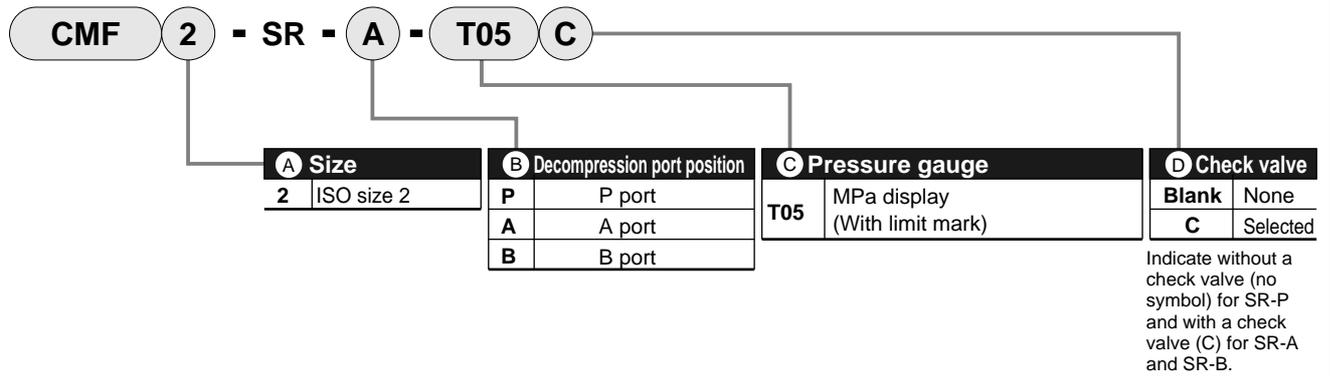
CMF2

● Back porting



How to order *Spacer type regulator is still available for purchase.

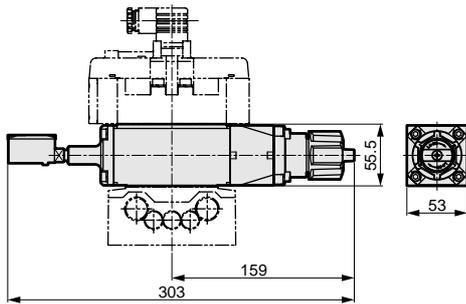
● Spacer type regulator



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

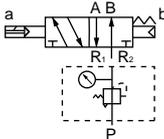
CMF2-SR-P-T05 CMF2-SR-B-T05C

● Spacer type regulator

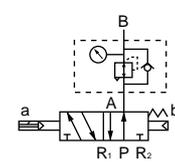


● JIS symbol

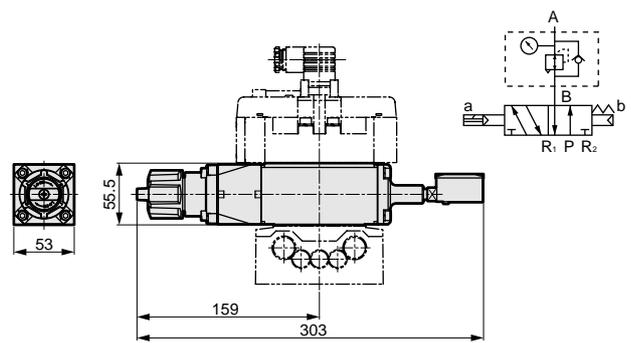
CMF2-SR-P-T05



CMF2-SR-B-T05C

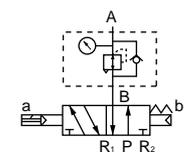


CMF2-SR-A-T05C



● JIS symbol

CMF2-SR-A-T05C



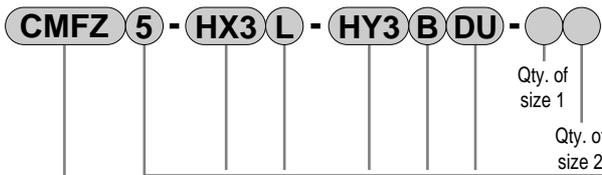
MN3E0
MN4E0
4GA/B
M4GA/B
MN4GA/B
4GA/B (Master)
W4GA/B2
W4GB4
MN3S0
MN4S0
4TB
4L2-4/LMF0
4SA/B0
4SA/B1
4KA/B
4F
PV5G/CMF
PV5/CMF
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*0E
HMV
HSV
2QV
3QV
SKH
PCD/FS/FD
Ending

Individual wiring manifold
5 port pilot operated valve

CMFZ Series

Mix manifold: ISO size 1, 2 mix

How to order DIN terminal box type



Model no.

CMFZ

Symbol	Descriptions	Model no.
A Station number		
2	2 stations	●
to	to	
10	10 stations	
B A/B port size		
HX3	1: 02, 2: 03	●
HX4	1: 02, 2: 04	●
HX5	1: 03, 2: 03	●
HX6	1: 03, 2: 04	●
C A/B port position		
Blank	Right	●
L	Left/right sides (select position with manifold specifications)	●
H	Left	●
Z	Rear	●
T	Flexible selection (plug attached)	●
D P port size		
HY3	1: 03, 2: 04	●
HY4	1: 03, 2: 06	●
HY5	1: 04, 2: 04	●
HY6	1: 04, 2: 06	●
E P port position		
B	Upper / bottom sides	●
D	Bottom side	●
U	Upper side	●
E	P upper, R bottom	●
F	P bottom, R upper	●
T	Flexible selection (plug attached)	●
F HY configuration		
DU	Smaller port size is bottom and larger size is top or 1 is bottom and 2 is top.	●
UD	Smaller port size is top and larger size is bottom or 1 is top and 2 is bottom.	●

⚠ Note on model no. selection

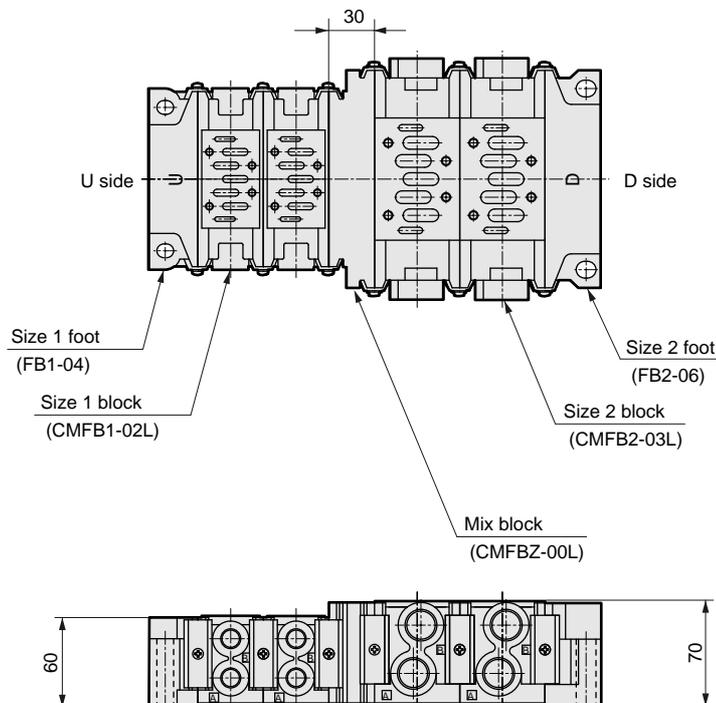
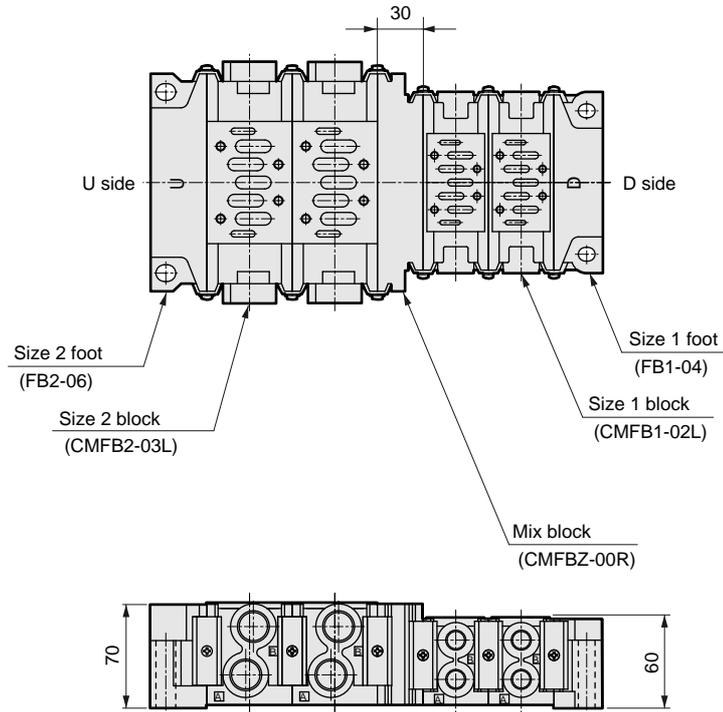
Note 1: "C" indicates the port position.
All positions are plugged unless otherwise indicated.

Note 2: "E" indicates the port position.
The opposite side of the indication is plugged.

The valve is ordered separately. Refer to pages 984, 990 for how to order the valve. When ordering a manifold with a valve, each model no. and **the manifold specifications given** on page 1013 **are required.**

No	Descriptions	Model no.	Appearance	Remarks
1	ISO size 1, 2 mix block	CMFBZ-00L		U side size 1 D side size 2 With connecting bracket / O ring
		CMFBZ-00R		U side size 2 D side size 1 With connecting bracket / O ring

Mix manifold appearance

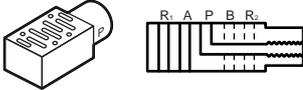
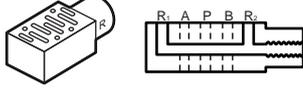
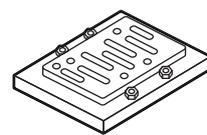
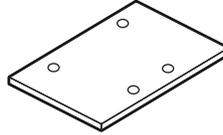
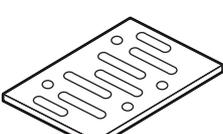
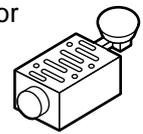
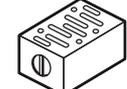
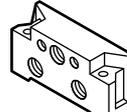
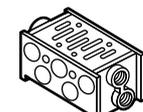


MN3E0
MN4E0
4GA/B
M4GA/B
MN4GA/B
4GA/B (Master)
W4GA/B2
W4GB4
MN3S0
MN4S0
4TB
4L2-4/LMF0
4SA/B0
4SA/B1
4KA/B
4F
PV5G/CMF
PV5/CMF
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*0E
HMV
HSV
2QV
3QV
SKH
PCD/FS/FD
Ending

Mix manifold
5 port pilot operated valve

* The dimensions for the 1 and 2 foot sizes and the blocks are given on pages 998 and 1004.

Manifold option *Manifold options are still available for purchase.

	Options	Model no.		Remarks
		ISO size 1	ISO size 2	
MN3E0 MN4E0 4GA/B M4GA/B MN4GA/B 4GA/B (Master) W4GA/B2 W4GB4 MN3S0 MN4S0 4TB 4L2-4/ LMFO 4SA/B0 4SA/B1 4KA/B 4F PV5G/ CMF PV5/ CMF 3MA/B0 3PA/B P/M/B NP/NAP/ NVP 4F*0E HNV HSV 2QV 3QV SKH PCD/ FS/FD Ending	<p>1. Discrete supply spacer</p> 	<p>CMF1-P-02 (Rc1/4) 03 (Rc3/8)</p>	<p>CMF2-P-03 (Rc3/8) 04 (Rc1/2)</p>	<p>1. Use for individual supply port clamp and various pressures 2. Individual exhaust for exhaust pressurizing</p>
	<p>2. Discrete exhaust spacer</p> 	<p>CMF1-R-02 (Rc1/4) 03 (Rc3/8)</p>	<p>CMF2-R-03 (Rc3/8) 04 (Rc1/2)</p>	<p>1 port exhaust by individual exhaust (Back pressure proof)</p>
	<p>3. Adaptor</p> 	<p>CU1-00 (FS, FD2 series, Rc1/4, 3/8) CU1-01 (FS, FD3 series, Rc1/4, 3/8, 1/2)</p>	<p>CU2-00 (FS, FD3 series, Rc1/4, 3/8, 1/2) CU2-01 (FS, FD4 series, Rc1/2, 3/4)</p>	<p>PV5G-6 and PV5G-8 can be mounted on conventional models F_{D3}^{S2}. (Custom order)</p>
	<p>4. Masking plate</p> 	<p>CM1-00</p>	<p>CM2-00</p>	<p>For PV5G-6 For PV5G-8 For discrete masking</p>
		<p>CM1-01</p>	<p>CM2-01</p>	<p>Manifold (CMF1, CMF2) P/R₁/R₂ port For masking</p>
	<p>5. Base gasket</p> 	<p>PV5G-6-BASE-GASKET</p>	<p>PV5G-8-BASE-GASKET</p>	<p>For PV5G-6 For PV5G-8</p>
	<p>6. Set screw</p> 	<p>CMF1-M5X35</p>	<p>CMF2-M6X45</p>	
	<p>7. Spacer type regulator</p> 	<p>CMF1-SR-P-T05 CMF1-SR-A-T05C CMF1-SR-B-T05C "How to order" page 999</p>	<p>CMF2-SR-P-T05 CMF2-SR-A-T05C CMF2-SR-B-T05C "How to order" page 1005</p>	<p>Multi-pressure use</p>
	<p>8. Air pilot check valve</p> 	<p>CMF1-PC</p>	<p>CMF2-PC</p>	<p>Cylinder intermediate position holding</p>
	<p>9. Foot</p> <p>U side</p>  <p>D side</p>	<p>FB1-⁰³₀₄^U</p> <p>FB1-⁰³₀₄^D</p>	<p>FB2-⁰⁴₀₆^U</p> <p>FB2-⁰⁴₀₆^D</p>	<p>Manifold connection bracket set (x2), plugs (also O-rings for U-side foot) are enclosed.</p>
	<p>10. Manifold block</p> 	<p>CMFB1-⁰²₀₃^T</p>	<p>CMFB2-⁰³₀₄^T</p>	<p>Manifold connection bracket set (x2), plugs, and O-rings are enclosed.</p>

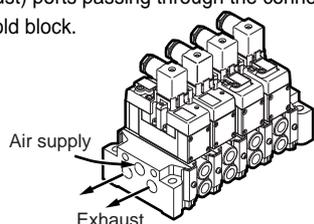
Manifold type

A variety of supply, exhaust, and piping methods, which can be combined, have been lined up. Select the optimum functions for your application.

