

Discrete valve
Base piping With pressure sensor

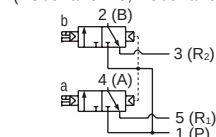
3GB1/2 / 4GB1/2/3 Series

● Applicable cylinder bore size: ø20 to ø100

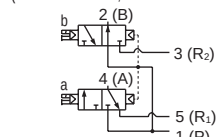


JIS symbol

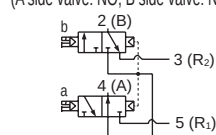
- Two 3-port valves integrated
(A side valve: NC, B side valve: NC)



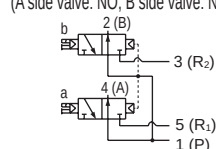
(A side valve: NC, B side valve: NO)



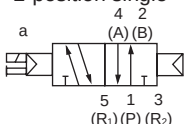
(A side valve: NO, B side valve: NC)



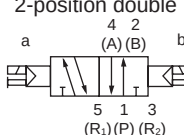
(A side valve: NO, B side valve: NO)



- 5-port valve
2-position single

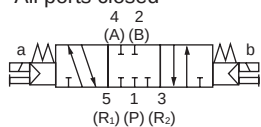


2-position double

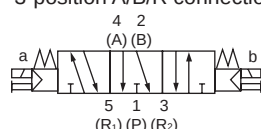


3-position

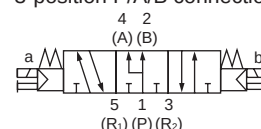
All ports closed



3-position A/B/R connection



3-position P/A/B connection



Common specifications 1 MPa ≈ 145.0 psi, 1 MPa = 10 bar

Item	Description
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	0.7 (≈101 psi, 7 bar)
Min. working pressure MPa	0.2 (≈29 psi, 2 bar) (*3)
Proof pressure MPa	1.05 (≈152 psi, 10 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 (standard)
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
Vibration resistance m/s ²	50 or less
Impact 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) applies for DIN terminal box specifications.
However, the specified outer diameter of the cord and tightening torque must be used for fixing in place.

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

Electrical specifications

Item	Description
Rated voltage V	24 DC 12 DC 5 DC 3 DC 100 AC 200 AC
Voltage fluctuation range	±10%
Holding current A (*4)	Standard 0.015 (0.017) 0.030 (0.034) 0.072 (0.082) 0.120 (0.136) 0.009 (0.009) 0.006 (0.006)
Power consumption W (*4)	Standard 0.35 (0.40) 0.35 (0.40) -
Apparent power VA (*4) (*5)	Standard - - 0.93 (0.98) 1.40
Thermal class	B
Surge suppressor	Option
Indicator	Lamp (option)

*4: Values in () apply when lamp is attached. In addition, the type with low exoergic/energy circuit is only available with lamp.

*5: 200 VAC is the value of DIN terminal box with lamp.

Individual specifications

Port size		3GB1, 4GB1	3GB2, 4GB2	4GB3
Rc thread	Port A/B	Rc1/8	Rc1/4	Rc1/4, Rc3/8
	Port P/R1/R2	Rc1/8	Rc1/4	Rc1/4, Rc3/8
NPT thread (*5)	Port A/B	NPT1/8	NPT1/4	NPT1/4, NPT3/8
	Port P/R1/R2	NPT1/8	NPT1/4	NPT1/4, NPT3/8
G thread (*5)	Port A/B	G1/8	G1/4	-
	Port P/R1/R2	G1/8	G1/4	-

*5: Available as made to order.

Performance/characteristics by model

Item			3GB1/4GB1		3GB2/4GB2		4GB3	
			ON	OFF	ON	OFF	ON	OFF
Response time ms	Two 3-port valves integrated		9	12	12	29	-	-
	2-position	Single	12	12	19	19	25	28
		Double	9	-	18	-	24	-
	3-position	ABR connection	8	15	17	30	23	45

Values with a 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.

Weight

Item				3GB1/4GB1	3GB2/4GB2	4GB3
Weight	g	Single	Grommet lead wire	80 (38)	156 (74)	215 (96)
			E-connector	82 (40)	158 (76)	217 (98)
			DIN terminal box	-	193 (111)	249 (130)
	2-position	Double	Grommet lead wire	97 (55)	173 (91)	233 (114)
			E-connector	101 (59)	177 (95)	237 (118)
			DIN terminal box	-	216 (134)	273 (154)
	3-position	All ports closed	Grommet lead wire	98 (56)	184 (102)	242 (123)
			E-connector	102 (60)	188 (106)	246 (127)
			DIN terminal box	-	227 (145)	282 (163)

- Values in parenthesis () do not include the single sub-plate. Values for the E-connector include the socket assembly (with 300 mm lead wire). For the EJ-connector, add 16 g/connector to the E-connector weight.
- The weight of the two 3-port valves integrated type is the same as that of 2-position double.

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
3GB1 4GB1	Two 3-port valves integrated		0.92	0.08	1.1	0.26
	2-position		1.3	0.27	1.2	0.22
	3-position	All ports closed	1.1	0.31	1.1	0.27
		ABR connection	1.1	0.31	1.3	0.29
		PAB connection	1.4	0.30	1.1	0.26
3GB2 4GB2	Two 3-port valves integrated		1.7	0.42	2.1	0.26
	2-position		2.6	0.20	2.6	0.19
	3-position	All ports closed	2.3	0.32	2.2	0.22
		ABR connection	2.2	0.23	2.6	0.16
		PAB connection	2.4	0.10	2.4	0.22
4GB3	2-position		4.3	0.24	4.2	0.24
	3-position	All ports closed	3.3	0.40	3.4	0.27
		ABR connection	3.3	0.36	4.2	0.18
		PAB connection	4.5	0.28	3.4	0.30

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

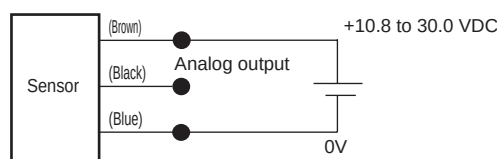
Sensor specifications

Discrete specifications

Item	Positive pressure	Negative pressure *2
Working pressure *1	0 to 1.0 MPa	-100kPa to 0
Service voltage	10.8 to 30.0 VDC	
Current consumption	5 mA (24 VDC, no load)	
Pressure detection method	Diffused semiconductor pressure switch	
Ambient temperature	0 to 55°C	
Proof pressure	1.5 MPa	0.5 MPa
Degree of protection	Dust-proof	
Analog output	Output voltage	1 to 5V
	Zero point voltage	1±0.1V
	Linearity	±0.5% F.S. max
	Temperature characteristics	±2% F.S. max
	Output current	0.5mA max. (load resistance 10 kΩ)
Wiring method	Connector connection	
Wire length	1000 mm	

Lead wire color and content

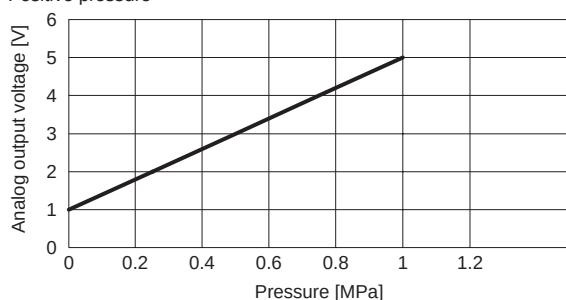
Line color	Description
Brown	Power supply (10.8 to 30.0 VDC)
Black	Analog output (1 to 5 V)
Blue	GND(0V)



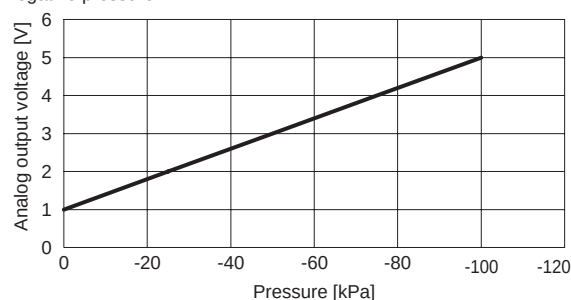
- *1 Use the smaller working pressure range for the valve or pressure sensor.
*2 For negative pressure, only the single unit sensor is supported.

Analog output

● Positive pressure



● Negative pressure



3GB1/2 / 4GB1/2/3 Series

Discrete valve; base piping

How to order

4GB1 1 0 R - 06 - E2 - 3

3GB1 66 0 R - 06 - E2 - 3

Discrete valve for integrated base

4GB1 1 9 R - 00 - E2 H - 3

3-port discrete valve for integrated base

3GB1 66 9 R - 00 - E2 H - 3

A Model No. B Solenoid position C Port size

MN3E MN4E

W4GA/B2

W4GB4

MN3S0 MN4S0

4SA/B0

4KA/B

4KA/B (master)

4F

4F (master)

PV5G GMF

PV5 GMF

PV5S-0

3Q

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP NVP

4G*0EJ

4F*0EX

4F*0E

HMV HSV

2QV 3QV

SKH

Silencer

TotAirSys (Total Air)

TotAirSys (Gamma)

Ending

⚠ Precautions for model No. selection

- *1 : Not compatible when combined with external pilot (K).
Dimensions are the same as those of the respective 2-position double solenoid.
- *2 : Made to order.
- *3 : 3-position with all ports closed and PAB connection are not provided with the exhaust check valve.
Refer to page 851 for details on the exhaust check valve.
- *4 : E2* type and E2*J type connectors support 12/24 VDC only.
In addition, surgeless "S" and low exoergic/energy saving circuit "E" cannot be selected together.
- *5 : Surgeless specifications.
- *6 : A filter is built into port P as standard.
- *7 : Only the DIN terminal box is supported.
- *8 : The grommet lead wire specifications are compatible with DC voltage only.
- *9 : AC voltages and 12/24 VDC are supported.
In addition, a lamp comes with the terminal box.
- *10: AC voltage is with a rectifier circuit.
- *11: The terminal box conforms to EN175301-803 Type C (former DIN 43650-C).
Details on pages 856 and 857.
- *12: Single and double only.
- *13: The pressure range is 0 to 0.7 MPa.

D Electrical connections
For the circuit diagram with surge suppressor/lamp, refer to page 11.

E Option

F Voltage

A Model No.

3GB1 3GB2 4GB1 4GB2 4GB3

Code	Item	3GB1	3GB2	4GB1	4GB2	4GB3
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			●	●	●
66	Two 3-port valves integrated (*1) A side valve: Normally closed B side valve: Normally closed	●	●			
67	Two 3-port valves integrated (*1) A side valve: Normally closed B side valve: Normally open	●	●			
76	Two 3-port valves integrated (*1) A side valve: Normally open B side valve: Normally closed	●	●			
77	Two 3-port valves integrated (*1) A side valve: Normally open B side valve: Normally open	●	●			

C Port size						
Port	4(A)/2(B) port	Port P/R1/R2 (2) = Rc1/8 (3) = Rc1/4 (4) = Rc3/8				
06	Rc1/8	(2)	(2)			
08	Rc1/4		(3)	(3)	(3)	
10	Rc3/8				(4)	
Port	4(A)/2(B) port	Port P/R1/R2 (5) = 1/8NPT, (6) = 1/4NPT, (7) = 3/8NPT				
06N	NPT1/8 (*2)	(5)	(5)			
08N	NPT1/4 (*2)		(6)	(6)	(6)	
10N	NPT3/8 (*2)				(7)	
Port	4(A)/2(B) port	Port P/R1/R2 (8) = G1/8, (9) = G1/4				
06G	G1/8 (*2)	(8)	(8)			
08G	G1/4 (*2)		(9)	(9)		
00	Discrete valve for integrated base	●	●	●	●	●

D Electrical connections						
Blank	Grommet lead wire (300 mm) (*8)	●	●	●	●	●
B	DIN terminal box (Pg7) With surge suppressor/lamp (*9) (*11)		●		●	●
BN	DIN terminal box (Pg7) (no terminal box) With surge suppressor (*9) (*11)		●		●	●
E-connector (upward/lateral common)						
E0	Lead wire (300 mm) (*10)	●	●	●	●	●
E00	Lead wire (500 mm) (*10)	●	●	●	●	●
E01	Lead wire (1000 mm) (*10)	●	●	●	●	●
E02	Lead wire (2000 mm) (*10)	●	●	●	●	●
E03	Lead wire (3000 mm) (*10)	●	●	●	●	●
E0N	Without lead wire (without socket) (*10)	●	●	●	●	●
E1	Without lead wire (socket/terminal included) (*10)	●	●	●	●	●
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	●	●	●	●	●
E2N	Without lead wire (without socket) With surge suppressor/lamp	●	●	●	●	●
E3	Without lead wire (socket/terminal included) with surge suppressor/lamp	●	●	●	●	●
EJ-connector (socket with cover, upward/lateral common)						
E01J	Lead wire (1000 mm) (*10)	●	●	●	●	●
E02J	Lead wire (2000 mm) (*10)	●	●	●	●	●
E03J	Lead wire (3000 mm) (*10)	●	●	●	●	●
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	Non-locking/locking common manual override	●	●	●	●	●
M	Non-locking manual override	●	●	●	●	●
H	With exhaust check valve (*3)	●	●	●	●	●
K	External pilot			●	●	●
A	Ozone/coolant proof	●	●	●	●	●
S	Surgeless (*4)	●	●	●	●	●
E	Low exoergic/energy saving circuit (*4), (*5)	●	●	●	●	●
F	Port A/B filter built in (*6)	●	●	●	●	●
G1	With sensor (1-port detection type) (*12) (*13)			●	●	●
G2	With sensor (2-port detection type) (*13)	●	●	●	●	●

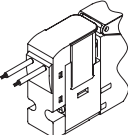
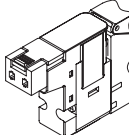
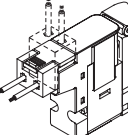
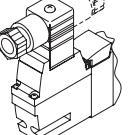
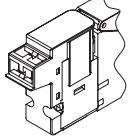
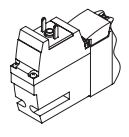
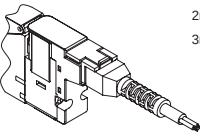
F Voltage						
1	100 VAC (rectifier integrated)	●	●	●	●	●
2	200 VAC (rectifier integrated) (*7)					
3	24 VDC	●	●	●	●	●
4	12 VDC	●	●	●	●	●
7	3 VDC	○	○	○	○	○
8	5 VDC	○	○	○	○	○

is not available.

○ indicates made to order.

3GB1/2 / 4GB1/2/3 Series

Discrete valve; base piping

Electrical connections	
Discrete valve/individual wiring manifold	
Blank	Grommet lead wire
E1 E3	E-connector with socket/terminal
● Lead wire length 300 mm  	
E0 E2	E-connector
B	DIN terminal box
● Lead wire length 300 mm 500 mm 1000 mm 2000 mm 3000 mm  	
E0N E2N	E-connector without socket
BN	DIN terminal box Without terminal box
 	
E0J E2J	EJ-connector
● Lead wire length 1m 2m 3m 	

Ozone-proof specifications • Coolant proof specifications

Can be selected with "How to order" Item (E) option "A" on page 352.

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**

Clean-room specifications

- Anti-dust generation structure for use in cleanrooms

** - Voltage - **P7***

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".

