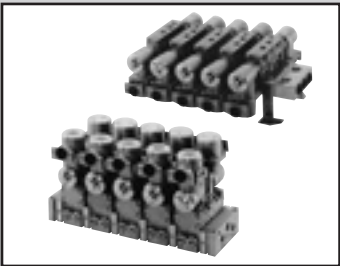


4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G GMF
PV5 GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP NVP
4G*0EJ
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys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



Individual wiring manifold
Pilot operated explosion-proof 5-port valve pneumatic valve

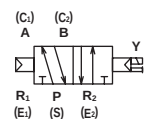
M4F**0E Series

- Japan Conformity Certificate No.
Class A: No. T64364
Class H: No. T64363
- China Conformity Certificate No. (CCC) 2020322307002070
- China explosion-proof type (NEPSI) GYB20.2251X
- Cylinder bore size: ø63 to ø250

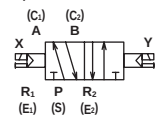


JIS symbol

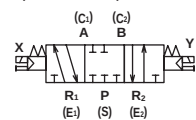
2-position/single



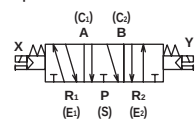
2-position/double



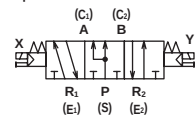
3-position/all ports closed



3-position/ABR connection



3-position/PAB connection



Common specifications

Item	Description
Manifold method	Manifold integrated
Manifold	Common exhaust Individual exhaust (M4F3)
Station No.	2 to 10 stations
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressureMPa	1.0
Min. working pressureMPa	Refer to Individual specifications listed below
Proof pressure MPa	1.5
Ambient temperature°C (*1)	-10 to 60(no freezing)
Fluid temperature °C	5 to 60
Lubrication	Not required (use turbine oil ISO VG32 if necessary for lubrication)
Explosion-proof performance	d2G4
Manual override	Locking
Vibration resistance cm/s^2	50 or less
Shock resistance cm/s^2	300 or less
Atmosphere	Cannot be used in corrosive gas environment.

*1: The ambient temperature indicates the temperature for storage and upon installation, which will differ from the fluid temperature during operation.

Electrical specifications

Item	Description
Rated voltage	AC 100V, 200V, 110V, 220V (50/60Hz) DC 24V, 12V
Voltage fluctuation range	±10%
Starting current	AC 100V 0.186/0.135 200V 0.093/0.068 110V 0.169/0.123 220V 0.085/0.061 DC 24V 0.166 12V 0.332
Holding current	AC 100V 0.06/0.05 200V 0.03/0.025 110V 0.055/0.045 220V 0.027/0.023 DC 24V 0.166 12V 0.332
Power consumption	AC 100V 4.5/4.0 200V 4.5/4.0 110V 4.5/4.0 220V 4.5/4.0 DC 24V 4.0 12V 4.0
Thermal class	A (*1, H)

*1: Thermal class H is available as an option. The dimensions are the same as those of A.

Individual specifications

Item	M4F3	M4F4	M4F5	M4F6	M4F7
Min. working pressure	0.1	0.1	0.1	0.15	0.15
MPa	0.15	0.15	0.15	0.15	0.15
Port	Cylinder port C Exhaust port E Air supply port S	Rp1/4,Rp3/8 Rc1/2 Rc3/8	Rc1/4 Rc3/8 Rc1/2	Rc3/8 Rc1/2 Rc3/4	Rc1/2 Rc3/4 Rc1
size	Cylinder port C Exhaust port E Air supply port S	Rp1/4,Rp3/8 Rc1/4,Rc3/8 Rc1/2	Rc1/4 Rc3/8 Rc1/2	Rc3/8 Rc1/2 Rc3/4	Rc3/4 Rc1/2 Rc1
(*1)					

*1: NPT threads can also be used for piping port. Contact CKD for details.
(However, the external wire inlet is G1/2.)

Performance/characteristics by model

Item	M4F3	M4F4	M4F5	M4F6	M4F7
Response time ms	100	120	140	400	600

*1: The response times are values with working pressure of 0.5MPa, without lubrication, and with the power ON. They depend on the pressure and the lubricant quality.

Weight

Item	M4F3	M4F4	M4F5	M4F6	M4F7
Weight calculation formula kg	1.26×n+0.98	1.42×n+0.47	1.74×n+0.77	3.41×n+1.79	4.72×n+1.79
(n: Station No.)	1.80×n+0.98	1.86×n+0.47	2.22×n+0.77	3.91×n+1.79	5.20×n+1.79
	1.99×n+0.98	2.02×n+0.47	2.48×n+0.77	4.21×n+1.79	6.22×n+1.79

Flow characteristics

Model No.	Solenoid position		Port size	C[dm³/(s·bar)]	b	S(mm²)	
4F3	2-position	Single	Rp1/4	3.9	0.42	-	
		Double					
	3-position	All ports closed		4.0	0.35		
		A/B/R connection		4.5	0.42		
		P/A/B connection		4.0	0.35		
	2-position	Single	Rp3/8	5.8	0.42		
		Double					
	3-position	All ports closed		4.4	0.42		
		A/B/R connection		5.1	0.46		
		P/A/B connection		4.4	0.42		
4F4	2-position	Single	Rc1/4	5.0	0.21	-	
		Double					
	3-position	All ports closed		4.7	0.24		
		A/B/R connection		5.3	0.29		
		P/A/B connection		5.3	0.29		
4F5	2-position	Single	Rc3/8	10.0	0.32	-	
		Double					
	3-position	All ports closed		9.7	0.28		
		A/B/R connection		9.8	0.25		
		P/A/B connection					
4F6	2-position	Single	Rc1/2	18.0	0.31	-	
		Double					
	3-position	All ports closed		15.0	0.23		
		A/B/R connection					
		P/A/B connection					
4F7	2-position	Single	Rc3/4	-	-	160	
		Double					
	3-position	All ports closed					
		A/B/R connection					
		P/A/B connection					

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

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

M4F**0E Series

Individual wiring manifold

How to order

- Single solenoid valve for manifold (4F3)



- Single solenoid valve for manifold(4F4 to 7)



- Manifold



* Purchase the M4F3-GASKET-KIT together.

* For 4F3 NPT thread, refer to *3.

A Model No.

B Solenoid position

C Port size

D External wire pull method

E Option

Precautions for model No. selection

*1: Only the following voltage products are available as made to order.
(There are no certifications for other than the listed voltage.)

Voltage	AC[V](50/60 Hz)	12, 24, 48, 115, 120, 125, 127, 210, 230, 240, 250, 380
	DC[V]	12, 45, 48, 80, 100, 110, 125

*2: In order to ensure explosion-proof specifications, select a cable from the following for use with type G.

Cable	No. of cores	Nominal section area	Wire config	Finished outer ø
Polyethylene cable (EV)	2-conductor	2 mm ²	7/0.6	ø10.5
600 V vinyl insulation vinyl Sheath cable (VV)	2-conductor	2 mm ²	7/0.6	ø10.5
Control vinyl insulation vinyl Sheath cable (CVV)	2-conductor	2 mm ²	7/0.6	ø10.5

*3: For 4F3 NPT thread solenoid valve Discrete for manifold, specify the bore size as N2. (Example) 4F310E-08N2-TP-AC100V

[Example of model No.]

M4F310E-08-TP-N-7-CL-100 VAC

- A Model No. : Pilot operated explosion-proof 5-port valve manifold
- B Solenoid position : 2-position single
- C Port size : Rp1/4
- D External wire pull method : Conduit screw connection method
- E Option : Plug attached
- F Thermal class : A
- G Station No. : 7 stations
- H Exhaust method : common exhaust
- I Installation feet : L-bracket
- J Voltage : 100 VAC

K Organizations for explosive-proof certification

J Voltage *2

List the number of solenoid valves to be used when using a mix manifold (Refer to page 1827 for an example of how to list the description.)

Code	Description	4F3	4F4	4F5	4F6	4F7
B Solenoid position						
1	2 position single	●	●	●	●	●
2	2-position double	●	●	●	●	●
3	3-position all ports closed	●	●	●	●	●
4	3-position ABR connection	●	●	●	●	●
5	3-position PAB connection	●	●	●	●	●
8	Mix manifold (when there are multiple solenoid positions)	●	●	●	●	●
C Port size						
08	Rp1/4(For M4F3), Rc1/4	●	●			
10	Rp3/8(For M4F3),Rc3/8	●		●		
D15	Rc1/2				●	
E20	Rc3/4					●
08N	NPT1/4	●	●			
10N	NPT3/8	●		●		
08N2	NPT1/4 (with solenoid valve Discrete for manifold)	●				
10N2	NPT3/8 (with solenoid valve Discrete for manifold)	●				
D15N	NPT1/2				●	
E20N	NPT3/4					●
08G	G1/4	●	●			
10G	G3/8	●		●		
D15G	G1/2				●	
E20G	G3/4					●
D External wire pull method						
G	Pressure proof packing protection pipe screw-in (*2)	●	●	●	●	●
T	Conduit thread system	●	●	●	●	●
E Option						
Blank	No option	●	●	●	●	●
N	Plug included (for 3-port valve)	●	●	●	●	●
R	Position change of manual override	●				
NC	3-port valve specifications plug assembly (C1 (A), E1 (R1) assembly)	●	●	●	●	●
NO	3-port valve specifications plug assembly (C2 (B), E2 (R2) assembly)	●	●	●	●	●
F Thermal class						
Blank	A(Standard products)	●	●	●	●	●
X	H(Optional)	●	●	●	●	●
G Station No.						
2	2	●	●	●	●	●
to	to					
10	10 stations					
H Exhaust method						
C	Common exhaust	●	●	●	●	●
I	Individual exhaust	●				
I Installation feet						
L	L-bracket(Dedicated for single)	●				
U	U type bracket	●				
J Voltage						
AC100V	100 VAC (50/60 Hz)	●	●	●	●	●
AC200V	200 VAC (50/60 Hz)	●	●	●	●	●
DC24V	24 VDC	●	●	●	●	●
DC12V	12 VDC	●	●	●	●	●
AC110V	110 VAC(50/60 Hz)	●	●	●	●	●
AC220V	220 VAC(50/60 Hz)	●	●	●	●	●
* Other made-to-order products						
[AC voltage]						
12V, 24V, 48V, 115V, 120V, 125V, 127V, 210V, 230V, 240V, 250V, 380V		●	●	●	●	●
[DC voltage]						
45V, 48V, 80V, 100V, 110V, 125V		●	●	●	●	●
K Organizations for explosive-proof certification						
Blank	Japan certification (TIIS)	●	●	●	●	●
CN	China certification (CCC)	●	●	●	●	●

How to order masking plate kit

M4F3 - 08 - MP-KIT

* Gasket attached (M4F3)
Gasket/set screw attached (M4F4 to M4F7)

A Model No.

A Model No.
M4F3
M4F4
M4F5
M4F6
M4F7

B Port size

Code	Description	Model No.
08	Rp1/4	M4F3
10	Rp3/8	M4F3
Blank	Rc1/4	M4F4
Blank	Rc3/8	M4F5
D15	Rc1/2	M4F6
E20	Rc3/4	M4F7

How to order mix manifold

M 4F3 8 0E - 08 - T P - N - X - 7 - C U - AC100V -

Mix manifold "8"

*For How to order other items, refer to the previous page.

S1	S2	S3	S4	S5	MP
2	2	1	1	1	0

S1=1, 6 S2=2, 5
S3=3 S4=7
S5=4

*Create a manifold specifications sheet.

How to fill in form for ordering a mix manifold

- (1) List the quantity for each function (solenoid position) at the end of How to order. The functions and codes are as shown below.

Example: 2-position single → S1

Code	Function (solenoid position)
S1	2-position single
S2	2-position double
S3	3-position all ports closed
S4	3-position A/B/R connection
S5	3-position P/A/B connection
MP	Masking plate

S1 S2 S3 S4 S5 MP

2 2 1 1 1 0

List the quantity

- (2) List the function (solenoid position) and layout position in the field for remarks.

Solenoid position code = ○, ○th station (where the left side is the 1st station when the piping port is facing forward.)

Example: S1 = 1, 6 (1st, 6th stations are 2-position single)

[Example of model No.]