1 General use

● Common exhaust method

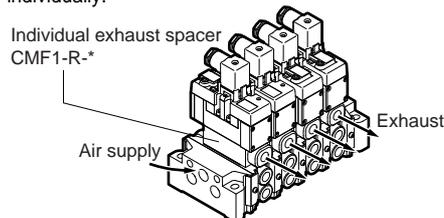
This method is used most commonly. The air supply and exhaust of each solenoid valve are centralized to one place by the P (supply) and R (exhaust) ports passing through the connected manifold block.



2 General applications

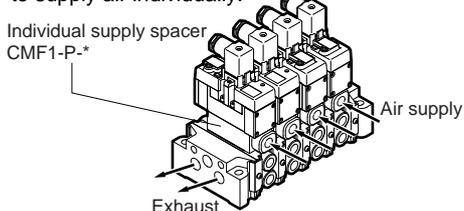
● Individual exhaust method

The R1 and 2 (exhaust) ports are separate for each solenoid valve, so popping out of adjacent cylinders by the back pressure can be prevented. An individual exhaust spacer (CMF1-R-*) is placed between the manifold block and valve to exhaust individually.



● Individual supply method

The P (supply) port is independent for each valve so different pressures can be supplied to specific valves in the manifold. An individual supply spacer (CMF1-P-*) is placed between the manifold block and valve to supply air individually.



● Individual supply / individual exhaust

Use this when individual P (supply) ports and R (exhaust) ports are to be used for only specific valves in the manifold.

Example: When using an oilless manifold but lubricating a specific valve.

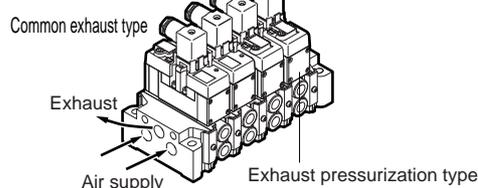
An individual air supply spacer (CMF1-P-*) and individual exhaust spacer (CMF1-R-*) are placed between the manifold block and valve to supply air and exhaust individually.

● Multi-pressure air supply method

This method supplies two different types of high and low pressures to one manifold. A masking plate (CM1-01) is inserted between the manifold blocks with different pressures.

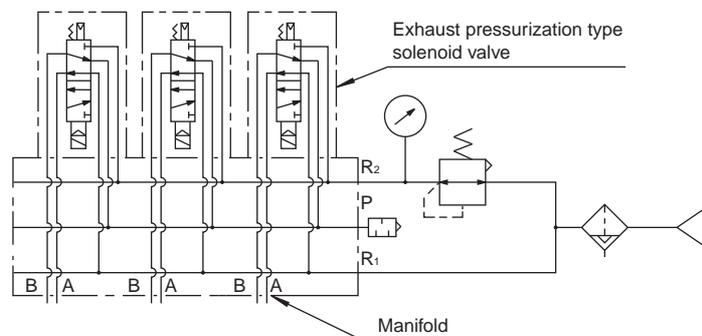
3 Special applications (exhaust pressurization)

This method is optimum for supplying two or more different types of pressure to one manifold. Example: When driving a 2-piston cylinder used in welding machines.

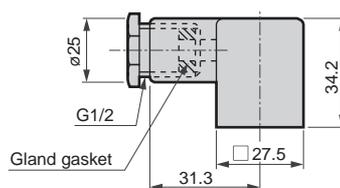


● Example of using exhaust pressurization

Common exhaust type

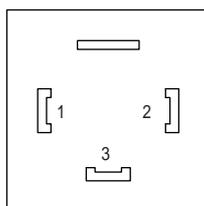


● Terminal box (Model no.: PV5G-DIN-TRM-BOX)



Gland gasket inner diameter	Color	Applicable outer diameter (code/cable)
ø10.5	Black	ø8.5 to ø11.5

How to wire



Pin No	Name
1	a SOL
2	b SOL
3	COM

No polarity is designated when DC power is used.

MN3E0
MN4E0
4GA/B
M4GA/B
MN4GA/B
4GA/B (Master)
W4GA/B2
W4GB4
MN3S0
MN4S0
4TB
4L2-4/LMF0
4SA/B0
4SA/B1
4KA/B
4F
PV5G/CMF
PV5/CMF
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*0E
HMV/HSV
2QV
3QV
SKH
PCD/FS/FD
Ending

5 port pilot operated valve

Manifold specification sheet ISO size 1 DIN terminal box type

Issue / /

Your company name

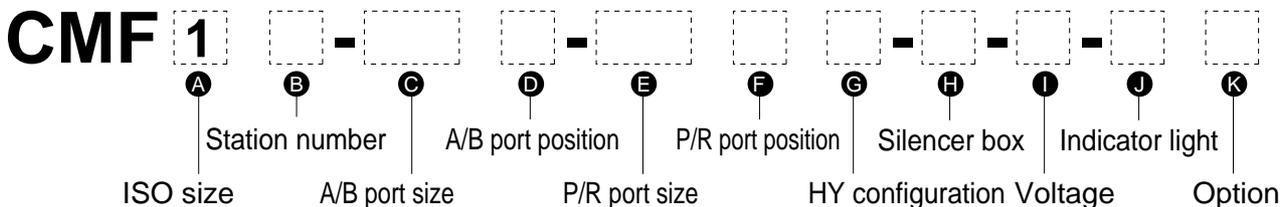
● Contact ● Quantity set ● Request date

Contact

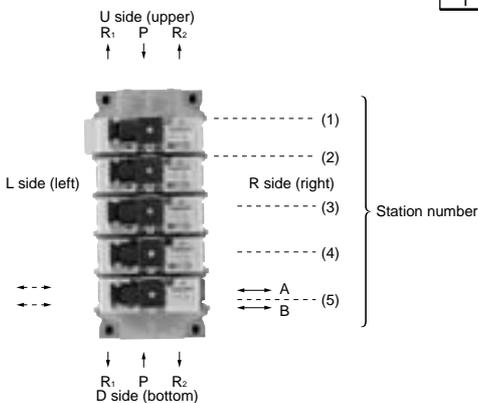
Slip No.	Order No.
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Order No.

● Manifold model no.



A ISO size	B Station number	C A/B port size	D A/B port position	E P/R port size	F P/R port position	G HY configuration	H Silencer box	I Voltage
1 : PV5G-6	1 : 1 station	02 : Rc ¹ / ₄	Blank : Right	03 : Rc ³ / ₈	B : Upper / bottom	Blank : When HY is not selected for "E"	Blank : None	1 : 100 VAC
to : to	03 : Rc ³ / ₈	L : Left and right	04 : Rc ¹ / ₂	D : Bottom	DU : Rc ³ / ₈ bottom, Rc ¹ / ₂ upper		SB : Selected (D side installation)	3 : 24 VDC
10 : 10 stations	HX1 : Rc ¹ / ₄ , Rc ³ / ₈ mix	H : Left	HY1 : Rc ³ / ₈ , Rc ¹ / ₂ mix	U : Upper	E : P upper, R bottom	UD : Rc ³ / ₈ upper, Rc ¹ / ₂ bottom		4 : 12 VDC
		Z : Rear		F : P bottom, R upper	T : Plug attached			5 : 110 VAC



J Indicator light		K Option	
Blank	None	Blank	None
N	With indicator light	A	Coolant proof

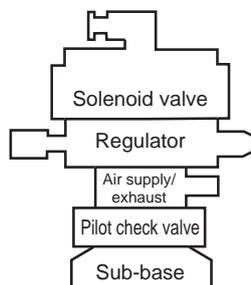
Note: "I", "J," and "K" select the options for the mounted valve when assembling the manifold.

* When placing an order, indicate the solenoid valve type No. (1) to (9) shown on the left in the following solenoid valve type No. field.

When selecting an option, indicate with a circle in the corresponding option field below.

Station No.	1	2	3	4	5	6	7	8	9	10	
Solenoid valve type No.	PV5G-6										
Indicate the plug position when L is selected for "D"	R										
	L										
Option	Air supply spacer										
	Exhaust spacer										
	Pilot check valve										
	Spacer type regulator	CMF*-SR-P									
		CMF*-SR-A									
	CMF*-SR-B										
Flow path shut off plate	Air supply passage shut off										
	Exhaust passage shut off										
Indicate a mixed port size configuration when selecting HX for "C"	02										
	03										

Solenoid valve type No.	
2-position single solenoid	PV5G-6-FG-S (1)
2-position double solenoid	PV5G-6-FG-D (2)
3-position all ports closed	PV5G-6-FHG-D (3)
3-position A-B-R connection	PV5G-6-FJG-D (4)
3-position P-A-B connection	PV5G-6-FIG-D (5)
3-position all ports closed non-leak	PV5G-6-FPG-D (6)
2-position single solenoid exhaust pressurization	PV5G-6-YZ-S (7)
2-position double solenoid exhaust pressurization	PV5G-6-YZ-D (8)
Masking plate	CM1-00 (9)



Assembly sequence of option (spacer)

Note: The basic order of solenoid valves from the sub-base is shown on the left. Simply remove any unnecessary spacers, and stack up valves.

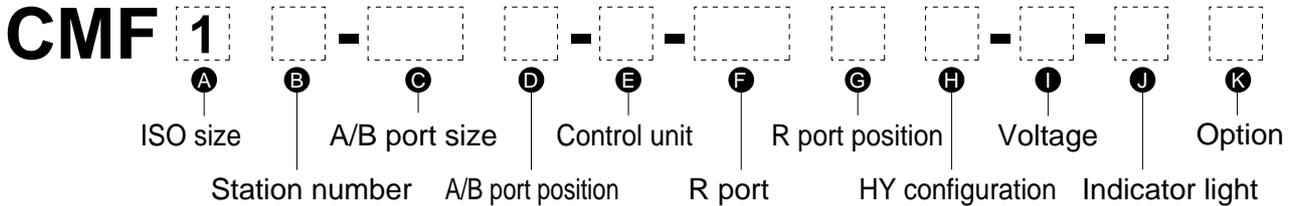
Manifold specification sheet ISO size 1 DIN terminal box type (with control unit)

Issue / /
Your company name _____
Contact _____
Order No. _____

● Contact ● Quantity set ● Request date

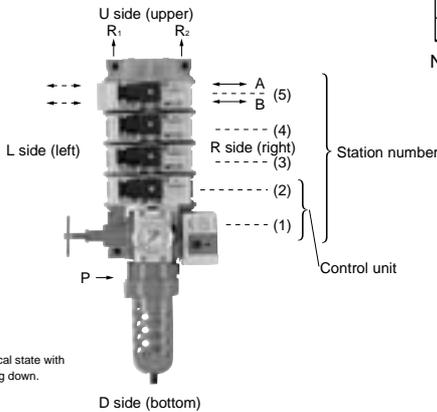
Slip No.	Order No.
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● Manifold model no.



A ISO size	B Station number	C A/B port size	D A/B port position	E Control unit (option)	F R port	G R port position	H HY configuration
1 : PV5G-6	3 : 3 stations	02 : Rc1/4	Blank : Right	A : Filter regulator with auto drain, air release valve	03 : Rc3/8	B : R upper / bottom	Blank : When HY is not selected for "F"
	to : to	03 : Rc3/8	L : Left / right	AP : Filter regulator with auto drain, air release valve pressure switch	04 : Rc1/2	D : R bottom	
	10 : 10 stations	HX1 : Rc1/4, Rc3/8 mix	H : Left	M : Filter regulator with manual drain, air release valve	HY1 : Rc3/8, Rc1/2 mix	U : R upper	DU : Rc 3/8 bottom, Rc 1/2 upper
			Z : Rear	F : Filter regulator with auto drain (air release valve plug)		T : Plug attached	UD : Rc 3/8 upper, Rc 1/2 bottom
			T : Plug attached	G : Filter regulator with manual drain (air release valve plug)			
				C : With air release valve			

Note: When selecting the type with control unit, the number of stations includes two unit bases.



Use in a vertical state with the filter facing down.

Note: The air release valve with control unit has a light, surge suppressor and manual override.

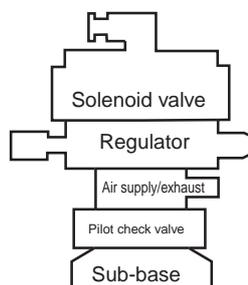
I Voltage	J Indicator light	K Option
1 : 100 VAC	Blank : None	Blank : None
3 : 24 VDC	N : With light	A : Coolant proof
4 : 12 VDC		
5 : 110 VAC		

Note: "I", "J", and "K" select the options for the mounted valve when assembling the manifold.

* When placing an order, indicate the solenoid valve type No. (1) to (9) shown on the left in the following solenoid valve type No. field.
When selecting an option, indicate with a circle in the corresponding option field below.

Station No.	1	2	3	4	5	6	7	8	9	10	
Solenoid valve type No.	PV5G-6										
Indicate the plug position when L is selected for "D"	R										
	L										
Option	Air supply spacer										
	Exhaust spacer										
	Pilot check valve	Spacer type									
		regulator	CMF1-SR-P								
		CMF1-SR-A									
	CMF1-SR-B										
Flow path shut off plate	Air supply passage shut off										
	Exhaust passage shut off										
Indicate a mixed port size configuration when selecting HX for "B".	02										
	03										

Solenoid valve type No.	
2-position single solenoid	PV5G-6-FG-S (1)
2-position double solenoid	PV5G-6-FG-D (2)
3-position all ports closed	PV5G-6-FHG-D (3)
3-position A-B-R connection	PV5G-6-FJG-D (4)
3-position P-A-B connection	PV5G-6-FIG-D (5)
3-position all ports closed non-leak	PV5G-6-FPG-D (6)
2-position single solenoid exhaust pressurization	PV5G-6-YZ-S (7)
2-position double solenoid exhaust pressurization	PV5G-6-YZ-D (8)
Masking plate	CM1-00 (9)



Assembly sequence of option (spacer)

Note: The basic order of solenoid valves from the sub-base is shown on the left. Simply remove any unnecessary spacers, and stack up valves.

MN3E0

MN4E0

4GA/B

M4GA/B

MN4GA/B

4GA/B (Master)

W4GA/B2

W4GB4

MN3S0

MN4S0

4TB

4L2-4/LMF0

4SA/B0

4SA/B1

4KA/B

4F

PV5G/CMF

PV5/CMF

3MA/B0

3PA/B

P/M/B

NP/NAP/NVP

4F*0E

HMV/HSV

2QV/3QV

SKH

PCD/FS/FD

Ending

5 port pilot operated valve

Manifold specification sheet

ISO size 2 DIN terminal box type

Issue / /

Your company name

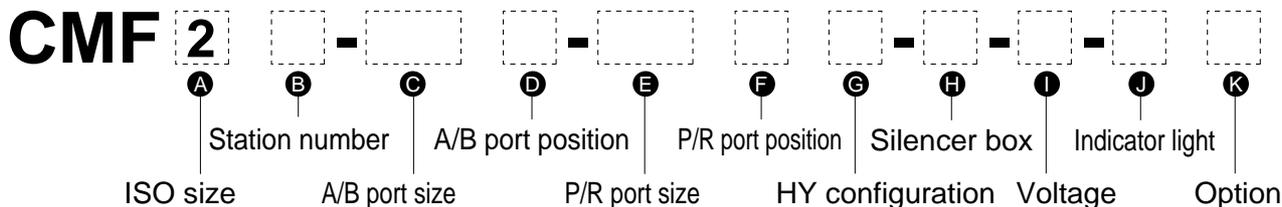
Contact

Order No.

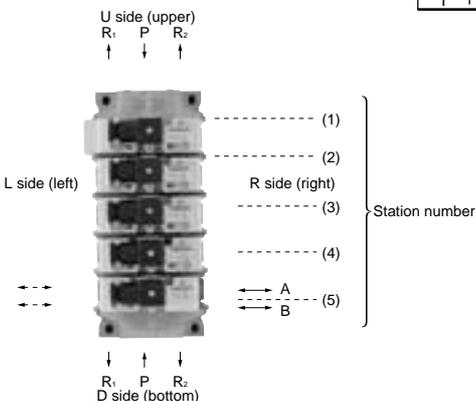
● Contact ● Quantity set ● Request date

Slip No.	Order No.
----------	-----------

● Manifold model no.



A ISO size	B Station number	C A/B port size	D A/B port position	E P/R port size	F P/R port position	G HY configuration	H Silencer box	I Voltage
2 : PV5G-8	1 : 1 station	03 : Rc 3/8	Blank : Right	04 : Rc 1/2	B : Upper / bottom	Blank : When HY is not selected for "E"	Blank : None	1 : 100 VAC
	to : 10 : 10 stations	04 : Rc 1/2	L : Left / right	06 : Rc 3/4	D : Bottom	DU : Rc 1/2 bottom, Rc 3/4 upper	SB : Selected (D side installation)	3 : 24 VDC
		HX2 : Rc 3/8, Rc 1/2 mix	H : Left	HY2 : Rc 1/2, Rc 3/8 mix	U : Upper	UD : Rc 1/2 upper, Rc 3/4 bottom		4 : 12 VDC
			Z : Rear		E : P upper, R bottom			5 : 110 VAC
			T : Plug attached		F : P bottom, R upper			
					T : Plug attached			



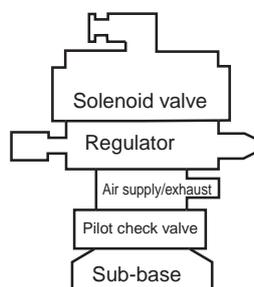
J Indicator light	K Option
Blank : None	Blank : None
N : With indicator light	A : Coolant proof

Note: "I", "J," and "K" select the options for the mounted valve when assembling the manifold.

* When placing an order, indicate the solenoid valve type No. (1) to (9) shown on the left in the following solenoid valve type No. field.
When selecting an option, indicate with a circle in the corresponding option field below.

Station No.	1	2	3	4	5	6	7	8	9	10
Solenoid valve type No.	PV5G-8									
Indicate the plug position when L is selected for "D"	R									
	L									
Option	Air supply spacer									
	Exhaust spacer									
	Pilot check valve									
	Spacer type regulator	CMF*-SR-P								
	CMF*-SR-A									
	CMF*-SR-B									
Flow path shut off plate	Air supply passage shut off									
	Exhaust passage shut off									
Indicate a mixed port size configuration when selecting HX for "C"	03									
	04									

Solenoid valve type No.		
2-position single solenoid		PV5G-8-FG-S (1)
2-position double solenoid		PV5G-8-FG-D (2)
3-position all ports block		PV5G-8-FHG-D (3)
3-position A-B-R connection		PV5G-8-FJG-D (4)
3-position P-A-B connection		PV5G-8-FIG-D (5)
3-position all ports block non-leak		PV5G-8-FPG-D (6)
2-position single solenoid exhaust pressurization		PV5G-8-YZ-S (7)
2-position double solenoid exhaust pressurization		PV5G-8-YZ-D (8)
Masking plate	CM2-00	(9)



Assembly sequence of option (spacer)

Note: The basic order of solenoid valves from the sub-base is shown on the left. Simply remove any unnecessary spacers, and stack up valves.

Manifold specification sheet ISO size 1/2 mix DIN terminal box type

Issue / /

Your company name _____

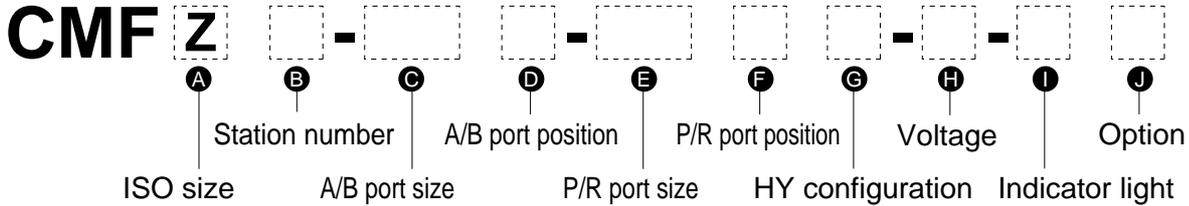
Contact _____

Order No. _____

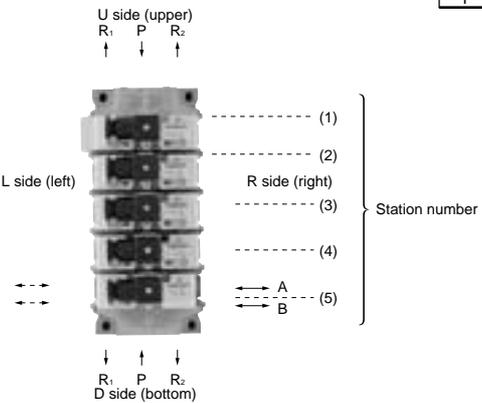
● Contact ● Quantity set ● Request date

Slip No. _____	Order No. _____
----------------	-----------------

● Manifold model no.



A ISO size	B Station number	C A/B port size	D A/B port position	E P/R port size	F P/R port position	G HY configuration	H Voltage	I Indicator light
Z : Mix of size 1, 2	1 : 1 station to : to 10 : 10 stations	HX3 : 1: 02, 2: 03 HX4 : 1: 02, 2: 04 HX5 : 1: 03, 2: 03 HX6 : 1: 03, 2: 04	Blank : Right L : Left / right H : Left Z : Rear T : Plug attached	HY3 : 1: 03, 2: 04 HY4 : 1: 03, 2: 06 HY5 : 1: 04, 2: 04 HY6 : 1: 04, 2: 06	B : Upper / bottom D : Bottom U : Upper E : P upper, R bottom F : P bottom, R upper T : Plug attached	DU : Size 1 bottom Size 2 upper UD : Size 1 upper Size 2 bottom	1 : 100 VAC 3 : 24 VDC 4 : 12 VDC 5 : 110 VAC	Blank : None N : With light



J Option	
Blank	None
A	Coolant proof

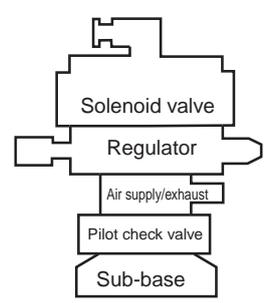
Note: "H", "I" and "J" select the options for the mounted valve when assembling the manifold.

* When placing an order, indicate the solenoid valve type No. (1) to (9) shown on the left in the following solenoid valve type No. field.
When selecting an option, indicate with a circle in the corresponding option field below.

Solenoid valve type No.	
2-position single solenoid	PV5G*-FG-S (1)
2-position double solenoid	PV5G*-FG-D (2)
3-position all ports block	PV5G*-FHG-D (3)
3-position A-B-R connection	PV5G*-FJG-D (4)
3-position P-A-B connection	PV5G*-FIG-D (5)
3-position all ports block non-leak	PV5G*-FPG-D (6)
2-position single solenoid exhaust pressurization	PV5G*-YZ-S (7)
2-position double solenoid exhaust pressurization	PV5G*-YZ-D (8)
Masking plate	CM*-00 (9)

Note: The asterisk is "6" or "8" for the solenoid valve and "1" or "2" for the masking plate and option.

Station No.	1	2	3	4	5	6	7	8	9	10	
Solenoid valve	PV5G-6										
type No.	PV5G-8										
Indicate the plug position when L is selected for "D"	R										
	L										
Option	Air supply spacer										
	Exhaust spacer										
	Pilot check valve										
	Spacer type regulator	CMF*-SR-P									
		CMF*-SR-A									
CMF*-SR-B											
Flow path shut off plate	Air supply passage shut off										
	Exhaust passage shut off										
Indicate a mixed port size configuration when selecting HX for "C"	02										
	03										
	04										

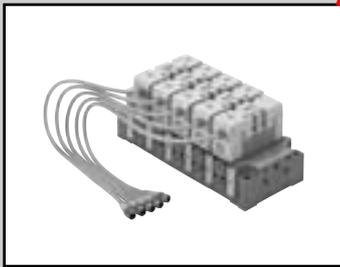


Assembly sequence of option (spacer)

Note: The basic order of solenoid valves from the sub-base is shown on the left. Simply remove any unnecessary spacers, and stack up valves.

- MN3E0
- MN4E0
- 4GA/B
- M4GA/B
- MN4GA/B
- 4GA/B (Master)
- W4GA/B2
- W4GB4
- MN3S0
- MN4S0
- 4TB
- 4L2-4/LMF0
- 4SA/B0
- 4SA/B1
- 4KA/B
- 4F
- PV5G/CMF
- PV5/CMF
- 3MA/B0
- 3PA/B
- P/M/B
- NP/NAP/NVP
- 4F*0E
- HMV/HSV
- 2QV/3QV
- SKH
- PCD/FS/FD
- Ending

5 port pilot operated valve



Individual wiring manifold ISO size 1
I/O connector type
5 port pilot operated valve ISO conformed valve

CMF1 Series

● Applicable cylinder bore size: Max. \varnothing 100



Common specifications

Descriptions	
Manifold method	Manifold integrated
Manifold type	Common supply / common exhaust, common supply / individual exhaust Individual supply / common exhaust, individual supply / individual exhaust Multi-pressure air supply
Station number	1 to 10 stations
Type of valve and operator	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)
Withstanding pressure MPa	1.50
Ambient temperature °C	-5 to 60 (no freezing)
Fluid temperature °C	5 to 60
Lubrication	Not required
Protective structure	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-leak type only 0.3 (ANR) or less Note 1
Vibration/impact m/s ²	50 or less / 300 or less
Working environment	Use in the environment containing corrosive gas is not permissible.

Note 1: Indicates the default.

Electric specifications

Descriptions	
Rated voltage V DC	24
Rated voltage fluctuation range	±10%
Power consumption W (Ampere A)	1.2 (0.050) * Value with light
Heat proof class	B (molded coil)
Wiring methods	I/O connector

Individual specifications

Descriptions	CMF1	
Port size Note 1	P/R1/R2 port	Rc3/8, Rc1/2
	A/B port	Rc1/4 Rc3/8
Response time Note 2 ms	2-position	Single solenoid
		Double solenoid
	3-position	30 (when ON), 40 (when OFF) 30 30 (when ON), 60 (when neutral)

Note 1: G threads and NPT threads are available for the piping port threads. Contact CKD for information.

Note 2: Response time is the value at an air supply of 0.5 MPa, and oil-free. The value will change based on quality of pressure and oil.

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
CMF1	Rc1/4	2-position single solenoid	4.8	0.25	5.2	0.26
		2-position double solenoid	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-leak	3.2	-	2.8	-

Note 1: Effective sectional area S and sonic conductance C are converted as $S \doteq 5.0 \times C$.

Control unit specifications

Control unit component	Descriptions	
Air filter (with automatic drain / manual drain)	Filtration rating	5 μm
Regulator	Setting pressure (secondary pressure)	0.1 to 0.83 MPa
	Pressure adjusting range	0.1 to 0.8 MPa
Pressure switch	Contact configuration	1C
	Rated current (inductive load)	125 VAC and 250 VAC 15 A
Air release valve (only single)	Working pressure range	0.15 to 1.0 MPa

- Refer to the Pneumatic, Vacuum, and Auxiliary Components (No. CB-024SA) for specifications of the pressure switch APE-8F*.
- PV5-6R-FG-S-TC is used for air release valve.

MN3E0
 MN4E0
 4GA/B
 M4GA/B
 MN4GA/B
 4GA/B (Master)
 W4GA/B2
 W4GB4
 MN3S0
 MN4S0
 4TB
 4L2-4/LMF0
 4SA/B0
 4SA/B1
 4KA/B
 4F
 PV5G/CMF
 PV5/CMF
 3MA/B0
 3PA/B
 P/M/B
 NP/NAP/NVP
 4F*0E
 HMV
 HSV
 2QV
 3QV
 SKH
 PCD/FS/FD
 Ending

Individual wiring manifold
 5 port pilot operated valve

CMF1 Series

Individual wiring manifold: ISO size 1

How to order I/O connector type (without control unit)

● ISO size 1

CMF 1 5 - 02 L - HY1 B DU - SB

Model no.

CMF1

Model no.

A Station number

B A/B port size
Note 1

C A/B port position
Note 2

D P/R port size

E P/R port position
Note 3
Note 4

F HY configuration

G Silencer box
Note 5

⚠ Note on model no. selection

Note 1: The port size for HX is mixed. Contact CKD for details.

Note 2: "C" indicates the port position.

All positions are plugged unless otherwise indicated.

Note 3: "E" indicates the port position.

The opposite side of the indication is plugged.

Note 4: If "G," type with silencer box is selected, the P port position can be selected. Select from B, D, U, or T.

Note 5: If "G," type with silencer box is selected, the top and bottom are both assembled with plugs.

<Example of model number>

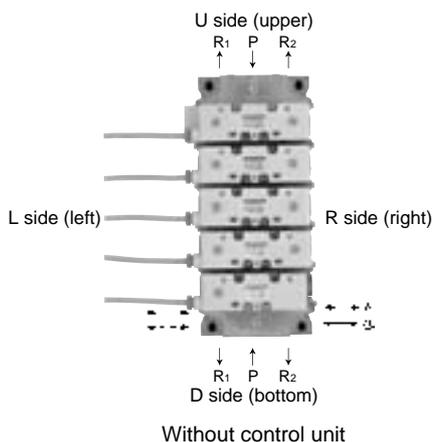
CMF15-02L-HY1BDU-SB

Model: Manifold ISO size 1

- A** Station number : 5 stations
- B C** A/B port : Rc1/4 (both left-right sides porting)
- D E F** P/R port : Rc3/8, Rc1/2 mix (Rc3/8 bottom, Rc1/2 upper)
- G** Silencer box : Selected (D side installation)

Symbol	Descriptions	CMF1
A Station number		
1	1 station	●
to	to	
10	10 stations	
B A/B port size		
02	Rc1/4	●
03	Rc3/8	●
HX1	Rc1/4, Rc3/8 mix	●
C A/B port position		
Blank	Right	●
L	Left/right sides (select position with manifold specifications)	●
H	Left	●
Z	Rear	●
T	Flexible selection (plug attached)	●
D P/R port size		
03	Rc3/8	●
04	Rc1/2	●
HY1	Rc3/8, Rc1/2 mix	●
E P/R port position		
B	Upper / bottom sides	●
D	Bottom side	●
U	Upper side	●
E	P upper, R bottom	●
F	P bottom, R upper	●
T	Flexible selection (plug attached)	●
F HY configuration		
Blank	When HY1 is not selected for "D"	●
DU	Rc3/8 bottom, Rc1/2 upper	●
UD	Rc3/8 upper, Rc1/2 bottom	●
G Silencer box		
Blank	None	●
SB	Selected (D side installation)	●

The valve is ordered separately. Refer to page 1017 for how to order the valve. When ordering a manifold with a valve, each model no. and **the manifold specifications given** on page 1042 **are required**.

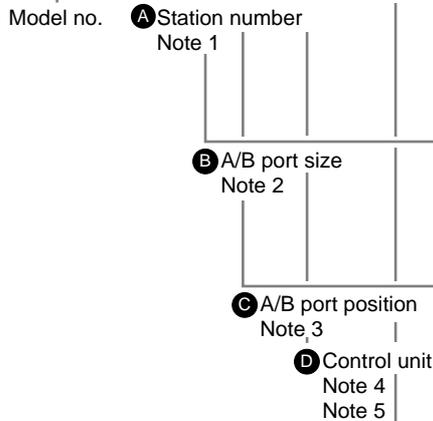


Individual wiring manifold: ISO size 1

How to order I/O connector type (with control unit)

● ISO size 1

CMF 1 5 - 02 L - A - HY1 B DU - TC



Note on model no. selection

- Note 1: Number of stations including two unit base stations.
- Note 2: The port size for HX is mixed. Contact CKD for details.
- Note 3: "C" indicates the port position. All positions are plugged unless otherwise indicated.
- Note 4: The air release valve is 24 VDC with light, surge suppressor, and manual override.
- Note 5: The pressure switch does not have a light. (Type with light is available as a custom order.)
- Note 6: "F" indicates the port position. The opposite side of the indication is plugged.

<Example of model number>

CMF15-02L-A-HY1BDU-TC

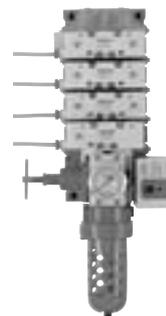
Model: Manifold ISO size 1

- A** Station number : 5 stations
- B C** A/B port : Rc1/4 (both left-right sides porting)
- D** Control unit : Filter with auto drain, regulator, and air release valve
- E F G** R port : Rc3/8, Rc1/2 mix (Rc3/8 bottom, Rc1/2 upper)
- H** Air release valve : I/O connector type

Manifold option control unit

Control units such as the air filter, regulator valve, pressure switch, and air release valve can be mounted onto the manifold as units, thus simplifying piping work.

Control unit	D	A	AP	M	MP	F	G	C
Filter regulator with auto drain CMF1-AFR-3F	○	○	-	-	○	-	-	-
Filter regulator with manual drain CMF1-AFR-3E	-	-	○	○	-	○	-	-
Installation spacer CMF1-FRB-D	○	○	○	○	○	○	○	○
Air release valve PV5-6R-FG-S-TC	○	○	○	○	-	-	○	-
Release valve spacer block CMF1-VP	-	-	-	-	○	○	-	-
FR spacer block CMF1-FR	-	-	-	-	-	-	-	○
Pressure switch APE-8F	-	○	-	○	-	-	-	-



Symbol	Descriptions	CMF1	
A Station number			
3	3 stations	●	
to	to		
10	10 stations		
B A/B port size			
02	Rc1/4	●	
03	Rc3/8	●	
HX1	Rc1/4, Rc3/8 mix	●	
C A/B port position			
Blank	Right	●	
L	Left/right sides (select position with manifold specifications)	●	
H	Left	●	
Z	Rear	●	
T	Flexible selection (plug attached)	●	
D Control unit (R): Regulator (A): Air release valve (P): Pressure switch			
A	Filter with auto drain	(R) (A)	●
AP	Filter with auto drain	(R) (A) (P)	●
M	Filter with manual drain	(R) (A)	●
MP	Filter with manual drain	(R) (A) (P)	●
F	Filter with auto drain (Air release valve plug)	(R)	●
G	Filter with manual drain (Air release valve plug)	(R)	●
C	With air release valve	(A)	●
E R port size			
03	Rc3/8	●	
04	Rc1/2	●	
HY1	Rc3/8, Rc1/2 mix	●	
F R port position			
B	R upper/bottom	●	
D	R bottom	●	
U	R upper	●	
T	Flexible selection (plug attached)	●	
G HY configuration			
Blank	When HY1 is not selected for "E"	●	
DU	Rc3/8 bottom, Rc1/2 upper	●	
UD	Rc3/8 upper, Rc1/2 bottom	●	
H Air release valve			
Blank	Without air release valve	●	
TC	I/O connector type	●	

The valve is ordered separately. Refer to page 1017 for how to order the valve. When ordering a manifold with a valve, each model no. and **the manifold specifications given** on page 1043 **are required**.

MN3E0
MN4E0
4GA/B
M4GA/B
MN4GA/B
4GA/B (Master)
W4GA/B2
W4GB4
MN3S0
MN4S0
4TB
4L2-4/LMF0
4SA/B0
4SA/B1
4KA/B
4F
PV5G/CMF
PV5/CMF
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*OE
HMV
HSV
2QV
3QV
SKH
PCD/FS/FD
Ending

Individual wiring manifold
5 port pilot operated valve

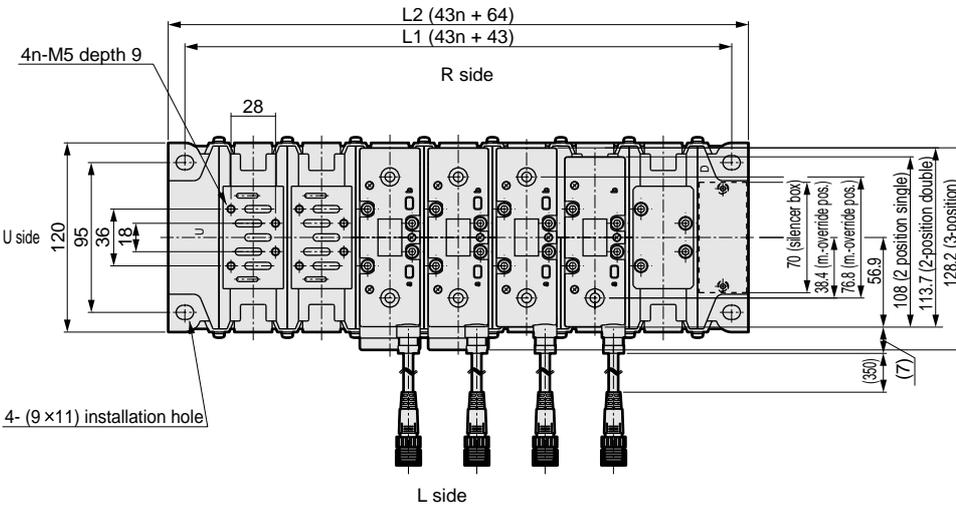
CMF1 Series

Individual wiring manifold: ISO size 1

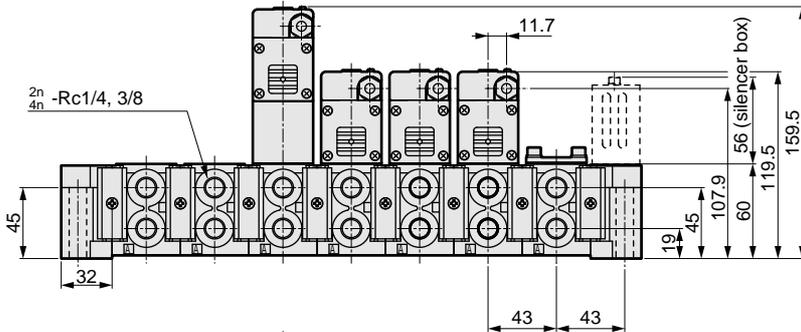
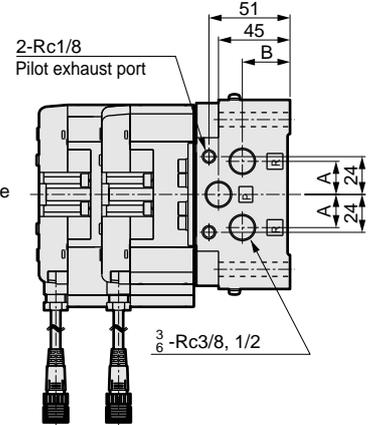
Dimensions: I/O connector type

CMF1

● Common exhaust

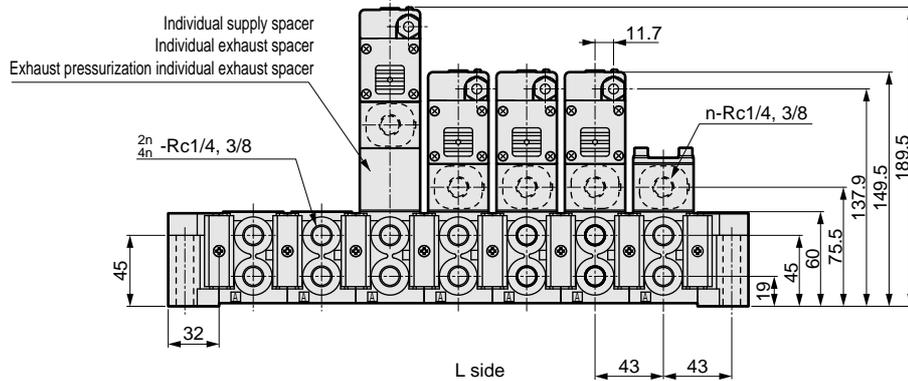


P/R port size	A	B
Rc3/8	21	30
Rc1/2	26	26



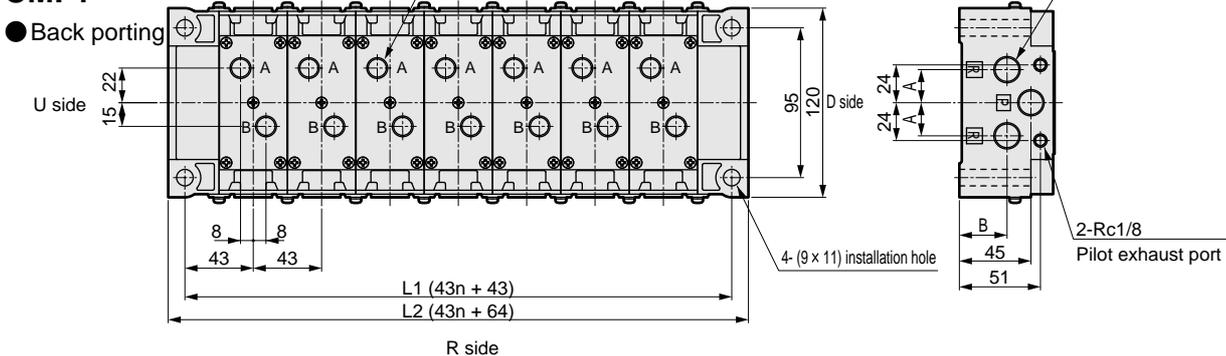
CMF1

● Individual exhaust



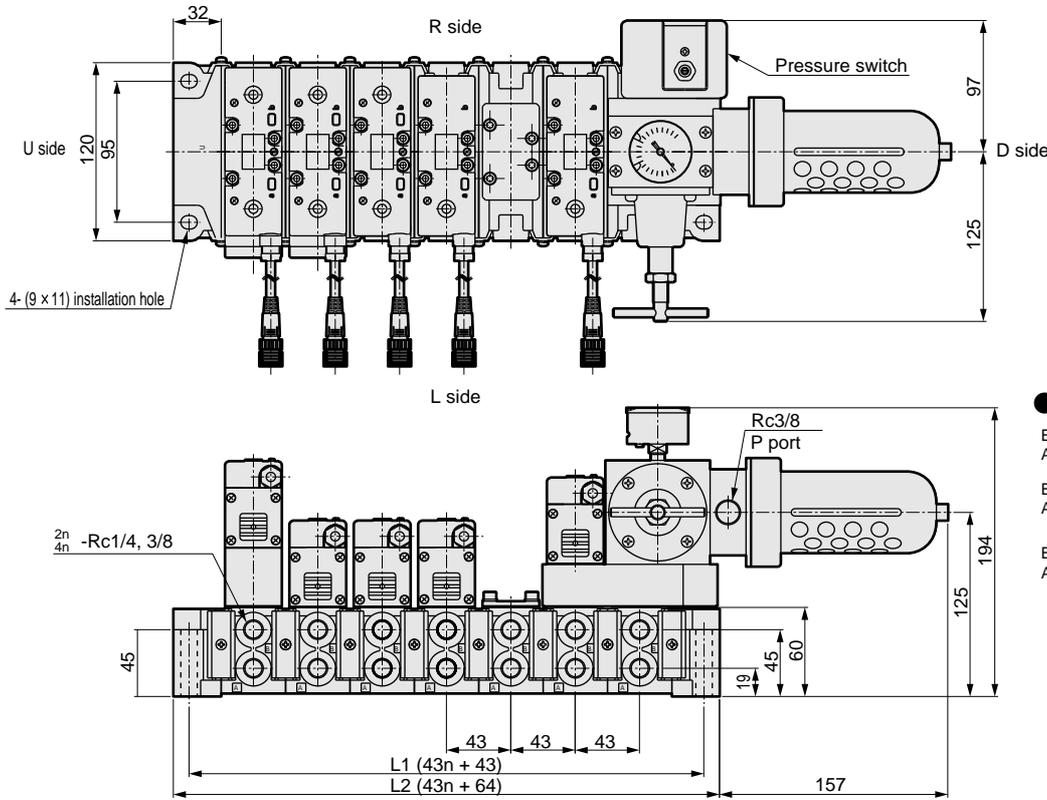
CMF1

● Back porting

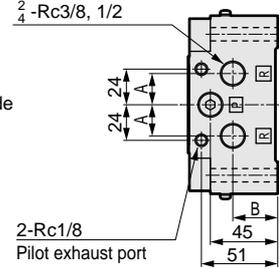


Dimensions: I/O connector type

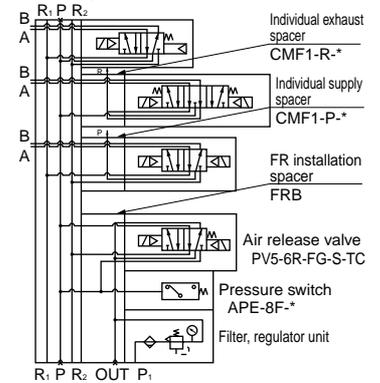
● With control unit



P/R port size	A	B
Rc3/8	21	30
Rc1/2	26	26

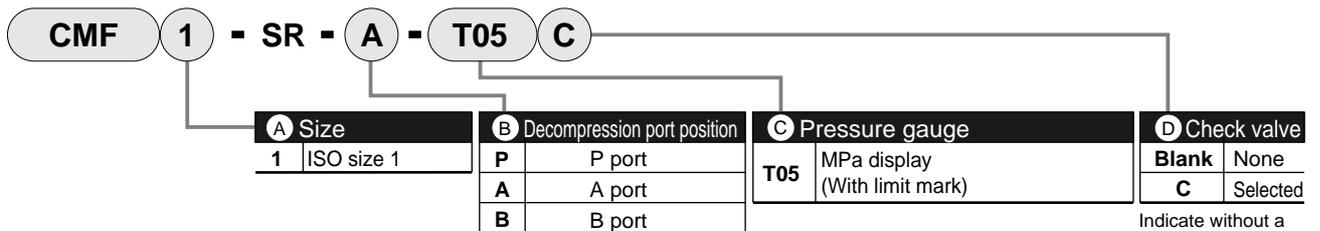


● JIS symbol



How to order *Spacer type regulator is still available for purchase.

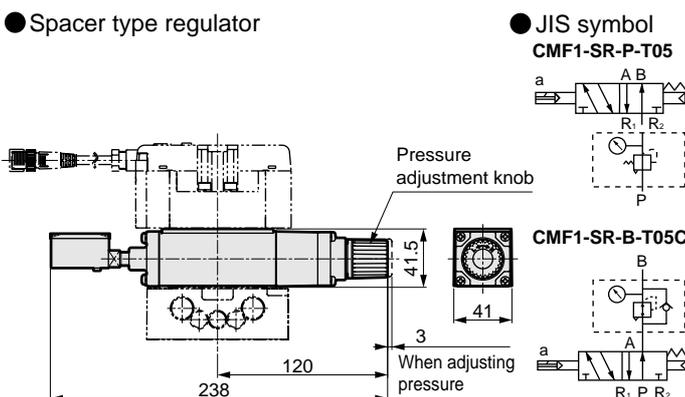
● Spacer type regulator



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

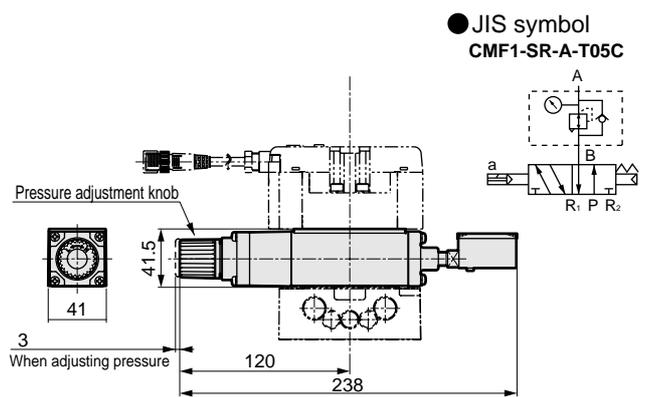
CMF1-SR-P-T05 CMF1-SR-B-T05C

● Spacer type regulator



CMF1-SR-A-T05C

● JIS symbol
CMF1-SR-A-T05C



MN3E0
MN4E0

4GA/B

M4GA/B

MN4GA/B

4GA/B (Master)

W4GA/B2

W4GB4

MN3S0
MN4S0

4TB

4L2-4/
LMF0

4SA/B0

4SA/B1

4KA/B

4F

PV5G/
CMF

PV5/
CMF

3MA/B0

3PA/B

P/M/B

NP/NAP/
NVP

4F*0E

HMV
HSV

2QV
3QV

SKH

PCD/
FS/FD

Ending

Individual wiring manifold

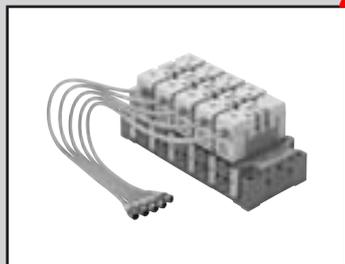
5 port pilot operated valve

Individual wiring manifold ISO size 2
I/O connector type

5 port pilot operated valve ISO conformed valve

CMF2 Series

● Applicable cylinder bore size: Max. \varnothing 160



Common specifications

Descriptions	
Manifold method	Manifold integrated
Manifold type	Common supply / common exhaust, common supply / individual exhaust Individual supply / common exhaust, individual supply / individual exhaust Multi-pressure air supply
Station number	1 to 10 stations
Type of valve and operator	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) Note 1
Withstanding pressure MPa	1.50
Ambient temperature °C	-5 to 60 (no freezing)
Fluid temperature °C	5 to 60
Lubrication	Not required
Protective structure	Dust proof, jet-proof (IP65 or equivalent)
Leakage cm ³ /min.	10 (ANR) or less
(A, B → R port)	3-position all ports closed non-leak type only 0.3 (ANR) or less Note 1
Vibration/impact m/s ²	50 or less / 300 or less
Working environment	Use in the environment containing corrosive gas is not permissible.

Note 1: Indicates the default.

Electric specifications

Descriptions	
Rated voltage V DC	24
Rated voltage fluctuation range	±10%
Power consumption W (Ampere A)	1.2 (0.050) * Value with light
Heat proof class	B (molded coil)
Wiring methods	I/O connector

Individual specifications

Descriptions	CMF2	
Port size Note 1	P/R1/R2 port	Rc1/2, Rc3/4
	A/B port	Rc3/8 Rc1/2
Response time Note 2 ms	2-position Single solenoid	40 (when ON), 60 (when OFF)
	2-position Double solenoid	40
	3-position	40 (when ON), 60 (when neutral)

Note 1: G threads and NPT threads are available for the piping port threads. Contact CKD for information.

Note 2: Response time is the value at an air supply of 0.5 MPa, and oil-free. The value will change based on quality of pressure and oil.

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
CMF2	Rc3/8	2-position single solenoid	9.7	0.12	11.0	0.14
		2-position double solenoid	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-leak	6.2	-	5.9	-

Note 1: Effective sectional area S and sonic conductance C are converted as $S \approx 5.0 \times C$.

How to order I/O connector type

● ISO size 2

CMF 2 5 - 03 L - 04 B - SB

Model no.

A Station number

B A/B port size
Note 1

C A/B port position
Note 2

D P/R port size

E P/R port position
Note 3
Note 4

F HY configuration

G Silencer box
Note 5

Model no.

CMF2

Symbol	Descriptions	CMF2
A Station number		
1	1 station	●
to	to	
10	10 stations	
B A/B port size		
03	Rc3/8	●
04	Rc1/2	●
HX2	Rc1/2, Rc3/8 mix	●
C A/B port position		
Blank	Right	●
L	Left/right sides (select position with manifold specifications)	●
H	Left	●
Z	Rear	●
T	Flexible selection (plug attached)	●
D P/R port size		
04	Rc1/2	●
06	Rc3/4	●
HY2	Rc1/2, Rc3/4 mix	●
E P/R port position		
B	Upper / bottom sides	●
D	Bottom side	●
U	Upper side	●
E	P upper, R bottom	●
F	P bottom, R upper	●
T	Flexible selection (plug attached)	●
F HY configuration		
Blank	When HY2 is not selected for "D"	●
DU	Rc1/2 bottom, Rc3/4 upper	●
UD	Rc1/2 upper, Rc3/4 bottom	●
G Silencer box		
Blank	None	●
SB	Selected (D side installation)	●

MN3E0
MN4E0

4GA/B

M4GA/B

MN4GA/B

4GA/B
(Master)

W4GA/B2

W4GB4

MN3S0
MN4S0

4TB

4L2-4/
LMF0

4SA/B0

4SA/B1

4KA/B

4F

PV5G/
CMF

PV5/
CMF

3MA/B0

3PA/B

P/M/B

NP/NAP/
NVP

4F*0E

HMV
HSV

2QV
3QV

SKH

PCD/
FS/FD

Ending

Individual wiring manifold
5 port pilot operated valve

Note on model no. selection

Note 1: The port size for HX is mixed. Contact CKD for details.

Note 2: "C" indicates the port position.

All positions are plugged unless otherwise indicated.

Note 3: "E" indicates the port position.

The opposite side of the indication is plugged.

Note 4: If "G", type with silencer box is selected, the P port position can be selected. Select from B, D, U, or T.

Note 5: If "G," type with silencer box is selected, the top and bottom are both assembled with plugs.

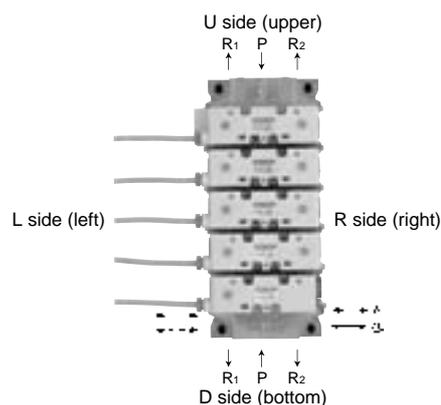
<Example of model number>

CMF25-03L-04B-SB

Model: Manifold ISO size 2

- A** Station number : 5 stations
- B C** A/B port : Rc3/8 (both left-right sides porting)
- D E** P/R port : Rc1/2 (both upper-bottom sides porting)
- G** Silencer box : Selected (D side installation)

The valve is ordered separately. Refer to page 1023 for how to order the valve. When ordering a manifold with a valve, each model no. and **the manifold specifications given** on page 1044 **are required.**



Without control unit

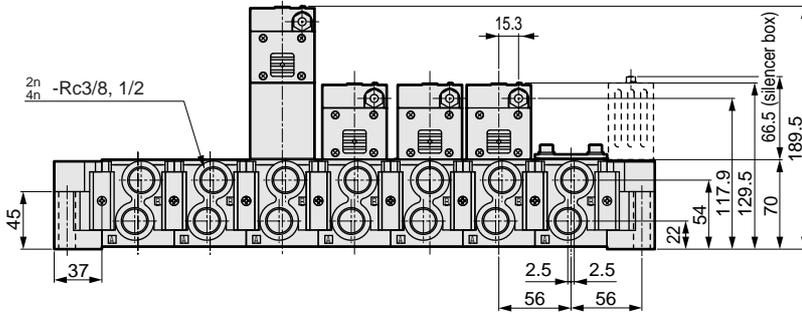
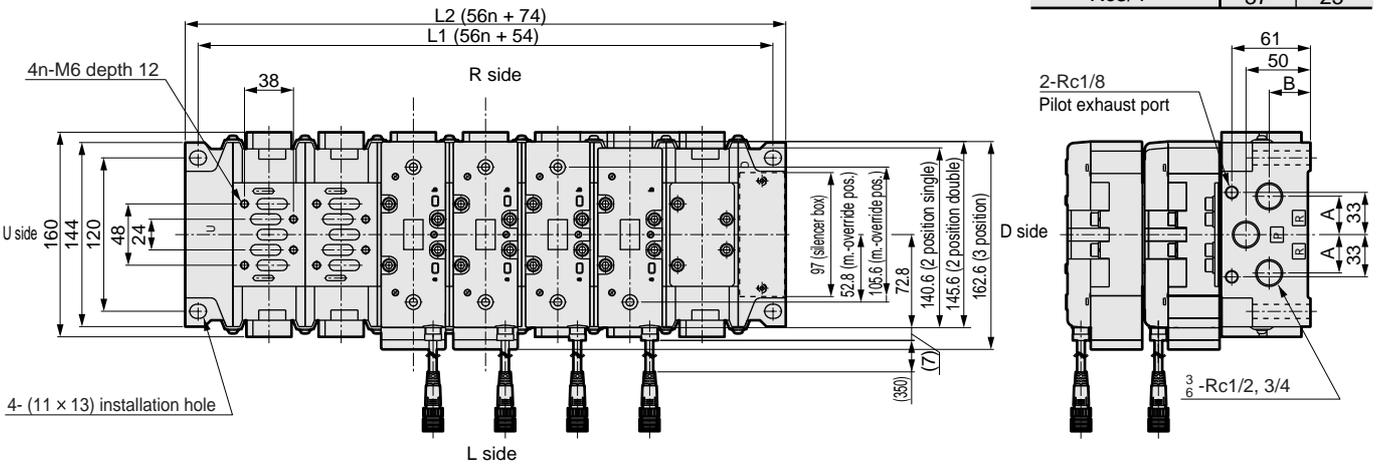
CMF2 Series

Individual wiring manifold: ISO size 2

Dimensions: I/O connector type

CMF2

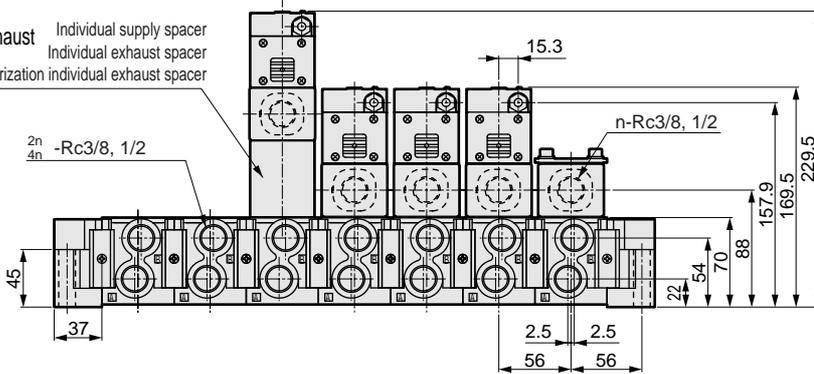
● Common exhaust



CMF2

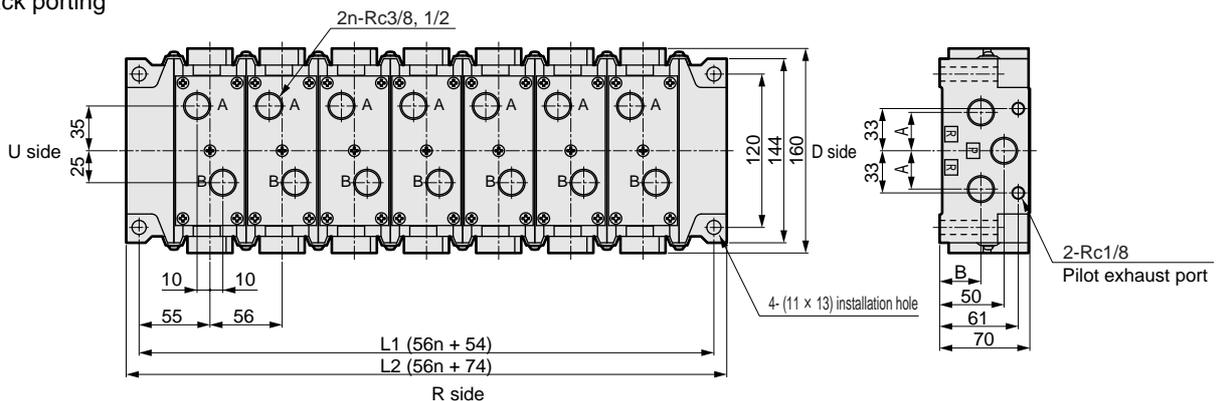
● Individual exhaust

Individual supply spacer
Individual exhaust spacer
Exhaust pressurization individual exhaust spacer



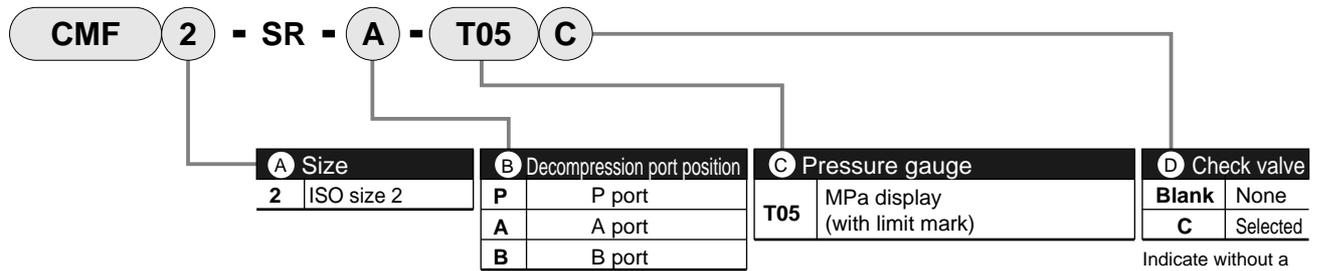
CMF2

● Back porting



How to order *Spacer type regulator is still available for purchase.

● Spacer type regulator

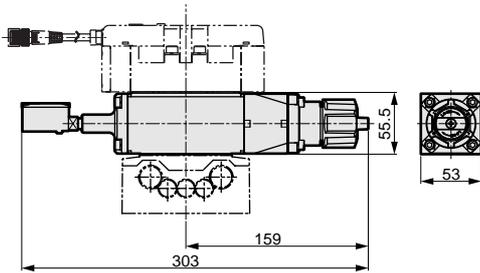


Indicate without a check valve (no symbol) for SR-P and with a check valve (C) for SR-A and SR-B.

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

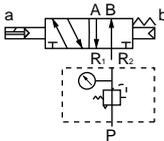
CMF2-SR-P-T05 CMF2-SR-B-T05C

● Spacer type regulator

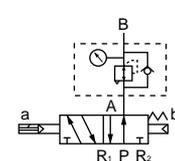


● JIS symbol

CMF2-SR-P-T05



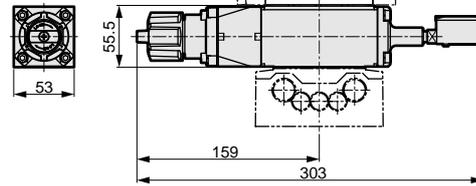
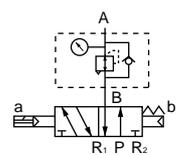
CMF2-SR-B-T05C



CMF2-SR-A-T05C

● JIS symbol

CMF2-SR-A-T05C



MN3E0
MN4E0
4GA/B
M4GA/B
MN4GA/B
4GA/B (Master)
W4GA/B2
W4GB4
MN3S0
MN4S0
4TB
4L2-4/LMF0
4SA/B0
4SA/B1
4KA/B
4F
PV5G/CMF
PV5/CMF
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*0E
HMV
HSV
2QV
3QV
SKH
PCD/FS/FD
Ending

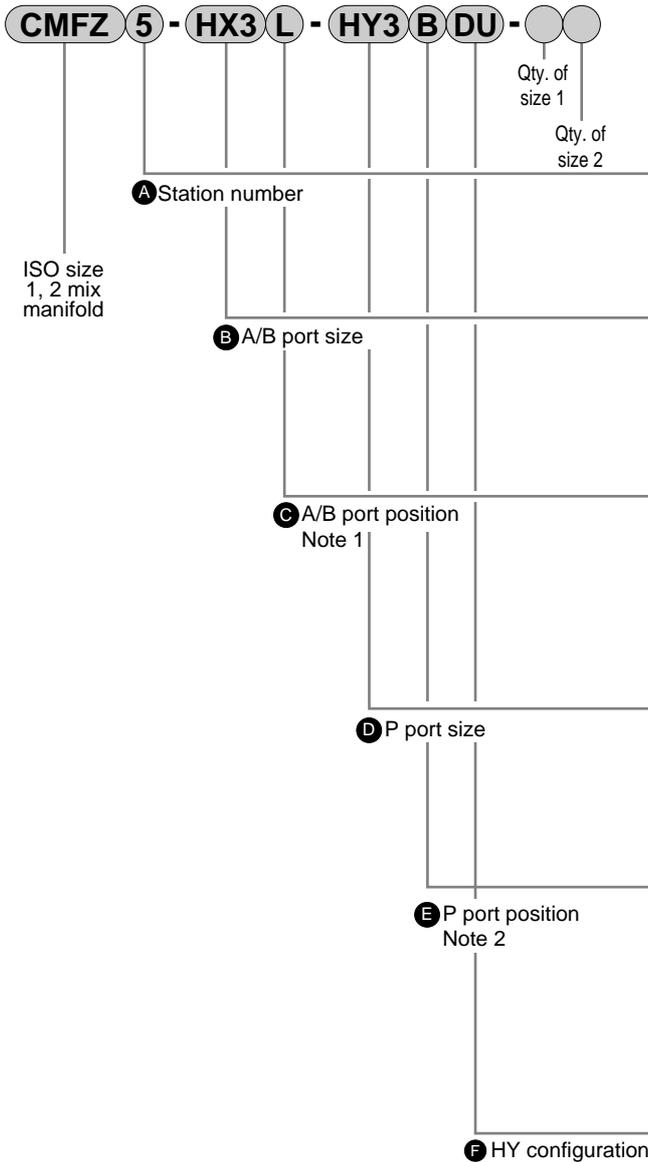
Individual wiring manifold
5 port pilot operated valve

CMFZ Series

Mix manifold: ISO size 1, 2 mix

How to order I/O connector type

- MN3E0
- MN4E0
- 4GA/B
- M4GA/B
- MN4GA/B
- 4GA/B (Master)
- W4GA/B2
- W4GB4
- MN3S0
- MN4S0
- 4TB
- 4L2-4/LMFO
- 4SA/B0
- 4SA/B1
- 4KA/B
- 4F
- PV5G/CMF
- PV5/CMF**
- 3MA/B0
- 3PA/B
- P/M/B
- NP/NAP/NVP
- 4F*0E
- HMV
- HSV
- 2QV
- 3QV
- SKH
- PCD/FS/FD
- Ending



⚠ Note on model no. selection

Note 1: "C" indicates the port position. All positions are plugged unless otherwise indicated.

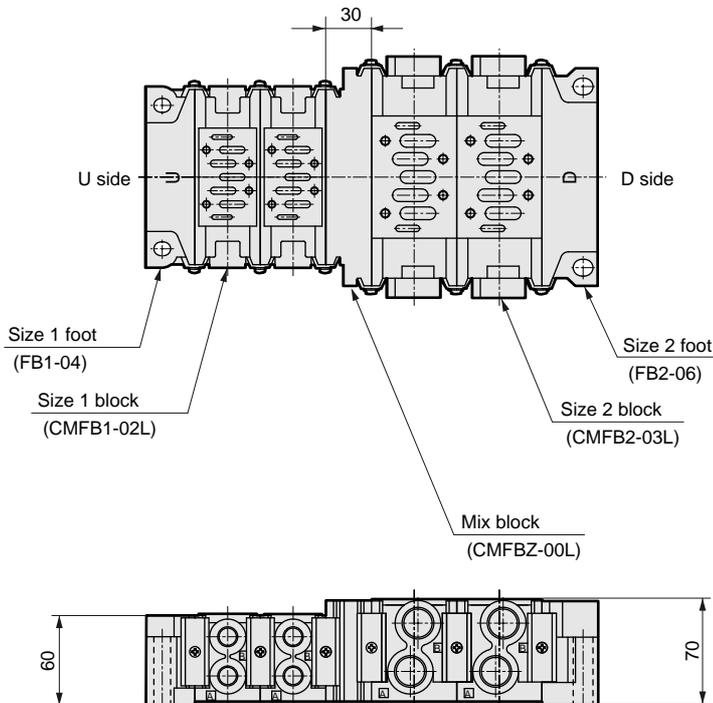
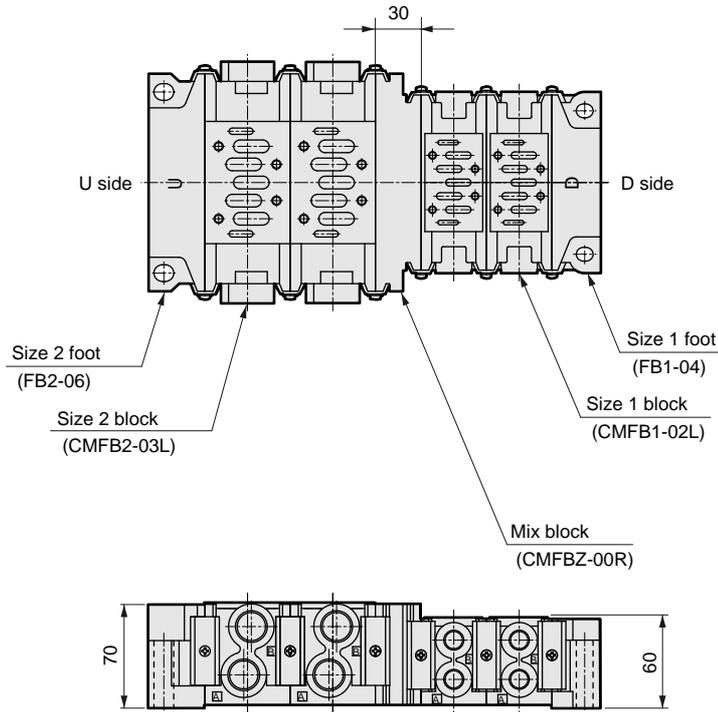
Note 2: "E" indicates the port position. The opposite side of the indication is plugged.

Symbol		Descriptions	Model no.
			CMFZ
A Station number			
2	2 stations		●
to	to		
10	10 stations		
B A/B port size			
HX3	1:02, 2:03		●
HX4	1:02, 2:04		●
HX5	1:03, 2:03		●
HX6	1:03, 2:04		●
C A/B port position			
Blank	Right		●
L	Left/right sides (select position with manifold specifications)		●
H	Left		●
Z	Rear		●
T	Flexible selection (plug attached)		●
D P port size			
HY3	1:03, 2:04		●
HY4	1:03, 2:06		●
HY5	1:04, 2:04		●
HY6	1:04, 2:06		●
E P port position			
B	Upper / bottom sides		●
D	Bottom side		●
U	Upper side		●
E	P upper, R bottom		●
F	P bottom, R upper		●
T	Flexible selection (plug attached)		●
F HY configuration			
DU	Smaller port size is bottom and larger size is top or 1 is bottom and 2 is top.		●
UD	Smaller port size is top and larger size is bottom or 1 is top and 2 is bottom.		●

The valve is ordered separately. Refer to pages 1017, 1023 for how to order the valve. When ordering a manifold with a valve, each model no. and **the manifold specifications given** on page 1045 are required.

No.	Descriptions	Model no.	Appearance	Remarks
1	ISO size 1, 2 mix block	CMFBZ-00L		U side size 1 D side size 2 With connecting bracket / O ring
		CMFBZ-00R		U side size 2 D side size 1 With connecting bracket / O ring

Mix manifold appearance

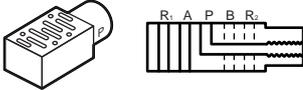
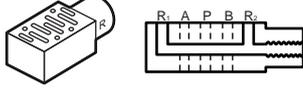
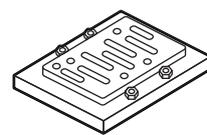
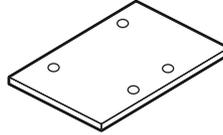
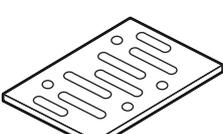
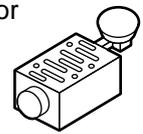
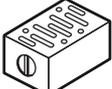
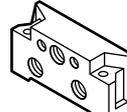
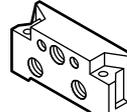
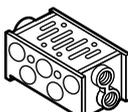


MN3E0
MN4E0
4GA/B
M4GA/B
MN4GA/B
4GA/B (Master)
W4GA/B2
W4GB4
MN3S0
MN4S0
4TB
4L2-4/ LMF0
4SA/B0
4SA/B1
4KA/B
4F
PV5G/ CMF
PV5/ CMF
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0E
HMV/ HSV
2QV/ 3QV
SKH
PCD/ FS/FD
Ending

Mix manifold
5 port pilot operated valve

* The dimensions for the 1 and 2 foot sizes and the blocks are given on pages 1032 and 1036.

Manifold option *Manifold options are still available for purchase.

	Options	Model no.		Remarks
		ISO size 1	ISO size 2	
MN3E0 MN4E0 4GA/B M4GA/B MN4GA/B 4GA/B (Master) W4GA/B2 W4GB4 MN3S0 MN4S0 4TB 4L2-4/ LMF0 4SA/B0 4SA/B1 4KA/B 4F PV5G/ CMF PV5/ CMF 3MA/B0 3PA/B P/M/B NP/NAP/ NVP 4F*0E HNV HSV 2QV 3QV SKH PCD/ FS/FD Ending	<p>1. Discrete supply spacer</p> 	CMF1-P-02 (Rc1/4) 03 (Rc3/8)	CMF2-P-03 (Rc3/8) 04 (Rc1/2)	1. Use for individual supply port clamp and various pressures 2. Individual exhaust for exhaust pressurizing
	<p>2. Discrete exhaust spacer</p> 	CMF1-R-02 (Rc1/4) 03 (Rc3/8)	CMF2-R-03 (Rc3/8) 04 (Rc1/2)	1 port exhaust by individual exhaust (Back pressure proof)
	<p>3. Adaptor</p> 	CU1-00 (FS, FD2 series, Rc1/4, 3/8) CU1-01 (FS, FD3 series, Rc1/4, 3/8, 1/2)	CU2-00 (FS, FD3 series, Rc1/4, 3/8, 1/2) CU2-01 (FS, FD4 series, Rc1/2, 3/4)	PV5-6R and PV5-8R can be mounted on conventional models F _{D3} ^{S2} . (Custom order)
	<p>4. Masking plate</p> 	CM1-00	CM2-00	PV5-6R PV5-8R For discrete masking
		CM1-01	CM2-01	Manifold (CMF1, CMF2) P/R1/R2 port For masking
	<p>5. Base gasket</p> 	PV5G-6-BASE-GASKET	PV5G-8-BASE-GASKET	PV5-6R PV5-8R
	<p>6. Set screw</p> 	CMF1-M5X35	CMF2-M6X45	
	<p>7. Spacer type regulator</p> 	CMF1-SR-P-T05 CMF1-SR-A-T05C CMF1-SR-B-T05C "How to order" page 1033	CMF2-SR-P-T05 CMF2-SR-A-T05C CMF2-SR-B-T05C "How to order" page 1037	Multi-pressure use
	<p>8. Air pilot check valve</p> 	CMF1-PC	CMF2-PC	Cylinder intermediate position holding
	<p>9. Foot</p> <p>U side </p> <p>D side </p>	FB1- 03 U 04 U FB1- 03 D 04 D	FB2- 04 U 06 U FB2- 04 D 06 D	Manifold connection bracket set (x2), plugs (also O-rings for U-side foot) are enclosed.
	<p>10. Manifold block</p> 	CMFB1- 02 T 03 T	CMFB2- 03 T 04 T	Manifold connection bracket set (x2), plugs, and O-rings are enclosed.

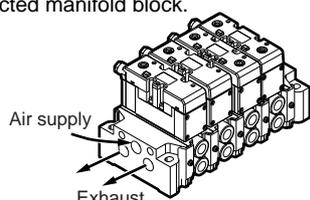
Manifold type

A variety of supply, exhaust, and piping methods, which can be combined, have been lined up. Select the optimum functions for your application.

1 General use

● Common exhaust method

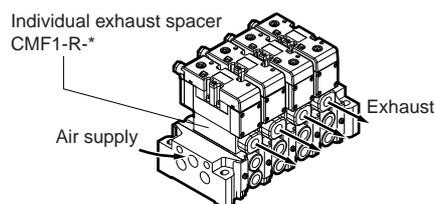
This method is used most commonly. The air supply and exhaust of each solenoid valve are centralized to one place by the P (supply) and R (exhaust) ports passing through the connected manifold block.



2 General applications

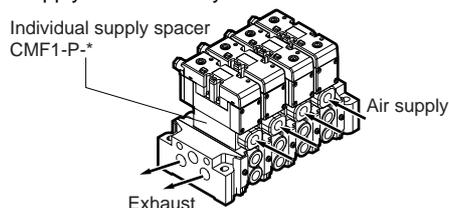
● Individual exhaust method

The R1 and 2 (exhaust) ports are separate for each solenoid valve, so popping out of adjacent cylinders by the back pressure can be prevented. An individual exhaust spacer (CMF1-R-*) is placed between the manifold block and valve to exhaust individually.



● Individual supply method

The P (supply) port is independent for each valve so different pressures can be supplied to specific valves in the manifold. An individual supply spacer (CMF1-P-*) is placed between the manifold block and valve to supply air individually.



● Individual supply / individual exhaust

Use this when individual P (supply) ports and R (exhaust) ports are to be used for only specific valves in the manifold.

Example: When using an oilless manifold but lubricating a specific valve.

An individual air supply spacer (CMF1-P-*) and individual exhaust spacer (CMF1-R-*) are placed between the manifold block and valve to supply air and exhaust individually.

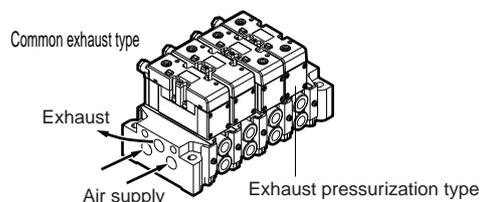
● Multi-pressure air supply method

This method supplies two different types of high and low pressures to one manifold. A masking plate (CM1-01) is inserted between the manifold blocks with different pressures.

3 Special applications (exhaust pressurization)

This method is optimum for supplying two or more different types of pressure to one manifold.

Example: When driving a 2-piston cylinder used in welding machines.



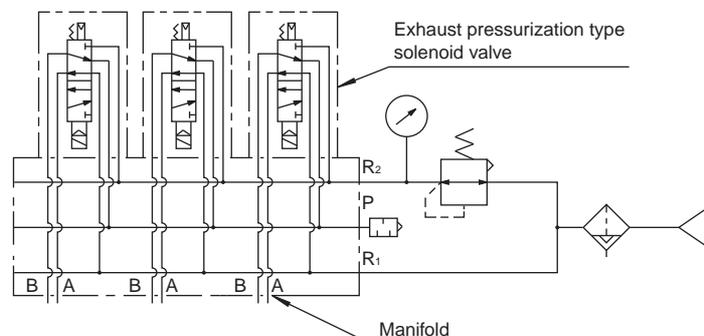
4 Matters common for general and special types

● Back porting method

When pipes cannot be piped from the side, part or all of the A and B ports can be piped from the bottom of the manifold.

● Example of using exhaust pressurization

Common exhaust type



MN3E0
MN4E0

4GA/B

M4GA/B

MN4GA/B

4GA/B
(Master)

W4GA/B2

W4GB4

MN3S0
MN4S0

4TB

4L2-4/
LMF0

4SA/B0

4SA/B1

4KA/B

4F

PV5G/
CMF

PV5/
CMF

3MA/B0

3PA/B

P/M/B

NP/NAP/
NVP

4F*0E

HMV
HSV

2QV
3QV

SKH

PCD/
FS/FD

Ending

5 port pilot operated valve

Manifold specification sheet ISO size 1 I/O connector type

Issue / /

Your company name

Contact

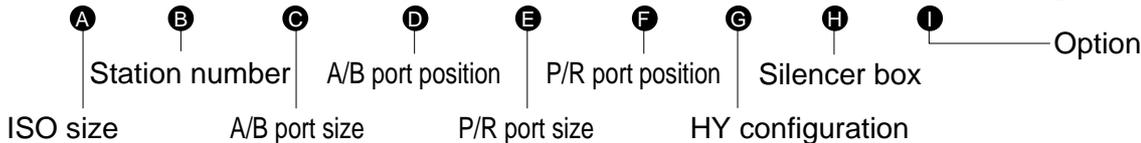
Order No.

● Contact ● Quantity set ● Request date

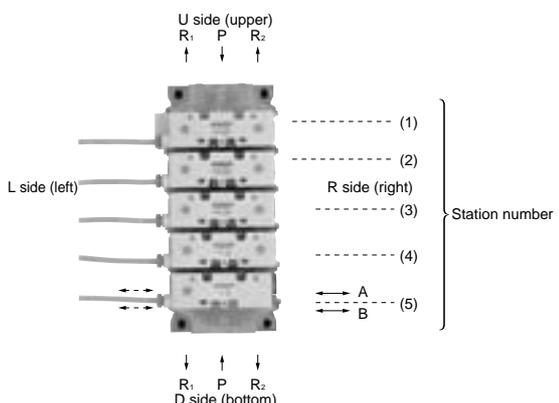
Slip No.	Order No.
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● Manifold model no.

CMF 1 - - - - - TC



A ISO size	B Station number	C A/B port size	D A/B port position	E P/R port size	F P/R port position	G HY configuration	H Silencer box	I Option
1 : PV5-6R	1 : 1 station to to : 03 : Rc 3/8 10 : 10 stations HX1 : Rc 1/4, Rc 3/8 mix	02 : Rc 1/4 03 : Rc 3/8 HX1 : Rc 1/4, Rc 3/8 mix	Blank : Right L : Left / right H : Left Z : Rear T : Plug attached	03 : Rc 3/8 04 : Rc 1/2 HY1 : Rc 3/8, Rc 1/2 mix	B : Upper / bottom D : Bottom U : Upper E : P upper, R bottom F : P bottom, R upper T : Plug attached	Blank : When HY is not selected for "E" DU : Rc 3/8 bottom, Rc 1/2 upper UD : Rc 3/8 upper, Rc 1/2 bottom	Blank : None SB : Selected (D side installation)	Blank : None A : Coolant proof

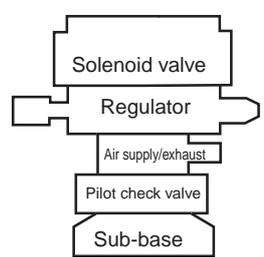


⚠ Rated voltage 24 VDC, with light and surge suppressor

* When placing an order, indicate the solenoid valve type No. (1) to (6), and (9) shown on the left in the following solenoid valve type No. field.
When selecting an option, indicate with a circle in the corresponding option field below.

Solenoid valve type No.	
2-position single solenoid	PV5-6R-FG-S-TC (1)
2-position double solenoid	PV5-6R-FG-D-TC (2)
3-position all ports block	PV5-6R-FHG-D-TC (3)
3-position A-B-R connection	PV5-6R-FJG-D-TC (4)
3-position P-A-B connection	PV5-6R-FIG-D-TC (5)
3-position all ports block non-leak	PV5-6R-FPG-D-TC (6)
Masking plate	CM1-00 (9)

Station No.	1	2	3	4	5	6	7	8	9	10
Solenoid valve type No.	PV5-6R									
Indicate the plug position when L is selected for "D"	R L									
Option	Air supply spacer									
	Exhaust spacer									
	Pilot check valve									
	Spacer type regulator	CMF*-SR-P CMF*-SR-A CMF*-SR-B								
Flow path shut off plate	Air supply passage shut off									
	Exhaust passage shut off									
Indicate a mixed port size configuration when selecting HX for "C"	02 03									



Assembly sequence of option (spacer)

Note: The basic order of solenoid valves from the sub-base is shown on the left. Simply remove any unnecessary spacers, and stack up valves.

Manifold specification sheet ISO size 1 I/O connector type (with control unit)

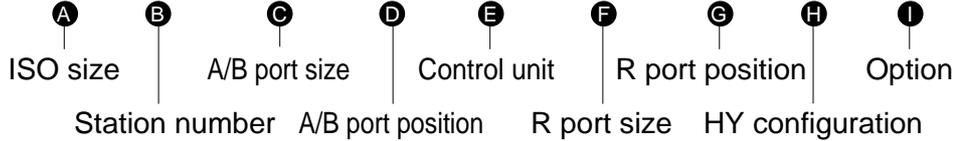
Issue / /
Your company name
Contact
Order No.

● Contact ● Quantity set ● Request date

Slip No. Order No.

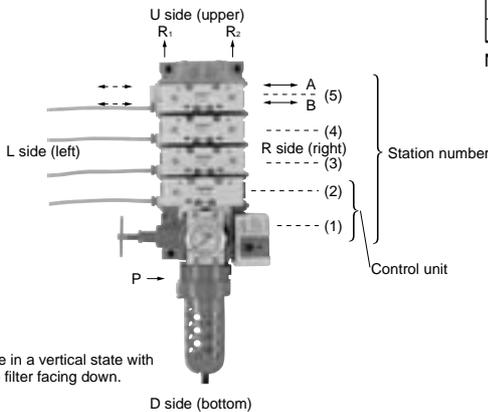
● Manifold model no.

CMF 1 - - - - - TC



A ISO size	B Station number	C A/B port size	D A/B port position	E Control unit (option)	F R port size	G R port position	H HY configuration
1 PV5-6R	3 3 stations	02 Rc1/4	Blank Right	A Filter regulator with auto drain, air release valve	03 Rc3/8	B Upper/bottom	Blank When HY is not selected for "F"
	to to	03 Rc3/8	L Left / right	AP Filter regulator w/ auto drain, w/ air release valve, pressure switch	04 Rc1/2	D Bottom	DU Rc3/8 bottom, Rc1/2 upper
	10 10 stations	HX1 Rc1/4, Rc3/8 mix	H Left	M Filter regulator with manual drain, air release valve	HY1 Rc3/8, Rc1/2 mix	U Upper	UD Rc3/8 upper, Rc1/2 bottom
			Z Rear	MP Filter regulator w/ auto drain, w/ air release valve, pressure switch		T Plug attached	
			T Plug attached	F Filter regulator with auto drain (air release valve plug)			
				G Filter regulator with manual drain (air release valve plug)			
				C With air release valve			

Note: When selecting the type with control unit, the number of stations includes two unit bases.



Note: The air release valve with control unit has a light, surge suppressor and manual override.

Option	
Blank	None
A	Coolant proof

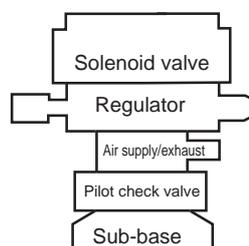
Note: "I" selects the options for the mounted valve when assembling the manifold.

▲ Rated voltage 24 VDC, with light and surge suppressor

* When placing an order, indicate the solenoid valve type No. (1) to (6), and (9) shown on the left in the following solenoid valve type No. field.
When selecting an option, indicate with a circle in the corresponding option field below.

Solenoid valve type No.	
2-position single solenoid	PV5-6R-FG-S-TC (1)
2-position double solenoid	PV5-6R-FG-D-TC (2)
3-position all ports block	PV5-6R-FHG-D-TC (3)
3-position A-B-R connection	PV5-6R-FJG-D-TC (4)
3-position P-A-B connection	PV5-6R-FIG-D-TC (5)
3-position all ports block non-leak	PV5-6R-FPG-D-TC (6)
Masking plate	CM1-00 (9)

Station No.	1	2	3	4	5	6	7	8	9	10	
Solenoid valve type No.	PV5-6R										
Indicate the plug position when L is selected for "D"	R	X	X								
	L	X	X								
Option	Air supply spacer	X	X								
	Exhaust spacer	X	X								
	Pilot check valve	Spacer type	X	X							
		CMF1-SR-P	X	X							
CMF1-SR-A		X	X								
Flow path shut off plate	CMF1-SR-B	X	X								
	Air supply passage shut off	X	X								
Indicate a mixed port size configuration when selecting HX for "C"	Exhaust passage shut off	X	X								
	02	X	X								
	03	X	X								



Assembly sequence of option (spacer)

Note: The basic order of solenoid valves from the sub-base is shown on the left. Simply remove any unnecessary spacers, and stack up valves.

MN3E0
MN4E0
4GA/B
M4GA/B
MN4GA/B
4GA/B (Master)
W4GA/B2
W4GB4
MN3S0
MN4S0
4TB
4L2-4/LMF0
4SA/B0
4SA/B1
4KA/B
4F
PV5G/CMF
PV5/CMF
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*0E
HMV/HSV
2QV
3QV
SKH
PCD/FS/FD
Ending

5 port pilot operated valve

Manifold specification sheet

ISO size 2 I/O connector type

Issue / /

Your company name

Contact

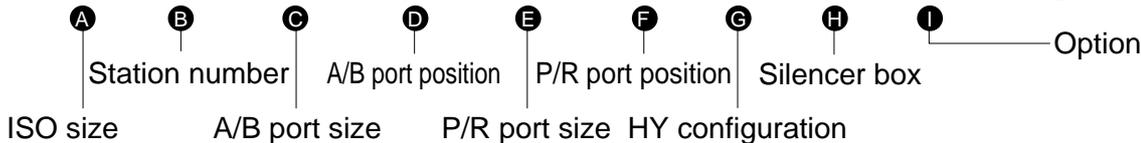
Order No.

● Contact ● Quantity set ● Request date

Slip No.	Order No.
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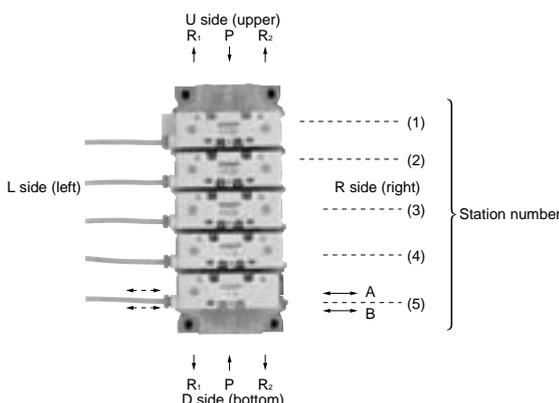
● Manifold model no.

CMF 2 - - - - - TC



A ISO size	B Station number	C A/B port size	D A/B port position	E P/R port size	F P/R port position	G HY configuration	H Silencer box	I Option
2 : PV5-8R	1 : 1 station	03 : Rc ³ / ₈	Blank : Right	04 : Rc ¹ / ₂	B : Upper / bottom	Blank : When HY is not selected for "E"	Blank : None	Blank : None
to /to	04 : Rc ¹ / ₂	HX2 : Rc ³ / ₈ , Rc ¹ / ₂ mix	L : Left / right	06 : Rc ³ / ₄	D : Bottom	DU : Rc ¹ / ₂ bottom, Rc ³ / ₄ upper	SB : Selected (D side installation)	A : Coolant proof
10 : 10 stations			H : Left	HY2 : Rc ¹ / ₂ , Rc ³ / ₄ mix	U : Upper	UD : Rc ¹ / ₂ upper, Rc ³ / ₄ bottom		
			Z : Rear		E : P upper, R bottom			
			T : Plug attached		F : P bottom, R upper			
					T : Plug attached			

Note: "I" selects the options for the mounted valve when assembling the manifold.

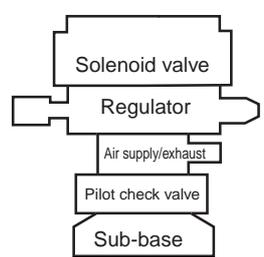


⚠ Rated voltage 24 VDC, with light and surge suppressor

* When placing an order, indicate the solenoid valve type No. (1) to (6), and (9) shown on the left in the following solenoid valve type No. field.
When selecting an option, indicate with a circle in the corresponding option field below.

Solenoid valve type No.	
2-position single solenoid	PV5-8R-FG-S-TC (1)
2-position double solenoid	PV5-8R-FG-D-TC (2)
3-position all ports block	PV5-8R-FHG-D-TC (3)
3-position A-B-R connection	PV5-8R-FJG-D-TC (4)
3-position P-A-B connection	PV5-8R-FIG-D-TC (5)
3-position all ports block non-leak	PV5-8R-FPG-D-TC (6)
Masking plate	CM2-00 (9)

Station No.	1	2	3	4	5	6	7	8	9	10	
Solenoid valve type No.	PV5-8R										
Indicate the plug position when L is selected for "D"	R										
	L										
Option	Air supply spacer										
	Exhaust spacer										
	Pilot check valve	Spacer type									
		regulator	CMF*-SR-P								
		CMF*-SR-A									
	CMF*-SR-B										
Flow path shut off plate	Air supply passage shut off										
	Exhaust passage shut off										
Indicate a mixed port size configuration when selecting HX for "C"	03										
	04										



Assembly sequence of option (spacer)

Note: The basic order of solenoid valves from the sub-base is shown on the left. Simply remove any unnecessary spacers, and stack up valves.

Manifold specification sheet

ISO size 1/2 mix I/O connector types

Issue / /

Your company name

Contact

Order No.

● Contact ● Quantity set ● Request date

Slip No. Order No.

● Manifold model no.

CMF Z - - - - - TC

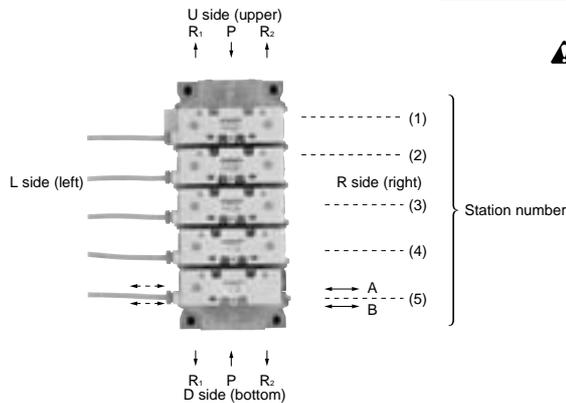
A
B
C
D
E
F
G
I

Station number A/B port position P/R port position Option

ISO size A/B port size P/R port size HY configuration

A ISO size	B Station number	C A/B port size	D A/B port position	E P/R port size	F P/R port position	G HY configuration	I Option
Z : Mix of size 1, 2	1 : 1 station to to 10 : 10 stations	HX3 : 1: 02, 2: 03 HX4 : 1: 02, 2: 04 HX5 : 1: 03, 2: 03 HX6 : 1: 03, 2: 04	Blank : Right L : Left / right H : Left Z : Rear T : Plug attached	HY3 : 1: 03, 2: 04 HY4 : 1: 03, 2: 06 HY5 : 1: 04, 2: 04 HY6 : 1: 04, 2: 06	B : Upper / bottom D : Bottom U : Upper E : P upper, R bottom F : P bottom, R upper T : Plug attached	DU : Size 1 bottom Size 2 upper UD : Size 1 upper Size 2 bottom	Blank : None A : Coolant proof

Note: "I" selects the options for the mounted valve when assembling the manifold.



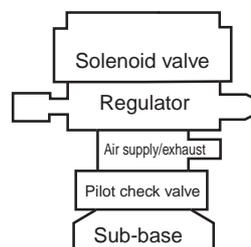
⚠ Rated voltage 24 VDC, with light and surge suppressor

* When placing an order, indicate the solenoid valve type No. (1) to (6), and (9) shown on the left in the following solenoid valve type No. field. When selecting an option, indicate with a circle in the corresponding option field below.

Solenoid valve type No.	
2-position single solenoid	 PV5-*R-FG-S-TC (1)
2-position double solenoid	 PV5-*R-FG-D-TC (2)
3-position all ports block	 PV5-*R-FHG-D-TC (3)
3-position A-B-R connection	 PV5-*R-FJG-D-TC (4)
3-position P-A-B connection	 PV5-*R-FIG-D-TC (5)
3-position all ports block non-leak	 PV5-*R-FPG-D-TC (6)
Masking plate	CM*-00 (9)

Note: The asterisk is "6" or "8" for the solenoid valve and "1" or "2" for the masking plate and option.

Station No.	1	2	3	4	5	6	7	8	9	10	
Solenoid valve	PV5-6R										
type No.	PV5-8R										
Indicate the plug position when L is selected for "D"	R										
	L										
Option	Air supply spacer										
	Exhaust spacer										
	Pilot check valve										
	Spacer type regulator	CMF*-SR-P									
		CMF*-SR-A									
CMF*-SR-B											
Flow path shut off plate	Air supply passage shut off										
	Exhaust passage shut off										
Indicate a mixed port size configuration when selecting HX for "C"	02										
	03										
	04										



Assembly sequence of option (spacer)

Note: The basic order of solenoid valves from the sub-base is shown on the left. Simply remove any unnecessary spacers, and stack up valves.

- MN3E0
- MN4E0
- 4GA/B
- M4GA/B
- MN4GA/B
- 4GA/B (Master)
- W4GA/B2
- W4GB4
- MN3S0
- MN4S0
- 4TB
- 4L2-4/LMF0
- 4SA/B0
- 4SA/B1
- 4KA/B
- 4F
- PV5G/CMF
- PV5/CMF
- 3MA/B0
- 3PA/B
- P/M/B
- NP/NAP/NVP
- 4F*0E
- HMV
- HSV
- 2QV
- 3QV
- SKH
- PCD/FS/FD
- Ending

5 port pilot operated valve