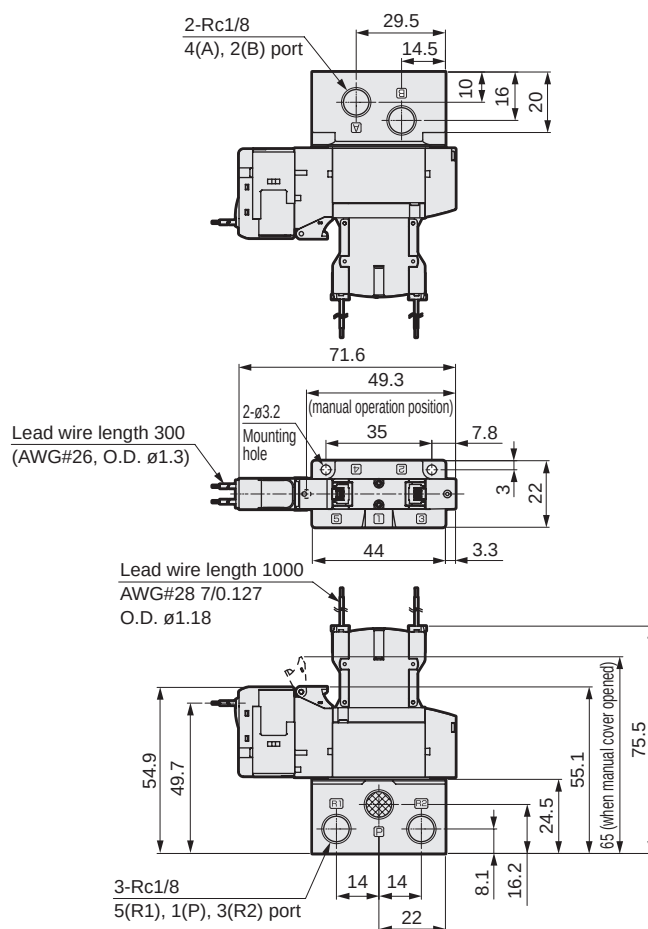
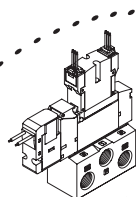
4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HNV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys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

4GB1 to 3 Series

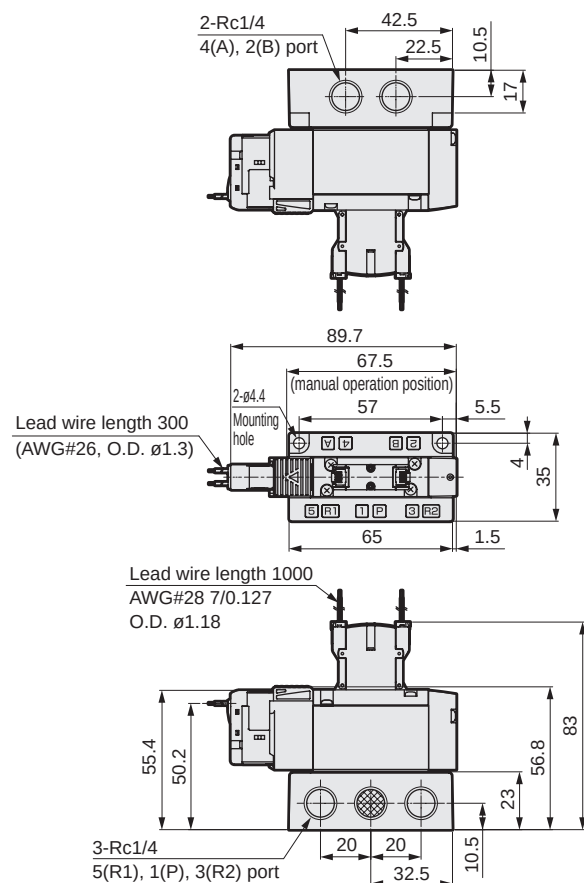
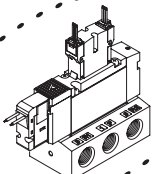
Discrete valve; base piping

Dimensions

4GB110R



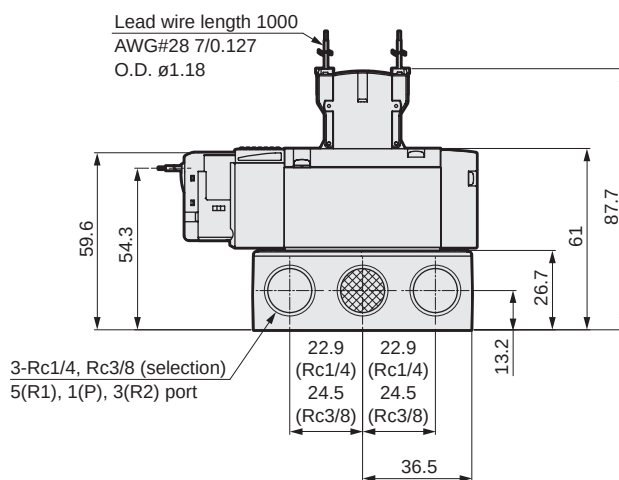
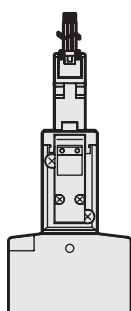
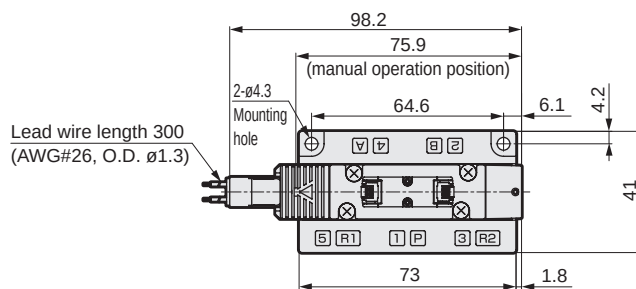
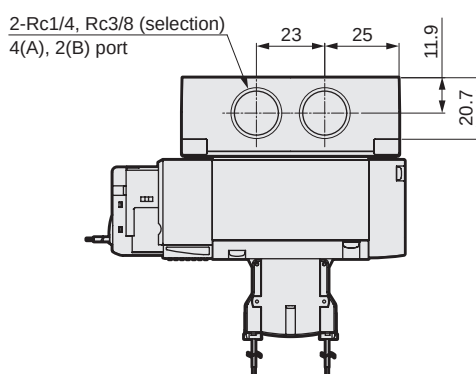
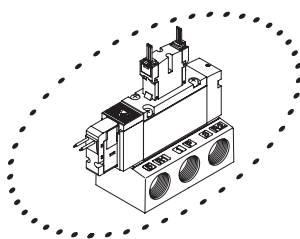
4GB210R



* Figure shows 2-position single: grommet lead wire.
For other dimensions, refer to pages 69 to 79, 86 to 89, and 92 to 95.

Dimensions

4GB310R



* Figure shows 2-position single: grommet lead wire.
For other dimensions, refer to pages 80 to 85, 90 and 91.

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

4GA/B

M4GA/B

MN4GA/B

4GA/B
(master)4GB
With sensor

4GD/E

M4GD/E

MN4GD/E

4GA/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

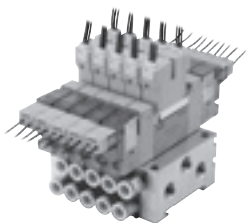
HNV
HSV2QV
3QV

SKH

Silencer

TotAirSys
(Total Air)TotAirSys
(Gamma)

Ending



Individual wiring manifold
Base piping
Direct mount/DIN rail mount

With pressure sensor

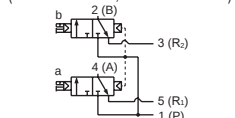
M3GB1/2 / M4GB1/2/3-(D) Series

● Applicable cylinder bore size: $\varnothing 20$ to $\varnothing 100$

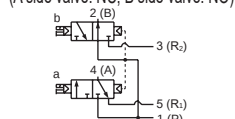


JIS symbol

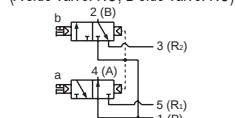
- Two 3-port valves integrated
(A side valve: NC, B side valve: NC)



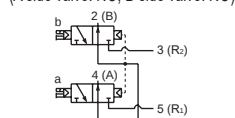
(A side valve: NC, B side valve: NO)



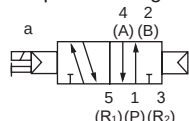
(A side valve: NO, B side valve: NC)



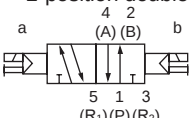
(A side valve: NO, B side valve: NO)



- 5-port valve
2-position single

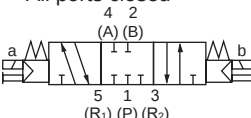


2-position double

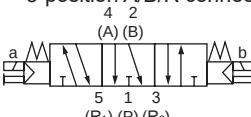


3-position

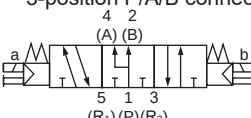
All ports closed



3-position A/B/R connection



3-position P/A/B connection



Manifold common specifications

1 MPa = 145.0 psi, 1 MPa = 10 bar

Item		Description
Manifold		Integrated base
Mounting method		Direct mount/DIN rail mount
Air supply and exhaust method		Common supply/common exhaust (With internal exhaust check valve)
Pilot exhaust method	Internal pilot	Main valve/pilot valve common exhaust (Pilot exhaust check valve built-in)
	External pilot	Main valve/pilot valve individual exhaust
Piping direction		Side direction of base
Valve and operation		Pilot operated soft spool valve
Working fluid		Compressed air
Max. working pressure MPa		0.7 (≈ 101 psi, 7 bar)
Min. working pressure MPa		0.2 (≈ 29 psi, 2 bar) (*3)
Proof pressure MPa		1.05 (≈ 152 psi, 10 bar)
Ambient temperature $^{\circ}\text{C}$		-5 (23 $^{\circ}\text{F}$) to 55 (131 $^{\circ}\text{F}$) (no freezing)
Fluid temperature $^{\circ}\text{C}$		5 (41 $^{\circ}\text{F}$) to 55 (131 $^{\circ}\text{F}$)
Manual override		Non-locking/locking common (standard)
Lubrication (*1)		Not required
Degree of protection (*2)		Dust-proof
Vibration resistance m/s^2		50 or less
Shock resistance m/s^2		300 or less
Atmosphere		Cannot be used in corrosive gas environments

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

Electrical specifications

Item		Description					
Rated voltage V		24 DC	12 DC	5 DC	3 DC	100 AC	200 AC
Voltage fluctuation range		$\pm 10\%$					
Holding current	Standard	0.015 (0.017)	0.030 (0.034)	0.072 (0.082)	0.120 (0.136)	0.009 (0.009)	0.006 (0.006)
	A (*4)	0.005	0.010	-	-	-	-
Power consumption	Standard	0.35 (0.40)	0.35 (0.40)	-	-	-	-
	W (*4)	0.1	-	-	-	-	-
Apparent power VA (*4) (*5)	Standard	-	-	-	-	0.93 (0.98)	1.40
Thermal class		B					
Surge suppressor		Option					
Indicator		Lamp (option)					

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

Individual specifications

Item			M3GB1/M4GB1		M3GB2/M4GB2		M4GB3	
			Direct mount	DIN rail mount	Direct mount	DIN rail mount	Direct mount	DIN rail mount
Max. station No.	Standard (Internal pilot)		20 stations	16 stations	20 stations	16 stations	20 stations	16 stations
	External pilot		12 stations	12 stations				
Port size	Rc thread, M5	Port A/B	Barbed fitting $\varnothing 1.8$ Push-in fitting $\varnothing 1.8, \varnothing 4, \varnothing 6$ $\varnothing 8$ (*6) M5		Push-in fitting $\varnothing 4, \varnothing 6, \varnothing 8$ $\varnothing 10$ (*6) Rc1/8		Push-in fitting $\varnothing 6, \varnothing 8, \varnothing 10$ Rc1/4	
		Port P/R1/R2	Rc1/8		Rc1/4		Rc3/8	
	NPT thread, M5	Port A/B	Push-in fitting $\varnothing 1/8", \varnothing 5/32"$ M5		Push-in fitting $\varnothing 1/4", \varnothing 5/16"$ NPT1/8		Push-in fitting $\varnothing 5/16", \varnothing 3/8"$ NPT1/4 (*6)	
		Port P/R1/R2	NPT1/8		NPT1/4		NPT3/8 (*6)	
	G thread, M5	Port A/B	Push-in fitting $\varnothing 4, \varnothing 6$ M5		Push-in fitting $\varnothing 4, \varnothing 6, \varnothing 8$ G1/8		-	
		Port P/R1/R2	G1/8		G1/4		-	
Manifold base		Standard	35n + 61	36n + 115	71n + 106	73n + 134	113n + 170	115n + 119
Weight calculation formula (n: station No.)		External pilot	35n + 106	36n + 114	76n + 135	78n + 166	118n + 194	120n + 223

Refer to "Cautions for mounting the DIN rail" (page 854) before selection.

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

*6: Available as made to order.

M3GB1/2 / M4GB1/2/3 Series

Individual wiring manifold; base piping

Flow characteristics

Model No.	Solenoid position		P → A/B		A/B → R1/R2	
			C[dm ³ /(s·bar)]	b	C[dm ³ /(s·bar)]	b
M3GB1 M4GB1	Two 3-port valves integrated		0.86	0.35	1.1 (0.67)	0.22 (0.23)
	2-position		1.1	0.22	1.2 (0.70)	0.20 (0.10)
	3-position	All ports closed	0.98	0.22	1.1 -	0.24 -
		ABR connection	0.97	0.35	1.3 (0.68)	0.22 (0.24)
		PAB connection	1.1	0.38	1.1 -	0.21 -
M3GB2 M4GB2	Two 3-port valves integrated		1.7	0.44	2.1 (1.6)	0.32 (0.30)
	2-position		2.4	0.34	2.7 (1.7)	0.24 (0.31)
	3-position	All ports closed	2.2	0.34	2.4 -	0.29 -
		ABR connection	2.2	0.34	2.8 (1.8)	0.24 (0.27)
		PAB connection	2.4	0.29	2.4 -	0.29 -
M4GB3	2-position		3.5	0.34	3.8 (2.6)	0.11 (0.27)
	3-position	All ports closed	3.1	0.33	3.3 -	0.22 -
		ABR connection	3.0	0.30	3.8 (2.7)	0.11 (0.22)
		PAB connection	3.6	0.36	3.3 -	0.28 -

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

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

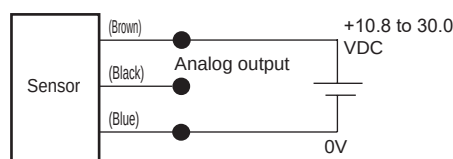
Sensor specifications

Discrete specifications

Item	Positive pressure	Negative pressure *2
Working pressure *1	0 to 1.0 MPa	-100kPa to 0
Service voltage	10.8 to 30.0 VDC	
Current consumption	5 mA (24 VDC, no load)	
Pressure detection method	Diffused semiconductor pressure switch	
Ambient temperature	0 to 55°C	
Proof pressure	1.5 MPa	0.5 MPa
Degree of protection	Dust-proof	
Analog output	Output voltage	1 to 5V
	Zero point voltage	1±0.1V
	Linearity	±0.5% F.S. max
	Temperature characteristics	±2% F.S. max
	Output current	0.5mA max. (load resistance 10 kΩ)
Wiring method	Connector connection	
Wire length	1000 mm	

Lead wire color and content

Line color	Description
Brown	Power supply (10.8 to 30.0 VDC)
Black	Analog output (1 to 5 V)
Blue	GND(0V)

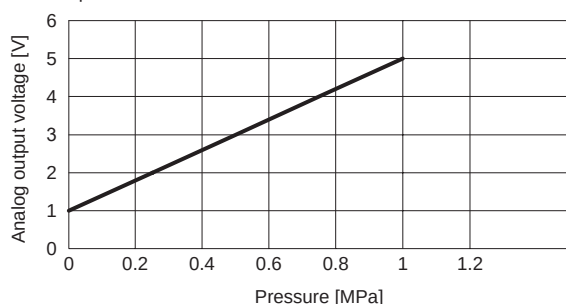


*1 Use the smaller working pressure range for the valve or pressure sensor.

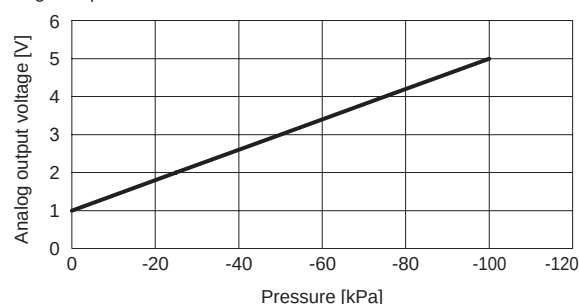
*2 For negative pressure, only the single unit sensor is supported.

Analog output

● Positive pressure



● Negative pressure



Ozone-proof specifications • Coolant proof specifications

Page 359 Select option "A" of Item ⑤ in How to order.

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**

Clean-room specifications

● Anti-dust generation structure for use in cleanrooms

** - Voltage - **P7***

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".

Individual wiring manifold; base piping

Manifold model No.

(M) (3GB1) (66) (0R) - (C6) - (E2) (H) (D) - () - (3)

4GB1 1 9R - 00 - E2 H — 3

3GB166 9R - 00 - E2 H ——— 3

Model No.

D Electrical connections

E Option

F Mounting

Station No.

H Voltage

Precautions for model No. selection

- *1 : Select M4GB*80R when mixing with 3, 5-port valves.
Further, select M3GB*80R when mixing with masking plate.
- *2 : Not compatible when combined with external pilot (K).
Dimensions are the same as those of the respective 2-position double solenoid.
- *3 : CL* push-in L fitting is compatible only with the single solenoid manifold. Long elbow is for port A and short elbow for port B.
- *4 : Port A/B sizes are the same for the push-in L fitting (upward) (downward).
- *5 : 4G1 C8 and 4G2 C10 do not support push-in fitting mixing.
- *6 : Made to order.

Code	Description	3	3	4	4
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			●	●
66	Two 3-port valves integrated (*1) (*2)	A valve side: Normally closed B valve side: Normally closed		●	●
67		A valve side: Normally closed B valve side: Normally open		●	●
76		A valve side: Normally open B valve side: Normally closed		●	●
77		A valve side: Normally open B valve side: Normally open		●	●
8	Mix manifold (for multiple solenoid positions)	●	●	●	●

C Port size

Port	4(A)/2(B) port	Port P/R1/R2 (2) = Rc1/8 (3) = Rc1/4 (4) = Rc3/8			
CF	ø1.8 barbed fitting (compatible tube UP-9102-**) (2)		(2)		
C18	ø1.8 push-in fitting (compatible tube UP-9402-**) (2)		(2)		
C4	ø4 push-in fitting (2)	(3)	(2)	(3)	
C6	ø6 push-in fitting (2)	(3)	(2)	(3)	(4)
C8	ø8 push-in fitting (*5) (*6) (2)	(3)	(2)	(3)	(4)
C10	ø10 push-in fitting (*5) (*6) (2)	(3)		(3)	(4)
CL18	ø1.8 push-in L-fitting upward (compatible tube UP-9402-**) (2)		(2)		
CL4	ø4 push-in L-fitting (upward) (2)		(2)		
CL6	ø6 push-in L-fitting (upward) (2)		(2)	(3)	
CL8	ø8 push-in L-fitting (upward) (2)			(3)	(4)
CL10	ø10 push-in L-fitting (upward) (2)				(4)
CD18	ø1.8 push-in L-fitting downward (compatible tube UP-9402-**) (2)		(2)		
CD4	ø4 push-in L-fitting (downward) (2)		(2)		
CD6	ø6 push-in L-fitting (downward) (2)	(3)	(2)	(3)	
CD8	ø8 push-in L-fitting (downward) (2)	(3)		(3)	(4)
CD10	ø10 push-in L-fitting (downward) (2)				(4)
CX	Push-in fitting mix (2)	(3)	(2)	(3)	(4)
M5	M5 (2)		(2)		
06	Rc1/8 (2)	(3)		(3)	
08	Rc1/4 (2)				(4)
Port	4(A)/2(B) port	Port P/R1/R2 (5) = 1/8NPT, (6) = 1/4NPT, (7) = 3/8NPT			
C3N	ø1/8" push-in fitting (5)		(5)		
C4N	ø5/32" push-in fitting (5)		(5)		
C6N	ø1/4" push-in fitting (6)		(6)		
C8N	ø5/16" push-in fitting (6)		(6)		(7)
C10N	ø3/8" push-in fitting (6)				(7)
CL3N	ø1/8" push-in L-fitting upward (*6) (5)		(5)		
CL4N	ø5/32" push-in L-fitting upward (*6) (5)		(5)		
CL6N	ø1/4" push-in L-fitting upward (*6) (6)				(6)
CL8N	ø5/16" push-in L-fitting upward (*6) (6)				(6)
CXN	Push-in fitting mix (5)	(6)	(5)	(6)	(7)
M5N	M5 (5)		(5)		
06 N	NPT1/8 (6)		(6)		(6)
08 N	NPT1/4 (*6) (6)				(7)
Port	4(A)/2(B) port	Port P/R1/R2 (8) = G1/8, (9) = G1/4			
C4G	ø4 push-in fitting (8)	(9)	(8)	(9)	
C6G	ø6 push-in fitting (8)	(9)	(8)	(9)	
C8G	ø8 push-in fitting (9)		(9)	(9)	
CL4G	ø4 push-in L-fitting upward (*6) (8)		(8)		
CL6G	ø6 push-in L-fitting upward (*6) (8)		(8)	(9)	
CL8G	ø8 push-in L-fitting upward (*6) (9)				(9)
CXG	Push-in fitting mix (8)	(9)	(8)	(9)	
M5G	M5 (8)		(8)		
06G	G1/8 (9)		(9)	(9)	
00	Discrete valve for integrated base	●	●	●	●

M4GB1/2/3 Series

Individual wiring manifold; base piping

			A Model No.				
			3GB1	3GB2	4GB1	4GB2	4GB3
D Electrical connections							
Blank	Grommet lead wire (300 mm)	(*17)	●	●	●	●	●
B	DIN terminal box (Pg7)	with surge suppressor/lamp (*18) (*20)	●	●	●	●	●
BN	DIN terminal box (Pg7) (no terminal box)	With surge suppressor (*18) (*20)	●	●	●	●	●
E-connector (upward/lateral common)							
E0	Lead wire (300 mm)	(*19)	●	●	●	●	●
E00	Lead wire (500 mm)	(*19)	●	●	●	●	●
E01	Lead wire (1000 mm)	(*19)	●	●	●	●	●
E02	Lead wire (2000 mm)	(*19)	●	●	●	●	●
E03	Lead wire (3000 mm)	(*19)	●	●	●	●	●
E0N	Without lead wire (no socket)	(*19)	●	●	●	●	●
E1	Without lead wire (socket/terminal included)	(*19)	●	●	●	●	●
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	●	●	●	●	●
E2N	Without lead wire (without socket)	With surge suppressor/lamp	●	●	●	●	●
E3	Without lead wire (socket/terminal included)	With surge suppressor/lamp	●	●	●	●	●
EJ-connector (socket with cover, upward/lateral common)							
E01J	Lead wire (1000 mm)	(*19)	●	●	●	●	●
E02J	Lead wire (2000 mm)	(*19)	●	●	●	●	●
E03J	Lead wire (3000 mm)	(*19)	●	●	●	●	●
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	Non-locking/locking common manual override		●	●	●	●	●
M	Non-locking manual override		●	●	●	●	●
H	With exhaust check valve	(*7)	●	●	●	●	●
K	External pilot	(*8)	●	●	●	●	●
A	Ozone/coolant proof		●	●	●	●	●
S	Surgeless	(*9)	●	●	●	●	●
E	Low exoergic/energy saving circuit	(*9) (*10)	●	●	●	●	●
F	A/B port filter integrated	(*11)	●	●	●	●	●
G1	With sensor (1-port detection type)	(*21) (*22)	●	●	●	●	●
G2	With sensor (2-port detection type)	(*22)	●	●	●	●	●
Z1	Air supply spacer	(*12)	●	●	●	●	●
Z2	In-stop valve spacer	(*12) (*13)	●	●	●	●	●
Z3	Exhaust spacer	(*12)	●	●	●	●	●
Z6	Spacer pilot check valve	(*12) (*14)	●	●	●	●	●
F Mounting							
Blank	Direct mount	(*15)	●	●	●	●	●
D	DIN rail mount		●	●	●	●	●
G Station No.							
2	2 stations		●	●	●	●	●
to	to		●	●	●	●	●
20	Refer to page 356 for the max. station No. per model.		●	●	●	●	●
H Voltage							
1	100 VAC (rectifier integrated)		●	●	●	●	●
2	200 VAC (rectifier integrated)	(*16)	●	●	●	●	●
3	24 VDC		●	●	●	●	●
4	12 VDC		●	●	●	●	●
7	3 VDC		○	○	○	○	○
8	5 VDC		○	○	○	○	○

is not available.

○ indicates made to order.

*7 : 3-position all ports closed and PAB connection are not provided with the exhaust check valve specifications (H).

Refer to page 851 for details on the exhaust check valve.

*8 : Consult with CKD when using vacuum with external pilot (K).

9 : E2 and E2*J connectors support 12/24 VDC only.

In addition, surgeless "S" and low exoergic/energy saving circuit "E" cannot be selected together.

*10: Surgeless specifications.

*11: A filter is built into port P as standard.

*12: Specify the spacer mounting position and quantity on the manifold specifications sheet.

Stacking of spacers is not possible.

Combination with the masking plate is not supported.

For details, refer to page 188 to page 192.

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

*14: Combination with push-in L fittings (upward) is not supported.

*15: Direct mount M4GB1 cannot be changed to DIN rail mount after purchase.

*16: Only the DIN terminal box is supported.

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

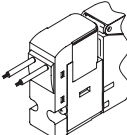
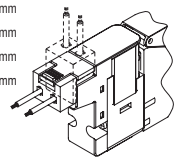
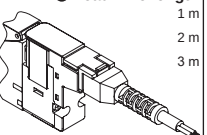
*18: AC voltages and 12/24 VDC are supported. In addition, a lamp comes with the terminal box.

*19: AC voltage includes a rectifier circuit.

*20: The terminal box conforms to EN175301-803 Type C (former DIN 43650-C). Details on pages 856 and 857.

*21: Single and double only.

*22: The pressure range is 0 to 0.7 MPa.

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

4GA/B

M4GA/B

MN4GA/B

4GA/B
(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)

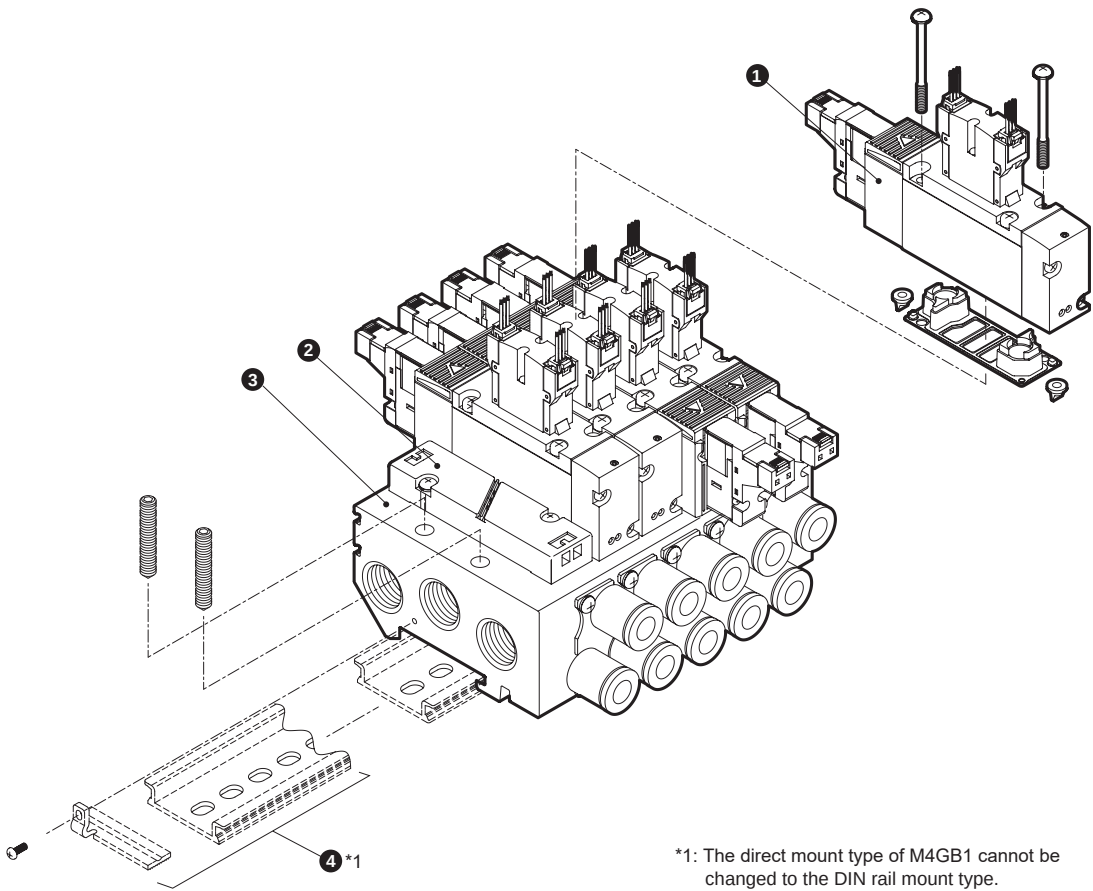
TotAirSys
(Gamma)

Ending

M4GB1/2/3 Series

Individual wiring manifold; base piping

Manifold configuration explanation and parts list



Main parts list

No.	Component name		Model No.	Description	Remarks
1	Discrete valve for integrated base		4GB□□9R - 00 Electrical connections Option Voltage Solenoid position Series flow rate size	Discrete valve Gasket 2 mounting screws 2 PR check valves	Details on page 114
2	Masking plate	3G1/4G1	4G1R-MP	Masking plate	* 4G3R-MP has two PR check valves included.
		3G2/4G2	4G2R-MP	Gasket	
		3G3/4G3	4G3R-MP	2 mounting screws	
3	Manifold base assembly		M4GB□□R - Port size - Option D - Station No. Series flow rate size Mounting	Manifold base	Only M4GB1R mounting can be selected. Direct mount/DIN rail mount are common for M4GB2R and M4GB3R. DIN rail kit must be ordered separately.
4	DIN rail kit		4GB□□R-BAA Rail length - Option D Series flow rate size		Details on page 200

No.	Part name	Model No.
-	Coil assembly	4GR- Electrical connections - □ -COIL- Voltage Blank: Standard A: Ozone/coolant proof S: Surgeless E: Low exergic/energy circuit K: External pilot Page 359 ① Select from Electrical connections
-	E-connector socket assembly	4GR-SOCKET-ASSY- Electrical connections - Voltage
-	EJ-connector socket assembly	4GR-SOCKET-ASSY- Electrical connections

No.	Part name		Model No.	
-	Cartridge push-in fitting and related parts	4G1	ø1.8 barbed	4G1R-JOINT-CF
			ø1.8 straight	4G1R-JOINT-C18
			ø4 straight	4G1R-JOINT-C4
			ø6 straight	4G1R-JOINT-C6
			ø8 straight (*)	4G1R-JOINT-C8
			ø1.8 elbow	4G1R-JOINT-CL18, CLL18
			ø4 elbow	4G1R-JOINT-CL4, CLL4
			ø6 elbow	4G1R-JOINT-CL6, CLL6
			ø1/8" straight	4G1R-JOINT-C3N
			ø5/32" straight	4G1R-JOINT-C4N
			ø1/8" elbow (*)	4G1R-JOINT-CL3N, CLL3N
			ø5/32" elbow (*)	4G1R-JOINT-CL4N, CLL4N
			Plug cartridge	4G1R-JOINT-CPG
		4G2	ø4 straight	4G2R-JOINT-C4
			ø6 straight	4G2R-JOINT-C6
			ø8 straight	4G2R-JOINT-C8
			ø10 straight (*)	4G2R-JOINT-C10
			ø6 elbow	4G2R-JOINT-CL6, CLL6
			ø8 elbow	4G2R-JOINT-CL8, CLL8
			ø1/4" straight	4G2R-JOINT-C6N
			ø5/16" straight	4G2R-JOINT-C8N
			ø1/4" elbow (*)	4G2R-JOINT-CL6N, CLL6N
			ø5/16" elbow (*)	4G2R-JOINT-CL8N, CLL8N
			Plug cartridge	4G2R-JOINT-CPG
		4G3	ø6 straight	4G3R-JOINT-C6
			ø8 straight	4G3R-JOINT-C8
			ø10 straight	4G3R-JOINT-C10
			ø8 elbow	4G3R-JOINT-CL8, CLL8
			ø10 elbow	4G3R-JOINT-CL10, CLL10
			ø5/16" straight	4G3R-JOINT-C8N
			ø3/8" straight	4G3R-JOINT-C10N

*3: Common product with the 4G3 ø10 straight.

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

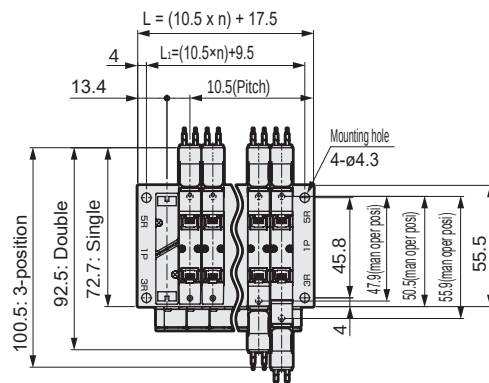
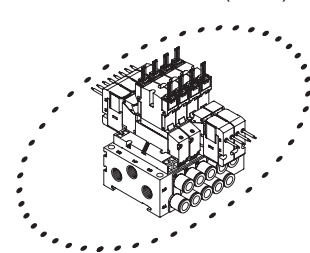
M4GB1 Series

Individual wiring manifold; base piping

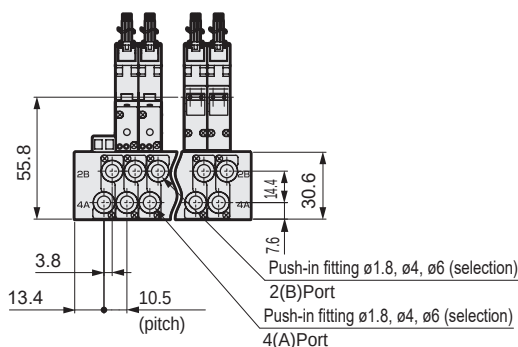
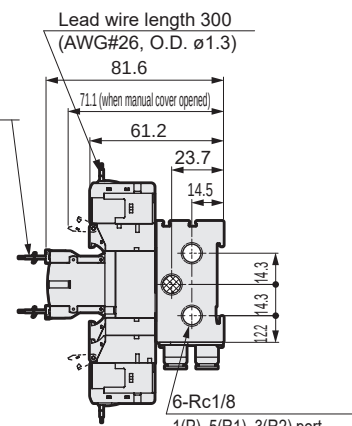
Dimensions

M4GB1

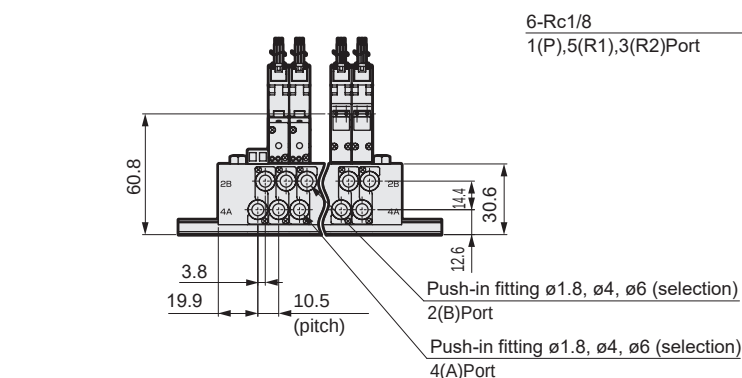
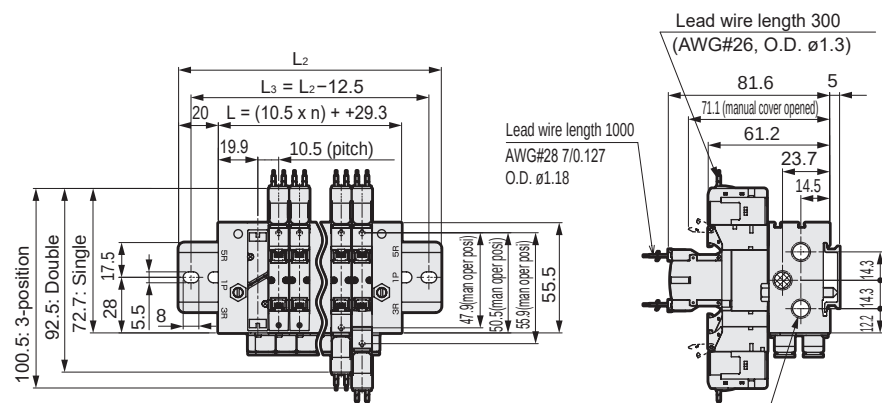
- Direct mount installation
- Grommet lead wire (blank)



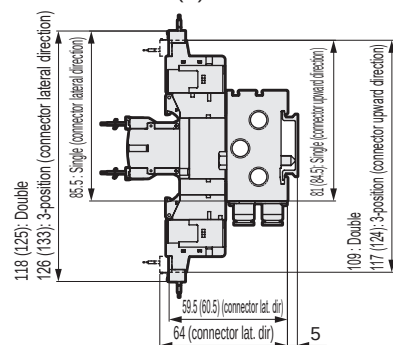
Lead wire length 1000
AWG#28 7/0.127
O.D. ø1.18



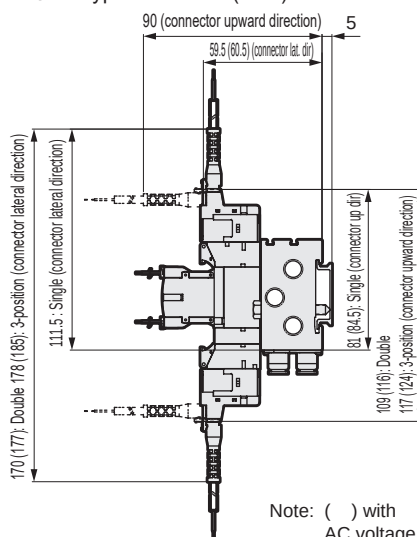
- DIN rail installation (D)
- Grommet lead wire (blank)



- E-connector (E)



- EJ type connector (E**J)



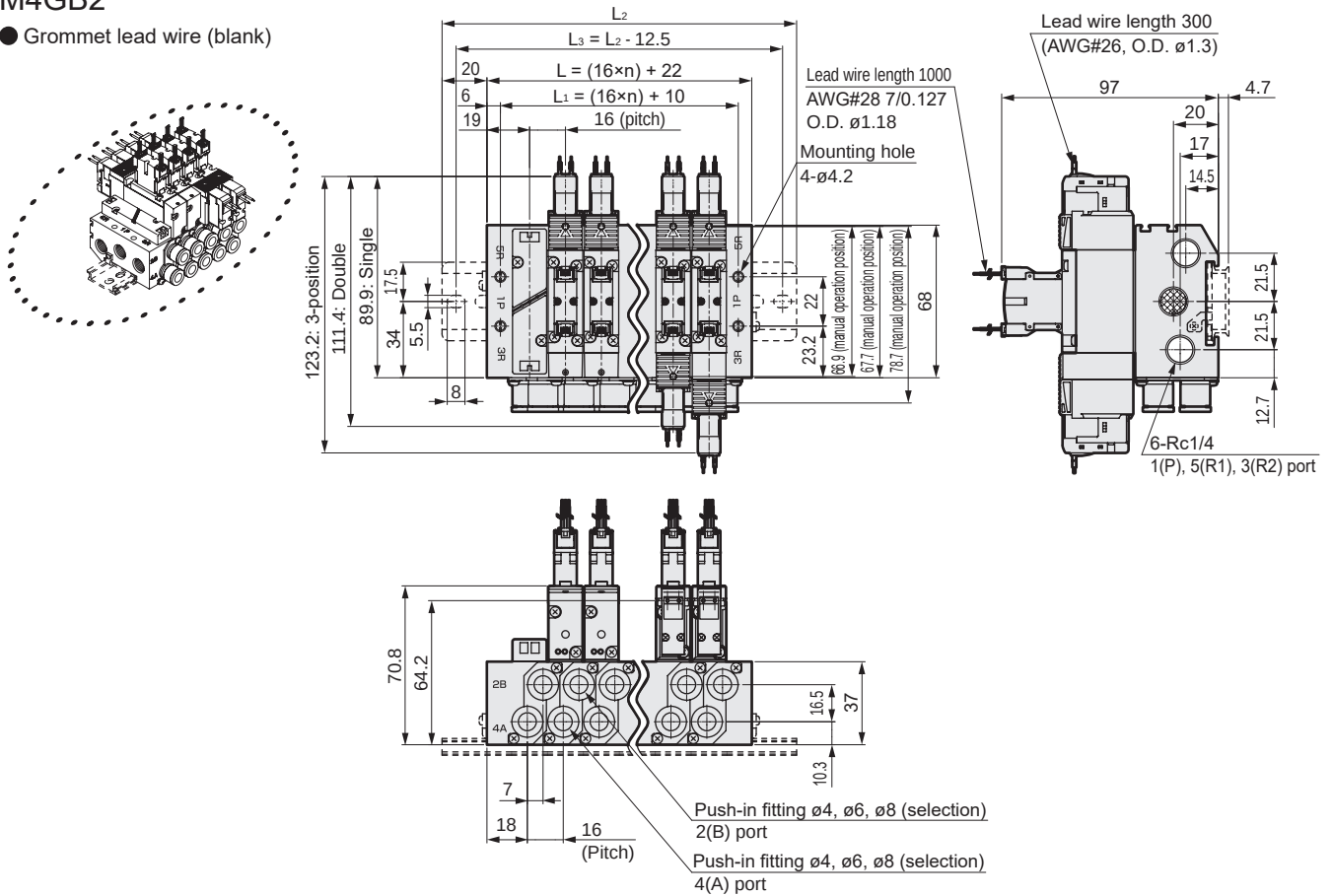
Note: () with
AC voltage

Station No.		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Direct Mount Mounting	L	38.5	49.0	59.5	70.0	80.5	91.0	101.5	112.0	122.5	133.0	143.5	154.0	164.5	175.0	185.5	196.0	206.5	217.0	227.5
	L1	30.5	41.0	51.5	62.0	72.5	83.0	93.5	104.0	114.5	125.0	135.5	146.0	156.5	167.0	177.5	188.0	198.5	209.0	219.5
DIN Rail Mounting	L	50.3	60.8	71.3	81.8	92.3	102.8	113.3	123.8	134.3	144.8	155.3	165.8	176.3	186.8	197.3				
	L2	100.0	112.5	112.5	125.0	137.5	150.0	162.5	175.0	175.0	187.5	200.0	212.5	225.0	237.5	237.5				
	L3	87.5	100.0	100.0	112.5	125.0	137.5	150.0	162.5	162.5	175.0	187.5	200.0	212.5	225.0	225.0				

Dimensions

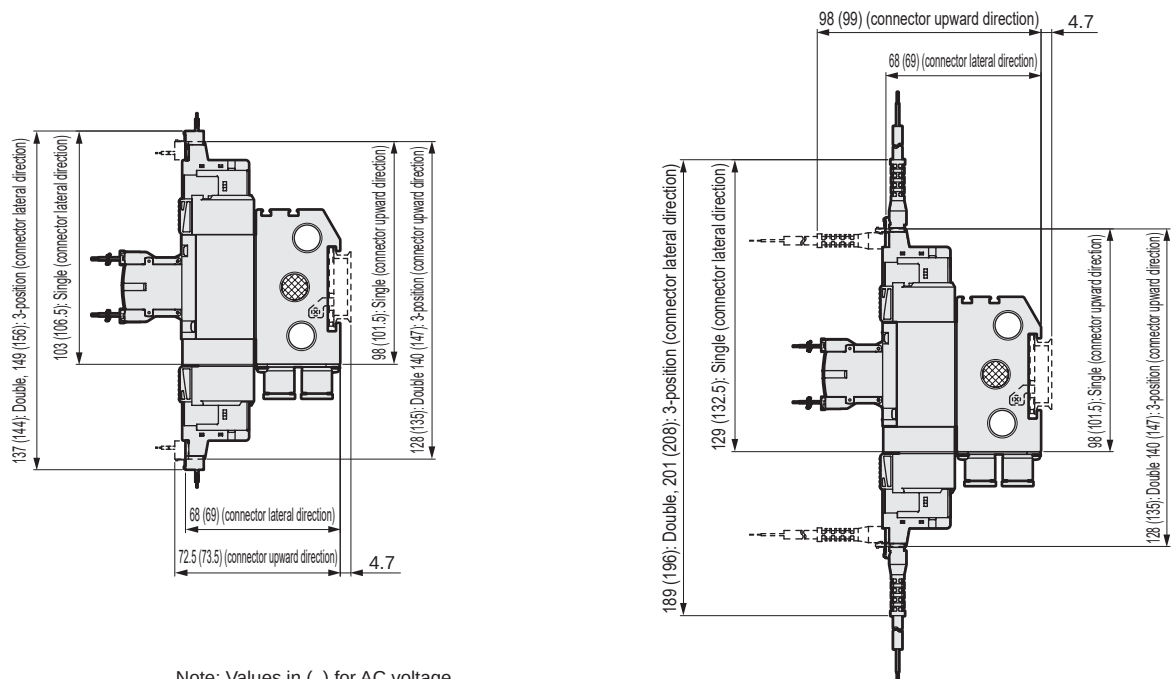
M4GB2

- Grommet lead wire (blank)



- E-connector (E)

- EJ-connector (E**J)



Note: Values in () for AC voltage

Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	54.0	70.0	86.0	102.0	118.0	134.0	150.0	166.0	182.0	198.0	214.0	230.0	246.0	262.0	278.0	294.0	310.0	326.0	342.0
L ₁	42.0	58.0	74.0	90.0	106.0	122.0	138.0	154.0	170.0	186.0	202.0	218.0	234.0	250.0	266.0	282.0	298.0	314.0	330.0
L ₂	100.0	112.5	137.5	150.0	162.5	175.0	200.0	212.5	225.0	250.0	262.5	275.0	287.5	312.5	325.0				
L ₃	87.5	100.0	125.0	137.5	150.0	162.5	187.5	200.0	212.5	237.5	250.0	262.5	275.0	300.0	312.5				

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

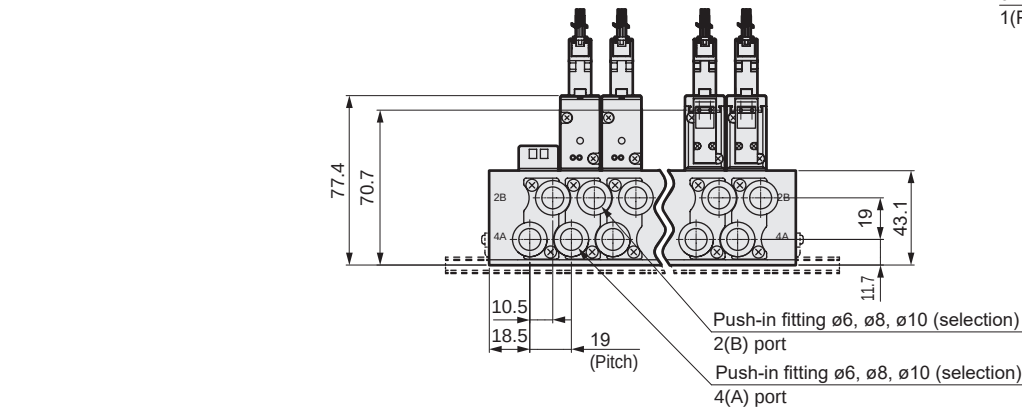
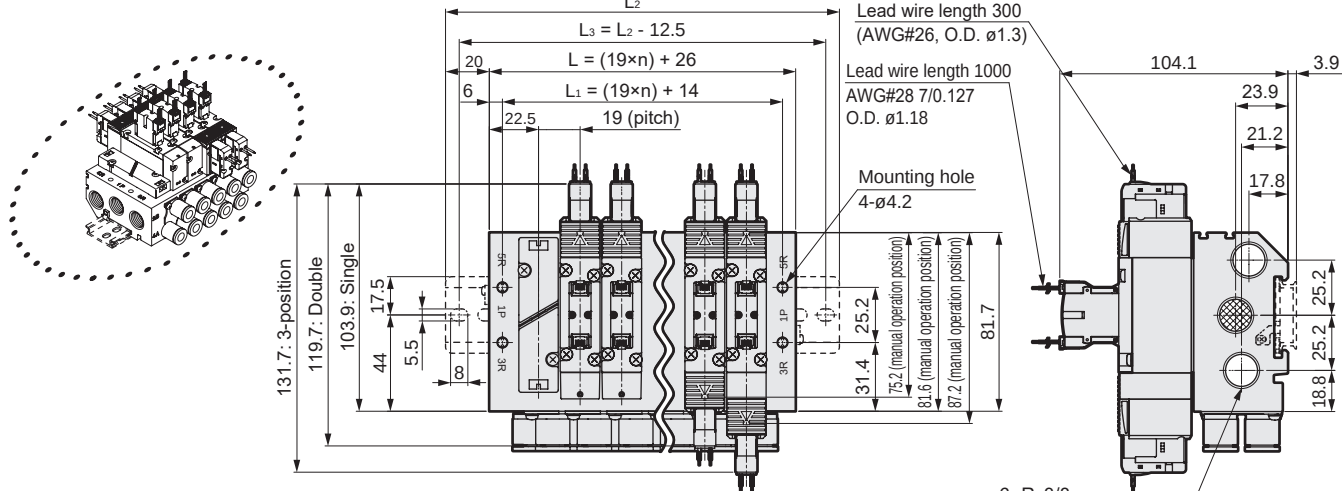
M4GB3 Series

Individual wiring manifold; base piping

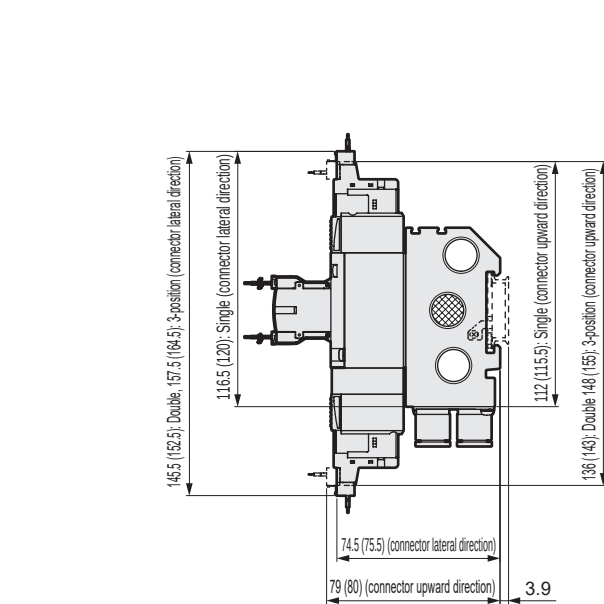
Dimensions

M4GB3

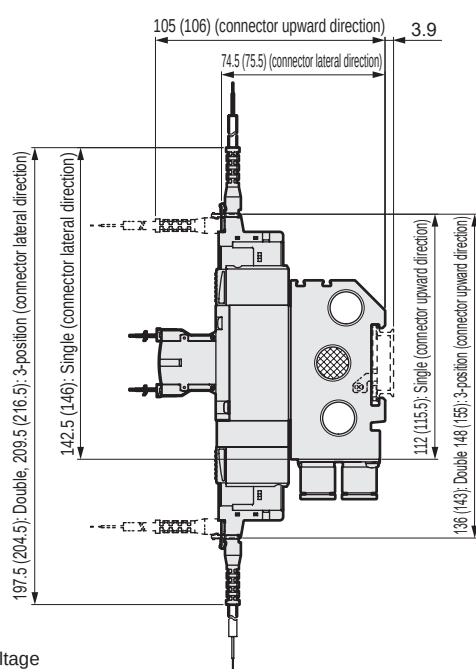
● Grommet lead wire (blank)



● E-connector (E)



● EJ-connector (E**J)



Note: Values in () for AC voltage

Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	64.0	83.0	102.0	121.0	140.0	159.0	178.0	197.0	216.0	235.0	254.0	273.0	292.0	311.0	330.0	349.0	368.0	387.0	406.0
L ₁	52.0	71.0	90.0	109.0	128.0	147.0	166.0	185.0	204.0	223.0	242.0	261.0	280.0	299.0	318.0	337.0	356.0	375.0	394.0
L ₂	112.5	125.0	150.0	162.5	187.5	200.0	225.0	237.5	262.5	275.0	300.0	325.0	337.5	362.5	375.0				
L ₃	100.0	112.5	137.5	150.0	175.0	187.5	212.5	225.0	250.0	262.5	287.5	312.5	325.0	350.0	362.5				

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

Reduced wiring manifold
Base piping
Direct mount/DIN rail mount

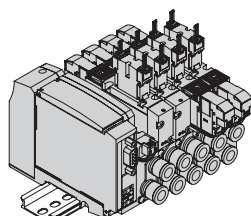
With pressure sensor

M3GB1/2-T* (D) Series M4GB1/2/3-T* (D) Series

● Applicable cylinder bore size: $\varnothing 20$ to $\varnothing 100$

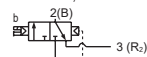
RoHS

CAD

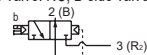


JIS symbol

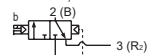
- Two 3-port valves integrated
(A side valve: NC, B side valve: NC)



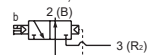
(A side valve: NC, B side valve: NO)



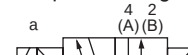
(A side valve: NO, B side valve: NC)



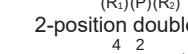
(A side valve: NO, B side valve: NO)



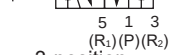
- 5-port valve
2-position single



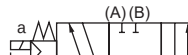
2-position double



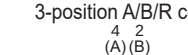
3-position



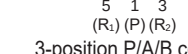
All ports closed



3-position A/B/R connection



3-position P/A/B connection



4G*0EJ



4F*0EX



4F*0E



HMV
HSV



2QV
3QV



Manifold common specifications

Item	Description
Manifold	Reduced wiring integrated base
Mounting method	Direct mount/DIN rail mount
Air supply and exhaust method	Common supply/common exhaust (With internal exhaust check valve)
Pilot exhaust method	Internal pilot: Main valve/pilot valve common exhaust (Pilot exhaust check valve built-in) External pilot: Main valve/pilot valve individual exhaust
Piping direction	Side direction of base
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	0.7 (≈ 101 psi, 7 bar)
Min. working pressure MPa	0.2 (≈ 29 psi, 2 bar) (*3)
Proof pressure MPa	1.05 (≈ 152 psi, 10 bar)
Ambient temperature $^{\circ}\text{C}$	-5 (23 $^{\circ}\text{F}$) to 55 (131 $^{\circ}\text{F}$) (no freezing)
Fluid temperature $^{\circ}\text{C}$	5 (41 $^{\circ}\text{F}$) to 55 (131 $^{\circ}\text{F}$)
Manual override	Non-locking/locking common (standard)
Lubrication (*1)	Not required
Degree of protection (*2)	Dust-proof
Vibration resistance m/s^2	50 or less
Impact resistance m/s^2	300 or less
Atmosphere	Cannot be used in corrosive gas environments

Electrical specifications

Item	Description
Rated voltage V	T1□, T30□, T5□: 24 DC T6G1, T8□: 12 DC
Voltage fluctuation range (*4)	$\pm 10\%$
Holding current A	Standard: 0.017 With low exoergic/energy circuit: 0.005
Power consumption W	Standard: 0.4 With low exoergic/energy circuit: 0.1
Thermal class	B
Surge suppressor (*5)	Zener diode
Indicator	LED

*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.

*4: T6G1 and T8□ (serial transmission) may experience voltage drops due to internal circuitry, so care should be taken with the voltage fluctuation range.

*5: When selecting low exoergic/energy saving circuit or surgeless, a diode will be used.

Common specifications

Item	M3GB1/M4GB1	M3GB2/M4GB2	M3GB3/M4GB3
Port size	Barbed fitting $\varnothing 1.8$ Push-in fitting $\varnothing 1.8, \varnothing 4, \varnothing 6, \varnothing 8$ (*6) M5	Push-in fitting $\varnothing 4, \varnothing 6, \varnothing 8, \varnothing 10$ (*6) Rc1/8	Push-in fitting $\varnothing 6, \varnothing 8, \varnothing 10$ Rc1/4
	Port P/R1/R2	Rc1/8	Rc1/4

*6: Available as made to order.

T1 □, T30 □, T5 □

Item	M3GB1/M4GB1	M3GB2/M4GB2	M3GB3/M4GB3
	Direct mount	DIN rail mount	Direct mount
Max. station No.	Standard (Internal pilot): 20 stations External pilot: 16 stations	20 stations	16 stations
Manifold base weight	Standard: 43n + 335	45n + 348	80n + 398
Weight calculation formula (n: station No.) g	External pilot: 44n + 330	46n + 344	82n + 431

T6G1

Item	M3GB1/M4GB1	M3GB2/M4GB2	M3GB3/M4GB3
	DIN rail mount	DIN rail mount	DIN rail mount
Max. station No.	Standard (Internal pilot): 16 stations External pilot: 12 stations	16 stations	16 stations
Manifold base weight	Standard: 45n + 495	82n + 578	126n + 729
Weight calculation formula (n: station No.) g	External pilot: 46n + 491	90n + 615	131n + 753

T8 □

Item	M3GB1/M4GB1	M3GB2/M4GB2	M3GB3/M4GB3
	Direct mount	DIN rail mount	Direct mount
Max. station No.	Standard (Internal pilot): 20 stations External pilot: 16 stations	20 stations	16 stations
Manifold base weight	Standard: 46n + 305	49n + 332	83n + 318
Weight calculation formula (n: station No.) g	External pilot: 48n + 312	51n + 339	91n + 336

The manifold base weight is the value for screw connection specifications with DIN rail, wiring block or device unit.

Note that the maximum number of stations in the manifold is also limited by the maximum number of solenoid points per wiring specification as shown on the right.

M³GB1/2/3-T*(D) Series

Reduced wiring manifold; base piping

Flow characteristics

Model No.	Solenoid position	P → A/B		A/B → R1/R2	
		C[dm ² /(s·bar)]	b	C[dm ² /(s·bar)]	b
M3GB1	Two 3-port valves integrated	0.86	0.35	1.1 (0.67)	0.22 (0.23)
	2-position	1.1	0.22	1.2 (0.70)	0.20 (0.10)
	3-position	All ports closed	0.98	0.22	-
		ABR connection	0.97	0.35	0.22 (0.24)
M4GB1	3-position	PAB connection	1.1	0.38	0.21 -
	Two 3-port valves integrated	1.7	0.44	2.1 (1.6)	0.32 (0.30)
	2-position	2.4	0.34	2.7 (1.7)	0.24 (0.31)
M3GB2	3-position	All ports closed	2.2	0.34	0.29 -
		ABR connection	2.2	0.34	0.24 (0.27)
	3-position	PAB connection	2.4	0.29	0.29 -
M4GB2	3-position	All ports closed	3.5	0.34	0.11 (0.27)
		ABR connection	3.1	0.33	0.22 -
	3-position	PAB connection	3.0	0.30	0.11 (0.22)
			3.6	0.36	0.28 -

*1: Effective cross-sectional area S and sonic conductance C are converted as $S = 5.0 \times C$. *2: Values in () are with the exhaust check valve.

Wiring specifications

Item	T10□	T11□	T30□	T50□	T51□	T52□	T53□
Connector and terminal block specifications	Common terminal block	Common terminal block	DSub-connector	Flat cable 20-pin	Flat cable 20-pin	Flat cable 10-pin	Flat cable 26-pin
Max. number of solenoids	M3 thread tightening	Terminal count 18	Clamping	Terminal count 26	D-sub-connector 25-pin	MIL-C-83503 standard compliant	Pressure welding socket 20-pin
Manifold internal wiring	Terminal count 18	24 points	24 points	16 points	18 points	8 points	24 points
Wiring block position	Details on pages 816 to 823						
	Left side: T □ a solenoid side Right side: T □ R a solenoid side						
Blank: Left side							
R: Right side							
Array method	(Ex.) In the case of T50 □						
	Manifold specifications Standard wiring (sequential): Blank Double wiring: W						
Blank: Standard sequential							
W: Double wiring							

Serial transmission device unit specifications

Download the communication setting file from the CKD website (<https://www.ckd.co.jp/en/>).

Item	T6G1
Network name	CC-Link ver. 1.10
Power supply voltage	Unit side
	Valve side
Current consumption	Unit side
	Valve side
No. of output points	16 points
Occupied number	1 station
Operation display	LED (power supply and communication status)

Item		T8G1	T8GP1	T8P1	T8PP1	T8EC1	T8ECP1	T8EN1	T8ENP1	T8D1	T8DP1	T8EB1	T8EBP1	T8EP1	T8EPP1		
		T8G2	T8GP2	T8P2	T8PP2	T8EC2	T8ECP2	T8EN2	T8ENP2	T8D2	T8DP2	T8EB2	T8EBP2	T8EP2	T8EPP2		
Communication protocol		CC-Link ver. 1.10			PROFIBUS-DP (V0)		EtherCAT		EtherNet/IP		DeviceNet		CC-Link IEF Basic		PROFINET		
Power supply voltage	Unit side	24 VDC ±10%										11 to 25 VDC		24 VDC ±10%			
	Valve side	24 VDC 10%, 5%															
Current consumption	Unit side	60 mA or less (when all output points are ON)		60 mA or less (when all output points are ON)		110 mA or less (when all output points are ON)		120 mA or less (when all output points are ON)		70 mA or less (when all output points are ON)		130 mA or less (when all output points are ON)		130 mA or less (when all output points are ON)			
	Valve side	T8 □ 1: 15 mA or less T8 □ 2: 20 mA or less (When all output points are ON) Load current is not included										15 mA or less (When all output points are ON) Load current is not included					
No. of output points		T8 □1: 16 points T8 □ 2: 32 points															
Occupied number		1 station															
Operation display		LED (power supply and communication status)															
Output		NPN output	PNP output	NPN output	PNP output	NPN output	PNP output	NPN output	PNP output	NPN output	PNP output	NPN output	PNP output	NPN output	PNP output		

M³GB1/2/3-T*(D) Series

Reduced wiring manifold; base piping

Sensor specifications

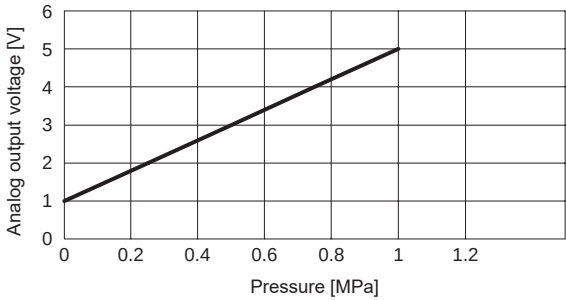
Discrete specifications

Item	Positive pressure	Negative pressure *2
Working pressure *1	0 to 1.0 MPa	-100kPa to 0
Service voltage	10.8 to 30.0 VDC	
Current consumption	5 mA (24 VDC, no load)	
Pressure detection method	Diffused semiconductor pressure switch	
Ambient temperature	0 to 55°C	
Proof pressure	1.5 MPa	0.5 MPa
Degree of protection	Dust-proof	
Analog output	Output voltage	1 to 5V
	Zero point voltage	1±0.1V
	Linearity	±0.5% F.S. max
	Temperature characteristics	±2% F.S. max
	Output current	0.5mA max. (load resistance 10 kΩ)
Wiring method	Connector connection	
Wire length	1000 mm	

*1 Use the smaller working pressure range for the valve or pressure sensor.
*2 For negative pressure, only the single unit sensor is supported.

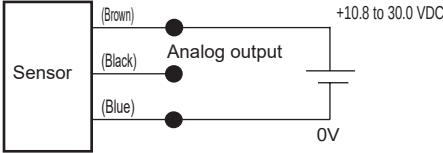
Analog output

● Positive pressure

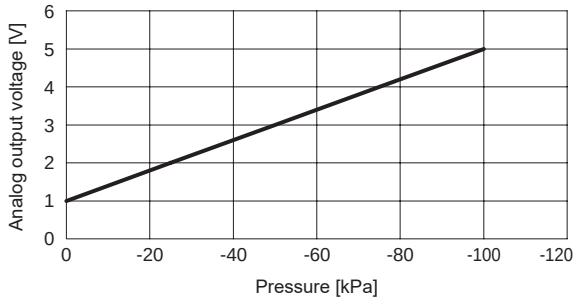


Lead wire color and content

Line color	Description
Brown	Power supply (10.8 to 30.0 VDC)
Black	Analog output (1 to 5 V)
Blue	GND(0V)



● Negative pressure



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

M4GB1/2/3-T* (D) Series

Reduced wiring manifold; base piping

How to order

Manifold model No.

M **4GB1** **1** **0** **R** - **C6** - **T30** **W** **H** **D** - **3**

3-port manifold model No.

M **3GB1** **66** **0** **R** - **C6** - **T30** **W** **H** **D** - **3**

● Discrete valve for mounting base

4GB1 **1** **9** **R** - **00** - **A2N** **H** - **3**

● 3-port discrete valve for mounting base

3GB1 **66** **9** **R** - **00** - **A2N** **H** - **3**

B Solenoid position

A Model No.

C Port size

(*3)

(*4)

D Reduced wiring connection

E Terminal/connector pin array

F Option

G Mounting

H Station No.

I Voltage

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

⚠ Precautions for model No. selection

- *1 : Select M4GB*80R when mixing with 3, 5-port valves.
Further, select M3GB*80R when mixing with masking plate.
 - *2 : Not compatible when combined with external pilot (K). Dimensions are the same as those of the respective 2-position double solenoid.
 - *3 : CL* push-in L fitting (upward) is compatible only with the single solenoid manifold. Long elbow is for port A and short elbow for port B.
 - *4 : Ports A and B are the same size for push-in L fittings.
 - *5 : 4G1 C8 and 4G2 C10 are available as made to order. In addition, these do not support push-in fitting mixing.
 - *6 : Blank: The wiring is based on the type of valve equipped.
- W*: All wired for double solenoid valves regardless of the type of valve equipped.

A Model No.

3GB1 3GB2 4GB1 4GB2 4GB3

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			●	●	●
66	Two 3-port valves integrated (*1) (*2)	A side valve: Normally closed	●	●		
		B side valve: Normally closed				
67		A side valve: Normally closed	●	●		
		B side valve: Normally open				
76		A side valve: Normally open	●	●		
		B side valve: Normally closed				
77		A side valve: Normally open	●	●		
		B side valve: Normally open				
8	Mix manifold (for multiple solenoid positions)		●	●	●	●

C Port size

Port	4(A)/2(B) port	Port P/R1/R2 (2) = Rc1/8 (3) = Rc1/4 (4) = Rc3/8			
CF	ø1.8 barbed fitting (compatible tube UP-9102-**) (2)	(2)			
C18	ø1.8 push-in fitting (compatible tube UP-9402-**) (2)	(2)			
C4	ø4 push-in fitting (2)	(3)	(2)	(3)	
C6	ø6 push-in fitting (2)	(3)	(2)	(3)	(4)
C8	ø8 push-in fitting (*5) (*6) (2)	(3)	(2)	(3)	(4)
C10	ø10 push-in fitting (*5) (*6) (3)			(3)	(4)
CL18	ø1.8 push-in L-fitting upward (compatible tube UP-9402-**) (2)				
CL4	ø4 push-in L-fitting (upward) (2)				
CL6	ø6 push-in L-fitting (upward) (2)			(3)	
CL8	ø8 push-in L-fitting (upward) (3)			(3)	(4)
CL10	ø10 push-in L-fitting (upward) (4)				
CD18	ø1.8 push-in L-fitting downward (compatible tube UP-9402-**) (2)	(2)			
CD4	ø4 push-in L-fitting (downward) (2)	(2)			
CD6	ø6 push-in L-fitting (downward) (2)	(3)	(2)	(3)	
CD8	ø8 push-in L-fitting (downward) (3)			(3)	(4)
CD10	ø10 push-in L-fitting (downward) (4)				
CX	Push-in fitting mix (2)	(3)	(2)	(3)	(4)
M5	M5 (2)	(2)			
06	Rc1/8 (3)			(3)	
08	Rc1/4 (4)				
Port	4(A)/2(B) port	Port P/R1/R2 (5) = 1/8NPT, (6) = 1/4NPT, (7) = 3/8NPT			
C3N	ø1/8" push-in fitting (5)		(5)		
C4N	ø5/32" push-in fitting (5)		(5)		
C6N	ø1/4" push-in fitting (6)			(6)	
C8N	ø5/16" push-in fitting (6)			(6)	(7)
C10N	ø3/8" push-in fitting (7)				
CL3N	ø1/8" push-in L-fitting upward (*6) (5)				
CL4N	ø5/32" push-in L-fitting upward (*6) (5)				
CL6N	ø1/4" push-in L-fitting upward (*6) (6)				(6)
CL8N	ø5/16" push-in L-fitting upward (*6) (6)				(6)
CXN	Push-in fitting mix (5)	(6)	(5)	(6)	(7)
M5N	M5 (5)		(5)		
06 N	NPT1/8 (6)			(6)	
08 N	NPT1/4 (*6) (7)				
Port	4(A)/2(B) port	Port P/R1/R2 (8) = G1/8, (9) = G1/4			
C4G	ø4 push-in fitting (8)	(9)	(8)	(9)	
C6G	ø6 push-in fitting (8)	(9)	(8)	(9)	
C8G	ø8 push-in fitting (9)			(9)	
CL4G	ø4 push-in L-fitting upward (*6) (8)				
CL6G	ø6 push-in L-fitting upward (*6) (8)			(9)	
CL8G	ø8 push-in L-fitting upward (*6) (9)				
CXG	Push-in fitting mix (8)	(9)	(8)	(9)	
M5G	M5 (8)		(8)		
06G	G1/8 (9)			(9)	
00	Discrete valve for integrated base	●	●	●	●

D Reduced wiring connection

Refer to the next page for electrical connections.

is not available.

M4GB1/2/3-T* (D) Series

Reduced wiring manifold; base piping

			A Model No.				
			3GB1	3GB2	4GB1	4GB2	4GB3
D Reduced wiring (lamp and surge suppressor provided as standard) 12/24 VDC							
T10	Common terminal block (M3 thread)	Left-sided specifications	●	●	●	●	●
T10R		Right-sided specifications	●	●	●	●	●
T11	Common terminal block (clamping)	Left-sided specifications	●	●	●	●	●
T11R		Right-sided specifications	●	●	●	●	●
T30	D-sub-connector	Left-sided specifications	●	●	●	●	●
T30R		Right-sided specifications	●	●	●	●	●
T50	20-pin flat cable connector (with power supply terminal)	Left-sided specifications	●	●	●	●	●
T50R		Right-sided specifications	●	●	●	●	●
T51	20-pin flat cable connector (without power supply terminal)	Left-sided specifications	●	●	●	●	●
T51R		Right-sided specifications	●	●	●	●	●
T52	10-pin flat cable connector (without power supply terminal)	Left-sided specifications	●	●	●	●	●
T52R		Right-sided specifications	●	●	●	●	●
T53	26-pin flat cable connector (without power supply terminal)	Left-sided specifications	●	●	●	●	●
T53R		Right-sided specifications	●	●	●	●	●
E Serial transmission (lamp/surge suppressor provided as standard) 24 VDC							
T6G1	CC-Link	NPN 16 points	●	●	●	●	●
T8G1		NPN 16 points	●	●	●	●	●
T8G2		NPN 32 points	●	●	●	●	●
T8GP1		PNP 16 points	●	●	●	●	●
T8GP2		PNP 32 points	●	●	●	●	●
T8P1		NPN 16 points	●	●	●	●	●
T8P2		NPN 32 points	●	●	●	●	●
T8PP1		PNP 16 points	●	●	●	●	●
T8PP2		PNP 32 points	●	●	●	●	●
T8EC1		NPN 16 points	●	●	●	●	●
T8EC2		NPN 32 points	●	●	●	●	●
T8ECP1		PNP 16 points	●	●	●	●	●
T8ECP2		PNP 32 points	●	●	●	●	●
T8EN1		NPN 16 points	●	●	●	●	●
T8EN2		NPN 32 points	●	●	●	●	●
T8ENP1		PNP 16 points	●	●	●	●	●
T8ENP2		PNP 32 points	●	●	●	●	●
T8D1		NPN 16 points	●	●	●	●	●
T8D2		NPN 32 points	●	●	●	●	●
T8DP1		PNP 16 points	●	●	●	●	●
T8DP2		PNP 32 points	●	●	●	●	●
T8EB1		NPN 16 points	●	●	●	●	●
T8EB2		NPN 32 points	●	●	●	●	●
T8EBP1		PNP 16 points	●	●	●	●	●
T8EBP2		PNP 32 points	●	●	●	●	●
T8EP1		NPN 16 points	●	●	●	●	●
T8EP2		NPN 32 points	●	●	●	●	●
T8EPP1		PNP 16 points	●	●	●	●	●
T8EPP2		PNP 32 points	●	●	●	●	●
A2N	Without lead wire (without socket)	with surge suppressor and indicator lamp	●	●	●	●	●
F Terminal/connector pin array							
Blank	Standard wiring	(*6)	●	●	●	●	●
W	Double wiring	(*6)	●	●	●	●	●
W1	Double wiring (with single spare wiring)	(*6) (*7)	●	●	●	●	●
G Option							
Blank	Manual override of non-locking/locking common		●	●	●	●	●
M	Manual override of non-locking		●	●	●	●	●
H	With exhaust check valve	(*8)	●	●	●	●	●
K	External pilot	(*9)	●	●	●	●	●
A	Ozone/coolant proof		●	●	●	●	●
S	Surgeless	(*10)	●	●	●	●	●
E	Low exoergic/energy saving circuit	(*10) (*11)	●	●	●	●	●
F	Port A/B filter built in	(*12)	●	●	●	●	●
G1	With sensor (1-port detection type)	(*16) (*17)	●	●	●	●	●
G2	With sensor (2-port detection type)	(*17)	●	●	●	●	●
Z1	Air supply spacer	(*13)	●	●	●	●	●
Z2	In-stop valve spacer	(*13) (*14)	●	●	●	●	●
Z3	Exhaust spacer	(*13)	●	●	●	●	●
Z6	Spacer pilot check valve	(*13) (*15)	●	●	●	●	●
H Mount type							
Blank	Direct mount		●	●	●	●	●
D	DIN rail mount		●	●	●	●	●
I Station No.							
2	2 stations		●	●	●	●	●
to	to		●	●	●	●	●
20	Refer to page 366 for the max. station No. per model.		●	●	●	●	●
J Voltage							
3	24 VDC		●	●	●	●	●
4	12 VDC		●	●	●	●	●

Ozone-proof specifications

Coolant proof specifications

Page 370 Select option "A" of Item ⑤ in How to order.

Clean-room specifications

● Anti-dust generation structure for use in cleanrooms

** - Voltage - **P7***

Specifications for rechargeable battery

(Catalog No. CC-1226A)

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

** - Voltage - **P4**

CE marking specifications

** - Voltage - **ST**

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

⚠ Precautions for model No. selection

*7 : Spare wiring (A type socket assembly) is included on the cap side for single types. A holder for retaining the socket assembly is included for single unit valves (A2N). For details, refer to page 197.

*8 : 3-position all ports closed and PAB connection are not provided with the exhaust check valve specifications (H). Refer to page 851 for details on the exhaust check valve.

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

*10 : In addition, surgeless "S" and low exoergic/energy saving circuit "E" cannot be selected together.

*11 : Surgeless specifications.

*12 : A filter is built into port P as standard.

*13 : Specify the spacer mounting position and quantity on the manifold specifications sheet. Stacking of spacers is not possible. Combination with the masking plate is not supported. For details, refer to page 188 to page 192.

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

*15 : Combination with push-in L fittings (upward) is not supported.

*16 : Single and double only.

*17 : The pressure range is 0 to 0.7 MPa.

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

M4GB1/2/3-T*(D) Series

Reduced wiring manifold; base piping

Manifold configuration explanation and parts list

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA/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

● T10/T10R

● T11/T11R

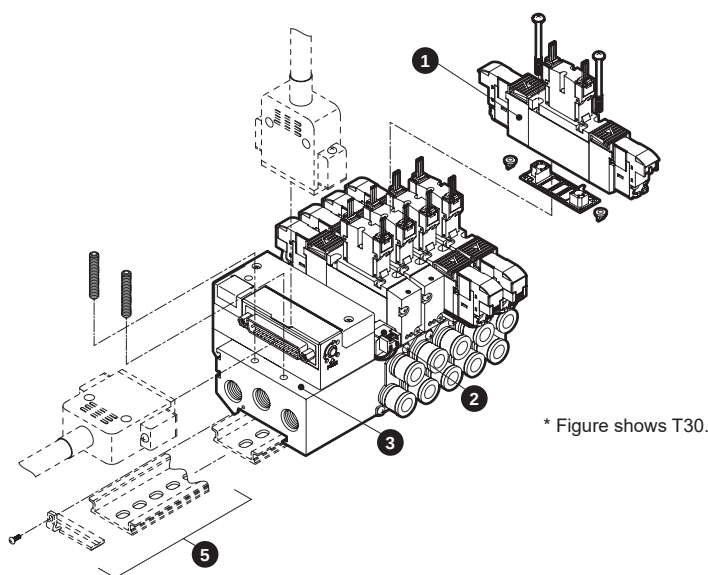
● T30/T30R

● T50/T50R

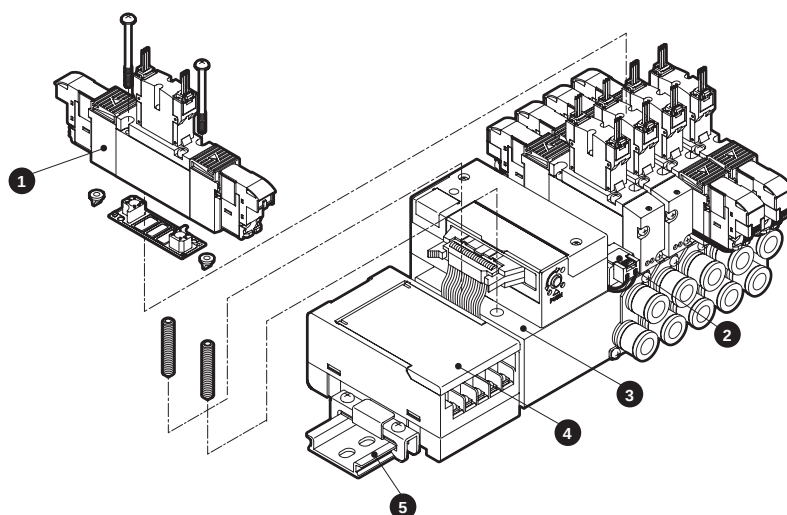
● T51/T51R

● T52/T52R

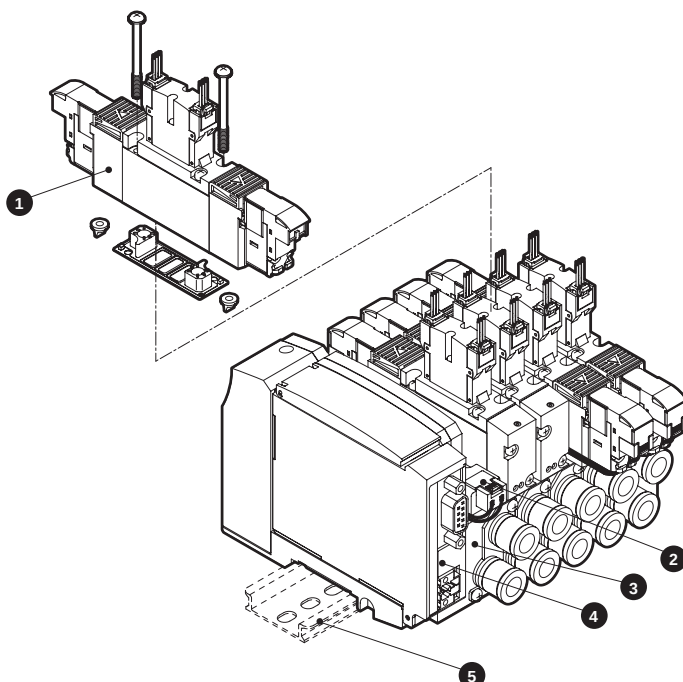
● T53/T53R



● T6G1



● T8*



Mount (direct, DIN rail) cannot be changed after purchase of the M4GB2-T8 and M4GB3-T8 Series.
M4GB1-T8 Series allows changes.

M4GB1/2/3-T*(D) Series

Reduced wiring manifold; base piping

Main parts list

No.	Component name	Model No.	Description	Remarks
1	Discrete valve for integrated base	³ GB □ □ 9R-00-A2N ☐ Option - ☐ Voltage ☐ Solenoid position ☐ Series flow rate size	Discrete valve Gasket 2 mounting screws 2 PR check valves	Details on page 358
2	Masking plate	3G1/4G1 4G1R-MP 3G2/4G2 4G2R-MP 3G2/4G3 4G3R-MP	Masking plate Gasket 2 mounting screws	* 4G3R-MP has two PR check valves included.
3	Manifold base assembly	M4GB □ □ R ☐ Port size - ☐ Reduce wire conn. - ☐ Option - ☐ Station No. ☐ Series flow rate size	Manifold base Wiring block	
4	Serial transmission device unit	4GR-OPP3- ☐ Wiring method 4GR-OPP7- ☐ Wiring method	Discrete serial transmission device unit (connector type) Discrete serial transmission device unit (thin slot type)	Details on page 187
5	DIN rail kit	4GB □ □ R-BAA ☐ Rail length - ☐ Option D ☐ Series flow rate size		Details on page 200

Parts list

No.	Part name	Model No.	No.	Part name	Model No.
-	Coil assembly	4GR-A2N- ☐ -COIL- ☐ Voltage Blank: Standard A: Ozone/coolant proof S: Surgeless E: Low exoergic/energy circuit K: External pilot	-	Cartridge Push-in fitting and related parts	
-	A-connector socket assembly details on page 837	4GR □ □ -SOCKET-ASSY-A ☐ ☐ - ☐ Row No. Blank: Left side, R: Right side A: aSOL side, B: bSOL side n: Specify position of valve to be connected		4G1 ø1.8 barbed 4G1R-JOINT-CF ø1.8 straight 4G1R-JOINT-C18 ø4 straight 4G1R-JOINT-C4 ø6 straight 4G1R-JOINT-C6 ø8 straight (*1) 4G1R-JOINT-C8 ø1.8 elbow 4G1R-JOINT-CL18, CLL18 ø4 elbow 4G1R-JOINT-CL4, CLL4 ø6 elbow 4G1R-JOINT-CL6, CLL6 Plug cartridge 4G1R-JOINT-CPG 4G2 ø4 straight 4G2R-JOINT-C4 ø6 straight 4G2R-JOINT-C6 ø8 straight 4G2R-JOINT-C8 ø10 straight (*2) 4G2R-JOINT-C10 ø6 elbow 4G2R-JOINT-CL6, CLL6 ø8 elbow 4G2R-JOINT-CL8, CLL8 Plug cartridge 4G2R-JOINT-CPG 4G3 ø6 straight 4G3R-JOINT-C6 ø8 straight 4G3R-JOINT-C8 ø10 straight 4G3R-JOINT-C10 ø8 elbow 4G3R-JOINT-CL8, CLL8 ø10 elbow 4G3R-JOINT-CL10, CLL10	

*1: Dedicated part for M4GB1-C8.

*2: Common product with the 4G3 ø10 straight.

* For related products, refer to page 188 to page 198.

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

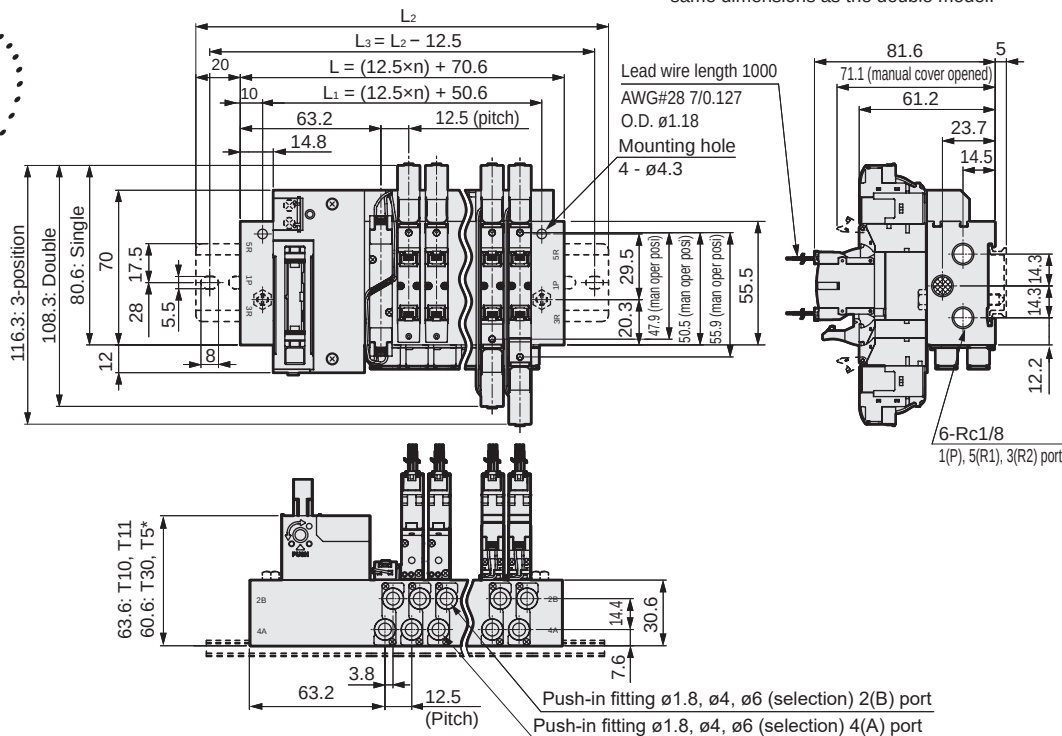
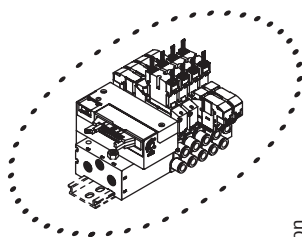
M4GB1-T* Series

Reduced wiring manifold; base piping

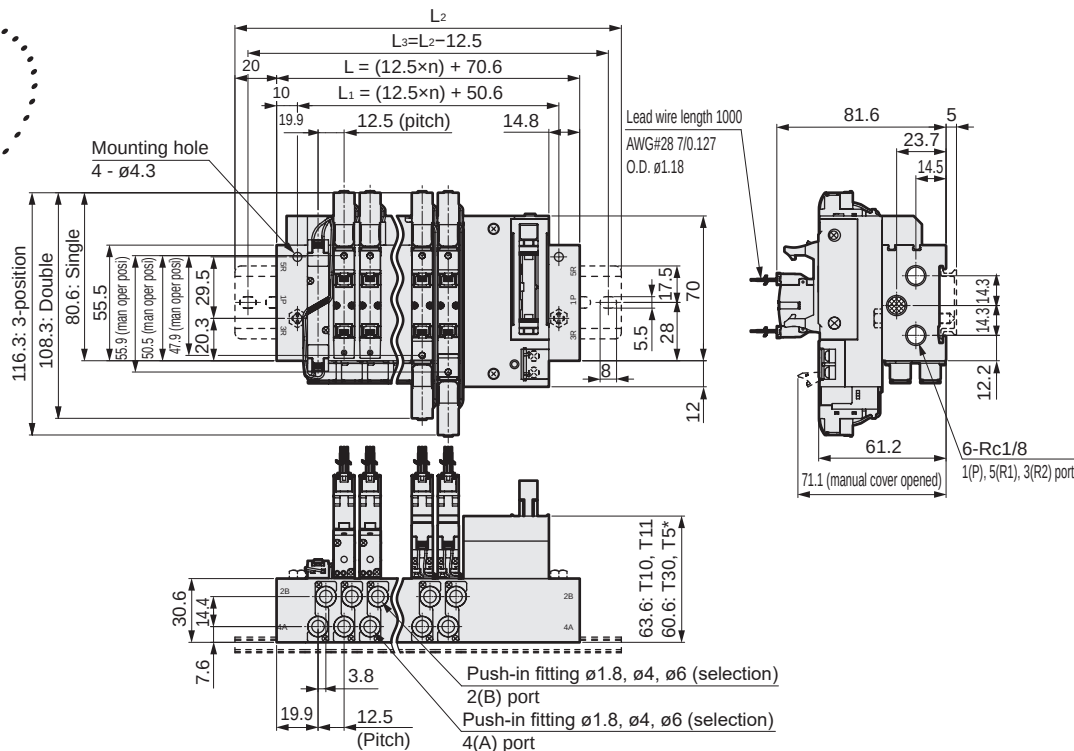
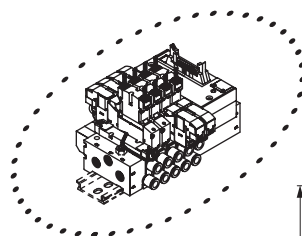
Dimensions

M4GB1

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



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



Note: Refer to page 172 for details on the push-in fitting elbow (upward) (downward).

Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	95.6	108.1	120.6	133.1	145.6	158.1	170.6	183.1	195.6	208.1	220.6	233.1	245.6	258.1	270.6	283.1	295.6	308.1	320.6
L1	75.6	88.1	100.6	113.1	125.6	138.1	150.6	163.1	175.6	188.1	200.6	213.1	225.6	238.1	250.6	263.1	275.6	288.1	300.6
L2	137.5	150.0	162.5	175.0	187.5	200.0	212.5	225.0	237.5	250.0	262.5	275.0	287.5	300.0	312.5				
L3	125.0	137.5	150.0	162.5	175.0	187.5	200.0	212.5	225.0	237.5	250.0	262.5	275.0	287.5	300.0				

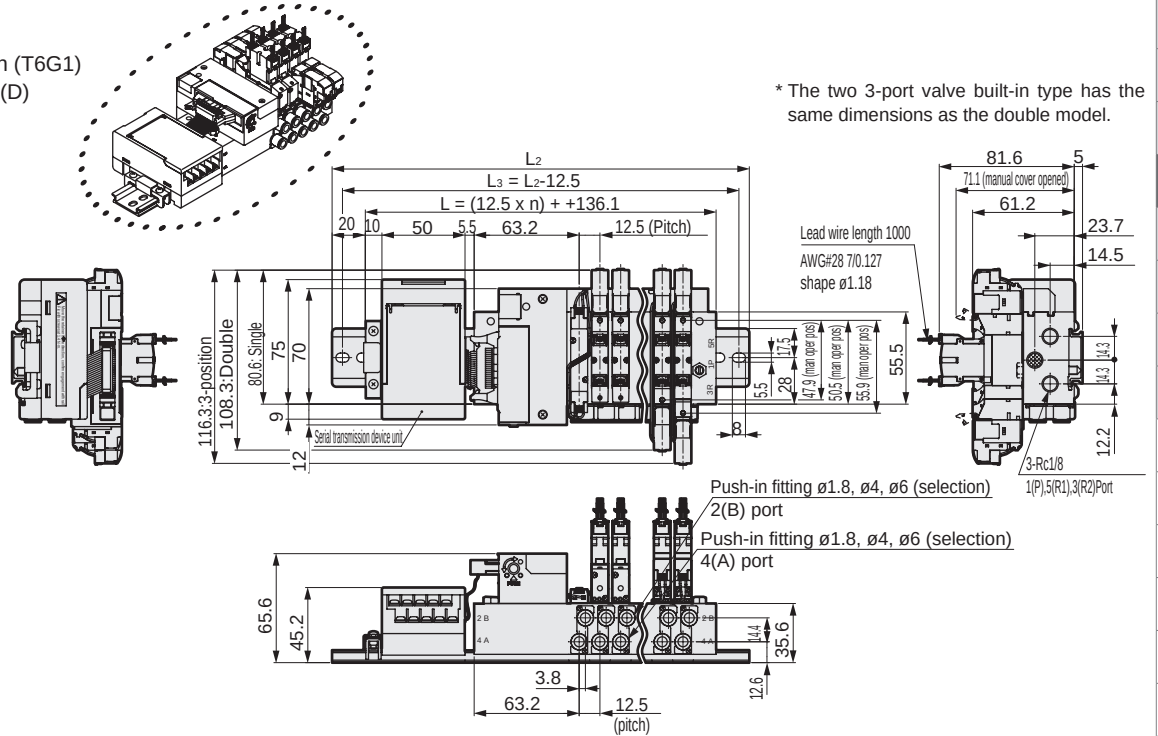
M4GB1-T6G1/T8* Series

Reduced wiring manifold; base piping; serial transmission

Dimensions

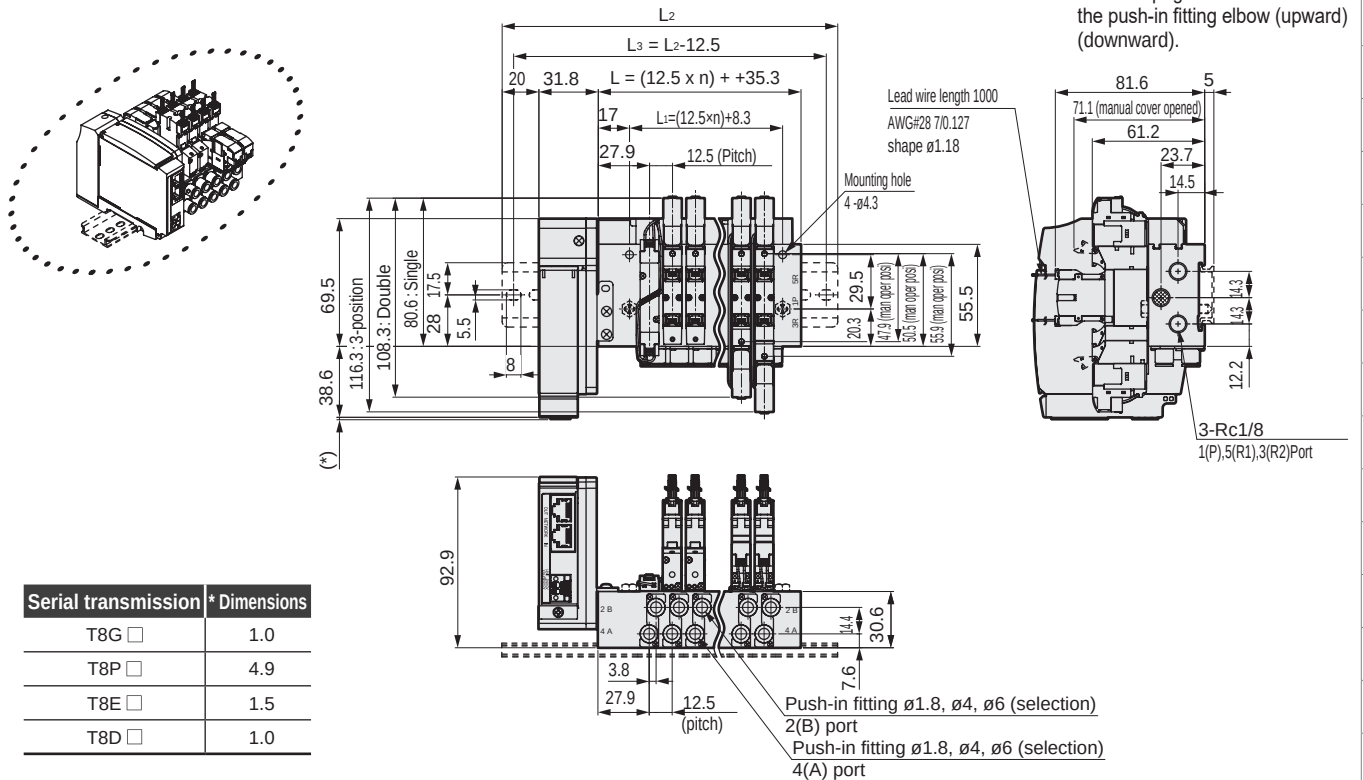
M4GB1

- Serial transmission (T6G1)
DIN rail mounting (D)



Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L	161.1	173.6	186.1	198.6	211.1	223.6	236.1	248.6	261.1	273.6	286.1	298.6	311.1	323.6	336.1
L ₂	212.5	225.0	237.5	250.0	262.5	275.0	287.5	300.0	312.5	325.0	337.5	350.0	362.5	375.0	387.5
L ₃	200.0	212.5	225.0	237.5	250.0	262.5	275.0	287.5	300.0	312.5	325.0	337.5	350.0	362.5	375.0

- Serial transmission (T8□)
DIN rail mount (D)



Serial transmission	* Dimensions
T8G □	1.0
T8P □	4.9
T8E □	1.5
T8D □	1.0

Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	60.3	72.8	85.3	97.8	110.3	122.8	135.3	147.8	160.3	172.8	185.3	197.8	210.3	222.8	235.3	247.8	260.3	272.8	285.3
L ₁	33.3	45.8	58.3	70.8	83.3	95.8	108.3	120.8	133.3	145.8	158.3	170.8	183.3	195.8	208.3	220.8	233.3	245.8	258.3
L ₂	137.5	150.0	162.5	175.0	187.5	200.0	212.5	225.0	237.5	250.0	262.5	275.0	287.5	300.0	312.5				
L ₃	125.0	137.5	150.0	162.5	175.0	187.5	200.0	212.5	225.0	237.5	250.0	262.5	275.0	287.5	300.0				

M4GB2-T* Series

Reduced wiring manifold; base piping

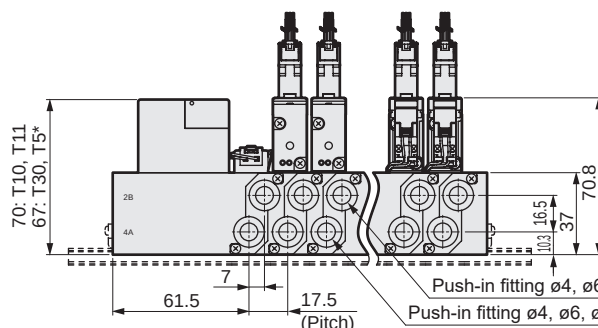
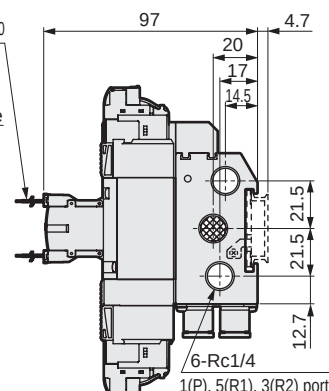
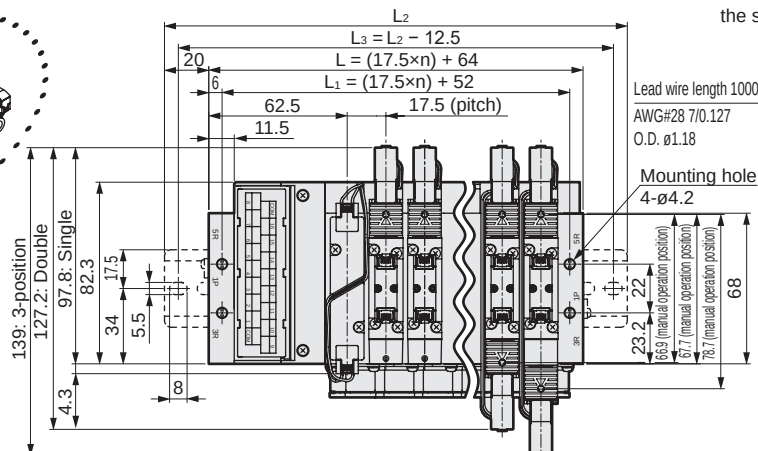
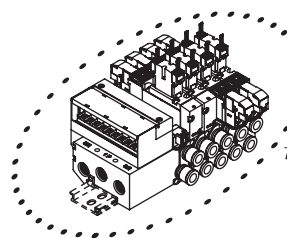
Dimensions

M4GB2

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

*1 Figure shows T10. Refer to page 186 for detailed wiring block dimensions.

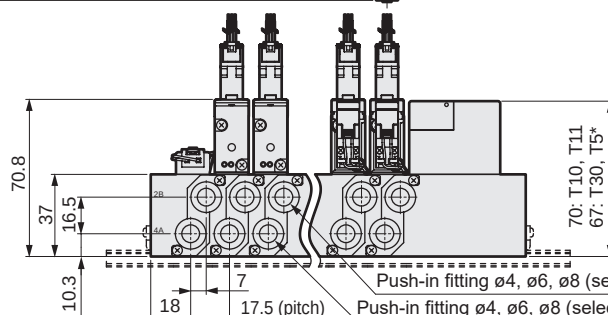
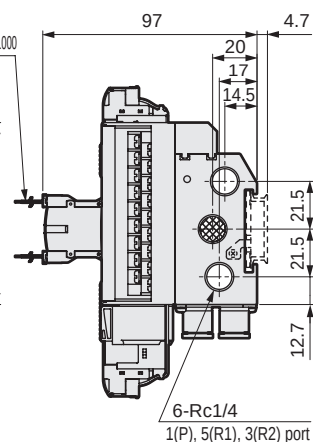
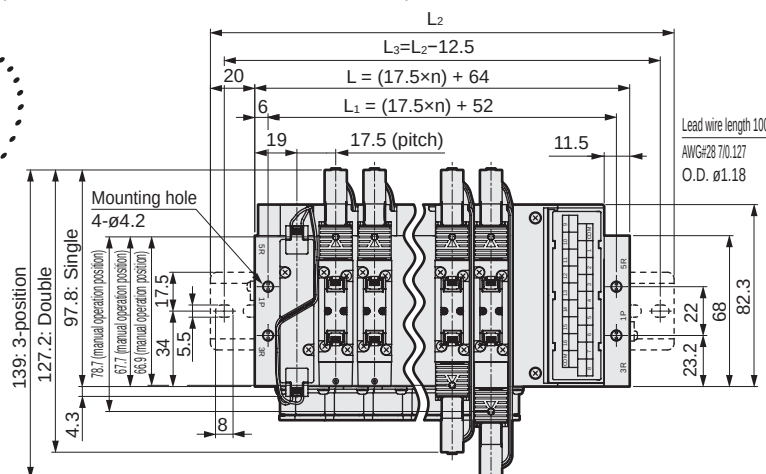
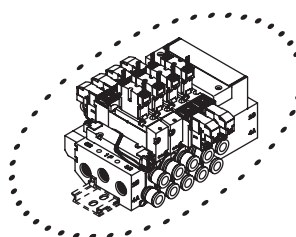
*2 The two 3-port valves integrated type has the same dimensions as the double model.



A/B port size	* Dimensions
ø4, ø6, ø8	7
ø10	8.1

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

Note: Refer to page 178 for details on the push-in fitting elbow (upward) (downward).



A/B port size	* Dimensions
ø4, ø6, ø8	7
ø10	8.1

Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	99.0	116.5	134.0	151.5	169.0	186.5	204.0	221.5	239.0	256.5	274.0	291.5	309.0	326.5	344.0	361.5	379.0	396.5	414.0
L1	87.0	104.5	122.0	139.5	157.0	174.5	192.0	209.5	227.0	244.5	262.0	279.5	297.0	314.5	332.0	349.5	367.0	384.5	402.0
L2	150.0	162.5	175.0	200.0	212.5	237.5	250.0	262.5	287.5	300.0	325.0	337.5	350.0	375.0	387.5				
L3	137.5	150.0	162.5	187.5	200.0	225.0	237.5	250.0	275.0	287.5	312.5	325.0	337.5	362.5	375.0				

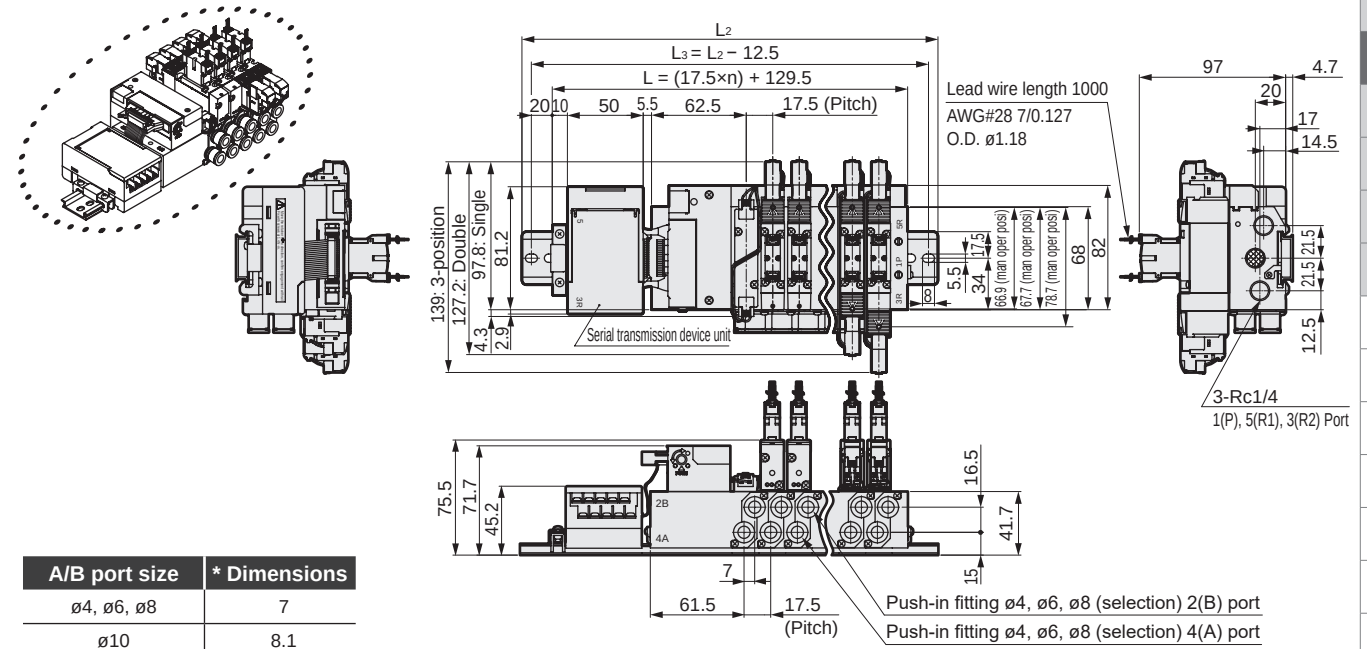
M4GB2-T6G1/T8* Series

Reduced wiring manifold; base piping; serial transmission

Dimensions

M4GB2

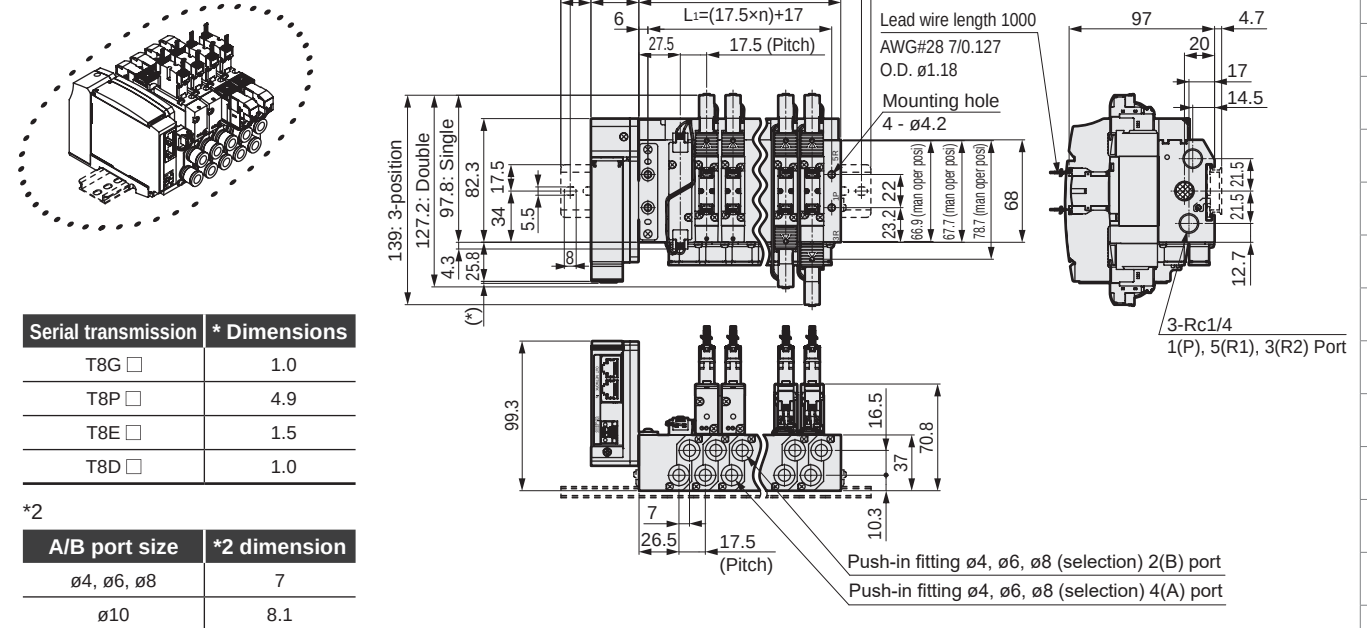
- Serial transmission (T6G1)
- DIN rail mounting (D)



Note: Refer to page 178 for details on the push-in fitting elbow (upward) (downward).

Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L	164.5	182.0	199.5	217.0	234.5	252.0	269.5	287.0	304.5	322.0	339.5	357.0	374.5	392.0	409.5
L ₂	212.5	225.0	250.0	262.5	275.0	300.0	312.5	337.5	350.0	362.5	387.5	400.0	425.0	437.5	450.0
L ₃	200.0	212.5	237.5	250.0	262.5	287.5	300.0	325.0	337.5	350.0	375.0	387.5	412.5	425.0	437.5

- Serial transmission (T8□)
- DIN rail mounting (D)



Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	64.0	81.5	99.0	116.5	134.0	151.5	169.0	186.5	204.0	221.5	239.0	256.5	274.0	291.5	309.0	326.5	344.0	361.5	379.0
L ₁	52.0	69.5	87.0	104.5	122.0	139.5	157.0	174.5	192.0	209.5	227.0	244.5	262.0	279.5	297.0	314.5	332.0	349.5	367.0
L ₂	137.5	162.5	175.0	200.0	212.5	225.0	250.0	262.5	287.5	300.0	312.5	337.5	350.0	375.0	387.5				
L ₃	125.0	150.0	162.5	187.5	200.0	212.5	237.5	250.0	275.0	287.5	300.0	325.0	337.5	362.5	375.0				

M4GB3-T* Series

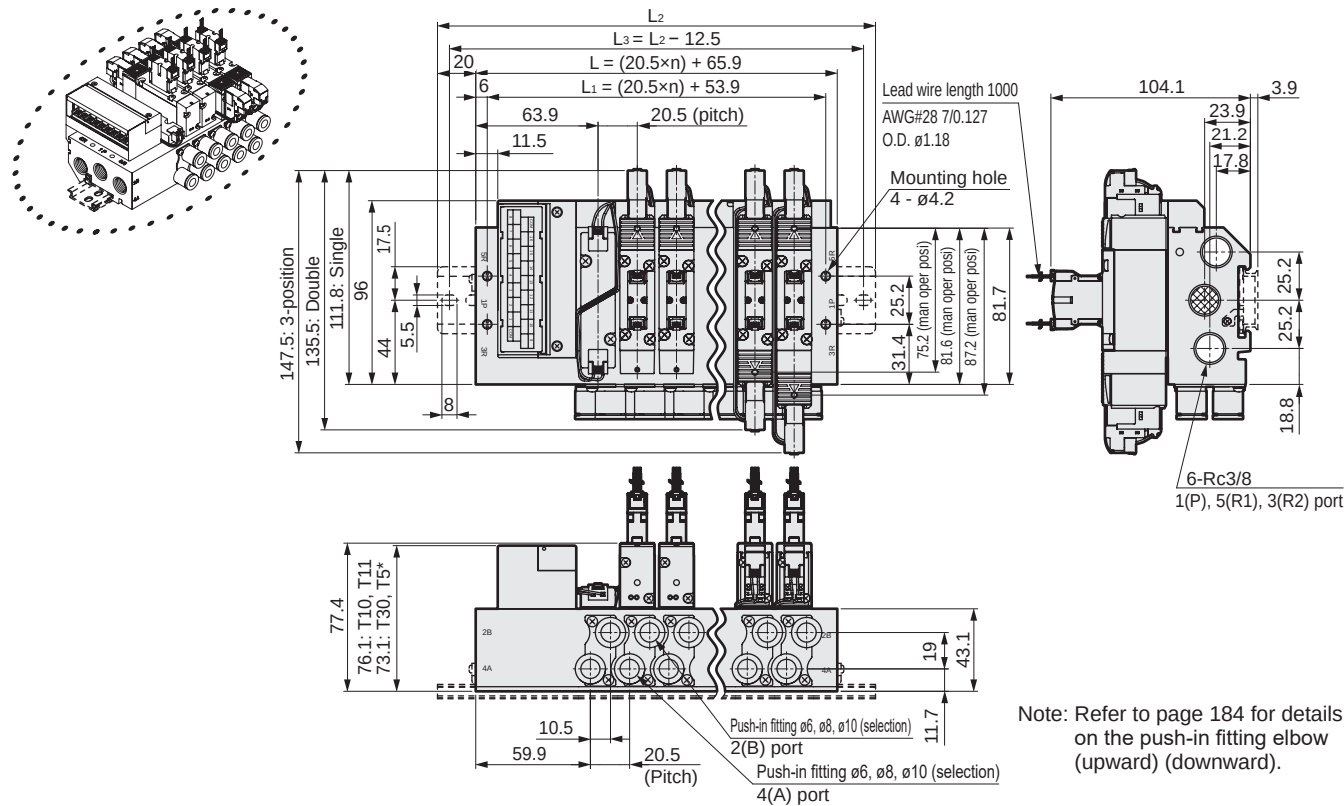
Reduced wiring manifold; base piping

Dimensions

M4GB3

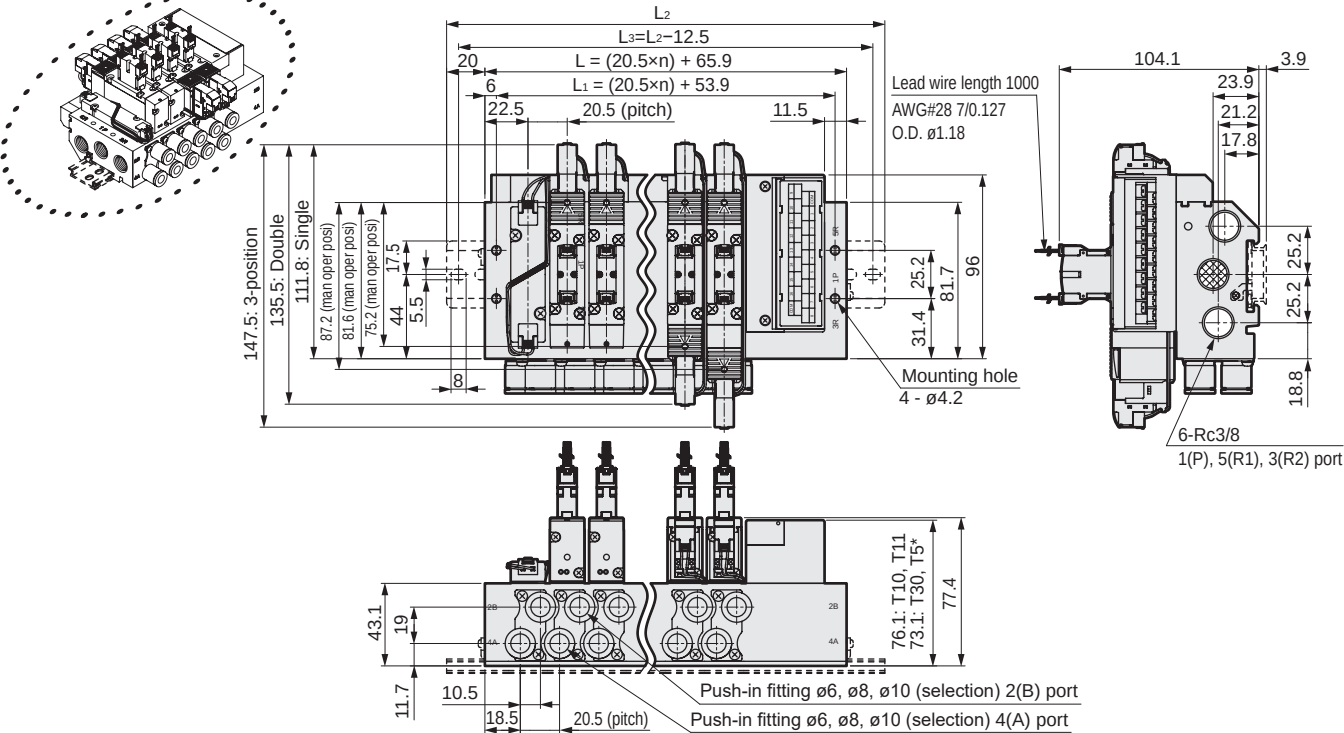
● Reduced wiring left side type (T10/T11/T30/T50/T51/T52/T53)

* Figure shows T10. Refer to page 186 for detailed wiring block dimensions.



Note: Refer to page 184 for details on the push-in fitting elbow (upward) (downward).

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



Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L	106.9	127.4	147.9	168.4	188.9	209.4	229.9	250.4	270.9	291.4	311.9	332.4	352.9	373.4	393.9
L ₁	94.9	115.4	135.9	156.4	176.9	197.4	217.9	238.4	258.9	279.4	299.9	320.4	340.9	361.4	381.9
L ₂	150.0	175.0	200.0	212.5	237.5	250.0	275.0	300.0	312.5	337.5	362.5	375.0	400.0	425.0	437.5
L ₃	137.5	162.5	187.5	200.0	225.0	237.5	262.5	287.5	300.0	325.0	350.0	362.5	387.5	412.5	425.0

M4GB3-T6G1/T8* Series

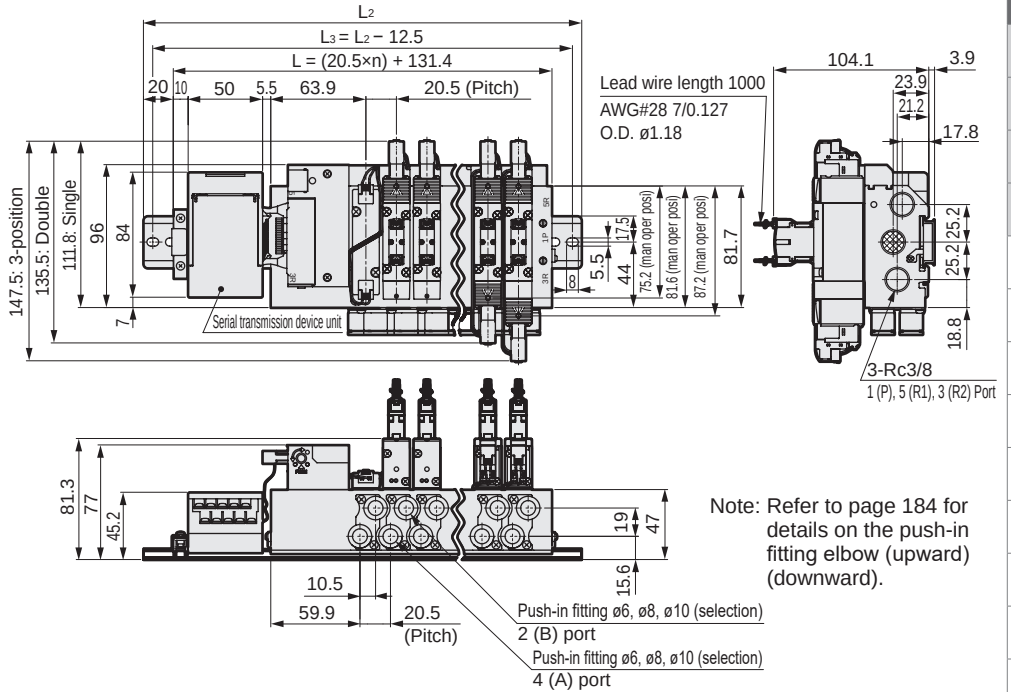
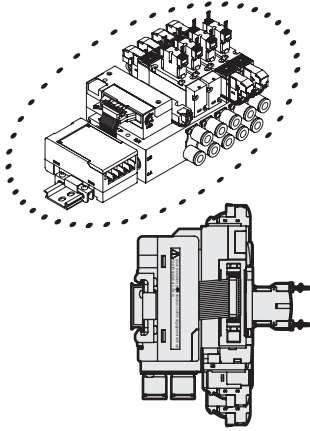
Reduced wiring manifold; base piping; serial transmission

Dimensions



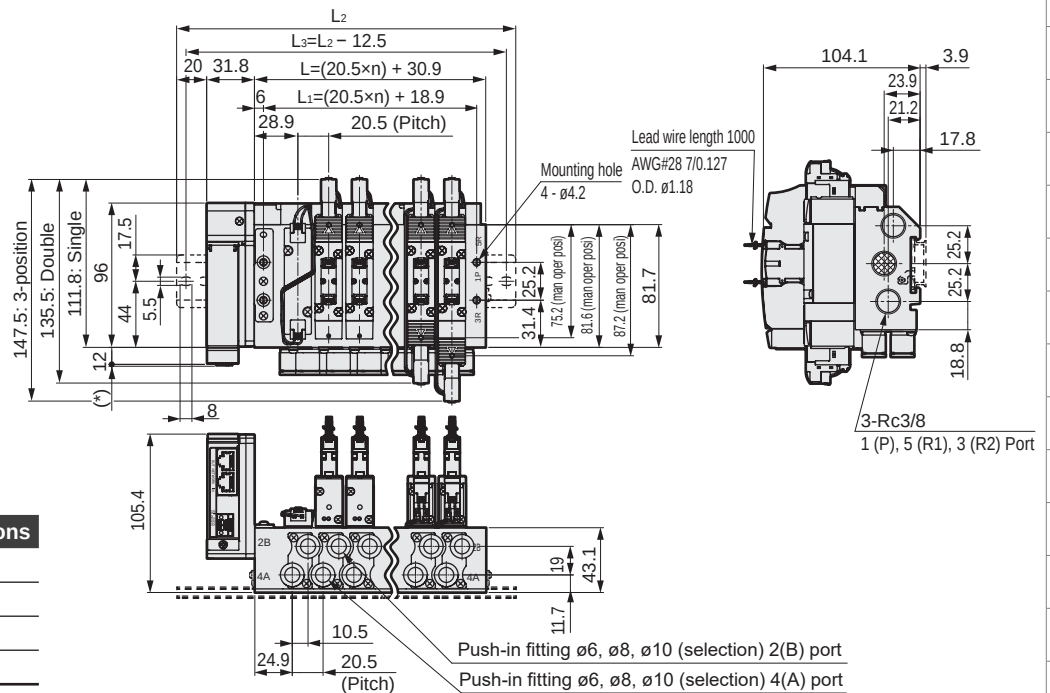
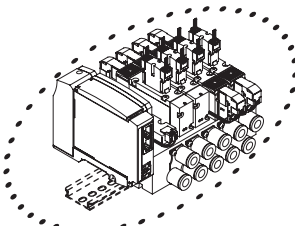
M4GB3

- Serial transmission (T6G1)
- DIN rail mounting (D)



Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L	172.4	192.9	213.4	233.9	254.4	274.9	295.4	315.9	336.4	356.9	377.4	397.9	418.4	438.9	459.4
L ₂	212.5	237.5	262.5	275.0	300.0	325.0	337.5	362.5	387.5	400.0	425.0	450.0	462.5	487.5	500.0
L ₃	200.0	225.0	250.0	262.5	287.5	312.5	325.0	350.0	375.0	387.5	412.5	437.5	450.0	475.0	487.5

- Serial transmission (T8 □)
- DIN rail mounting (D)



Serial transmission	* Dimensions
T8G □	1.0
T8P □	4.9
T8E □	1.5
T8D □	1.0

Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L	71.9	92.4	112.9	133.4	153.9	174.4	194.9	215.4	235.9	256.4	276.9	297.4	317.9	338.4	358.9
L ₁	59.9	80.4	100.9	121.4	141.9	162.4	182.9	203.4	223.9	244.4	264.9	285.4	305.9	326.4	346.9
L ₂	150.0	175.0	187.5	212.5	237.5	250.0	275.0	287.5	312.5	337.5	350.0	375.0	400.0	412.5	437.5
L ₃	137.5	162.5	175.0	200.0	225.0	237.5	262.5	275.0	300.0	325.0	337.5	362.5	387.5	400.0	425.0