For 7 stations

1 2 3 4 5 6 7 Layout position

2-position single	2-position double	3-position all ports closed	3-position P/A/B connection	2-position double	2-position single	3-position A/B/R connection
-------------------	-------------------	-----------------------------	-----------------------------	-------------------	-------------------	-----------------------------

S1 S2 S3 S5 S2 S1 S4 Code

2-position single (S1) : 2 units (1st station, 6th station)
 2-position double (S2) : 2 units (2nd station, 5th station)
 3-position all ports closed (S3) : 1 unit (3rd station)
 3-position ABR connection (S4) : 1 unit (7th station)
 3-position PAB connection (S5) : 1 unit (4th station)

↓

M4F380E-08-TP-N-7-CU-AC100V -

S1	S2	S3	S4	S5	MP
2	2	1	1	1	0

S1=1, 6 S2=2, 5 S3=3
S4=7 S5=4

*Create a manifold specifications sheet.

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

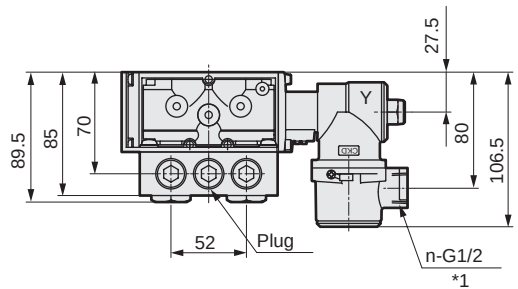
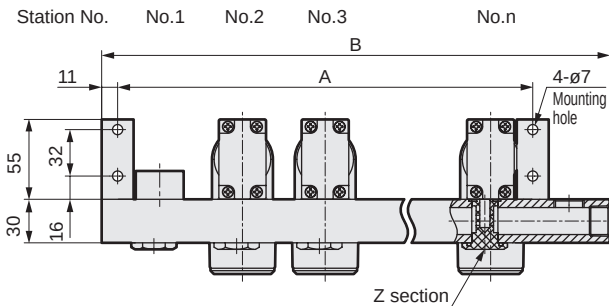
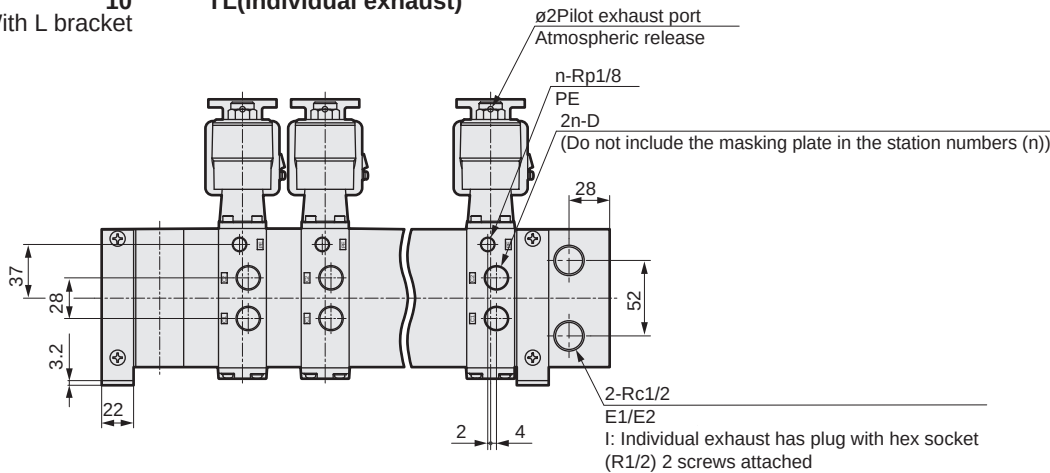
M4F3*0E Series

Individual wiring manifold; body piping

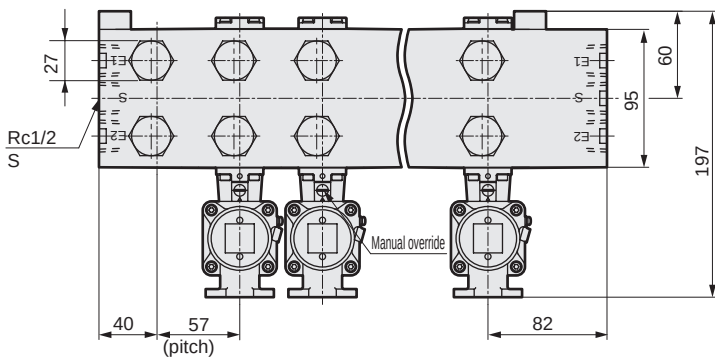
Dimensions

M4F310E-08-10-TP- CL(Common exhaust)
IL(Individual exhaust)

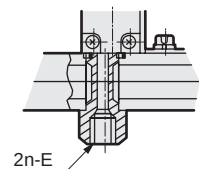
● With L bracket



*1 If model No. "-CN", it will be NPT1/2.



I: Z section with individual exhaust



Model No.	D	E	Single model No. for manifold
4F310E-08	Rp1/4	Rc1/4	4F310E 4F320E 4F330E 4F340E 4F350E
4F320E-08			
4F330E-08			
4F340E-08			
4F350E-08			
4F310E-10	Rp3/8	Rc3/8	
4F320E-10			
4F330E-10			
4F340E-10			
4F350E-10			

Station No.	2	3	4	5	6	7	8	9	10
A	115	172	229	286	343	400	457	514	571
B	179	236	293	350	407	464	521	578	635

M4F3*0E Series

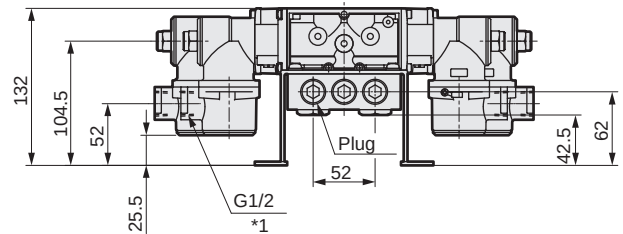
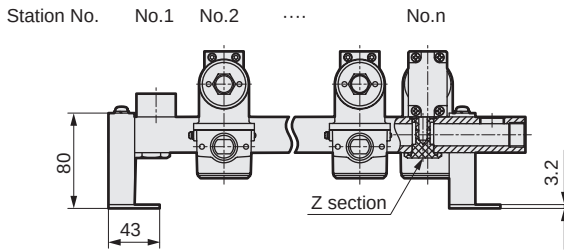
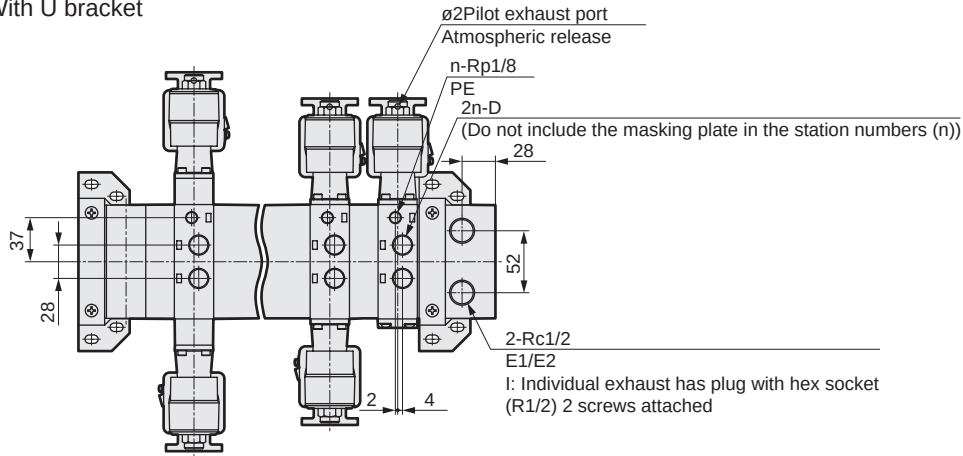
Individual wiring manifold; body piping

Dimensions

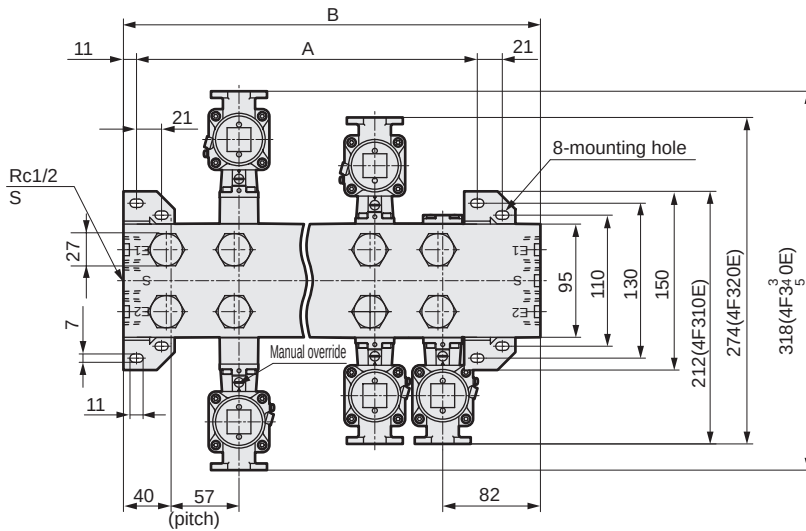


M4F3*0E-08-10-TP- CU(Common exhaust)
IU(Individual exhaust)

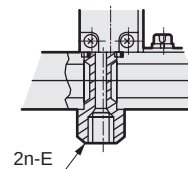
● With U bracket



*1 If model No. "-CN", it will be NPT1/2.



I: Z section with individual exhaust



Station No.	2	3	4	5	6	7	8	9	10
A	115	172	229	286	343	400	457	514	571
B	179	236	293	350	407	464	521	578	635

Model No.	D	E	Single model No. for manifold
4F310E-08	Rp1/4	Rc1/4	4F310E 4F320E 4F330E 4F340E 4F350E
4F320E-08			
4F330E-08			
4F340E-08			
4F350E-08			
4F310E-10	Rp3/8	Rc3/8	
4F320E-10			
4F330E-10			
4F340E-10			
4F350E-10			

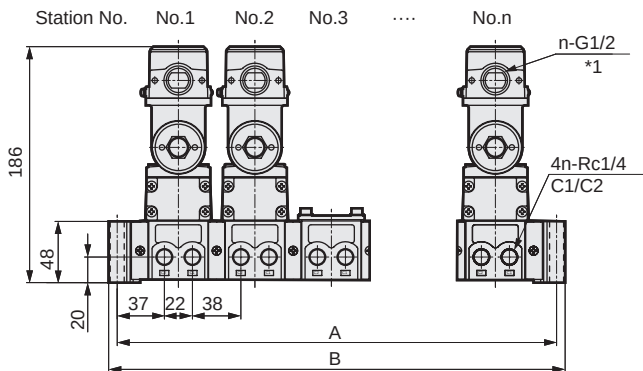
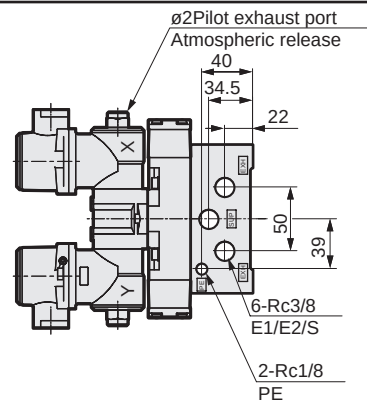
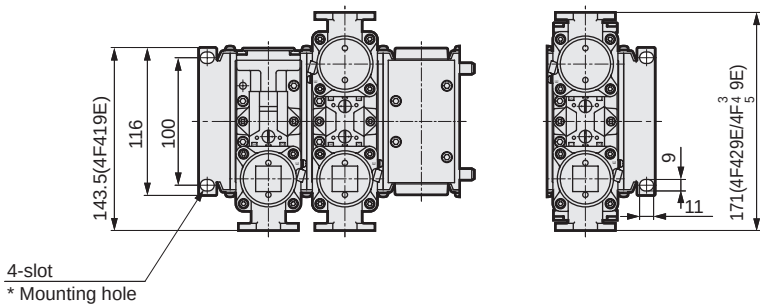
4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys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

M4F4*0E/M4F5*0E Series

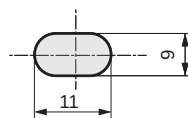
Individual wiring manifold: sub-plate piping

