

4GA/B

M4GA/B

MN4GA/B

4GA/B
(mastr)

4GD/E

M4GD/E

MN4GD/E

4GA4/B4

MN3E
MN4E

W4GA/B2

W4GB4

4TB

4L2-4/
LMF0MN3S0
MN4S0

4SA/B0

4KA/B

4KA/B
(mastr)

4F

4F
(mastr)PV5G
GMFPV5
GMF

PV5S-0

3QR
3QB

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP/
NVP

4F*0EX

4F*0E

HMV
HSV2QV
3QV

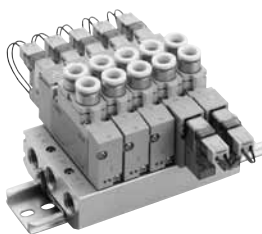
SKH

PCD

Silencer

TotAirSys
(Total Air)TotAirSys
(Gamma)

Ending



Individual wiring manifold
Body piping
Direct mount/DIN rail mount

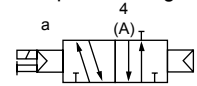
M3GA1/2/3-(D) / M4GA1/2/3-(D) Series

● Cylinder bore size: $\phi 20$ to $\phi 100$

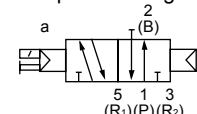


JIS symbol

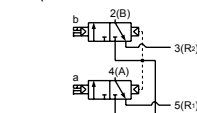
- 3-port valve
2-position single NC



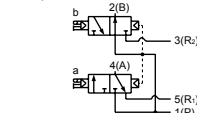
- 2-position single NO



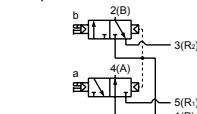
- Two 3-port valves integrated
(A side valve: NC, B side valve: NC)



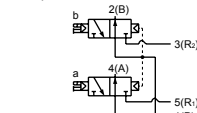
- (A side valve: NC, B side valve: NO)



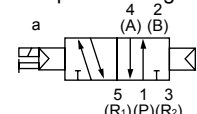
- (A side valve: NO, B side valve: NC)



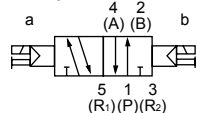
- (A side valve: NO, B side valve: NO)



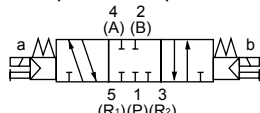
- 5-port valve
2-position single



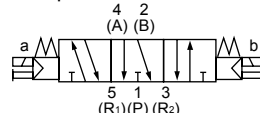
- 2-position double



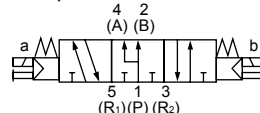
- 3-position All ports closed



- 3-position A/B/R connection



- 3-position P/A/B connection



Manifold common specifications

Descriptions		Content
Manifold		Integrated base
Mounting method		Direct mount/DIN rail mount
Supply and exhaust method		Common supply/common exhaust (With internal exhaust check valve)
Pilot exhaust method	Internal pilot	Main valve/pilot valve common exhaust (Pilot exhaust check valve built-in)
	External pilot	Main valve/pilot valve individual exhaust
Piping direction		Valve top direction
Valve and operation		Pilot operated soft spool valve
Working fluid		Compressed air
Max. working pressure	MPa	0.7 (≈ 100 psi, 7 bar)
Min. working pressure	MPa	0.2 (≈ 29 psi, 2 bar) (*3)
Proof pressure	MPa	1.05 (≈ 150 psi, 10.5 bar)
Ambient temperature	$^{\circ}\text{C}$	-5 (23 $^{\circ}\text{F}$) to 55 (131 $^{\circ}\text{F}$) (no freezing)
Fluid temperature	$^{\circ}\text{C}$	5 (41 $^{\circ}\text{F}$) to 55 (131 $^{\circ}\text{F}$)
Manual override		Non-locking/locking common type (standard)
Lubrication		(*1) Not required
Degree of protection		(*2) Dust-proof
Vibration resistance		m/s ² 50 or less
Shock resistance		m/s ² 300 or less
Atmosphere		Cannot be used in corrosive gas environments

- *1: Use turbine oil Class 1 ISO VG32 for lubrication. Excessive or intermittent lubrication results in unstable operation.
*2: Avoid dripping water or oil, etc., during use. IP65 (jet-proof) applies for DIN terminal box specifications. However, the specified outer diameter of the applicable cord and tightening torque must be used for fixing in place.
*3: The working pressure range is 0 to 0.7 MPa when the external pilot (option code: K) is selected. Set the external pilot pressure between 0.2 and 0.7 MPa.

Electrical specifications

Descriptions		Content					
Rated voltage V		DC24	DC12	DC5	DC3	AC100	AC200
Voltage fluctuation range		±10%					
Holding current A (*4)	Standard	0.015 (0.017)	0.030 (0.034)	0.072 (0.082)	0.120 (0.136)	0.009 (0.009)	0.006 (0.006)
	Low exoergic/energy circuit	0.005	0.010	-		-	
Power consumption W (*4)	Standard	0.35 (0.40)		0.35 (0.40)		-	
	Low exoergic/energy circuit	0.1		-		-	
Apparent power VA (*4) (*5)	Standard	-		-		0.93 (0.98)	1.40
Thermal class		B					
Surge suppressor		Option					
Indicator		Lamp (option)					

- *4: Values in () apply when lamp is included. In addition, the type with low exoergic/energy-saving circuit is only available with lamp.
*5: 200 VAC is the value of DIN terminal box (with lamp).

Individual specifications

Descriptions			M3GA1/M4GA1		M3GA2/M4GA2		M3GA3/M4GA3	
			Direct mount	DIN rail mount	Direct mount	DIN rail mount	Direct mount	DIN rail mount
Max. station No.		Standard (Internal pilot)	20 stations	16 stations	20 stations	16 stations	20 stations	16 stations
		External pilot	12 stations	12 stations				
Port size	Rc thread, M5	A/B Port	Barbed fitting ϕ 1.8 Push-in fitting ϕ 1.8, ϕ 4, ϕ 6 M5		Push-in fitting ϕ 4, ϕ 6, ϕ 8 Rc1/8		Push-in fitting ϕ 6, ϕ 8, ϕ 10 Rc1/4	
		P/R1/R2 port	Rc1/8		Rc1/4		Rc3/8	
	NPT thread, M5	A/B Port	Push-in fitting ϕ 1/8", ϕ 5/32" M5		Push-in fitting ϕ 1/4", ϕ 5/16" 1/8NPT		Push-in fitting ϕ 5/16", ϕ 3/8" 1/4NPT (*6)	
		P/R1/R2 port	1/8NPT		1/4NPT		3/8NPT (*6)	
	G thread, M5	A/B Port	Push-in fitting ϕ 4, ϕ 6 M5		Push-in fitting ϕ 4, ϕ 6, ϕ 8 G1/8		-	
		P/R1/R2 port	G1/8		G1/4		-	
Manifold base weight calculation formula (n: station No.) g		Standard	23n+52	25n+60	47n+64	49n+92	74n+88	76n+117
		External pilot	36n+105	38n+113	88n+135	90n+163	136n+194	138n+223

- *6: Available as custom order.

Refer to "Cautions for Mounting the DIN Rail" (page 754), and select the manifold.

For 10 or over manifold station No. (5 stations for 4G3), use ports on both side for air supply and exhaust. The manifold base weight is the value for screw specifications.

M3GA1/2/3 / M4GA1/2/3 Series

Individual wiring manifold; body piping

Flow characteristics

Model No.	Solenoid position	P→A/B		A/B→R1/R2	
		C[dm ³ /(s·bar)]	b	C[dm ³ /(s·bar)]	b
M3GA1 M4GA1	Two 3-port valves integrated	0.86	0.31	1.1(0.66)	0.19(0.22)
	2-position	0.99	0.20	1.2(0.70)	0.20(0.12)
	3-position	All ports closed	0.94	0.23	1.1 -
		ABR connection	0.93	0.18	1.3(0.70)
		PAB connection	1.1	0.28	1.1 -
M3GA2 M4GA2	Two 3-port valves integrated	1.7	0.40	2.3(1.7)	0.29(0.32)
	2-position	2.3	0.36	2.9(1.7)	0.24(0.33)
	3-position	All ports closed	2.1	0.35	2.5 -
		ABR connection	2.2	0.37	2.9(1.8)
		PAB connection	2.4	0.34	2.5 -
M3GA3 M4GA3	2-position	3.2	0.37	3.8(2.5)	0.13(0.28)
	3-position	All ports closed	2.9	0.35	3.3 -
		ABR connection	3.0	0.34	3.8(2.6)
		PAB connection	3.3	0.30	3.3 -

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

*2: Values in () are with the exhaust check valve.

Ozone-proof specifications

Coolant proof specifications

Can be selected with "How to order" Item ⑤ option "A" on page 99.

Clean-room specifications

- Anti-dust generation structure for use in cleanrooms

** - Voltage - **P7***

Specifications for rechargeable battery

(Catalog No. CC-1226A)

- For use in the rechargeable battery manufacturing process, materials used for air path and sliding section are limited

** - Voltage - **P4**

CE marking specifications

** - Voltage - **ST**

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
4TB
4L2-4/
LMF0
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G
GMF
PV5
GMF
PV5S-0
3QR
3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/
NVP
4F*0EX
4F*0E
HNV
HSV
2QV
3QV
SKH
PCD
Silencer
TotAirSys
(Total Air)
TotAirSys
(Gamma)
Ending

M4GA1/2/3 Series

Individual wiring manifold; body piping

How to order

Manifold model No.

M **4GA1** **1** **0R** - **C6** - **E2** **H** **D** - **3**

3 port manifold model No.

M **3GA1** **1** **0R** - **C6** - **E2** **H** **D** - **3**

● Single valve for mounting base

4GA1 **1** **9R** - **C6** - **E2** **H** - **3**

● 3-port discrete valve for mounting base

3GA1 **1** **9R** - **C6** - **E2** **H** - **3**

B Solenoid position

A Model No.

C Port size

D Electrical connections

E Option

F Mount

G Station No.

H Voltage

* Be sure to fill in the "Manifold specifications sheet" (pages 206 to 220).

A Model No.

Code	Content	3GA1	3GA2	3GA3	4GA1	4GA2	4GA3
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				●	●	●
1	2-position single normally closed *1	●	●	●			
11	2-position single normally open *1	●	●	●			
66	Two 3-port valves integrated *1/*2	A valve side: Normally closed B valve side: Normally closed		●	●		
67		A valve side: Normally closed B valve side: Normally open		●	●		
76		A valve side: Normally open B valve side: Normally closed		●	●		
77		A valve side: Normally open B valve side: Normally open		●	●		
8	Mix manifold (when there are multiple solenoid positions)	●	●	●	●	●	●

C Port size		P/R1/R2 port (2) = Rc1/8 (3) = Rc1/4 (4) = Rc3/8					
Port	4(A)/2(B) port	(2)		(2)			
CF	φ1.8 barbed fitting (compatible tube UP-9102-**) (2)			(2)			
C18	φ1.8 push-in fitting (compatible tube UP-9402-**) (2)			(2)			
C4	φ4 push-in fitting (2) (3)		(2)	(3)			
C6	φ6 push-in fitting (2) (3) (4)		(2)	(3)	(4)		
C8	φ8 push-in fitting (3) (4)		(3)	(4)	(3)	(4)	
C10	φ10 push-in fitting (4)		(4)			(4)	
CX	Push-in fitting mix *3 (2) (3) (4)		(2)	(3)	(4)	(2)	(3)
M5	M5 (2)				(2)		
06	Rc1/8 (3)			(3)			
08	Rc1/4 (4)			(4)			(4)
Port 4(A)/2(B) port		P/R1/R2 port (5) = 1/8NPT, (6) = 1/4NPT, (7) = 3/8NPT					
C3N	φ1/8" push-in fitting (5)			(5)			
C4N	φ5/32" push-in fitting (5)			(5)			
C6N	φ1/4" push-in fitting (6)			(6)		(6)	
C8N	φ5/16" push-in fitting (6) (7)			(6)	(7)	(6)	(7)
C10N	φ3/8" push-in fitting (7)			(7)			(7)
CXN	Push-in fitting mix *3 (5) (6) (7)		(5)	(6)	(7)	(5)	(6)
M5N	M5 (5)				(5)		
06N	1/8NPT (6)				(6)		
08N	1/4 NPT *4 (7)			(7)			(7)
Port 4(A)/2(B) port		P/R1/R2 port (8) = G1/8, (9) = G1/4					
C4G	φ4 push-in fitting (8) (9)			(8)	(9)		
C6G	φ6 push-in fitting (8) (9)			(8)	(9)		
C8G	φ8 push-in fitting (9)			(9)			(9)
CXG	Push-in fitting mix *3 (8) (9)			(8)	(9)	(8)	(9)
M5G	M5 (8)				(8)		
06G	G1/8 (9)				(9)		(9)

⚠ Precautions for model No. selection

*1: Select M4GA*80R when mixing with 3, 5-port valves.
Further, select M3GA*80R when mixing with masking plate.

*2: Not compatible with combination with external pilot (K).
Dimensions are the same as those of the respective 2-position double solenoid.

*3: The push-in fitting cannot be mixed with the single valve's 4(A) or 2(B) port.

*4: Custom order.

M4GA1/2/3 Series

Individual wiring manifold; body piping

		A Model No.					
		3GA1	3GA2	3GA3	4GA1	4GA2	4GA3
D Electrical connections							
Blank	Grommet lead wire (300 mm)	*13	●	●	●	●	●
B	DIN terminal box (Pg7) with surge suppressor/lamp	*14		●	●	●	●
BN	DIN terminal box (Pg7) (without terminal box) with surge suppressor	*14		●	●	●	●
E type connector (upward/lateral common)							
E0	Lead wire (300 mm)	*15	●	●	●	●	●
E00	Lead wire (500 mm)	*15	●	●	●	●	●
E01	Lead wire (1000 mm)	*15	●	●	●	●	●
E02	Lead wire (2000 mm)	*15	●	●	●	●	●
E03	Lead wire (3000 mm)	*15	●	●	●	●	●
E0N	Without lead wire (without socket)	*15	●	●	●	●	●
E1	Without lead wire (socket/terminal attached)	*15	●	●	●	●	●
E2	Lead wire (300 mm), surge suppressor/indicator lamp		●	●	●	●	●
E20	Lead wire (500 mm), surge suppressor/indicator lamp		●	●	●	●	●
E21	Lead wire (1000 mm), surge suppressor/indicator lamp		●	●	●	●	●
E22	Lead wire (2000 mm), surge suppressor/indicator lamp		●	●	●	●	●
E23	Lead wire (3000 mm), surge suppressor/indicator lamp		●	●	●	●	●
E2N	No lead wire (without socket), surge suppressor/indicator lamp		●	●	●	●	●
E3	No lead wire (with socket/terminal), surge suppressor/indicator lamp		●	●	●	●	●
EJ type connector (socket with cover, upward/lateral common)							
E01J	Lead wire (1000 mm)	*15	●	●	●	●	●
E02J	Lead wire (2000 mm)	*15	●	●	●	●	●
E03J	Lead wire (3000 mm)	*15	●	●	●	●	●
E21J	Lead wire (1000 mm), surge suppressor/indicator lamp		●	●	●	●	●
E22J	Lead wire (2000 mm), surge suppressor/indicator lamp		●	●	●	●	●
E23J	Lead wire (3000 mm), surge suppressor/indicator lamp		●	●	●	●	●
E Option							
Blank	Non-locking/locking common manual override		●	●	●	●	●
M	Non-locking manual override		●	●	●	●	●
H	With exhaust check valve	*5	●	●	●	●	●
K	External pilot	*6	●	●	●	●	●
A	Ozone/coolant proof		●	●	●	●	●
S	Surgeless	*7	●	●	●	●	●
E	Low exoergic/energy saving circuit	*7, *8	●	●	●	●	●
F	A/B port filter built in	*9	●	●	●	●	●
Z1	Air supply spacer	*10	●	●	●	●	●
Z2	In-stop valve spacer	*10, *11	●	●	●	●	●
Z3	Exhaust spacer	*10	●	●	●	●	●
F Mount							
Blank	Direct mount		●	●	●	●	●
D	DIN rail mount		●	●	●	●	●
G Station No.							
2	2 stations		●	●	●	●	●
to	to		●	●	●	●	●
20	Refer to page 90 for the max. station number per model.		●	●	●	●	●
H Voltage							
1	100 VAC (rectifier integrated)		●	●	●	●	●
2	200 VAC (rectifier integrated)	*12	●	●	●	●	●
3	24 VDC		●	●	●	●	●
4	12 VDC		●	●	●	●	●
7	3 VDC		○	○	○	○	○
8	5 VDC		○	○	○	○	○

is not available.

○ indicates a custom order.

*5 : 3-position all ports closed and PAB connection are not provided with the exhaust check valve specifications (H). Refer to page 751 for details on the exhaust check valve.

*6 : Contact CKD when using a vacuum with the external pilot (K).

7 : E2 type and E2*J type connectors support 12/24 VDC only.
In addition, surgeless "S" and low exoergic/energy-saving circuit "E" cannot be selected together.

*8 : Surgeless specifications.

*9 : A filter is built into the P-port as standard.

*10 : Specify the spacer mounting position/quantity in manifold specifications sheet.

Stacking of spacers is not possible.

Combination with the masking plate is not supported.

Refer to pages 186 to 190 for details.

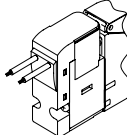
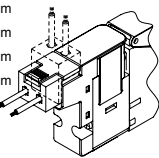
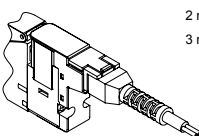
*11 : Not compatible with combination with external pilot (K).

*12 : DIN terminal box only is supported.

*13 : The grommet lead wire specifications are compatible with DC voltage only.

*14 : AC voltages and 12/24 VDC are supported. In addition, a lamp comes with the terminal box.

*15 : AC voltage is with a rectifier circuit.

Electrical connections	
Discrete valve/individual wiring manifold	
Blank	Grommet lead wire
E1 E3	E type connector with socket/terminal
● Lead wire length 300 mm	
E0 E2	E type connector
● Lead wire length 300 mm 500 mm 1000 mm 2000 mm 3000 mm	
E0N E2N	E type connector without socket
B	DIN terminal box
E0*J E2*J	EJ type connector
● Lead wire length 1 m 2 m 3 m	
BN	DIN terminal box (Without terminal box)

4GA/B

M4GA/B

MN4GA/B

4GA/B (mastr)

4GD/E

M4GD/E

MN4GD/E

4GA4/B4

MN3E

MN4E

W4GA/B2

W4GB4

4TB

4L2-4/

LMF0

MN3S0

MN4S0

4SA/B0

4KA/B

4KA/B (mastr)

4F

4F (mastr)

PV5G

GMF

PV5

GMF

PV5S-0

3QR

3QB

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP/

NVP

4F*0EX

4F*0E

HMV

HSV

2QV

3QV

SKH

PCD

Silencer

TotAirSys

(Total Air)

TotAirSys

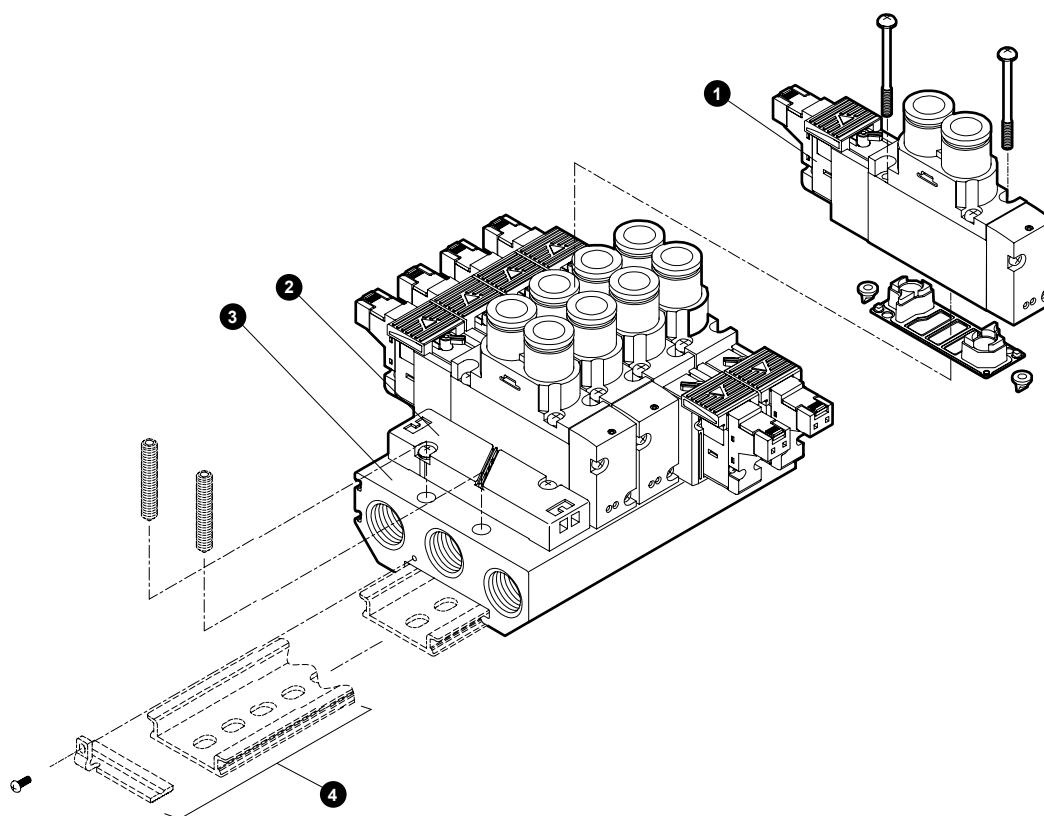
(Gamma)

Ending

M4GA1/2/3 Series

Individual wiring manifold; body piping

Manifold components explanation and parts list



Main parts list

No.	Component name	Model No.	Content	Remarks
1	Discrete valve for mounting base	4GA□□9R- Port size Electrical connections Option - voltage Solenoid position Series flow rate size	Single valve Gasket Mounting screws 2 PR check valve 2	Details on page 98
2	Masking plate	3G1/4G1 4G1R-MP 3G2/4G2 4G2R-MP 3G3/4G3 4G3R-MP	Masking plate Gasket Mounting screws 2	* 3G3/4G3 have two PR check valves.
3	Manifold base assembly	M4GA□R-00- Option - station No. Series flow rate size	Manifold base	
4	DIN rail kit			Details on page 197

Parts list

No.	Part name	Model No.	No.	Part name	Model No.
-	Coil assembly	4GR -[electrical connections]- □ - COIL -[voltage] Blank: Standard A: Ozone/coolant proof S: Surgeless E: Low exoergic/energy saving circuit Select from Electrical connections (D) on page 98	-	Cartridge push-in fitting and related parts	
-	E type connector	4GR - SOCKET - ASSY -[electrical connections]- [voltage]	-	4G1	φ1.8 barbed 4G1R-JOINT-CF φ1.8 axial 4G1R-JOINT-C18 φ4 straight 4G1R-JOINT-C4 φ6 straight 4G1R-JOINT-C6 φ1/8" straight 4G1R-JOINT-C3N φ5/32" straight 4G1R-JOINT-C4N Plug cartridge 4G1R-JOINT-CPG
-	Socket assembly	4GR - SOCKET - ASSY -[electrical connections]	-	4G2	φ4 straight 4G2R-JOINT-C4 φ6 straight 4G2R-JOINT-C6 φ8 straight 4G2R-JOINT-C8 φ1/4" straight 4G2R-JOINT-C6N φ5/16" straight 4G2R-JOINT-C8N Plug cartridge 4G2R-JOINT-CPG
-	EJ type connector	4GR - SOCKET - ASSY -[electrical connections]	-	4G3	φ6 straight 4G3R-JOINT-C6 φ8 straight 4G3R-JOINT-C8 φ10 straight 4G3R-JOINT-C10 φ5/16" straight 4G3R-JOINT-C8N φ3/8" straight 4G3R-JOINT-C10N Plug cartridge 4G3R-JOINT-CPG
-	Socket assembly	4GR - SOCKET - ASSY -[electrical connections]	-		

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G GMF
PV5 GMF
PV5S-0
3QR 3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

M4GA1 Series

Individual wiring manifold; body piping

Dimensions



4GA/B

M4GA/B

MN4GA/B

4GA/B (mastr)

4GD/E

M4GD/E

MN4GD/E

4GA4/B4

MN3E

MN4E

W4GA/B2

W4GB4

4TB

4L2-4/

LMF0

MN3S0

MN4S0

4SA/B0

4KA/B

4KA/B (mastr)

4F

4F (mastr)

PV5G

GMF

PV5

GMF

PV5S-0

3QR

3QB

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP/

NVP

4F*0EX

4F*0E

HMV

HSV

2QV

3QV

SKH

PCD

Silencer

TotAirSys

(Total Air)

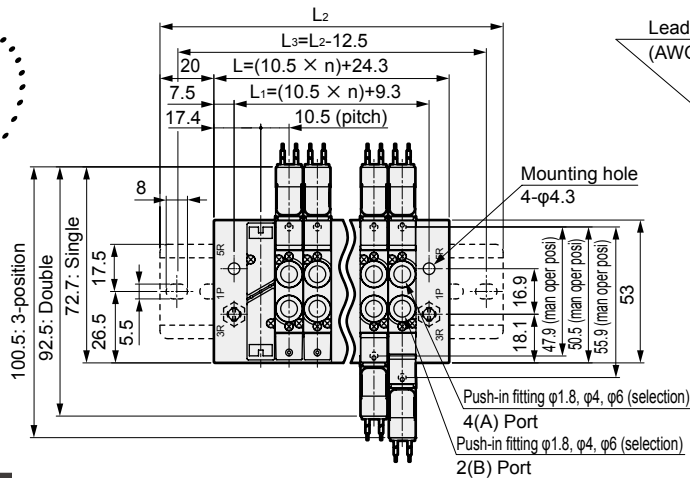
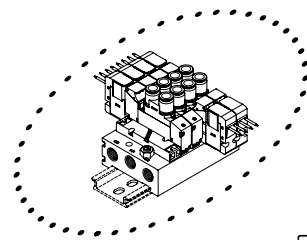
TotAirSys

(Gamma)

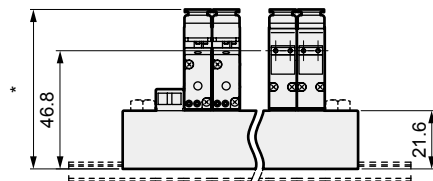
Ending

M4GA1

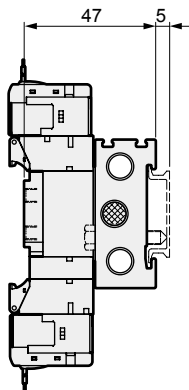
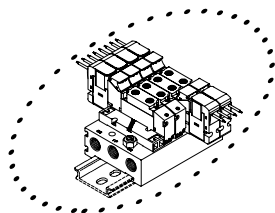
- Grommet lead wire (blank)



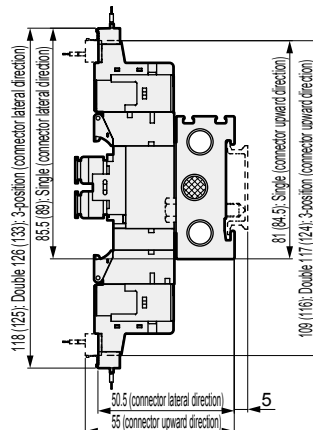
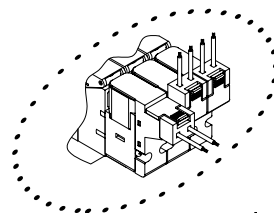
Push-in fitting bore size	* Dimensions
φ1.8	54
φ4	58
φ6	59.2
φ1/8"	58.5
φ5/32"	58



- M5 female thread (M5)



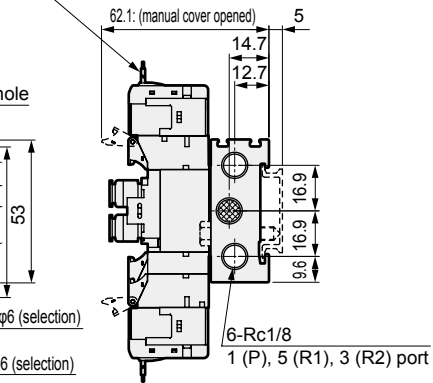
- E type connector (E)



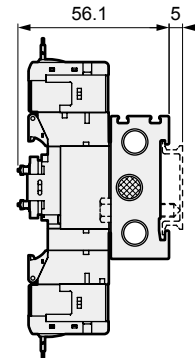
- * For the 2-position single 3-port valve, either A port or B port is a plug.

In addition, the two 3-port valve integrated has the same dimensions as the double model.

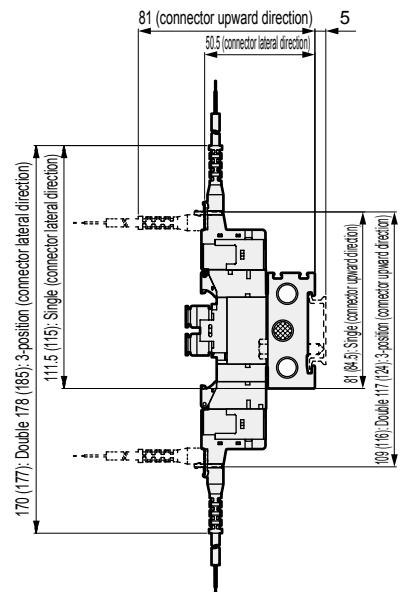
Lead wire length 300
(AWG#26, O.D. φ1.3)



- φ1.8 barbed fitting (CF)



- EJ type connector (E**J)



Note: Values in () are for AC voltage.

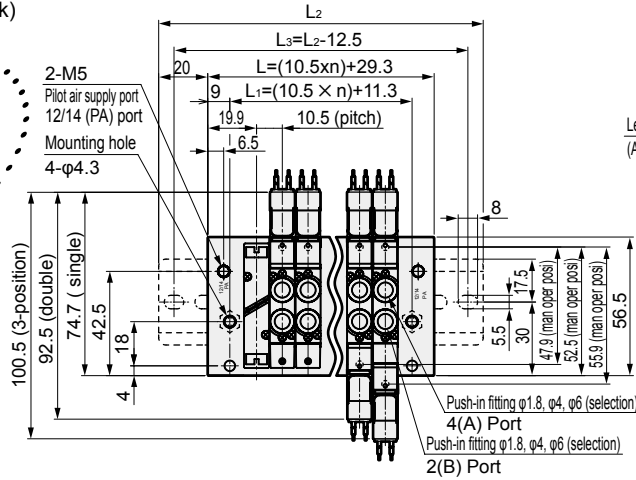
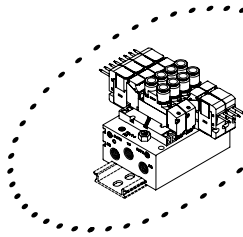
Stn No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	45.3	55.8	66.3	76.8	87.3	97.8	108.3	118.8	129.3	139.8	150.3	160.8	171.3	181.8	192.3	202.8	213.3	223.8	234.3
L ₁	30.3	40.8	51.3	61.8	72.3	82.8	93.3	103.8	114.3	124.8	135.3	145.8	156.3	166.8	177.3	187.8	198.3	208.8	219.3
L ₂	87.5	100.0	112.5	125.0	137.5	150.0	162.5	175.0	187.5	200.0	212.5	225.0	237.5						
L ₃	75.0	87.5	100.0	112.5	125.0	137.5	150.0	162.5	175.0	187.5	200.0	212.5	225.0						

Dimensions

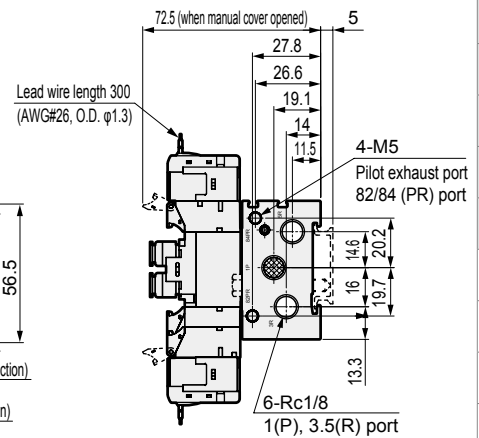


M4GA1

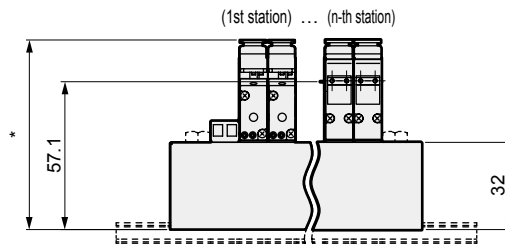
- External pilot (K)
Grommet lead wire (blank)



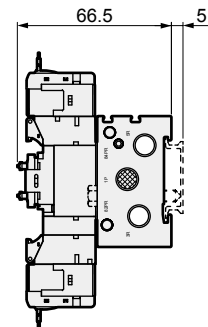
- * For the 2-position single 3-port valve, either A port or B port is a plug.



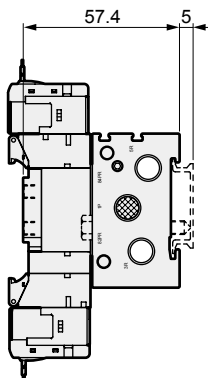
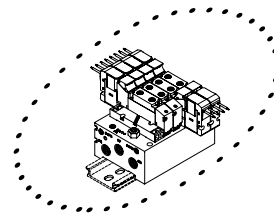
Push-in fitting bore size	* Dimensions
φ1.8	64.4
φ4	68.4
φ6	69.6
φ1/8"	68.9
φ5/32"	68.4



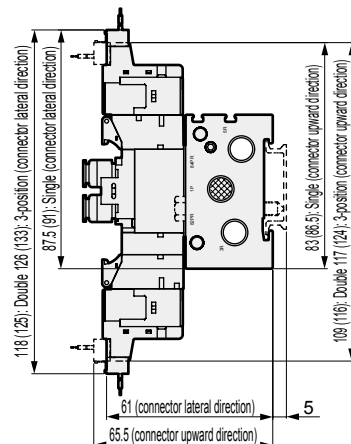
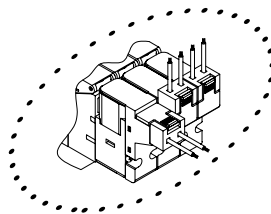
- φ1.8 barbed fitting (CF)



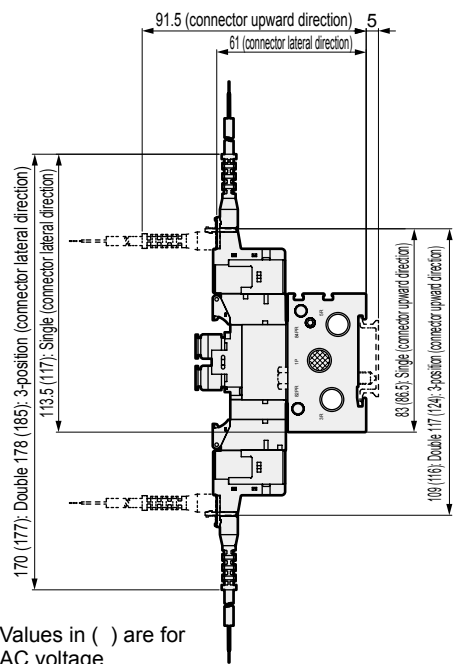
- External pilot (K)
M5 female thread (M5)



- External pilot (K)
E type connector (E)



- External pilot (K)
EJ type connector (E**J)



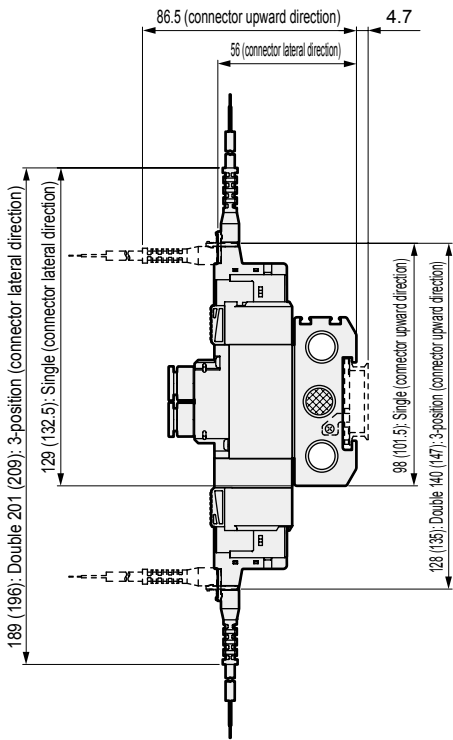
Note: Values in () are for AC voltage.

Stn No.	2	3	4	5	6	7	8	9	10	11	12
L	50.3	60.8	71.3	81.8	92.3	102.8	113.3	123.8	134.3	144.8	155.3
L ₁	32.3	42.8	53.3	63.8	74.3	84.8	95.3	105.8	116.3	126.8	137.3
L ₂	100.0	112.5	112.5	125.0	137.5	150.0	162.5	175.0	175.0	187.5	200.0
L ₃	87.5	100.0	100.0	112.5	125.0	137.5	150.0	162.5	162.5	175.0	187.5

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G GMF
PV5 GMF
PV5S-0
3QR 3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

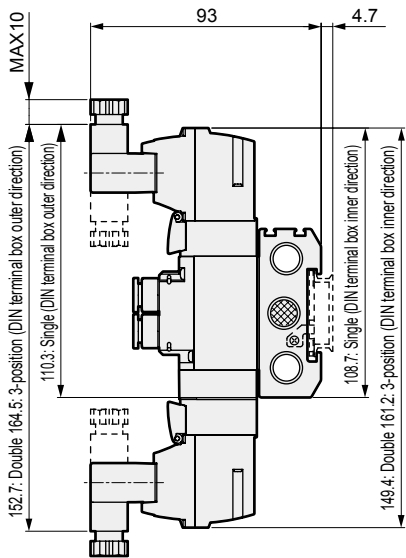
Dimensions

● EJ type connector (E**J)



Note: Values in () are for AC voltage.

● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G GMF
PV5 GMF
PV5S-0
3QR 3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

M4GA2 Series

Individual wiring manifold; body piping

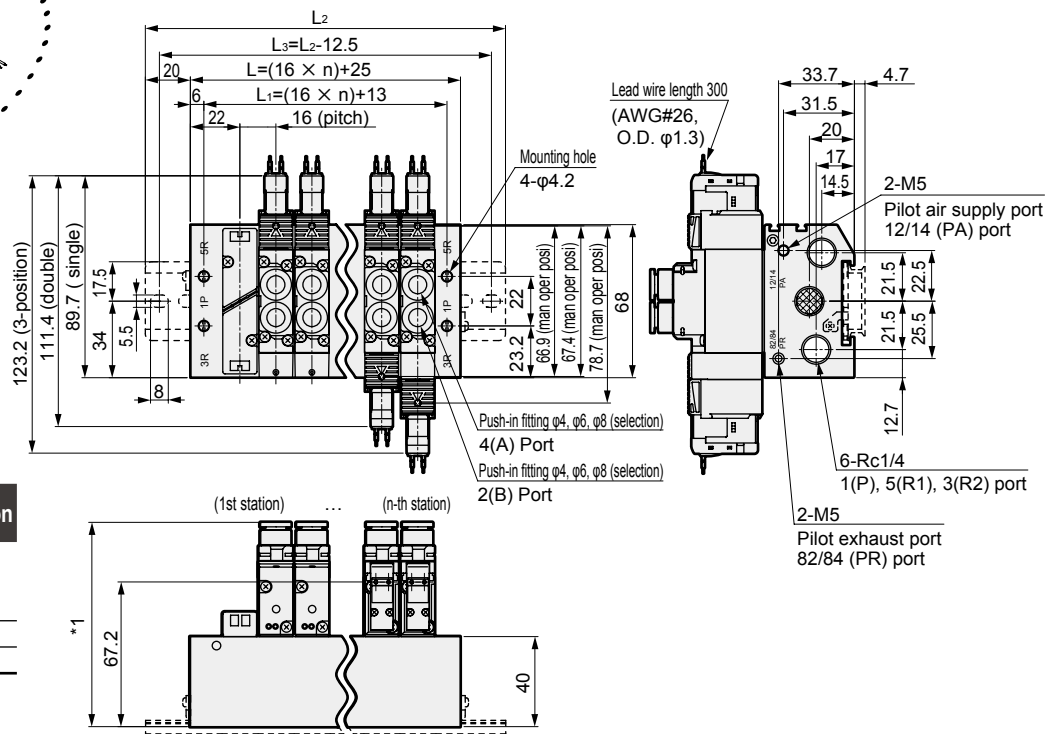
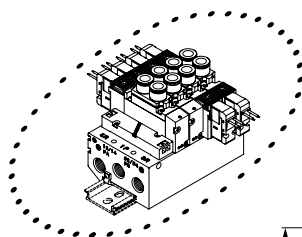
Dimensions



M4GA2

- External pilot (K)
Grommet lead wire (blank)

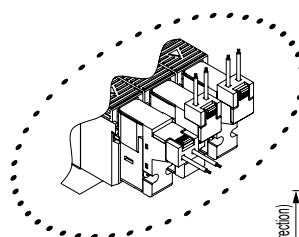
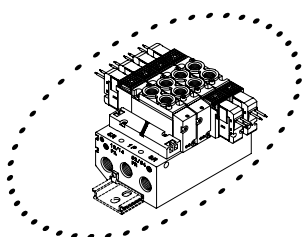
* For the 2-position single 3-port valve, either A port or B port is a plug.



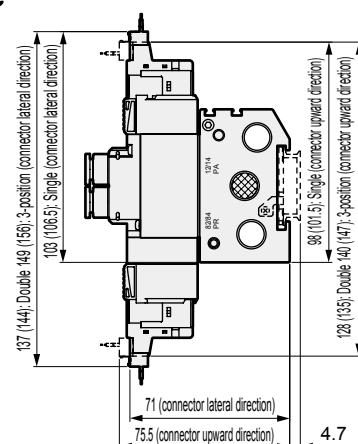
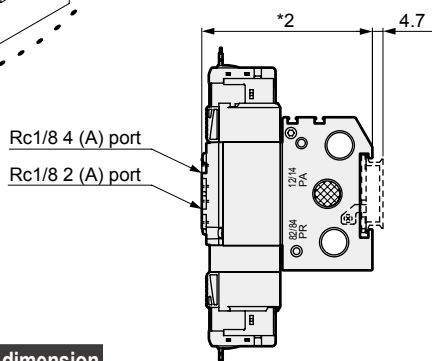
Push-in fitting bore size	*1 dimension
$\phi 4$	91
$\phi 6$	
$\phi 8$	
$\phi 1/4"$	91.9
$\phi 5/16"$	91.2

- External pilot (K)
Rc1/8 female thread (06)

- External pilot (K)
E type connector (E)



Note: Values in () are for AC voltage.

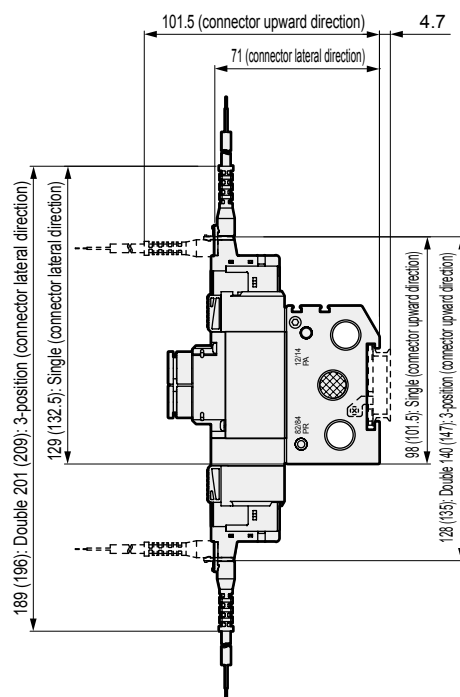


Female thread bore size	*2 dimension
Rc1/8	75.8
1/8NPT	77.1
G1/8	

Stn No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	57.0	73.0	89.0	105.0	121.0	137.0	153.0	169.0	185.0	201.0	217.0	233.0	249.0	265.0	281.0	297.0	313.0	329.0	345.0
L ₁	45.0	61.0	77.0	93.0	109.0	125.0	141.0	157.0	173.0	189.0	205.0	221.0	237.0	253.0	269.0	285.0	301.0	317.0	333.0
L ₂	100.0	125.0	137.5	150.0	162.5	187.5	200.0	212.5	225.0	250.0	262.5	275.0	300.0	312.5	325.0				
L ₃	87.5	112.5	125.0	137.5	150.0	175.0	187.5	200.0	212.5	237.5	250.0	262.5	287.5	300.0	312.5				

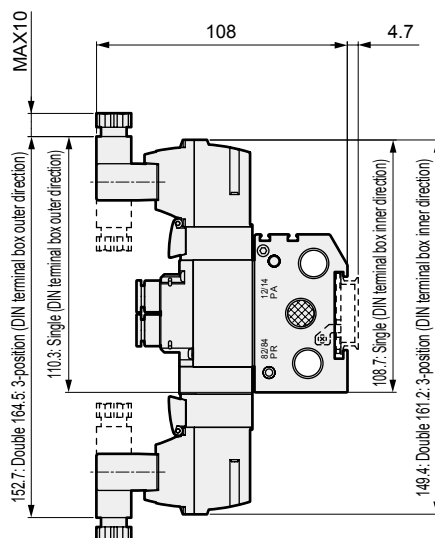
Dimensions

- External pilot (K)
EJ type connector (E**J)



Note: Values in () are for AC voltage.

- External pilot (K)
DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G GMF
PV5 GMF
PV5S-0
3QR 3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

M4GA3 Series

Individual wiring manifold; body piping

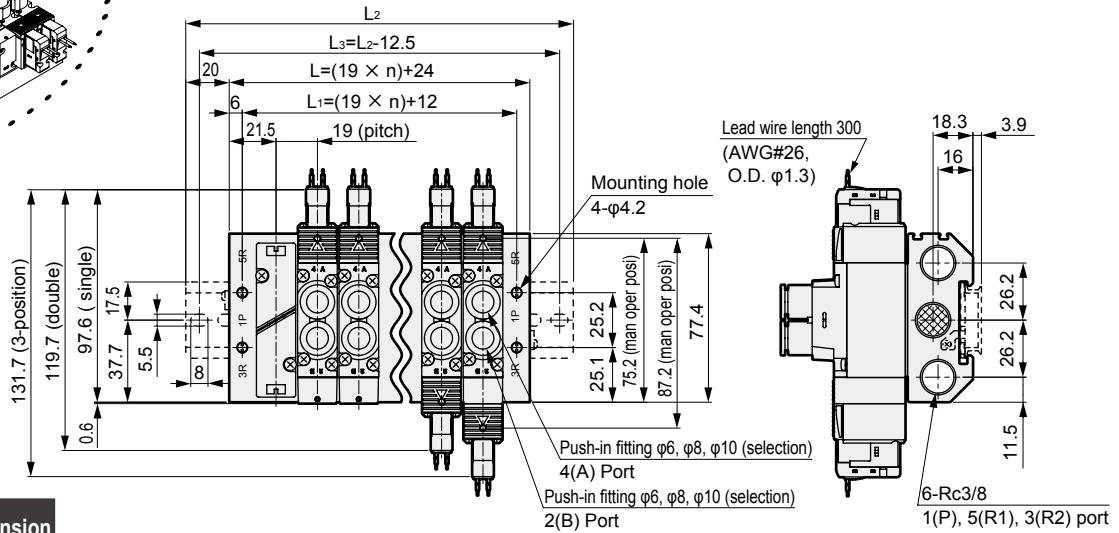
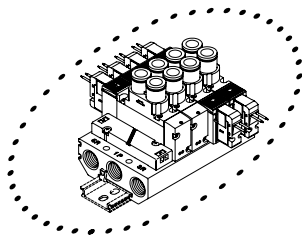
Dimensions



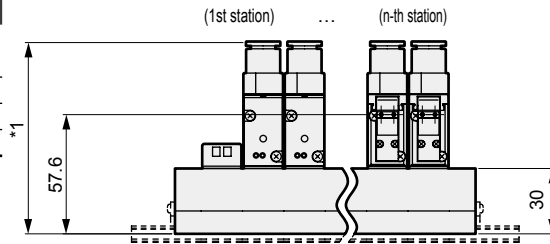
M4GA3

- Grommet lead wire (blank)

* For the 2-position single 3-port valve, either A port or B port is a plug.

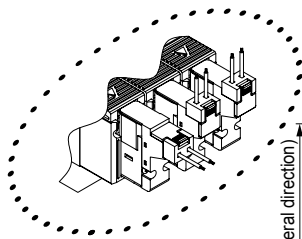
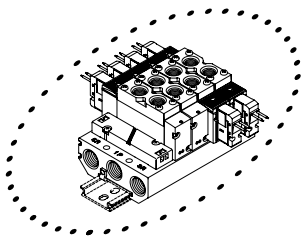


Push-in fitting bore size	*1 dimension
$\phi 6$	82.8
$\phi 8$	88.3
$\phi 10$	88.3
4F	
$\phi 5/16"$	89
$\phi 3/8"$	92.2

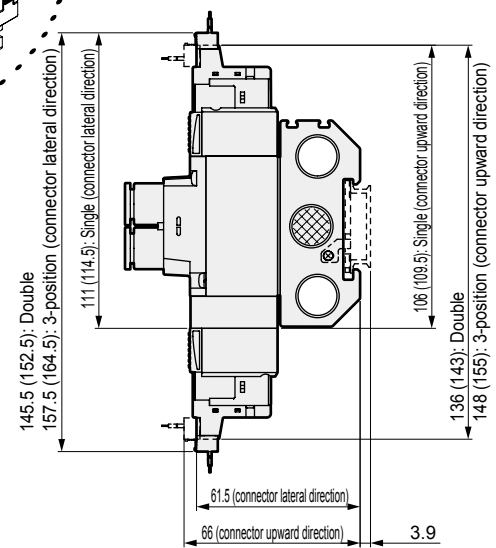
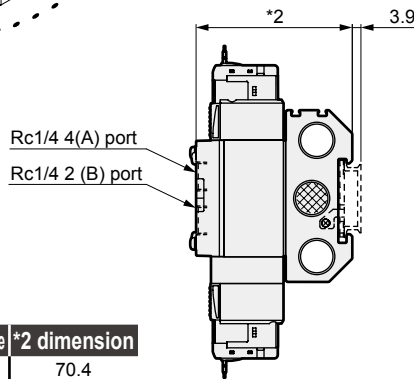


- Rc1/4 female thread (08)

- E type connector (E)



Note: Values in () are for AC voltage.

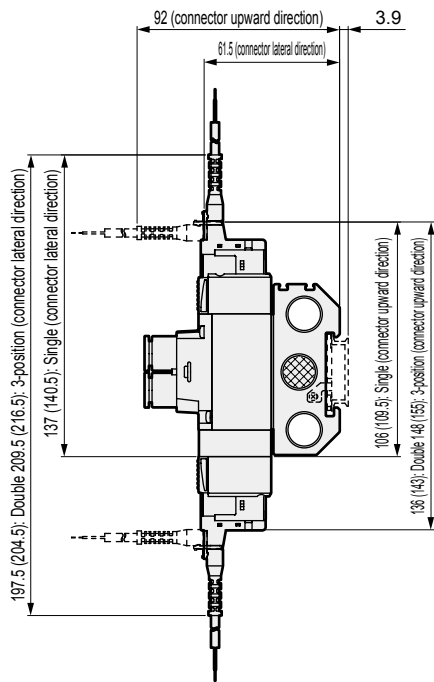


Female thread bore size	*2 dimension
Rc1/4	70.4
1/4NPT	70.9

Stn No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	62.0	81.0	100.0	119.0	138.0	157.0	176.0	195.0	214.0	233.0	252.0	271.0	290.0	309.0	328.0	347.0	366.0	385.0	404.0
L ₁	50.0	69.0	88.0	107.0	126.0	145.0	164.0	183.0	202.0	221.0	240.0	259.0	278.0	297.0	316.0	335.0	354.0	373.0	392.0
L ₂	112.5	125.0	150.0	162.5	187.5	200.0	225.0	237.5	262.5	275.0	300.0	312.5	337.5	350.0	375.0				
L ₃	100.0	112.5	137.5	150.0	175.0	187.5	212.5	225.0	250.0	262.5	287.5	300.0	325.0	337.5	362.5				

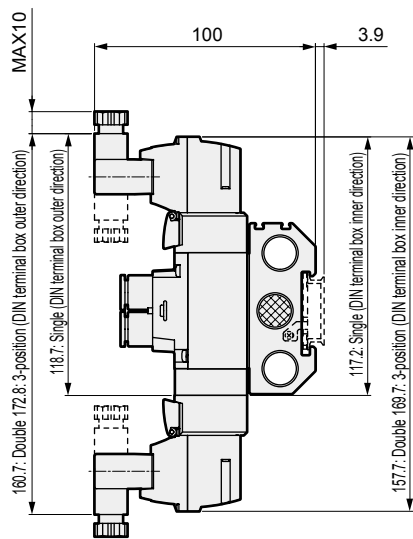
Dimensions

● EJ type connector (E**J)



Note: Values in () are for AC voltage.

● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G GMF
PV5 GMF
PV5S-0
3QR 3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

M4GA3 Series

Individual wiring manifold; body piping

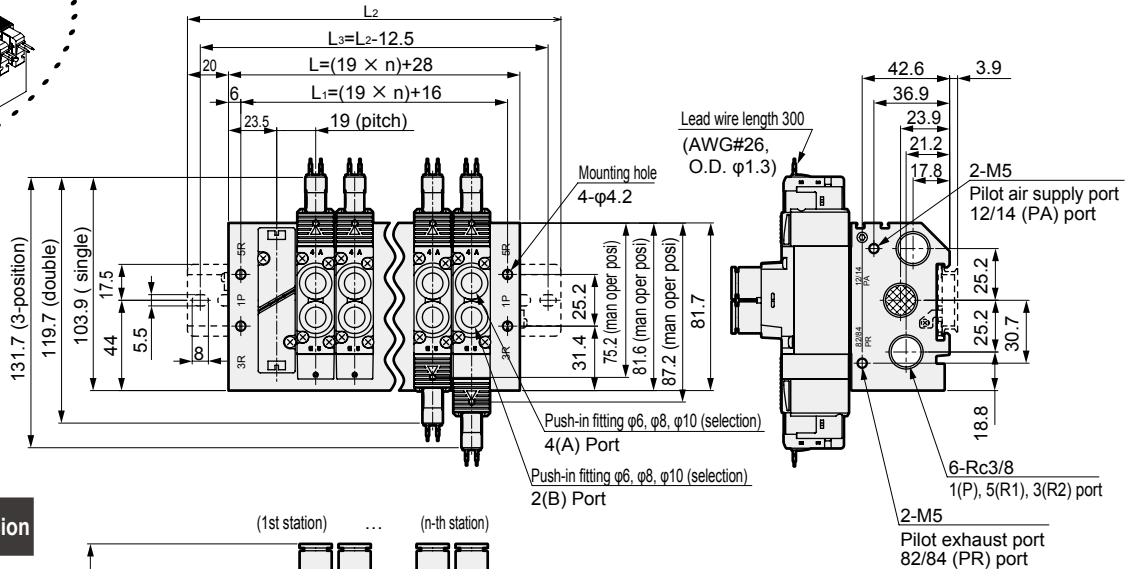
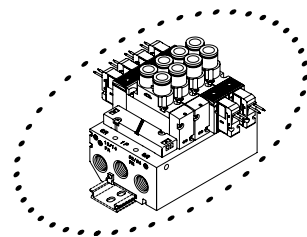
Dimensions



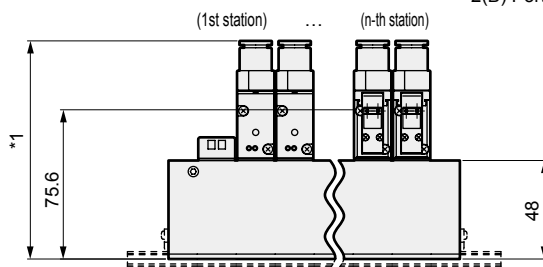
M4GA3

- External pilot (K)
Grommet lead wire (blank)

* For the 2-position single 3-port valve, either A port or B port is a plug.

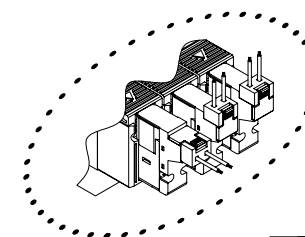
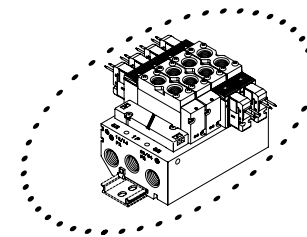


Push-in fitting bore size	*1 dimension
$\phi 6$	100.8
$\phi 8$	
$\phi 10$	106.3
$\phi 5/16$	107
$\phi 3/8$	110.2

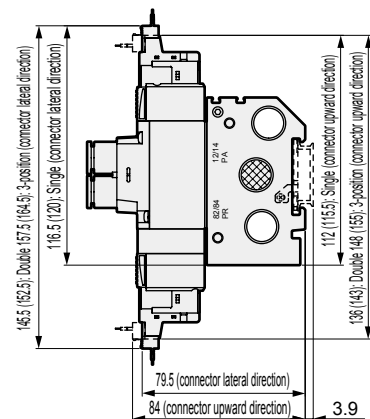
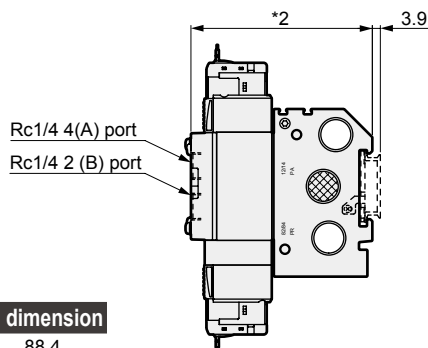


- External pilot (K)
Rc1/4 female thread (08)

- External pilot (K)
E type connector (E)



Note: Values in () are for AC voltage.

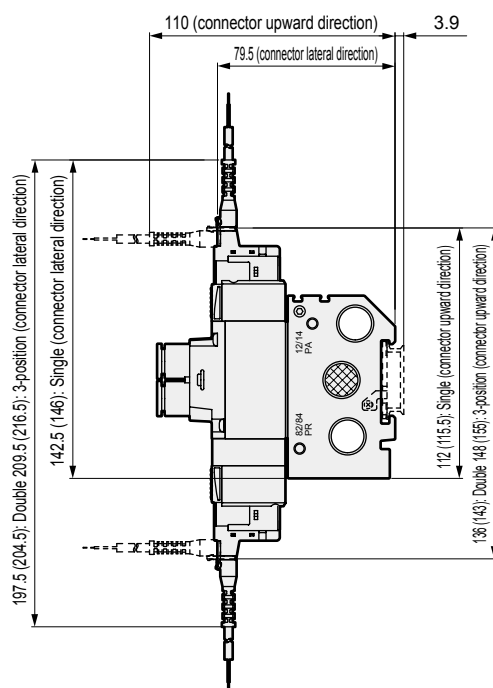


Female thread bore size	*2 dimension
Rc1/4	88.4
1/4NPT	88.9

Stn No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	66.0	85.0	104.0	123.0	142.0	161.0	180.0	199.0	218.0	237.0	256.0	275.0	294.0	313.0	332.0	351.0	370.0	389.0	408.0
L ₁	54.0	73.0	92.0	111.0	130.0	149.0	168.0	187.0	206.0	225.0	244.0	263.0	282.0	301.0	320.0	339.0	358.0	377.0	396.0
L ₂	112.5	125.0	150.0	175.0	187.5	212.5	225.0	250.0	262.5	287.5	300.0	325.0	337.5	362.5	375.0				
L ₃	100.0	112.5	137.5	162.5	175.0	200.0	212.5	237.5	250.0	275.0	287.5	312.5	325.0	350.0	362.5				

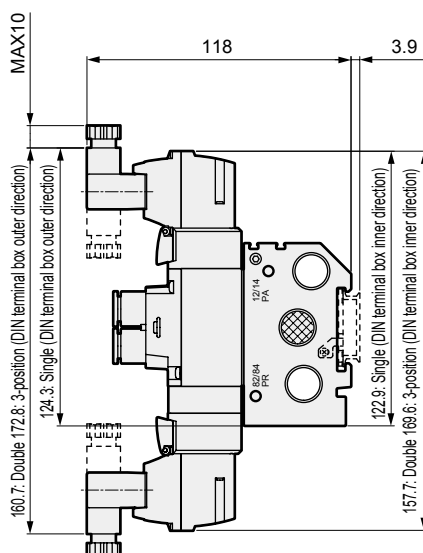
Dimensions

- External pilot (K)
EJ type connector (E**J)



Note: Values in () are for AC voltage.

- External pilot (K)
DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G GMF
PV5 GMF
PV5S-0
3QR 3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending