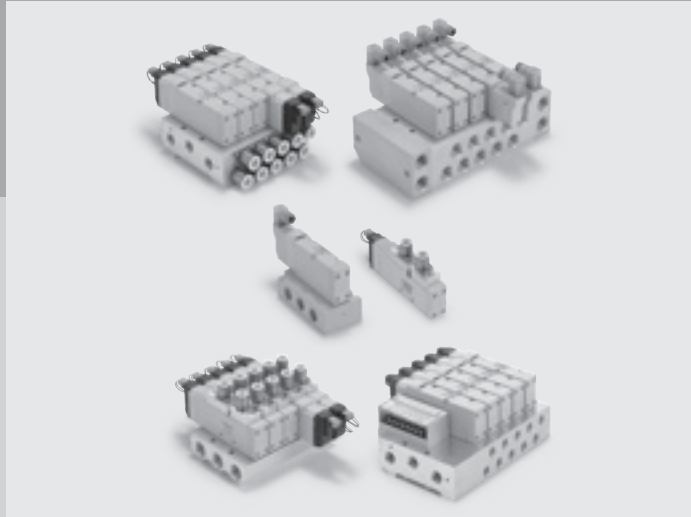


4GA4/4GB4

Pilot operated 5-port valve

Metal base



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Discontinue

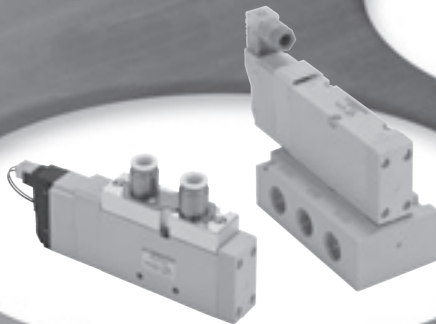
Large flow rate and long service life.

The properties of the popular 4G1/2/3 series have been passed on to realize the enhanced 4G series. All factors required by the times, including environmental performance, security, operability and reliability, have been improved with this large flow rate pilot operated 5-port valve 4G4 series (metal base).

Extensive electrical connections support various needs.

M4G^A_B4Series

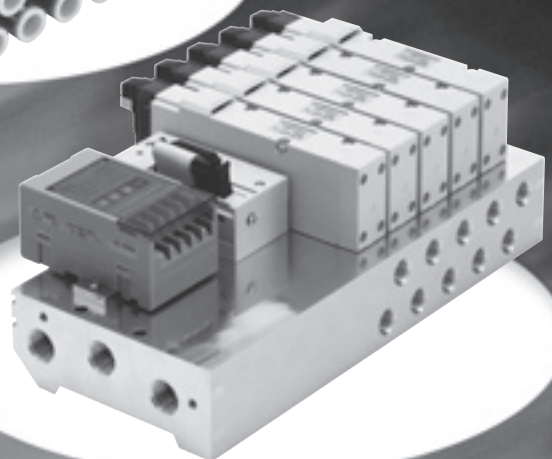
Manifold max. C value of 9.5!



Discrete valve/body piping/base piping

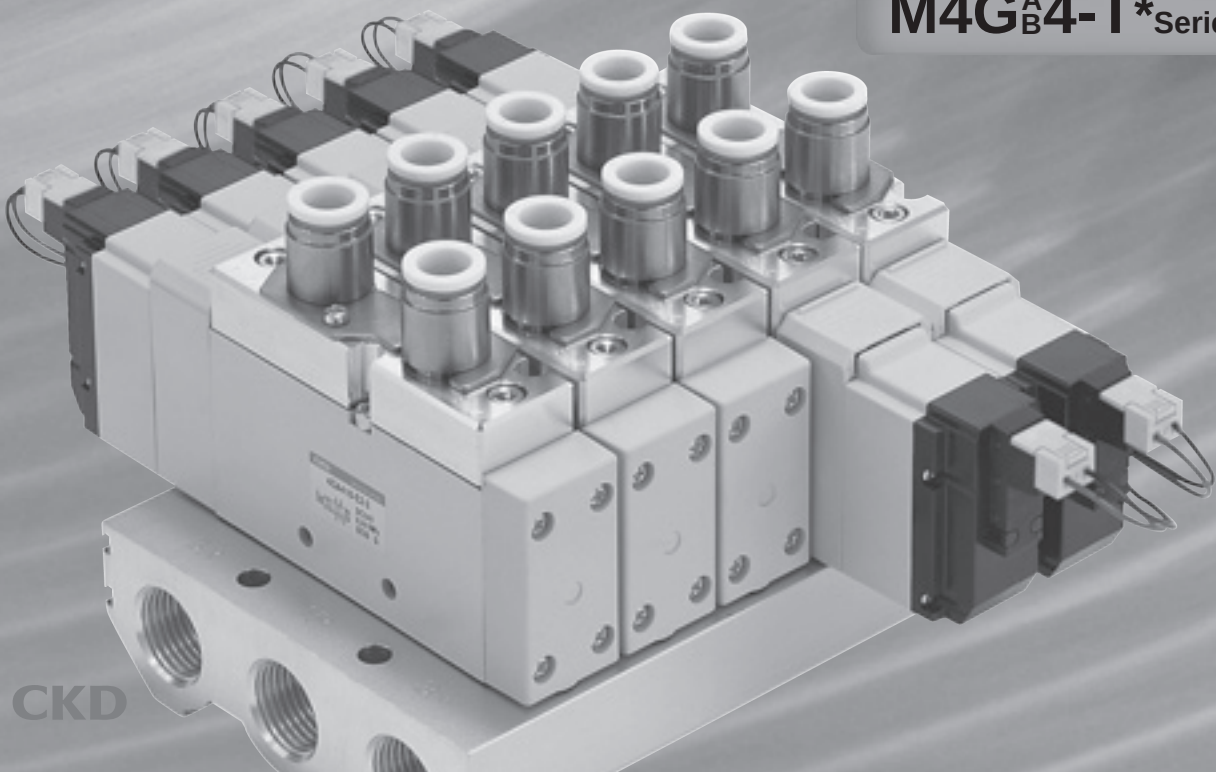
4G^A_B4Series

Max. C value of 15 with a compact body!



Reduced wiring manifold

M4G^A_B4-T*Series



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

5-port pilot operated valve

4G4 Series

Improved operability

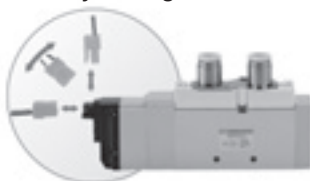
■ Tool-free manual operating device

Hand alone operation is possible.
Locking/non-locking common use type.



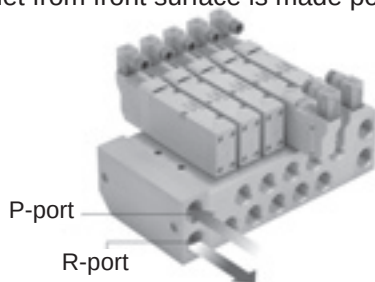
■ Wiring connector upward/lateral common

Just change the connector insert position, and upward and lateral connecting portions can be freely changed.



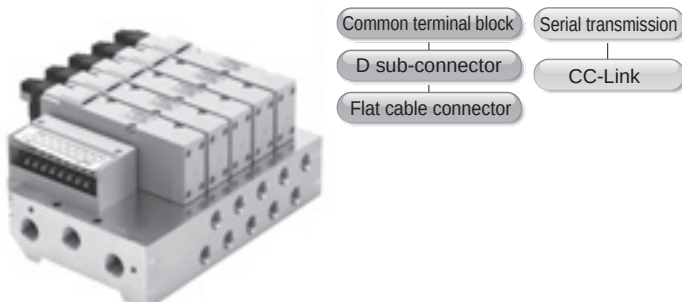
■ P/R-port outlet from front surface (option: Q)

Thanks to the supply and exhaust block, the P/R port outlet from front surface is made possible.



■ Various electrical connections

CC-Link, common terminal block, D-sub-connector and flat cable connector are available for serial transmission.



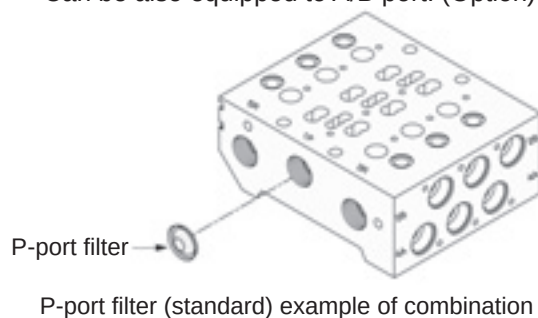
Improved reliability

■ Long service life

Service life is further extended by improvements in structure of sliding section, packing, etc.

■ The supply port is equipped with filter

Prevents the entry of foreign matter, and resolves problems.
Can be also equipped to A/B port. (Option)



P-port filter (standard) example of combination

Improved safety

■ Safety is ensured with protective cover

Prevents wrong operation of manual override due to external force, etc.
Safe design so that the cover cannot be closed when the lock is engaged. (PAT.)

Improved environment-friendliness

■ RoHS compliant

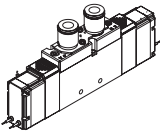
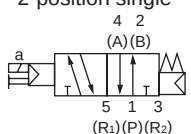
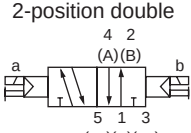
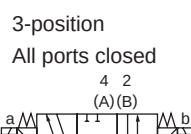
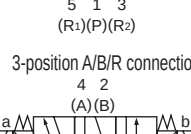
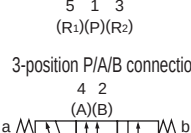
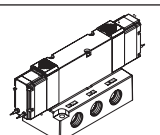
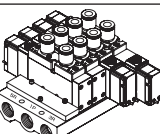
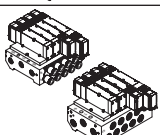
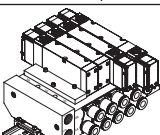
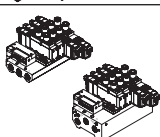
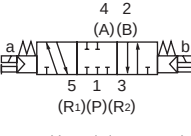
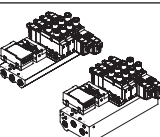
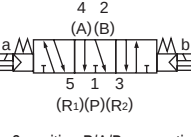
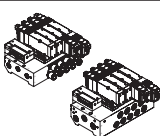
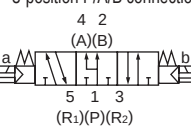
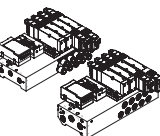
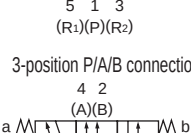
Halogen and vinyl chloride materials are excluded from lead wire.
Has an environment-friendly design which is compliant with the RoHS Directive.

RoHS

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

Series variation

Discontinue 4GA4/4GB4 Series

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													
Series external appearance				Model No.	Position Number of solenoids JIS symbol	Valve performance		Voltage (v)	Switching position				
						Flow characteristics C [dm³/(s·bar)] (*1)	Applicable cylinder bore size (ø)		2-position				
									Single	Double			
Single unit		Body piping	5-port	4GA4	● 5-port valve 2-position single  4 2 (A)(B) 5 1 3 (R1)(P)(R2) 2-position double  4 2 (A)(B) 5 1 3 (R1)(P)(R2) 3-position All ports closed  4 2 (A)(B) 5 1 3 (R1)(P)(R2) 3-position A/B/R connection  4 2 (A)(B) 5 1 3 (R1)(P)(R2) 3-position P/A/B connection  4 2 (A)(B) 5 1 3 (R1)(P)(R2)	7.5 to 8.7	100 to 140	100 AC 110 AC 24 DC 12 DC	●	●			
		Base piping	5-port	4GB4		12 to 15	125 to 160		●	●			
Individual wiring manifold (metal base)		Body piping	Direct mount	M4GA4		8.2 to 9.3	100 to 140	100 AC 110 AC 24 DC 12 DC	●	●			
		Base piping	Direct mount	M4GB4 (*2)		6.8 to 7.1 8.7 to 9.5 (*3)	100 to 140		●	●			
			DIN rail Mount (-D)	M4GB4 (*4)		6.8 to 7.1	100 to 125		●	●			
	Reduced wiring manifold (metal base)		Body piping	Direct mount		M4GA4		4 2 (A)(B)	5 1 3 (R1)(P)(R2)	8.2 to 9.3	100 to 140	24 DC 12 DC	●
							4 2 (A)(B)	5 1 3 (R1)(P)(R2)	6.8 to 7.1 8.7 to 9.5 (*3)	100 to 140	24 DC	●	●
		Base piping	Direct mount	M4GB4 (*2)			4 2 (A)(B)	5 1 3 (R1)(P)(R2)	8.2 to 9.3	100 to 140	24 DC 12 DC	●	●
							4 2 (A)(B)	5 1 3 (R1)(P)(R2)	6.8 to 7.1 8.7 to 9.5 (*3)	100 to 140	24 DC	●	●

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

*2: Two types of bases are available. Dimensions differ by bore size of the P/R1/R2 port.

*3: Values apply when the port size (ports A/B) is Rc1/2, G1/2, or NPT1/2.

*4: For DIN rail mount (D), select the supply and exhaust block (Q) as well.

	Switching position				A/B piping connection port												Electrical connections											
	3-position			Mix	Push-in fitting			Female thread									Grommet lead	E-connector	EJ-connector	A-connector	DIN terminal box	Common terminal block	D-sub-connector	Flat cable with power supply terminal	Flat cable without power supply terminal	Serial transmission	Selection page	
	All ports closed	ABR connection	PAB connection		ø8	ø10	ø12	Rc 1/4	Rc 3/8	Rc 1/2	G 1/4	G 3/8	G 1/2	NPT 1/4	NPT 3/8	NPT 1/2												
					C8	C10	C12	08	10	15	08G	10G	15G	08N	10N	15N												
	●	●	●		●	●	●		●			●		●		●	●	●		●							704	
	●	●	●						●	●		●	●	●	●	●	●	●		●							716	
	●	●	●	●	●	●	●		●			●		●		●	●	●		●							728	
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		●							742	
	●	●	●	●	●	●	●	●	●		●	●		●	●		●	●	●		●						760	
	●	●	●	●	●	●	●		●			●		●		●		●	●	●	Valve equipped		●	●	●	●	●	770
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●				●	Valve equipped		●	●	●	●		776	
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●				●	Valve equipped						●	788	

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

4GA4/4GB4 Series

4GA/B	Electrical connections						Manual operating device	Other options							
M4GA/B	Discrete valve/individual wiring manifold			Reduced wiring manifold				K	External pilot	Z1	Air supply spacer				
MN4GA/B	Blank	Grommet lead wire (A)	E3	E-connector with socket/ terminal (B/C)	T10 T11	Common term. block (left side) M3 thread specs/push tighten specs						T51 T52 T53	Flat cable without power supply terminal (left side)		
4GA/B (master)	● Lead wire length 300 mm								● Non-locking Locking common type (standard)						
4GB With sensor															
4GD/E															
M4GD/E															
MN4GD/E	E0*	E-connector (A)	B	DIN terminal box	T10R T11R	Common term. block (right-side) M3 thread specs/push tighten specs	T51R T52R T53R	Flat cable without power supply terminal (right side)			A	Coolant proof	Z3	Exhaust spacer	
4GA4/B4	● Lead wire length 300 mm 500 mm 1000 mm 2000 mm 3000 mm										Select for coolant inflow and ozone measures.				
MN3E MN4E	E0N	E-connector without socket	E0*J	EJ-connector (A)	T30	D-sub-connector (left)	T6G1	Serial transmission type (16 points)	(1) For non-locking, Push to turn ON Release to turn OFF		F	A/B port filter integrated	Q	Supply and exhaust block	
W4GA/B2			● Lead wire length 1000 mm 2000 mm 3000 mm						(2) For locking, push and turn 90° clockwise to hold the ON state. Turn counterclockwise to release OFF						
W4GB4															
MN3S0 MN4S0	E1	E-connector with socket/ terminal	E2*J	EJ-connector (A B C)	T30R	D-sub-connector (right)							D		DIN rail mount
4SA/B0			● Lead wire length 1000 mm 2000 mm 3000 mm												
4KA/B															
4KA/B (master)															
4F															
4F (master)															
PV5G GMF															
PV5 GMF															
PV5S-0															
3Q															
MV3QR	E2*	E-connector (A B C)					T50	Flat cable with power supply terminal (left side)							
3MA/B0	● Lead wire length 300 mm 500 mm 1000 mm 2000 mm 3000 mm														
3PA/B															
P/M/B															
NP/NAP NVP															
4G*0EJ															
4F*0EX	E2N	E-connector without socket (B C)					T50R	Flat cable with power supply terminal (right side)							
4F*0E															
HMV HSV															
2QV 3QV															
SKH															
Silencer															
TotAirSys (Total Air)															
TotAirSys (Gamma)															
Ending															

Electric connection circuit diagram

Electrical connections (wiring method)

(None) : Without lead wire

(L) : With lead wire

(L) : With indicator lamp

(S) : With surge suppressor

(So) : Without socket

Blank	Grommet lead wire (L)	E0 E0*J	E-connector/EJ-connector (L)
E0N	E-connector (R)	E1	E-connector (None)
E2 E2*J	E-connector/EJ-connector (L)(L)(S)	E2N	E-connector (L)(S)(So)
E3	E-connector (None)(L)(S)	A2N	A-connector (L)(S)(So)
B	DIN terminal box (L)(L)(S)		

* Varistor is used as a surge suppressor.

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

4GA4 Series



Ending

CKD

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
4GA4	2-position		8.1	0.40	8.0	0.31
	3-position	All ports closed	6.9	0.37	7.5	0.42
		ABR connection	6.8	0.40	8.7	0.37
		PAB connection	8.9	0.37	7.6	0.27

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

Coolant proof specifications

Can be selected with “How to order” Item ⑤ option “A” on page 706.

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**

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

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

4GA4 Series

Discrete valve; body piping

How to order

4GA4 **1** **0** - **10** - **E2** **3**

A Model No.

B Solenoid position

C Port size

D Electrical connections
Refer to page 703 for
the circuit diagram with
surge suppressor/lamp.

E Option

F Voltage

A Model No.

4GA4

Code	Description	
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	●

C Port size		
Port	A/B Port	P/R Port Rc1/4
C8	ø8 push-in fitting	●
C10	ø10 push-in fitting	●
C12	ø12 push-in fitting	●
10	Rc3/8	●
10G	G3/8	● (*1)
10N	NPT3/8	● (*2)

D Electrical connections		
Blank	Grommet lead wire	●
B	DIN terminal box (Pg7) with surge suppressor/lamp	●

E-connector (upward/lateral common)		
E0	Lead wire (300 mm)	●
E00	Lead wire (500 mm)	●
E01	Lead wire (1000 mm)	●
E02	Lead wire (2000 mm)	●
E03	Lead wire (3000 mm)	●
E2	Lead wire (300 mm) with surge suppressor/lamp	●
E20	Lead wire (500 mm) with surge suppressor/lamp	●
E21	Lead wire (1000 mm) with surge suppressor/lamp	●
E22	Lead wire (2000 mm) with surge suppressor/lamp	●
E23	Lead wire (3000 mm) with surge suppressor/lamp	●
E0N	Without lead wire (without socket)	●
E2N	Without lead wire (without socket) with surge suppressor/lamp	●
E3	No lead wire (with socket/terminal), surge suppressor/indicator lamp	●
E1	Without lead wire (socket/terminal attached)	●

EJ-connector (socket with cover, upward/lateral common)		
E01J	Lead wire (1000 mm)	●
E02J	Lead wire (2000 mm)	●
E03J	Lead wire (3000 mm)	●
E21J	Lead wire (1000 mm) with surge suppressor/lamp	●
E22J	Lead wire (2000 mm) with surge suppressor/lamp	●
E23J	Lead wire (3000 mm) with surge suppressor/lamp	●

E Option		
Blank	None	●
A	Coolant proof	●
F	A/B port filter built in	●

F Voltage		
1	100 VAC	●
3	24 VDC	●
4	12 VDC	●
5	110 VAC	●

⚠ Precautions for model No. selection

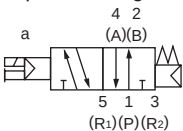
*1: P/R-port is G1/4.

*2: P/R-port is NPT1/4.

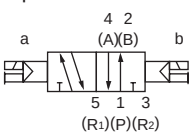
JIS symbol

● 5-port valve

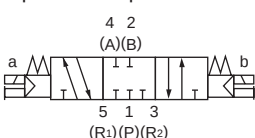
2-position single



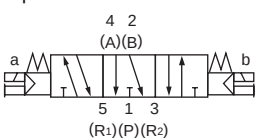
2-position double



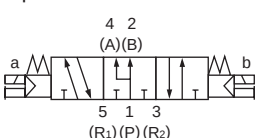
3-position all ports closed

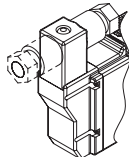
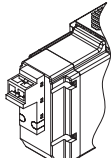
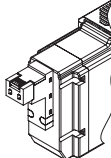


3-position A/B/R connection



3-position P/A/B connection



Electrical connections			
Discrete valve/individual wiring manifold			
Blank	Grommet lead wire	B	DIN terminal box
● Lead wire length 300 mm			
E0* E2*	E-connector	E0*J E2*J	EJ-connector
● Lead wire length 300 mm 500 mm 1000 mm 2000 mm 3000 mm		● Lead wire length 1000 mm 2000 mm 3000 mm	
E0N E2N	E-connector without socket		
E1 E3	E-connector with socket/terminal		

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

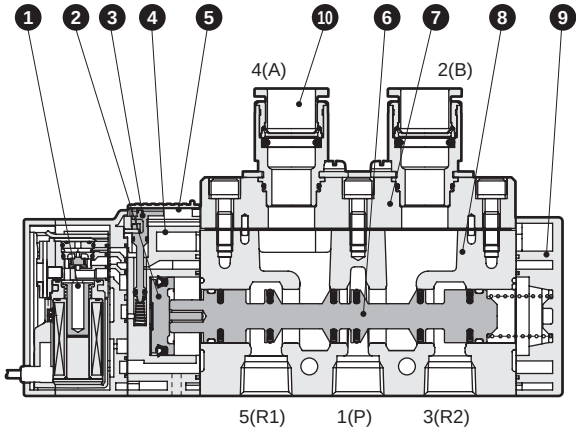
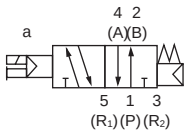
4GA4 Series

Discrete valve; body piping

Internal structure and parts list

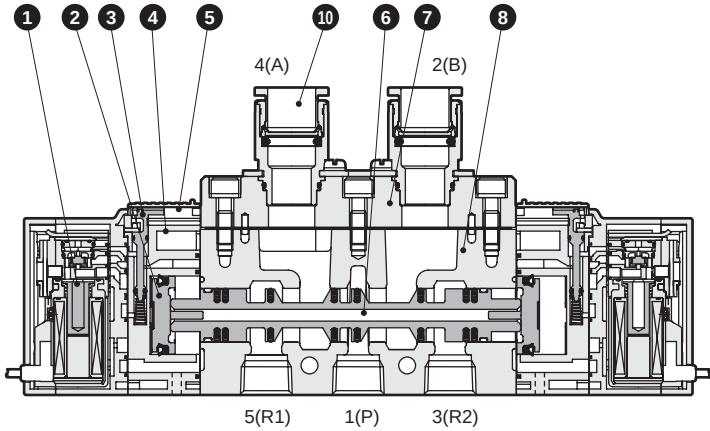
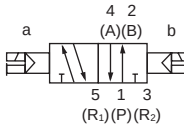
4GA410

- 2-position single
- Grommet lead wire (blank)



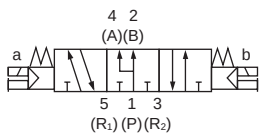
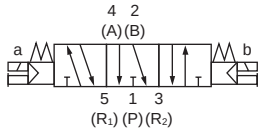
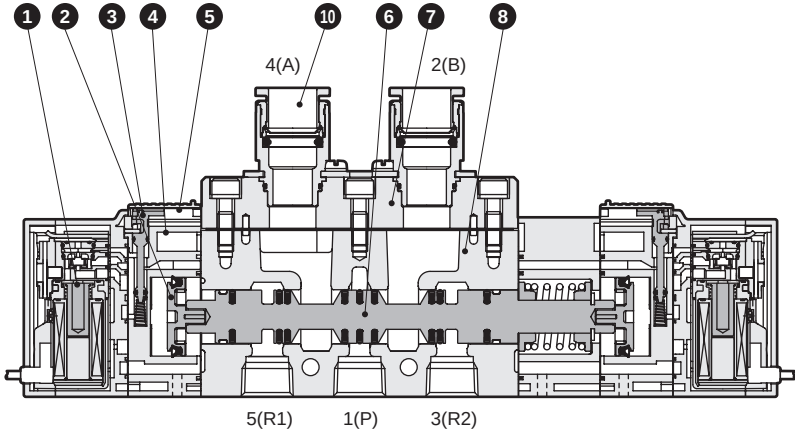
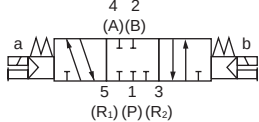
4GA420

- 2-position double
- Grommet lead wire (blank)



4GA4^{3 4 5}0

- 3-position
- Grommet lead wire (blank)



Main parts list

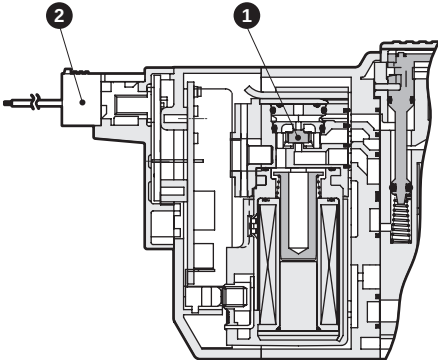
No.	Part name	Material
1	Coil assembly	-
2	Piston assembly	-
3	Manual override	-
4	Piston chamber	PBT
5	Manual protection cover	PBT
6	Spool assembly	-
7	Fitting adaptor	Aluminum
8	Body	Aluminum
9	Cap	PA
10	Cartridge push-in fitting	-

Parts list

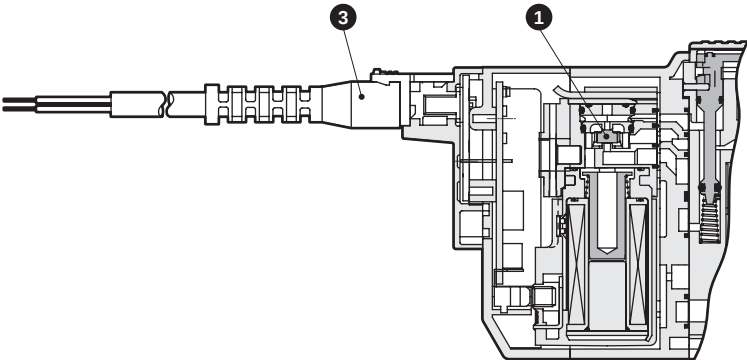
No.	Part name	Model No.
-	Cartridge push-in fitting and related parts	ø8 straight 4G4-JOINT-C8
		ø10 straight 4G4-JOINT-C10
		ø12 straight 4G4-JOINT-C12

Internal structure and parts list/dimensions (electrical connections section)

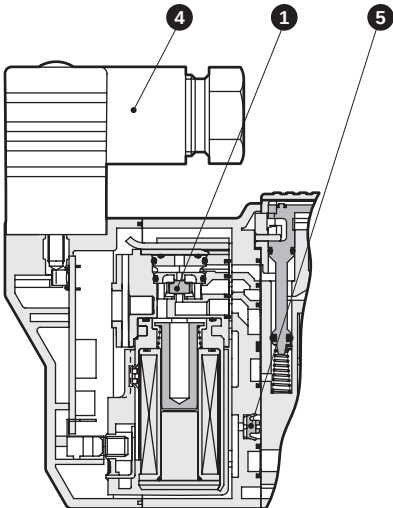
● E-connector E □ □



● EJ-connector E □ □ J



● DIN terminal box B



Main parts list

No.	Part name	Material	No.	Part name	Material
1	Coil assembly	-	4	DIN terminal box assembly	-
2	E-connector socket assembly	-	5	Check valve	NBR
3	Socket assembly with cover	-			

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

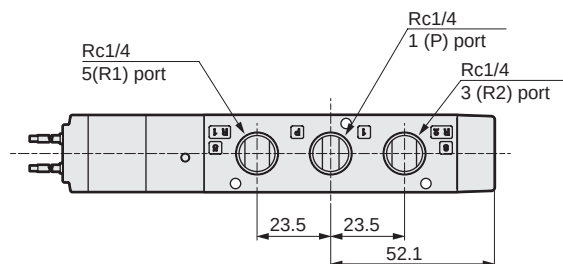
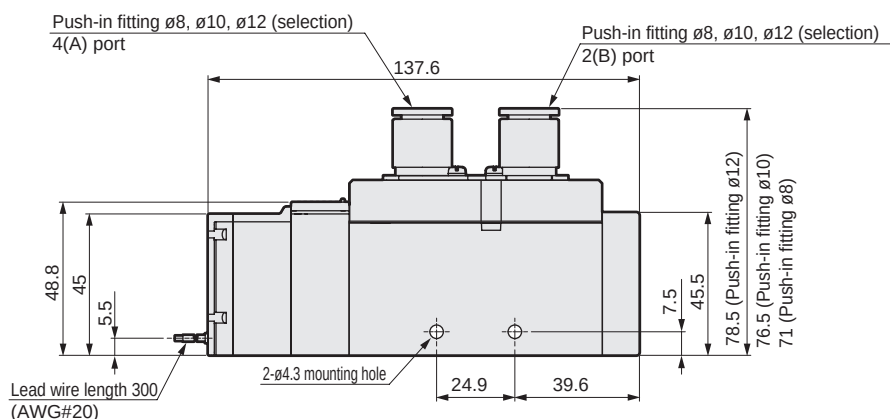
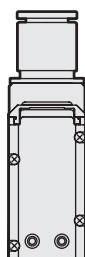
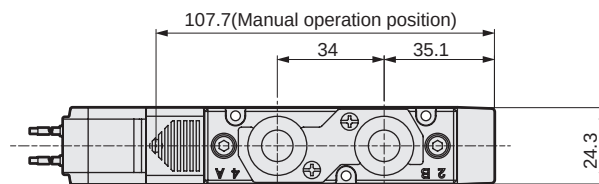
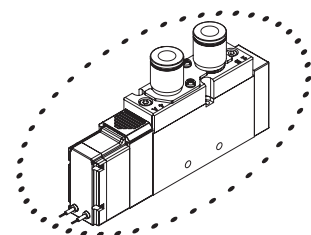
4GA4 Series

Discrete valve; body piping

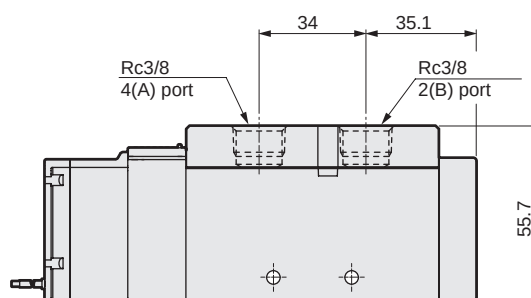
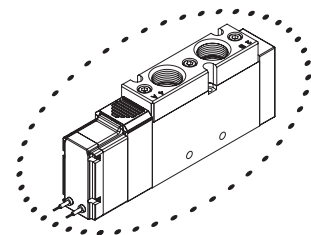
Dimensions

4GA410

- 2-position single Grommet lead wire (blank)

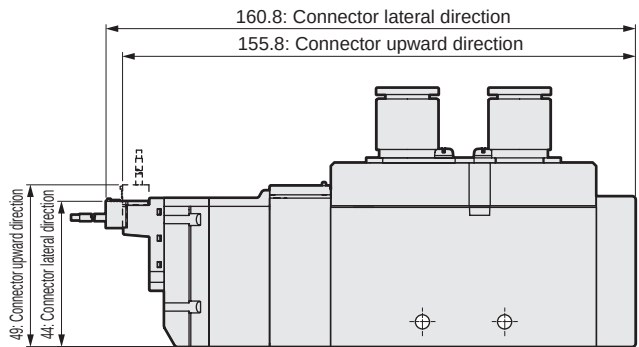
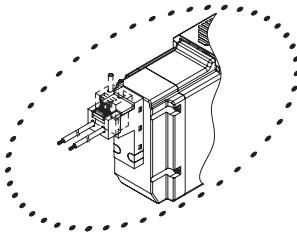


- Rc3/8 female thread (10)

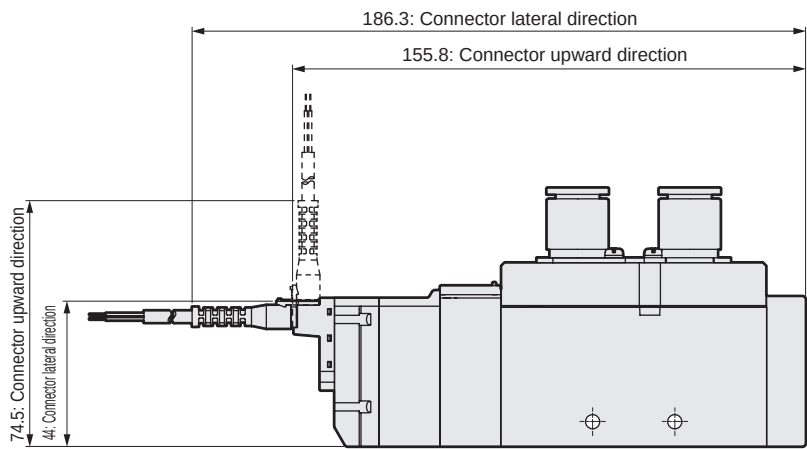
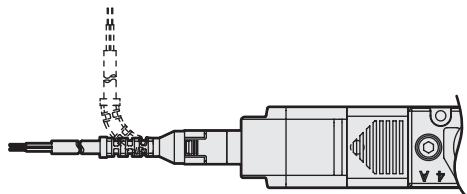
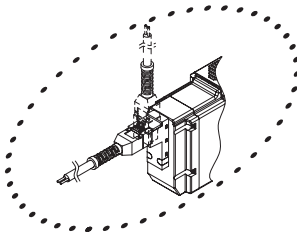


Dimensions

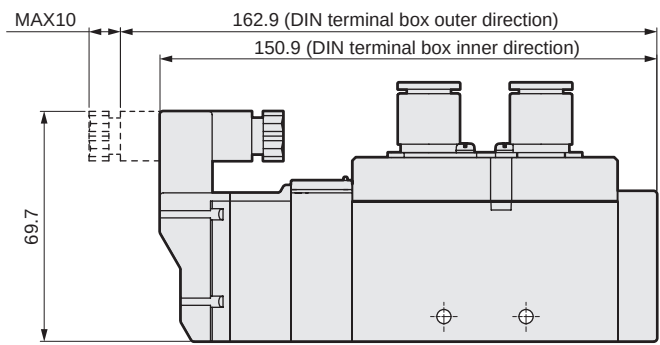
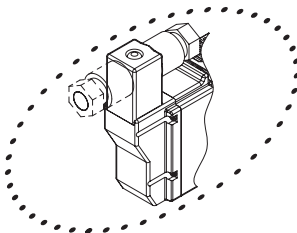
● E-connector (E)



● EJ-connector (E**J)



● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

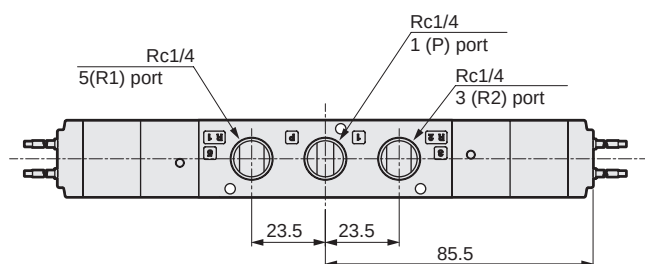
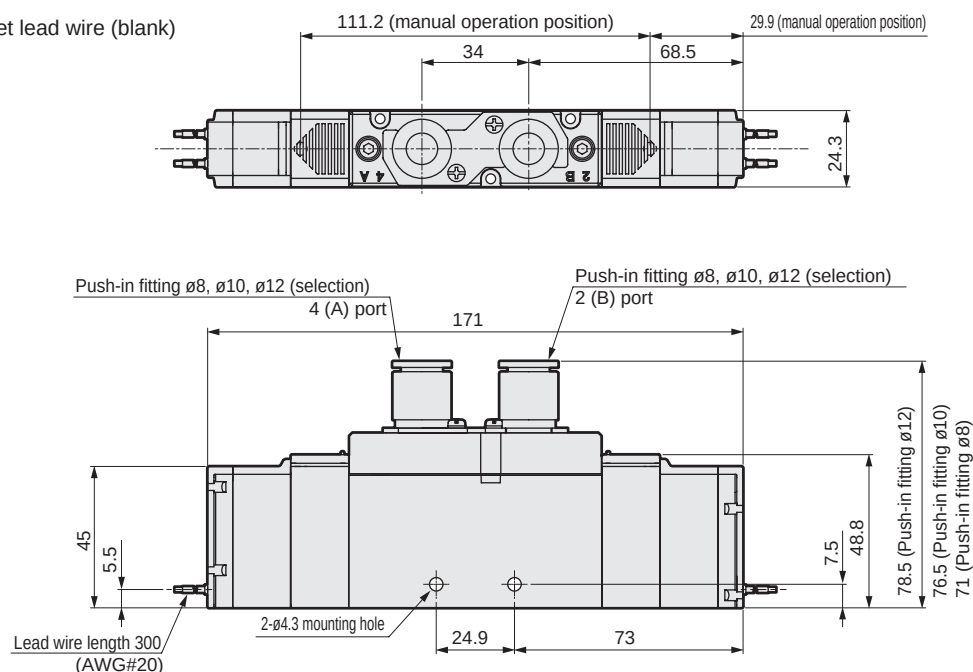
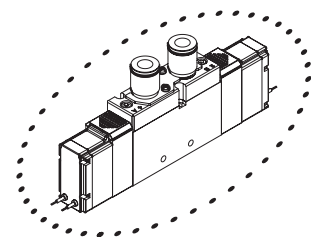
4GA4 Series

Discrete valve; body piping

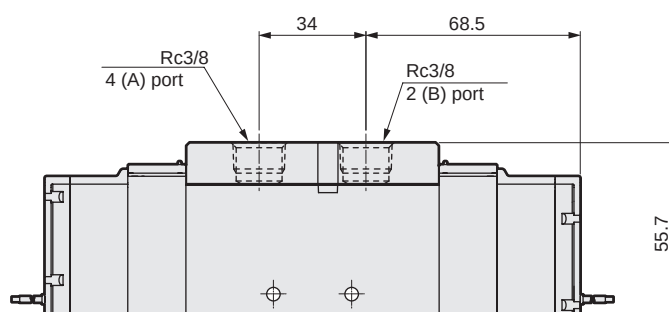
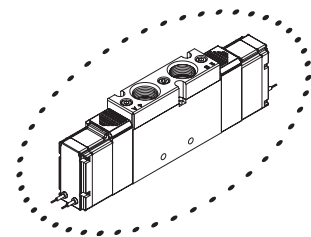
Dimensions

4GA420

- 2-position double Grommet lead wire (blank)

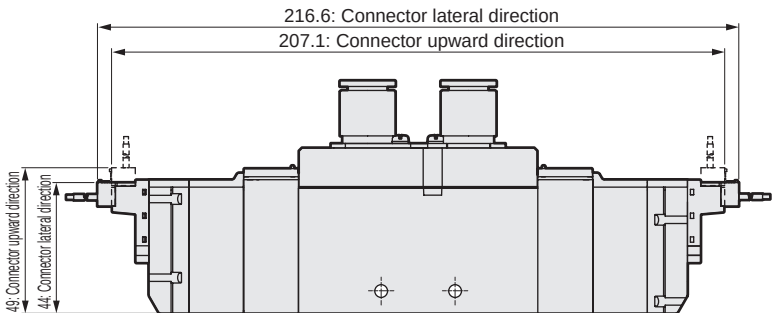
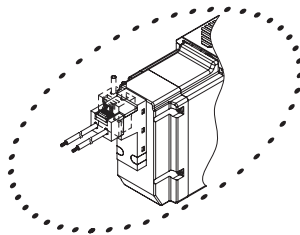


- Rc3/8 female thread (10)

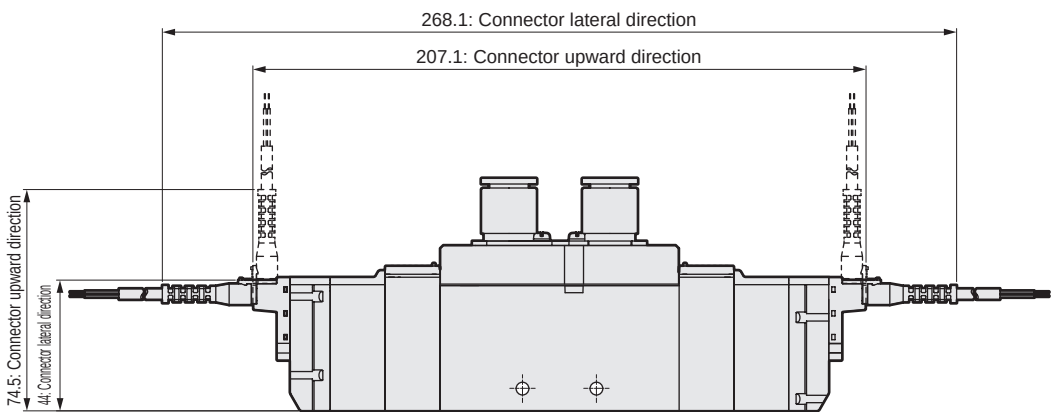
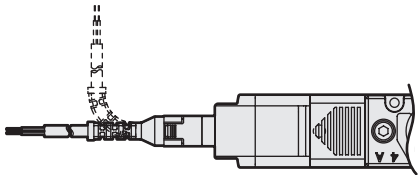
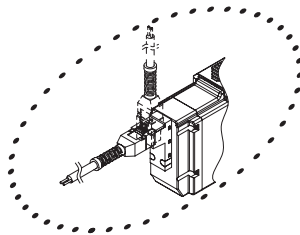


Dimensions

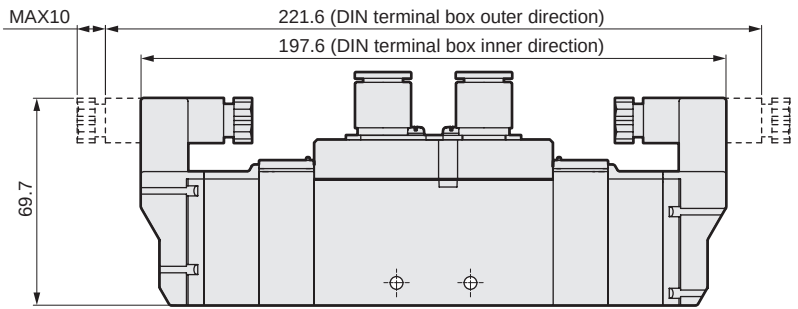
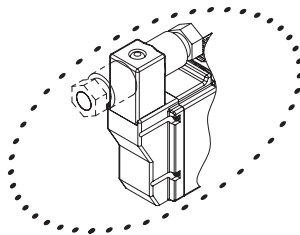
● E-connector (E)



● EJ-connector (E**J)



● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

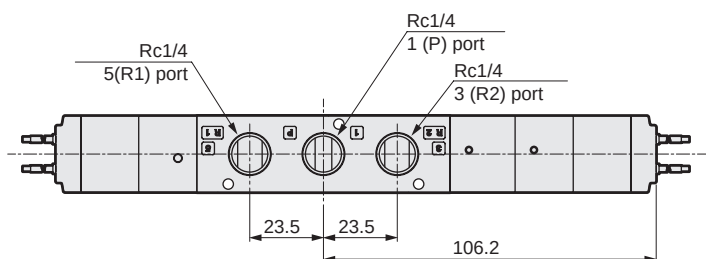
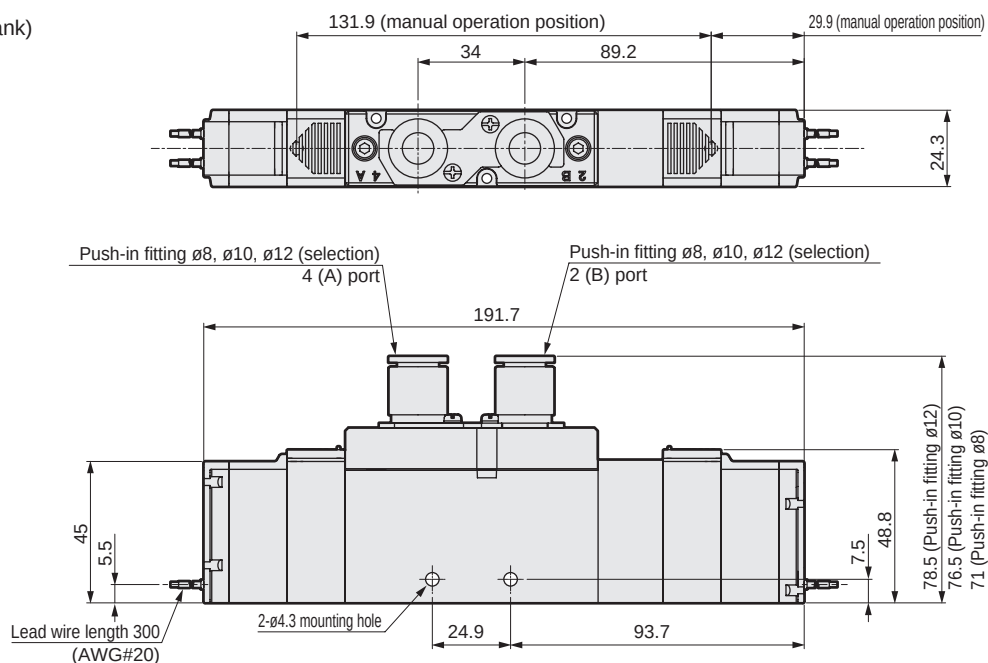
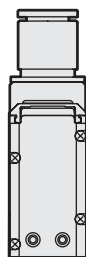
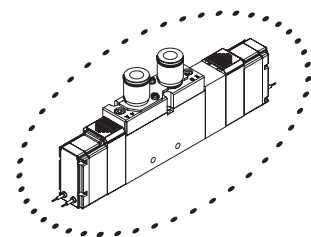
4GA4 Series

Discrete valve; body piping

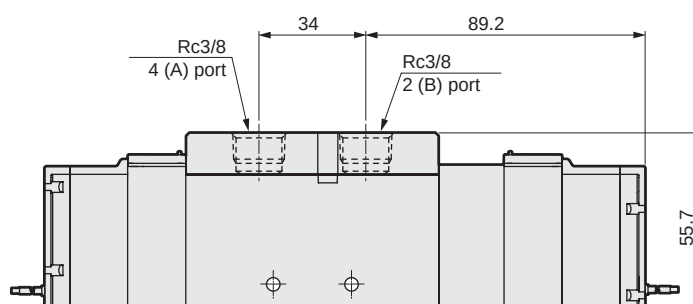
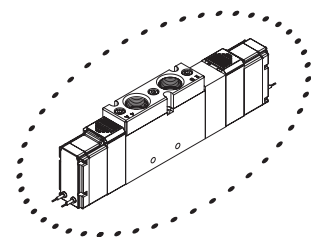
Dimensions

4GA4³₄⁵0

● 3-position grommet lead wire (blank)

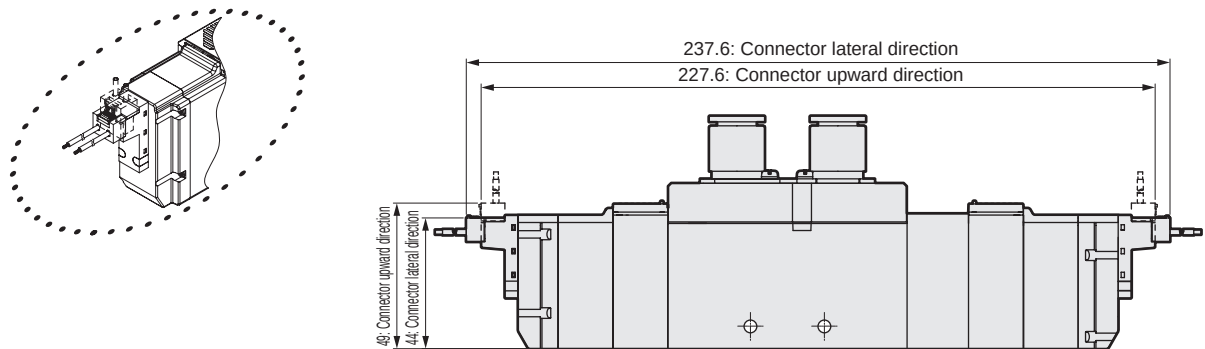


● Rc3/8 female thread (10)

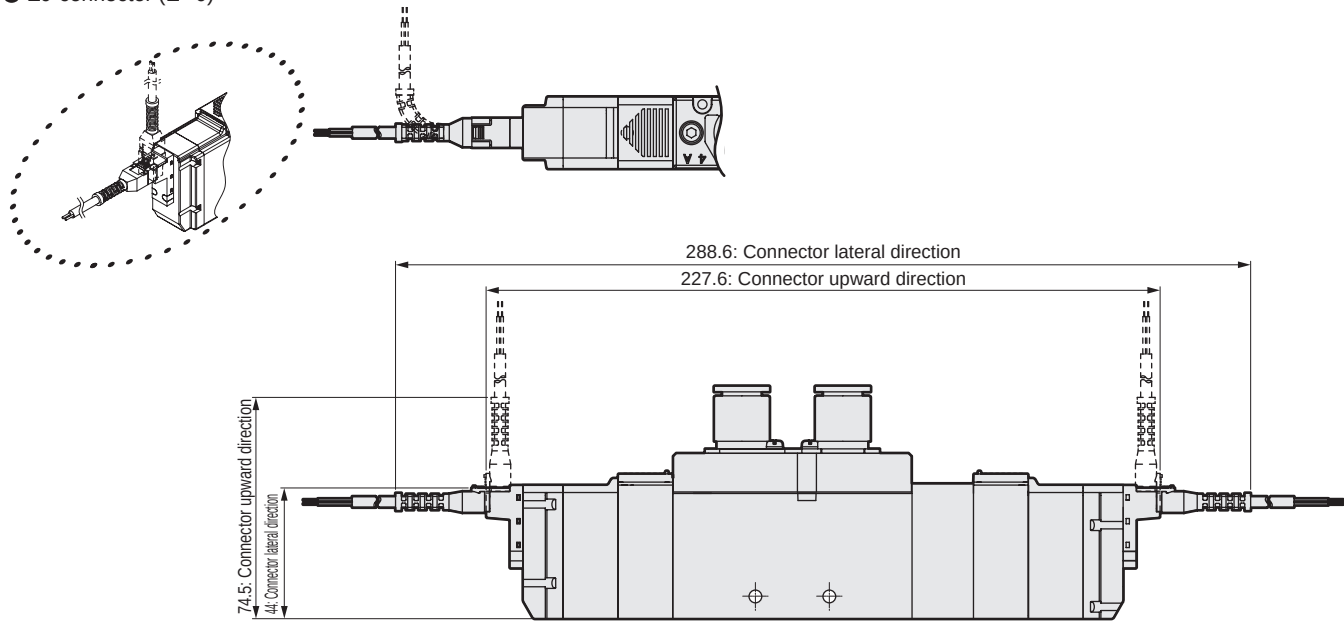


Dimensions

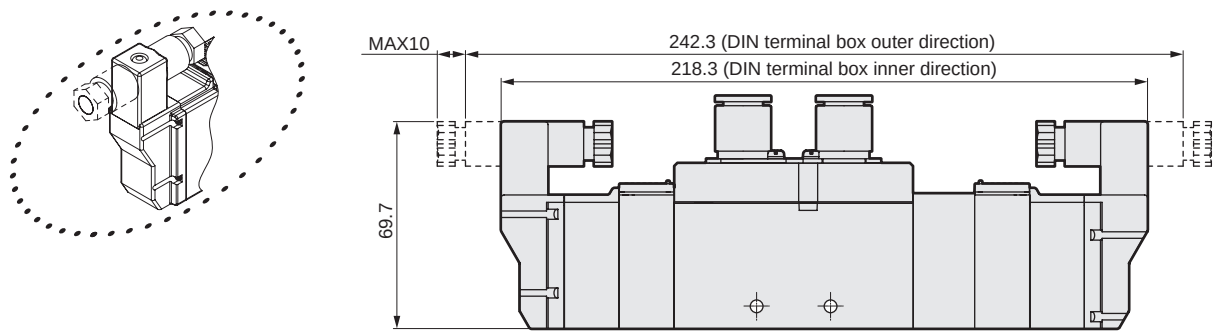
● E-connector (E)



● EJ-connector (E**J)



● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

Discrete valve
Base piping

4GB4 Series

● Cylinder bore size: ø125 to ø160



Common specifications

Item	Description
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 °C	-5 (23°F) to 55 (131°F) (no freezing)
Fluid temperature °C	5 (41°F) to 55 (131°F)
Manual override	Non-locking/locking common
Pilot exhaust method	Internal pilot: Main valve/pilot valve common exhaust External pilot: Main valve/pilot valve individual exhaust
Lubrication (*1)	Not required
Degree of protection (*2)	Dust-proof [IP40 equivalent (DIN terminal box: IP65)]
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 water drops or oil, etc., during use.

IP65 (jet-proof) or equivalent applies for DIN terminal box specifications.

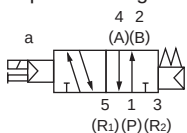
However, the specified outer diameter of the applicable cord and tightening torque must be used for fixing in place.

*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.

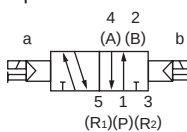
JIS symbol

● 5-port valve

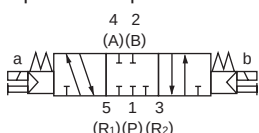
2-position single



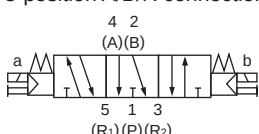
2-position double



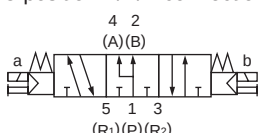
3-position all ports closed



3-position A/B/R connection



3-position P/A/B connection



Electrical specifications

Item	Description
Rated voltage V	AC: 100(50/60 Hz) 110(50/60 Hz) DC: 12, 24
Voltage fluctuation range	±10%
Starting current A	AC: 100 V: 0.056/0.044 110 V: 0.051/0.040 DC: 12 V: - 24 V: -
Holding current A	AC: 100 V: 0.028/0.022 110 V: 0.025/0.020 DC: 12 V: 0.079(0.083) 24 V: 0.040(0.042)
Power consumption W	AC: 100 V: 1.8/1.4 110 V: (1.8/1.5) DC: 12 V: 0.95(1.0) 24 V: 0.95(1.0)
Thermal class	B
Surge suppressor	Option
Indicator	Lamp (option)

*4: Values in () apply when lamp is included.

Individual specifications

Item	4GB4
Port size	A/B port: Rc3/8, Rc1/2, G3/8, G1/2, NPT3/8, NPT1/2 P/R1/R2 port: Rc3/8, Rc1/2, G3/8, G1/2, NPT3/8, NPT1/2

Performance/characteristics by model

Item			4GB4	
			ON	OFF
Response time ms	2-position	Single	40(40)	40(52)
		Double	40(52)	40(52)
	3-position	ABR connection	60(72)	60(72)

Values with lamp/surge suppressor are shown. The response times are the values with supply pressure of 0.5 MPa at 20°C and without lubrication. They depend on the pressure and the lubricant quality. Values in () are for AC.

Weight

Item	4GB4
Weight g	
Single	Grommet lead wire: 563(256) E-connector: 566(259) DIN terminal box: 575(268)
Double	Grommet lead wire: 620(313) E-connector: 626(319) DIN terminal box: 644(337)
3-position	All ports Block: Grommet lead wire: 655(348) E-connector: 661(354) DIN terminal box: 679(372)

Values in () do not include the single sub-plate. Values for the E-connector include the socket assembly (with 300 mm lead wire).

For the EJ type connector, add 16 g/connector to the E-connector weight.

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
4GB4	2-position		11	0.19	13	0.19
	3-position	All ports closed	9.1	0.11	12	0.27
		ABR connection	9.2	0.11	15	0.22
		PAB connection	10	0.06	12	0.24

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

Coolant proof specifications

Can be selected with "How to order" Item ⑤ option "A" on page 718.

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**

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

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

4GB4 Series

Discrete valve; base piping

How to order

4GB4 **1** **0** - **10** - **E2** **3**

A Model No.

B Solenoid position

C Port size

D Electrical connections
Refer to page 703 for
the circuit diagram with
surge suppressor/lamp.

E Option

F Voltage

A Model No.

4GB4

Code	Description	
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	●

C Port size			
Port	A/B Port	P/R Port	
		Rc3/8	Rc1/2
10	Rc3/8	●	
15	Rc1/2		●
10G	G3/8	● (*1)	
15G	G1/2		● (*1)
10N	NPT3/8	● (*2)	
15N	NPT1/2		● (*2)

D Electrical connections		
Blank	Grommet lead wire	●
B	DIN terminal box (Pg7) with surge suppressor/lamp	●
E-connector (upward/lateral common)		
E0	Lead wire (300 mm)	●
E00	Lead wire (500 mm)	●
E01	Lead wire (1000 mm)	●
E02	Lead wire (2000 mm)	●
E03	Lead wire (3000 mm)	●
E2	Lead wire (300 mm) with surge suppressor/lamp	●
E20	Lead wire (500 mm) with surge suppressor/lamp	●
E21	Lead wire (1000 mm) with surge suppressor/lamp	●
E22	Lead wire (2000 mm) with surge suppressor/lamp	●
E23	Lead wire (3000 mm) with surge suppressor/lamp	●
E0N	Without lead wire (without socket)	●
E2N	Without lead wire (without socket) with surge suppressor/lamp	●
E3	No lead wire (with socket/terminal), surge suppressor/indicator lamp	●
E1	Without lead wire (socket/terminal attached)	●

EJ type connector (socket with cover, upward/lateral common)		
E01J	Lead wire (1000 mm)	●
E02J	Lead wire (2000 mm)	●
E03J	Lead wire (3000 mm)	●
E21J	Lead wire (1000 mm) with surge suppressor/lamp	●
E22J	Lead wire (2000 mm) with surge suppressor/lamp	●
E23J	Lead wire (3000 mm) with surge suppressor/lamp	●

E Option		
Blank	None	●
K	External pilot	●
A	Coolant proof	●
F	A/B port filter built in	●

F Voltage		
1	100 VAC	●
3	24 VDC	●
4	12 VDC	●
5	110 VAC	●

⚠ Precautions for model No. selection

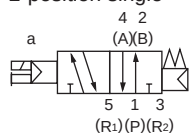
*1: P/R port is G thread.

*2: P/R port is NPT thread.

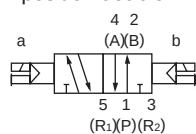
JIS symbol

● 5-port valve

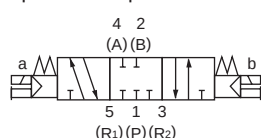
2-position single



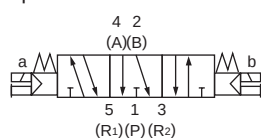
2-position double



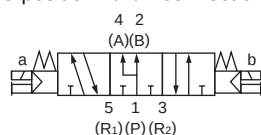
3-position all ports closed

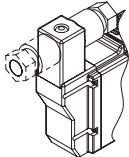
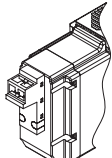
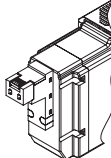


3-position A/B/R connection



3-position P/A/B connection



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

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

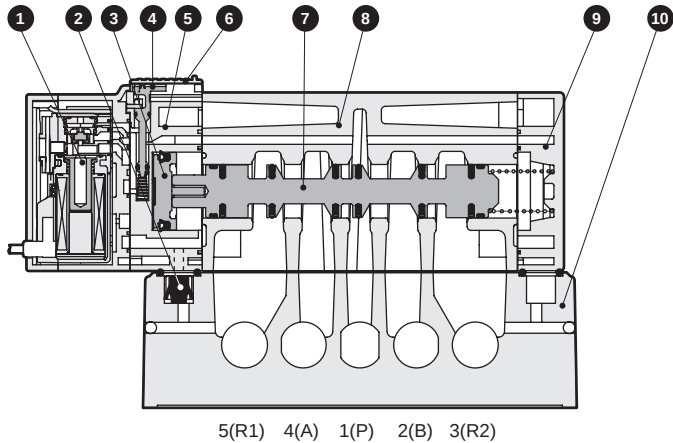
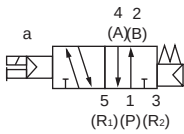
4GB4 Series

Discrete valve; base piping

Internal structure and parts list

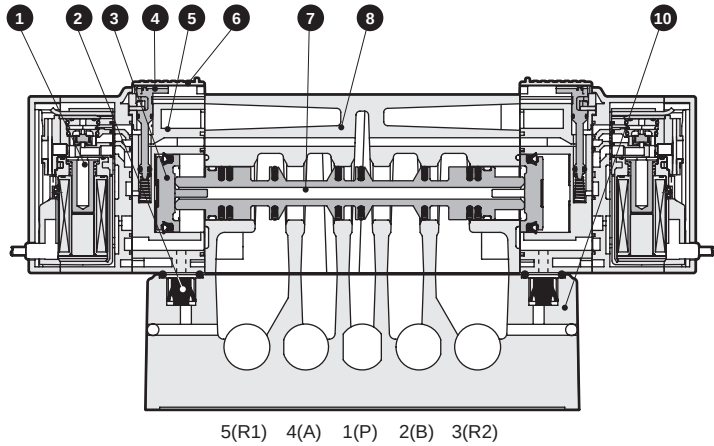
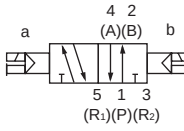
4GB410

- 2-position single
- Grommet lead wire (blank)



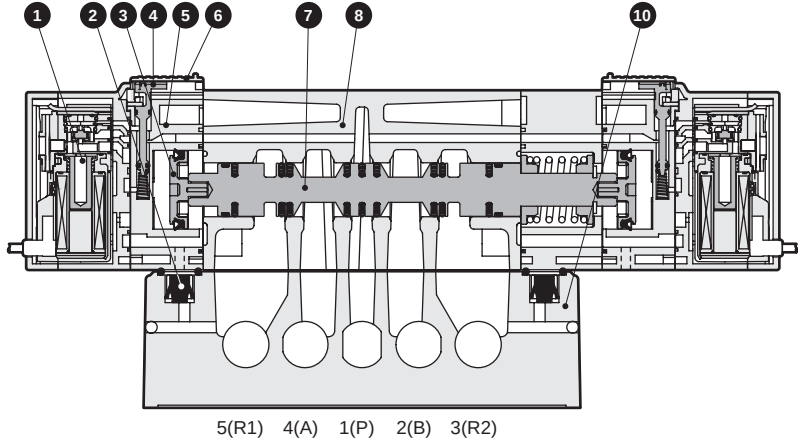
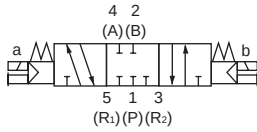
4GB420

- 2-position double
- Grommet lead wire (blank)



4GB4³₄₅0

- 3-position
- Grommet lead wire (blank)

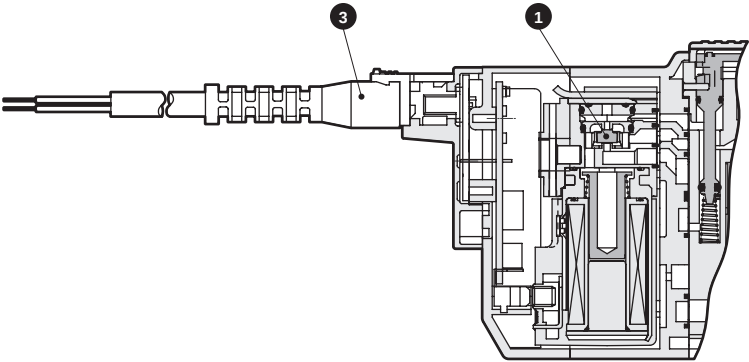
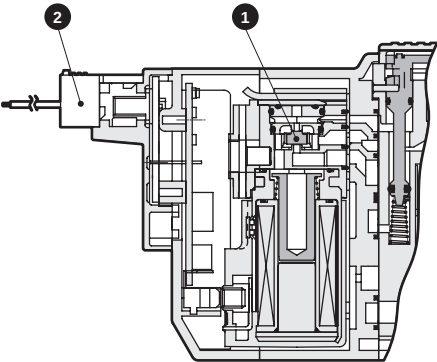


Main parts list

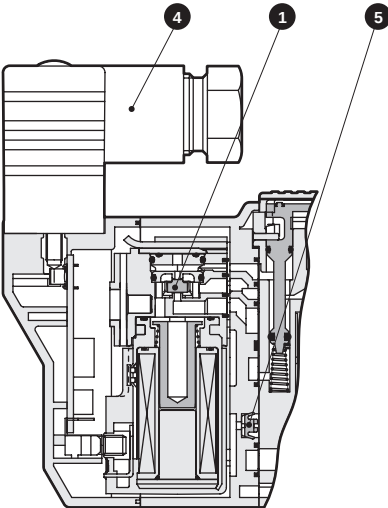
No.	Part name	Material	No.	Part name	Material
1	Coil assembly	-	6	Manual protection cover	PBT
2	Check valve	H-NBR	7	Spool assembly	-
3	Piston assembly	-	8	Body	Aluminum
4	Manual override	-	9	Cap	PA
5	Piston chamber	PBT	10	Discrete sub-plate	Aluminum

Internal structure and parts list/dimensions (electrical connections)

- E-connector E □ □
- EJ type connector E □ □ J



- DIN terminal box B



Main parts list

No.	Part name	Material	No.	Part name	Material
1	Coil assembly	-	4	DIN terminal box assembly	-
2	E-connector socket assembly	-	5	Check valve	NBR
3	Socket assembly with cover	-			

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

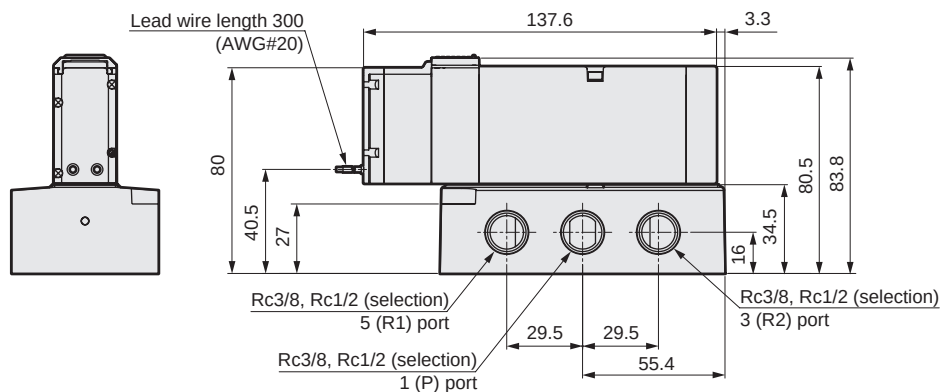
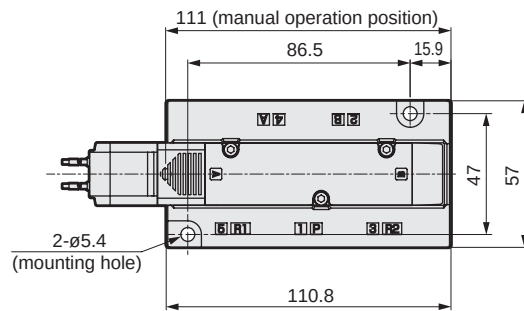
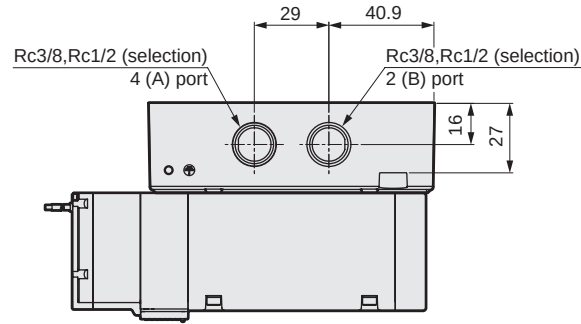
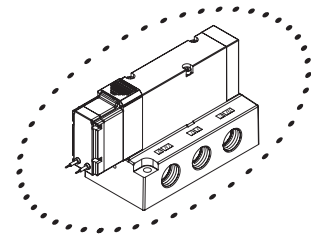
4GB4 Series

Discrete valve; base piping

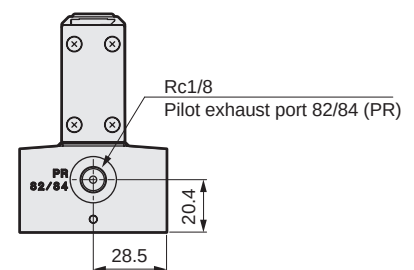
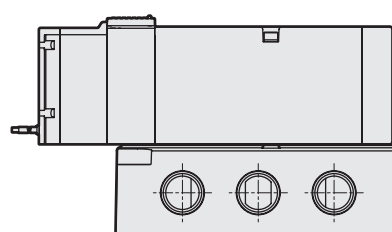
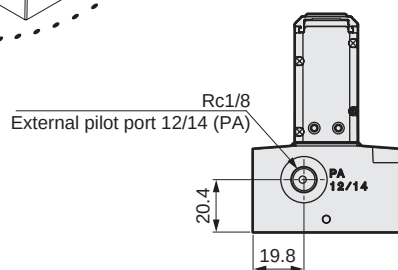
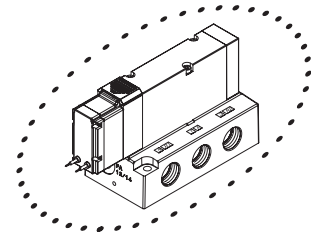
Dimensions

4GB410

● 2-position single grommet lead wire (blank)

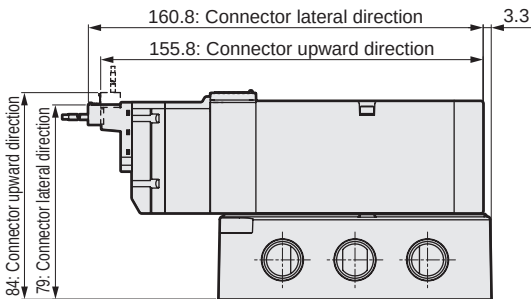
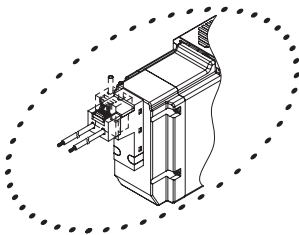


● External pilot (K)

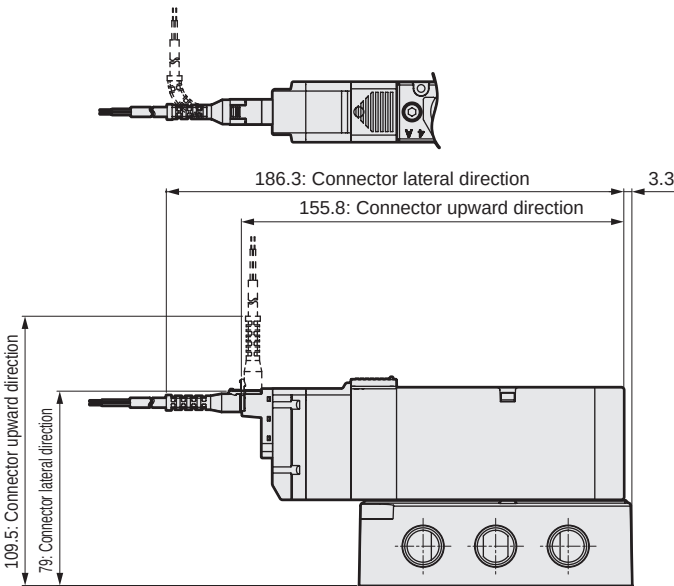
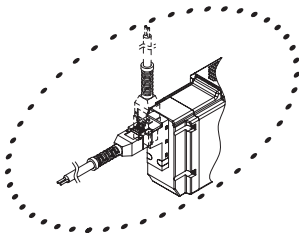


Dimensions

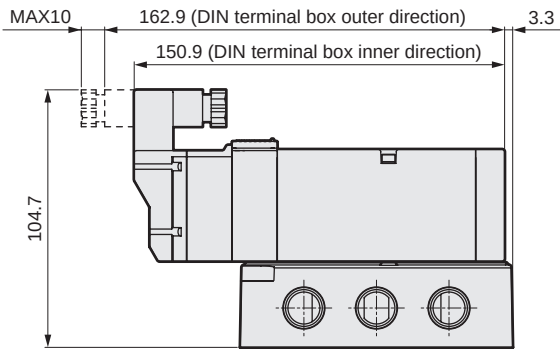
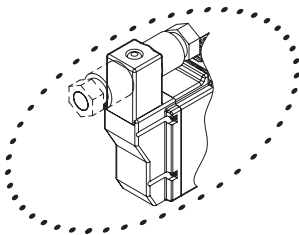
● E-connector (E)



● EJ type connector (E**J)



● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

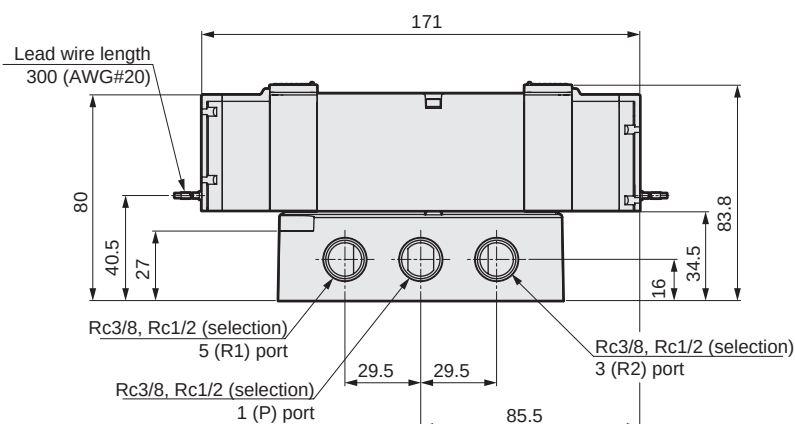
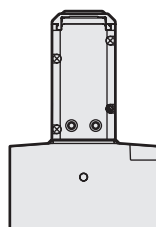
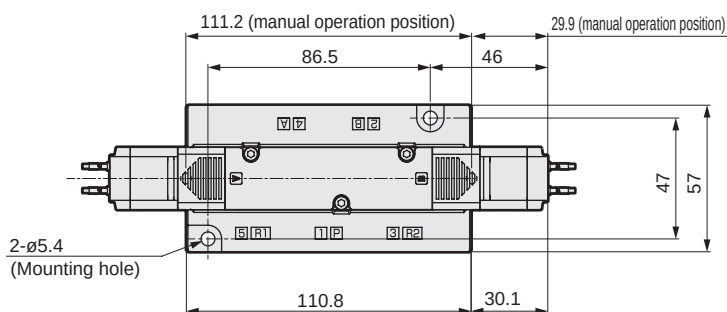
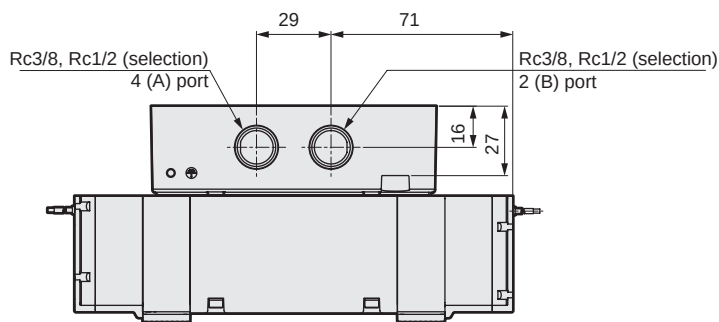
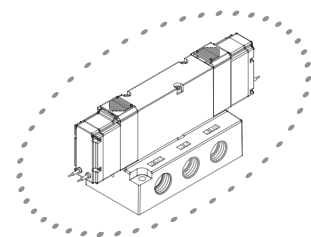
4GB4 Series

Discrete valve; base piping

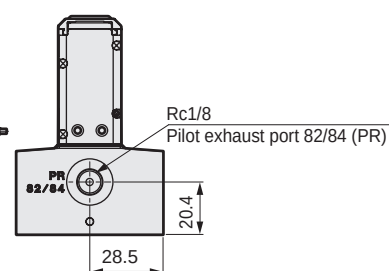
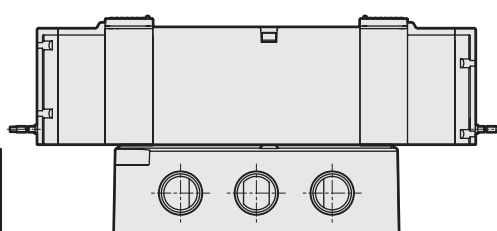
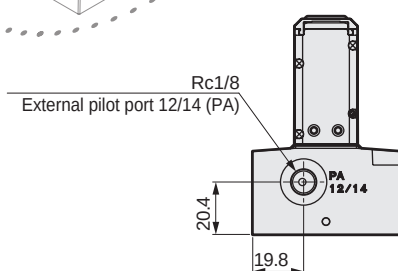
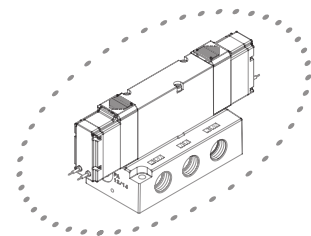
Dimensions

4GB420

- 2-position double grommet lead wire (blank)

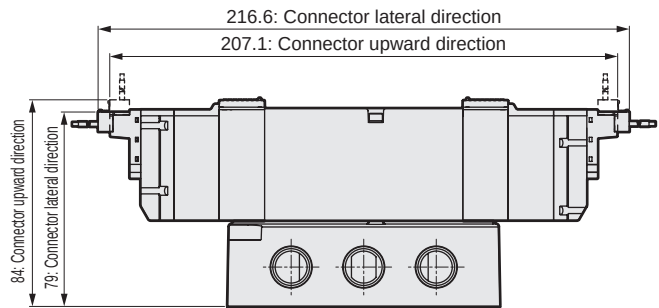
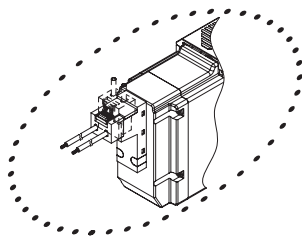


- External pilot (K)

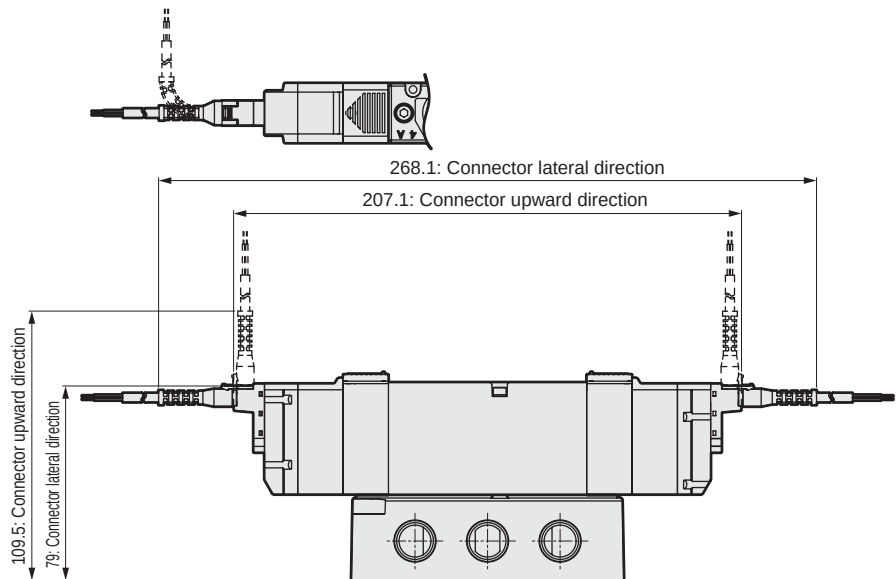
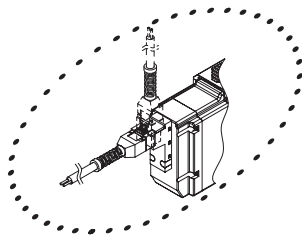


Dimensions

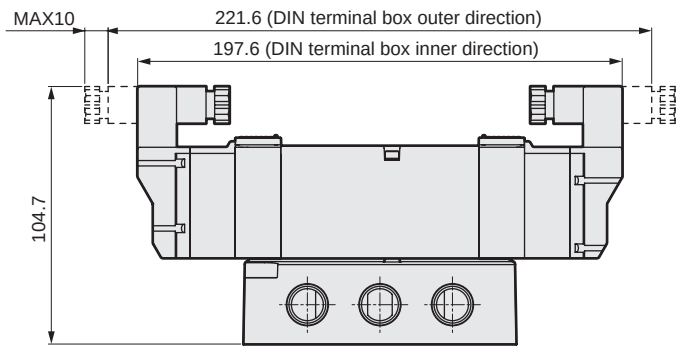
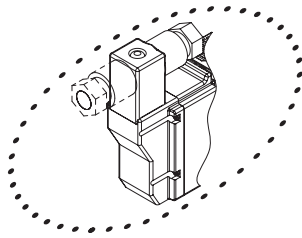
● E-connector (E)



● EJ type connector (E**J)



● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

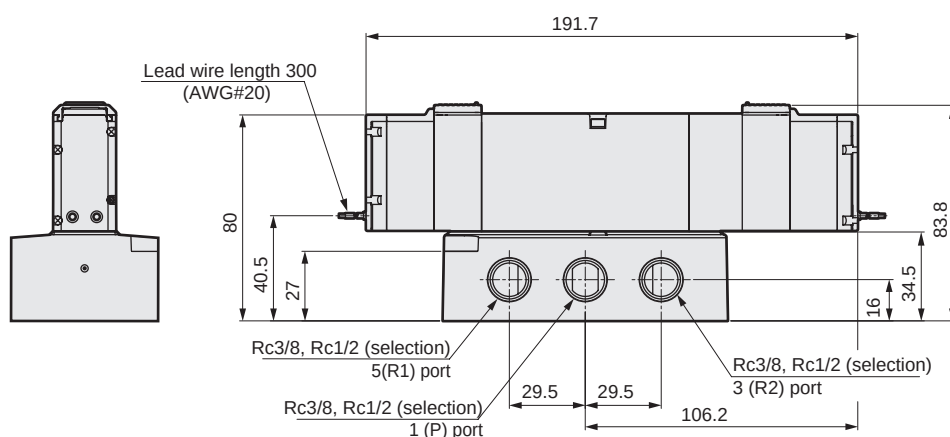
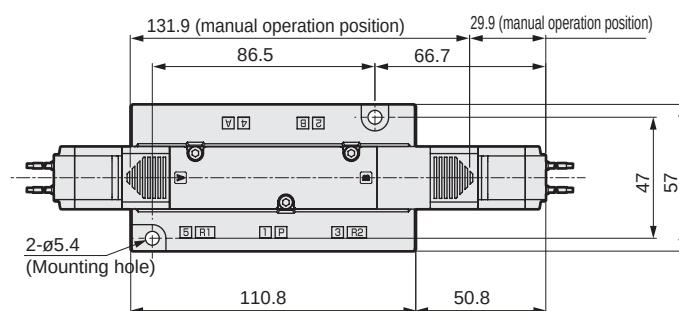
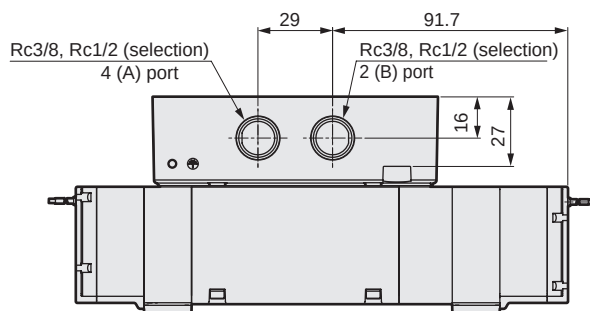
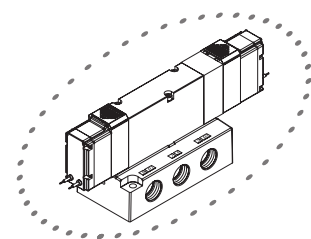
4GB4 Series

Single valve; base piping

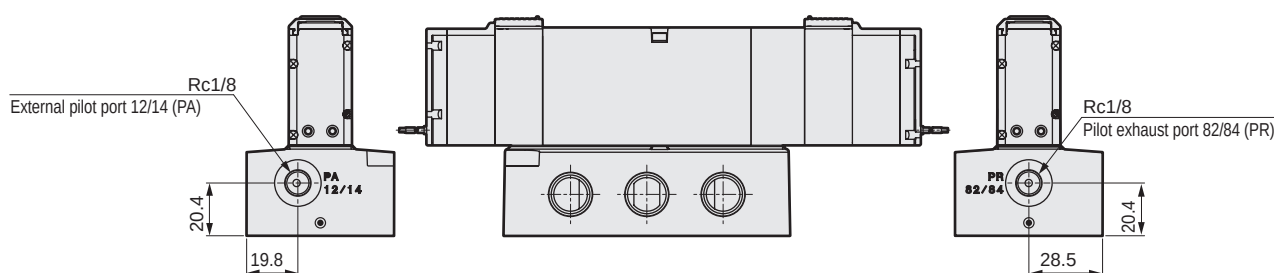
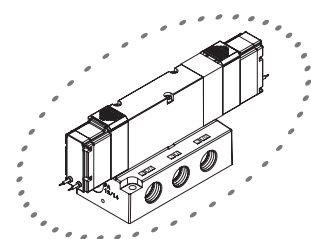
Dimensions

4GB4³₄⁰

● 3-position grommet lead wire (blank)

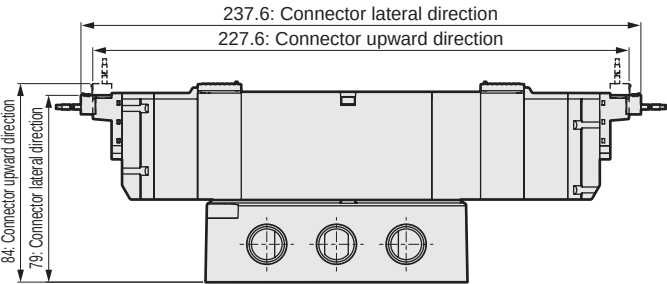
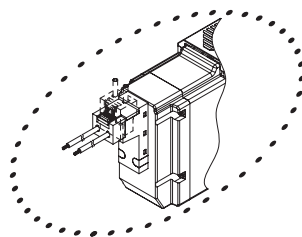


● External pilot (K)

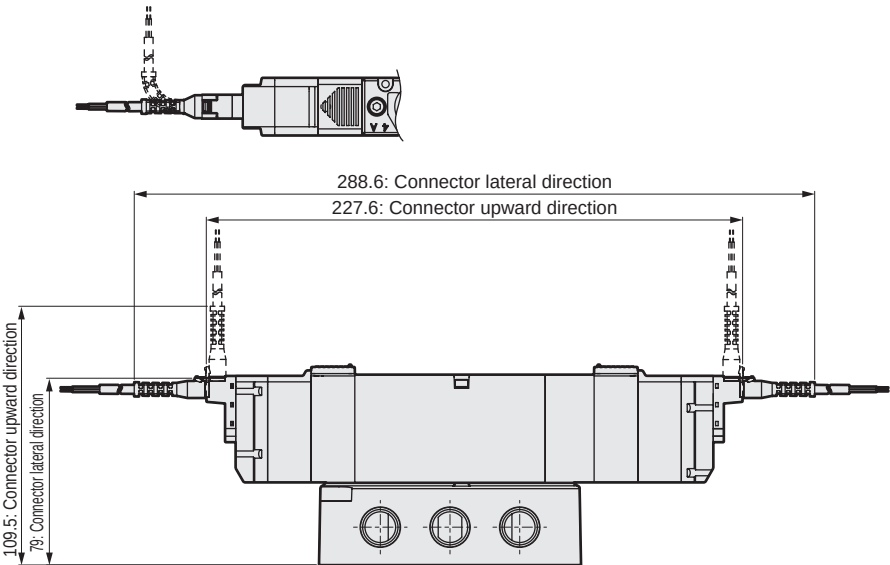
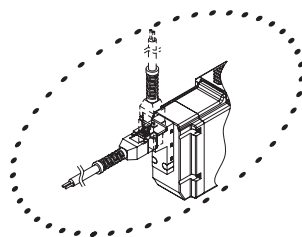


Dimensions

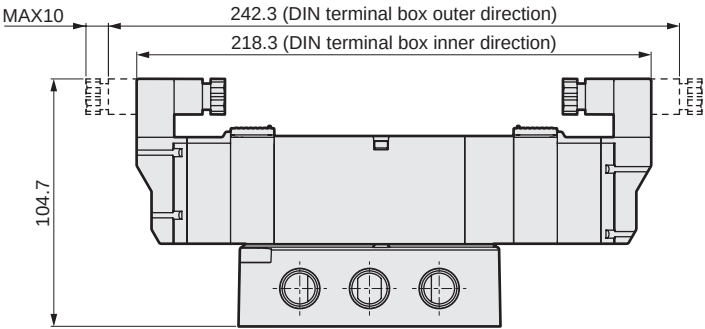
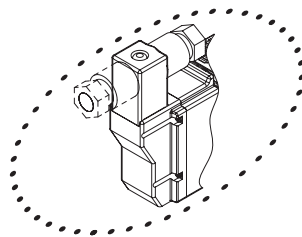
● E-connector (E)



● EJ type connector (E**J)



● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

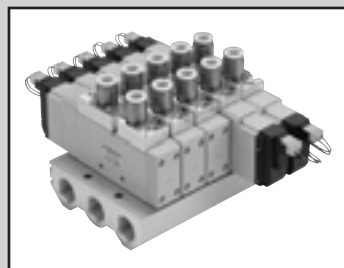
4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys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

Discontinue

Individual wiring manifold
Body piping
Direct mount

M4GA4 Series

● Cylinder bore size: ø100 to ø140



Manifold common specifications

Item		Description
Manifold		Integrated base
Mounting method		Direct mount
Supply and exhaust method		Common supply/common exhaust
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 °C		-5 (23°F) to 55 (131°F) (no freezing)
Fluid temperature °C		5 (41°F) to 55 (131°F)
Manual override		Non-locking/locking common
Lubrication (*1)		Not required
Degree of protection (*2)		Dust-proof [IP40 equivalent (DIN terminal box: IP65)]
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.

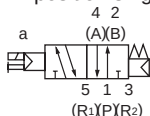
*2: Avoid water drops or oil, etc., during use.
IP65 (jet-proof) or equivalent applies for DIN terminal box specifications.
However, the specified outer diameter of the applicable cord and tightening torque must be used for fixing in place.

*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.

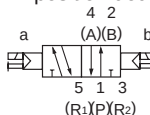
JIS symbol

● 5-port valve

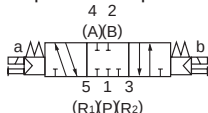
2-position single



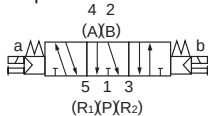
2-position double



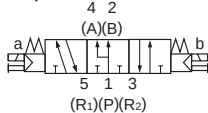
3-position all ports closed



3-position A/B/R connection



3-position P/A/B connection



Individual specifications

Item		M4GA4
		Direct mount
Max. station No.	Standard (Internal pilot)	15 stations
	Supply/exhaust block specs, external pilot	12 stations
Port size	A/B port	Push-in fitting ø8, ø10, ø12 Rc3/8, G3/8, NPT3/8
	P/R1/R2 port	Rc1/2, G1/2, NPT1/2
Manifold base		Standard 150n+199
Weight calculation formula (n: station No.) g		External pilot 379n+617

For 5 and over manifold station No., use ports on both side for air supply and exhaust.
The manifold base weight is the value for screw specifications.

Performance/characteristics by model

Item			M4GA4	
			ON	OFF
Response time ms	2-position	Single	40(40)	40(52)
		Double	40(52)	40(52)
	3-position	ABR connection	60(72)	60(72)

Values with lamp/surge suppressor are shown. The response times are values with working pressure of 0.5 MPa at 20°C, without lubrication.

They depend on the pressure and the lubricant quality. Values in () are for AC.

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
M4GA4	2-position		7.3	0.12	9.0	0.17
	3-position	All ports closed	6.4	0.15	8.2	0.22
		ABR connection	6.4	0.16	9.3	0.19
		PAB connection	8.0	0.08	8.3	0.22

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

Coolant proof specifications

Can be selected with "How to order" Item ⑤ option "A" on page 730.

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**

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

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

M4GA4 Series

Individual wiring manifold; body piping

How to order

Manifold model No.

M **4GA4** **1** **0** - **10** - **E2** **A** - **3** - **3**

Discrete valve for mounting base

4GA4 **1** **9** - **10** - **E2** **A** - **3**

A Model No.

B Solenoid position

C Port size

D Electrical connections

E Option

F Station No.

G Voltage

* Be sure to fill in the "Manifold specifications sheet" (page 810).

A Model No.

4GA4

Code	Description	
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		
Port	A/B Port	P/R1/R2 port Rc1/2
C8	ø8 Push-in fitting	●
C10	ø10 Push-in fitting	●
C12	ø12 Push-in fitting	●
CX	Push-in fitting mix (*1)	●
10	Rc3/8	●
10G	G3/8	● (*2)
10N	NPT3/8	● (*3)

D Electrical connections		
Refer to the next page for electrical connections.		

E Option		
Blank	None	●
K	External pilot (*4)	●
A	Coolant proof	●
F	A/B port filter integrated (P-port: Standard)	●
Z1	Air supply spacer (*5) (*6)	●
Z3	Exhaust spacer (*5) (*6)	●
Q	Supply and exhaust block (*6)	●

F Station No.		
2	2 stations	●
to	to	
15	15 stations (See page 728: max. station No./bore size.)	

G Voltage		
1	100 VAC	●
3	24 VDC	●
4	12 VDC	●
5	110 VAC	●

⚠ Precautions for model No. selection

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

*2 : P/R port is G1/2.

*3 : P/R port is NPT1/2.

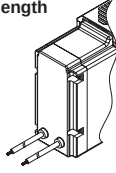
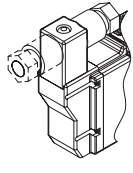
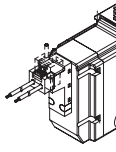
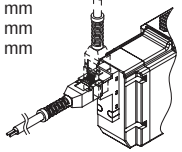
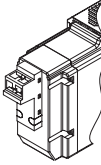
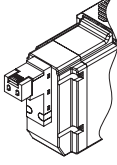
*4 : Consult with CKD when using a vacuum with the external pilot (K).

*5 : Specify the spacer mounting position and quantity in manifold specifications sheet. Refer to pages 796 and 797 for details.

*6 : Cannot be selected with discrete valve for integrated base.

[Electrical connections list]

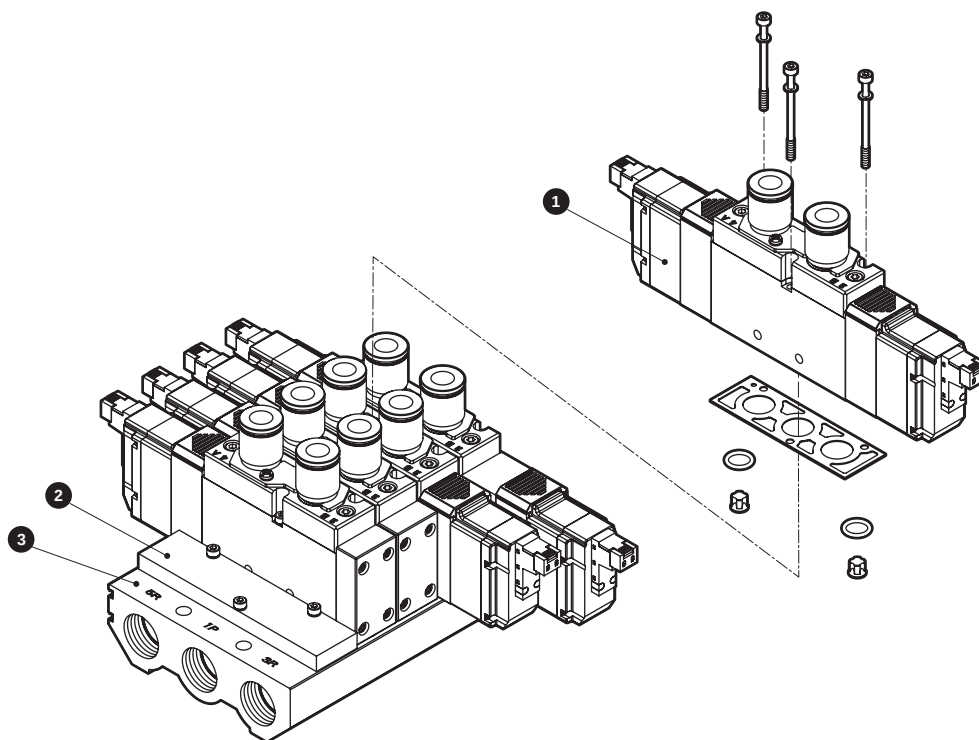
		A Model No.
		4GA4
D Electrical connections		
Blank	Grommet lead wire (300 mm)	●
B	DIN terminal box (Pg7) with surge suppressor/indicator lamp	●
E-connector (upward/lateral common)		
E0	Lead wire (300 mm)	●
E00	Lead wire (500 mm)	●
E01	Lead wire (1000 mm)	●
E02	Lead wire (2000 mm)	●
E03	Lead wire (3000 mm)	●
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	●
E0N	Without lead wire (without socket)	●
E2N	No lead wire (without socket), surge suppressor/indicator lamp	●
E3	No lead wire (with socket/terminal), surge suppressor/indicator lamp	●
E1	Without lead wire (socket/terminal attached)	●
EJ type connector (socket with cover, upward/lateral common)		
E01J	Lead wire (1000 mm)	●
E02J	Lead wire (2000 mm)	●
E03J	Lead wire (3000 mm)	●
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	●

Electrical connections			
Discrete valve/individual wiring manifold			
Blank	Grommet lead wire	B	DIN terminal box
● Lead wire length 300 mm 			
E0*	E-connector	E0*J	EJ type connector
E2*	● Lead wire length 300 mm 500 mm 1000 mm 2000 mm 3000 mm 	E2*J	● Lead wire length 1000 mm 2000 mm 3000 mm 
E0N	E-connector without socket		
E2N	E-connector with socket/terminal		

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

M4GA4 Series

Individual wiring manifold; body piping

Manifold components and parts list**Main parts list**

No.	Component name	Model No.	Content	Remarks										
1	Discrete valve for mounting base	4GA4- Port size Electrical connections Option Voltage Solenoid position	Discrete valve	<table><tr><td></td><td>Size</td><td>Tightening torque (N·m)</td></tr><tr><td>4GA4</td><td>M3</td><td>1.7</td></tr></table>		Size	Tightening torque (N·m)	4GA4	M3	1.7				
					Size	Tightening torque (N·m)								
			4GA4		M3	1.7								
			Gasket											
			Mounting screws 3											
O-ring 2														
Check valve 2 (1)														
2	Masking plate	4GA4-MP	Masking plate											
			Gasket											
			Mounting screws 3											
			O-ring 2											
			Check valve 2											
3	Manifold base assembly	M4GA4- Port size Option Station No.	Manifold base	<table><tr><th colspan="2">Port size</th></tr><tr><th>Port</th><th>P, R1, R2 port</th></tr><tr><td>00</td><td>Rc1/2</td></tr><tr><td>00G</td><td>G1/2</td></tr><tr><td>00N</td><td>NPT1/2</td></tr></table>	Port size		Port	P, R1, R2 port	00	Rc1/2	00G	G1/2	00N	NPT1/2
				Port size										
				Port	P, R1, R2 port									
				00	Rc1/2									
				00G	G1/2									
				00N	NPT1/2									

() applies when 4GA419 is selected.

Parts list

No.	Part name	Model No.	No.	Part name	Model No.
-	E-connector Socket assembly	4G4 - SOCKET - ASSY - electrical connections - Voltage	-	Silencer (for Rc1/2)	SLW-15A
-	EJ type connector Socket assembly	4G - SOCKET - ASSY - electrical connections	-	Cartridge push-in fitting and related parts	ø8 straight ø10 straight ø12 straight 4G4-JOINT-C8 4G4-JOINT-C10 4G4-JOINT-C12

MEMO

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

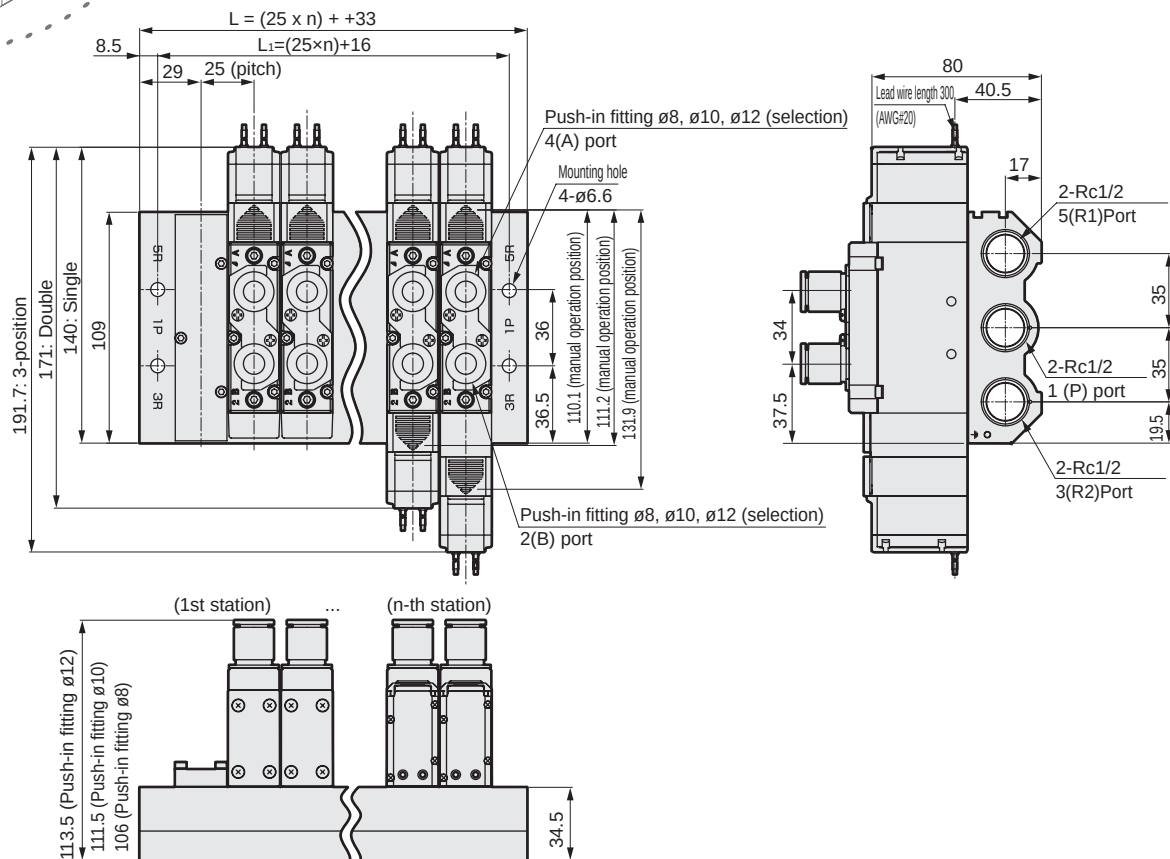
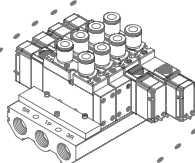
M4GA4 Series

Individual wiring manifold; body piping

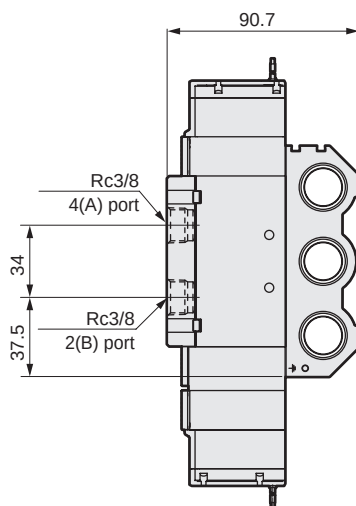
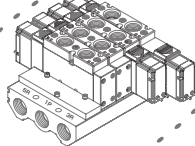
Dimensions

M4GA4

- Grommet lead wire (blank)



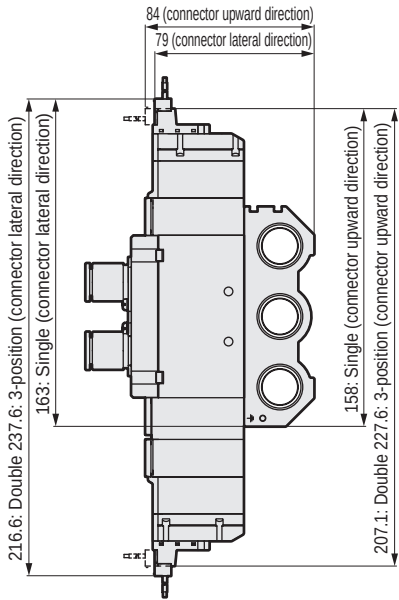
- Rc3/8 female thread (10)



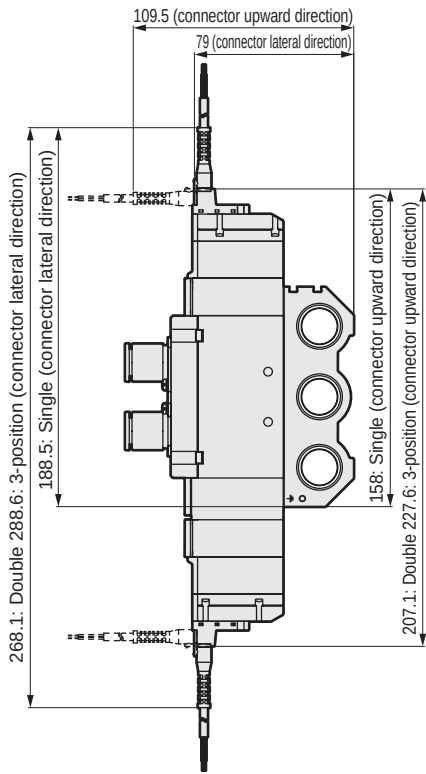
Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L	83	108	133	158	183	208	233	258	283	308	333	358	383	408
L ₁	66	91	116	141	166	191	216	241	266	291	316	341	366	391

Dimensions

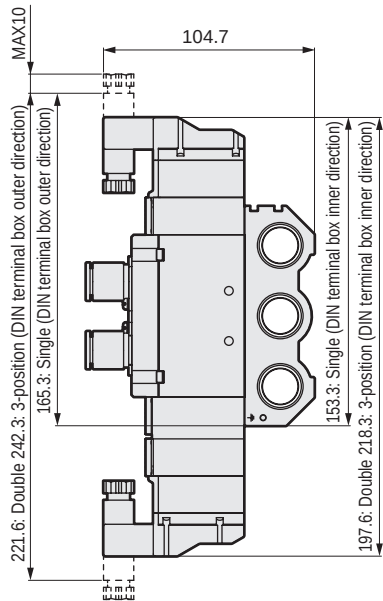
● E-connector (E)



● EJ type connector (E**J)



● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

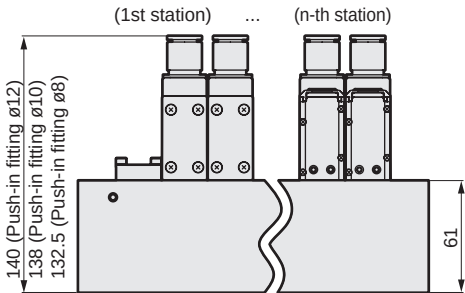
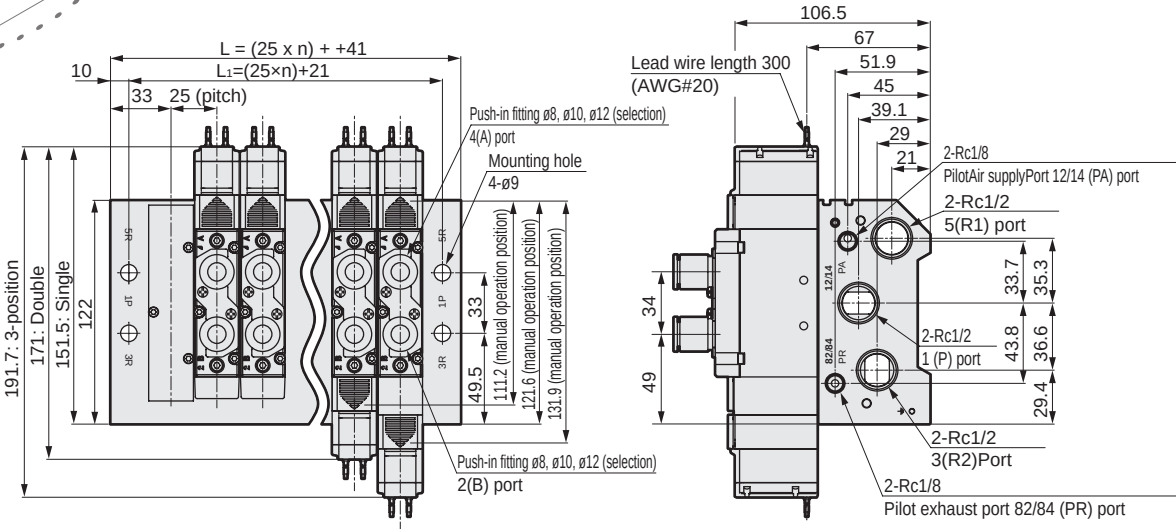
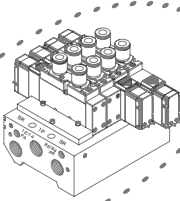
M4GA4 Series

Individual wiring manifold; body piping

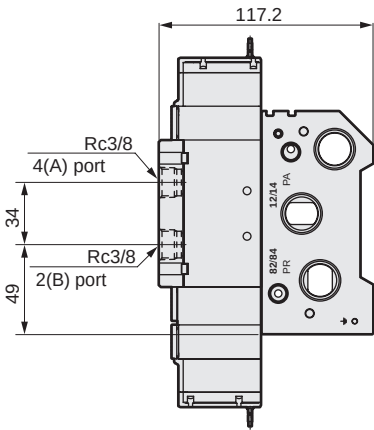
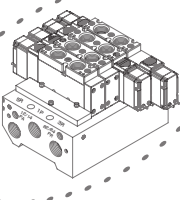
Dimensions

M4GA4

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



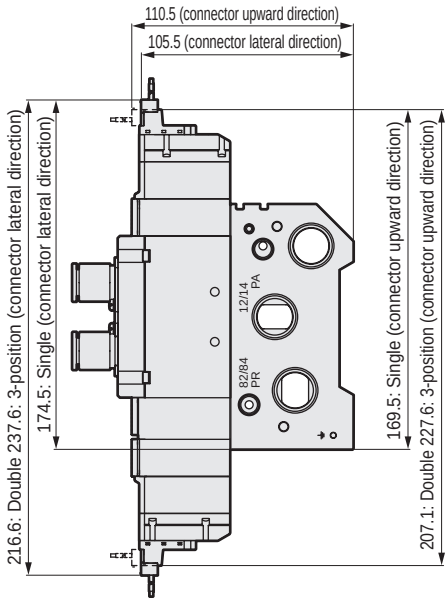
- External pilot (K)
Rc3/8 female thread (10)



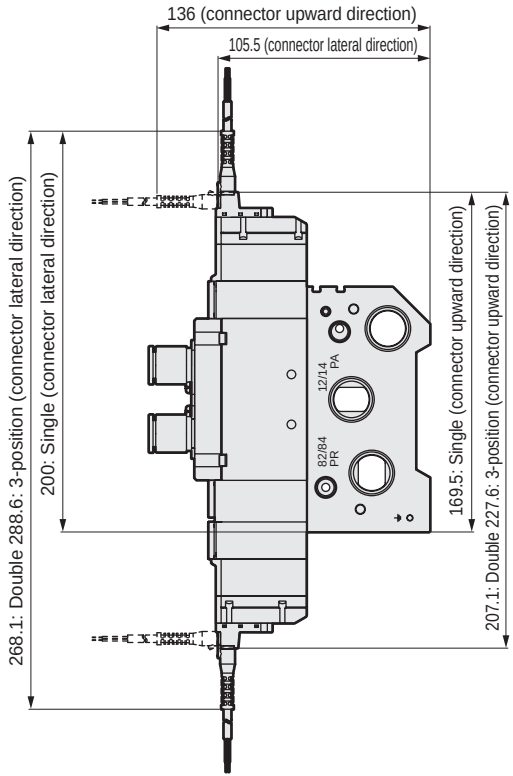
Station No.	2	3	4	5	6	7	8	9	10	11	12
L	91	116	141	166	191	216	241	266	291	316	341
L ₁	71	96	121	146	171	196	221	246	271	296	321

Dimensions

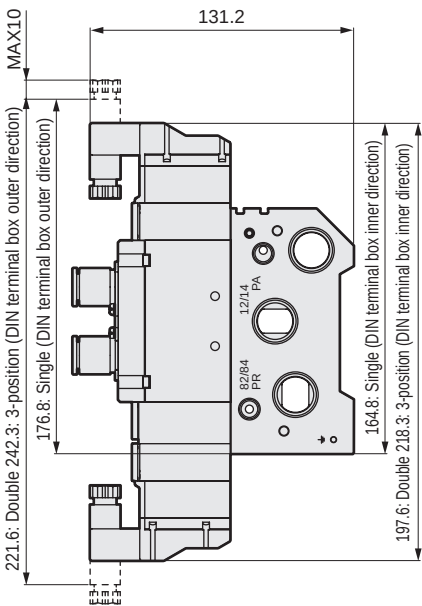
- External pilot (K)
E-connector (E)



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



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



Note: DIN terminal box assembly is shipped facing inward.

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

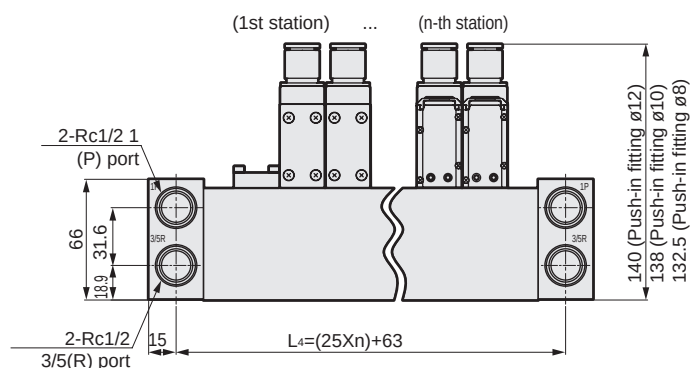
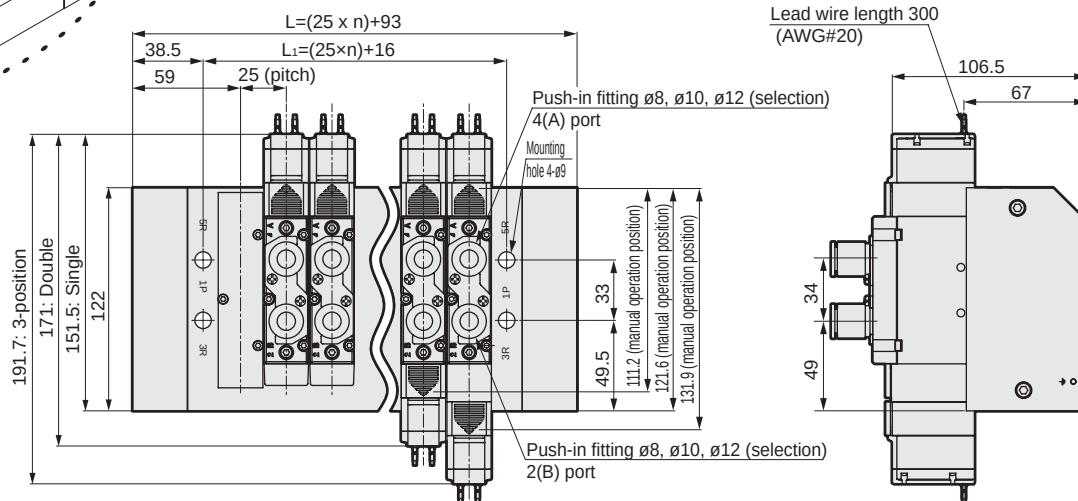
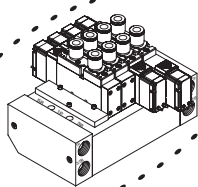
M4GA4 Series

Individual wiring manifold; body piping

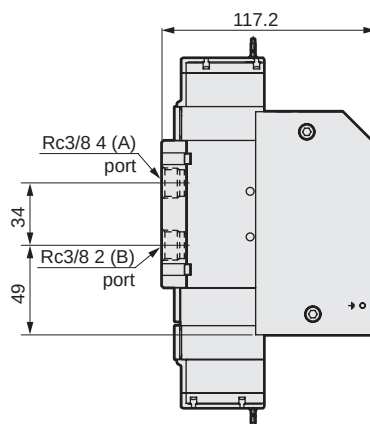
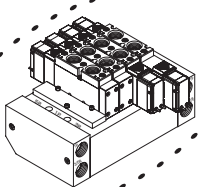
Dimensions

M4GA4

- Supply and exhaust block (Q)
- Grommet lead wire (blank)



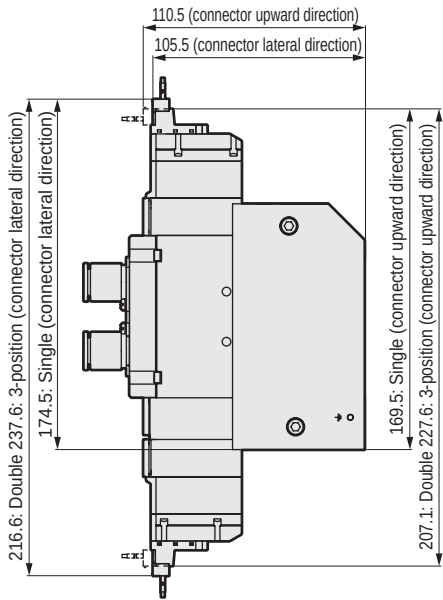
- Supply and exhaust block (Q)
- Rc3/8 female thread (10)



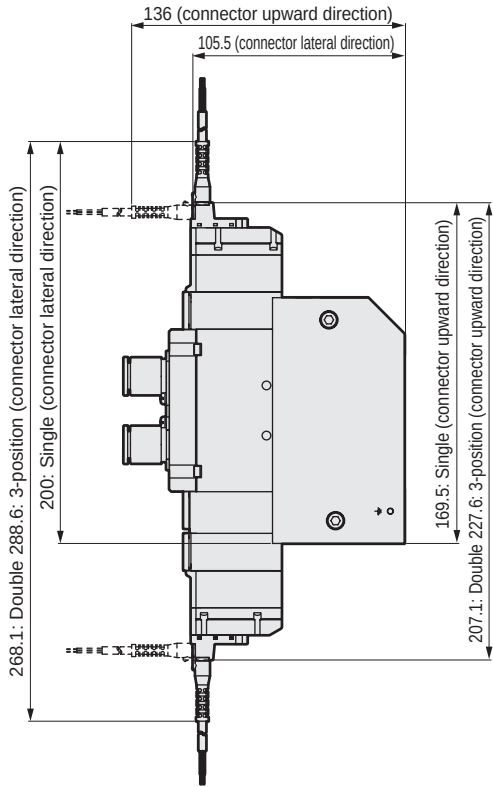
Station No.	2	3	4	5	6	7	8	9	10	11	12
L	143	168	193	218	243	268	293	318	343	368	393
L ₁	66	91	116	141	166	191	216	241	266	291	316
L ₄	113	138	163	188	213	238	263	288	313	338	363

Dimensions

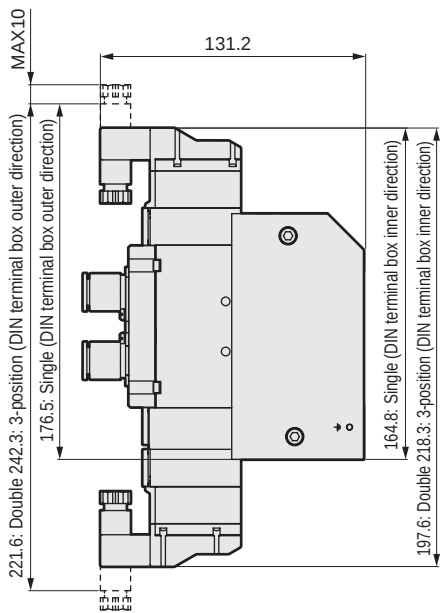
- Supply and exhaust block (Q)
E-connector (E)



- Supply and exhaust block (Q)
EJ type connector (E**J)



- Supply and exhaust block (Q)
DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

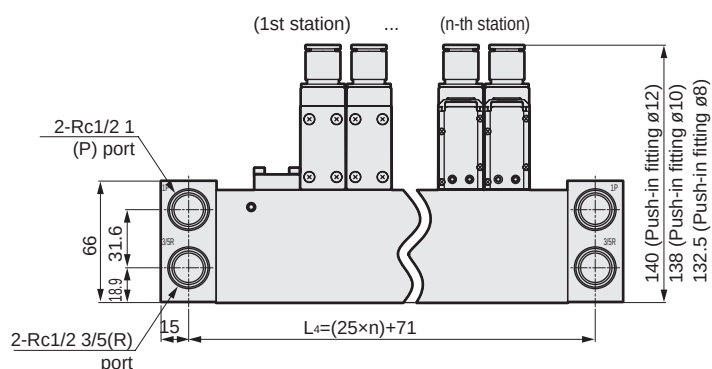
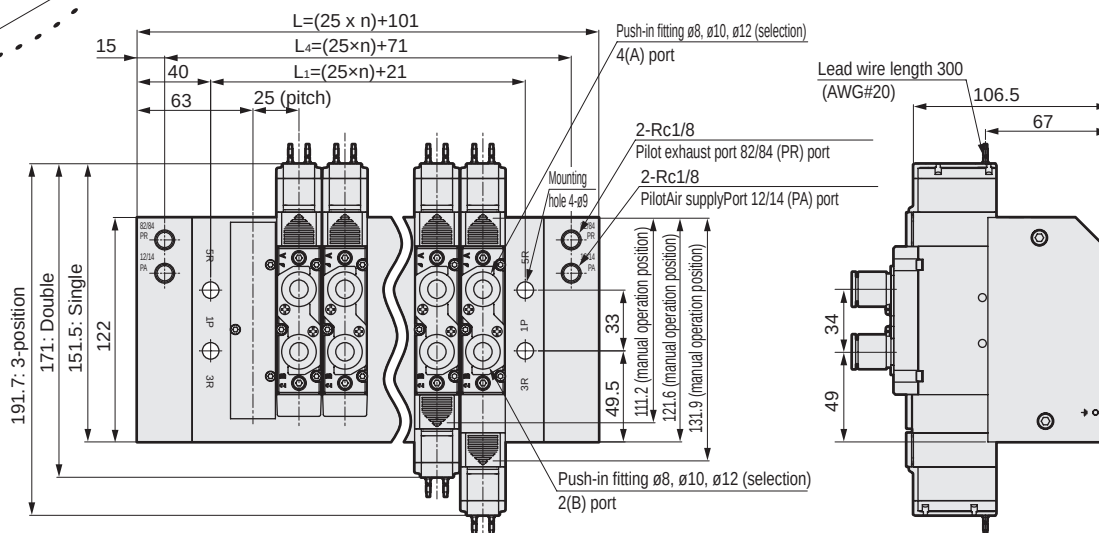
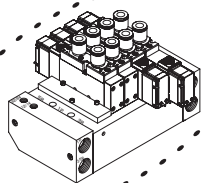
M4GA4 Series

Individual wiring manifold; body piping

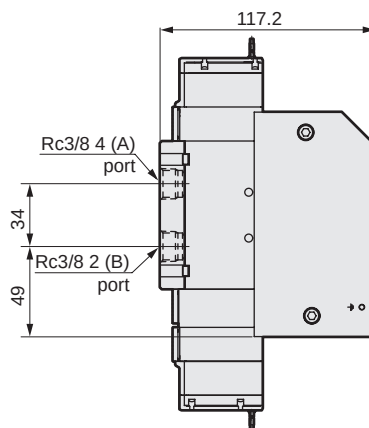
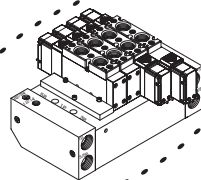
Dimensions

M4GA4

- External pilot (K)
Supply and exhaust block (Q)
Grommet lead wire (blank)



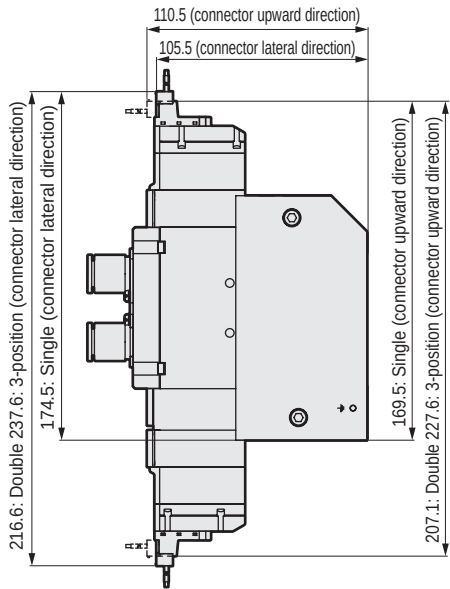
- External pilot (K)
Supply and exhaust block (Q)
Rc female thread (10)



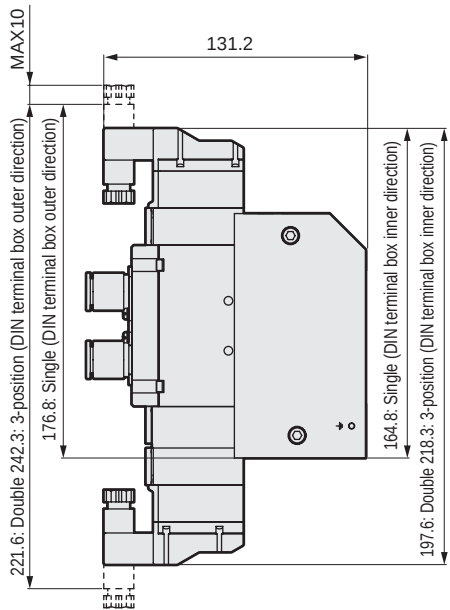
Station No.	2	3	4	5	6	7	8	9	10	11	12
L	151	176	201	226	251	276	301	326	351	376	401
L ₁	71	96	121	146	171	196	221	246	271	296	321
L ₄	121	146	171	196	221	246	271	296	321	346	371

Dimensions

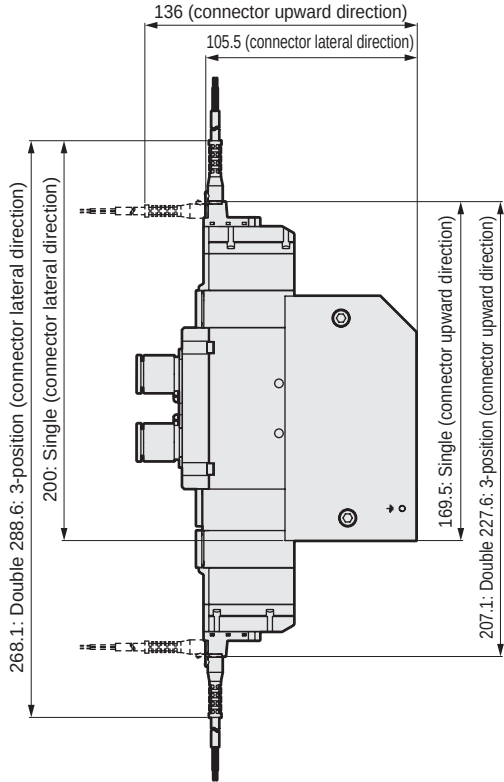
- External pilot (K)
Supply and exhaust block (Q)
E-connector (E)



- External pilot (K)
Supply and exhaust block (Q)
DIN terminal box (B)



- External pilot (K)
Supply and exhaust block (Q)
EJ type connector (E**J)



Note: DIN terminal box assembly is shipped facing inward.

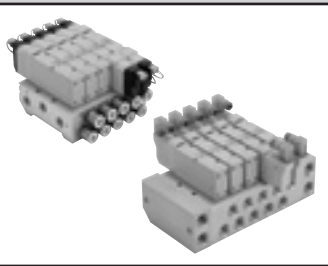
4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys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

Discontinue

Individual wiring manifold
Base piping
Direct mount

M4GB4-(D) Series

● Cylinder bore size: ø100 to ø140



Manifold common specifications

Item		Description
Manifold		Integrated base
Mounting method		Direct mount
Supply and exhaust method		Common supply/common exhaust
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		Lateral direction from base
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 °C		-5 (23°F) to 55 (131°F) (no freezing)
Fluid temperature °C		5 (41°F) to 55 (131°F)
Manual override		Non-locking/locking common
Lubrication (*1)		Not required
Degree of protection (*2)		Dust-proof [IP40 equivalent (DIN terminal box: IP65)]
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.

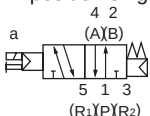
*2: Avoid water drops or oil, etc., during use.
IP65 (jet-proof) or equivalent applies for DIN terminal box specifications.
However, the specified outer diameter of the applicable cord and tightening torque must be used for fixing in place.

*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.

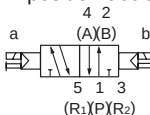
JIS symbol

● 5-port valve

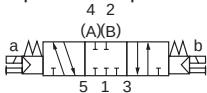
2-position single



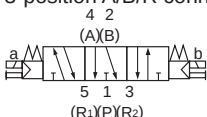
2-position double



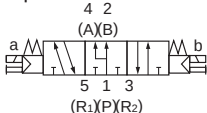
3-position all ports closed



3-position A/B/R connection



3-position P/A/B connection



Individual specifications

Item		M4GB4		
		Direct mount		DIN rail mount (*4)
Pilot operated		Standard (Internal pilot)		External pilot (*3)
Max. station No.		15 stations	12 stations	5 stations
Port size	A/B port	Push-in fitting ø8, ø10, ø12 Rc1/4, Rc3/8 G1/4, G3/8 NPT1/4, NPT3/8	Rc1/2, G1/2, NPT1/2	Push-in fitting ø8, ø10, ø12 Rc1/4, Rc3/8, Rc1/2 G1/4, G3/8, G1/2 NPT1/4, NPT3/8, NPT1/2
	P/R1/R2 port	Rc3/8, G3/8, NPT3/8 (*1)	Rc1/2, G1/2, NPT1/2 (*2)	Rc3/8, G3/8, NPT3/8
Manifold base		273n+329	391n+560	392n+555
Weight calculation formula (n: station No.) g				278n+1082

Refer to "Cautions for mounting the DIN rail" (page 854), and select the manifold.
For 5 and over manifold station No., use ports on both side for air supply and exhaust.
The manifold base weight is the value for screw specifications.

Dimensions of port sizes (P/R1/R2 port) Rc3/8 and Rc1/2 are different.

*1: Refer to pages 748 to 749 and 754 to 755 for dimensions of port size Rc3/8.

*2: Refer to pages 750 to 751 and 756 to 757 for dimensions of port size Rc1/2.

*3: Refer to pages 752 to 753 and 758 to 759 for dimensions of the external pilot (option code: K).

*4: Refer to pages 754 to 755 for dimensions of the DIN rail mount (option code: D).

Electrical specifications

Item			Description
Rated voltage V	AC		100(50/60 Hz) 110(50/60 Hz)
	DC		12, 24
Voltage fluctuation range			±10%
Starting current A	AC	100 V	0.056/0.044
		110 V	0.051/0.040
	DC	12 V	-
		24 V	-
Holding current A	AC	100 V	0.028/0.022
		110 V	0.025/0.020
	DC	12 V	0.079(0.083)
		24 V	0.040(0.042)
Power consumption W (*4)	AC	100 V	1.8/1.4
		110 V	(1.8/1.5)
	DC	12 V	0.95(1.0)
		24 V	
Thermal class			B
Surge suppressor			Option
Indicator			Lamp (option)

*4: Values in () apply when lamp is included.

Vibration/impact

For DIN rail mount, use with vibration of 30 m/s² or less and impact of 150 m/s² or less.

Performance/characteristics by model

Item			M4GB4	
			ON	OFF
Response time ms	2-position	Single	40 (40)	40 (52)
		Double	40 (52)	40 (52)
	3-position	ABR connection	60 (72)	60 (72)

Values with lamp/surge suppressor are shown. The response times are values with working pressure of 0.5 MPa at 20°C, without lubrication. They depend on the pressure and the lubricant quality. Values in () are for AC.

Flow characteristics

Model No.	Port size P, R1, R2	Solenoid position	P → A/B		A/B → R1/R2	
			C[dm ³ /(s·bar)]	b	C[dm ³ /(s·bar)]	b
M4GB4	(*1)Rc3/8 G3/8 NPT3/8	2-position	6.4	0.42	6.9	0.12
		3-position	All ports closed	6.0	0.37	6.8
			ABR connection	6.1	0.38	7.1
			PAB connection	6.0	0.37	6.8
		2-position	8.3	0.23	9.0	0.21
	(*2)Rc1/2 G1/2 NPT1/2	3-position	All ports closed	7.4	0.15	8.8
			ABR connection	7.5	0.15	9.5
			PAB connection	7.7	0.21	8.7
		2-position	8.3	0.23	9.0	0.21
		3-position	7.4	0.15	8.8	0.19

Dimensions of port sizes (P/R1/R2 port) Rc3/8 and Rc1/2 are different.

*1 : Refer to pages 748 to 749 and 754 to 755 for dimensions of port size Rc3/8.

*2 : Refer to pages 750 to 751 and 756 to 757 for dimensions of port size Rc1/2.

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

Coolant proof specifications

Can be selected with “How to order” Item ⑤ option “A” on page 744.

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**

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

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

M4GB4 Series

Individual wiring manifold; base piping

How to order

Manifold model No.

M **4GB4** **1** **0** - **10** - **E2** **Q** **D** - **3** - **3**

Discrete valve for mounting base

4GB4 **1** **9** - **00** - **E2** **A** ————— **3**

A Model No. **B** Solenoid position **H** Voltage

C Port size**D** Electrical connections**E** Option**F** Mount**G** Station No.

⚠ Precautions for model No. selection

- *1 : Two types of bases are available.
Dimensions differ by bore size of the P/R1/R2 port.
- *2 : Refer to pages 748 to 749 and 754 to 755 for dimensions of port size Rc3/8.
- *3 : Refer to pages 750 to 751 and 756 to 757 for dimensions of port size Rc1/2.
- *4 : Refer to pages 752 to 753 and 758 to 759 for dimensions of the external pilot (option code: K).
- *5 : P/R port is G thread.
- *6 : P/R port is NPT thread.
- *7 : Consult with CKD when using a vacuum with the external pilot (K).
- *8 : Specify the spacer mounting position and quantity in manifold specifications sheet. Refer to pages 796 and 797 for details.
- *9 : DIN rail mounting is only for the P/R port Rc3/8 base and not for the external pilot. For DIN rail mounting, select the supply and exhaust block as well. The max. station number is 5.
- *10: Refer to pages 754 and 755 for dimensions of the DIN rail mount (option code: D).
- *11: Cannot be selected with discrete valve for integrated base.

* Be sure to fill in the "Manifold specifications sheet" (page 810).

A Model No.**4GB4**

Code	Description	
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

Port	A/B Port	P/R1/R2 port (*1)		
		Option: Other than K		Option: K
		Rc3/8 (*2)	Rc1/2 (*3)	Rc1/2 (*4)
C8	ø8 Push-in fitting	●		●
C10	ø10 Push-in fitting	●		●
C12	ø12 Push-in fitting	●		●
CX	Push-in fitting mix	●		●
08	Rc1/4	●		●
10	Rc3/8	●		●
15	Rc1/2		●	●
08G	G1/4	● (*5)		● (*5)
10G	G3/8	● (*5)		● (*5)
15G	G1/2		● (*5)	● (*5)
08N	NPT1/4	● (*6)		● (*6)
10N	NPT3/8	● (*6)		● (*6)
15N	NPT1/2		● (*6)	● (*6)

D Electrical connections

Refer to the next page for electrical connections.

E Option

Blank	None	●
K	External pilot (*4) (*7)	●
A	Coolant proof	●
F	A/B port filter integrated (P-port: Standard)	●
Z1	Air supply spacer (*8) (*11)	●
Z3	Exhaust spacer (*8) (*11)	●
Q	Supply and exhaust block (*11)	●

F Mount

Blank	Direct mount	●
D	DIN rail mount (*9) (*10) (*11)	●

G Station No.

2	2 stations	●
to	to	
15	Refer to page 742 for the max. station number per bore size.	

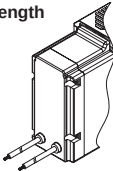
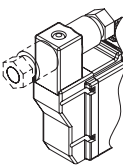
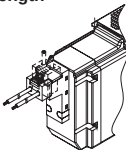
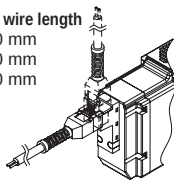
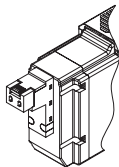
H Voltage

1	100 VAC	●
3	24 VDC	●
4	12 VDC	●
5	110 VAC	●

■ is not available.

[Electrical connections list]

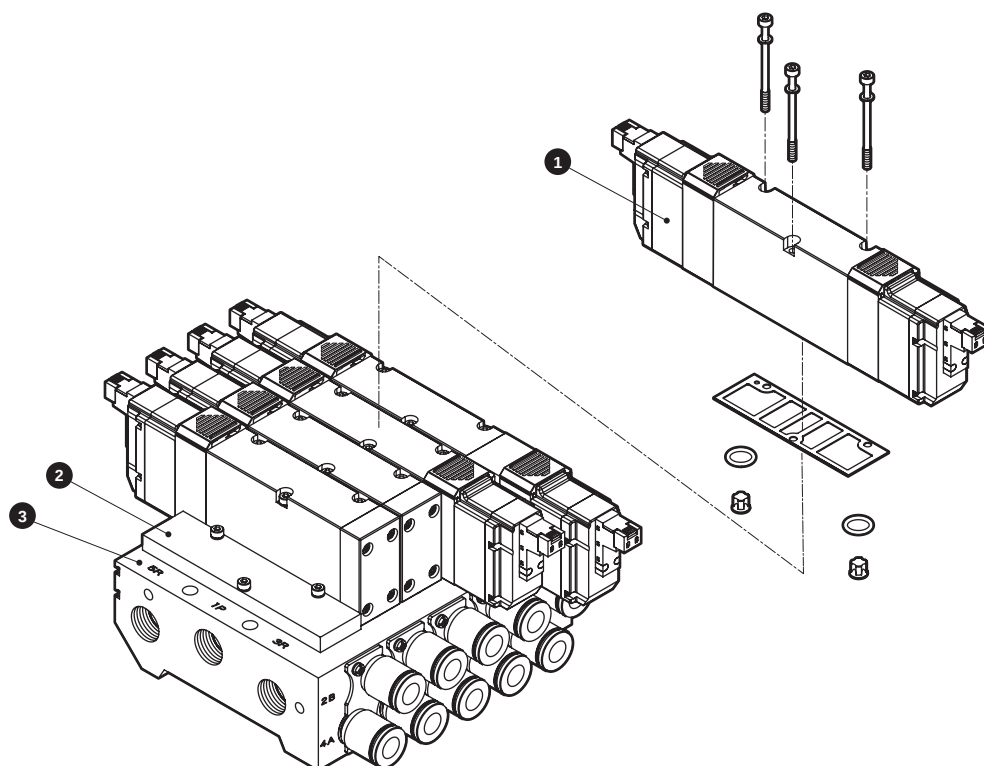
		A Model No.
		4GB4
D Electrical connections		
Blank	Grommet lead wire (300 mm)	●
B	DIN terminal box (Pg7) with surge suppressor/indicator lamp	●
E-connector (upward/lateral common)		
E0	Lead wire (300 mm)	●
E00	Lead wire (500 mm)	●
E01	Lead wire (1000 mm)	●
E02	Lead wire (2000 mm)	●
E03	Lead wire (3000 mm)	●
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	●
E0N	Without lead wire (without socket)	●
E2N	No lead wire (without socket), surge suppressor/indicator lamp	●
E3	No lead wire (with socket/terminal), surge suppressor/indicator lamp	●
E1	Without lead wire (socket/terminal attached)	●
EJ type connector (socket with cover, upward/lateral common)		
E01J	Lead wire (1000 mm)	●
E02J	Lead wire (2000 mm)	●
E03J	Lead wire (3000 mm)	●
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	●

Electrical connections			4GA/B
Discrete valve/individual wiring manifold			M4GA/B
Blank	Grommet lead wire	B	DIN terminal box
● Lead wire length 300 mm			MN4GA/B
E0* E2*	E-connector	E0*J E2*J	4GA/B (master)
● Lead wire length 300 mm 500 mm 1000 mm 2000 mm 3000 mm		● Lead wire length 1000 mm 2000 mm 3000 mm	4GB With sensor
E0N E2N	E-connector without socket		4GD/E
E1 E3	E-connector with socket/terminal		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

M4GB4 Series

Individual wiring manifold; base piping

Manifold components explanation and parts list



Main parts list

No.	Component name	Model No.	Content	Remarks
1	Discrete valve for mounting base	4GB4-9-00- Electrical connections Option Voltage Solenoid position	Discrete valve Gasket Mounting screws 3 O-ring 2 Check valve 2 (1)	
				4GB4 M3 Tightening torque (N·m) 1.7
2	Masking plate	4GB4-MP	Masking plate Gasket Mounting screws 3 O-ring 2 Check valve 2	
3	Manifold base assembly	M4GB4- Port size - Option D - Station No. Mount	Manifold base	If "D" is selected, shipment is made with a DIN rail mounted.

() applies when 4GB419 is selected.

Parts list

No.	Part name	Model No.	No.	Part name	Model No.
-	E-connector socket assembly	4G4 - SOCKET - ASSY - electrical connections - Voltage	-	Silencer	For Rc1/2 SLW-15A For Rc3/8 SLW-10A, SLW-10L
-	EJ type connector socket assembly	4G - SOCKET - ASSY - electrical connections	-	Cartridge push-in fitting and related parts	ø8 straight 4G4-JOINT-C8 ø10 straight 4G4-JOINT-C10 ø12 straight 4G4-JOINT-C12

MEMO

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

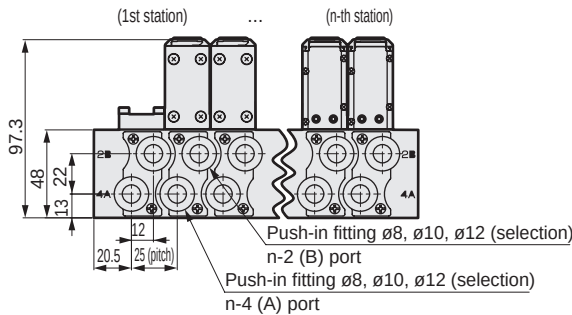
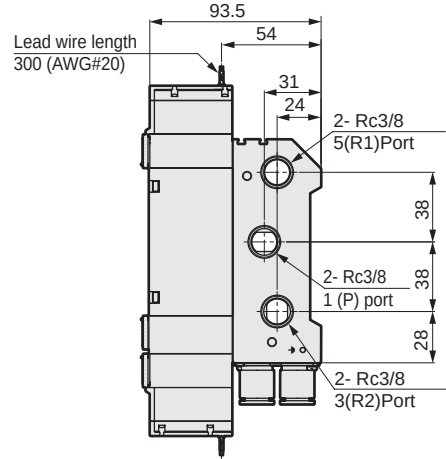
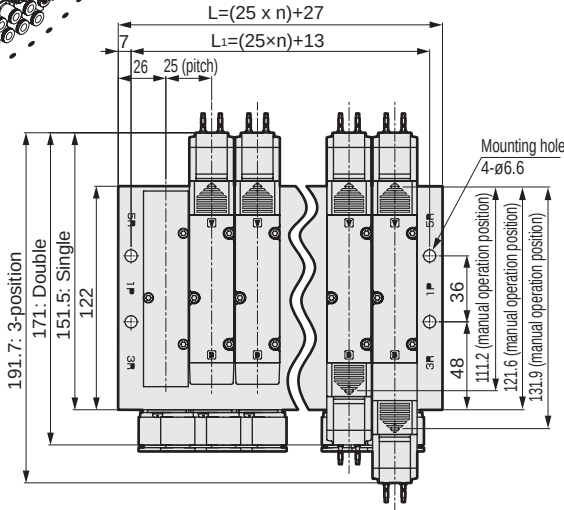
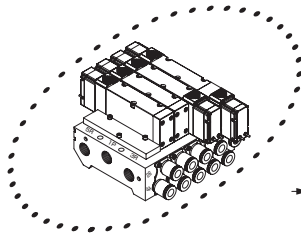
M4GB4 Series

Individual wiring manifold; base piping

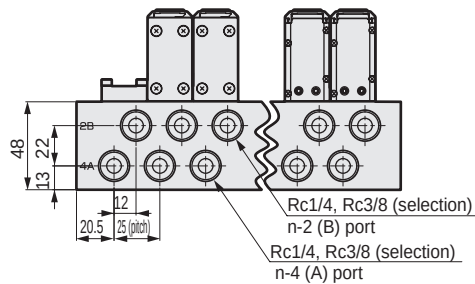
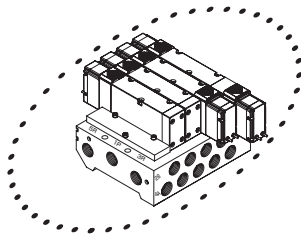
Dimensions

M4GB4

● Grommet lead wire (blank)



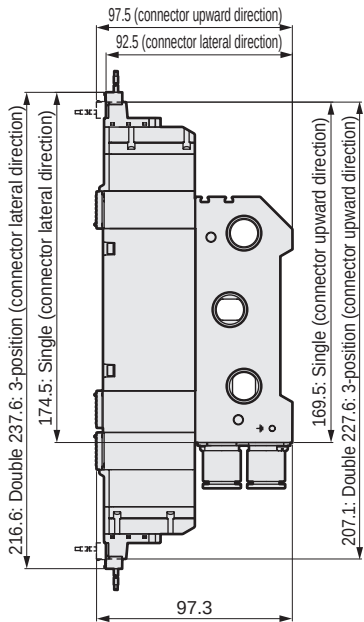
● Rc1/4, Rc3/8 female thread (08, 10)



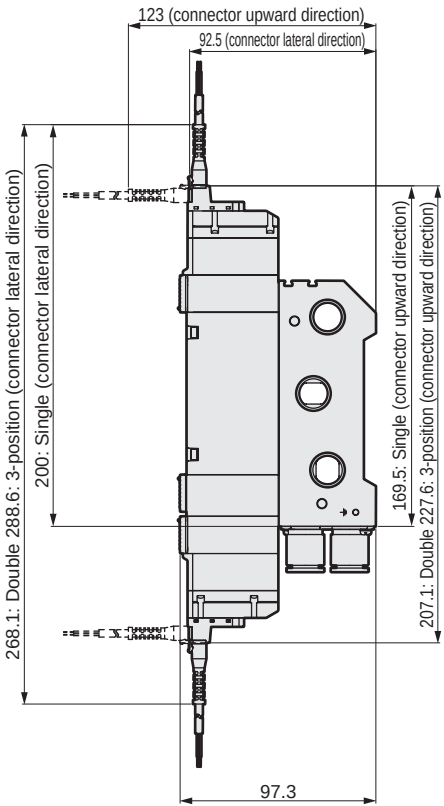
Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L	77	102	127	152	177	202	227	252	277	302	327	352	377	402
L1	63	88	113	138	163	188	213	238	263	288	313	338	363	388

Dimensions

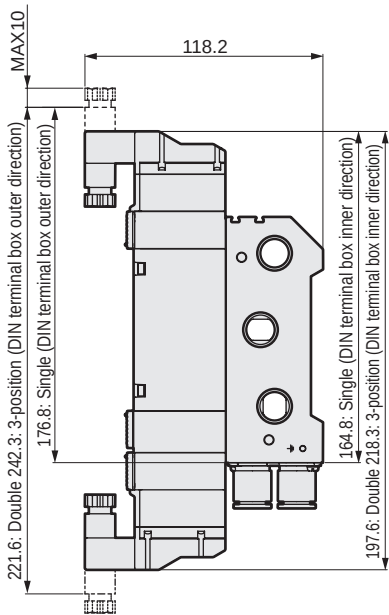
● E-connector (E)



● EJ type connector (E**J)



● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

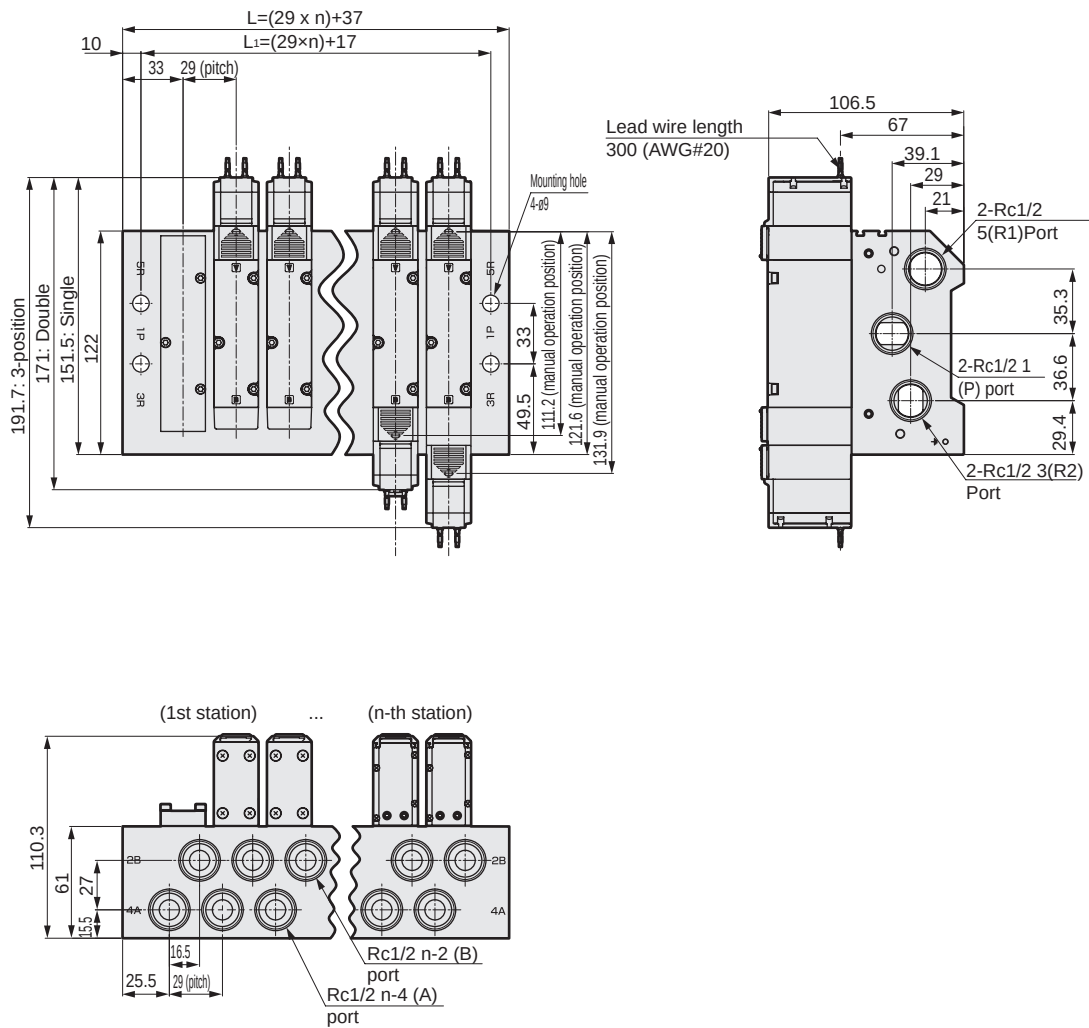
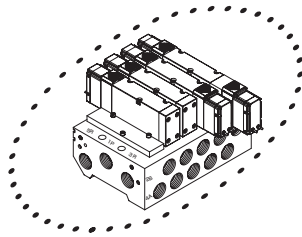
M4GB4 Series

Individual wiring manifold; base piping

Dimensions

M4GB4

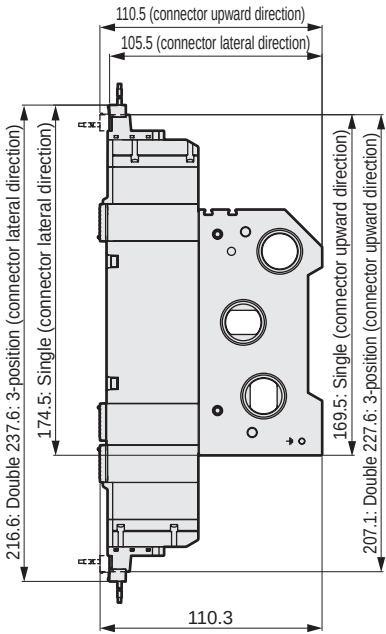
- Rc1/2 female thread
- Grommet lead wire (blank)



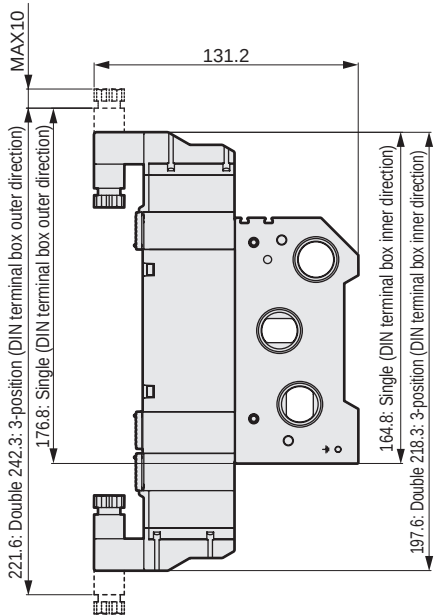
Station No.	2	3	4	5	6	7	8	9	10	11	12
L	95	124	153	182	211	240	269	298	327	356	385
L1	75	104	133	162	191	220	249	278	307	336	365

Dimensions

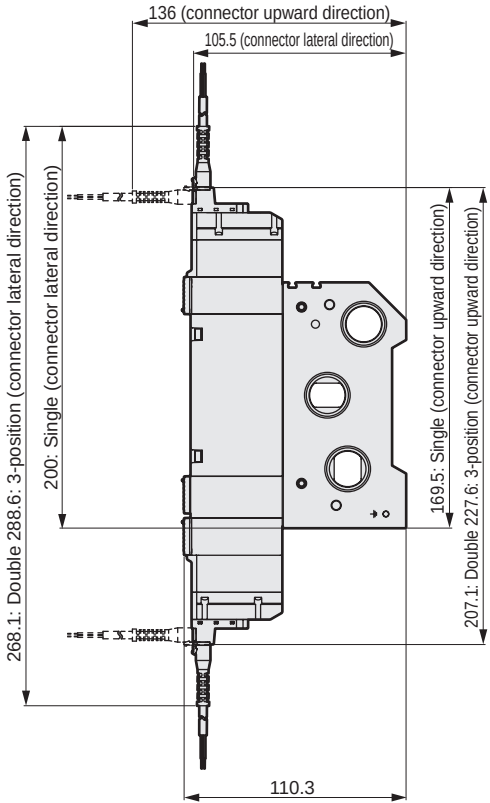
- Rc1/2 female thread (15)
E-connector (E)



- Rc1/2 female thread (15)
DIN terminal box (B)



- Rc1/2 female thread (15)
EJ type connector (E**J)



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

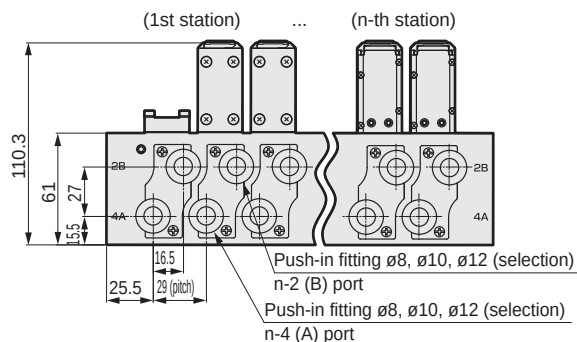
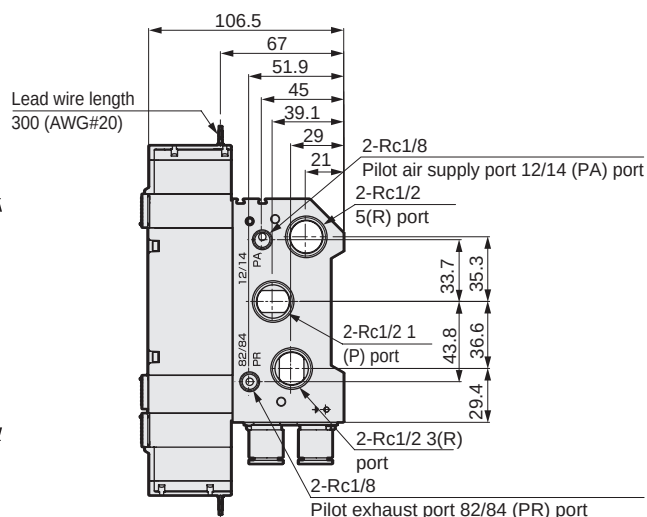
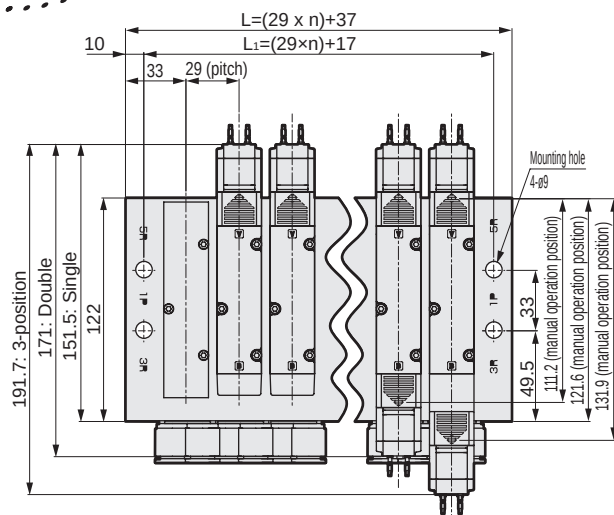
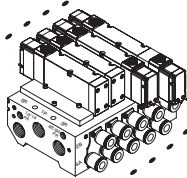
M4GB4 Series

Individual wiring manifold; base piping

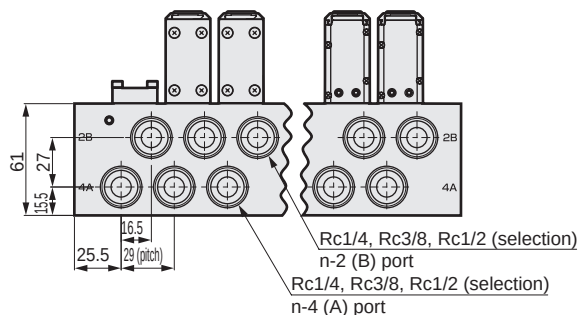
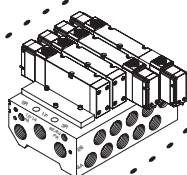
Dimensions

M4GB4

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



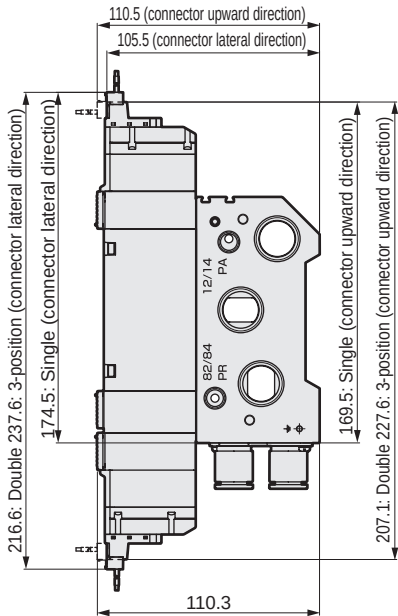
- External pilot (K)
Rc1/4, Rc3/8, Rc1/2 female thread (08, 10, 15)



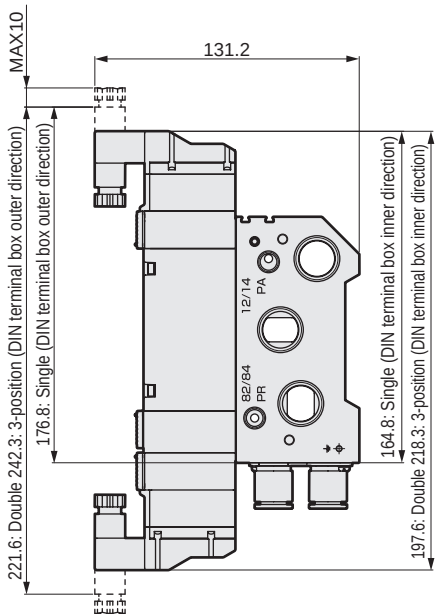
Station No.	2	3	4	5	6	7	8	9	10	11	12
L	95	124	153	182	211	240	269	298	327	356	385
L1	75	104	133	162	191	220	249	278	307	336	365

Dimensions

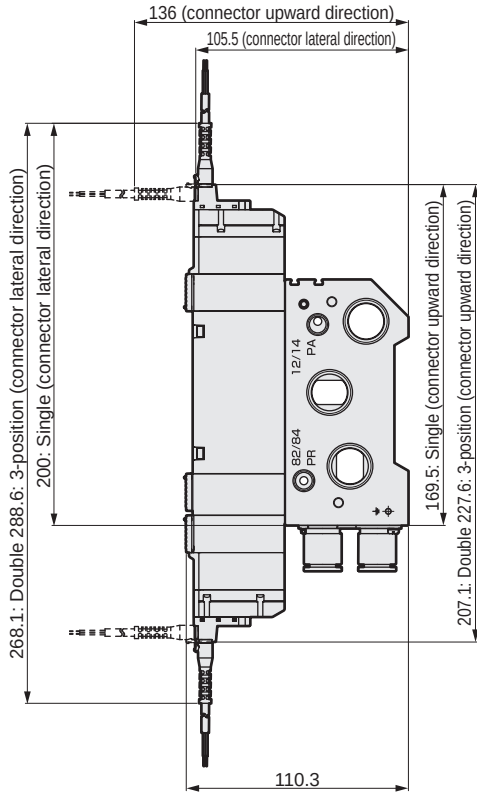
- External pilot (K)
E-connector (E)



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



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



Note: DIN terminal box assembly is shipped facing inward.

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

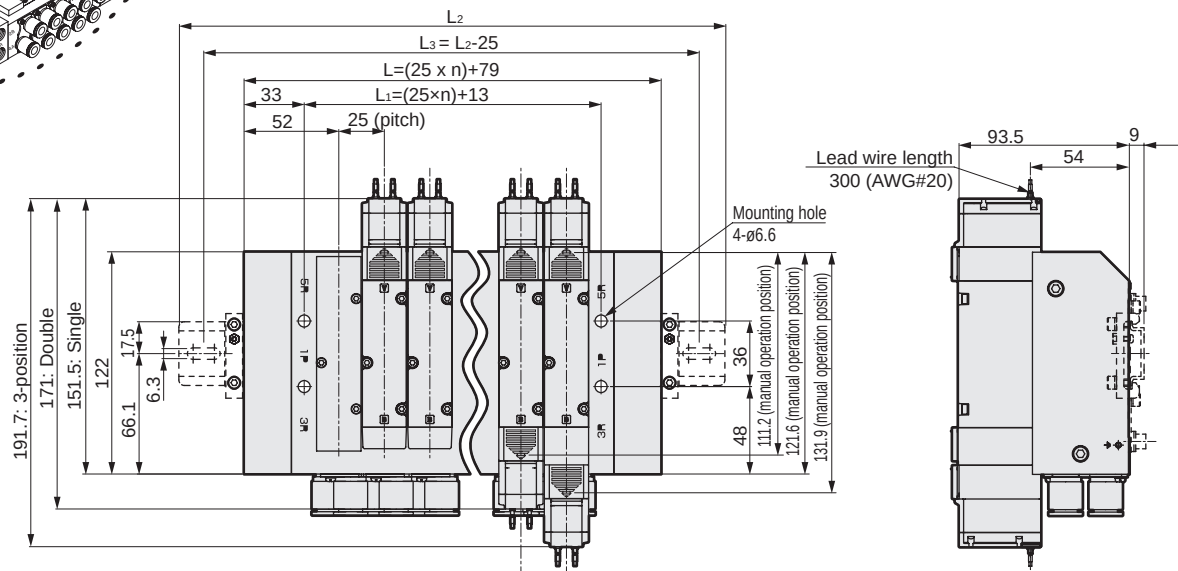
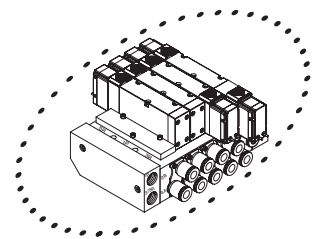
M4GB4 Series

Individual wiring manifold; base piping

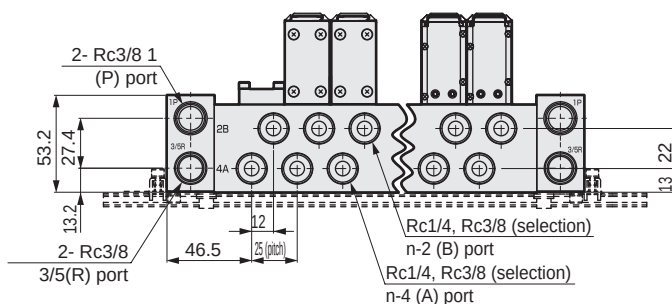
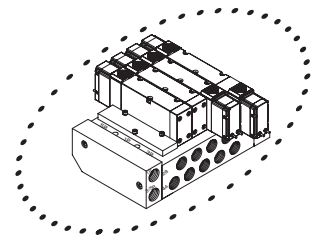
Dimensions

M4GB4

- Supply and exhaust block (Q)
- Grommet lead wire (blank)



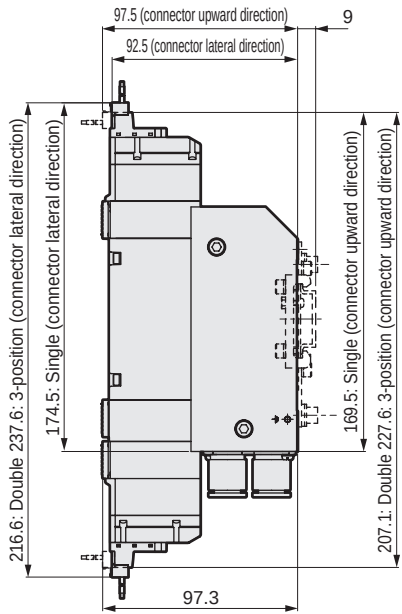
- Supply and exhaust block (Q)
- Rc1/4, Rc3/8 female thread (08, 10)



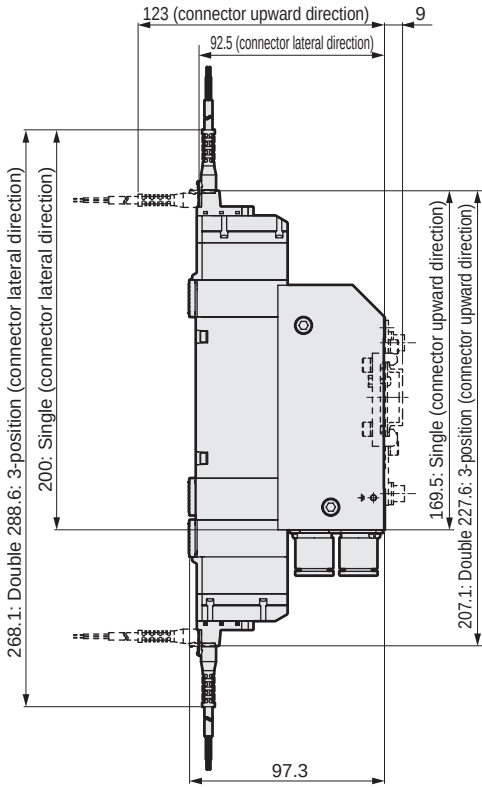
Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L	129	154	179	204	229	254	279	304	329	354	379	404	429	454
L ₁	63	88	113	138	163	188	213	238	263	288	313	338	363	388
L ₂	200	225	250	275										
L ₃	175	200	225	250										

Dimensions

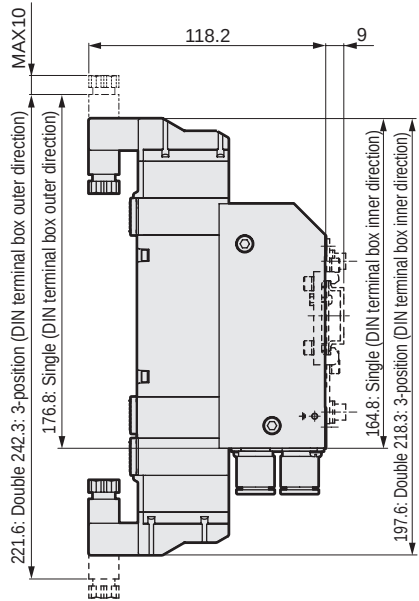
- Supply and exhaust block (Q)
E-connector (E)



- Supply and exhaust block (Q)
EJ type connector (E**J)



- Supply and exhaust block (Q)
DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

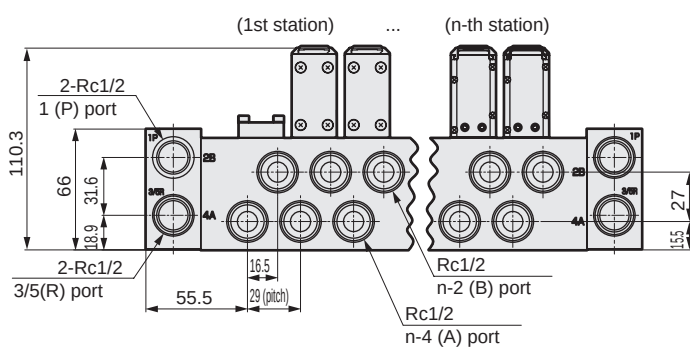
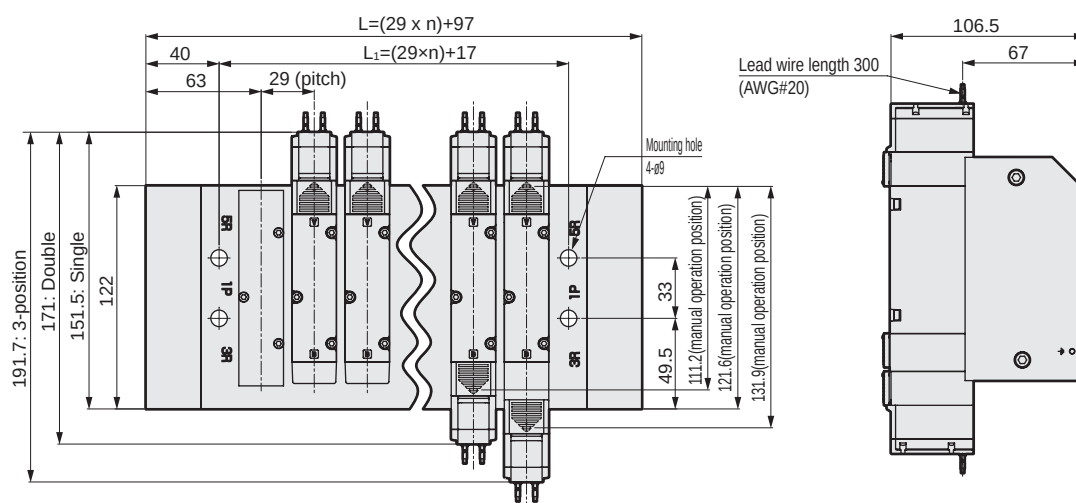
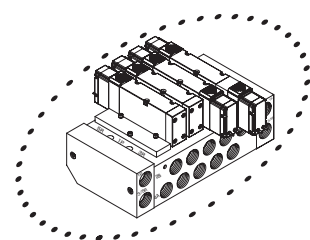
4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G GMF
PV5 GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP NVP
4G*0EJ
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys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

M4GB4 Series

Individual wiring manifold; base piping

Dimensions

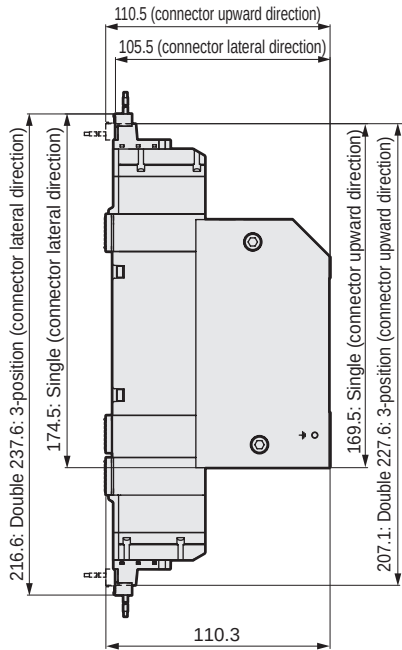
- Supply and exhaust block (Q)
Rc1/2 female thread
Grommet lead wire (blank)



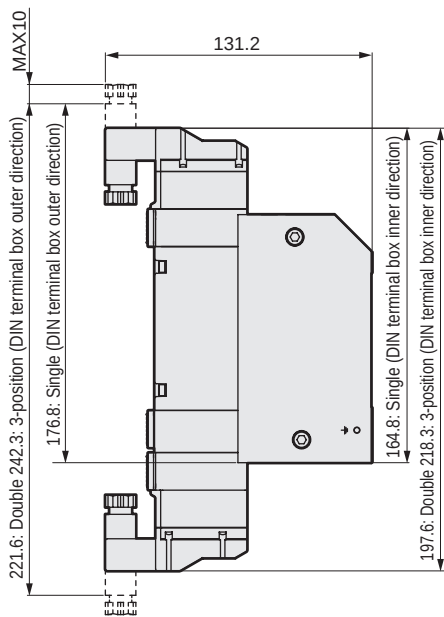
Station No.	2	3	4	5	6	7	8	9	10	11	12
L	155	184	213	242	271	300	329	358	387	416	445
L ₁	75	104	133	162	191	220	249	278	307	336	365

Dimensions

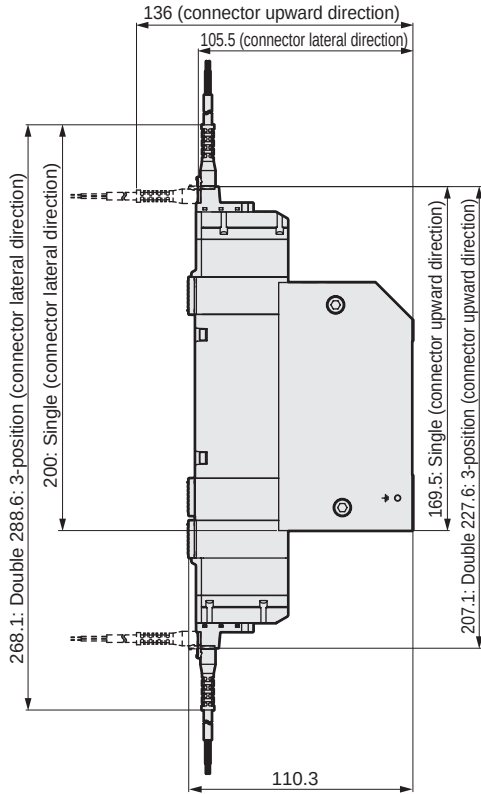
- Supply and exhaust block (Q)
Rc1/2 female thread (15)
E-connector (E)



- Supply and exhaust block (Q)
Rc1/2 female thread (15)
DIN terminal box (B)



- Supply and exhaust block (Q)
Rc1/2 female thread (15)
EJ type connector (E**J)



Note: DIN terminal box assembly is shipped facing inward.

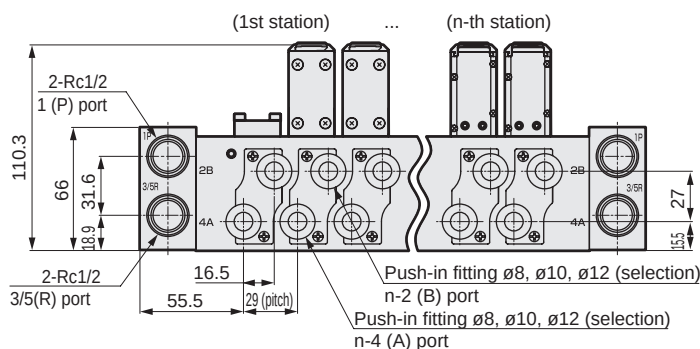
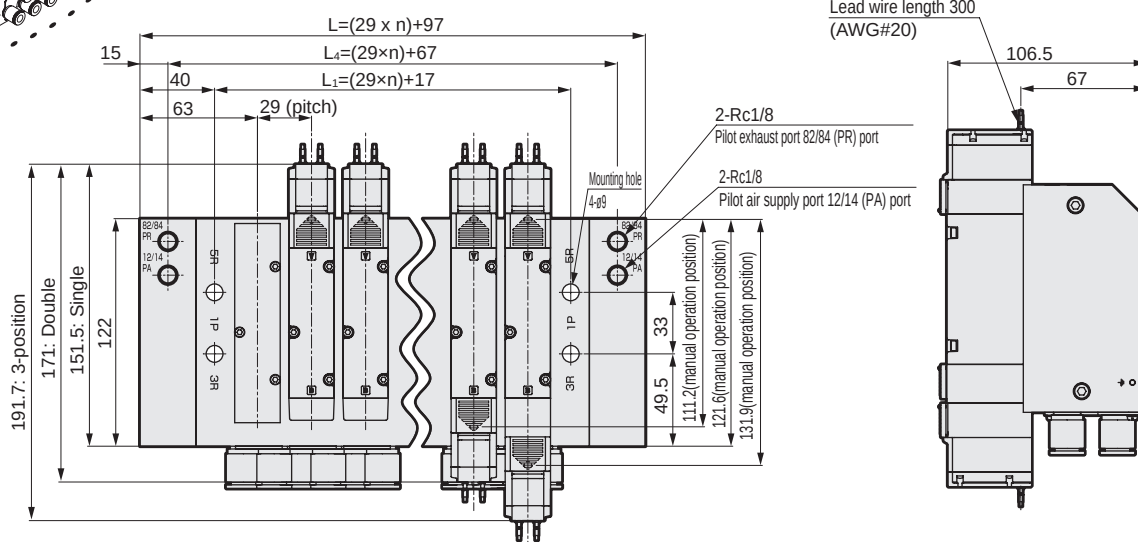
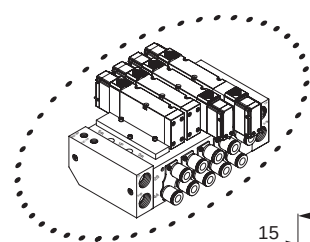
4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys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

M4GB4 Series

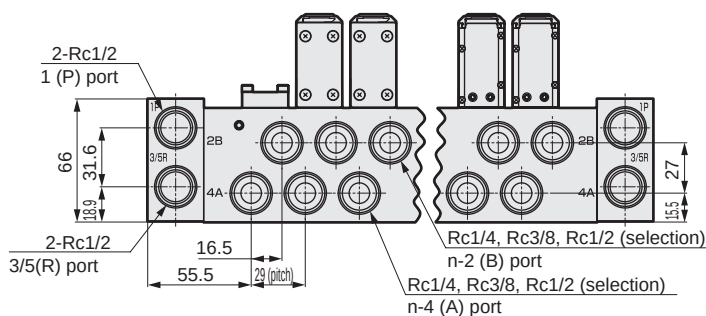
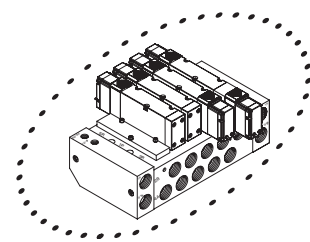
Individual wiring manifold; base piping

Dimensions

- External pilot (K)
Supply and exhaust block (Q)
Grommet lead wire (blank)



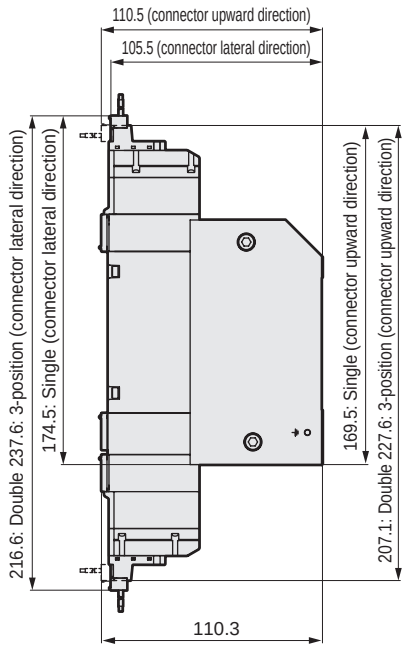
- External pilot (K)
Supply and exhaust block (Q)
Rc1/4, Rc3/8, Rc1/2 female thread (08, 10, 15)



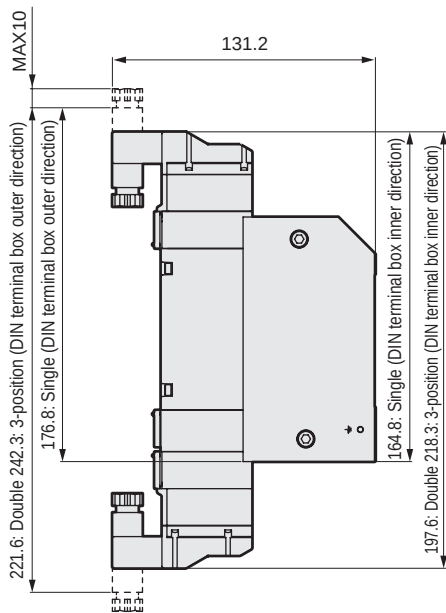
Station No.	2	3	4	5	6	7	8	9	10	11	12
L	155	184	213	242	271	300	329	358	387	416	445
L ₁	75	104	133	162	191	220	249	278	307	336	365
L ₂	125	154	183	212	241	270	299	328	357	386	415

Dimensions

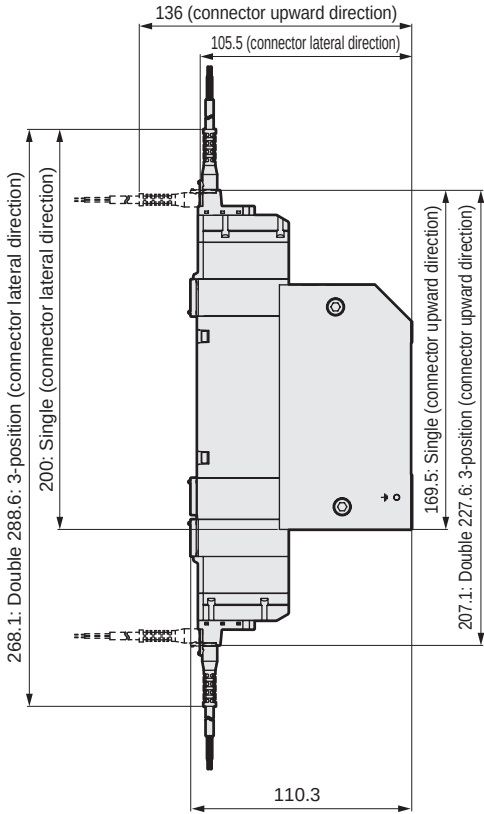
- External pilot (K)
Supply and exhaust block (Q)
E-connector (E)



- External pilot (K)
Supply and exhaust block (Q)
DIN terminal box (B)



- External pilot (K)
Supply and exhaust block (Q)
EJ type connector (E**J)



Note: DIN terminal box assembly is shipped facing inward.

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

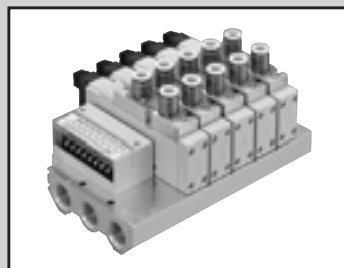
Discontinue

Reduced wiring manifold
(Common terminal block/D sub-connector/flat cable connector)
Body piping
Direct mount

M4GA4-T* Series

● Cylinder bore size: ø100 to ø140

* Refer to page
770 for serial
transmission.



Manifold common specifications

Item		Description
Manifold		Reduced wiring integrated base
Mounting method		Direct mount
Supply and exhaust method		Common supply/common exhaust
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 °C		-5 (23°F) to 55 (131°F) (no freezing)
Fluid temperature °C		5 (41°F) to 55 (131°F)
Manual override		Non-locking/locking common
Lubrication (*1)		Not required
Degree of protection (*2)		Dust-proof (IP40 equivalent)
Vibration resistance m/s ²		50 or less
Shock resistance m/s ²		300 or less
Atmosphere		Cannot be used in corrosive gas environments

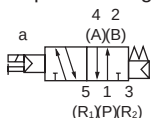
*1: Use turbine oil Class 1 ISO VG32 for lubrication. Excessive or intermittent lubrication results in unstable operation.

*2: Avoid water drops or oil, etc., during use.

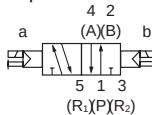
*3: The working pressure range is 0 to 0.7 MPa when the external pilot (option code: K) is selected. Set the external pilot pressure between 0.2 and 0.7 MPa.

JIS symbol

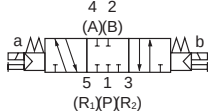
- 5-port valve
2-position single



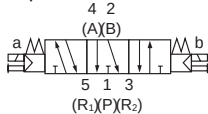
2-position double



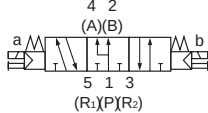
3-position all ports closed



3-position A/B/R connection



3-position P/A/B connection



Individual specifications

Item		M4GA4
		Direct mount
Max. station No.		11 stations
Port size	A/B port	Push-in fitting ø8, ø10, ø12 Rc3/8, G3/8, NPT3/8
	P/R1/R2 port	Rc1/2, G1/2, NPT1/2
Manifold base		Standard 150n+530
Weight calculation formula (n: station No.) g		External pilot 379n+1122

For 5 or more manifold station No., use ports on both side for air supply and exhaust.

The manifold base weight is the value for screw specifications.

Note that the max. station number of the manifold is also limited by the max. number of solenoids for each of the following wiring specifications.

Performance/characteristics by model

Item			M4GA4	
			ON	OFF
Response time ms	2-position	Single	40(40)	40(52)
		Double	40(52)	40(52)
	3-position	ABR connection	60(72)	60(72)

Values with lamp/surge suppressor are shown. The response times are values with working pressure of 0.5 MPa at 20°C, without lubrication. They depend on the pressure and the lubricant quality. Values in () are for AC.

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
M4GA4	2-position	7.3	0.12	9.0	0.17
	3-position	All ports closed	6.4	8.2	0.22
		ABR connection	6.4	9.3	0.19
		PAB connection	8.0	8.3	0.22

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

Wiring specifications

Item	T10 □ Common term. block	T11 □ Common term. block	T30 □ D sub-connector	T50 □ Flat cable 20-pin	T51 □ Flat cable 20-pin	T52 □ Flat cable 10-pin	T53 □ Flat cable 26-pin																															
Connector and terminal block specifications	M3 thread tightening 18 terminals	Clamping 26 terminals	D sub-connectors 25 terminals	MIL-C-83503 standard compliant pressure welding socket 20-pin	MIL-C-83503 standard compliant pressure welding socket 20-pin	MIL-C-83503 standard compliant pressure welding socket 10-pin	MIL-C-83503 standard compliant pressure welding socket 26-pin																															
Max. number of solenoids	16 points	24 points	24 points	16 points	18 points	8 points	24 points																															
Manifold internal wiring	Details on pages 816 to 823																																					
Wiring block position Blank: Left side R: Right side	Left side: T □ a solenoid side b solenoid side Wiring block 1st station 2nd station 3rd station ... 8th station Right side: T □ R a solenoid side b solenoid side 1st station 2nd station 3rd station ... 8th station Wiring block																																					
	(Ex.) In the case of T50 □ Manifold specifications 1st station 3rd station 2nd station 4th station Standard wiring (sequential):Blank <table><tr><td>Connector pin No.</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td></tr><tr><td>Valve solenoid No.</td><td>1a</td><td>2a</td><td>2b</td><td>3a</td><td>4a</td><td>4b</td></tr></table> Double wiring: W <table><tr><td>Connector pin No.</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr><tr><td>Valve solenoid No.</td><td>1a</td><td>Blank</td><td>2a</td><td>2b</td><td>3a</td><td>Blank</td><td>4a</td><td>4b</td></tr></table>							Connector pin No.	1	2	3	4	5	6	Valve solenoid No.	1a	2a	2b	3a	4a	4b	Connector pin No.	1	2	3	4	5	6	7	8	Valve solenoid No.	1a	Blank	2a	2b	3a	Blank	4a
Connector pin No.	1	2	3	4	5	6																																
Valve solenoid No.	1a	2a	2b	3a	4a	4b																																
Connector pin No.	1	2	3	4	5	6	7	8																														
Valve solenoid No.	1a	Blank	2a	2b	3a	Blank	4a	4b																														

Coolant proof specifications

Can be selected with "How to order" Item ⑤ option "A" on page 762.

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**

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

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

M4GA4-T* Series

Reduced wiring manifold; body piping

How to order

Manifold model No.

M **4GA4** **1** **0** - **10** - **T10** **W** **A** - **3** - **3**

Discrete valve for mounting base

4GA4 **1** **9** - **10** - **A2N**

A Model No.

B Solenoid position

A2N indicates the A type (downward) connector, with lamp/surge suppressor and without lead wire.

C Port size

D Reduced wiring connection

E Terminal connector pin array

F Option

G Station No.

H Voltage

- Refer to page 819 for the model No. of cables with D sub-connector.
- Refer to page 815 for the model No. of cables for flat cable connector.

⚠ Precautions for model No. selection

- *1 : The push-in fitting cannot be mixed with the discrete valve's 4(A) or 2(B) port.
- *2 : P/R port is G1/2.
- *3 : P/R port is NPT1/2.
- *4 : Blank ...The wiring will be based on the type of valve used.
WAll wired for double solenoid regardless of the type of valve used.
- *5 : When changing from a discrete valve for W wiring specifications to a double or 3-position valve, the A-connector socket assembly needs to be purchased separately.
- *6 : Consult with CKD when using a vacuum with the external pilot (K).
- *7 : Refer to page 765 for dimensions of the external pilot (K).
- *8 : Specify the spacer mounting position and quantity in manifold specifications sheet. Refer to pages 796 and 797 for details.
- *9 : Cannot be selected with discrete valve for integrated base.

* Be sure to fill in the "Manifold specifications sheet" (pages 811 and 812).

A Model No.

4GA4

Code	Description	
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		
Port	A/B Port	P/R1/R2 port Rc1/2
C8	ø8 Push-in fitting	●
C10	ø10 Push-in fitting	●
C12	ø12 Push-in fitting	●
CX	Push-in fitting mix (*1)	●
10	Rc3/8	●
10G	G3/8	● (*2)
10N	NPT3/8	● (*3)

D Reduced wiring (lamp and surge suppressor provided as standard)			
T10	Common terminal block (M3 thread)	Left-side spec	●
T10R		Right-side spec	●
T11	Common terminal block (clamping)	Left-side spec	●
T11R		Right-side spec	●
T30	D sub-connector	Left-side spec	●
T30R		Right-side spec	●
T50	20-pin flat cable connector (with power supply terminal)	Left-side spec	●
T50R		Right-side spec	●
T51	20-pin flat cable connector (without power supply terminal)	Left-side spec	●
T51R		Right-side spec	●
T52	10-pin flat cable connector (without power supply terminal)	Left-side spec	●
T52R		Right-side spec	●
T53	26-pin flat cable connector	Left-side spec	●
T53R	(without power supply terminal)	Right-side spec	●

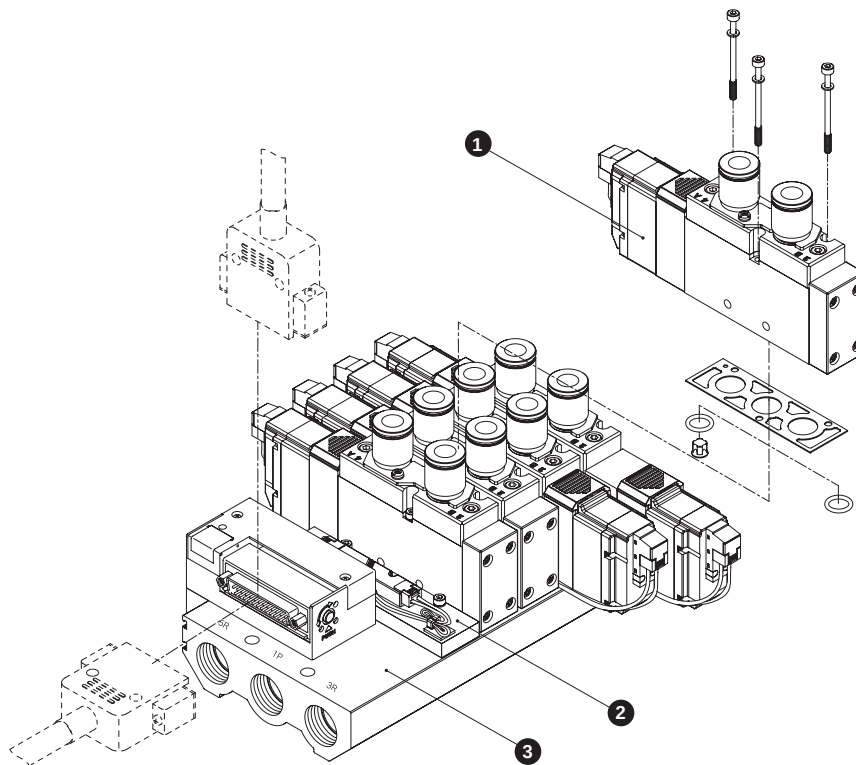
E Terminal/connector pin array		
Blank	Standard wiring (*4)	●
W	Double wiring (*4) (*5)	●

F Option		
Blank	None	●
K	External pilot (*6) (*7)	●
A	Coolant proof	●
F	A/B port filter integrated (P-port: Standard)	●
Z1	Air supply spacer (*8) (*9)	●
Z3	Exhaust spacer (*8) (*9)	●
Q	Supply and exhaust block (*9)	●

G Station No.		
2	2 stations	●
to	to	
11	11 stations	

H Voltage		
3	24 VDC	●
4	12 VDC	●

Manifold components explanation and parts list



Main parts list

No.	Component name	Model No.	Description	Remarks		
1	Discrete valve for mounting base	4GA4- 9- Port size A2N- Option - Voltage Solenoid position	Discrete valve Gasket Mounting screws 3 O-ring 2 Check valve 2 (1)		Size	Tightening torque (N·m)
				4GA4		
2	Masking plate	4GA4-MPC	Masking plate for reduced wiring Gasket Mounting screws 3 O-ring 2 Check valve 2			
3	Manifold base assembly	M4GA4- Port size - Reduced wiring connection Option - Station No.	Manifold base Wiring block	Port size		
				Port	P, R1, R2 ports	
				00	Rc1/2	
				00G	G1/2	
				00N	NPT1/2	

() applies when 4GA419 is selected.

Parts list

No.	Part name	Model No.
-	A-connector socket assembly	4G4-SOCKET-ASSY-A  Row No.
-	Silencer (for Rc1/2)	SLW-15A
-	Cartridge push-in fitting and related parts	4G4-JOINT-C8 4G4-JOINT-C10 4G4-JOINT-C12

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

M4GA4-T* Series

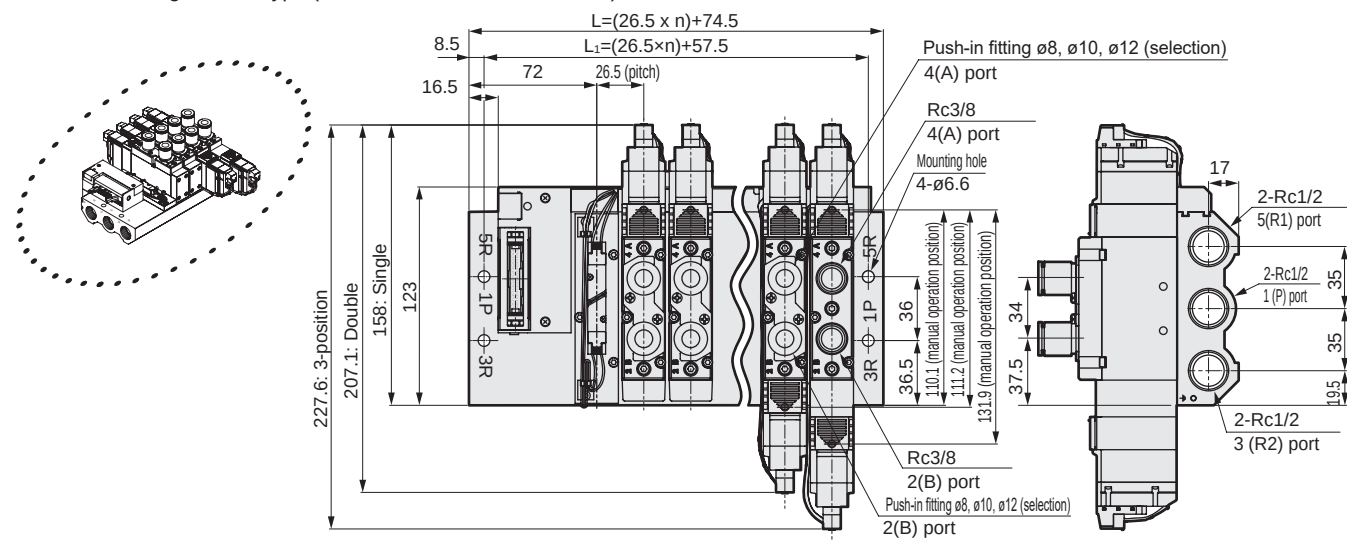
Reduced wiring manifold; body piping

Dimensions

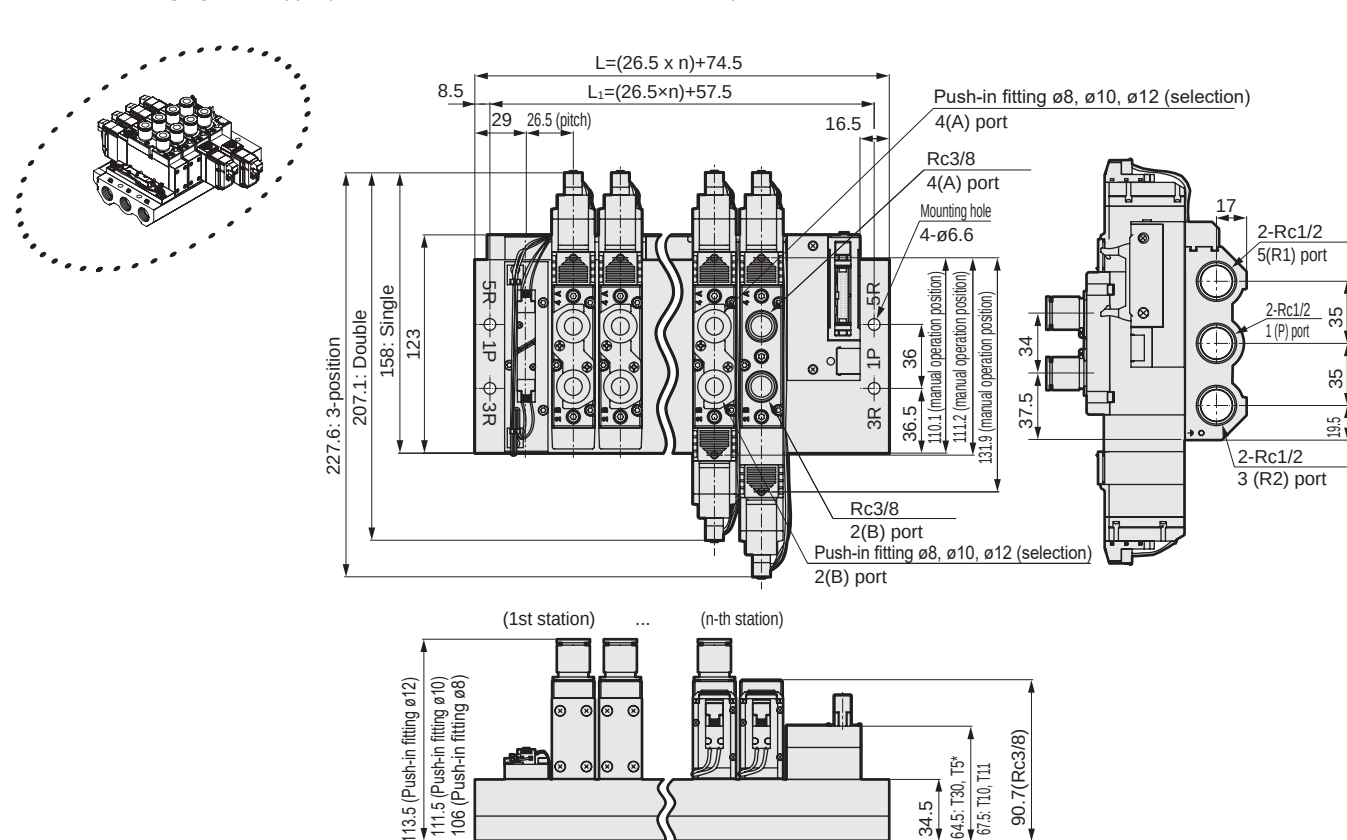
M4GA4

● Reduced wiring left side type (T10/T11/T30/T50/T51/T52/T53)

* Figure shows T50. Refer to pages 768 to 769 for detailed wiring block dimensions.



● Reduced wiring right side type (T10R/T11R/T30R/T50R/T51R/T52R/T53R)



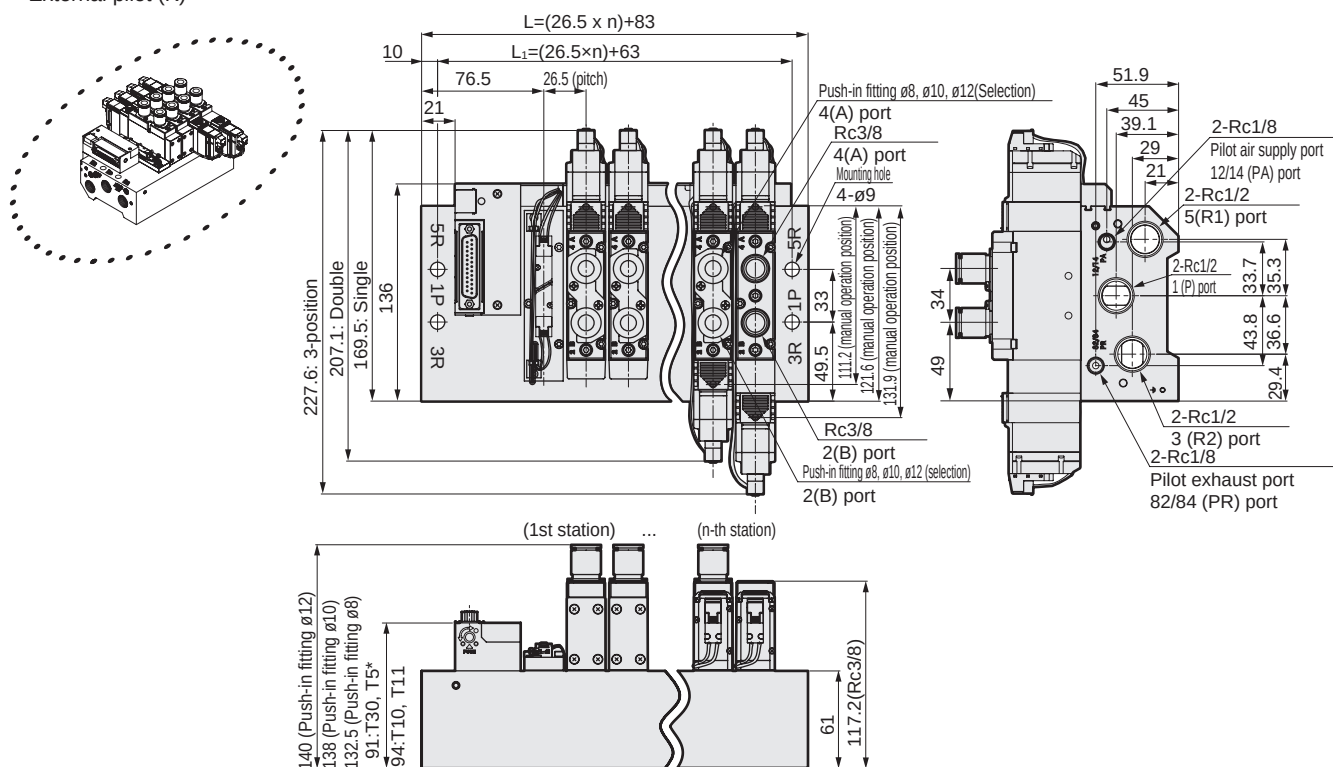
Station No.	2	3	4	5	6	7	8	9	10	11
L	127.5	154	180.5	207	233.5	260	286.5	313	339.5	366
L ₁	110.5	137	163.5	190	216.5	243	269.5	296	322.5	349

Dimensions

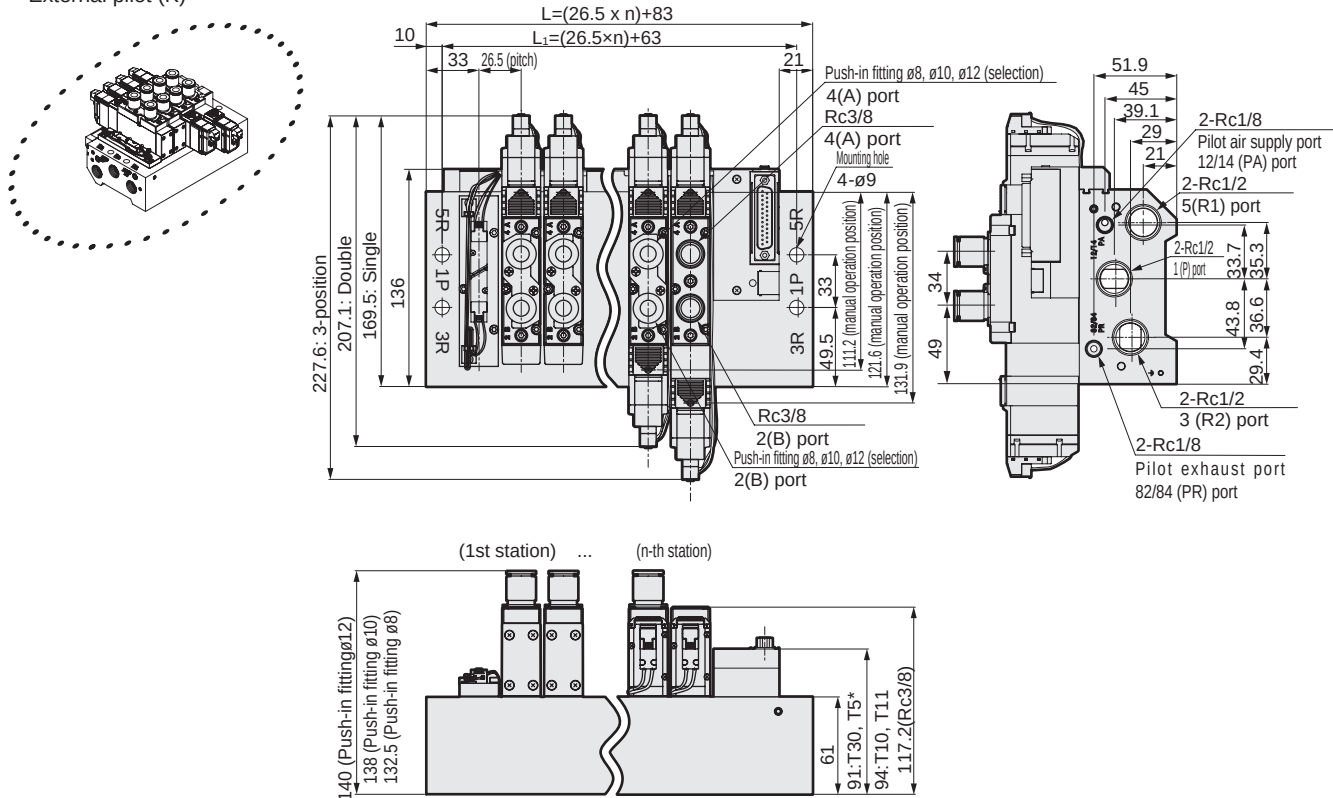
M4GA4

- Reduced wiring left side type (T10/T11/T30/T50/T51/T52/T53)
External pilot (K)

* Figure shows T30. Refer to pages 768 to 769 for detailed wiring block dimensions.



- Reduced wiring right side type (T10R/T11R/T30R/T50R/T51R/T52R/T53R)
External pilot (K)



Station No.	2	3	4	5	6	7	8	9	10	11
L	136	162.5	189	215.5	242	268.5	295	321.5	348	374.5
L ₁	116	142.5	169	195.5	222	248.5	275	301.5	328	354.5

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/INP
NVP
4C*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

M4GA4-T* Series

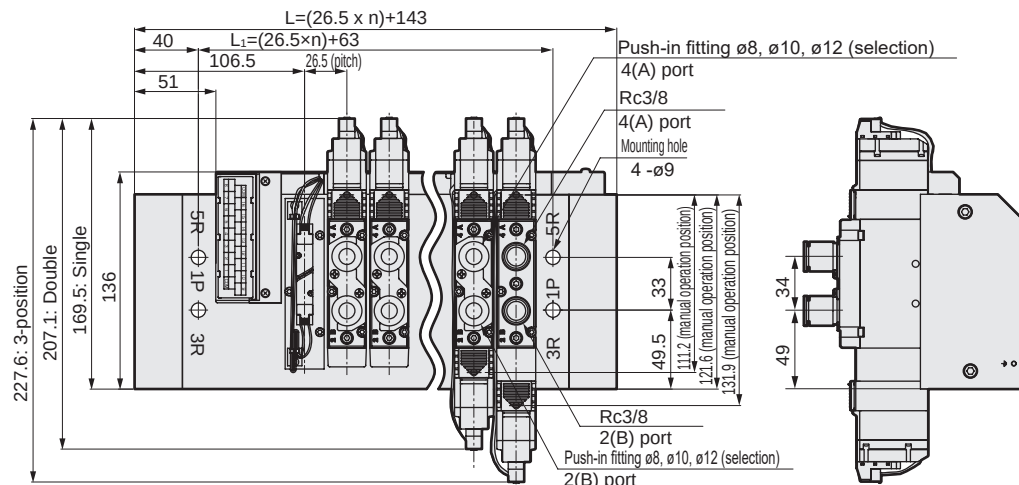
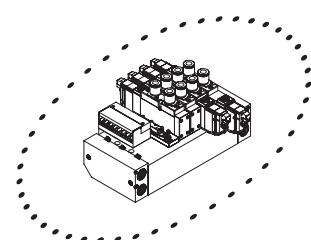
Reduced wiring manifold; body piping

Dimensions

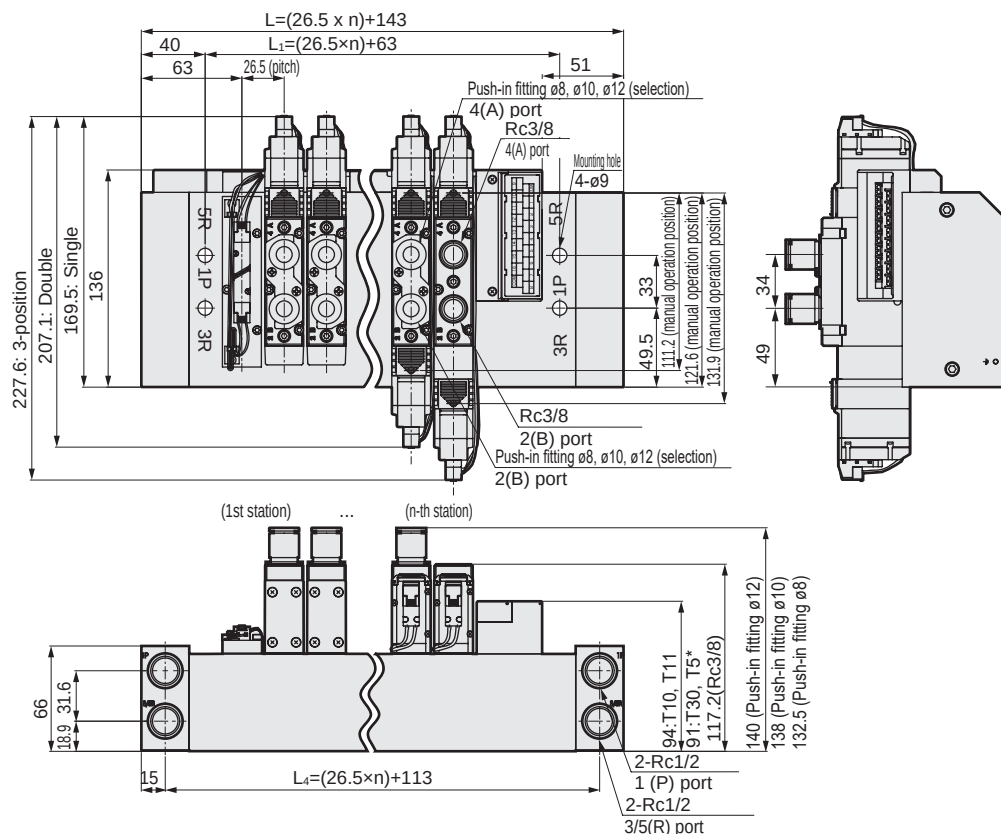
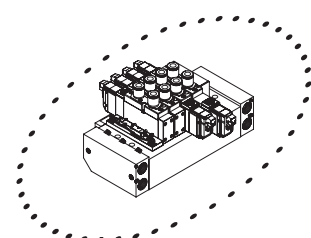
M4GA4

- Reduced wiring left side type (T10/T11/T30/T50/T51/T52/T53)
Supply and exhaust block (Q)

* Figure shows T10. Refer to pages 768 to 769 for detailed wiring block dimensions.



- Reduced wiring right side type (T10R/T11R/T30R/T50R/T51R/T52R/T53R)



Station No.	2	3	4	5	6	7	8	9	10	11
L	196	222.5	249	275.5	302	328.5	355	381.5	408	434.5
L ₁	116	142.5	169	195.5	222	248.5	275	301.5	328	354.5
L ₄	166	192.5	219	245.5	272	298.5	325	351.5	378	404.5

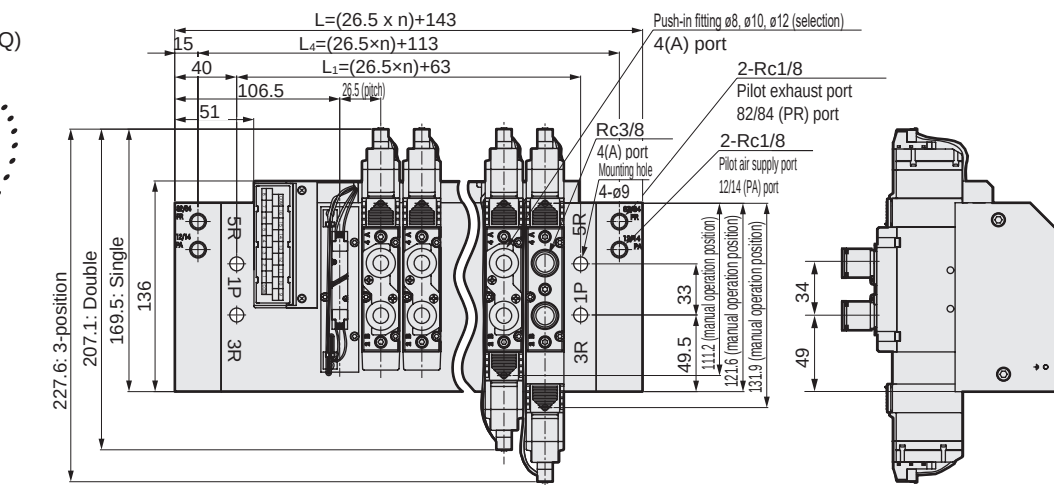
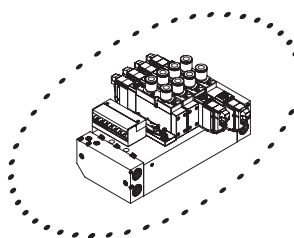
Dimensions

M4GA4

- Reduced wiring left side type (T10/T11/T30/T50/T51/T52/T53)

External pilot (K)

Supply and exhaust block (Q)

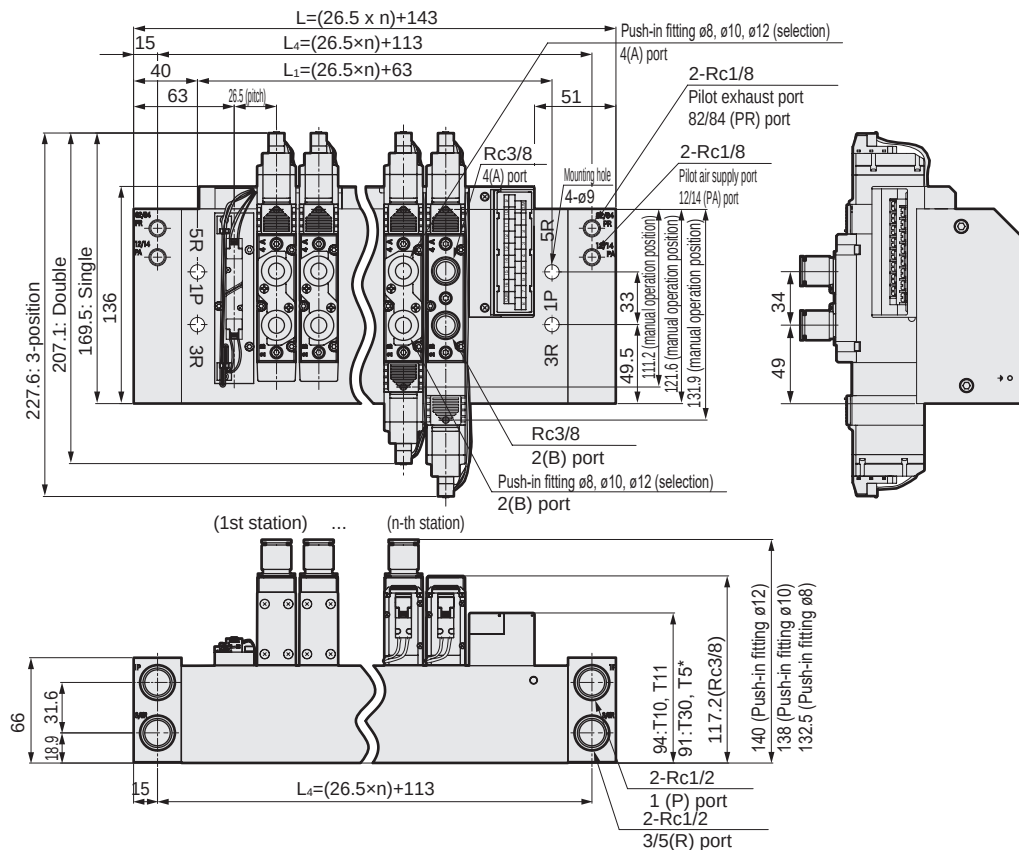
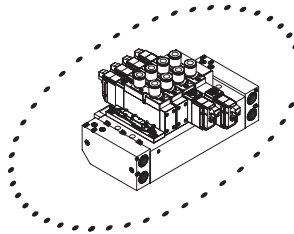


* Figure shows T10. Refer to pages 768 to 769 for detailed wiring block dimensions.

- Reduced wiring right side type (T10R/T11R/T30R/T50R/T51R/T52R/T53R)

External pilot (K)

Supply and exhaust block (Q)



Station No.	2	3	4	5	6	7	8	9	10	11
L	196	222.5	249	275.5	302	328.5	355	381.5	408	434.5
L ₁	116	142.5	169	195.5	222	248.5	275	301.5	328	354.5
L ₄	166	192.5	219	245.5	272	298.5	325	351.5	378	404.5

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

M4GA4-T* Series

Reduced wiring manifold; body piping

Wiring block part: Dimensions

4GA/B

M4GA/B

MN4GA/B

4GA/B
(master)

4GB
With sensor

4GD/E

M4GD/E

MN4GD/E

4GA4/B4

MN3E

MN4E

W4GA/B2

W4GB4

MN3S0

MN4S0

4SA/B0

4KA/B

4KA/B
(master)

4F

4F
(master)

PV5G

GMF

PV5

GMF

PV5S-0

3Q

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP

NVP

4G*0EJ

4F*0EX

4F*0E

HMV

HSV

2QV

3QV

SKH

Silencer

TotAirSys

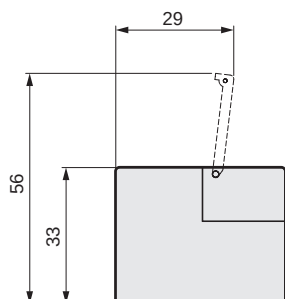
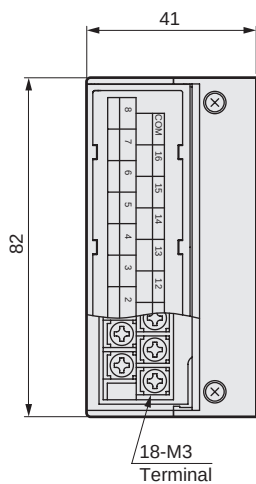
(Total Air)

TotAirSys

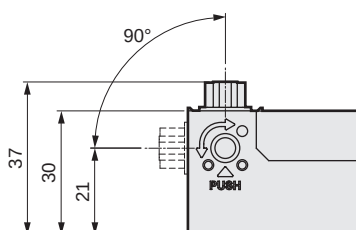
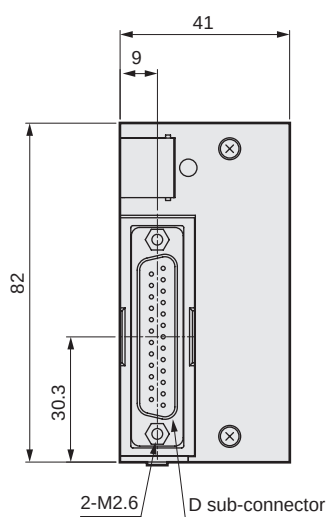
(Gamma)

Ending

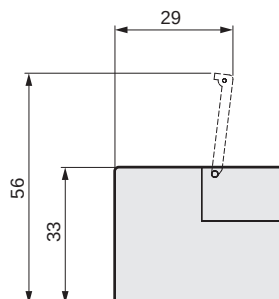
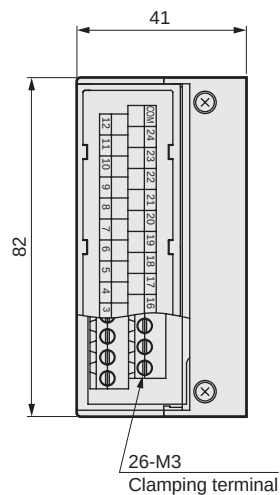
● Common terminal block (M3 thread) T10



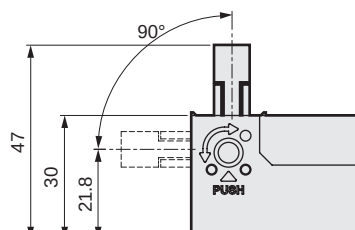
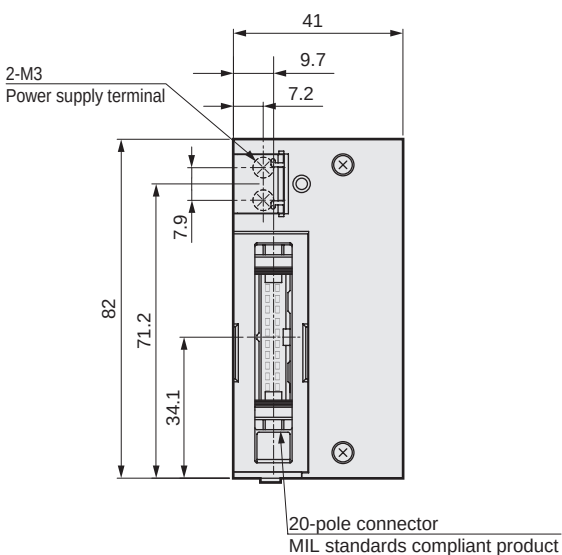
● D sub-connector T30



● Common terminal block (clamping) T11

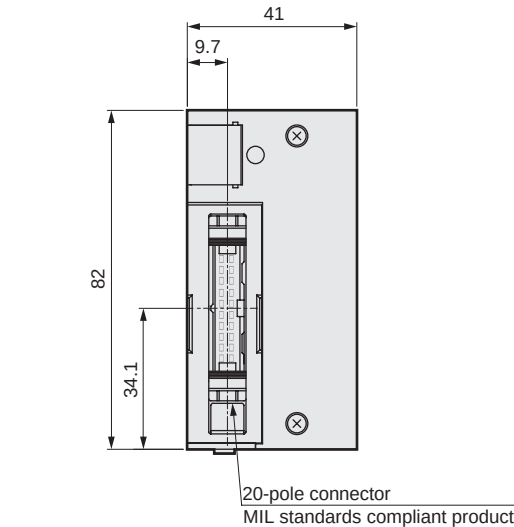


● 20-pin flat cable connector (with power supply terminal) T50

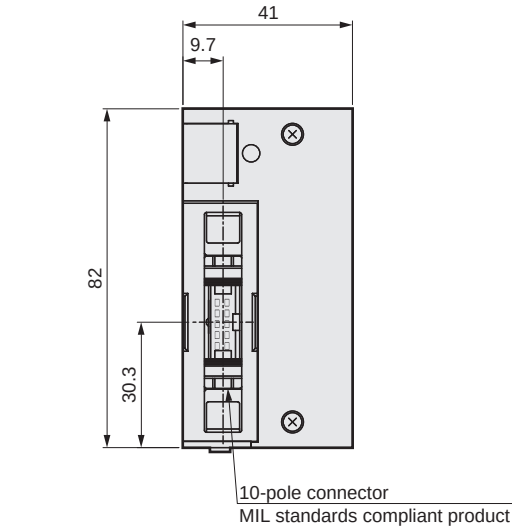


Wiring block part: Dimensions

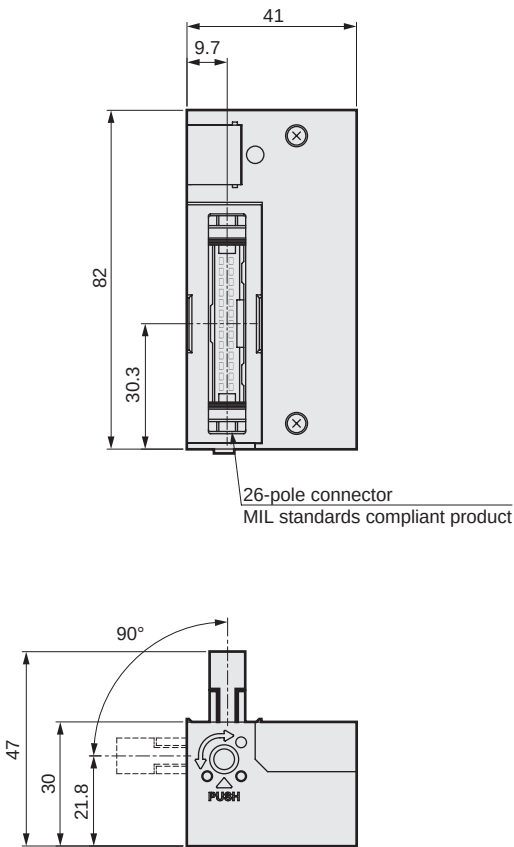
- 20-pin flat cable connector (without power supply terminal)
T51



- 10-pin flat cable connector (without power supply terminal)
T52



- 26-pin flat cable connector (without power supply terminal)
T53



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

Discontinue

Reduced wiring manifold (serial transmission)
Body piping
Direct mount

M4GA4-T6G1 Series

● Cylinder bore size: ø100 to ø140

RoHS

Manifold common specifications

Item		Description
Manifold		Serial transmission integrated base
Mounting method		Direct mount
Supply and exhaust method		Common supply/common exhaust
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 °C		-5 (23°F) to 55 (131°F) (no freezing)
Fluid temperature °C		5 (41°F) to 55 (131°F)
Manual override		Non-locking/locking common type
Lubrication (*1)		Not required
Degree of protection (*2)		Dust-proof (IP40 equivalent)
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.

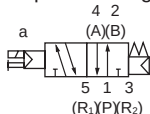
*2: Avoid water drops or oil, etc., during use.

*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.

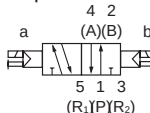
JIS symbol

● 5-port valve

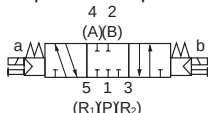
2-position single



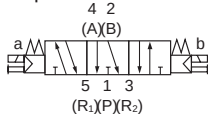
2-position double



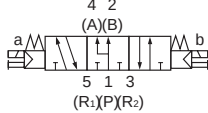
3-position all ports closed



3-position A/B/R connection



3-position P/A/B connection



Individual specifications

Item		M4GA4
		Direct mount
Max. station No.		8 stations
Port size	A/B port	Push-in fitting ø8, ø10, ø12 Rc3/8, G3/8, NPT3/8
	P/R1/R2 port	Rc1/2, G1/2, NPT1/2
Manifold base		Standard 150n+1016
Weight calculation formula (n: station No.) g		External pilot 379n+2391

For 5 and over manifold station No., use ports on both side for air supply and exhaust.
The manifold base weight is the value for screw specifications.

Performance/characteristics by model

Item			M4GA4	
			ON	OFF
Response time ms	2-position	Single	40(40)	40(52)
		Double	40(52)	40(52)
	3-position	ABR connection	60(72)	60(72)

Values with lamp/surge suppressor are shown. The response times are values with working pressure of 0.5 MPa at 20°C, without lubrication.

They depend on the pressure and the lubricant quality. Values in () are for AC.

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

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
M4GA4	2-position		7.3	0.12	9.0	0.17
	3-position	All ports closed	6.4	0.15	8.2	0.22
		ABR connection	6.4	0.16	9.3	0.19
		PAB connection	8.0	0.08	8.3	0.22

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

Serial transmission device unit specifications

Item		T6G1
Network name		CC-Link ver1.10
Power supply voltage	Unit side	24 VDC ±10%
	Valve side	24 VDC +10%, -5%
	Communication side	-
Current consumption	Unit side	100 mA or less (when all output points are ON)
	Valve side	15 mA or less (when all output points are OFF)
	Communication side	-
Output points		16 points
Occupied number		1 station
Operation display		LED (power supply and communication status)

Coolant proof specifications

Can be selected with "How to order" Item ⑤ option "A" on page 772.

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**

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

M4GA4-T6G1 Series

Reduced wiring manifold; body piping; serial transmission

How to order

Manifold model No.

M **4GA4** **1** **0** - **10** - **T6G1** **W** **A** - **3** - **3**

Discrete valve for mounting base

4GA4 **1** **9** - **10** - **A2N** **A** - **3**

A Model No.

B Solenoid position

A2N indicates the A type (downward) connector, with lamp/surge suppressor and without lead wire.

C Port size

D Serial transmission

E Terminal/connector pin array

F Option

G Station No.

H Voltage

* Be sure to fill in the "Manifold specifications sheet" (page 813).

A Model No.

4GA4

Code	Description	
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		
Port	A/B Port	P/R1/R2 port Rc1/2
C8	ø8 Push-in fitting	●
C10	ø10 Push-in fitting	●
C12	ø12 Push-in fitting	●
CX	Push-in fitting mix (*1)	●
10	Rc3/8	●
10G	G3/8	● (*2)
10N	NPT3/8	● (*3)

D Serial transmission (lamp/surge suppressor provided as standard)		
T6G1	CC-Link 16 points	●

E Terminal/connector pin array		
Blank	Standard wiring (*4)	●
W	Double wiring (*4) (*5)	●

F Option		
Blank	None	●
K	External pilot (*6) (*7)	●
A	Coolant proof	●
F	A/B port filter integrated (P-port: Standard)	●
Z1	Air supply spacer (*8) (*9)	●
Z3	Exhaust spacer (*8) (*9)	●
Q	Supply and exhaust block (*9)	●

G Station No.		
2	2 stations	●
to	to	
8	8 stations	

H Voltage		
3	24 VDC	●

⚠ Precautions for model No. selection

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

*2 : P/R port is G1/2.

*3 : P/R port is NPT1/2.

*4 : Blank...The wiring will be based on the type of valve used.

WAll wired for double solenoid regardless of the type of valve used.

*5 : When changing from a discrete valve for W wiring specifications to a double or 3-position valve, the A-connector socket assembly needs to be purchased separately.

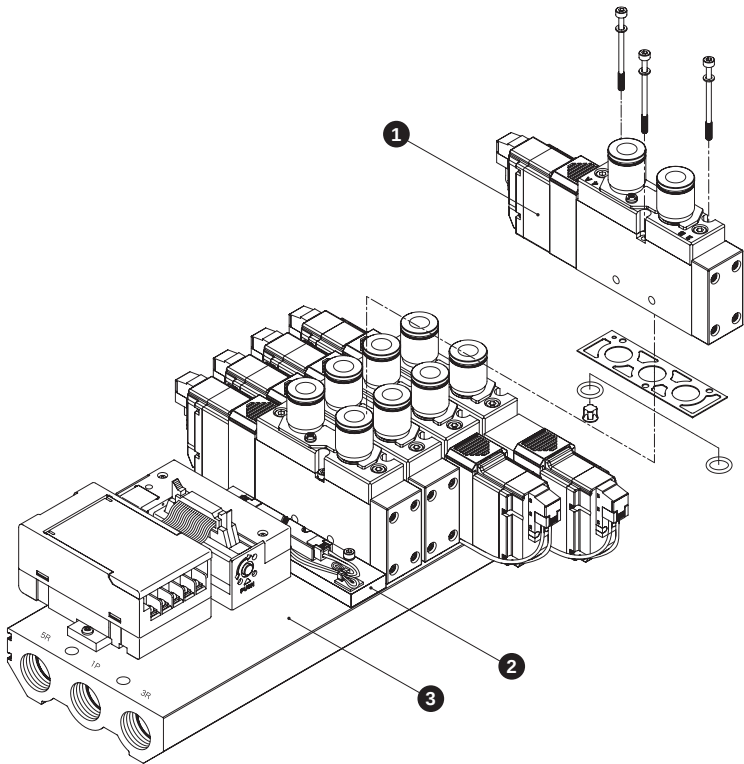
*6 : Consult with CKD when using a vacuum with the external pilot (K).

*7 : Refer to pages 774 and 775 for dimensions of the external pilot (K).

*8 : Specify the spacer mounting position and quantity in manifold specifications sheet. Refer to pages 796 and 797 for details.

*9 : Cannot be selected with discrete valve for integrated base.

Manifold components explanation and parts list



Main parts list

No.	Component name	Model No.	Content	Remarks		
1	Discrete valve for mounting base	4GA4 9 - Port size -A2N Option - Voltage Solenoid position	Discrete valve Gasket Mounting screws 3 O-ring 2 Check valve 2 (1)			
					Size	Tightening torque (N·m)
				4GA4	M3	1.7
2	Masking plate	4GA4-MPC	Masking plate for reduced wiring Gasket Mounting screws 3 O-ring 2 Check valve 2			
3	Manifold base assembly	M4GA4- Port size -T6G1 Option - Station No.	Manifold base Wiring block	Port size		
				Port	P, R1, R2 ports	
				00	Rc1/2	
				00G	G1/2	
				00N	NPT1/2	

() applies when 4GA419 is selected.

Parts list

No.	Part name	Model No.
-	A-connector socket assembly	4G4-SOCKET-ASSY-A Row No. Blank: Left side, R: Right side A: aSOL side, B: bSOL side 2 to 8: Specify the position of the valve to be connected
-	Silencer (for Rc1/2)	SLW-15A
-	Cartridge push-in fitting and related parts	4G4-JOINT-C8 4G4-JOINT-C10 4G4-JOINT-C12

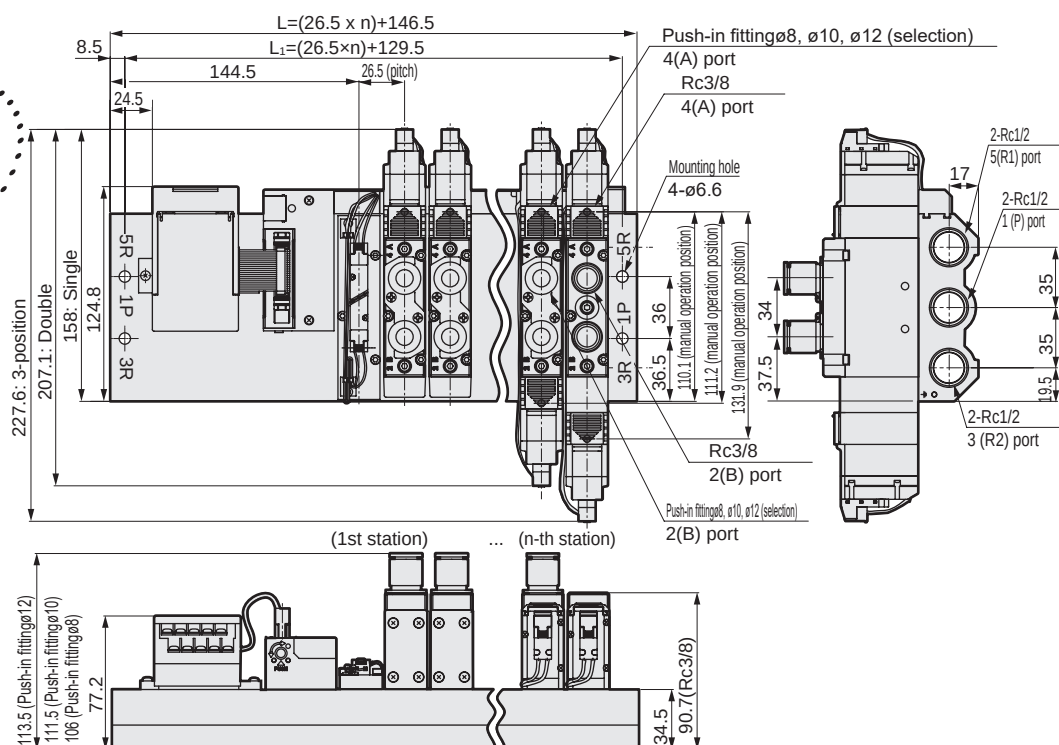
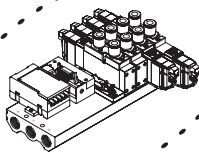
4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys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

Reduced wiring manifold; body piping; serial transmission

Dimensions

M4GA4

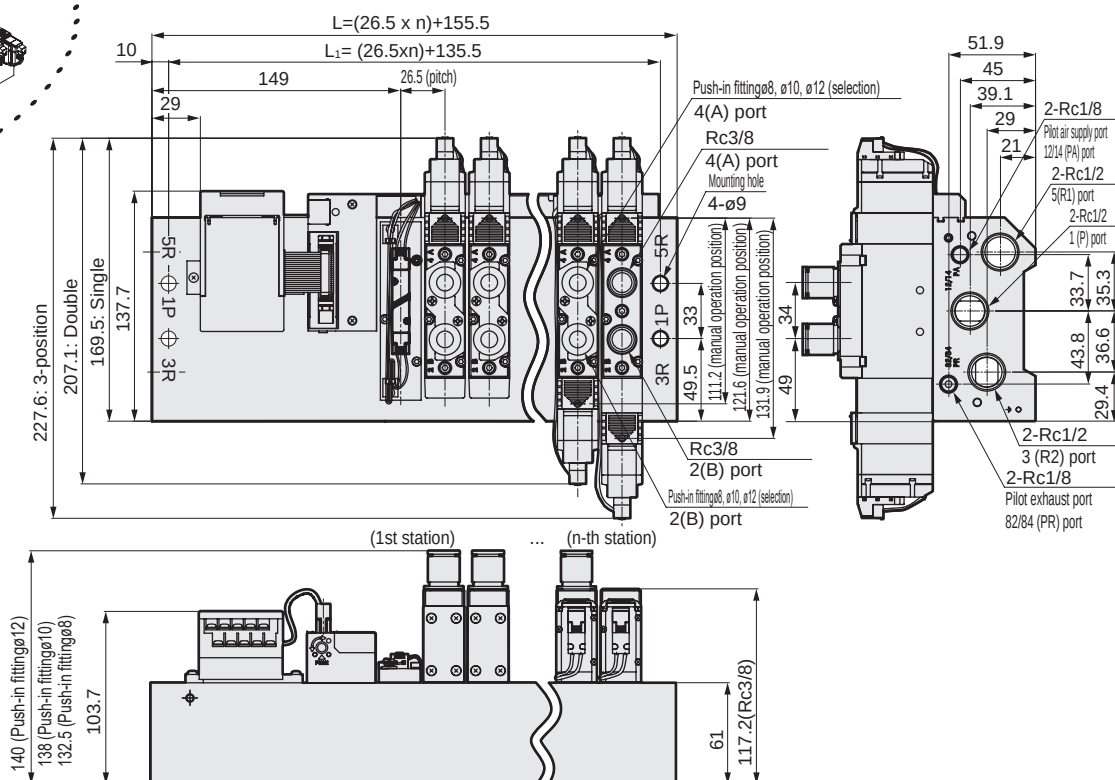
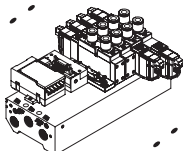
- Serial transmission (T6G1)



Station No.	2	3	4	5	6	7	8
L	199.5	226	252.5	279	305.5	332	358.5
L ₁	182.5	209	235.5	262	288.5	315	341.5

- Serial transmission (T6G1)

External pilot (K)

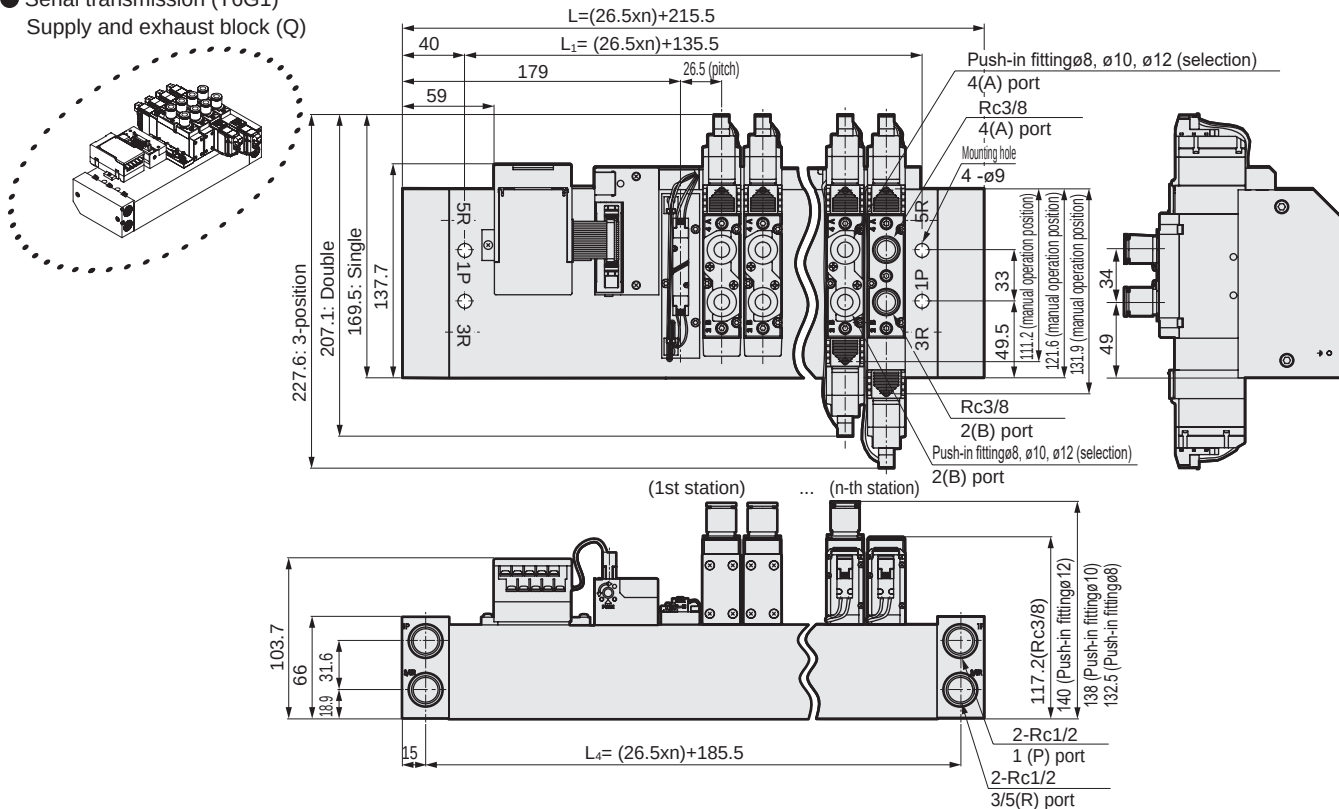


Station No.	2	3	4	5	6	7	8
L	208.5	235	261.5	288	314.5	341	367.5
L ₁	188.5	215	241.5	268	294.5	321	347.5

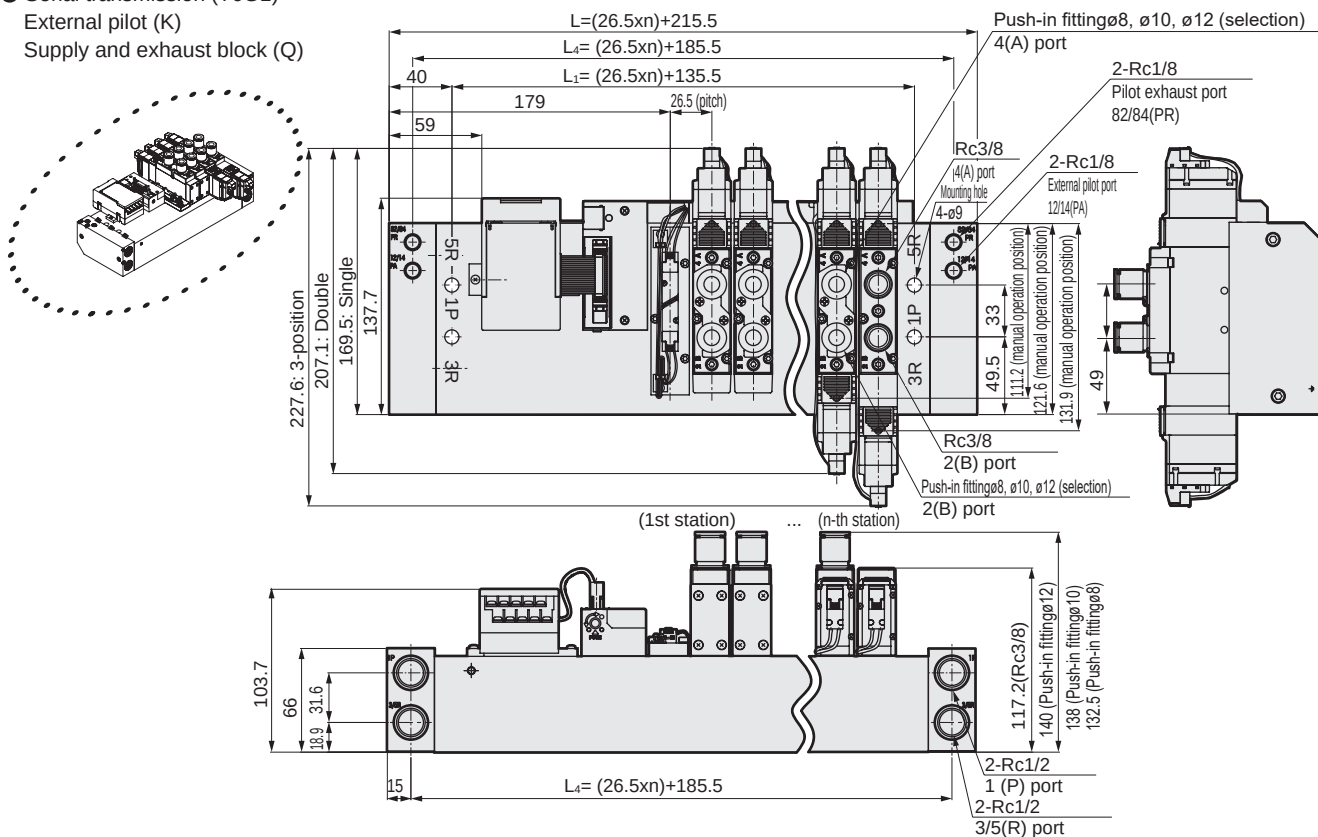
Dimensions

M4GA4

- Serial transmission (T6G1)
Supply and exhaust block (Q)



- Serial transmission (T6G1)
External pilot (K)
Supply and exhaust block (Q)



Station No.	2	3	4	5	6	7	8
L	268.5	295	321.5	348	374.5	401	427.5
L ₁	188.5	215	241.5	268	294.5	321	347.5
L ₄	238.5	265	291.5	318	344.5	371	397.5

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

Discontinue

Reduced wiring manifold (Common terminal block/D sub-connector/
flat cable connector)

Base piping

Direct mount

M4GB4-T* Series

● Cylinder bore size: ø100 to ø140

* Refer to page
788 for serial
transmission.



Manifold common specifications

Item		Description
Manifold		Reduced wiring integrated base
Mounting method		Direct mount
Supply and exhaust method		Common supply/common exhaust
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		Lateral direction from base
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 °C		-5 (23°F) to 55 (131°F) (no freezing)
Fluid temperature °C		5 (41°F) to 55 (131°F)
Manual override		Non-locking/locking common
Lubrication (*1)		Not required
Degree of protection (*2)		Dust-proof (IP40 equivalent)
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 water drops or oil, etc., during use.

*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

Item		Description
Rated voltage V	DC	12, 24
Voltage fluctuation range		±10%
Holding current A	12 VDC	0.083
	24 VDC	0.042
Power consumption W	12 VDC	1.0
	24 VDC	1.0
Thermal class		B
Surge suppressor		Varistor
Indicator		LED

Individual specifications

Item		M4GB4		
		Direct mount		
Pilot operated		Standard (Internal pilot)		External pilot (*3)
Max. station No.		11 stations		
Port size	A/B port	Push-in fitting ø8, ø10, ø12 Rc1/4, Rc3/8 G1/4, G3/8 NPT1/4, NPT3/8	Rc1/2, G1/2, NPT1/2	Push-in fitting ø8, ø10, ø12 Rc1/4, Rc3/8, Rc1/2 G1/4, G3/8, G1/2 NPT1/4, NPT3/8, NPT1/2
	P/R1/R2 port	Rc3/8, G3/8, NPT3/8 (*1)	Rc1/2, G1/2, NPT1/2	(*2)
Manifold base		292n+907	391n+1119	392n+1060
Weight calculation formula (n: station No.) g				

For 5 and over manifold station No., use ports on both side for air supply and exhaust.

The manifold base weight is the value for screw specifications.

The max. station number of the manifold is limited by the max. number of solenoid for each of the following wiring specifications. Dimensions of port sizes (P/R1/R2 port) Rc3/8 and Rc1/2 are different.

*1: Refer to pages 780 and 783 for dimensions of port size Rc3/8.

*2: Refer to pages 781 and 784 for dimensions of port size Rc1/2.

*3: Refer to pages 782 and 785 for dimensions of the external pilot (option code: K).

Performance/characteristics by model

Item			M4GB4	
			ON	OFF
Response time ms	2-position	Single	40(40)	40(52)
		Double	40(52)	40(52)
	3-position	ABR connection	60(72)	60(72)

Values with lamp/surge suppressor are shown. The response times are values with working pressure of 0.5 MPa at 20°C, without lubrication. They depend on the pressure and the lubricant quality. Values in () are for AC.



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

Flow characteristics

Model No.	Port size P, R1, R2	Solenoid position	P → A/B		A/B → R1/R2	
			C[dm ³ /(s·bar)]	b	C[dm ³ /(s·bar)]	b
M4GB4	(*1) Rc3/8 G3/8 NPT3/8	2-position	6.4	0.42	6.9	0.12
		3-position	All ports closed	6.0	0.37	0.12
			ABR connection	6.1	0.38	0.15
			PAB connection	6.0	0.37	0.13
	(*2) Rc1/2 G1/2 NPT1/2	2-position	8.3	0.23	9.0	0.21
		3-position	All ports closed	7.4	0.15	0.19
			ABR connection	7.5	0.15	0.21
			PAB connection	7.7	0.21	0.18

Dimensions of port sizes (P/R1/R2 port) Rc3/8 and Rc1/2 are different.

*1 : Refer to pages 780 and 783 for dimensions of port size Rc3/8.

*2 : Refer to pages 781 and 784 for dimensions of port size Rc1/2.

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

Wiring specifications

Item	T10 ☐	T11 ☐	T30 ☐	T50 ☐	T51 ☐	T52 ☐	T53 ☐																																
	Common term. block	Common term. block	D sub-connector	Flat cable 20-pin	Flat cable 20-pin	Flat cable 10-pin	Flat cable 26-pin																																
Connector and terminal block specifications	M3 thread tightening 18 terminals	Clamping 26 terminals	D sub-connectors 25 terminals	MIL-C-83503 standard compliant pressure welding socket 20-pin	MIL-C-83503 standard compliant pressure welding socket 20-pin	MIL-C-83503 standard compliant pressure welding socket 10-pin	MIL-C-83503 standard compliant pressure welding socket 26-pin																																
Max. number of solenoids	16 points	24 points	24 points	16 points	18 points	8 points	24 points																																
Manifold internal wiring	Details on pages 816 to 823																																						
Wiring block position Blank: Left side R: Right side	Left side: T ☐ Right side: T ☐ R a solenoid side b solenoid side a solenoid side b solenoid side																																						
Array method Blank: Standard sequential W: Double wiring	(Ex.) In the case of T50 ☐ Manifold specifications 1st station 3rd station 2nd station 4th station Standard wiring (sequential): Blank <table><tr><td>Connector pin No.</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td></tr><tr><td>Valve solenoid No.</td><td>1a</td><td>2a</td><td>2b</td><td>3a</td><td>4a</td><td>4b</td></tr></table> Double wiring: W <table><tr><td>Connector pin No.</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr><tr><td>Valve solenoid No.</td><td>1a</td><td>Blank</td><td>2a</td><td>2b</td><td>3a</td><td>Blank</td><td>4a</td><td>4b</td></tr></table>							Connector pin No.	1	2	3	4	5	6	Valve solenoid No.	1a	2a	2b	3a	4a	4b	Connector pin No.	1	2	3	4	5	6	7	8	Valve solenoid No.	1a	Blank	2a	2b	3a	Blank	4a	4b
	Connector pin No.	1	2	3	4	5	6																																
Valve solenoid No.	1a	2a	2b	3a	4a	4b																																	
Connector pin No.	1	2	3	4	5	6	7	8																															
Valve solenoid No.	1a	Blank	2a	2b	3a	Blank	4a	4b																															

Coolant proof specifications

Can be selected with "How to order" Item ⑤ option "A" on page 778.

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**

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

M4GB4-T* Series

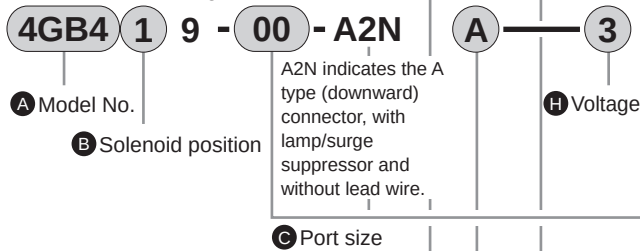
Reduced wiring manifold; base piping

How to order

Manifold model No.

M **4GB4** **1** **0** - **10** - **T30** **W** **A** - **3** - **3**

Discrete valve for mounting base



- Refer to page 819 for the model No. of cables with D sub-connector.
- Refer to page 815 for the model No. of cables for flat cable connector.

⚠ Precautions for model No. selection

- *1 : Two types of bases are available.
Dimensions differ by bore size of the P/R1/R2 port.
- *2 : Refer to pages 780 and 783 for dimensions of port size Rc3/8.
- *3 : Refer to pages 781 and 784 for dimensions of port size Rc1/2.
- *4 : Refer to pages 782 and 785 for dimensions of the external pilot (K).
- *5 : P/R port is G thread.
- *6 : P/R port is NPT thread.
- *7 : Blank...The wiring will be based on the type of valve used.
W All wired for double solenoid regardless of the type of valve used.
- *8 : When changing from a discrete valve for W wiring specifications to a double or 3-position valve, the A-connector socket assembly needs to be purchased separately.
- *9 : Consult with CKD when using a vacuum with the external pilot (K).
- *10: Specify the spacer mounting position and quantity in manifold specifications sheet. Refer to pages 796 and 797 for details.
- *11 : Cannot be selected with discrete valve for integrated base.

* Be sure to fill in the "Manifold specifications sheet" (pages 811 and 812).

A Model No.	
4GB4	

Code	Description	
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				
Port	A/B Port	P/R1/R2 port (*1)		
		Option: Other than K		
		Rc3/8 (*2)	Rc1/2 (*3)	Rc1/2 (*4)
C8	ø8 Push-in fitting	●		●
C10	ø10 Push-in fitting	●		●
C12	ø12 Push-in fitting	●		●
CX	Push-in fitting mix	●		●
08	Rc1/4	●		●
10	Rc3/8	●		●
15	Rc1/2		●	●
08G	G1/4	● (*5)		● (*5)
10G	G3/8	● (*5)		● (*5)
15G	G1/2		● (*5)	● (*5)
08N	NPT1/4	● (*6)		● (*6)
10N	NPT3/8	● (*6)		● (*6)
15N	NPT1/2		● (*6)	● (*6)

D Reduced wiring (lamp and surge suppressor provided as standard)		
T10	Common terminal block (M3 thread)	Left-side spec Right-side spec
T10R		●
T11	Common terminal block (clamping)	Left-side spec Right-side spec
T11R		●
T30	D sub-connector	Left-side spec Right-side spec
T30R		●
T50	20-pin flat cable connector (with power supply terminal)	Left-side spec Right-side spec
T50R		●
T51	20-pin flat cable connector (without power supply terminal)	Left-side spec Right-side spec
T51R		●
T52	10-pin flat cable connector (without power supply terminal)	Left-side spec Right-side spec
T52R		●
T53	26-pin flat cable connector	Left-side spec Right-side spec
T53R		●

E Terminal/connector pin array		
Blank	Standard wiring (*7)	●
W	Double wiring (*7) (*8)	●

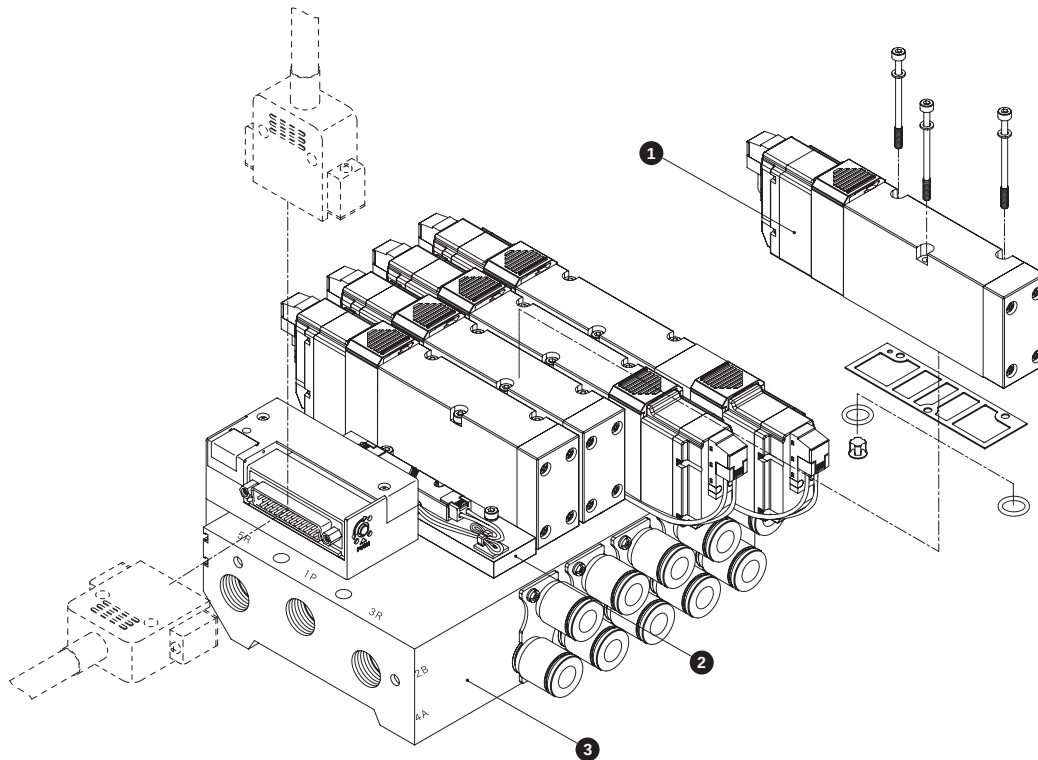
F Option		
Blank	None	●
K	External pilot (*4) (*9)	●
A	Coolant proof	●
F	A/B port filter integrated (P-port: Standard)	●
Z1	Air supply spacer (*10) (*11)	●
Z3	Exhaust spacer (*10) (*11)	●
Q	Supply and exhaust block (*11)	●

G Station No.		
2	2 stations	●
to	to	
11	11 stations	

H Voltage		
3	24 VDC	●
4	12 VDC	●

is not available.

Manifold components explanation and parts list



Main parts list

No.	Component name	Model No.	Content	Remarks		
1	Discrete valve for mounting base	4GB4-□9-00-A2N □Option - □Voltage □ Solenoid position	Discrete valve Gasket Mounting screws 3 O-ring 2 Check valve 2 (1)		Size	Tightening torque (N·m)
				4GB4	M3	1.7
2	Masking plate	4GB4-MPC	Masking plate for reduced wiring Gasket Mounting screws 3 O-ring 2 Check valve 2			
3	Manifold base assembly	M4GB4-□Port size - □Reduced wiring connection □Option - □Station No.	Manifold base Wiring block			

() applies when 4GB419 is selected.

Parts list

No.	Part name		Model No.
-	A-connector socket assembly		4G4-SOCKET-ASSY-A 
-	Silencer	For Rc1/2 For Rc3/8	Blank: Left side, R: Right side A: aSOL side, B: bSOL side 2 to 11: Specify the position of the valve to be connected
-	Cartridge push-in fitting and related parts		4G4-JOINT-C8 4G4-JOINT-C10 4G4-JOINT-C12

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

M4GB4-T* Series

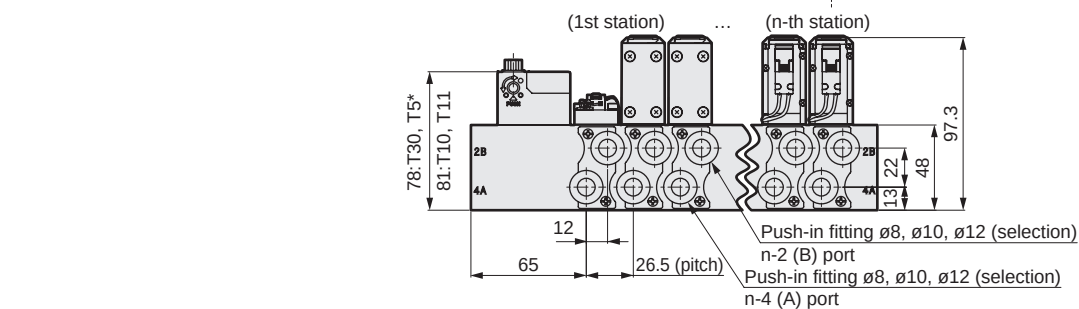
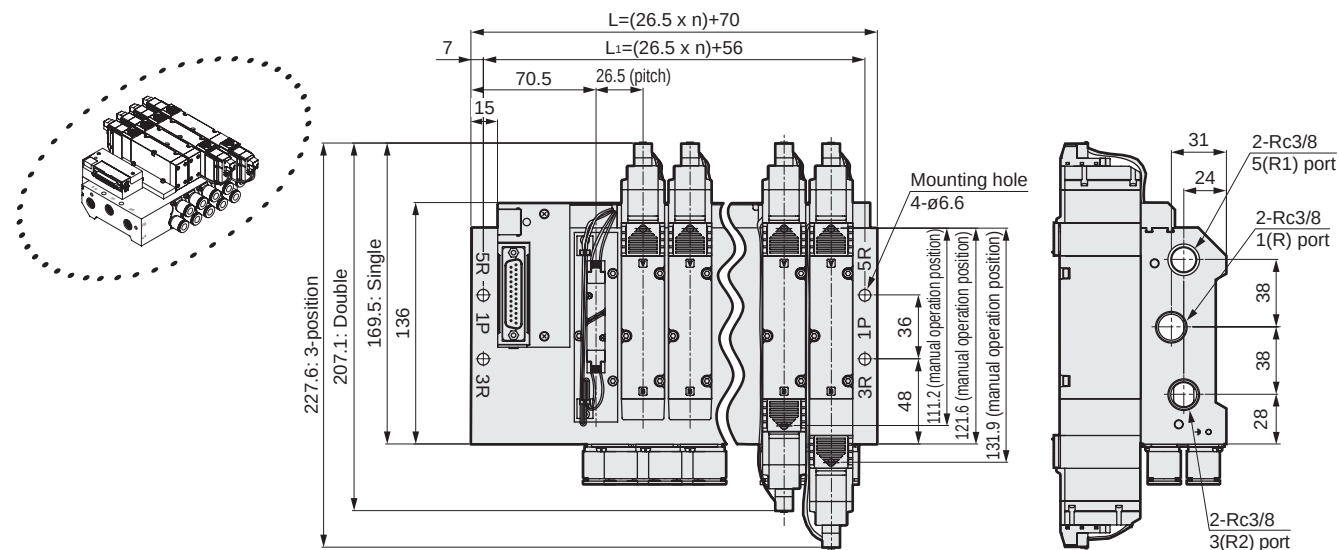
Reduced wiring manifold; base piping

Dimensions

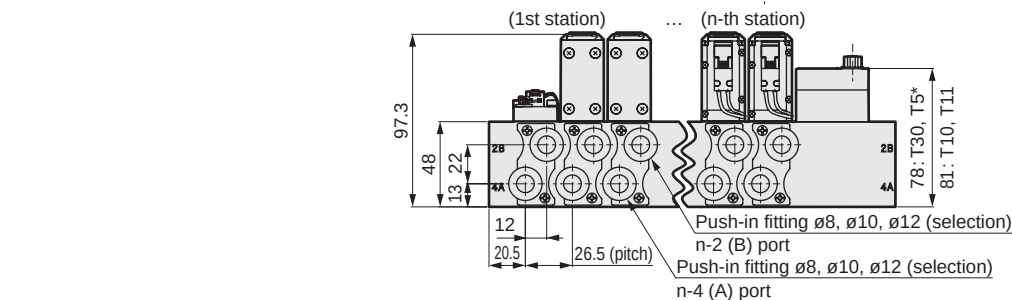
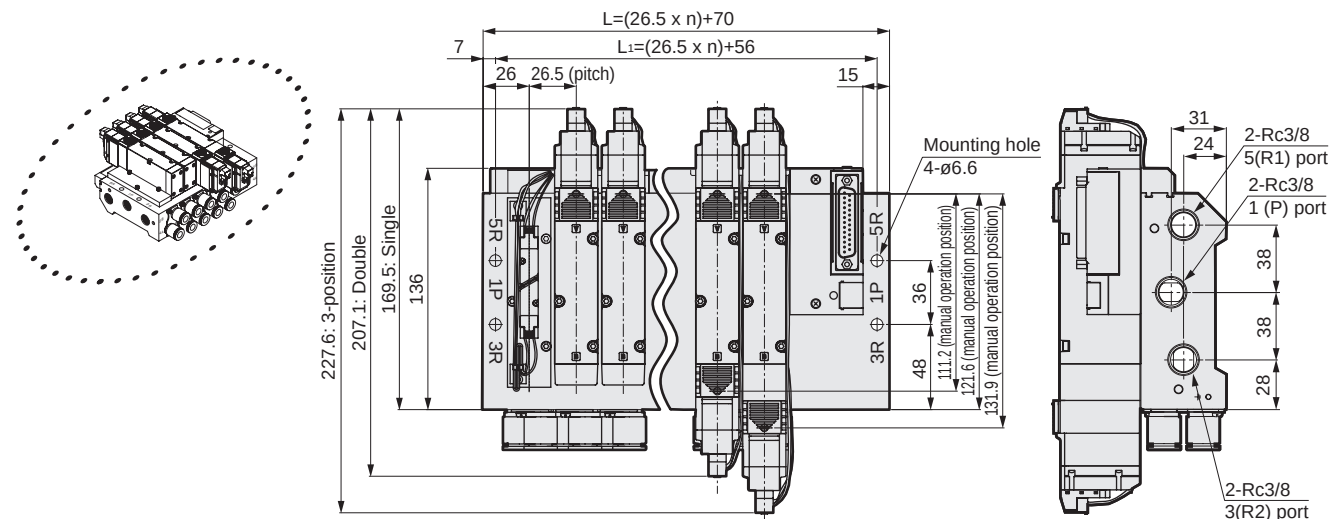
M4GB4

● Reduced wiring left side (T10/T11/T30/T50/T51/T52/T53)

* Figure shows T50. Refer to pages 786 and 787 for detailed wiring block dimensions.



● Reduced wiring right side (T10R/T11R/T30R/T50R/T51R/T52R/T53R)



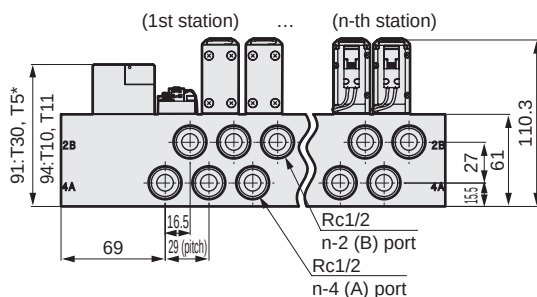
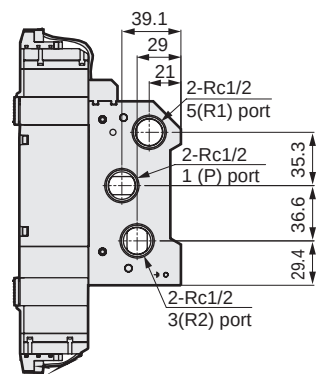
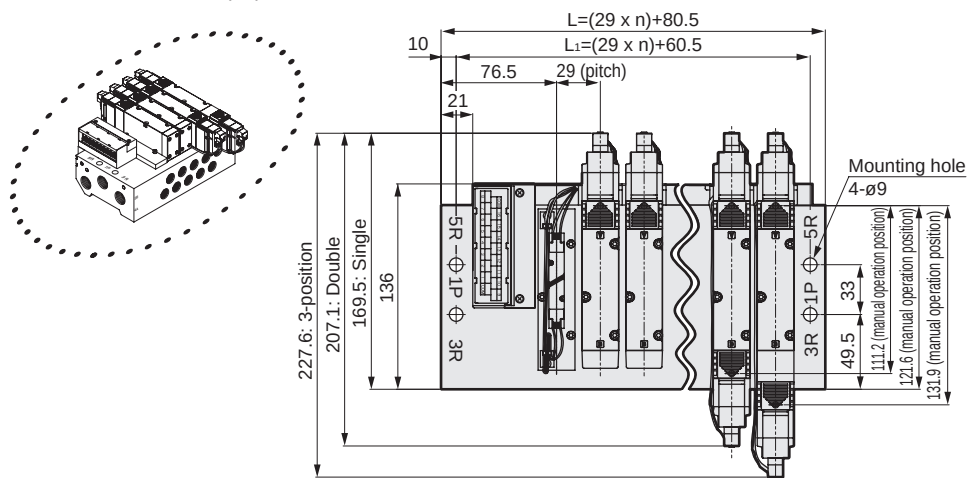
Station No.	2	3	4	5	6	7	8	9	10	11
L	123	149.5	176	202.5	229	255.5	282	308.5	335	361.5
L ₁	109	135.5	162	188.5	215	241.5	268	294.5	321	347.5

Dimensions

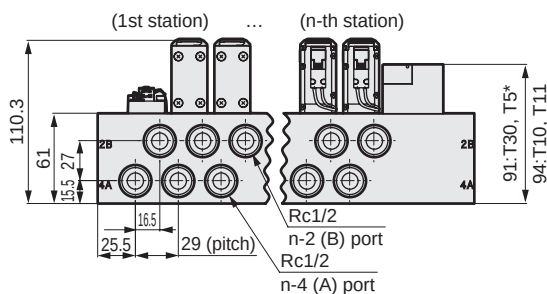
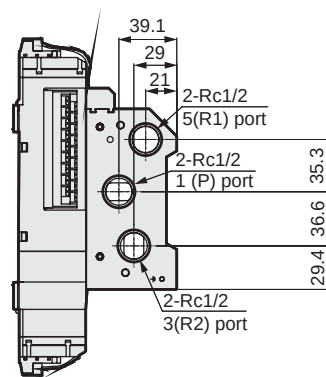
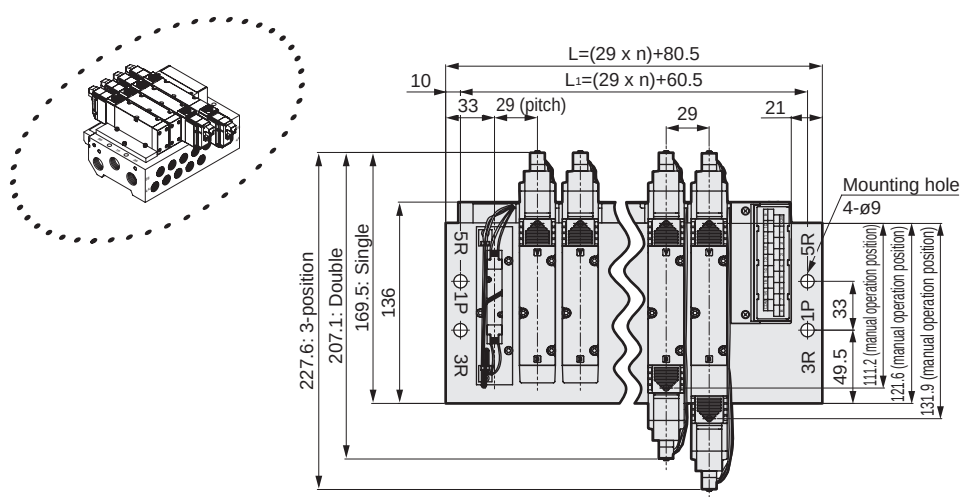
M4GB4

- Reduced wiring left side (T10/T11/T30/T50/T51/T52/T53)
Rc1/2 female thread (15)

* Figure shows T50. Refer to pages 786 and 787 for detailed wiring block dimensions.



- Reduced wiring right side type (T10R/T11R/T30R/T50R/T51R/T52R/T53R)
Rc1/2 female thread (15)



Station No.	2	3	4	5	6	7	8	9	10	11
L	138.5	167.5	196.5	225.5	254.5	283.5	312.5	341.5	370.5	399.5
L ₁	118.5	147.5	176.5	205.5	234.5	263.5	292.5	321.5	350.5	379.5

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/INP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

M4GB4-T* Series

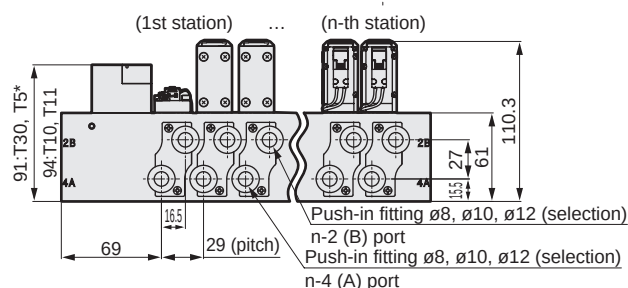
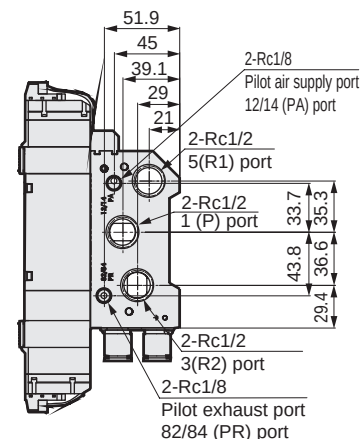
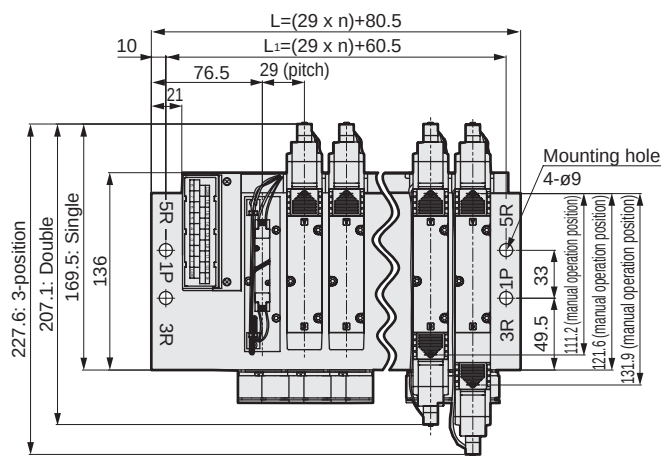
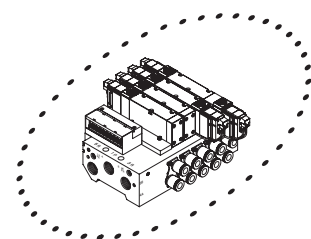
Reduced wiring manifold; base piping

Dimensions

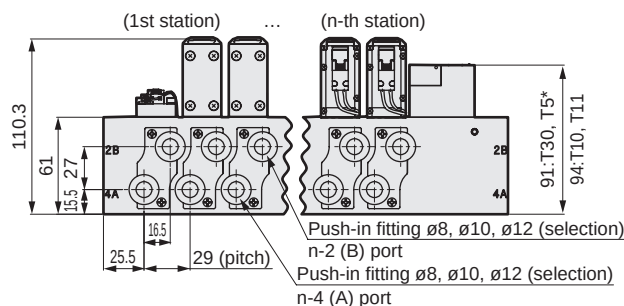
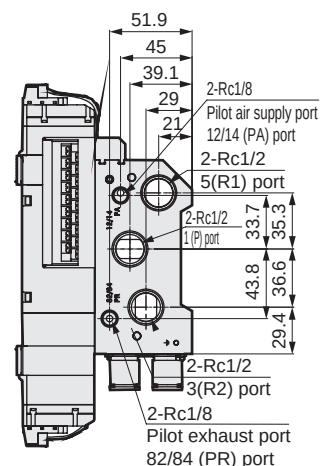
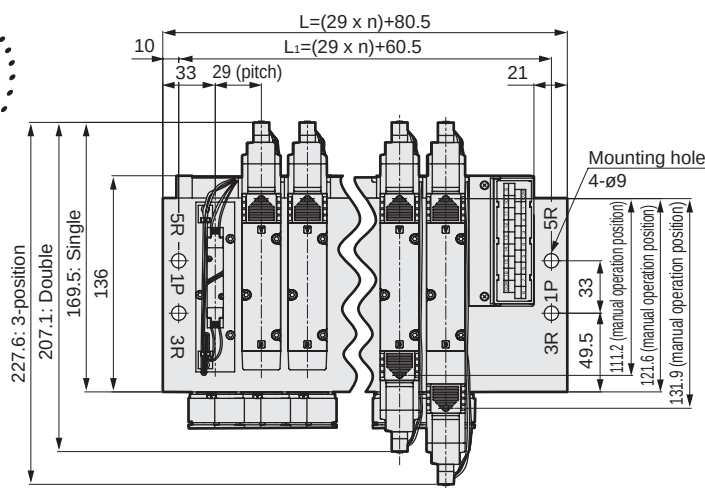
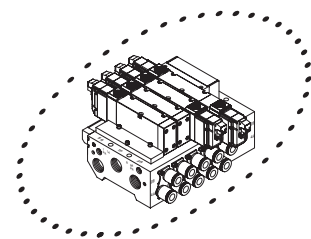
M4GB4

- Reduced wiring left side (T10/T11/T30/T50/T51/T52/T53)
External pilot (K)

* Figure shows T30. Refer to pages 786 and 787 for detailed wiring block dimensions.



- Reduced wiring right side (T10R/T11R/T30R/T50R/T51R/T52R/T53R)
External pilot (K)



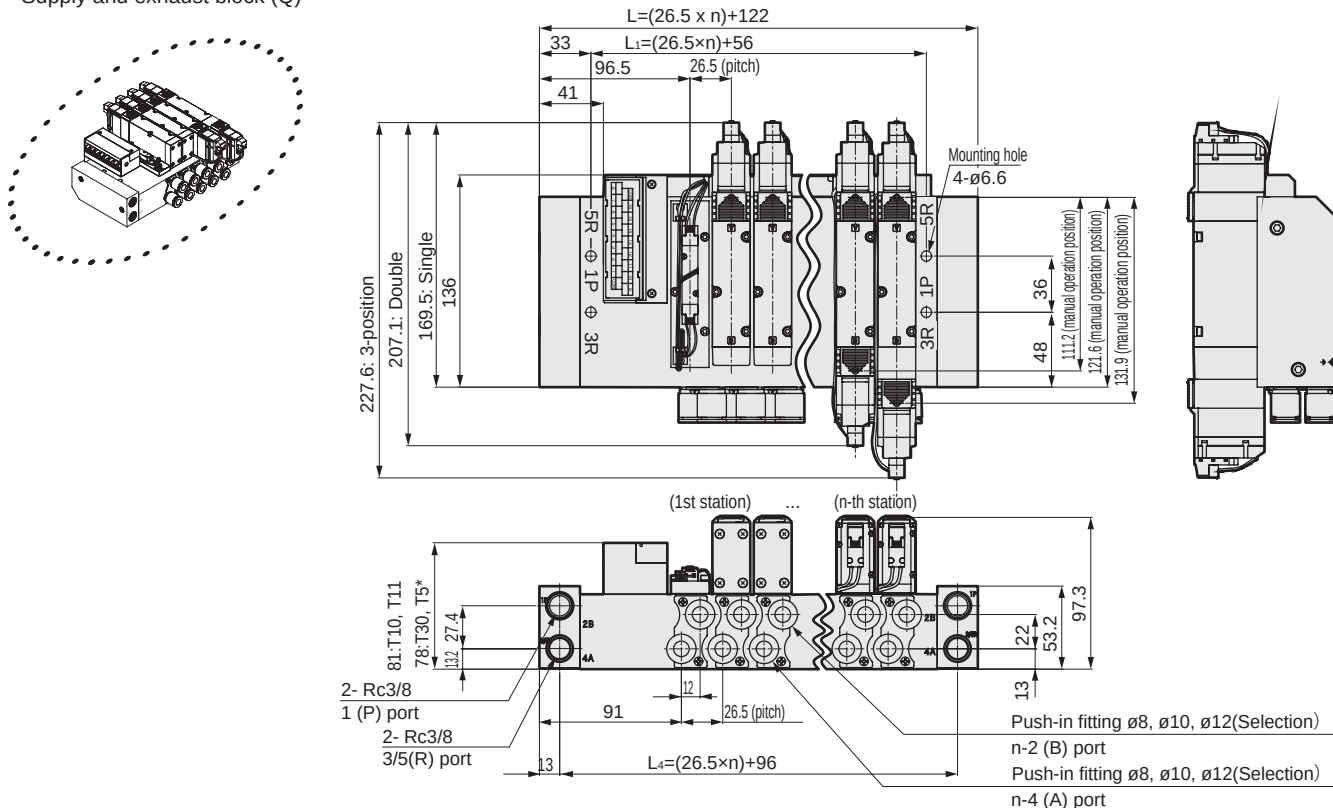
Station No.	2	3	4	5	6	7	8	9	10	11
L	138.5	167.5	196.5	225.5	254.5	283.5	312.5	341.5	370.5	399.5
L1	118.5	147.5	176.5	205.5	234.5	263.5	292.5	321.5	350.5	379.5

Dimensions

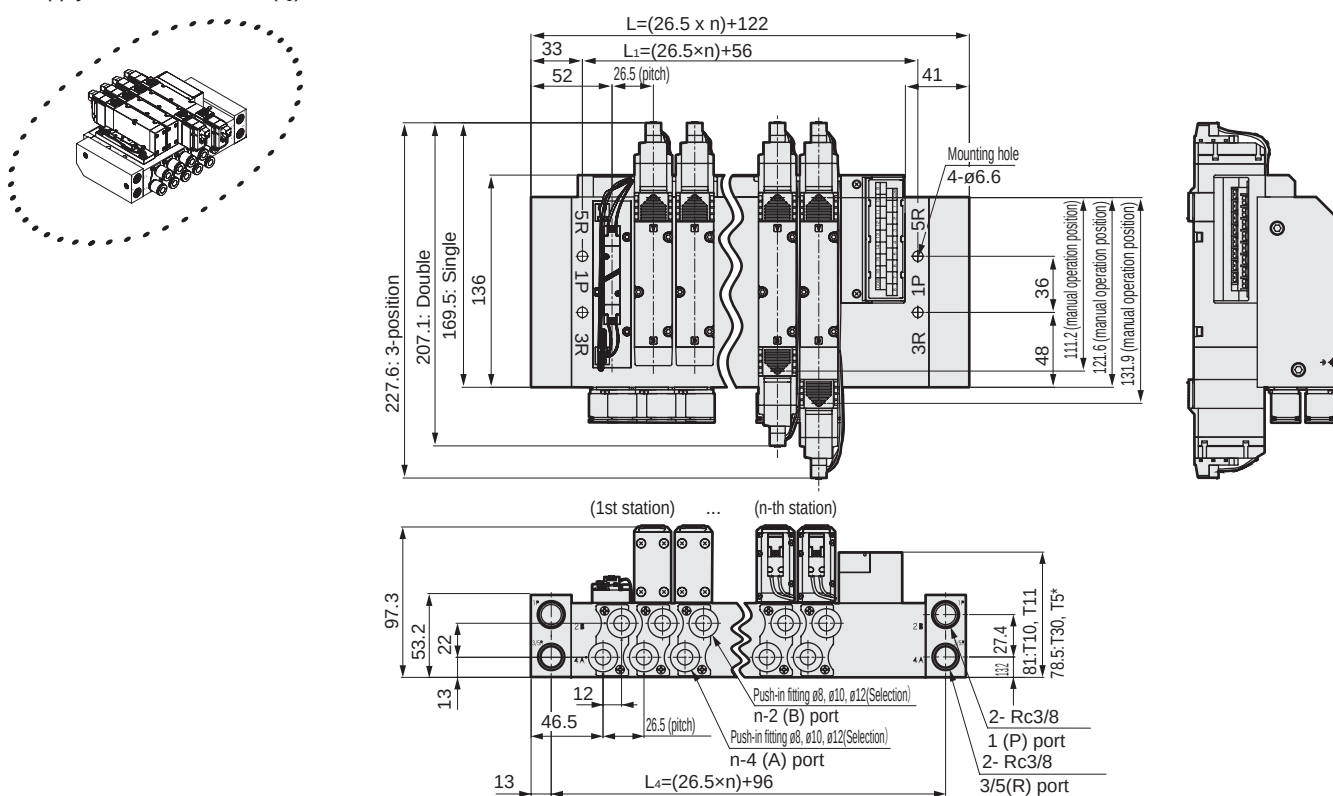
M4GB4

- Reduced wiring left side type (T10/T11/T30/T50/T51/T52/T53)
Supply and exhaust block (Q)

* Figure shows T10. Refer to pages 786 and 787 for detailed wiring block dimensions.



- Reduced wiring right side type (T10R/T11R/T30R/T50R/T51R/T52R/T53R)
Supply and exhaust block (Q)



Station No.	2	3	4	5	6	7	8	9	10	11
L	175	201.5	228	254.5	281	307.5	334	360.5	387	413.5
L ₁	109	135.5	162	188.5	215	241.5	268	294.5	321	347.5
L ₄	149	175.5	202	228.5	255	281.5	308	334.5	361	387.5

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

M4GB4-T* Series

Reduced wiring manifold; base piping

Dimensions

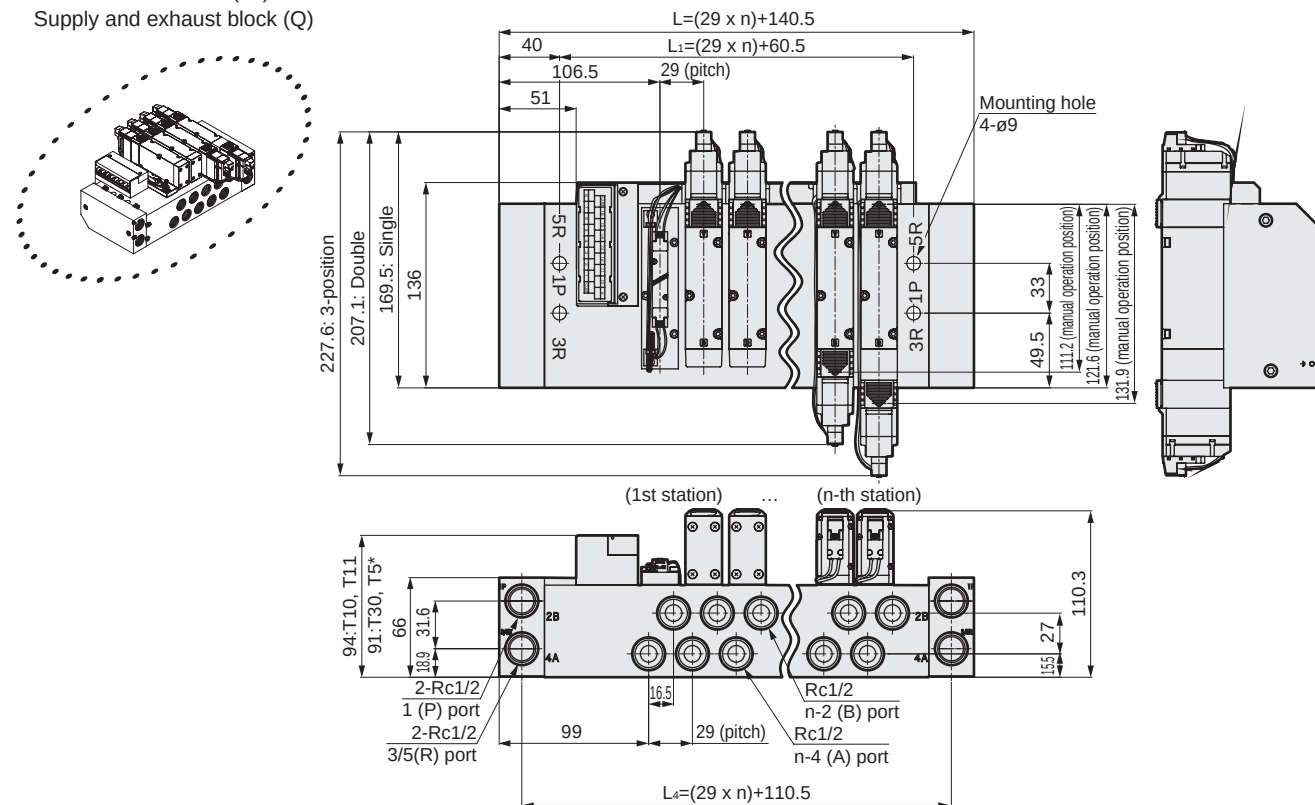
M4GB4

- Reduced wiring left side (T10/T11/T30/T50/T51/T52/T53)

Rc1/2 female thread (15)

Supply and exhaust block (Q)

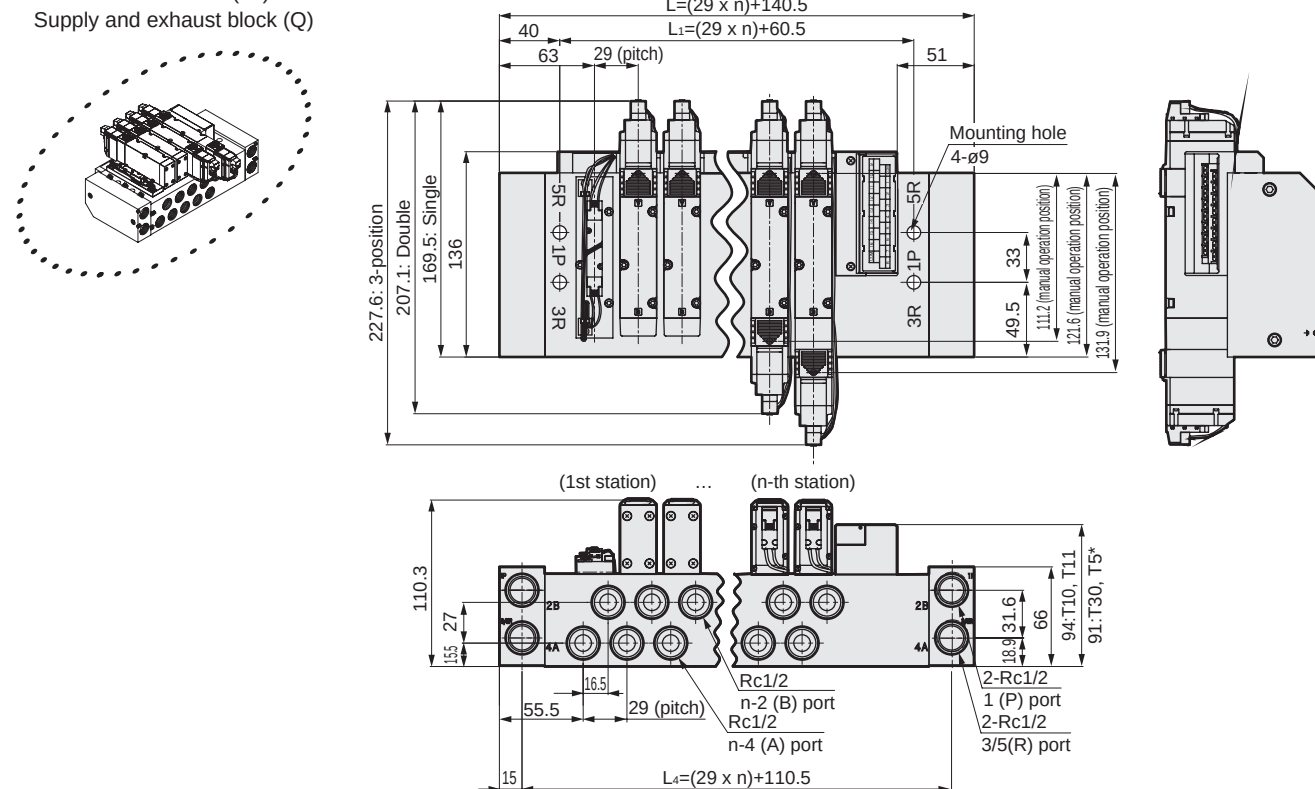
* Figure shows T10. Refer to pages 786 and 787 for detailed wiring block dimensions.



- Reduced wiring right side (T10R/T11R/T30R/T50R/T51R/T52R/T53R)

Rc1/2 female thread (15)

Supply and exhaust block (Q)



Station No.	2	3	4	5	6	7	8	9	10	11
L	198.5	227.5	256.5	285.5	314.5	343.5	372.5	401.5	430.5	459.5
L1	118.5	147.5	176.5	205.5	234.5	263.5	292.5	321.5	350.5	379.5
L4	168.5	197.5	226.5	255.5	284.5	313.5	342.5	371.5	400.5	429.5

M4GB4-T* Series

Reduced wiring manifold; base piping

Reduced wiring part: Dimensions

4GA/B

M4GA/B

MN4GA/B

4GA/B
(master)

4GB
With sensor

4GD/E

M4GD/E

MN4GD/E

4GA4/B4

MN3E

MN4E

W4GA/B2

W4GB4

MN3S0

MN4S0

4SA/B0

4KA/B

4KA/B
(master)

4F

4F
(master)

PV5G

GMF

PV5

GMF

PV5S-0

3Q

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP

NVP

4G*0EJ

4F*0EX

4F*0E

HMV

HSV

2QV

3QV

SKH

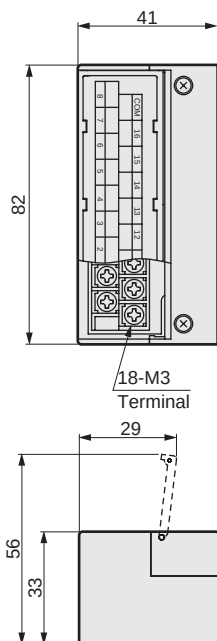
Silencer

TotAirSys
(Total Air)

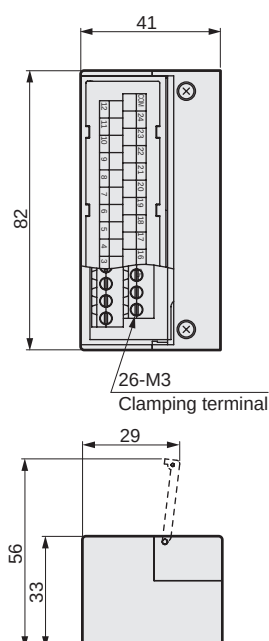
TotAirSys
(Gamma)

Ending

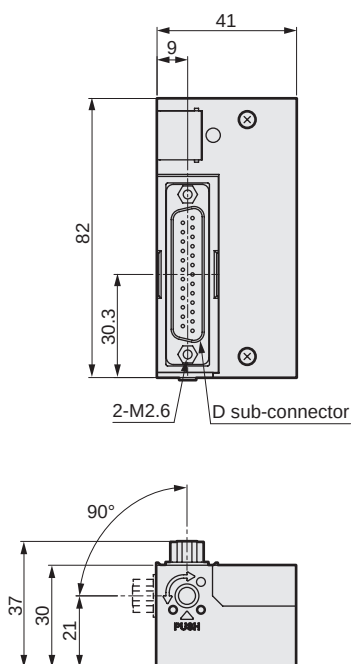
● Common terminal block (M3 thread)
T10



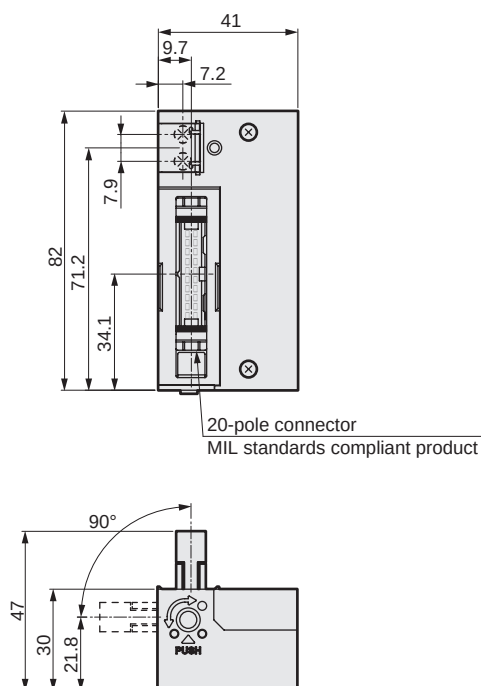
● Common terminal block (clamping)
T11



● D sub-connector
T30

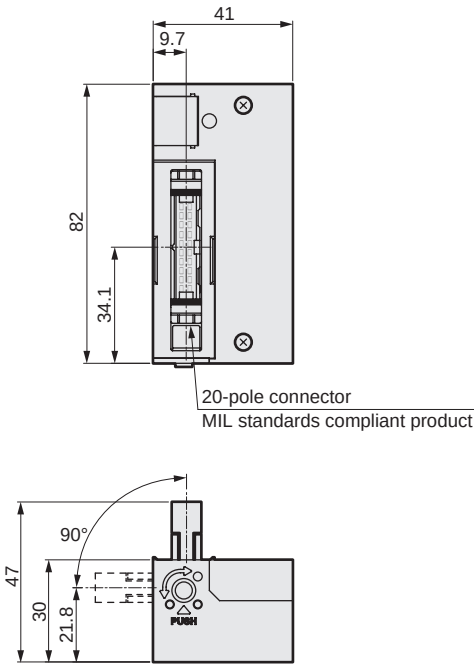


● 20-pin flat cable connector (with power supply terminal)
T50

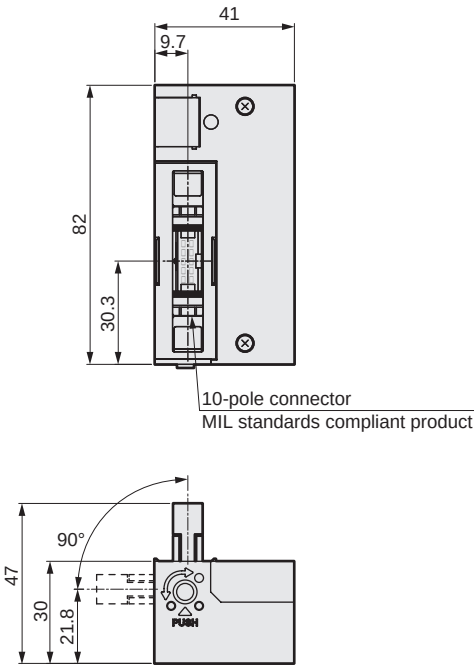


Reduced wiring part: Dimensions

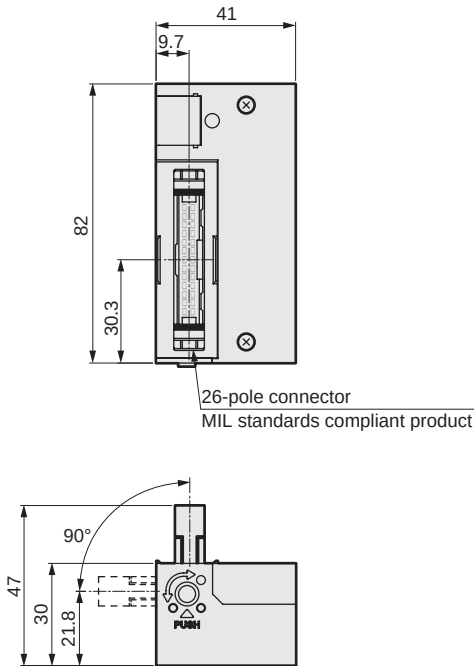
- 20-pin flat cable connector (without power supply terminal)
T51



- 10-pin flat cable connector (without power supply terminal)
T52



- 26-pin flat cable connector (without power supply terminal)
T53



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

Discontinue

Reduced wiring manifold (serial transmission)
Base piping
Direct mount

M4GB4-T6G1 Series

● Cylinder bore size: ø100 to ø140

RoHS

Manifold common specifications

Item		Description
Manifold		Serial transmission integrated base
Mounting method		Direct mount
Supply and exhaust method		Common supply/common exhaust
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		Lateral direction from base
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 °C		-5 (23°F) to 55 (131°F) (no freezing)
Fluid temperature °C		5 (41°F) to 55 (131°F)
Manual override		Non-locking/locking common type
Lubrication (*1)		Not required
Degree of protection (*2)		Dust-proof (IP40 equivalent)
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 water drops or oil, etc., during use.

*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

Item		Description
Rated voltage V	DC	24
Voltage fluctuation range		±10%
Holding current	A	0.042
Power consumption	W	1.0
Thermal class		B
Surge suppressor		Varistor
Indicator		LED

Individual specifications

Item		M4GB4		
		Direct mount		
Pilot operated		Standard (Internal pilot)		External pilot (*3)
Max. station No.		8 stations		
Port size	A/B port	Push-in fitting ø8, ø10, ø12 Rc1/4, Rc3/8 G1/4, G3/8 NPT1/4, NPT3/8	Rc1/2, G1/2, NPT1/2	Push-in fitting ø8, ø10, ø12 Rc1/4, Rc3/8, Rc1/2 G1/4, G3/8, G1/2 NPT1/4, NPT3/8, NPT1/2
	P/R1/R2 port	Rc3/8, G3/8, NPT3/8 (*1)	Rc1/2, G1/2, NPT1/2	(*2)
Manifold base		292n+1864	391n+2432	392n+2329
Weight calculation formula (n: station No.)		g		

For 5 and over manifold station No., use ports on both side for air supply and exhaust.
The manifold base weight is the value for screw specifications.

Dimensions of port sizes (P/R1/R2 port) Rc3/8 and Rc1/2 are different.

*1: Refer to the top figure on pages 792 and 794 for dimensions of port size Rc3/8.

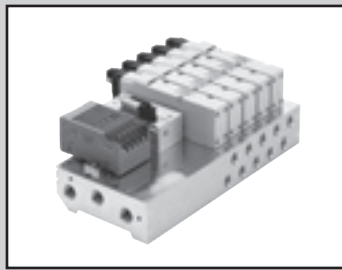
*2: Refer to the bottom figure on pages 792 and 794 for dimensions of port size Rc1/2.

*3: Refer to pages 793 and 795 for dimensions of the external pilot (option code: K).

Performance/characteristics by model

Item			M4GB4	
			ON	OFF
Response time ms	2-position	Single	40(40)	40(52)
		Double	40(52)	40(52)
	3-position	ABR connection	60(72)	60(72)

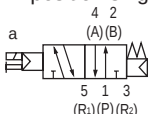
Values with lamp/surge suppressor are shown. The response times are values with working pressure of 0.5 MPa at 20°C, without lubrication. They depend on the pressure and the lubricant quality. Values in () are for AC.



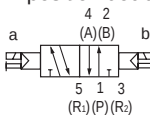
JIS symbol

● 5-port valve

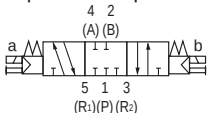
2-position single



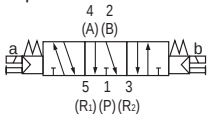
2-position double



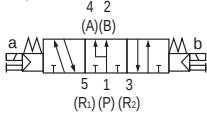
3-position all ports closed



3-position A/B/R connection



3-position P/A/B connection



Flow characteristics

Model No.	Port size P, R1, R2	Solenoid position		P→A/B		A/B→R1/R2	
				C[dm ³ /(s·bar)]	b	C[dm ³ /(s·bar)]	b
M4GB4	(*1) Rc3/8 G3/8 NPT3/8	2-position		6.4	0.42	6.9	0.12
		3-position	All ports closed	6.0	0.37	6.8	0.12
			ABR connection	6.1	0.38	7.1	0.15
			PAB connection	6.0	0.37	6.8	0.13
	(*2) Rc1/2 G1/2 NPT1/2	2-position		8.3	0.23	9.0	0.21
		3-position	All ports closed	7.4	0.15	8.8	0.19
			ABR connection	7.5	0.15	9.5	0.21
			PAB connection	7.7	0.21	8.7	0.18

Dimensions of port sizes (P/R1/R2 port) Rc3/8 and Rc1/2 are different.

*1 : Refer to the top figure on pages 792 and 794 for dimensions of port size Rc3/8.

*2 : Refer to the bottom figure on pages 792 and 794 for dimensions of port size Rc1/2.

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

Serial transmission device unit specifications

Item		T6G1
Network name		CC-Link ver1.10
Power supply voltage	Unit side	24 VDC ±10%
	Valve side	24 VDC +10%, -5%
	Communication side	-
Current consumption	Unit side	100 mA or less (when all output points are ON)
	Valve side	15 mA or less (when all output points are OFF)
	Communication side	-
Output points		16 points
Occupied number		1 station
Operation display		LED (power supply and communication status)

Coolant proof specifications

Can be selected with "How to order" Item ⑤ option "A" on page 790.

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**

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

M4GB4-T6G1 Series

Reduced wiring manifold; base piping; serial transmission

How to order

Manifold model No.

M **4GB4** **1** **0** - **10** - **T6G1** **W** **A** - **3** - **3**

Discrete valve for mounting base

4GB4 **1** **9** - **00** - **A2N** **A** - **3**

A Model No.

B Solenoid position

A2N indicates the A type (downward) connector, with lamp/surge suppressor and without lead wire.

H Voltage

C Port size

D Serial transmission
Zener diode is used as a surge suppressor.

E Terminal/connector pin array

F Option

G Station No.

⚠ Precautions for model No. selection

- *1 : Two types of bases are available.
Dimensions differ by bore size of the P/R1/R2 port.
- *2 : Refer to the top figure on pages 792 and 794 for dimensions of port size Rc3/8.
- *3 : Refer to the bottom figure on pages 792 and 794 for dimensions of port size Rc1/2.
- *4 : Refer to pages 793 and 795 for dimensions of the external pilot (K).
- *5 : P/R port is G thread.
- *6 : P/R port is NPT thread.
- *7 : Blank ... The wiring will be based on the type of valve used.
W All wired for double solenoid regardless of the type of valve used.
- *8 : When changing from a discrete valve for W wiring specifications to a double or 3-position valve, the A-connector socket assembly needs to be purchased separately.
- *9 : Consult with CKD when using a vacuum with the external pilot (K).
- *10 : Specify the spacer mounting position and quantity in manifold specifications sheet. Refer to pages 796 to 797 for details.
- *11 : Cannot be selected with discrete valve for integrated base.

* Be sure to fill in the "Manifold specifications sheet" (page 813).

A Model No.

4GB4

Code	Description	
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				
Port	A/B Port	P/R1/R2 port (*1)		
		Option: Other than K		Option: K
		Rc3/8 (*2)	Rc1/2 (*3)	Rc1/2 (*4)
C8	ø8 Push-in fitting	●		●
C10	ø10 Push-in fitting	●		●
C12	ø12 Push-in fitting	●		●
CX	Push-in fitting mix	●		●
08	Rc1/4	●		●
10	Rc3/8	●		●
15	Rc1/2		●	●
08G	G1/4	● (*5)		● (*5)
10G	G3/8	● (*5)		● (*5)
15G	G1/2		● (*5)	● (*5)
08N	NPT1/4	● (*6)		● (*6)
10N	NPT3/8	● (*6)		● (*6)
15N	NPT1/2		● (*6)	● (*6)

D Serial transmission (lamp/surge suppressor provided as standard)		
T6G1	CC-Link 16 points	●

E Terminal/connector pin array		
Blank	Standard wiring (*7)	●
W	Double wiring (*7) (*8)	●

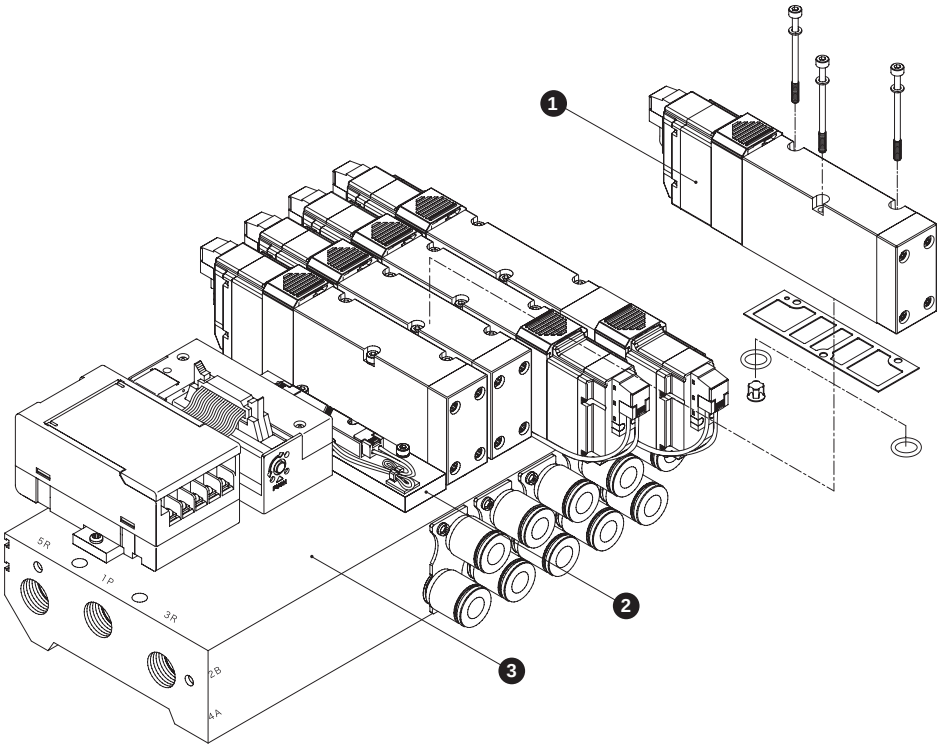
F Option		
Blank	None	●
K	External pilot (*4) (*9)	●
A	Coolant proof	●
F	A/B port filter integrated (P-port: Standard)	●
Z1	Air supply spacer (*10) (*11)	●
Z3	Exhaust spacer (*10) (*11)	●
Q	Supply and exhaust block (*11)	●

G Station No.		
2	2 stations	●
to	to	
8	8 stations	

H Voltage		
3	24 VDC	●

is not available.

Manifold components explanation and parts list



Main parts list

No.	Component name	Model No.	Content	Remarks		
1	Discrete valve for mounting base	4GB4□9-00-A2N □ Option - Voltage Solenoid position	Discrete valve Gasket Mounting screws 3 O-ring 2 Check valve 2 (1)			
					Size	Tightening torque (N·m)
				4GB4	M3	1.7
2	Masking plate	4GB4-MPC	Masking plate for reduced wiring Gasket Mounting screws 3 O-ring 2 Check valve 2			
3	Manifold base assembly	M4GB4-□ Port size -T6G1 □ Option - Station No.	Manifold base Wiring block			

() applies when 4GB419 is selected.

Parts list

No.	Part name	Model No.
-	A-connector socket assembly	4G4 - SOCKET - ASSY - A□□ - Row No. Blank: Left side, R: Right side A: aSOL side, B: bSOL side 2 to 8: Specify the position of the valve to be connected
-	Silencer	For Rc1/2: SLW-15A For Rc3/8: SLW-10A, SLW-10L
-	Cartridge push-in fitting and related parts	4G4-JOINT-C8 4G4-JOINT-C10 4G4-JOINT-C12

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

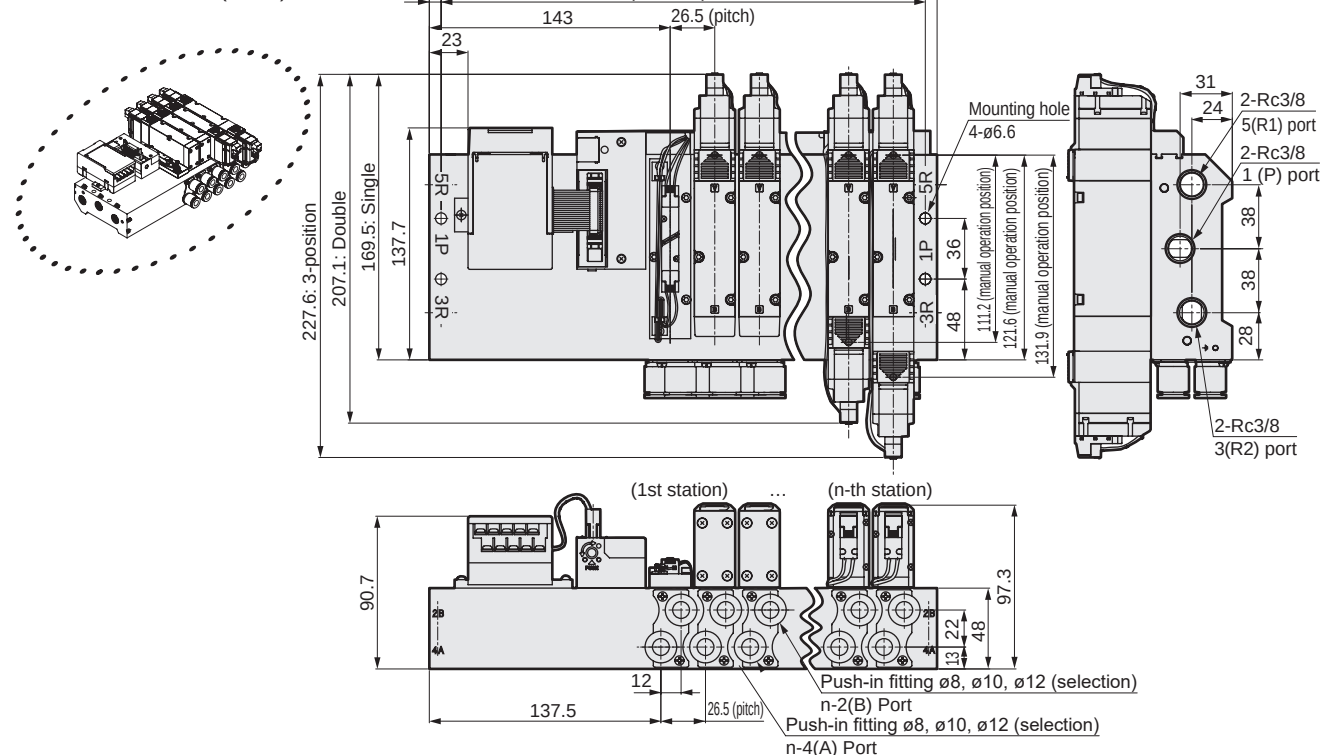
M4GB4-T6G1 Series

Reduced wiring manifold; base piping; serial transmission

Dimensions

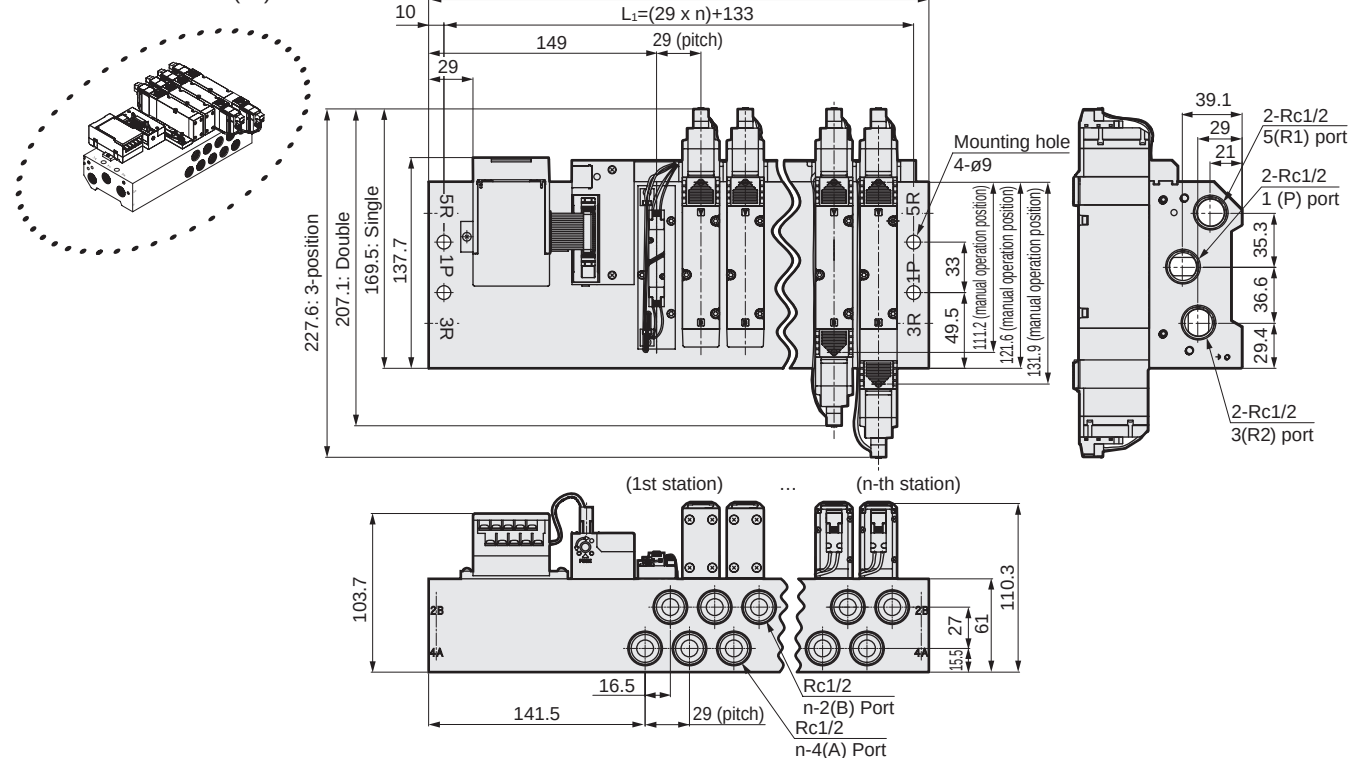
M4GB4

● Serial transmission (T6G1)



Station No.	2	3	4	5	6	7	8
L	195.5	222	248.5	275	301.5	328	354.5
L ₁	181.5	208	234.5	261	287.5	314	340.5

● Serial transmission (T6G1) Rc1/2 female thread (15)

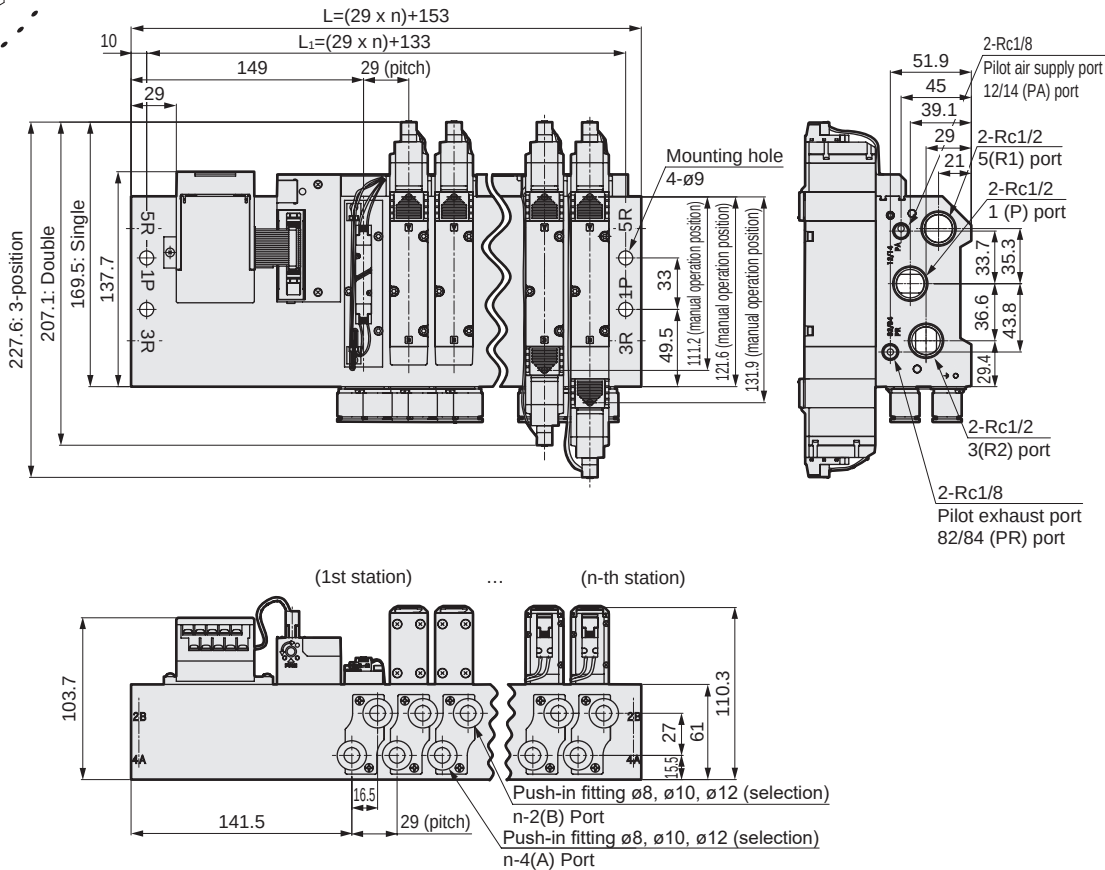
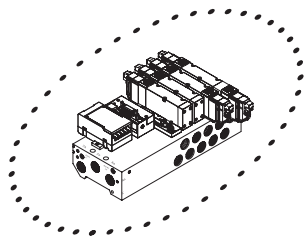


Station No.	2	3	4	5	6	7	8
L	211	240	269	298	327	356	385
L ₁	191	220	249	278	307	336	365

Dimensions

M4GB4

- Serial transmission (T6G1)
- External pilot (K)



Station No.	2	3	4	5	6	7	8
L	211	240	269	298	327	356	385
L ₁	191	220	249	278	307	336	365

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

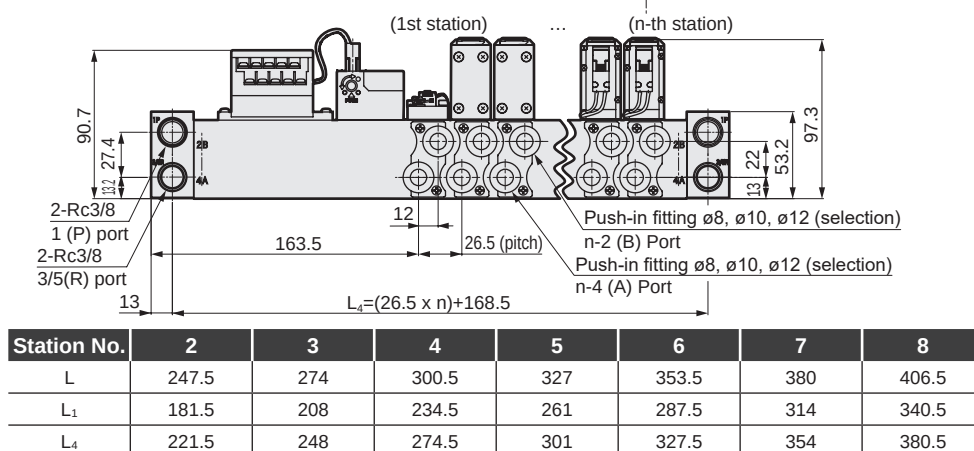
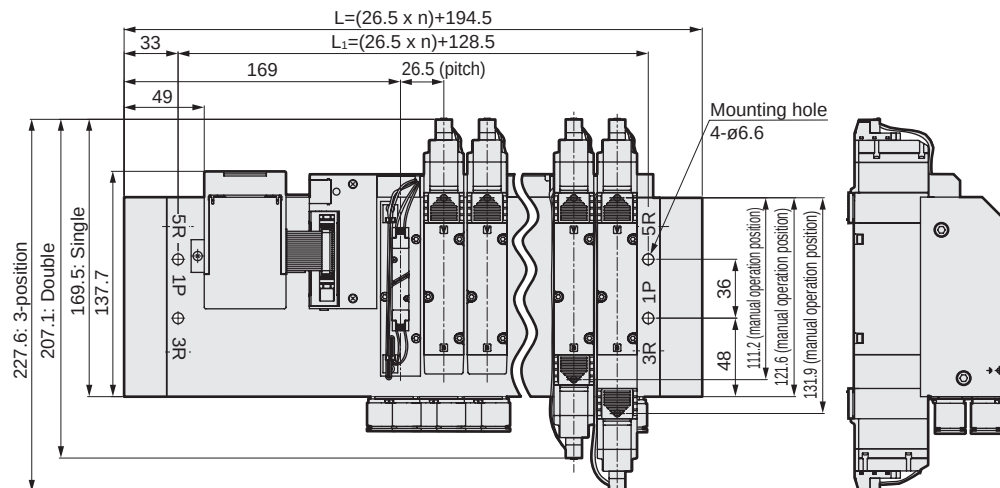
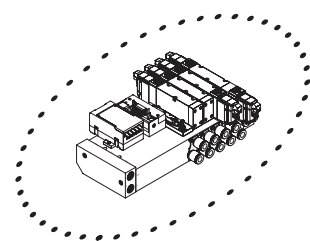
M4GB4-T6G1 Series

Reduced wiring manifold; base piping; serial transmission

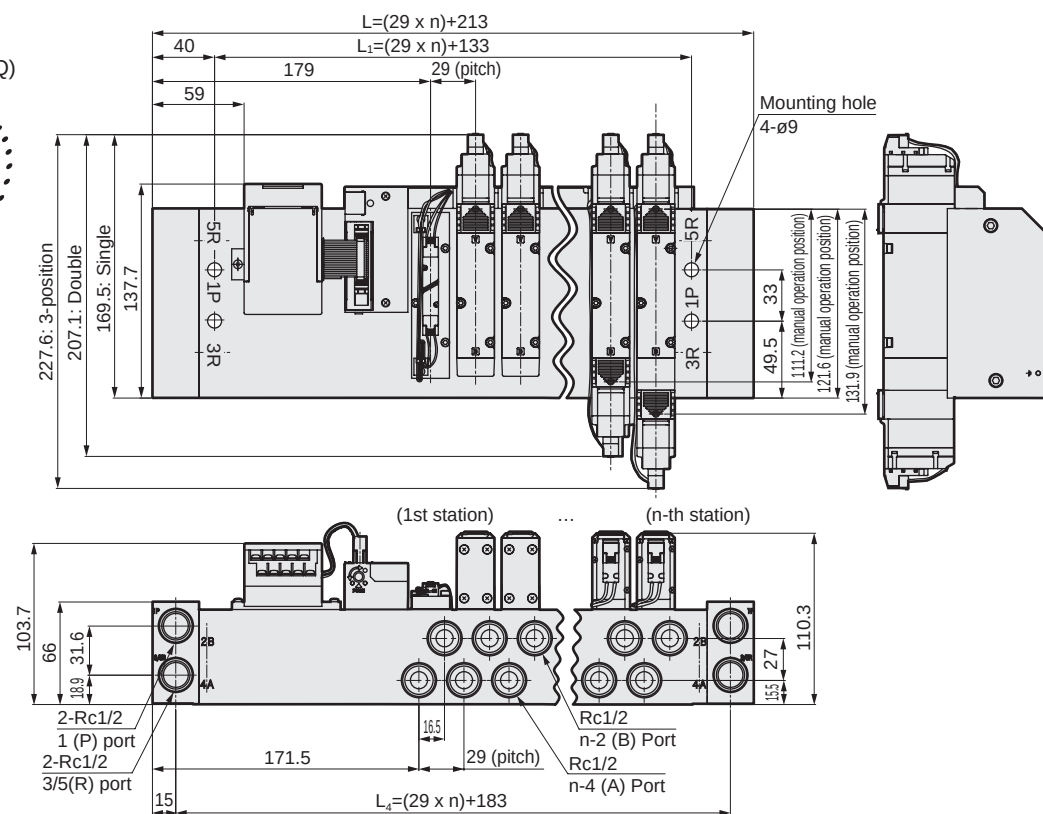
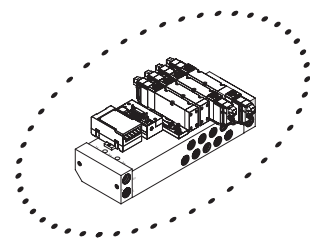
Dimensions

M4GB4

- Serial transmission (T6G1)
Supply and exhaust block (Q)



- Serial transmission (T6G1)
Rc1/2 female thread (15)
Supply and exhaust block (Q)

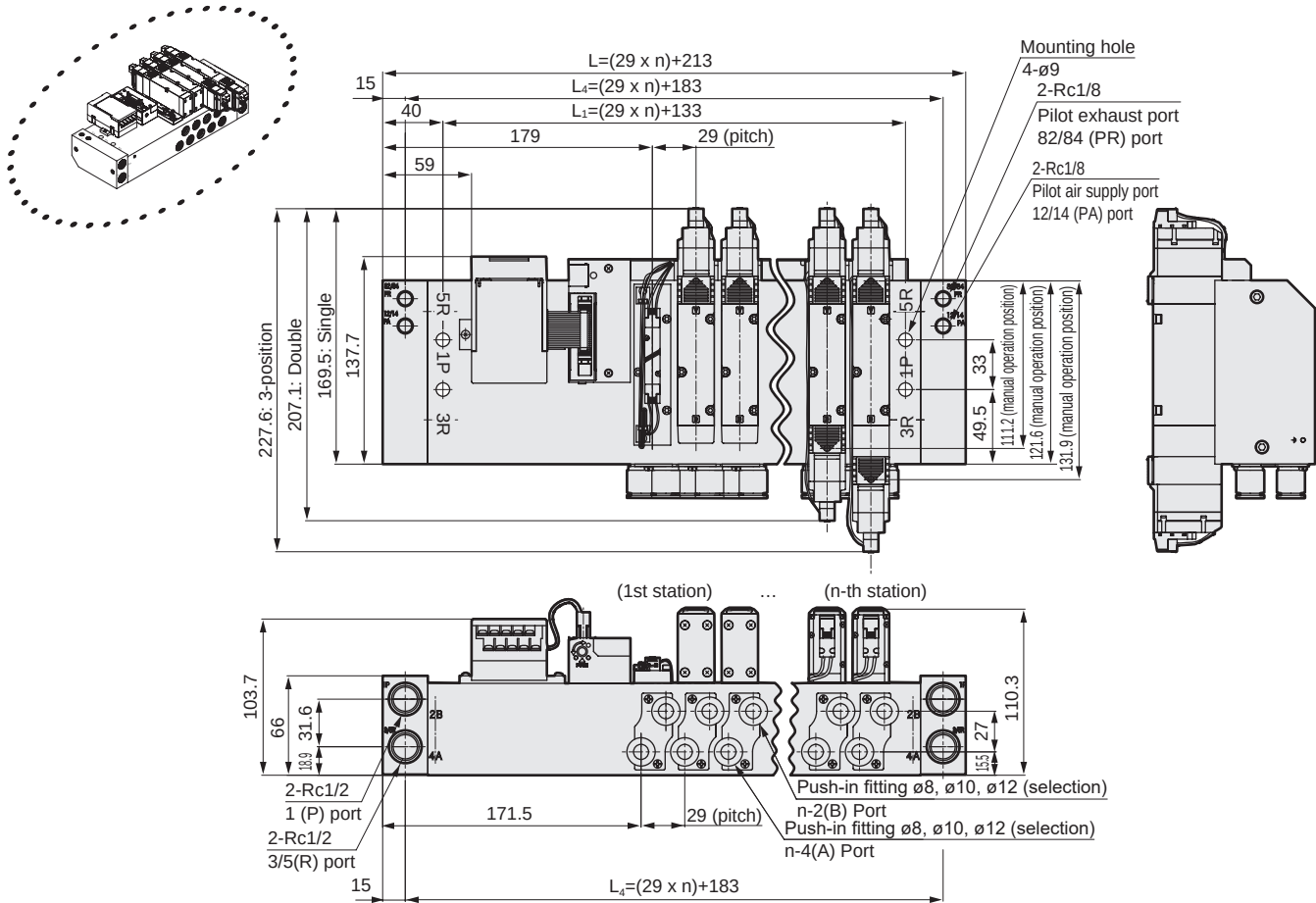


Station No.	2	3	4	5	6	7	8
L	271	300	329	358	387	416	445
L_1	191	220	249	278	307	336	365
L_4	241	270	299	328	357	386	415

Dimensions

M4GB4

- Serial transmission (T6G1)
- External pilot (K)
- Supply and exhaust block (Q)



Station No.	2	3	4	5	6	7	8
L	271	300	329	358	387	416	445
L ₁	191	220	249	278	307	336	365
L ₄	241	270	299	328	357	386	415

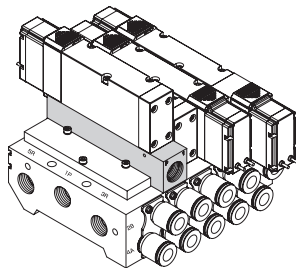
4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys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

M4GA4/M4GB4 Series

Related products

Related products

● Air supply spacer



Specifications

Item		4GA4	4GB4
Flow characteristics	P→A/B	6.4	5.6 (*2)
C[dm ³ /(s·bar)] (*1)	A/B→R	8.0	6.6 (*2)
Weight	g	208	198

*1: This is the value when a single solenoid is installed.

*2: This is the value when installing to a manifold base port size Rc3/8.

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

How to order discrete units

4GA4 - **P** - **10**

A Model No.

B Port size

A Valve model No.

Code	Description	4GA4	4GB4
B Port size			
10	Rc3/8	●	●
10G	G3/8	●	●
10N	NPT3/8	●	●

Attachments: 3 mounting screws, 2 O-rings, 1 body gasket

⚠ Precautions for model No. selection

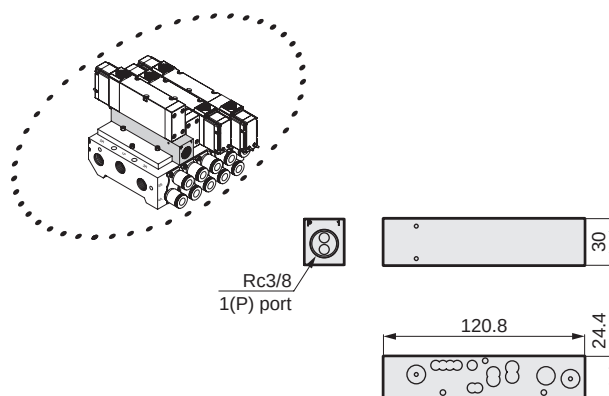
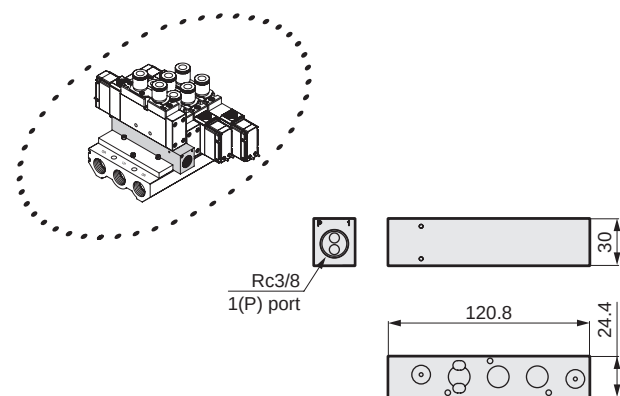
*1: Specify the air supply spacer mounting position and quantity in manifold specifications sheet of each catalog.

*2: Combination with the masking plate is not supported.

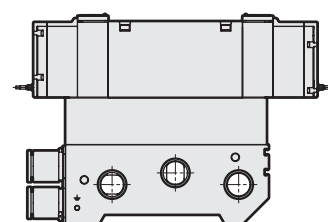
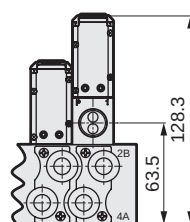
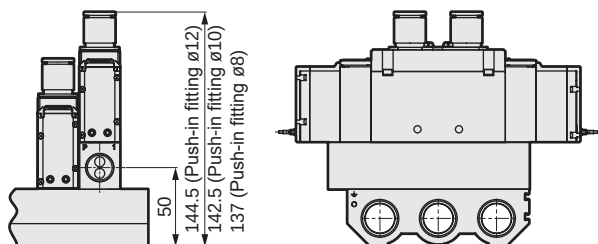
Dimensions

● 4GA4

● 4GB4

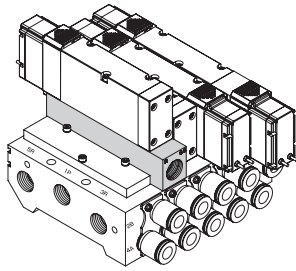


Dimensions when mounted



Related products

● Exhaust spacer



Specifications

Item		4GA4	4GB4
Flow characteristics	P→A/B	6.3	5.4 (*2)
C[dm ³ /(s·bar)] (*1)	A/B→R	6.9	5.7 (*2)
Weight	g	206	197

*1: This is the value when a single solenoid is installed.

*2: This is the value when installing to a manifold base port size Rc3/8.

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

How to order discrete units

4GA4 - R - 10

A Model No.

B Port size

A Valve model No.

4GA4

4GB4

Code	Description		
B Port size			
10	Rc3/8	●	●
10G	G3/8	●	●
10N	NPT3/8	●	●

Attachments: Mounting screw 3, O-ring 2, body gasket 1

⚠ Precautions for model No. selection

*1: Specify the air supply spacer mounting position and quantity in manifold specifications sheet of each catalog.

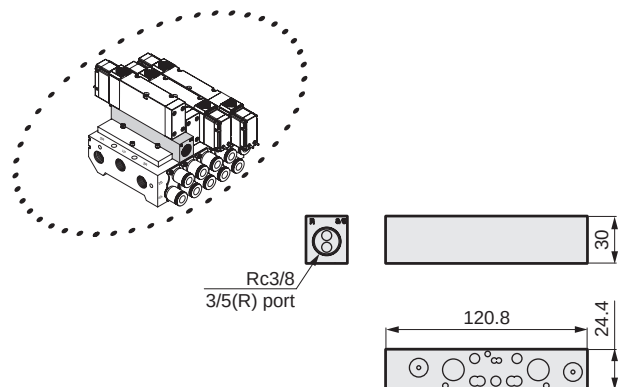
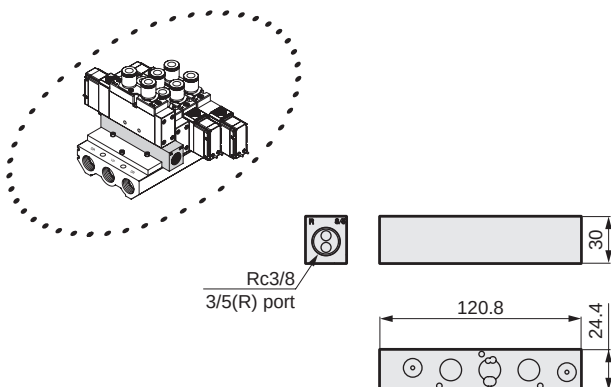
*2: Combination with the masking plate is not supported.

*3: When mounting an exhaust spacer on the type A or type B manifold (P-port Rc3/8 specifications), connect a push-in fitting.

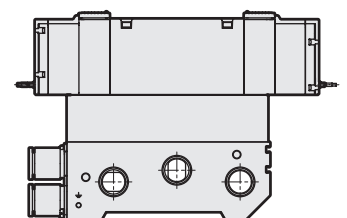
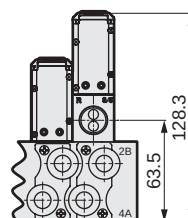
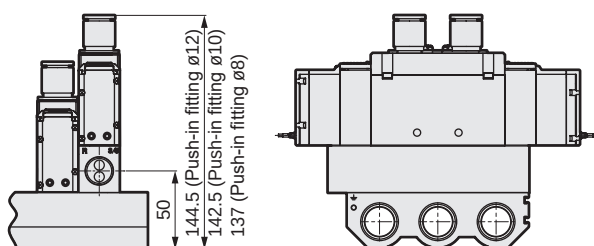
Dimensions

● 4GA4

● 4GB4



Dimensions when mounted



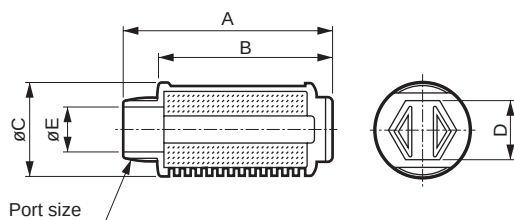
M4GA4/M4GB4 Series

Related products

Related products

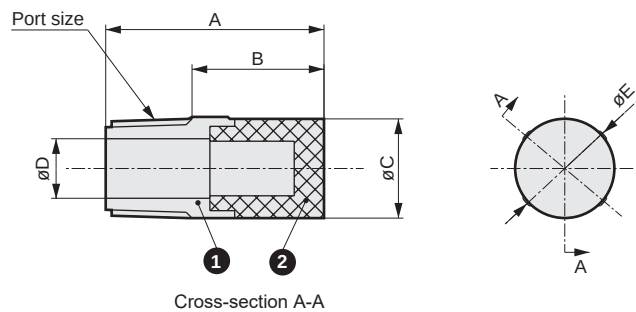
● Silencer

● SLW- □ A, □ L



Code	Noise reduction effect dB(A)	Eff. X-sectional area mm ²	Port size	A	B	C	D	E
Model No.								
SLW-6A	30 or more	10	R1/8	34.5	28	16.5	10	7
SLW-10A	30 or more	30	R3/8	58.5	48.5	25.5	17	12
SLW-10L	30 or more	60	R3/8	68.2	58.4	28	19	12
SLW-15A	30 or more	75	R1/2	71.4	58.4	28	19	15

● SLW-6S



Model No.	Port size	A	B	C	D	E
SLW-6S	R1/8	22	13.3	10.5	6	10.5

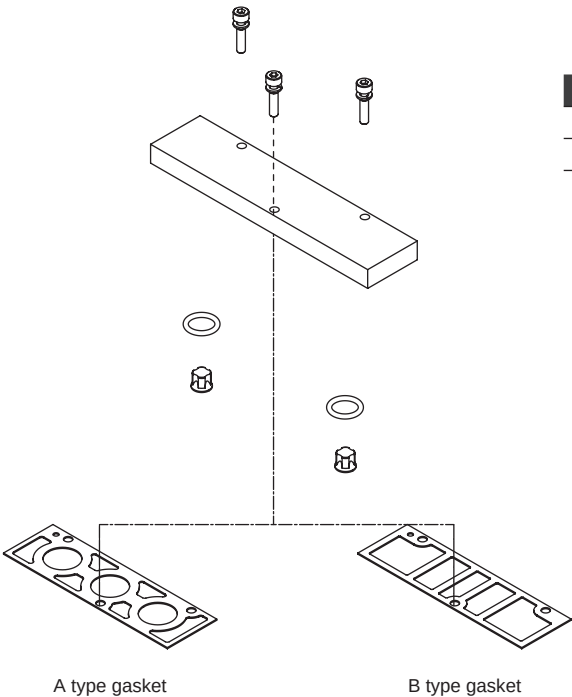
* When mounting the silencer, check the dimensions in advance.

● Plug

Part name	Model No.	Compatible bore size	Appearance
Blank plug	GWP8-B	ø8	
	GWP10-B	ø10	
	GWP12-B	ø12	
Thread plug	4G4-8P	Rc1/4	
	4G4-10P	Rc3/8	
	4G4-15P	Rc1/2	
	4G4-8NP	NPT1/4	
	4G4-10NP	NPT3/8	
	4G4-15NP	NPT1/2	
	4G4-8GP	G1/4	
	4G4-10GP	G3/8	
	4G4-15GP	G1/2	

Related products

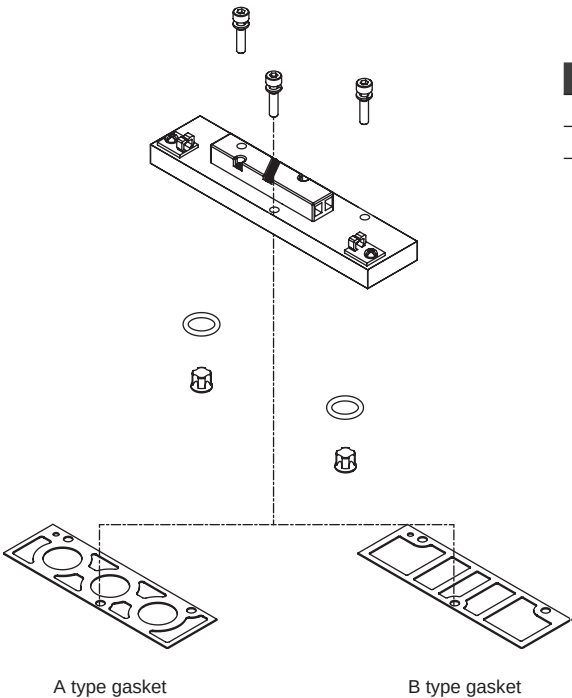
● Masking plate kit (individual wiring)



Model	Part model No.
4GA4	4GA4-MP
4GB4	4GB4-MP

* Kit contents: masking plate, gasket (select from A type or B type), mounting screw 3, O-ring 2, check valve 2

● Masking plate kit (reduced wiring)



Model	Part model No.
4GA4	4GA4-MPC
4GB4	4GB4-MPC

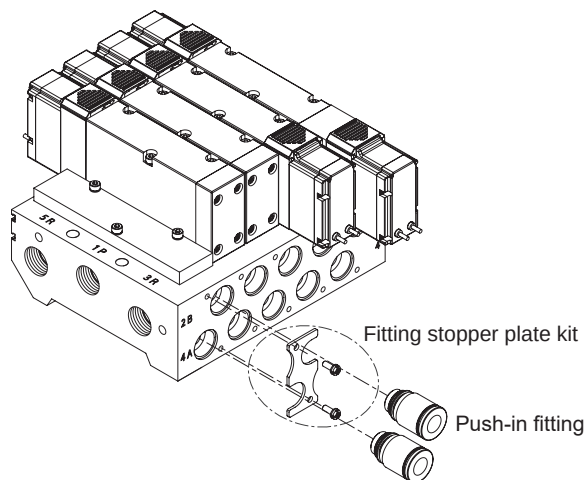
* Kit contents: masking plate, gasket (select from A type or B type), mounting screw 3, O-ring 2, check valve 2

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

4GA4/4GB4 Series

Parts list

(1) Cartridge push-in fitting and single related parts (1)



(1)-1 Push-in fitting model No.

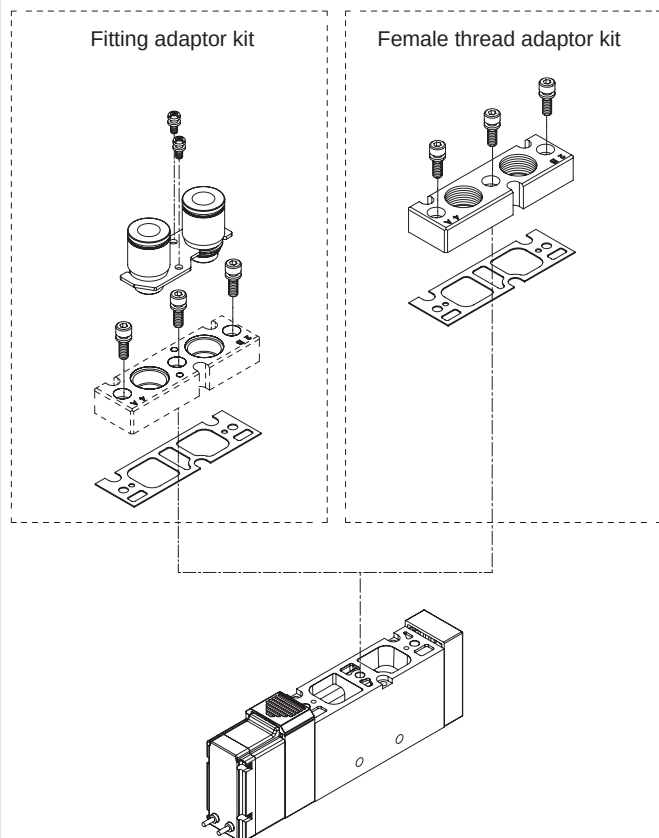
Model	Part name	Model No.
4G4	ø8 straight	4G4-JOINT-C8
	ø10 straight	4G4-JOINT-C10
	ø12 straight	4G4-JOINT-C12

(1)-2 Fitting stopper plate kit

Model	Kit model No.
4GA4	4GA4-JNT-STP-PLATE-KIT
4GB4	4GB4-JNT-STP-PLATE-KIT-1 (*1)
	4GB4-JNT-STP-PLATE-KIT-2 (*1)

*1: When the manifold P/R port is Rc3/8, NPT3/8, or G3/8, select "-1".
When the manifold P/R port is Rc1/2, NPT1/2, or G1/2, select "-2".

(2) Adaptor related kit



Fitting adaptor kit

Model	Part name	Kit model No.	Set parts
4GA4	ø8 fitting Adaptor kit	4GA4 - JNT - ADAPTOR - KIT - C8 - option	Fitting adaptor 2 Push-in fittings Fitting stopper plate Gasket 2 Set screws 3 Adaptor set screws
	ø10 fitting Adaptor kit	4GA4 - JNT - ADAPTOR - KIT - C10 - option	
	ø12 fitting Adaptor kit	4GA4 - JNT - ADAPTOR - KIT - C12 - option	

Specify the "F" when using the A/B port filter integrated.

Female thread adaptor kit

Model	Kit model No.	Set parts
4GA4	4GA4 - FML - ADAPTOR - KIT - port size - option	Female thread adaptor, gasket, 3 adaptor set screws

Specify the "F" when using the A/B port filter integrated.

Parts list

(3) Manifold sub-plate kit individual wiring

● 4GB4 sub-plate

4G4 - **SUB** - **BASE** - **Port size** - **Option**
(*1)

A Option

Code	Description
A Option	
Blank	
K	External pilot
F	P/A/B port filter integrated

*1: Select from C Port size on page 718.

(4) Manifold sub-plate kit individual wiring

● M4GA4 sub-plate

M4GA4 - **00** - **2**

A Port size

B Option

C Station No.

Code	Description
A Port size	
00	Rc thread
00N	NPT thread
00G	G thread
B Option	
Blank	
K	External pilot
Q	Supply and exhaust block
C Station No.	
2	2 stations
to	to
15	Refer to the specifications on page 728 for the max. station number.

● M4GB4 sub-plate: Direct mount

M4GB4 - **Port size** - **2**
(*1)

A Option

B Station No.

Code	Description
A Option	
Blank	
K	External pilot
F	A/B port filter built in
Q	Supply and exhaust block
B Station No.	
2	2 stations
to	to
15	Refer to the specifications on page 742 for the max. station number.

*1: Select from C Port size on page 744.
Note that "CX" cannot be selected.

● M4GB4 sub-plate: DIN rail mount

M4GB4 - **Port size** - **QD** - **2**
(*1)

A Option

B Station No.

Code	Description
A Option	
Blank	
F	A/B port filter built in
B Station No.	
2	2 stations
to	to
5	5 stations

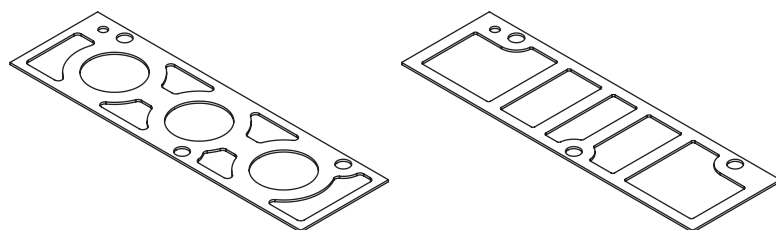
*1: Select from C Port size on page 744.
Note that "CX" cannot be selected.

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

4GA4/4GB4 Series

Parts list

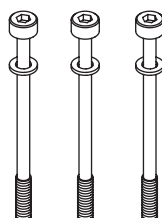
(5) Manifold related parts



Gasket (4GA4)

Gasket (4GB4)

PR check valve kit

Mounting screw
[for solenoid valve installation]

Gasket

Model	Part model No.
4GA4	4GA4-GASKET
4GB4	4GB4-GASKET

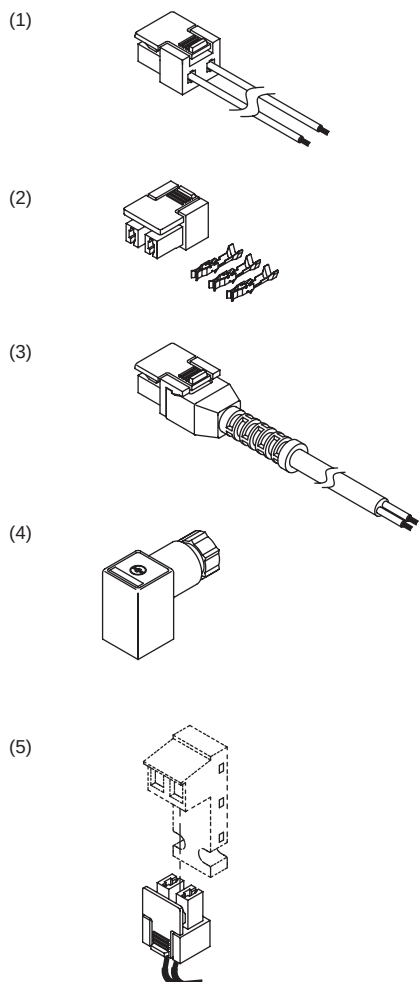
PR check valve kit (2 per set)

Kit model No.
4G4-PR

Mounting screw [for solenoid valve installation] (10 per set)

Part model No.
4G4-SET-SCREW

(6) Lead wire related parts



(1)E-connector socket assembly

Part model No.
4GR-SOCKET-ASSY-[*1]-[*2] Lead wire 300mm
4GR-SOCKET-ASSY-[*1]-[*2] Lead wire 500mm
4GR-SOCKET-ASSY-[*1]-[*2] Lead wire 1000mm
4GR-SOCKET-ASSY-[*1]-[*2] Lead wire 2000mm
4GR-SOCKET-ASSY-[*1]-[*2] Lead wire 3000mm

*1 Electrical connections (E0, E00, E01, E02, E03, E2, E20, E21, E22, E23)

*2 Voltage ("3","4", or 24 VDC/12 VDC with red/black lead wire, or "1","5", or 100 VAC/110 VAC with blue lead wire.)

(2)Socket set

Part model No.
4GR-SOCKET-SET

(3)EJ-connector socket assembly

Part model No.
4GR-SOCKET-ASSY-[*1]

*1 Electrical connections (E01J, E02J, E03J, E21J, E22J, E23J)

(4)DIN terminal box

Basic price model No.
4G-TERMINAL-BOX-[*2]

*2 Voltage (1=100 VAC, 3=24 VDC, 4=12 VDC, 5=110 VAC)

(5)A-connector socket assembly

Part model No.
4G4 - SOCKET - ASSY - A** - row No.

MEMO

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

4GA4/4GB4 Series

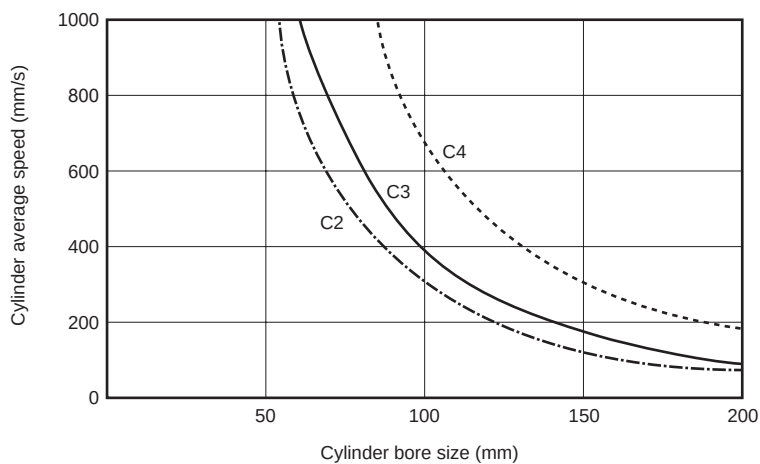
Technical data ① Pneumatic system selection guide

Technical data ① Pneumatic system selection guide

- (1) The cylinder average speed is obtained from the combination of 4G4 series and piping system. It is expressed as the cylinder's piston speed calculated by dividing the stroke length by the time that the piston rod takes from start to end of movement with the cylinder rod installed facing upward. When the load factor is 50%, the average speed should be approximately the cylinder's piston speed multiplied by 0.5.
- (2) The cylinder average speed described in "Pneumatic system device selection guide" is that when one cylinder is operated alone.
- (3) The effective cross-sectional area of the solenoid valve used for the calculation below is the 2-position value.
- (4) This selection guide is for reference. With the CKD sizing program, confirm conditions to be actually used.
- (5) Effective cross-sectional area S and sonic conductance C are converted as $S \approx 5.0 \times C$.

Standard system table

Valve	System No.	Speed controller	Silencer	Piping	Composite effective cross-sectional area (mm ²) pipe length 1 m
4GA410	C2	SC1-10	SLW-8A	ø10xø7.2	12.3
4GB410	C3	SC1-10	SLW-10A	Rc3/8 steel pipe	15.9
	C4	SC1-15	SLW-15A	Rc1/2 steel pipe	24.8



How to use the guide

Device selection guide is used to select the optimum model at a glance.

● Fluid control components selection

Whether the cylinder bore size and cylinder being used are driven with relative high or low speed is determined as a condition. Using the table shown below as a reference, select the theoretical reference speed of the cylinder.

Degree of cylinder speed	Theoretical reference speed (mm/s)
Low speed	250
Medium speed	500
High speed	750
Ultra high speed	1,000

Using the table in the device selection guide 1 (next page), select the equivalent bore size of cylinder tube and the proper standard system No. corresponding to theoretical reference speed.

Explanation of technical terms

- Theoretical reference speed: indicates degree of cylinder speed, expressed as the following formula. (This value matches speed with no load. When load is applied, speed drops considerably.)

$$v_o = 1920 \times \frac{S}{A} = 2445 \times \frac{S}{D^2} \quad (1)$$

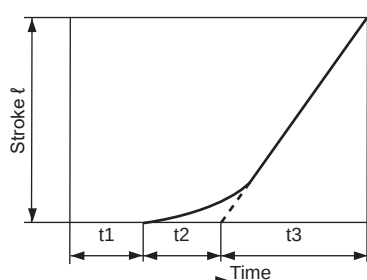
v_o : Theoretical reference speed (mm/s)

A : Cylinder sectional area (cm²)

S : Composite effective cross-sectional area of circuit (exhaust air side) (mm²)

D : Cylinder bore size (cm)

When expressed as a graph, the theoretical reference speed is the speed within the range where the cylinder moves at a uniform speed:



$$v_o = \frac{l}{t_3} \text{ (A/s)}$$

t_1 : Time until movement starts

t_2 : Time of primary delay

t_3 : Operating time with constant velocity

l : Stroke length

- Note: t_1 and t_2 differ depending on load.
Can be effectively ignored with no load.

- Required flow rate: indicates instantaneous flow rate for operating a cylinder with velocity v_o , expressed with the following formula. Values in the table are when $P = 0.5$ MPa. The required flow rate is a value necessary to select clean air system components.

$$Q = \frac{A v_o (P + 0.101) \times 60}{0.101 \times 10^4} = \left\{ \frac{A v_o (P + 1.03) \times 60}{1.03 \times 10^4} \right\} \quad (2)$$

Q : Required flow rate (ℓ/min)(ANR)

P : Supply pressure (MPa)

- Required effective sectional area: indicates composite effective cross sectional area for the exhaust circuit required for moving the cylinder at speed v_o . (Composite effective sectional area of valve, speed controller, silencer or piping) Effective cross-sectional area S and sonic conductance C are converted as $S \approx 5.0 \times C$.
- Proper standard system: indicates the most appropriate combination of valve, speed controller, silencer and bore size for operating a cylinder with velocity v_o . The combination in the table is for a pipe length of 1 m.

Calculation method of flow rate

Depending on the actual unit, they are shown as follows.

Choked flow when $\frac{P_2 + 0.1}{P_1 + 0.1} \leq b$

$$Q = 600 \times C (P_1 + 0.1) \sqrt{\frac{293}{273 + t}} \quad (1)$$

Subsonic flow when $\frac{P_2 + 0.1}{P_1 + 0.1} > b$

$$Q = 600 \times C (P_1 + 0.1) \sqrt{1 - \left[\frac{\frac{P_2 + 0.1}{P_1 + 0.1} - b}{1 - b} \right]^2} \sqrt{\frac{293}{273 + t}} \quad (2)$$

Q : Air flow rate [dm³/min(ANR)], SI unit dm³ (cubic decimeter) can also be expressed with ℓ (liter). 1 dm³ = 1 ℓ
 C : Sonic conductance [dm³/(s·bar)]
 b : Critical pressure ratio [-]
 P_1 : Upstream pressure [MPa]
 P_2 : Downstream pressure [MPa]
 t : Temperature (°C)

When calculating with effective cross-sectional area S , substitute value C obtained with $C = S/5$ in the above formula.

For subsonic flow, substitute $b = 0.5$ in formula (2).

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

4GA4/4GB4 Series

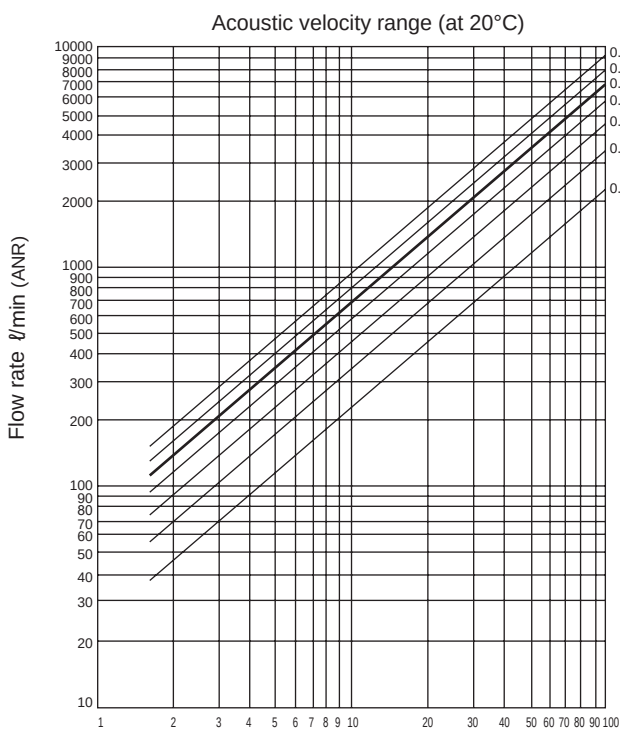
Technical data ① Pneumatic system selection guide

[Device selection guide 1]

	Cylinder bore size (mm)	Theoretical reference speed (mm/s)	Required flow rate (ℓ/min)(ANR)	Required effective sectional area (mm ²)	System No.
					Exhaust with silencer
4GA/B	ø50	250	175	2.6	A
M4GA/B		500	350	5.1	B
MN4GA/B		750	526	7.7	C1
4GA/B (master)		1000	701	10.2	C2
4GB With sensor	ø63	250	278	4.1	B
4GD/E		500	556	8.1	C2
M4GD/E		750	834	12.2	C2
MN4GD/E		1000	1112	16.2	C3
4GA4/B4	ø80	250	448	6.5	C1
MN3E MN4E		500	897	13.1	C2
		750	1345	19.6	C3
		1000	1794	26.2	C4
	ø100	250	701	10.2	C2
		500	1401	20.4	C3
		750	2102	30.7	C4
		1000	2803	40.9	D1
	ø125	250	1095	16.0	C3
		500	1401	31.9	C4
		750	2102	47.9	D1
		1000	2803	63.9	D2
	ø140	250	1373	20.0	C3
		500	2747	40.1	D1
		750	4120	60.1	D1
		1000	5493	80.1	D3
	ø160	250	1794	26.2	C4
		500	3587	52.3	D1
		750	5381	78.5	D3
		1000	7175	104.7	D3

* Refer to page 804 for system No.

[Effective cross-sectional area]



(When the value of the effective cross-sectional area is $\times 10^{-1}$ or $\times 10^0$)
multiply the value of flow rate by the same value.)

[Clean air system components]

Clean air system components

Part name	Model No.	Port size	Max. flow rate (ℓ/min atmospheric pressure conversion)	Part name	Model No.	Port size	Max. flow rate (ℓ/min atmospheric pressure conversion)
F/R/L kit	C1000-6-W	Rc1/8	450	Regulator (R)	R1000-6-W	Rc1/8	770
	C1000-8-W	Rc1/4	630		R1000-8-W	Rc1/4	1350
	C3000-8-W	Rc1/4	1280		R3000-8-W	Rc1/4	2000
	C3000-10-W	Rc3/8	1750		R3000-10-W	Rc3/8	2600
	C4000-8-W	Rc1/4	1430		R4000-8-W	Rc1/4	2500
	C4000-10-W	Rc3/8	2400		R4000-10-W	Rc3/8	4400
	C4000-15-W	Rc1/2	3000		R4000-15-W	Rc1/2	5000
	C6500-20-W	Rc3/4	4500		R6000-20-W	Rc3/4	7000
	C6500-25-W	Rc1	5000		R6000-25-W	Rc1	7700
	C8000-20-W	Rc3/4	7000		R8000-20-W	Rc3/4	14000
	C8000-25-W	Rc1	7500		R8000-25-W	Rc1	11000
	W1000-6-W	Rc1/8	800	Lubricator (L)	L1000-6-W	Rc1/8	550
	W1000-8-W	Rc1/4	1150		L1000-8-W	Rc1/4	700
	W3000-8-W	Rc1/4	2150		L3000-8-W	Rc1/4	1100
	W3000-10-W	Rc3/8	2430		L3000-10-W	Rc3/8	2250
	W4000-8-W	Rc1/4	2500		L4000-8-W	Rc1/4	1000
	W4000-10-W	Rc3/8	4350		L4000-10-W	Rc3/8	1700
	W4000-15-W	Rc1/2	4750		L4000-15-W	Rc1/2	2700
	W8000-20-W	Rc3/4	10000		L8000-20-W	Rc3/4	6300
	W8000-25-W	Rc1	10000		L8000-25-W	Rc1	10000
Air filter (F)	F1000-6-W	Rc1/8	460	* Note) Max. flow rate: For FRL, FR and R, flow rate at 0.7 MPa primary pressure, 0.5 MPa set pressure, 0.1 MPa pressure drop. For air filter, flow rate at 0.7 MPa primary pressure, 0.02 MPa pressure drop. For lubricator, flow rate at 0.5 MPa primary pressure, 0.03 MPa pressure drop.			
	F1000-8-W	Rc1/4	610				
	F3000-8-W	Rc1/4	1230				
	F3000-10-W	Rc3/8	1500				
	F4000-8-W	Rc1/4	1320				
	F4000-10-W	Rc3/8	2140				
	F4000-15-W	Rc1/2	3000				
	F6000-20-W	Rc3/4	5600				
	F6000-25-W	Rc1	6200				
	F8000-20-W	Rc3/4	6400				
	F8000-25-W	Rc1	6800				

MEMO

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

M4GA4/M4GB4 Series

How to fill out metal base M4G4 series manifold specifications sheet

● Manifold model No. (example)

M4G^A_B 4 **8** **0-** **CX** **-** **T30** **-** **9** **-** **3**

Solenoid position Port size Reduced wiring connection Terminal/connector pin array Option Station No. Voltage

Precautions for fitting mix CX

The A/B port fitting can be selected freely by indicating "CX" in the port size area.

(Note) The M4GA4 is not supported.

Selectable cartridge fittings

4G4:C8, C10, C12

For female thread specifications, indicate the required number of plugs in the “Thread plug” area at the end.

Female threads and cartridge fitting cannot be used together in one manifold set.

Solenoid valve model No.	Fitting CX		Valve installation position																								Quantity	
	A	B	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
4G: B 4 1 9- C8			○	○																								2
4G: B 4 2 9- C8					○	○																						2
4G: B 4 3 9- C8							○	○																				2
4G: B 4 5 9- CX									○	○																		2
4G: 4 9-																												
Masking plate 4G: B 4-MP(S)											○																	1
Masking plate 4G: 4-MP(D)																												
Air supply spacer 4G: 4-P																												
Exhaust spacer 4G: 4-R																												
Accessory																												

From the manifold specifications sheet for each model, select and fill out the appropriate form.

- Individual wiring: Page 810
- Reduced wiring
 - Common terminal block (T1*), D sub-connector (T30) : Page 811
 - Flat cable connector (T5*) : Page 812
 - Serial transmission (T6G1) : Page 813

How to fill out wiring specifications sheet

Not required for standard wiring and double wiring.

● Wiring specifications sheet (example)

Complete these specifications when specifying the wiring order and additional cables.

Connector pin No.		Installation position																
T30/T30R	T50/T50R/T6*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	1	a																
14	2		a															
2	3			a														
15	4			(b)														
3	5				a													
16	6				(b)													
4	7					a												
17	8						b											
5	9 - Power supply							a										
18	10+ (COM) Power supply							b										
6	11								a									
19	12								b									
7	13									a								
20	14										b							
8	15											a						
21	16												b					
9	17																	
22	18																	
10	19 - Power supply																	
23	20+ (COM) Power supply																	
11																		
24																		
12																		
25																		
13 (COM)																		

* Note that when T50 wiring is used, the COM polarity is + (plus).

* When T50 wiring is used, connector pin numbers 9, 10, 19, and 20 cannot be specified, because they are used for the external input power supply.

Precautions regarding spare wiring

- (1) With the T30/T50/T51 as it is possible for the unit to be equipped with spare wiring in advance to permit modification from a single Sol to a double Sol, consult CKD.

Specify the position for expansion (modification area from single to double Sol).

Mark a circle in the wiring specification column as an indication of spare wiring, while also filling in the a sol side/b sol side categories.

- (2) Spare wiring will be installed on the masking plate. (Refer to page 836)

The number of wires for spare wiring can be specified by selecting the masking plate within the specifications sheet.

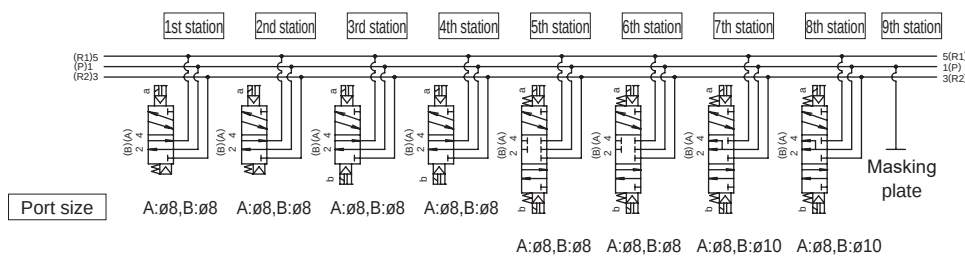
(* When not specified, the spare wiring will be 2 wires (MPD).)

4G*4-MP(S) - 1 wire

4G*4-MP(D) - 2 wires

Reference circuit diagram

The simplified circuit diagram of the manifold model No. (example) on the previous page is shown below.



* The manifold station numbers are set in order from the left with the piping port facing forward.

4GA/B

M4GA/B

MN4GA/B

4GA/B

(master)

4GB

With sensor

4GD/E

M4GD/E

MN4GD/E

4GA4/B4

MN3E

MN4E

W4GA/B2

W4GB4

MN3S0

MN4S0

4SA/B0

4KA/B

4KA/B

(master)

4F

4F

(master)

PV5G

GMF

PV5

GMF

PV5S-0

3Q

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP

NVP

4G*0EJ

4F*0EX

4F*0E

HNV

HSV

2QV

3QV

SKH

Silencer

TotAirSys

(Total Air)

TotAirSys

(Gamma)

Ending

4GA/B

Individual wiring

M4GA/B

M4G^A_B4 Manifold specifications sheet

MN4GA/B

4GA/B
(master)

4GB
With sensor

4GD/E

4MGD/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

● Contact ● Quantity Set ● Delivery date /

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

● Manifold model No.

M4G^A_B4 **0-** - - -
 Solenoid position Port size Electrical connections Option Mount Station No. Voltage

Issued / /

Company

Contact

Order No.

Solenoid valve model No.		Fitting CX		Valve installation position																								Quantity
		A	B	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
4G: 4 9-																												
4G: 4 9-																												
4G: 4 9-																												
4G: 4 9-																												
4G: 4 9-																												
Masking plate 4G: 4-MP																												
Air supply spacer 4G: 4-P-																												
Exhaust spacer 4G: 4-R-																												
Mounting rail	L ₂ =	Accessory	Blanking plug												Silencer													
			GWP8-B				GWP10-B				GWP12-B				SLW-6				SLW-10				SLW-15					
			Thread plug																									
			4G4-8 P				4G4-10 P				4G4-15 P																	

Reduced wiring

M4G^A_B4-T1/3 Manifold specifications sheet

● Contact ● Quantity Set ● Delivery date /

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

● Manifold model No.

M4G^A_B4 **0-** - - -

Solenoid position Port size Reduced wiring connection Terminal/connector pin array Option Station No. Voltage

Issued / /

Company

Contact

Order No.

Solenoid valve model No.	Fitting CX		Valve installation position																								Quantity		
	A	B	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
4G 4 9-																													
4G 4 9-																													
4G 4 9-																													
4G 4 9-																													
4G 4 9-																													
Masking plate 4G 4-MP(S)																													
Masking plate 4G 4-MP(D)																													
Air supply spacer 4G 4-P-																													
Exhaust spacer 4G 4-R-																													
	Accessory	Blanking plug												Silencer															
		GWP8-B				GWP10-B				GWP12-B				SLW-6				SLW-10				SLW-15							
		Thread plug												Cable with D sub-connector															
		4G4-8 P				4G4-10 P				4G4-15 P																N4T-CABLE-D -			

● Wiring specifications sheet (Not required for standard wiring/double wiring. Complete these specifications when specifying the wiring order and additional cables)

Connector pin No.			Installation position																							
T10/T10R	T11/T11R	T30/T30R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	1	1																								
2	2	14																								
3	3	2																								
4	4	15																								
5	5	3																								
6	6	16																								
7	7	4																								
8	8	17																								
9	9	5																								
10	10	18																								
11	11	6																								
12	12	19																								
13	13	7																								
14	14	20																								
COM	15	8																								
COM	16	21																								
	17	9																								
	18	22																								
	19	10																								
	20	23																								
	21	11																								
	22	24																								
	23	12																								
	24	25																								
	COM	13 (COM)																								
	COM																									

Serial transmission

M4G^A_B4-T6G1 Manifold specifications sheet

● Contact ● Quantity Set ● Delivery date /

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

● Manifold model No.

M4G^A_B 4 **0-** **- T6G1** **-** **-**

Solenoid position Port size Serial transmission Terminal/connector pin array Option Station No. Voltage

Issued / /

Company

Contact

Order No.

Solenoid valve model No.	Fitting CX		Valve installation position																								Quantity
	A	B	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
4G: 4 9-																											
4G: 4 9-																											
4G: 4 9-																											
4G: 4 9-																											
4G: 4 9-																											
Masking plate 4G: 4-MP(S)																											
Masking plate 4G: 4-MP(D)																											
Air supply spacer 4G: 4-P-																											
Exhaust spacer 4G: 4-R-																											
	Accessory	Blanking plug												Silencer													
		GWP8-B				GWP10-B				GWP12-B				SLW-6				SLW-10				SLW-15					
		Thread plug																									
		4G4-8 P				4G4-10 P				4G4-15 P																	

● Wiring specifications sheet (Not required for standard wiring/double wiring. Complete these specifications when specifying the wiring order and additional cables)

Connector pin No.		Installation position															
T6G1		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
T6G1: CC-Link 16 points	1																
	2																
	3																
	4																
	5																
	6																
	7																
	8																
	9																
	10 COM																
	11																
	12																
	13																
	14																
	15																
	16																
	17																
	18																
	19																
	20 COM																

4GA/B

M4GA/B

MN4GA/B

4GA/B (master)

4GB With sensor

4GD/E

M4GD/E

MN4GD/E

4GA4/B4

MN3E

MN4E

W4GA/B2

W4GB4

MN3S0

MN4S0

4SA/B0

4KA/B

4KA/B (master)

4F

4F (master)

PV5G

GMF

PV5

GMF

PV5S-0

3Q

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP

NVP

4G*0EJ

4F*0EX

4F*0E

HNV

HSV

2QV

3QV

SKH

Silencer

TotAirSys (Total Air)

TotAirSys (Gamma)

Ending