Dimensions

M4F4*0E-08-TP-*-C



* Installation hole portion enlarged



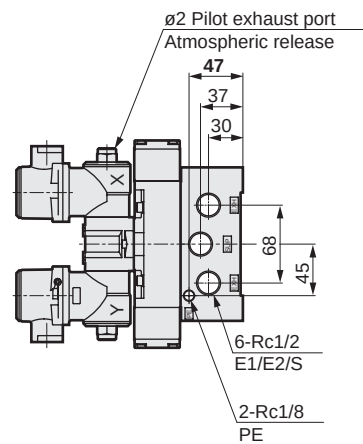
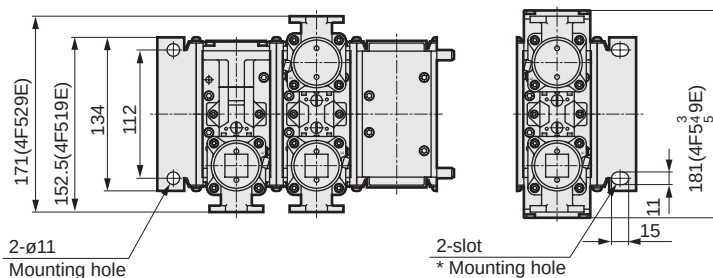
*1 If model No. "-CN", it will be NPT1/2.

Station No.	2	3	4	5	6	7	8	9	10
A	156	216	276	336	396	456	516	576	636
B	169.4	229.4	289.4	349.4	409.4	469.4	529.4	589.4	649.4

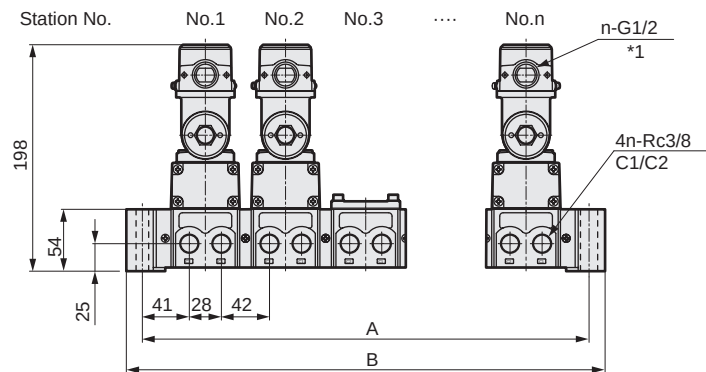
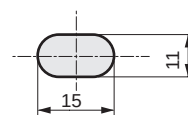
Single model No. for manifold

Solenoid valve	4F419E, 4F429E, 4F439E 4F449E, 4F459E
----------------	--

M4F5*0E-10-TP-*-C



* Installation hole portion enlarged



Station No.	2	3	4	5	6	7	8	9	10
A	180	250	320	390	460	530	600	670	740
B	208	278	348	418	488	558	628	698	768

Single model No. for manifold

Solenoid valve	4F519E, 4F529E, 4F539E 4F549E, 4F559E
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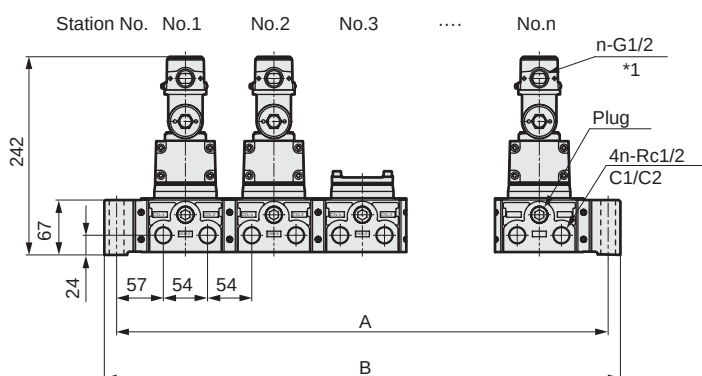
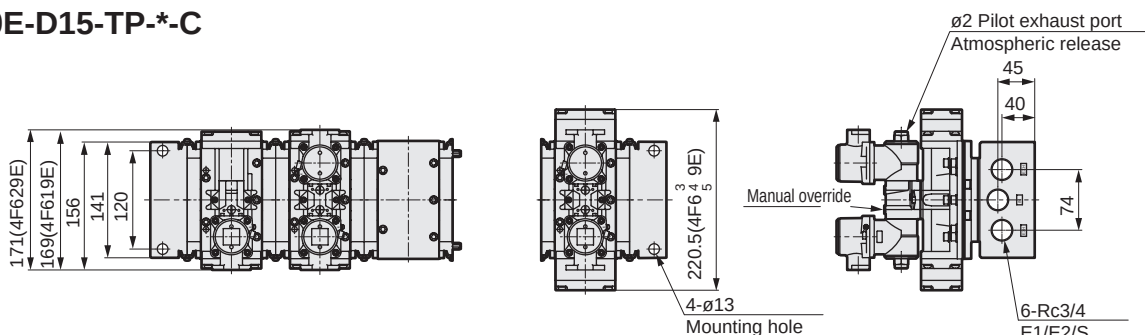
M4F6*0E/M4F7*0E Series

Individual wiring manifold: sub-plate piping

Dimensions



M4F6*0E-D15-TP-*C



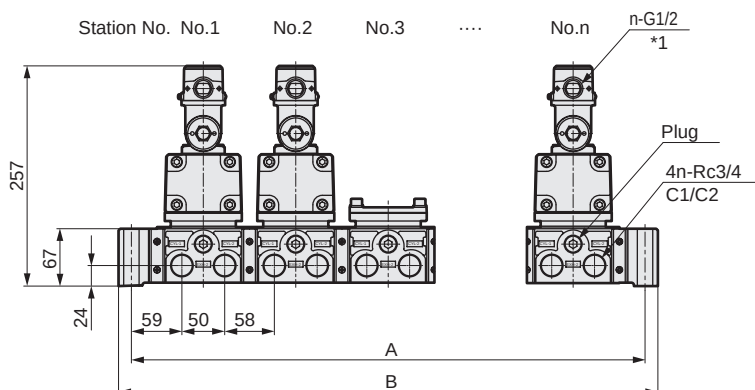
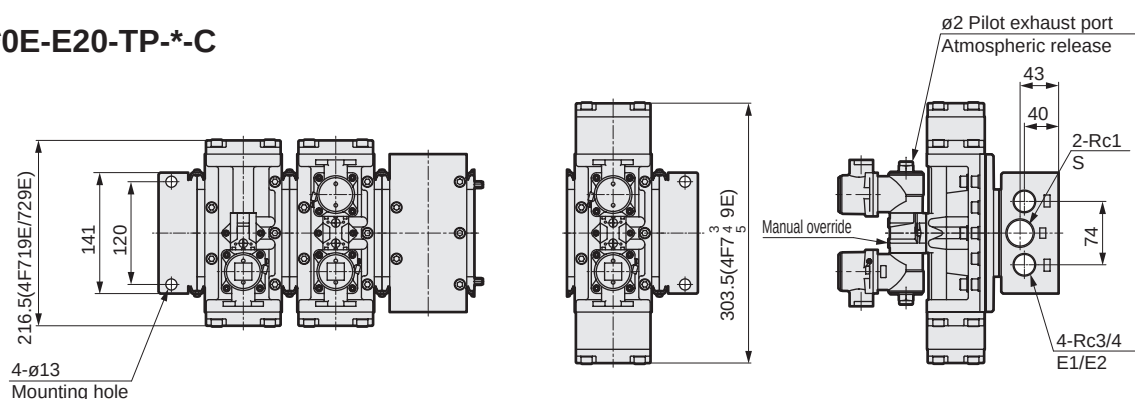
*1 If model No. "-CN", it will be NPT1/2.

Station No.	2	3	4	5	6	7	8	9	10
A	276	384	492	600	708	816	924	1032	1140
B	306	414	522	630	738	846	954	1062	1170

Single model No. for manifold

Solenoid valve	4F619E, 4F629E, 4F639E 4F649E, 4F659E
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M4F7*0E-E20-TP-*C



Station No.	2	3	4	5	6	7	8	9	10
A	276	384	492	600	708	816	924	1032	1140
B	306	414	522	630	738	846	954	1062	1170

Single model No. for manifold

Solenoid valve	4F719E, 4F729E, 4F739E 4F749E, 4F759E
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4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMF
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending