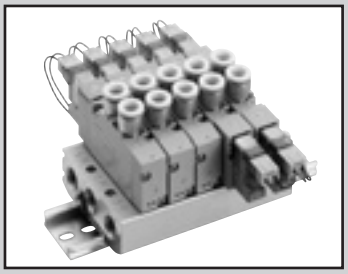


Individual wiring manifold
Body piping
Direct mount/DIN rail mount

M3GD1/2/3-(D) / M4GD1/2/3-(D) Series

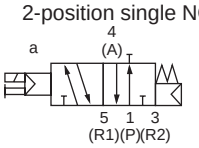
● Cylinder bore size: ø20 to ø100

CE RoHS CAD

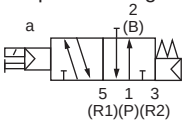
JIS symbol

● 3-port valve

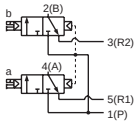
2-position single NC



2-position single NO

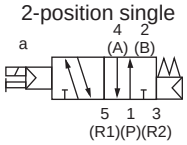


● Two 3-port valves integrated
(A side valve: NC, B side valve: NC)

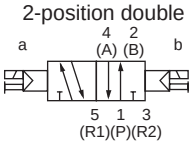


● 5-port valve

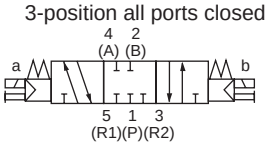
2-position single



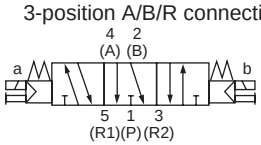
2-position double



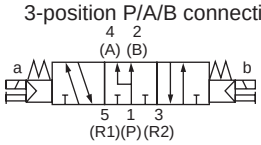
3-position all ports closed



3-position A/B/R connection



3-position P/A/B connection



Manifold common specifications

Item		Description
Manifold		Integrated base
Mounting method		Direct mount/DIN rail mount
Supply and exhaust method		Common supply/common exhaust (With internal exhaust check valve)
Pilot exhaust method	Internal pilot	Main valve/pilot valve common exhaust (Standard) (Pilot exhaust check valve built-in)
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)
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
Vibration resistance	m/s^2	50 or less
Shock resistance	m/s^2	300 or less
Atmosphere		Cannot be used in corrosive gas environments

*1: Use turbine oil Class 1 ISO VG32 for lubrication. Excessive or intermittent lubrication results in unstable operation.
*2: Avoid dripping water or oil, etc., during use.
IP65 (jet-proof) applies for DIN terminal box specifications. However, the specified outer diameter of the applicable cord and tightening torque must be used for fixing in place.

Electrical specifications

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

*3: Values in ( ) apply when lamp is included.
*4: 200 VAC is the value of DIN terminal box (with lamp).

Individual specifications

Item		M3GD1/M4GD1		M3GD2/M4GD2		M3GD3/M4GD3	
		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
Port size	A/B port	Push-in fitting ø4, ø6 M5		Push-in fitting ø4, ø6, ø8 Rc1/8		Push-in fitting ø6, ø8, ø10 Rc1/4	
	P/R1/R2 port	Rc1/8		Rc1/4		Rc3/8	
Manifold base weight calculation formula (n: station No.) g		23n+52	25n+60	47n+64	49n+92	74n+88	76n+117

Refer to “Cautions for Mounting the DIN Rail” (page 854), and select the manifold.
For 10 or more 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.

Performance/characteristics by model

Item			M3GD1		M3GD2		M3GD3		M4GD1		M4GD2		M4GD3	
			ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
Re-	Two 3-port valves integrated		12	15	15	30	-	-	-	-	-	-	-	-
sponse	2-position	Single	15	25	20	30	25	40	15	25	20	30	25	40
time		Double	-	-	-	-	-	-	15	-	20	-	25	-
ms	3-position	ABR connection	-	-	-	-	-	-	20	30	25	35	35	50

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.

Flow characteristics

Model No.	Solenoid position		P → A/B		A/B→R1/R2			
			C[dm³/(s·bar)]	b	C[dm³/(s·bar)]		b	
M3GD1 M4GD1	Two 3-port valves integrated		0.86	0.31	1.1	(0.66)	0.19	(0.22)
	2-position		0.99	0.20	1.2	(0.70)	0.20	(0.12)
	3-position	All ports closed	0.94	0.23	1.1	—	0.20	—
		ABR connection	0.93	0.18	1.3	(0.70)	0.23	(0.02)
		PAB connection	1.1	0.28	1.1	—	0.23	—
M3GD2 M4GD2	Two 3-port valves integrated		1.7	0.40	2.3	(1.7)	0.29	(0.32)
	2-position		2.3	0.36	2.9	(1.7)	0.24	(0.33)
	3-position	All ports closed	2.1	0.35	2.5	—	0.32	—
		ABR connection	2.2	0.37	2.9	(1.8)	0.32	(0.29)
		PAB connection	2.4	0.34	2.5	—	0.33	—
M3GD3 M4GD3	2-position		3.2	0.37	3.8	(2.5)	0.13	(0.28)
	3-position	All ports closed	2.9	0.35	3.3	—	0.35	—
		ABR connection	3.0	0.34	3.8	(2.6)	0.12	(0.27)
		PAB connection	3.3	0.30	3.3	—	0.32	—

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

Ozone-proof specifications • Coolant proof specifications

Can be selected with “How to order” Item Ⓔ option “A” on page 510.

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".

How to order

Manifold model No.

M 4GD1 1 0 R- C6 - E2 H D ○ - ○ - 3

3-port manifold model No.

M 3GD1 1 0 R- C6 - E2 H D ○ - ○ - 3

Discrete valve for mounting base

4GD1 1 9 R- C6 - E2 H ○ — 3

Discrete 3-port valve for mounting base

3GD1 1 9 R- C6 - E2 H ○ — 3

Ⓑ Solenoid position

Ⓐ Model No.

Ⓒ Port size

Ⓓ Electrical connections

Ⓔ Option

Ⓕ Mount

Ⓖ Pilot exhaust method

Ⓗ Station No.

Ⓘ Voltage

* Be sure to fill in the "Manifold specifications sheet" (pages 594 to 596).

Code	Description	Ⓐ Model No. 3GD1	3GD2	3GD3	4GD1	4GD2	4GD3
Ⓑ Solenoid position							
1	2-position single				●	●	●
2	2-position double				●	●	●
3	3-position all ports closed				●	●	●
4	3-position ABR connection				●	●	●
5	3-position PAB connection				●	●	●
1	2-position single: Normally closed (*1)	●	●	●			
11	2-position single: Normally open (*1)	●	●	●			
66	Two 3-port valves integrated (*1) (*2) — A valve side: Normally closed, B valve side: Normally closed	●	●				
8	Mix manifold (when there are multiple solenoid positions)	●	●	●	●	●	●
Ⓒ Port size							
Port	4(A), 2(B) port	P/R1/R2 port (2) = Rc1/8 (3) = Rc1/4 (4) =Rc3/8					
C4	ø4 push-in fitting	(2)	(3)		(2)	(3)	
C6	ø6 push-in fitting	(2)	(3)	(4)	(2)	(3)	(4)
C8	ø8 push-in fitting		(3)	(4)		(3)	(4)
C10	ø10 push-in fitting			(4)			(4)
CX	Push-in fitting mix (*3)	(2)	(3)	(4)	(2)	(3)	(4)
M5	M5	(2)			(2)		
06	Rc1/8		(3)			(3)	
08	Rc1/4			(4)			(4)
Ⓓ Electrical connections							
Refer to the next page for electrical connections.							
Ⓔ Option							
Blank	Non-locking/locking common manual override	●	●	●	●	●	●
H	With exhaust check valve (*4)	●	●	●	●	●	●
A	Ozone/coolant proof	●	●	●	●	●	●
F	A/B port filter built in (*5)	●	●	●	●	●	●
Z1	Air supply spacer (*6)	●	●	●	●	●	●
Z2	In-stop valve spacer (*6)	●	●	●	●	●	●
Z3	Exhaust spacer (*6)	●	●	●	●	●	●
Ⓕ Mount							
Blank	Direct mount	●	●	●	●	●	●
D	DIN rail mount	●	●	●	●	●	●
Ⓖ Pilot exhaust method							
Blank	Common exhaust (pilot exhaust check valve built-in)	●	●	●	●	●	●
C	Atmosphere release (individual wiring only)	○	○	○	○	○	○
Ⓗ Station No.							
2	2 stations	●	●	●	●	●	●
to	to						
20	Refer to page 508 for the max. station number per model.						
Ⓘ Voltage							
1	100 VAC (rectifier integrated)	●	●	●	●	●	●
2	200 VAC (rectifier integrated) (*7)		●	●		●	●
3	24 VDC	●	●	●	●	●	●
4	12 VDC	●	●	●	●	●	●

is not available.

○ indicates a custom order.

⚠ Precautions for model No. selection

*1 : Select M4GD*80R when mixing with 3, 5-port valves.
Further, select M3GD*80R when mixing with masking plate.

*2 : Dimensions are the same as the respective 2-position double solenoid.

*3 : Push-in fitting cannot be mixed with the discrete valve 4(A) or 2(B) port.

*4 : 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.

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

*6 : Specify the spacer mounting position/ quantity in manifold specifications sheet. Stacking of spacers is not possible. Combination with the masking plate is not supported.
Refer to pages 576 to 580 for details.

*7 : DIN terminal box only is supported. Two 3-port valves integrated is not available.

[Electrical connections list]

Ⓓ Electrical connections			Ⓐ Model No. 3GD1	3GD2	3GD3	4GD1	4GD2	4GD3
Blank	Grommet lead wire (300 mm)	(*8)	●	●	●	●	●	●
B	DIN terminal box (Pg7) with surge suppressor and indicator lamp	(*9)(*11)		●	●		●	●
BN	DIN terminal box (Pg7) (without terminal box) with surge suppressor	(*9)(*11)		●	●		●	●
E-connector (upward/lateral direction 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 (with socket/terminal)	(*10)	●	●	●	●	●	●
E2	Lead wire (300 mm) with surge suppressor/indicator lamp		●	●	●	●	●	●
E20	Lead wire (500 mm) with surge suppressor/indicator lamp		●	●	●	●	●	●
E21	Lead wire (1000 mm) with surge suppressor/indicator lamp		●	●	●	●	●	●
E22	Lead wire (2000 mm) with surge suppressor/indicator lamp		●	●	●	●	●	●
E23	Lead wire (3000 mm) with surge suppressor/indicator lamp		●	●	●	●	●	●
E2N	No lead wire (without socket), surge suppressor/indicator lamp		●	●	●	●	●	●
E3	No lead wire (with socket/terminal), surge suppressor/indicator lamp		●	●	●	●	●	●
EJ type connector (socket with cover, upward/lateral direction 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/indicator lamp		●	●	●	●	●	●
E22J	Lead wire (2000 mm) with surge suppressor/indicator lamp		●	●	●	●	●	●
E23J	Lead wire (3000 mm) with surge suppressor/indicator lamp		●	●	●	●	●	●

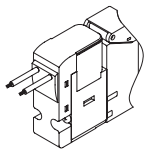
*8 : The grommet lead wire specifications are compatible with DC voltage only.
*9 : A lamp comes with the terminal box.
*10: AC voltage is with a rectifier circuit.
*11: The terminal box conforms to EN175301-803 Type C (former DIN 43650-C).
Refer to pages 856 and 857 for details.

Electrical connections

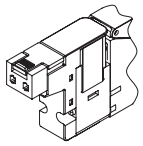
Discrete valve/individual wiring manifold

Blank Grommet lead wire

● **Lead wire length**
300 mm

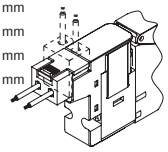


E1 E3 E connector with socket/terminal

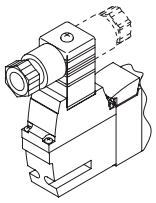


E0 E2 E connector

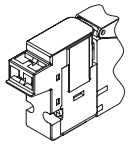
● **Lead wire length**
300 mm
500 mm
1000 mm
2000 mm
3000 mm



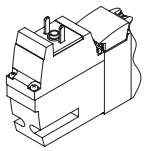
B DIN terminal box



E0N E2N E connector without socket

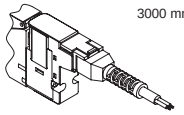


BN DIN terminal box (without terminal box)

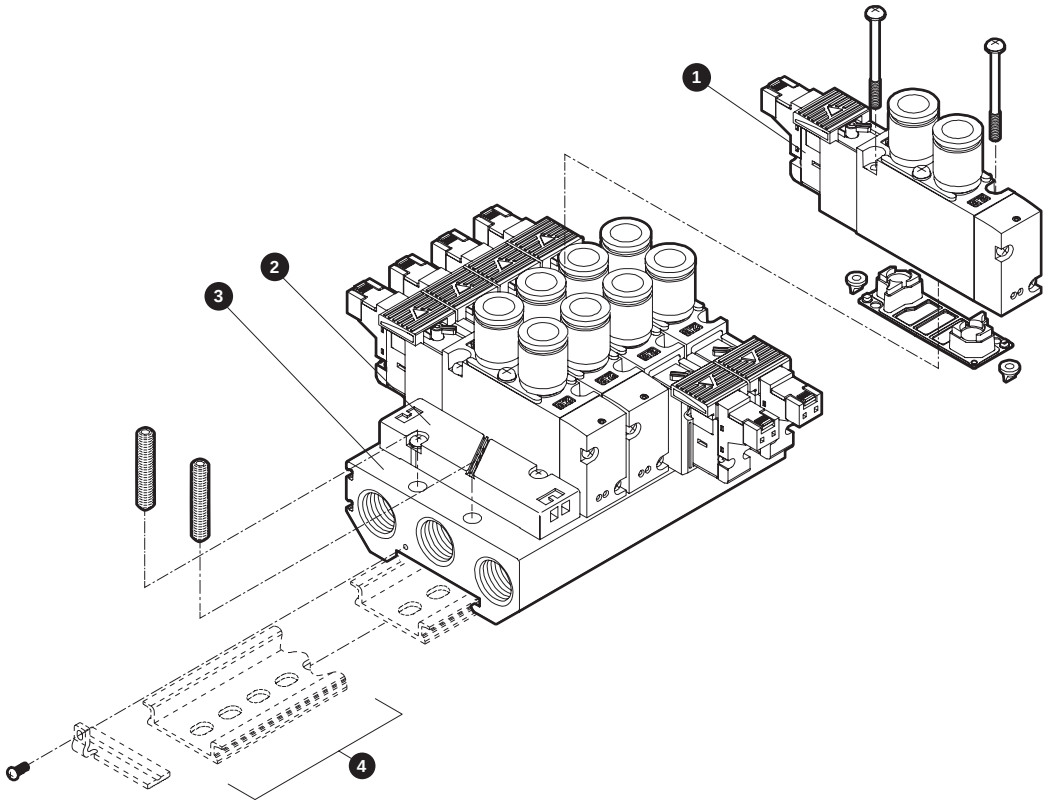


E0*J E2*J EJ connector

● **Lead wire length**
1000 mm
2000 mm
3000 mm



Manifold components explanation and parts list



Main parts list

No.	Component name		Model No.	Content	Remarks
1	Discrete valve for mounting base		4GD□□9R- [Port size] - [Electrical connections] [Option] - [voltage] Solenoid position Series flow rate size	Discrete valve Gasket Mounting screws 2 (PR check valve 2)	Details on page 510
2	Masking plate	3G1/4G1	4G1R-MP	Masking plate Gasket Mounting screws 2	* 4G3R-MP has two PR check valves included.
		3G1/4G1	4G1R-MPC (*Pilot exhaust atmosphere release)		
		3G2/4G2	4G2R-MP		
		3G3/4G3	4G3R-MP		
3	Manifold base assembly		M4GD□R-00- [Option] - [station No.] Series flow rate size	Manifold base	
4	DIN rail kit		4GA□R-BAA [Rail length] - D Series flow rate size		Details on page 585

Parts list

No.	Part name	Model No.
-	Coil assembly	4GR - [electrical connections] - □ - COIL - [voltage] Blank: Standard A: Ozone/coolant proof Select from Ⓓ Electrical connections on page 511
-	E-connector socket assembly	4GR - SOCKET - ASSY - [electrical connections] - [voltage]
-	EJ type connector socket assembly	4GR - SOCKET - ASSY - [electrical connections]

No.	Part name			Model No.
-	Cartridge push-in fitting and related parts	4G1	ø4 straight	4G1R-JOINT-C4
			ø6 straight	4G1R-JOINT-C6
			Plug cartridge	4G1R-JOINT-CPG
		4G2	ø4 straight	4G2R-JOINT-C4
			ø6 straight	4G2R-JOINT-C6
			ø8 straight	4G2R-JOINT-C8
			Plug cartridge	4G2R-JOINT-CPG
		4G3	ø6 straight	4G3R-JOINT-C6
			ø8 straight	4G3R-JOINT-C8
			ø10 straight	4G3R-JOINT-C10
			Plug cartridge	4G3R-JOINT-CPG

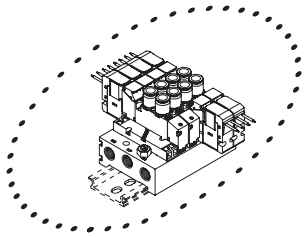
MEMO

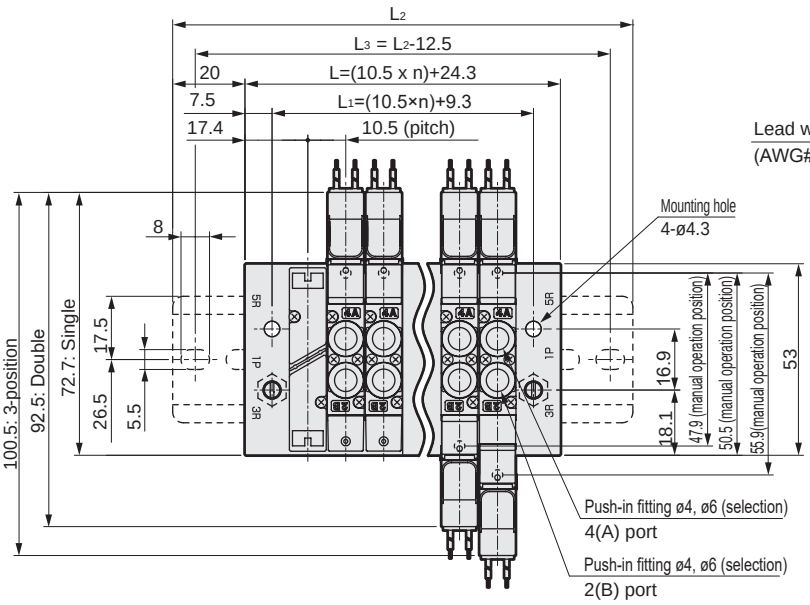
Dimensions CAD

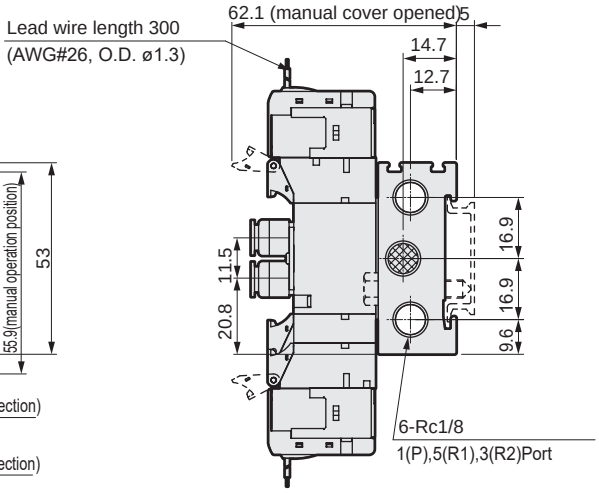
M4GD1

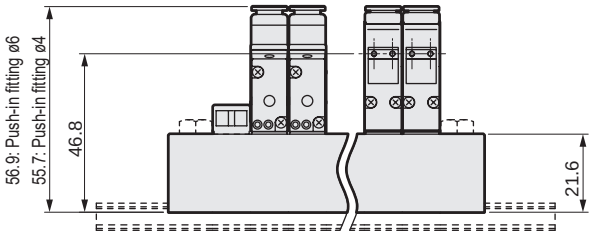
● Grommet lead wire (blank)

*For the 2-position single 3-port valve, either port A or port B is a plug. In addition, the two 3-port valve built-in type has the same dimensions as the double model.





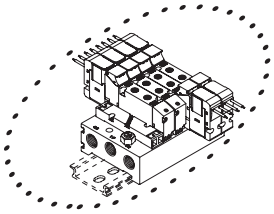


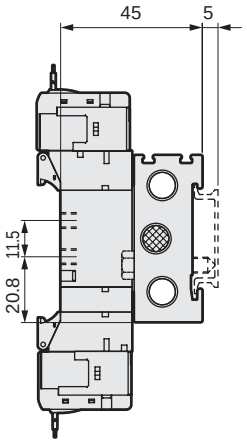


Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	45.3	55.8	66.3	76.8	87.3	97.8	108.3	118.8	129.3	139.8	150.3	160.8	171.3	181.8	192.3	202.8	213.3	223.8	234.3
L_1	30.3	40.8	51.3	61.8	72.3	82.8	93.3	103.8	114.3	124.8	135.3	145.8	156.3	166.8	177.3	187.8	198.3	208.8	219.3
L_2	87.5	100.0	112.5	125.0	137.5	150.0	150.0	162.5	175.0	187.5	200.0	212.5	212.5	225.0	237.5				
L_3	75.0	87.5	100.0	112.5	125.0	137.5	137.5	150.0	162.5	175.0	187.5	200.0	200.0	212.5	225.0				

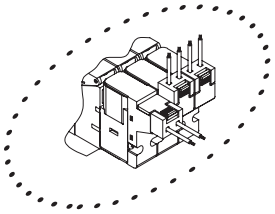
Dimensions CAD

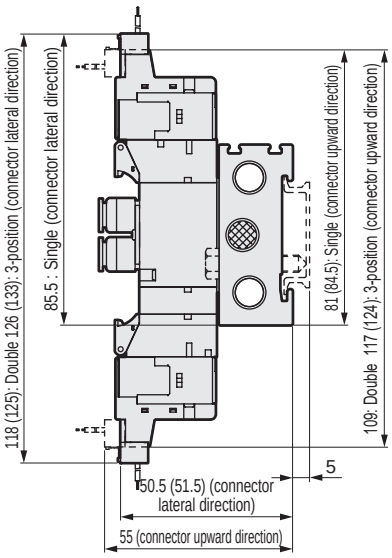
● M5 female thread (M5)





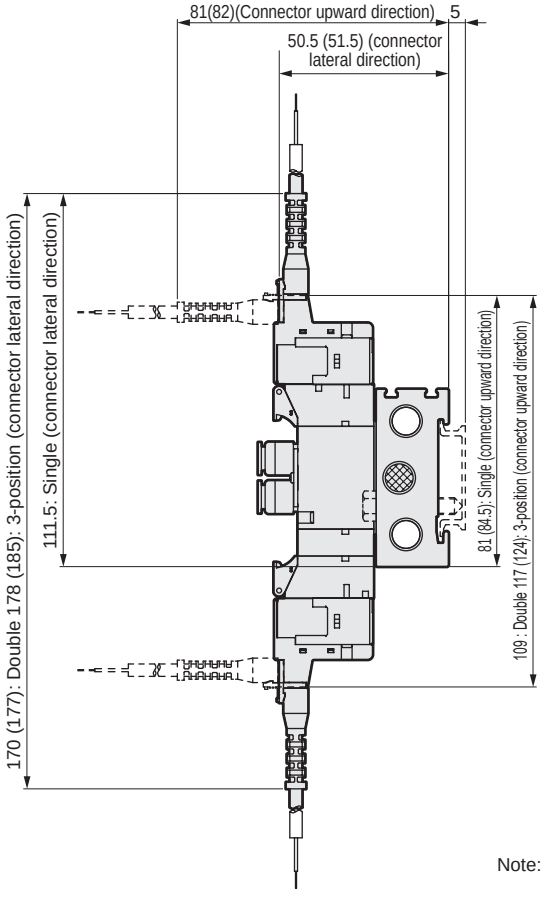
● E-connector (E)





Note: Values in ( ) are for AC voltage.

● EJ type connector (E**J)



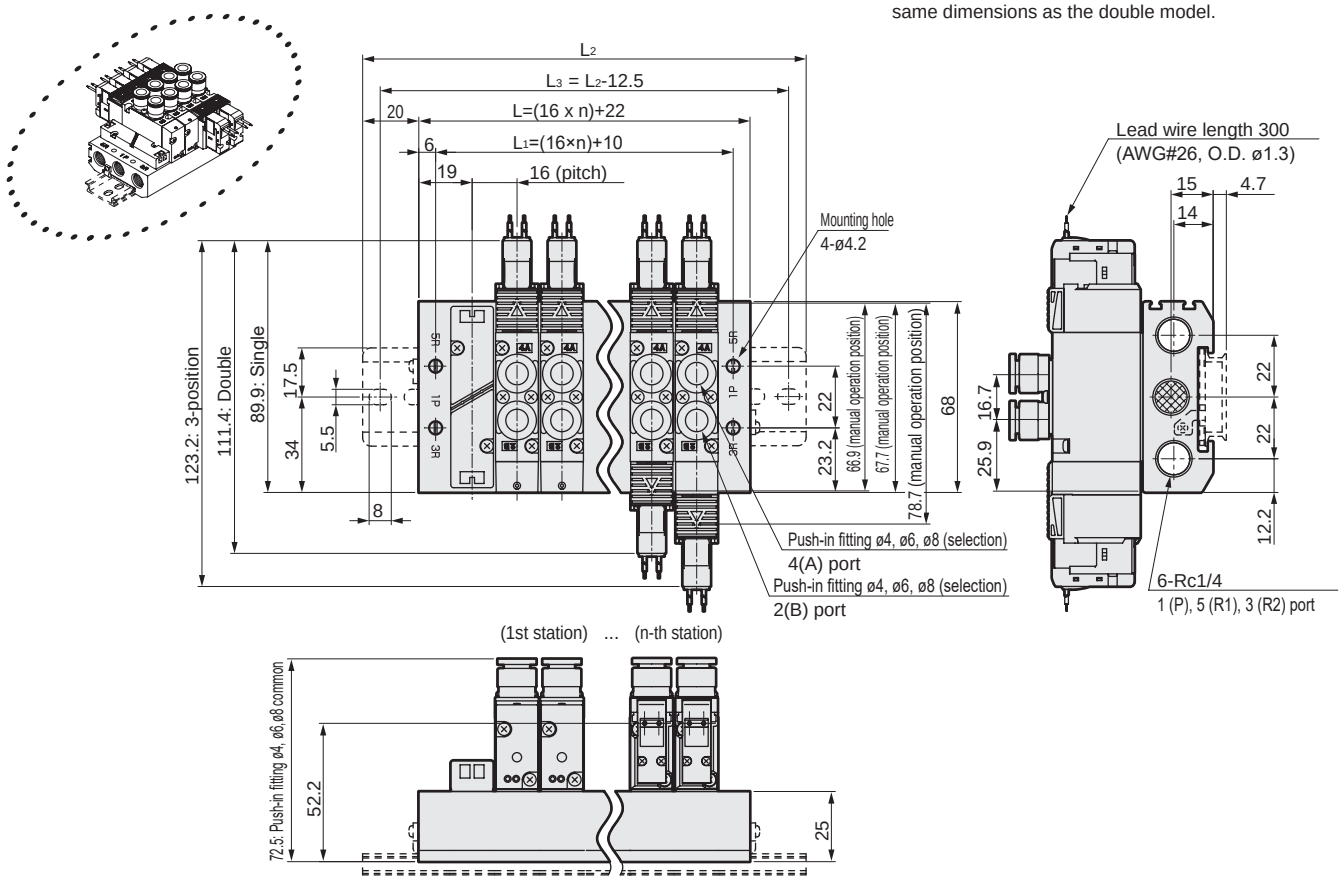
Note: Values in ( ) are for AC voltage.

Dimensions CAD

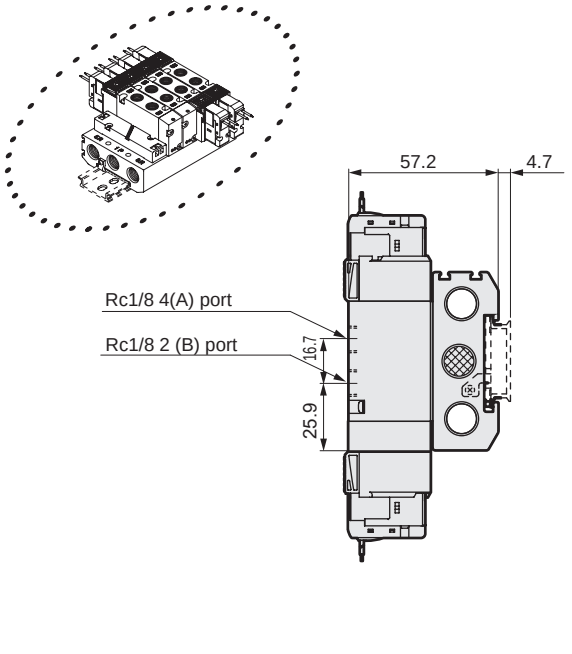
M4GD2

● Grommet lead wire (blank)

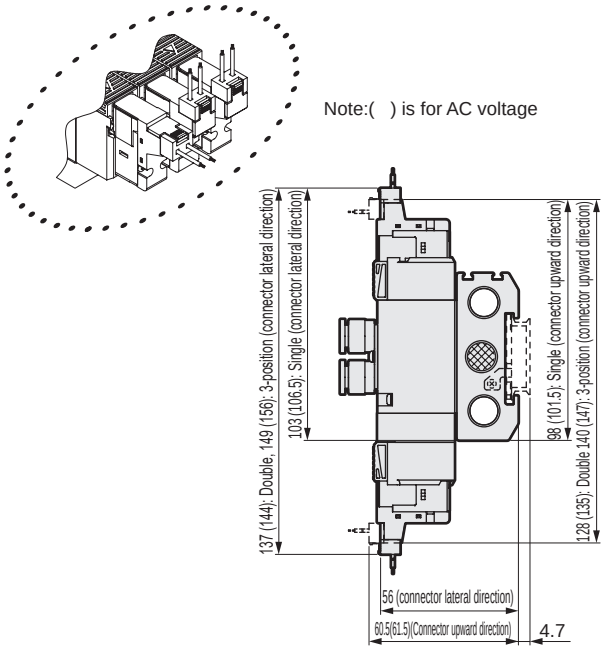
* For the 2-position single 3-port valve, either A port or B port is a plug.
In addition, the two 3-port valve integrated has the same dimensions as the double model.



● Rc1/8 female thread (06)



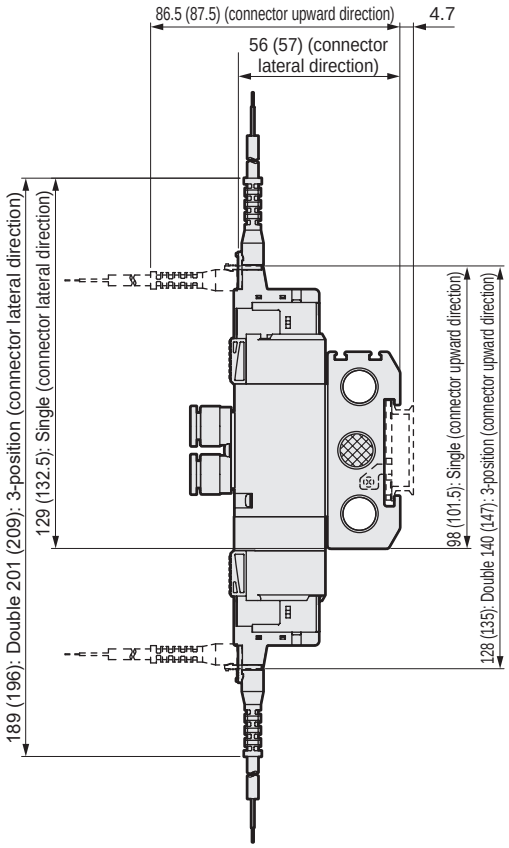
● E-connector (E)



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
L1	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
L2	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				
L3	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				

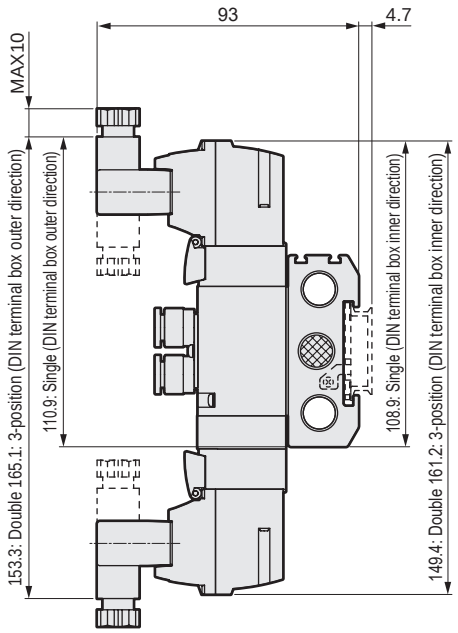
Dimensions

● EJ type connector (E**J)



Note: Values in ( ) are for AC voltage.

● DIN terminal box (B)



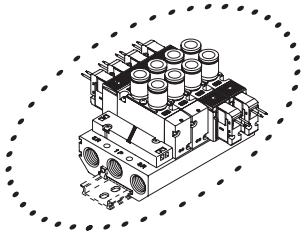
Note: DIN terminal box assembly is shipped facing inward.

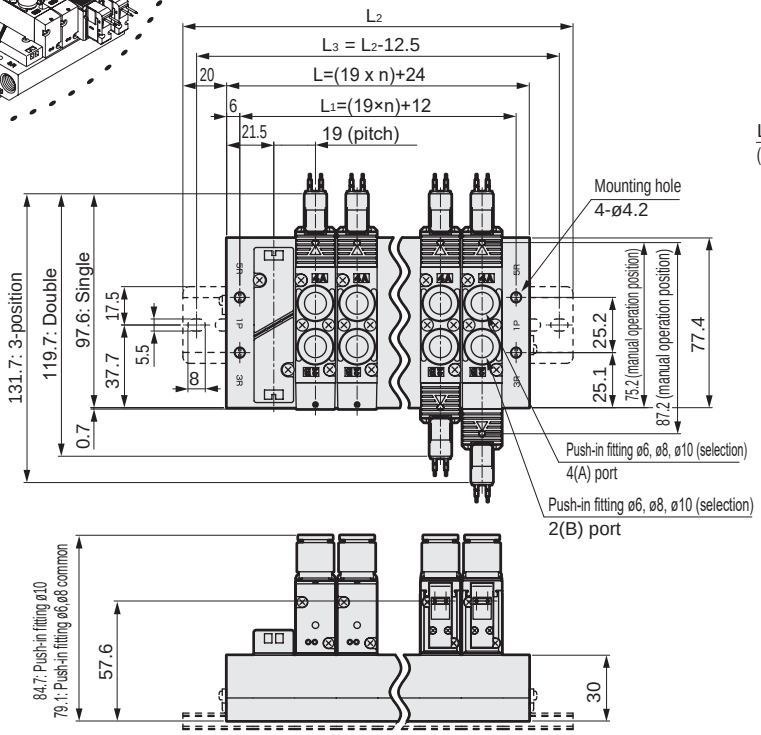
Dimensions CAD

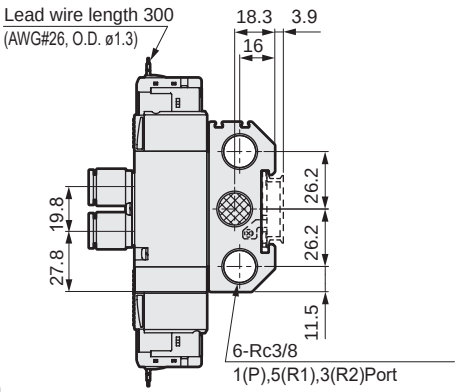
M4GD3

● Grommet lead wire (blank)

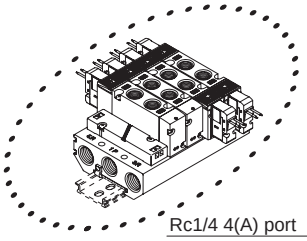
* For the 2-position single 3-port valve, either A port or B port is a plug.

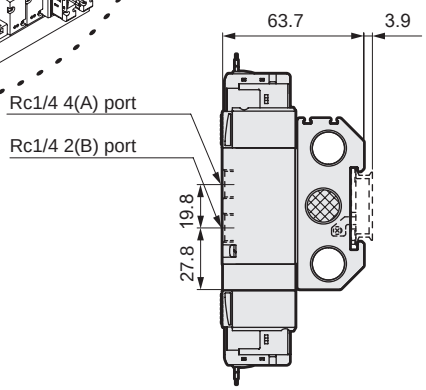




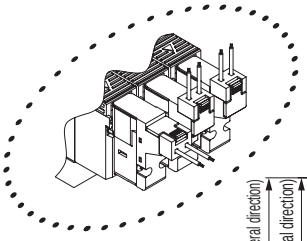


● Rc1/4 female thread (08)

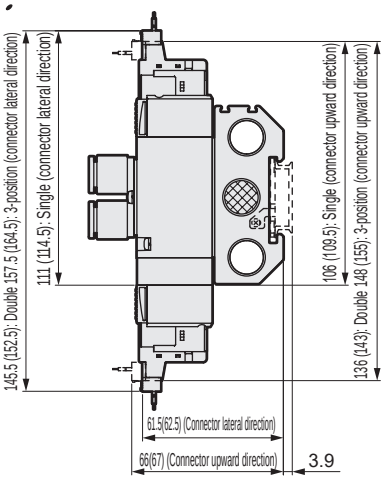




● E-connector (E)



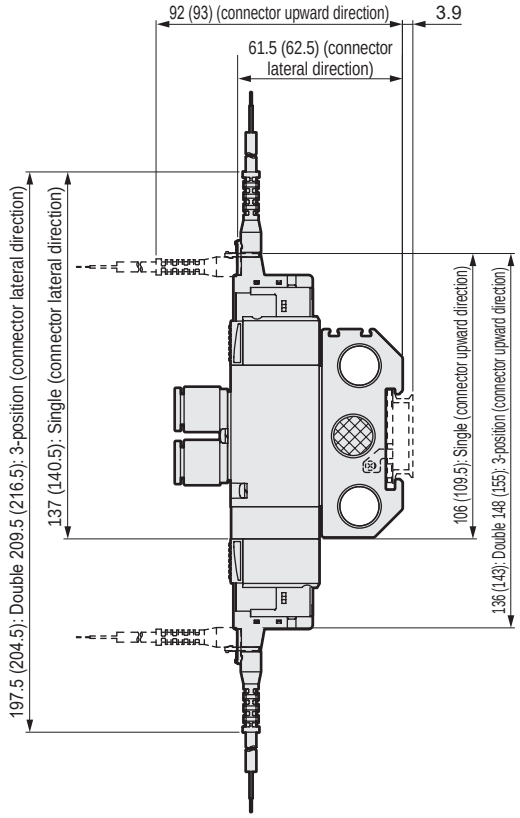
Note: Values in ( ) are for AC voltage.



Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	62.0	81.0	100.0	119.0	138.0	157.0	176.0	195.0	214.0	233.0	252.0	271.0	290.0	309.0	328.0	347.0	366.0	385.0	404.0
L_1	50.0	69.0	88.0	107.0	126.0	145.0	164.0	183.0	202.0	221.0	240.0	259.0	278.0	297.0	316.0	335.0	354.0	373.0	392.0
L_2	112.5	125.0	150.0	162.5	187.5	200.0	225.0	237.5	262.5	275.0	300.0	312.5	337.5	350.0	375.0				
L_3	100.0	112.5	137.5	150.0	175.0	187.5	212.5	225.0	250.0	262.5	287.5	300.0	325.0	337.5	362.5				

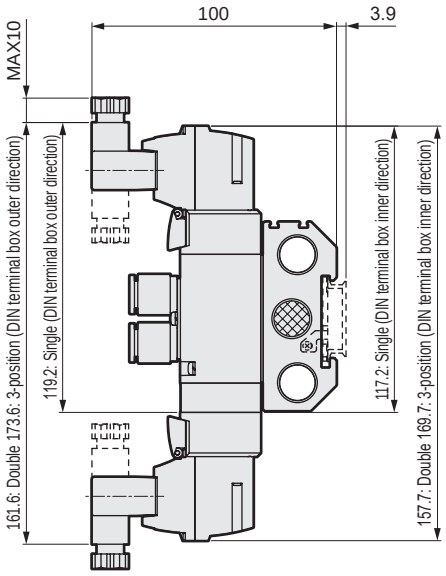
Dimensions

● EJ type connector (E**J)

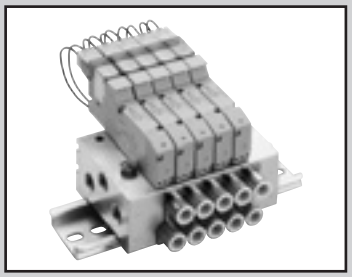


Note: Values in ( ) are for AC voltage.

● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.



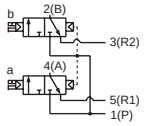
Individual wiring manifold
Base piping
Direct mount/DIN rail mount

M3GE1/2 / M4GE1/2/3-(D) Series

● Cylinder bore size: ø20 to ø100

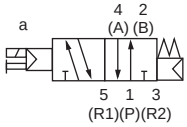
JIS symbol

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

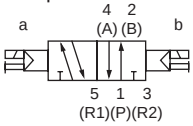


● 5-port valve

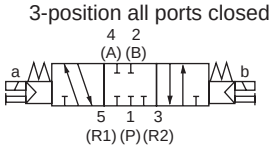
2-position single



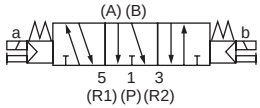
2-position double



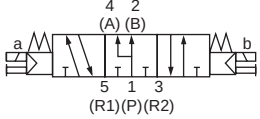
3-position all ports closed



3-position A/B/R connection



3-position P/A/B connection



Manifold common specifications

Item		Description
Manifold		Integrated base
Mounting method		Direct mount/DIN rail mount
Supply and exhaust method		Common supply/common exhaust (With internal exhaust check valve)
Pilot exhaust method	Internal pilot	Main valve/pilot valve common exhaust (Standard) (Pilot exhaust check valve built-in)
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)
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
Vibration resistance m/s^2		50 or less
Shock resistance m/s^2		300 or less
Atmosphere		Cannot be used in corrosive gas environments

*1: Use turbine oil Class 1 ISO VG32 for lubrication. Excessive or intermittent lubrication results in unstable operation.
*2: Avoid dripping water or oil, etc., during use.
IP65 (jet-proof) applies for DIN terminal box specifications. However, the specified outer diameter of the applicable cord and tightening torque must be used for fixing in place.

Electrical specifications

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

*3: Values in ( ) apply when lamp is included.
*4: 200 VAC is the value of DIN terminal box (with lamp).

Individual specifications

Item		M3GE1/M4GE1		M3GE2/M4GE2		M4GE3	
		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
Port size	A/B port	Push-in fitting ø4, ø6 M5		Push-in fitting ø4, ø6, ø8 Rc1/8		Push-in fitting ø6, ø8, ø10 Rc1/4	
	P/R1/R2 port	Rc1/8		Rc1/4		Rc3/8	
Manifold base weight calculation formula (n: station No.) g		35n+61	36n+115	71n+106	73n+134	113n+170	115n+119

Refer to “Cautions for Mounting the DIN Rail” (page 854), and select the manifold.
For 10 or more 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.

Performance/characteristics by model

Item			M3GE1/M4GE1		M3GE2/M4GE2		M4GE3	
			ON	OFF	ON	OFF	ON	OFF
Response time ms	Two 3-port valves integrated		12	15	15	30	-	-
	2-position	Single	15	25	20	30	25	40
		Double	15	-	20	-	25	-
	3-position	ABR connection	20	30	25	35	35	50

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.

Flow characteristics

Model No.	Solenoid position		P → A/B		A/B → R1/R2			
			C[dm³/(s·bar)]	b	C[dm³/(s·bar)]		b	
M3GE1 M4GE1	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	—
M3GE2 M4GE2	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	—
M4GE3	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 ≈ 5.0 × C.
*2: Values in ( ) are with the exhaust check valve.

Ozone-proof specifications ・ Coolant proof specifications

Can be selected with “How to order” Item Ⓔ option “A” on page 522.

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".

How to order

Manifold model No.

M 4GE1 1 0R - C6 - E2 H D ○ - ○ - 3

3-port manifold model No.

M 3GE1 66 0R - C6 - E2 H D ○ - ○ - 3

Discrete valve for mounting base

4GE1 1 9R - 00 - E2 H ○ — 3

3-port discrete valve for mounting base

3GE1 66 9R - 00 - E2 H ○ — 3

Ⓑ Solenoid position

Ⓐ Model No.

Ⓒ Port size (*3) (*4)

Ⓓ Electrical connections

Ⓔ Option

Ⓕ Mount

Ⓖ Pilot exhaust method

Ⓗ Station No.

Ⓘ Voltage

Precautions for model No. selection

*1 : Select M4GE*80R when mixing with 3, 5-port valves. Further, select M3GE*80R when mixing with masking plate.

*2 : Dimensions are the same as the respective 2-position double solenoid.

3 : CL push-in L fitting is compatible only with the single solenoid manifold. Long elbow is for A port and short elbow for B port.

*4 : A and B ports are the same size for push-in L fitting.

*5 : 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.

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

*7 : Specify the spacer mounting position/quantity in manifold specifications sheet. Stacking of spacers is not possible. Combination with the masking plate is not supported. Refer to pages 576 to 580 for details.

*8 : The direct mount of M4GE1 cannot be changed after purchase to the DIN rail mount.

*9 : DIN terminal box only is supported. Two 3-port valves integrated is not available.

* Be sure to fill in the “Manifold specifications sheet” (pages 594 to 596).

Code	Description	Ⓐ Model No. 3GE1	3GE2	4GE1	4GE2	4GE3
Ⓑ 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	●	●			
8	Mix manifold (when there are multiple solenoid positions)	●	●	●	●	●

Ⓒ Port size Port	4(A), 2(B) port	P/R1/R2 port (2) = Rc1/8 (3) = Rc1/4 (4) =Rc3/8				
C4	ø4 push-in fitting	(2)	(3)	(2)	(3)	
C6	ø6 push-in fitting	(2)	(3)	(2)	(3)	(4)
C8	ø8 push-in fitting		(3)		(3)	(4)
C10	ø10 push-in fitting					(4)
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)	(4)
CL10	ø10 push-in L-fitting (upward)					(4)
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)
00	Discrete valve for mounting base	●	●	●	●	●

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

Ⓔ Option							
Blank	Non-locking/locking common manual override		●	●	●	●	●
H	With exhaust check valve	(*5)	●	●	●	●	●
A	Ozone/coolant proof		●	●	●	●	●
F	A/B port filter built in	(*6)	●	●	●	●	●
Z1	Air supply spacer	(*7)	●	●	●	●	●
Z2	In-stop valve spacer	(*7)	●	●	●	●	●
Z3	Exhaust spacer	(*7)	●	●	●	●	●

Ⓕ Mount							
Blank	Direct mount	(*8)	●	●	●	●	●
D	DIN rail mount		●	●	●	●	●

Ⓖ Pilot exhaust method							
Blank	Common exhaust (pilot exhaust check valve built-in)		●	●	●	●	●
C	Atmosphere release (individual wiring only)		○	○	○	○	○

Ⓗ Station No.							
2	2 stations		●	●	●	●	●
to	to						
20	Refer to page 520 for the max. station number per model.						

Ⓘ Voltage							
1	100 VAC (rectifier integrated)		●	●	●	●	●
2	200 VAC (rectifier integrated)	(*9)		●		●	●
3	24 VDC		●	●	●	●	●
4	12 VDC		●	●	●	●	●

is not available.

○ indicates a custom order.

[Electrical connection list]

Ⓓ Electrical connections		Ⓐ Model No. 3GE1	3GE2	4GE1	4GE2	4GE3
Blank	Grommet lead wire (300 mm) (*10)	●	●	●	●	●
B	DIN terminal box (Pg7) with surge suppressor and indicator lamp (*11) (*13)		●		●	●
BN	DIN terminal box (Pg7) (without terminal box) with surge suppressor (*11) (*13)		●		●	●
E-connector (upward/lateral common)						
E0	Lead wire (300 mm) (*12)	●	●	●	●	●
E00	Lead wire (500 mm) (*12)	●	●	●	●	●
E01	Lead wire (1000 mm) (*12)	●	●	●	●	●
E02	Lead wire (2000 mm) (*12)	●	●	●	●	●
E03	Lead wire (3000 mm) (*12)	●	●	●	●	●
E0N	Without lead wire (without socket) (*12)	●	●	●	●	●
E1	Without lead wire (with socket/terminal) (*12)	●	●	●	●	●
E2	Lead wire (300 mm) with surge suppressor/indicator lamp	●	●	●	●	●
E20	Lead wire (500 mm) with surge suppressor/indicator lamp	●	●	●	●	●
E21	Lead wire (1000 mm) with surge suppressor/indicator lamp	●	●	●	●	●
E22	Lead wire (2000 mm) with surge suppressor/indicator lamp	●	●	●	●	●
E23	Lead wire (3000 mm) with surge suppressor/indicator lamp	●	●	●	●	●
E2N	No lead wire (without socket), surge suppressor/indicator lamp	●	●	●	●	●
E3	No lead wire (with socket/terminal), surge suppressor/indicator lamp	●	●	●	●	●
EJ type connector (socket with cover, upward/lateral common)						
E01J	Lead wire (1000 mm) (*12)	●	●	●	●	●
E02J	Lead wire (2000 mm) (*12)	●	●	●	●	●
E03J	Lead wire (3000 mm) (*12)	●	●	●	●	●
E21J	Lead wire (1000 mm) with surge suppressor/indicator lamp	●	●	●	●	●
E22J	Lead wire (2000 mm) with surge suppressor/indicator lamp	●	●	●	●	●
E23J	Lead wire (3000 mm) with surge suppressor/indicator lamp	●	●	●	●	●

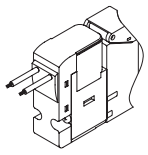
*10: The grommet lead wire specifications are compatible with DC voltage only.
*11: A lamp comes with the terminal box.
*12: AC voltage is with a rectifier circuit.
*13: The terminal box conforms to EN175301-803 Type C (former DIN 43650-C).
Refer to pages 856 and 857 for details.

Electrical connections

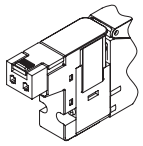
Discrete valve/individual wiring manifold

Blank Grommet lead wire

● **Lead wire length**
300 mm

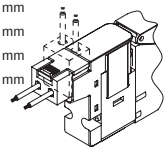


E1 E3 E-connector with socket/terminal

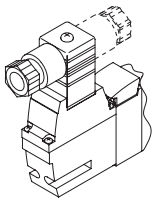


E0 E2 E-connector

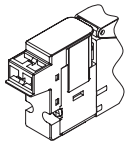
● **Lead wire length**
300 mm
500 mm
1000 mm
2000 mm
3000 mm



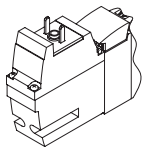
B DIN terminal box



E0N E2N E-connector without socket

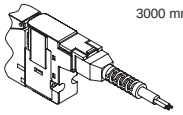


BN DIN terminal box (without terminal box)

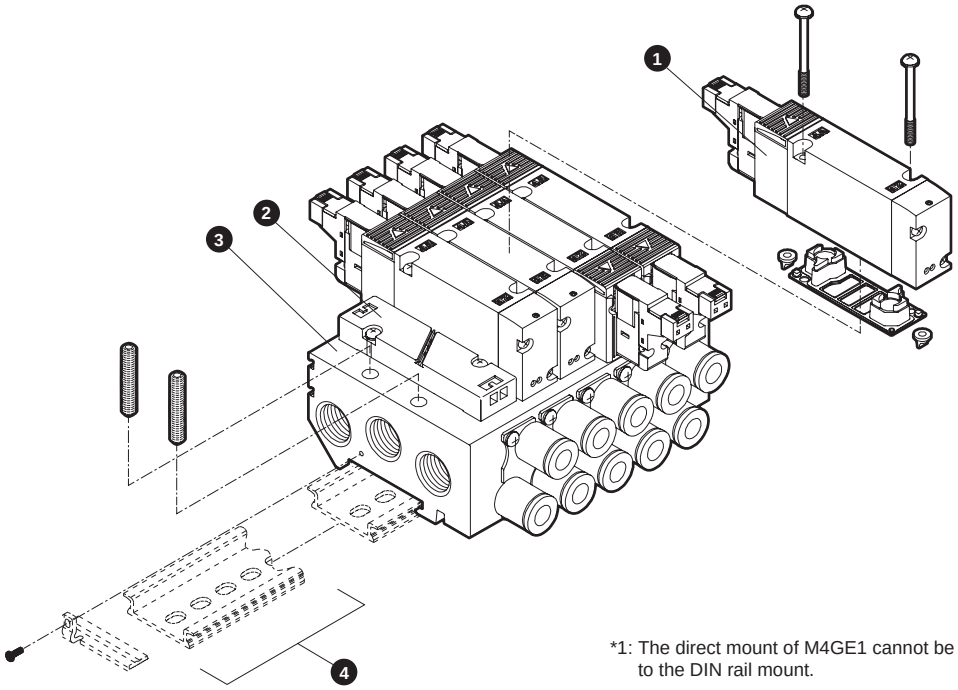


E0*J E2*J EJ type connector

● **Lead wire length**
1000 mm
2000 mm
3000 mm



Manifold components explanation and parts list



*1: The direct mount of M4GE1 cannot be changed to the DIN rail mount.

Main parts list

No.	Component name		Model No.	Content	Remarks
1	Discrete valve for mounting base		4GE □□9R -00 - Electrical connections - Option - Voltage Solenoid position Series flow rate size	Discrete valve Gasket Mounting screws 2 (PR check valve 2)	Details on page 522
2	Masking plate	3G1/4G1	4G1R-MP	Masking plate Gasket Mounting screws 2	* 4G3R-MP has two PR check valves included.
		3G1/4G1	4G1R-MPC(*Pilot exhaust atmosphere release)		
		3G2/4G2	4G2R-MP		
		3G3/4G3	4G3R-MP		
3	Manifold base assembly		M4GE □R - Port size - Option D - Station No. Series flow rate size Mount	Manifold base	Even if the “D” mounting is selected, the DIN rail kit must be handled separately.
4	DIN rail kit		4GB□R-BAA Rail length - D Series flow rate size		Details on page 585

Parts list

No.	Part name	Model No.
-	Coil assembly	4GR- power supply connections - □ -COIL- Voltage Blank: Standard A: Ozone/coolant proof Select from Ⓓ Electrical connections on page 523
-	E-connector socket assembly	4GR - SOCKET - ASSY - electrical connections - voltage
-	EJ type connector socket assembly	4GR-SOCKET-ASSY- electrical connections

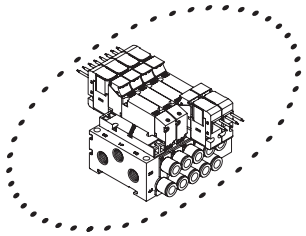
No.	Part name			Model No.
-	Cartridge push-in fitting and related parts	4G1	ø4 straight	4G1R-JOINT-C4
			ø6 straight	4G1R-JOINT-C6
			ø4 elbow	4G1R-JOINT-CL4, CLL4
			ø6 elbow	4G1R-JOINT-CL6, CLL6
			Plug cartridge	4G1R-JOINT-CPG
		4G2	ø4 straight	4G2R-JOINT-C4
			ø6 straight	4G2R-JOINT-C6
			ø8 straight	4G2R-JOINT-C8
			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
			Plug cartridge	4G3R-JOINT-CPG

MEMO

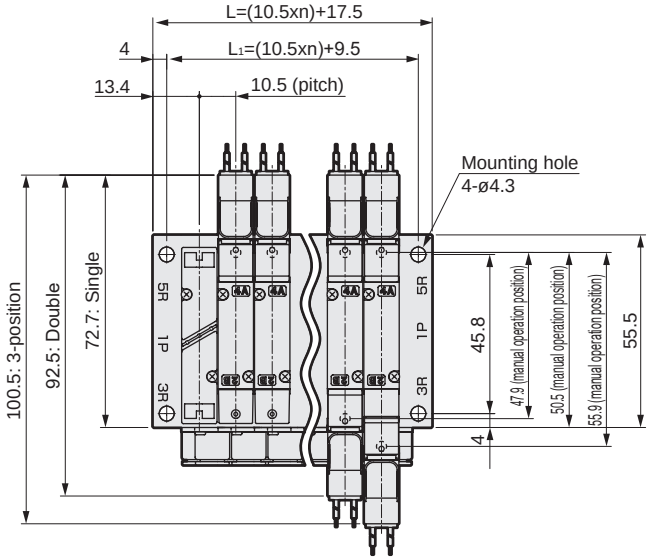
Dimensions CAD

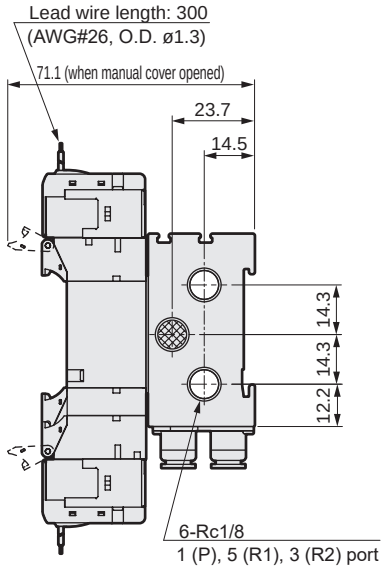
M4GE1

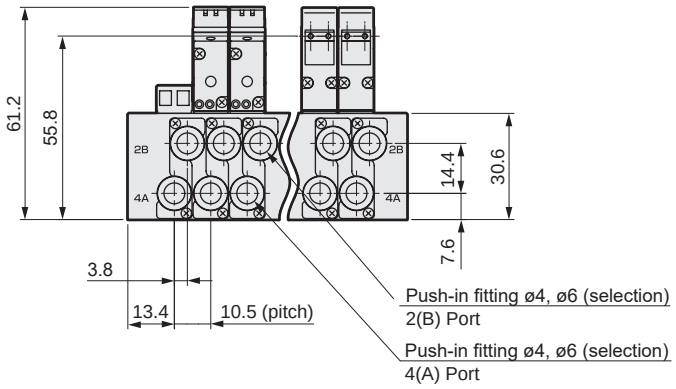
● Direct mount mounting
Grommet lead wire (blank)



*1: Dedicated for direct mounting.
This cannot be changed to DIN rail specifications.
*2: The two 3-port valve integrated has the same dimensions as the double.



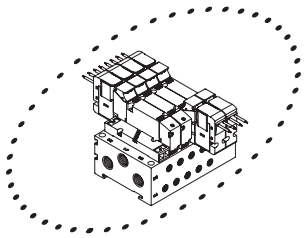


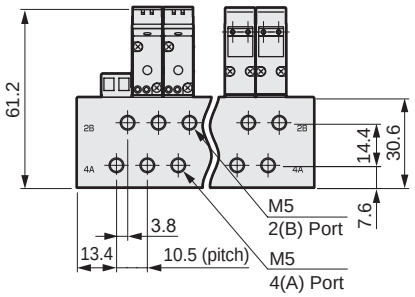


Stn No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	38.5	49.0	59.5	70.0	80.5	91.0	101.5	112.0	122.5	133.0	143.5	154.0	164.5	175.0	185.5	196.0	206.5	217.0	227.5
L_1	30.5	41.0	51.5	62.0	72.5	83.0	93.5	104.0	114.5	125.0	135.5	146.0	156.5	167.0	177.5	188.0	198.5	209.0	219.5

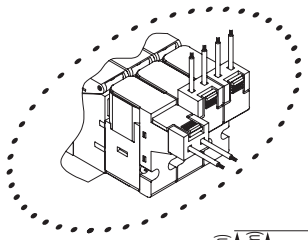
Dimensions

● M5 female thread (M5)

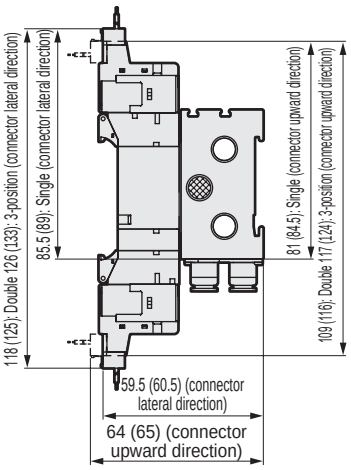




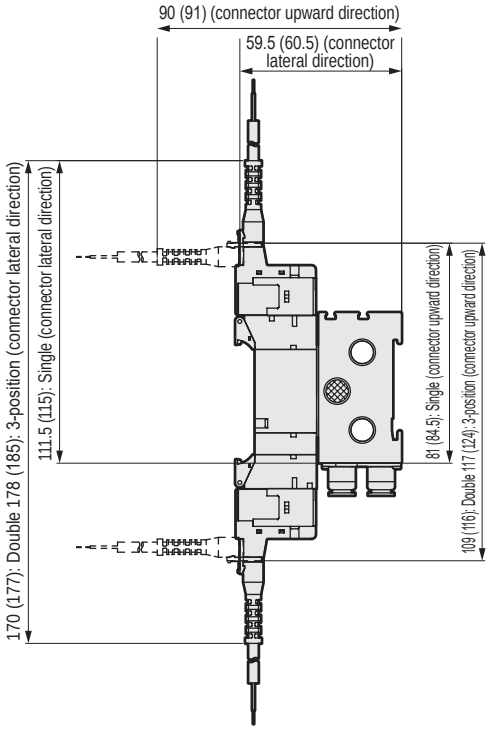
● E-connector (E)



Note: Values in ( ) are for AC voltage.



● EJ type connector (E**J)

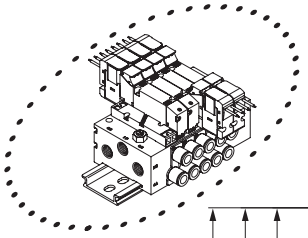


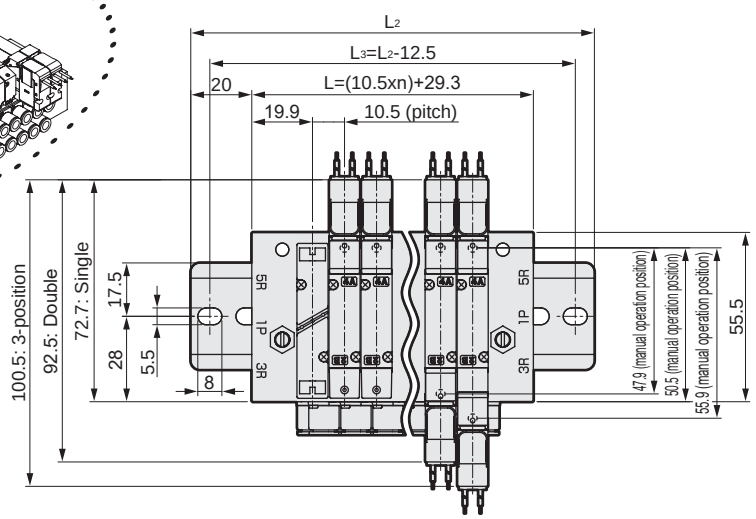
Dimensions CAD

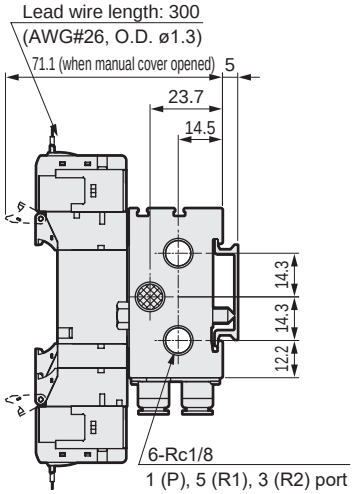
M4GE1

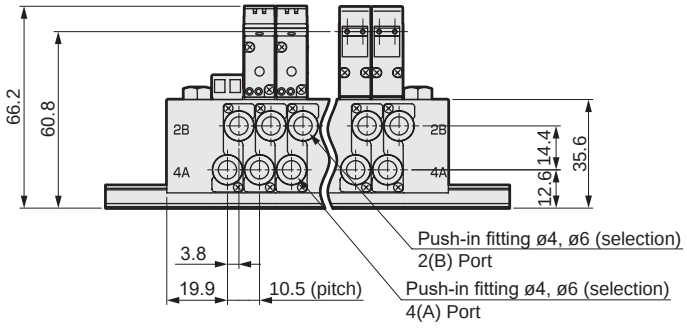
*1: This can be changed to direct mount specifications.
*2: The two 3-port valve integrated has the same dimensions as the double.

● DIN rail mounting (D)
Grommet lead wire (blank)

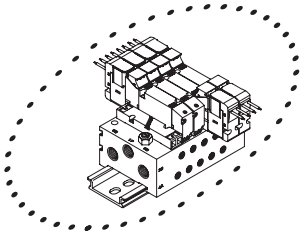


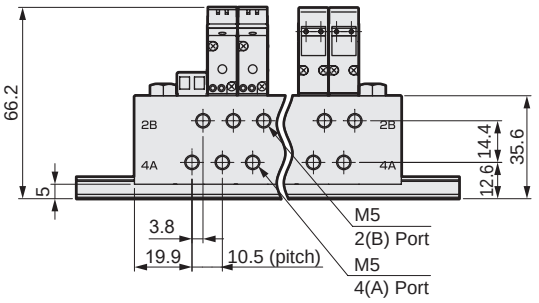




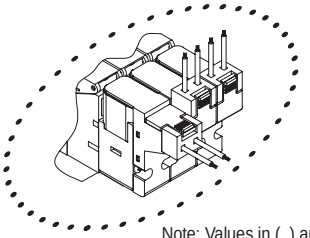


● DIN rail installation (D)
M5 female thread (M5)

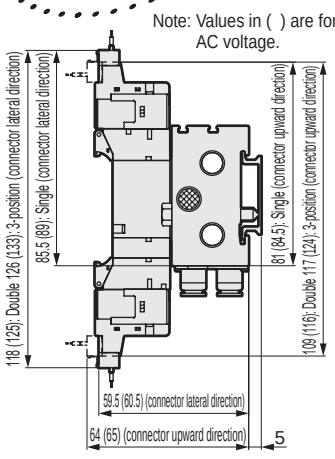




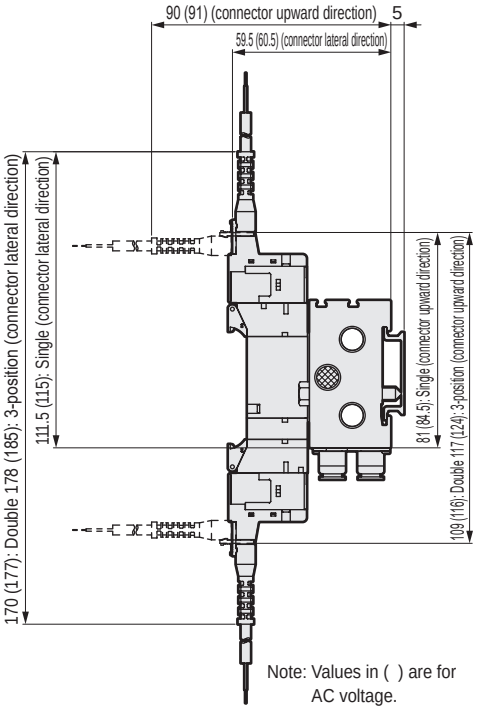
● DIN rail installation (D)
E-connector (E)



Note: Values in ( ) are for AC voltage.



● EJ type connector (E**J)



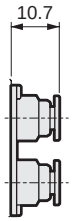
Note: Values in ( ) are for AC voltage.

Stn No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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
L_2	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
L_3	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

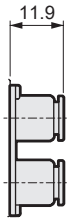
Dimensions

● Fitting straight

● ø4(C4)

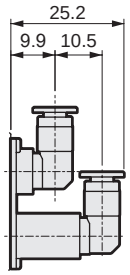


● ø6(C6)

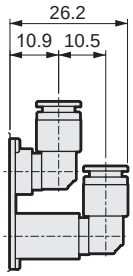


● L Fitting (upward)

● ø4(CL4)

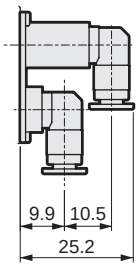


● ø6(CL6)

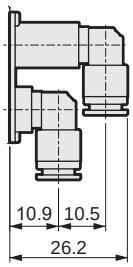


● L Fitting (downward)

● ø4(CD4)



● ø6(CD6)

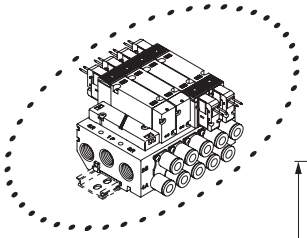


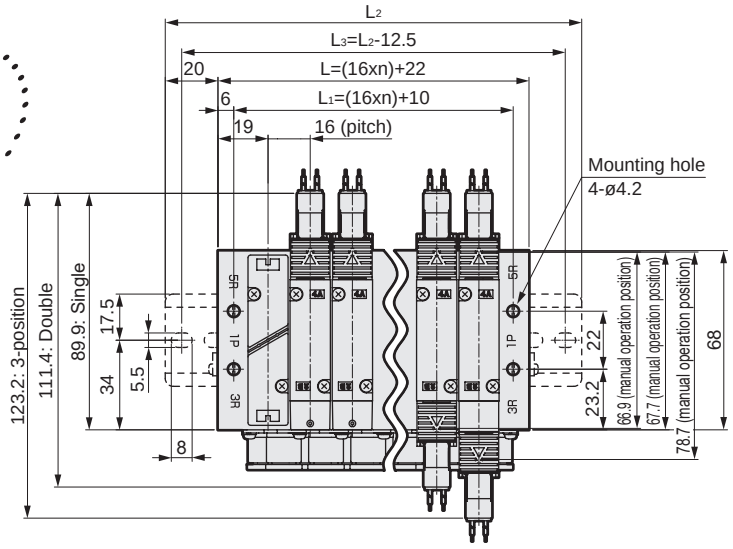
Dimensions CAD

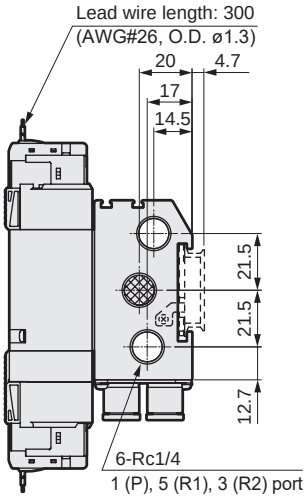
M4GE2

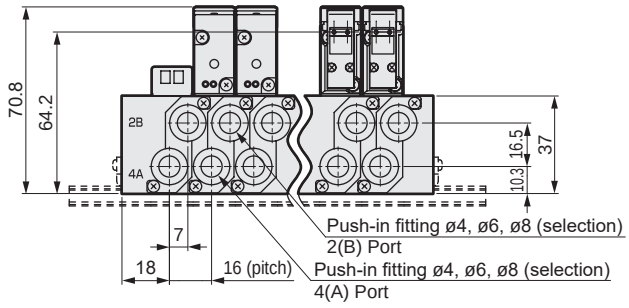
● Grommet lead wire (blank)

Note: The two 3-port valve integrated has the same dimensions as the double.

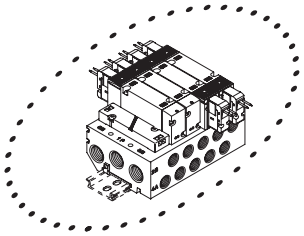


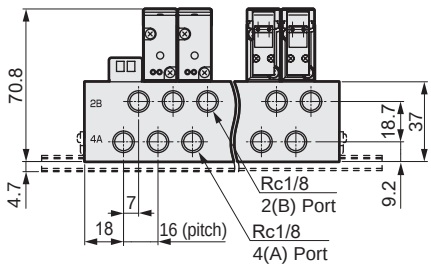






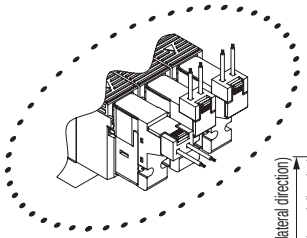
● Rc1/8 female thread (06)

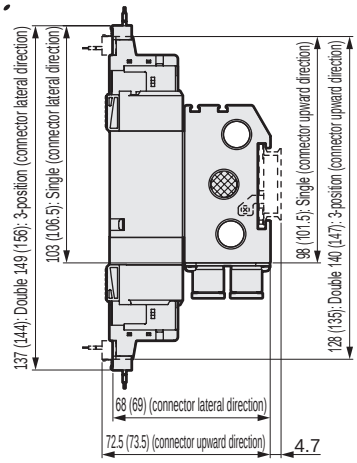




● E-connector (E)

Note: Values in ( ) are for AC voltage.

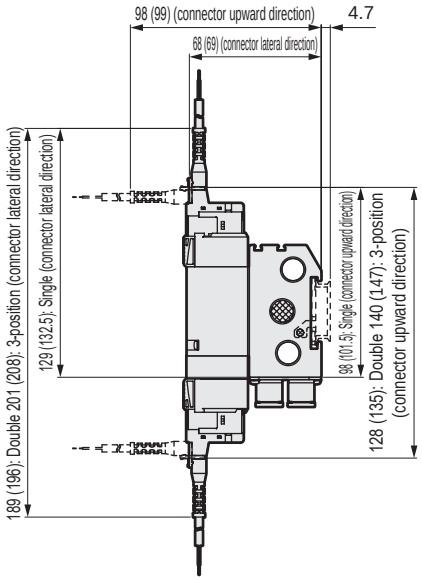




Stn No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	54.0	70.0	86.0	102.0	118.0	134.0	150.0	166.0	182.0	198.0	214.0	230.0	246.0	262.0	278.0	294.0	310.0	326.0	342.0
L_1	42.0	58.0	74.0	90.0	106.0	122.0	138.0	154.0	170.0	186.0	202.0	218.0	234.0	250.0	266.0	282.0	298.0	314.0	330.0
L_2	100.0	112.5	137.5	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				

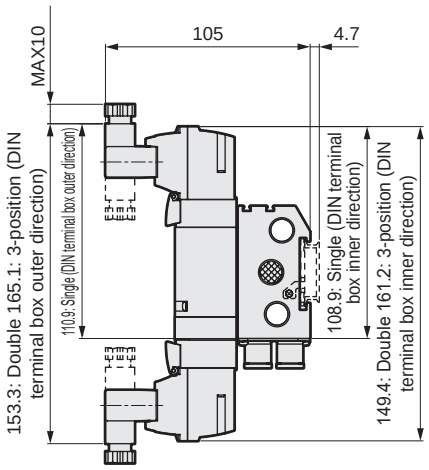
Dimensions

● EJ type connector (E**J)



Note: Values in ( ) are for AC voltage.

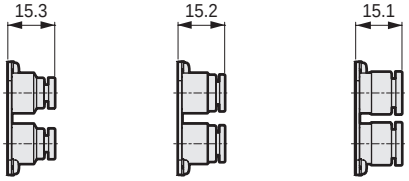
● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

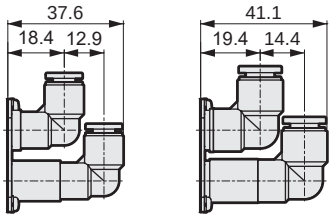
● Fitting straight

● ø4(C4) ● ø6(C6) ● ø8(C8)



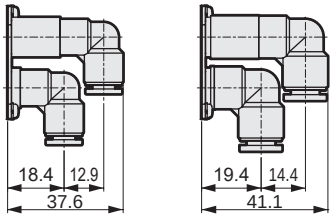
● L Fitting (upward)

● ø6(CL6) ● ø8(CL8)



● L Fitting (downward)

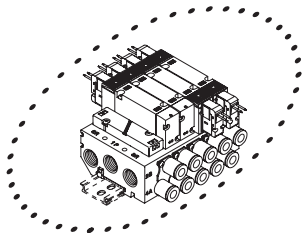
● ø6(CD6) ● ø8(CD8)

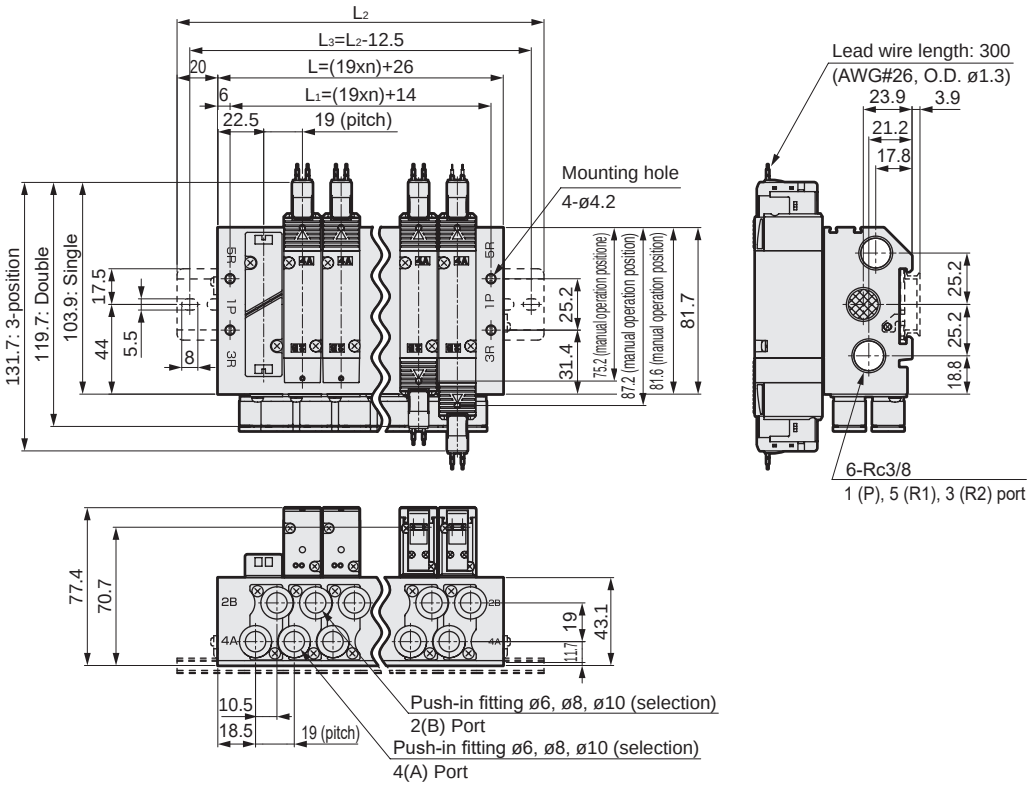


Dimensions CAD

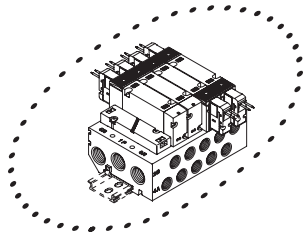
M4GE3

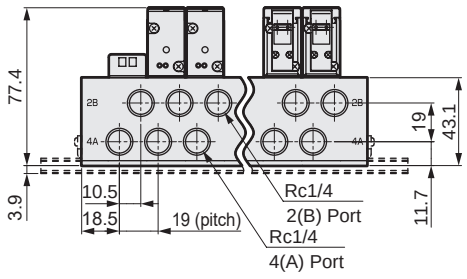
● Grommet lead wire (blank)



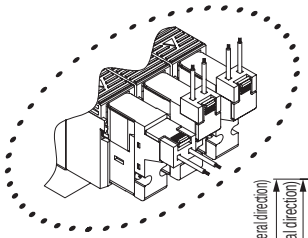


● Rc1/4 female thread (08)

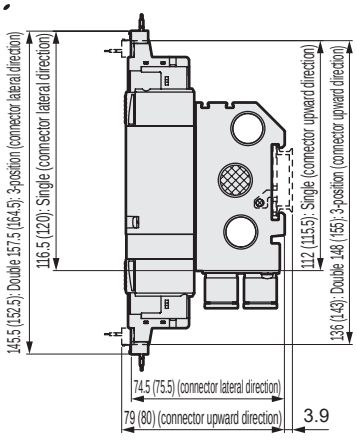




● E-connector (E)



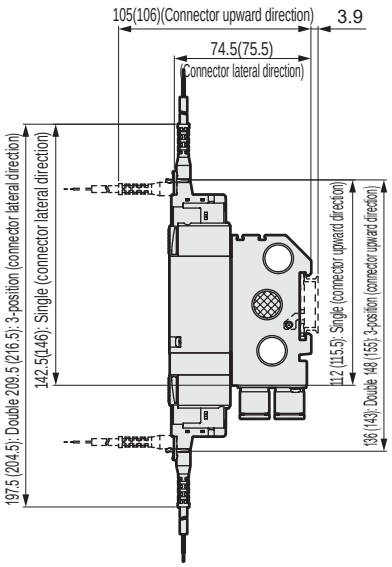
Note: Values in ( ) are for AC voltage.



Stn No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	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				

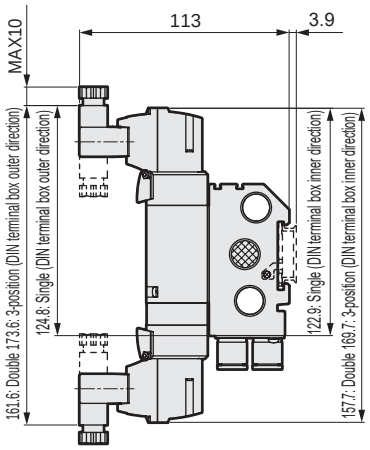
Dimensions

● EJ type connector (E**J)



Note:( ) is for AC voltage

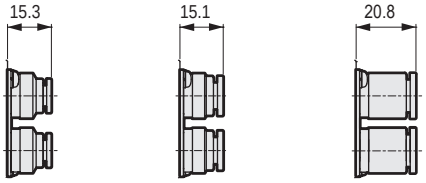
● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

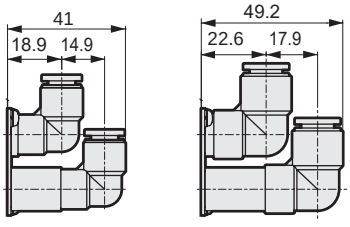
● Fitting straight

● ø6(C6) ● ø8(C8) ● ø10 (C10)



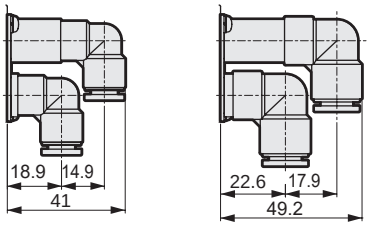
● L fitting (upward)

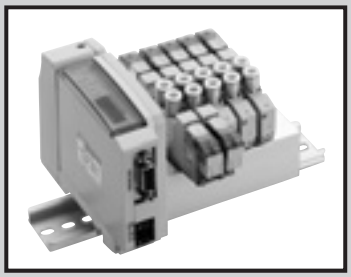
● ø8 (CL8) ● ø10 (CL10)



● L fitting (downward)

● ø8 (CD8) ● ø10 (CD10)





Reduced wiring manifold body piping
Direct mount/DIN rail mount

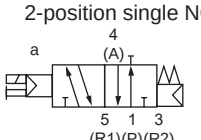
M3GD1/2/3-T*(D) Series
M4GD1/2/3-T*(D) Series

● Cylinder bore size: ø20 to ø100

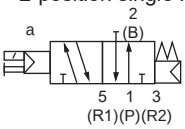
RoHS CAD

JIS symbol

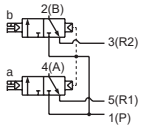
● 3-port valve
2-position single NC



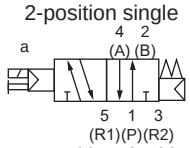
2-position single NO



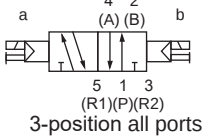
● Two 3-port valves integrated
(A side valve: NC, B side valve: NC)



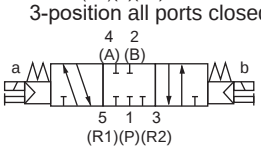
● 5-port valve
2-position single



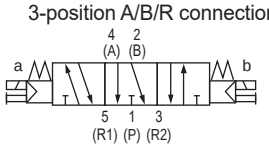
2-position double



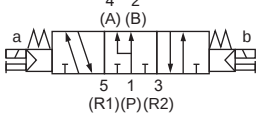
3-position all ports closed



3-position A/B/R connection



3-position P/A/B connection



Manifold common specifications

Item		Description
Manifold		Reduced wiring integrated base
Mounting method		Direct mount/DIN rail mount
Supply and exhaust method		Common supply/common exhaust (With internal exhaust check valve)
Pilot exhaust method	Internal pilot	Main valve/pilot valve common exhaust (Standard) (pilot exhaust check valve built-in)
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)
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
Vibration resistance m/s^2		50 or less
Shock resistance m/s^2		300 or less
Atmosphere		Cannot be used in corrosive gas environments

*1: Use turbine oil Class 1 ISO VG32 for lubrication. Excessive or intermittent lubrication results in unstable operation.
*2: Avoid dripping water or oil, etc., during use.

Electrical specifications

Item		Description		
		T1□, T30□, T5□		T6G1, T8□
Rated voltage V		24 DC	12 DC	24 DC
Voltage fluctuation range (*3)		±10%		+10%, -5%
Holding current A		0.017	0.034	0.017
Power consumption W		0.4		
Thermal class		B		
Surge suppressor		Zener diode		
Indicator		LED		

*3: T6G1 and T8□ (serial transmission) may experience voltage drops due to internal circuitry, so care should be taken when regulating voltages.

Individual specifications

Common specifications

Item		M3GD1/M4GD1	M3GD2/M4GD2	M3GD3/M4GD3
Port size	A/B Port	Push-in fitting ø4, ø6 M5	Push-in fitting ø4, ø6, ø8 Rc1/8	Push-in fitting ø6, ø8, ø10 Rc1/4
	P/R1/R2 port	Rc1/8	Rc1/4	Rc3/8

T1□, T30□, T5□

Item	M3GD1/M4GD1		M3GD2/M4GD2		M3GD3/M4GD3	
	Direct mount	DIN rail mount	Direct mount	DIN rail mount	Direct mount	DIN rail mount
Max. station No.	20 stations	16 stations	20 stations	16 stations	16 stations	
Manifold base weight calculation formula (n: station No.) g	29n+215	31n+228	54n+264	56n+297	84n+320	86n+354

T6G1

Item	M3GD1/M4GD1	M3GD2/M4GD2	M3GD3/M4GD3
	DIN rail mount	DIN rail mount	DIN rail mount
Max. station No.	16 stations	16 stations	16 stations
Manifold base weight calculation formula (n: station No.) g	31n+375	56n+444	86n+501

T8□

Item	M3GD1/M4GD1		M3GD2/M4GD2		M3GD3/M4GD3	
	Direct mount	DIN rail mount	Direct mount	DIN rail mount	Direct mount	DIN rail mount
Max. station No.	20 stations	16 stations	20 stations	16 stations	16 stations	
Manifold base weight calculation formula (n: station No.) g	50n+305	52n+332	57n+259	60n+290	150n+384	153n+416

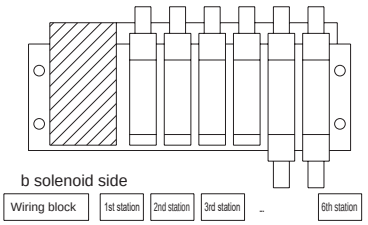
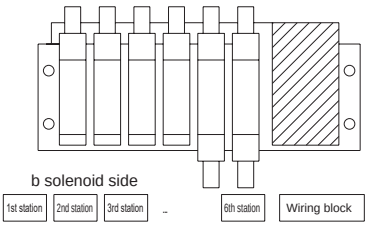
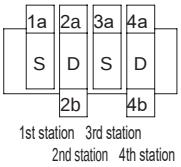
The manifold base weight is the value for screw connection specifications with DIN rail, wiring block or device unit.
The max. station number of the manifold is limited by the max. number of solenoid for each of the following wiring specifications.

Flow characteristics

Model No.	Solenoid position		P → A/B		A/B→R1/R2			
			C[dm³ /(s·bar)]	b	C[dm³ /(s·bar)]		b	
M3GD1 M4GD1	Two 3-port valves integrated		0.86	0.31	1.1	(0.66)	0.19	(0.22)
	2-position		0.99	0.20	1.2	(0.70)	0.20	(0.12)
	3-position	All ports closed	0.94	0.23	1.1	—	0.20	—
		ABR connection	0.93	0.18	1.3	(0.70)	0.23	(0.02)
		PAB connection	1.1	0.28	1.1	—	0.23	—
M3GD2 M4GD2	Two 3-port valves integrated		1.7	0.40	2.3	(1.7)	0.29	(0.32)
	2-position		2.3	0.36	2.9	(1.7)	0.24	(0.33)
	3-position	All ports closed	2.1	0.35	2.5	—	0.32	—
		ABR connection	2.2	0.37	2.9	(1.8)	0.32	(0.29)
		PAB connection	2.4	0.34	2.5	—	0.33	—
M3GD3 M4GD3	2-position		3.2	0.37	3.8	(2.5)	0.13	(0.28)
	3-position	All ports closed	2.9	0.35	3.3	—	0.35	—
		ABR connection	3.0	0.34	3.8	(2.6)	0.12	(0.27)
		PAB connection	3.3	0.30	3.3	—	0.32	—

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

Wiring specifications

Item	T10□ Common terminal block	T11□ Common terminal 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 fastening 18 terminals	Clamping 26 terminals	D-sub-connector 25-pin	MIL-C-83503 compliant press welding socket 20-pin	MIL-C-83503 compliant press welding socket 20-pin	MIL-C-83503 compliant press welding socket 10-pin	MIL-C-83503 compliant press 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  				**Right side: T□R** a solenoid side  		
Array method Blank: Standard sequential W: Double wiring	**(Ex.) In the case of T50□** Manifold specifications  Standard wiring (sequential):Blank Connector pin No. 1 2 3 4 5 6 Valve solenoid No. 1a 2a 2b 3a 4a 4b Double wiring: W Connector pin No. 1 2 3 4 5 6 7 8 Valve solenoid No. 1a Blank 2a 2b 3a Blank 4a 4b						

Serial transmission device unit specifications

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

Item		T6G1 *1
Network name		CC-Link ver1.10
Power supply voltage	Unit side	24 VDC ±10%
	Valve side	24 VDC 10% −5%
Current consumption	Unit side	100mA or less (when all output points are ON)
	Valve side	15 mA or less (when all output points are OFF)
No. of output points		16 points
Occupied number		1 station
Operation display		LED (power supply and communication status)

*1: CC-Link is ver. 1.10.

Item		T8G1 T8G2	T8GP1 T8GP2	T8P1 T8P2	T8PP1 T8PP2	T8EC1 T8EC2	T8ECP1 T8ECP2	T8EN1 T8EN2	T8ENP1 T8ENP2	T8D1 T8D2	T8DP1 T8DP2	T8EB1 T8EB2	T8EBP1 T8EBP2	T8EP1 T8EP2	T8EPP1 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 □ 1:15mA or less T8 □ 2:20mA 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

How to order

Manifold model No.

M 4GD1 1 0 R- C6 - T30 W H D - ○ - 3

3-port manifold model No.

M 3GD1 1 0 R- C6 - T30 W H D - ○ - 3

Discrete valve for mounting base

4GD1 1 9 R- C6 - A2N H — 3

3-port discrete valve for mounting base

3GD1 1 9 R- C6 - A2N H — 3

- A Model No.
- B Solenoid position
- C Port size
- D Reduced wiring connection
  Zener diode is used as a surge suppressor.
- E Terminal/connector pin array
- F Option
- G Mount
- H Station No.
- I Voltage

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

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

⚠ Precautions for model No. selection

*1 : Select M4GD*80R when mixing with 3, 5-port valves.
Further, select M3GD*80R when mixing with masking plate.

*2 : Dimensions are the same as the respective 2-position double solenoid.

*3 : Push-in fitting cannot be mixed with the discrete valve 4(A) or 2(B) port.

*4 : Blank ..... The wiring will be based on the type of valve used.
W* ..... All wired for double solenoid valves regardless of the type of valve used.

*5 : 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.

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

*7 : Specify the spacer mounting position/quantity in manifold specifications sheet.
Stacking of spacers is not possible.
Combination with the masking plate is not supported.
Refer to pages 576 to 580 for details.

* Be sure to fill in the "Manifold specifications sheet" (pages 597 to 608).

Code	Description		Ⓐ Model No. 3GD1	3GD2	3GD3	4GD1	4GD2	4GD3
Ⓑ Solenoid position								
1	2-position single					●	●	●
2	2-position double					●	●	●
3	3-position all ports closed					●	●	●
4	3-position ABR connection					●	●	●
5	3-position PAB connection					●	●	●
1	2-position single normally closed	(*1)	●	●	●			
11	2-position single normally open	(*1)	●	●	●			
66	Two 3-port valves integrated (*1) (*2)	A side valve: Normally closed	●	●				
		B side valve: Normally closed						
8	Mix manifold (when there are multiple solenoid positions)		●	●	●	●	●	●

Ⓒ Port size								
Port	4(A), 2(B) port		P/R1/R2 port (2)=Rc1/8 (3)=Rc1/4 (4)=Rc3/8					
C4	ø4 push-in fitting		(2)	(3)		(2)	(3)	
C6	ø6 push-in fitting		(2)	(3)	(4)	(2)	(3)	(4)
C8	ø8 push-in fitting			(3)	(4)		(3)	(4)
C10	ø10 push-in fitting				(4)			(4)
CX	Push-in fitting mix	(*3)	(2)	(3)	(4)	(2)	(3)	(4)
M5	M5		(2)			(2)		
06	Rc1/8			(3)			(3)	
08	Rc1/4				(4)			(4)

Ⓓ Reduced wiring (light and surge suppressor provided as standard)
Refer to the next page for electrical connections.

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

Ⓕ Option								
Blank	Non-locking/locking common manual override		●	●	●	●	●	●
H	With exhaust check valve	(*5)	●	●	●	●	●	●
A	Ozone/coolant proof product		●	●	●	●	●	●
F	A/B-port filter built in	(*6)	●	●	●	●	●	●
Z1	Air supply spacer	(*7)	●	●	●	●	●	●
Z2	In-stop valve spacer	(*7)	●	●	●	●	●	●
Z3	Exhaust spacer	(*7)	●	●	●	●	●	●

Ⓖ Mount								
Blank	Direct mount		●	●	●	●	●	●
D	DIN rail mount		●	●	●	●	●	●

Ⓗ Station No.								
2	2 stations		●	●	●	●	●	●
to	to							
20	Refer to page 534 for the max. station number per model.							

Ⓘ Voltage								
3	24 VDC		●	●	●	●	●	●
4	12 VDC		●	●	●	●	●	●

Code	Description		Ⓐ Model No. 3GD1	3GD2	3GD3	4GD1	4GD2	4GD3
Ⓓ Reduced wiring (lamp and surge suppressor provided as standard) 12/24 VDC								
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 (without power supply terminal)	Left-side spec	●	●	●	●	●	●
T53R		Right-side spec	●	●	●	●	●	●
Ⓓ Serial transmission (lamp/surge suppressor provided as standard) 24 VDC								
T6G1	CC-Link (connector)	NPN 16 points	●	●	●	●	●	●
T8G1	CC-Link (thin type)	NPN 16 points	●	●	●	●	●	●
T8G2		NPN 32 points	●	●	●	●	●	●
T8GP1		PNP 16 points	●	●	●	●	●	●
T8GP2		PNP 32 points	●	●	●	●	●	●
T8P1	PROFIBUS-DP (thin type)	NPN 16 points	●	●	●	●	●	●
T8P2		NPN 32 points	●	●	●	●	●	●
T8PP1		PNP 16 points	●	●	●	●	●	●
T8PP2		PNP 32 points	●	●	●	●	●	●
T8EC1	EtherCAT (thin type)	NPN 16 points	●	●	●	●	●	●
T8EC2		NPN 32 points	●	●	●	●	●	●
T8ECP1		PNP 16 points	●	●	●	●	●	●
T8ECP2		PNP 32 points	●	●	●	●	●	●
T8EN1	EtherNet/IP (thin type)	NPN 16 points	●	●	●	●	●	●
T8EN2		NPN 32 points	●	●	●	●	●	●
T8ENP1		PNP 16 points	●	●	●	●	●	●
T8ENP2		PNP 32 points	●	●	●	●	●	●
T8D1	DeviceNet (thinType)	NPN 16 points	●	●	●	●	●	●
T8D2		NPN 32 points	●	●	●	●	●	●
T8DP1		PNP 16 points	●	●	●	●	●	●
T8DP2		PNP 32 points	●	●	●	●	●	●
T8EB1	CC-Link IEF Basic (thinType)	NPN 16 points	●	●	●	●	●	●
T8EB2		NPN 32 points	●	●	●	●	●	●
T8EBP1		PNP 16 points	●	●	●	●	●	●
T8EBP2		PNP 32 points	●	●	●	●	●	●
T8EP1	PROFINET (thinType)	NPN 16 points	●	●	●	●	●	●
T8EP2		NPN 32 points	●	●	●	●	●	●
T8EPP1		PNP 16 points	●	●	●	●	●	●
T8EPP2		NPN 32 points	●	●	●	●	●	●
A2N	Without lead wire (without socket)with surge suppressor and indicator lamp		●	●	●	●	●	●

Ozone-proof specifications • Coolant proof specifications

Can be selected with “How to order” Item Ⓕ option “A” on page 536.

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**

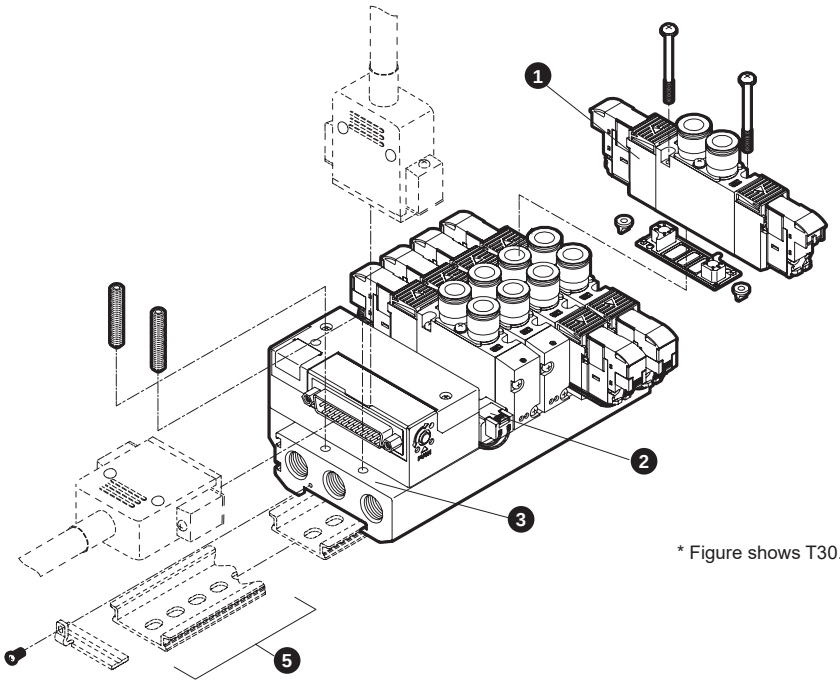
CE marking specifications

** - Voltage - **ST**

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

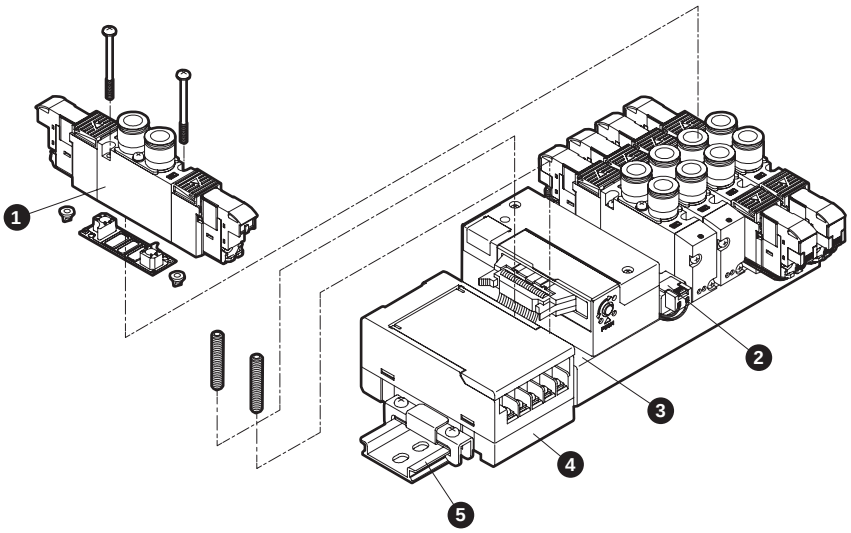
Manifold components explanation and parts list

- T10/T10R
- T11/T11R
- T30/T30R
- T50/T50R
- T51/T51R
- T52/T52R
- T53/T53R

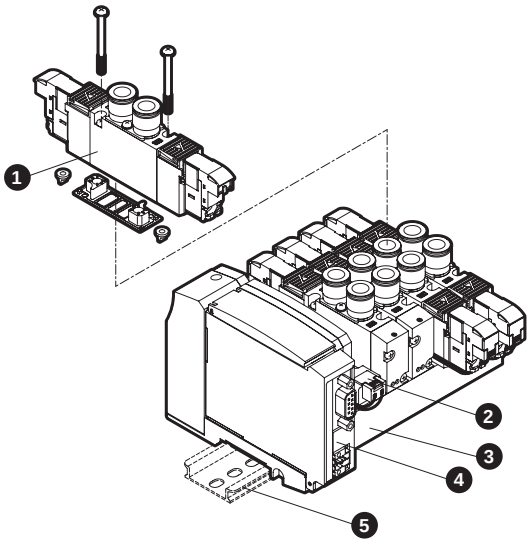


* Figure shows T30.

- T6G1



- T8*



Main parts list

No.	Component name		Model No.	Content	Remarks
1	Discrete valve for mounting base		4GD□□9R- [Port size] -A2N [Option] - [Voltage] Solenoid position Series flow rate size	Discrete valve Gasket Mounting screws 2 (PR check valve 2)	Details on page 536
2	Masking plate	3G1/4G1	4G1R-MP	Masking plate Gasket Mounting screws 2	* 4G3R-MP has two PR check valves included.
		3G2/4G2	4G2R-MP		
		3G3/4G3	4G3R-MP		
3	Manifold base assembly		M4GD□R-00- [T*] - [Option] - [Station No.] Reduced wiring connection Series flow rate size	Manifold base Wiring block	
4	Serial transmission device unit		4GR-OPP3- [Wiring method]	OPP3 discrete serial transmission device (adapter) station (connector connection)	Details on page 552
			4GR-OPP7- [Wiring method]	OPP7 discrete serial transmission device (adapter) station (slim slot)	
5	DIN rail kit		4GA□R-BAA [Rail length] - D Series flow rate size		Details on page 585

Parts list

No.	Part name	Model No.
-	Coil assembly	4GR-A2N- □-COIL- [Voltage] Blank: Standard A: Ozone/coolant proof
-	A-connector Socket assembly Details on page 837	Series flow rate size 4G□R-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

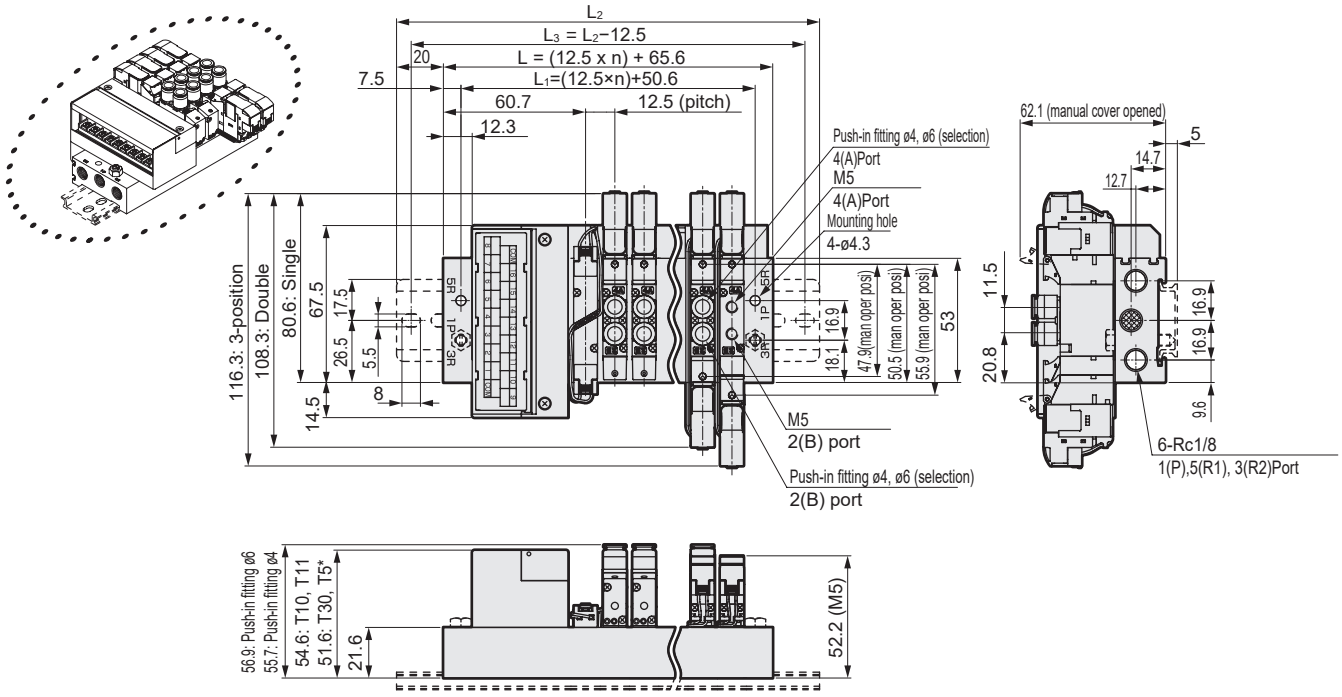
No.	Part name			Model No.
-	Cartridge push-in fitting and related parts	4G1	ø4 straight	4G1R-JOINT-C4
			ø6 straight	4G1R-JOINT-C6
			Plug cartridge	4G1R-JOINT-CPG
		4G2	ø4 straight	4G2R-JOINT-C4
			ø6 straight	4G2R-JOINT-C6
			ø8 straight	4G2R-JOINT-C8
			Plug cartridge	4G2R-JOINT-CPG
		4G3	ø6 straight	4G3R-JOINT-C6
			ø8 straight	4G3R-JOINT-C8
			ø10 straight	4G3R-JOINT-C10
			Plug cartridge	4G3R-JOINT-CPG

Dimensions CAD

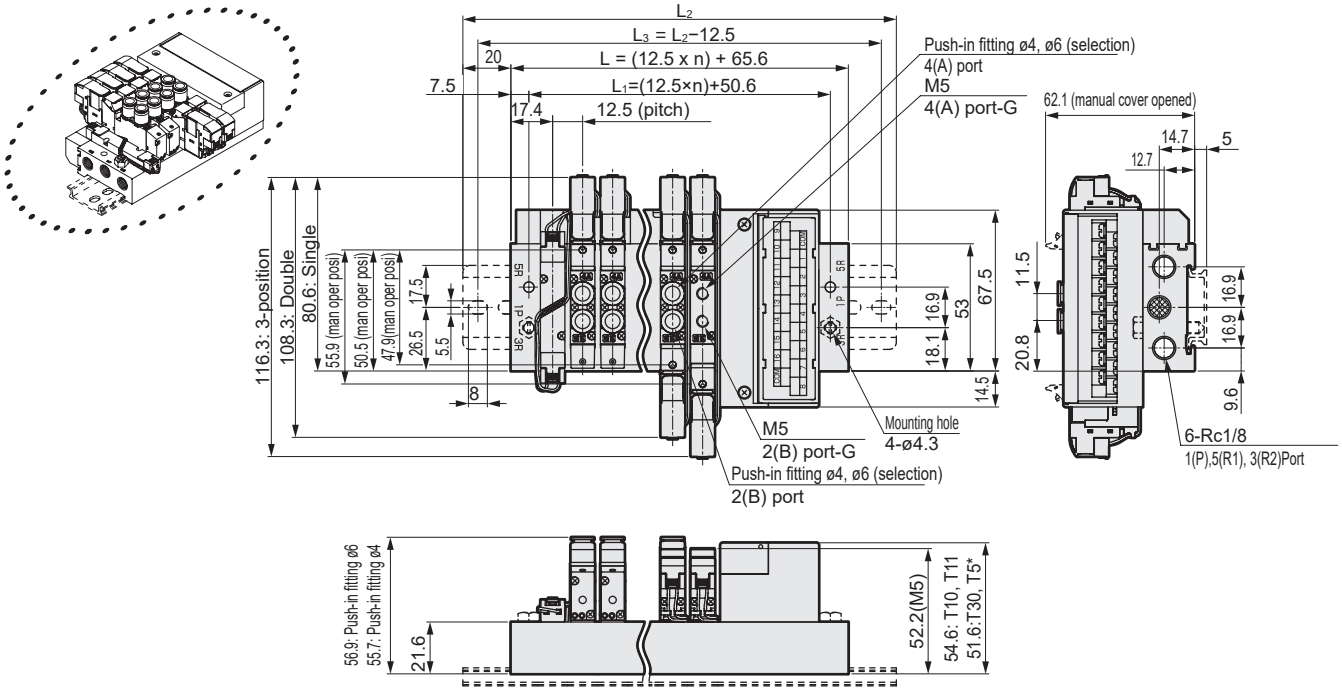
M4GD1

* Figure shows T10. Refer to pages 550 and 551 for detailed wiring block dimensions.
* For the 2-position single 3-port valve, either A port or B port is a plug. In addition, the two 3-port valve integrated has the same dimensions as the double model.

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



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



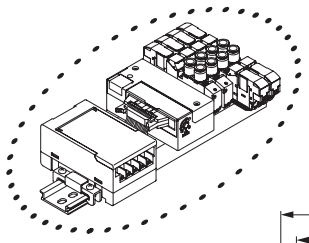
Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	90.6	103.1	115.6	128.1	140.6	153.1	165.6	178.1	190.6	203.1	215.6	228.1	240.6	253.1	265.6	278.1	290.6	303.1	315.6
L_1	75.6	88.1	100.6	113.1	125.6	138.1	150.6	163.1	175.6	188.1	200.6	213.1	225.6	238.1	250.6	263.1	275.6	288.1	300.6
L_2	137.5	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				

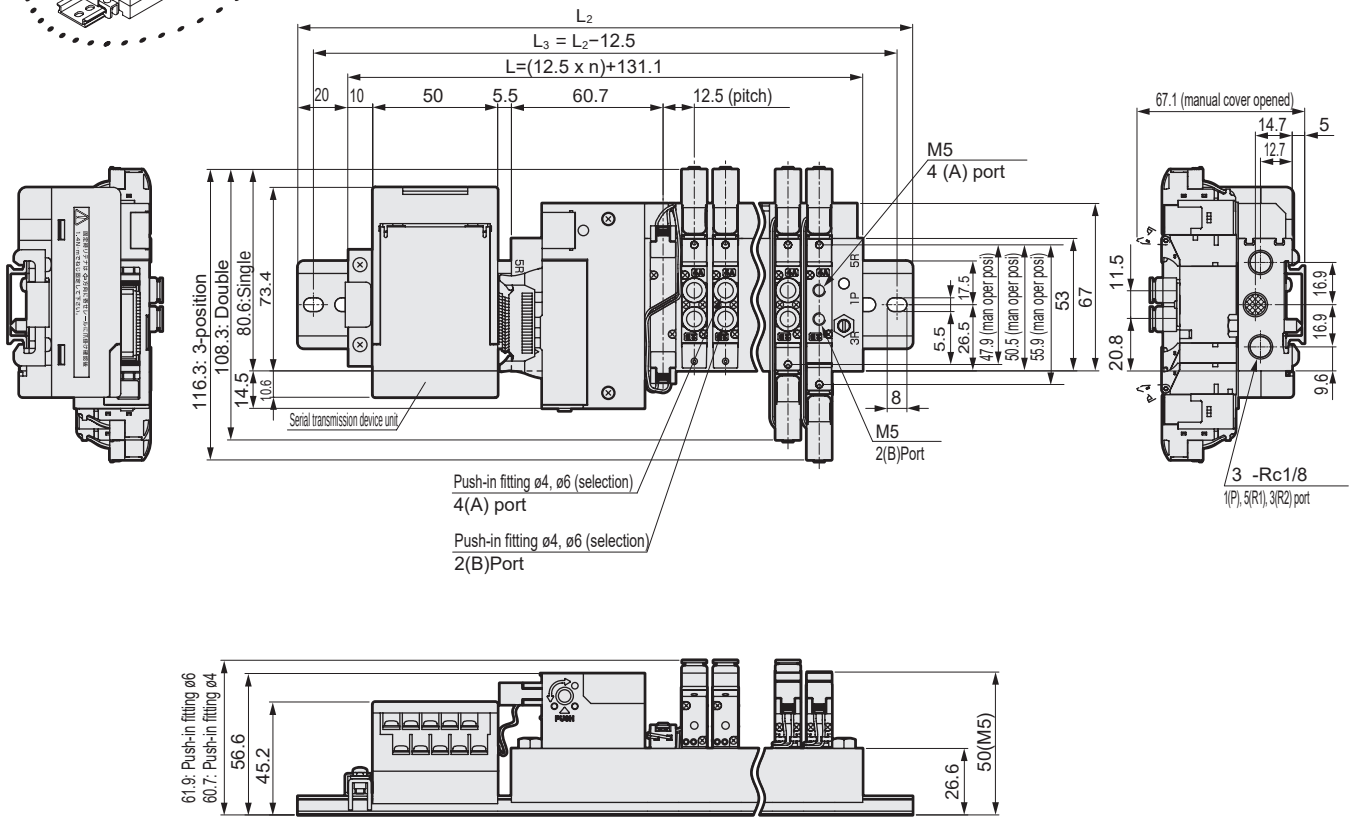
Dimensions CAD

M4GD1

* For the 2-position single 3-port valve, either port A or port B is a plug. In addition, the two 3-port valve built-in type has the same dimensions as the double model.

● Serial transmission (T6G1)
DIN rail mount (D)





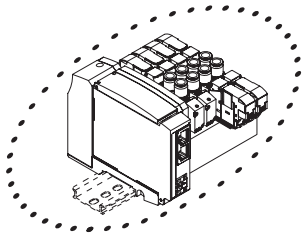
Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L	156.1	168.6	181.1	193.6	206.1	218.6	231.1	243.6	256.1	268.6	281.1	293.6	306.1	318.6	331.1
L_2	200.0	212.5	225.0	237.5	250.0	262.5	275.0	287.5	300.0	312.5	325.0	337.5	350.0	362.5	375.0
L_3	187.5	200.0	212.5	225.0	237.5	250.0	262.5	275.0	287.5	300.0	312.5	325.0	337.5	350.0	362.5

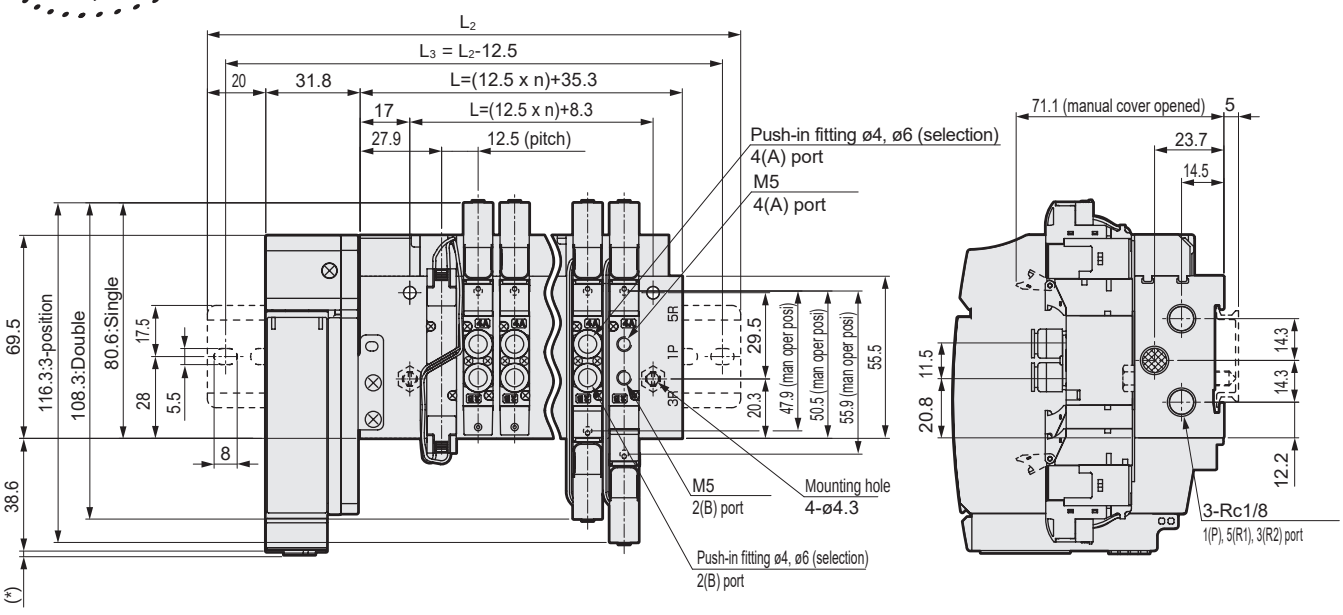
Dimensions CAD

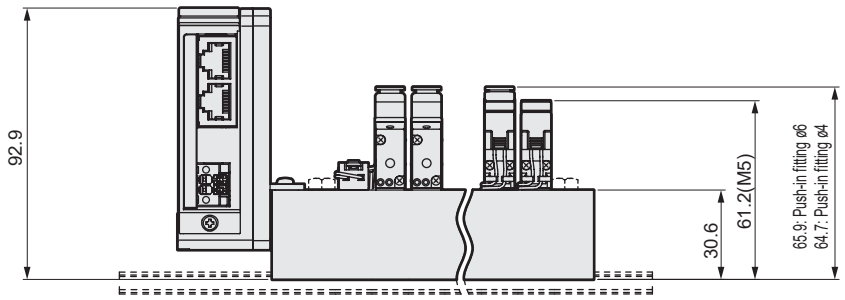
M4GD1

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

● Serial transmission (T8)
DIN rail mount (D)







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

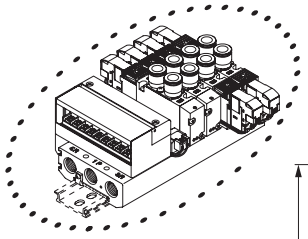
Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	60.3	72.8	85.3	97.8	110.3	122.8	135.3	147.8	160.3	172.8	185.3	197.8	210.3	222.8	235.3	247.8	260.3	272.8	285.3
L_1	33.3	45.8	58.3	70.8	83.3	95.8	108.3	120.8	133.3	145.8	158.3	170.8	183.3	195.8	208.3	220.8	233.3	245.8	258.3
L_2	137.5	150.0	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				

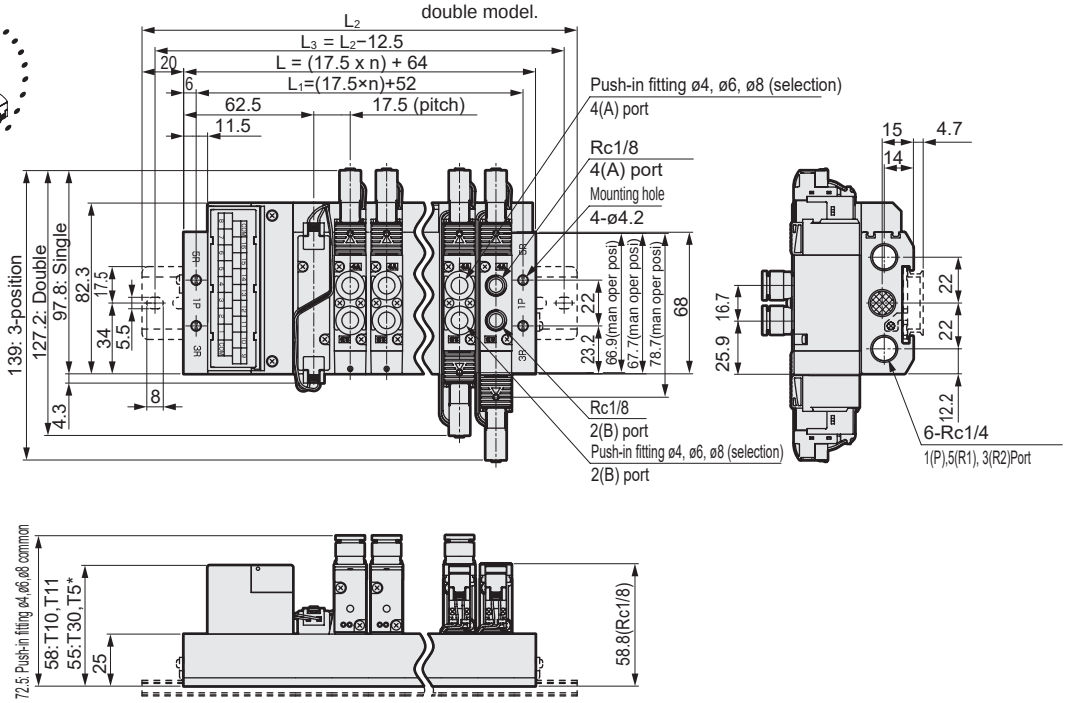
Dimensions

M4GD2

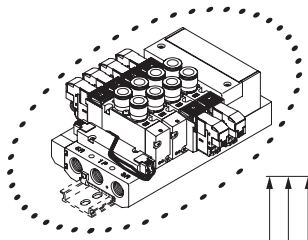
● Reduced wiring left side type (T10/T11/T30/T50/T51/T52/T53)

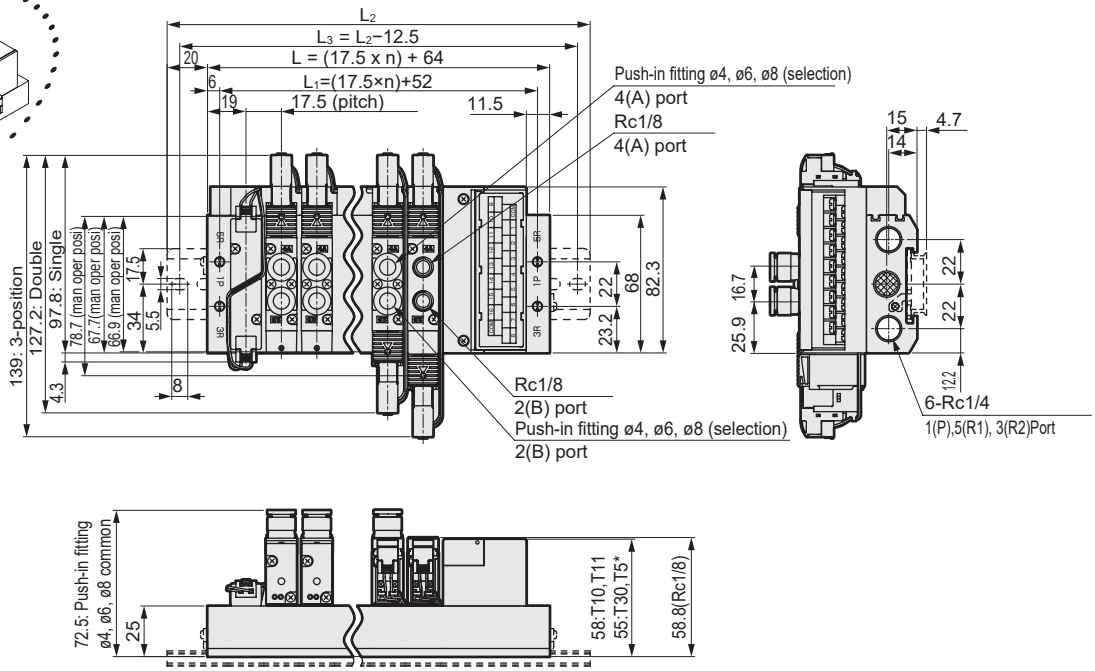
* Figure shows T10. Refer to pages 550 and 551 for detailed wiring block dimensions.
* For the 2-position single 3-port valve, either port A or port B is a plug. In addition, the two 3-port valve built-in type has the same dimensions as the double model.





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





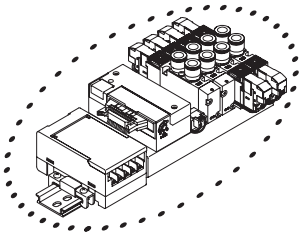
Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	99.0	116.5	134.0	151.5	169.0	186.5	204.0	221.5	239.0	256.5	274.0	291.5	309.0	326.5	344.0	361.5	379.0	396.5	414.0
L_1	87.0	104.5	122.0	139.5	157.0	174.5	192.0	209.5	227.0	244.5	262.0	279.5	297.0	314.5	332.0	349.5	367.0	384.5	402.0
L_2	150.0	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				
L_3	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				

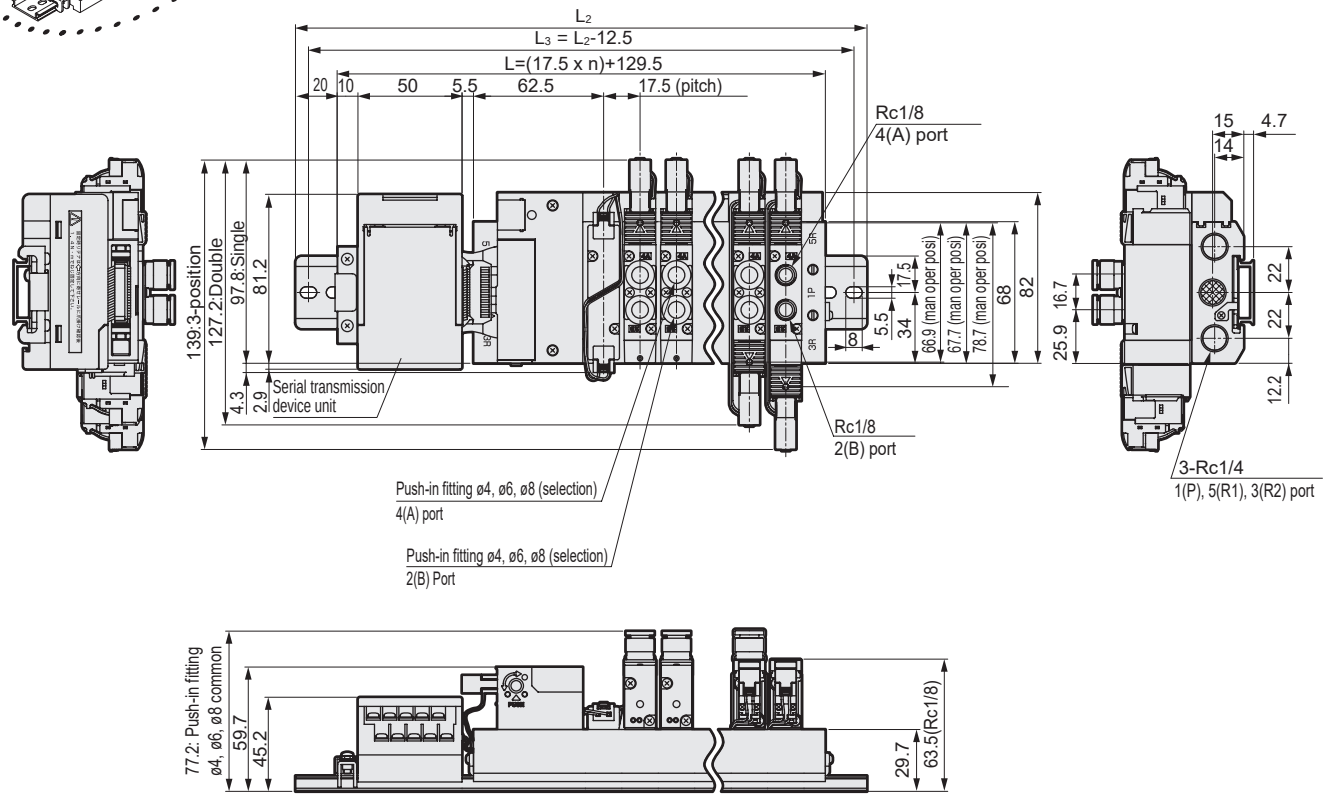
Dimensions CAD

M4GD2

* For the 2-position single 3-port valve, either A port or B port is a plug. In addition, the two 3-port valve integrated has the same dimensions as the double model.

● Serial transmission (T6G1)
DIN rail mount (D)



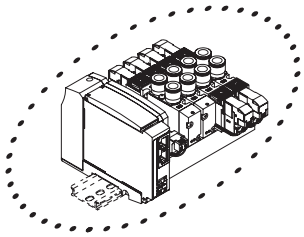


Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L	164.5	182.0	199.5	217.0	234.5	252.0	269.5	287.0	304.5	322.0	339.5	357.0	374.5	392.0	409.5
L_2	212.5	225.0	250.0	262.5	275.0	300.0	312.5	337.5	350.0	362.5	387.5	400.0	425.0	437.5	450.0
L_3	200.0	212.5	237.5	250.0	262.5	287.5	300.0	325.0	337.5	350.0	375.0	387.5	412.5	425.0	437.5

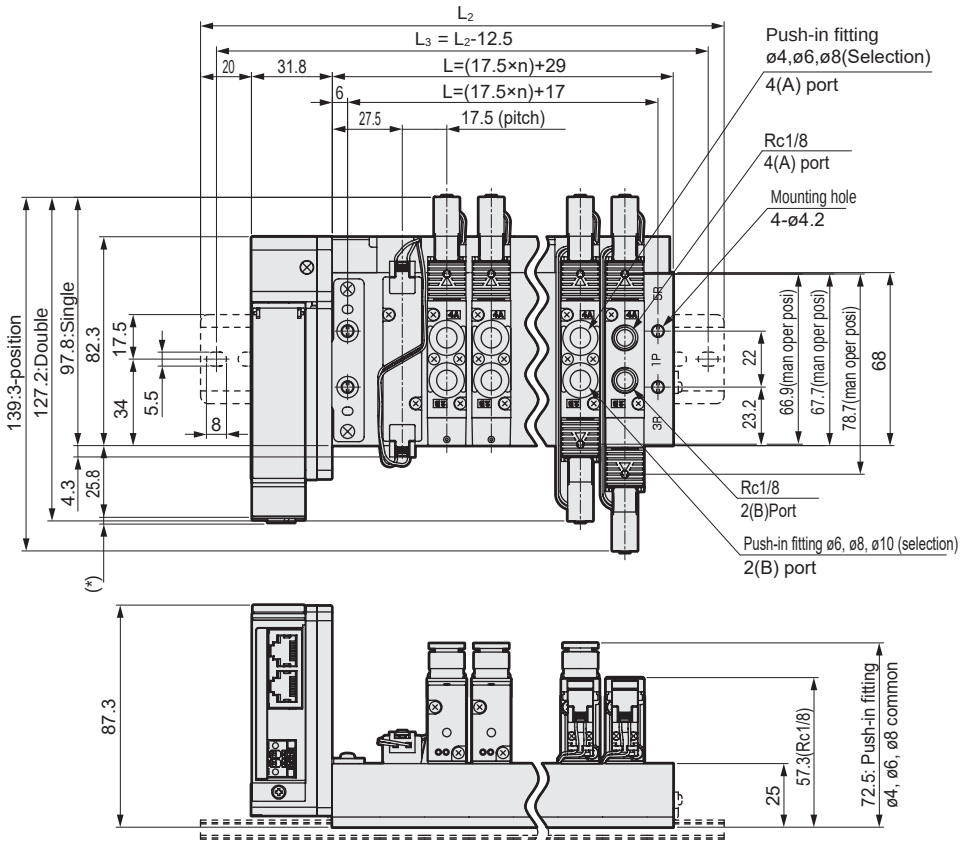
Dimensions CAD

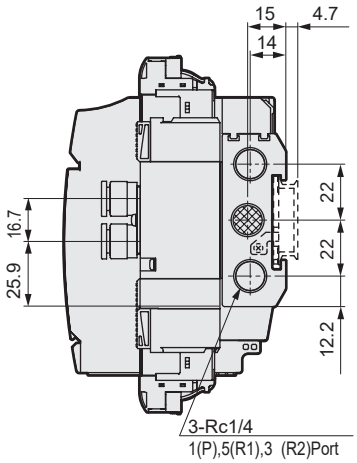
M4GD2

● Serial transmission (T8)
DIN rail mount (D)



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





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

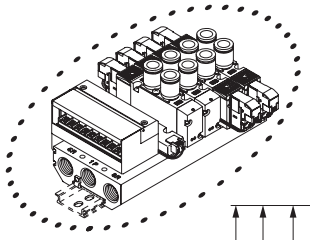
Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	64.0	81.5	99.0	116.5	134.0	151.5	169.0	186.5	204.0	221.5	239.0	256.5	274.0	291.5	309.0	326.5	344.0	361.5	379.0
L_1	52.0	69.5	87.0	104.5	122.0	139.5	157.0	174.5	192.0	209.5	227.0	244.5	262.0	279.5	297.0	314.5	332.0	349.5	367.0
L_2	137.5	162.5	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				

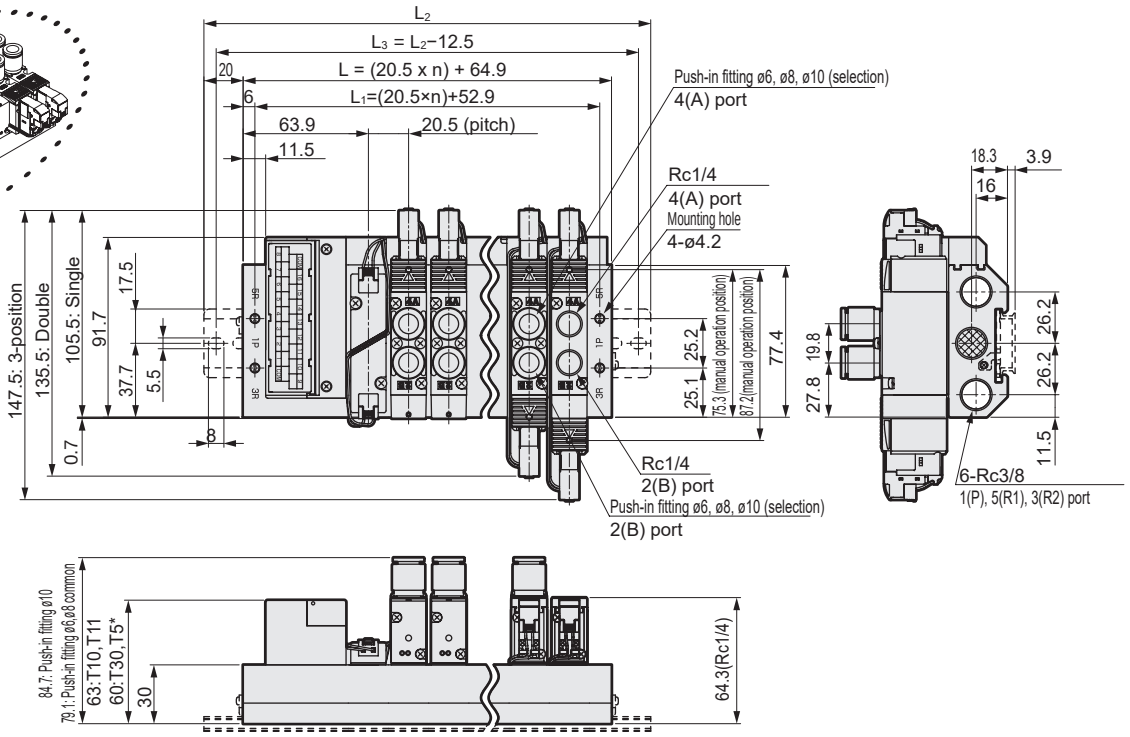
Dimensions CAD

M4GD3

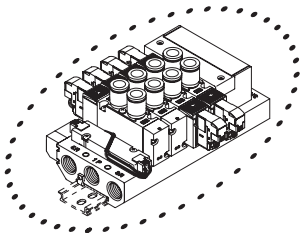
* Figure shows T10. Refer to pages 550 and 551 for detailed wiring block dimensions.
* For the 2-position single 3-port valve, either A port or B port is a plug.

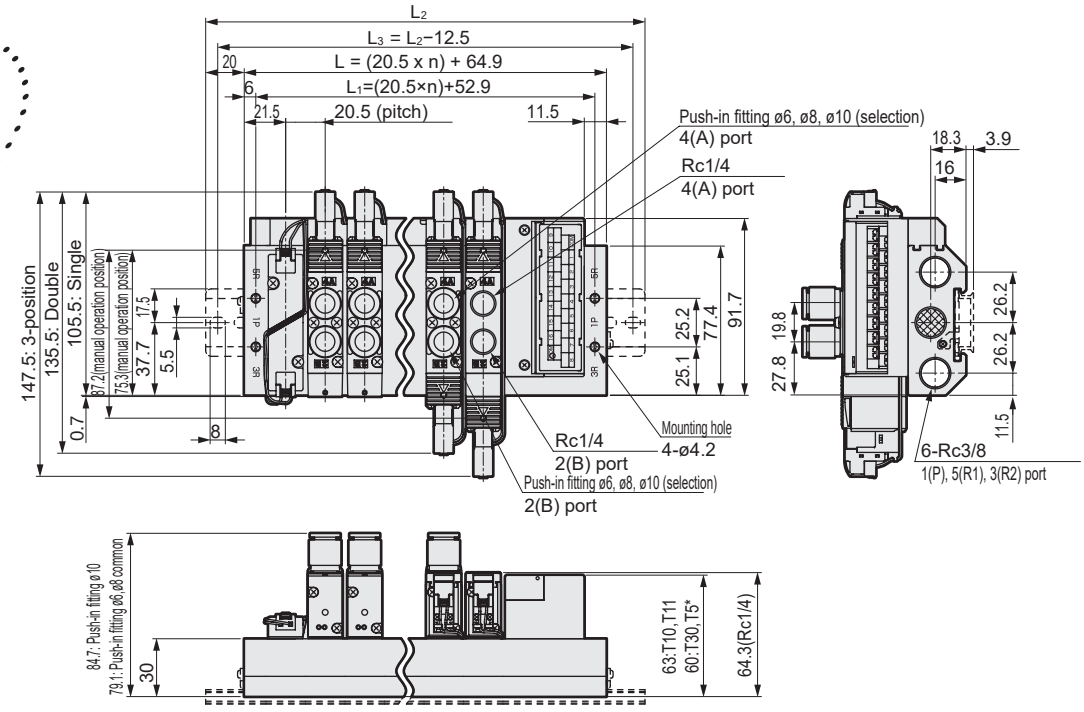
● Reduced wiring left side type (T10/T11/T30/T50/T51/T52/T53)





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





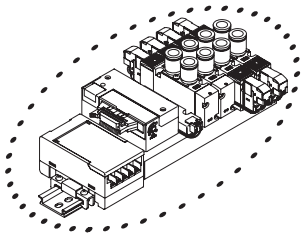
Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L	105.9	126.4	146.9	167.4	187.9	208.4	228.9	249.4	269.9	290.4	310.9	331.4	351.9	372.4	392.9
L_1	93.9	114.4	134.9	155.4	175.9	196.4	216.9	237.4	257.9	278.4	298.9	319.4	339.9	360.4	380.9
L_2	150.0	175.0	200.0	212.5	237.5	250.0	275.0	300.0	312.5	337.5	362.5	375.0	400.0	412.5	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	400.0	425.0

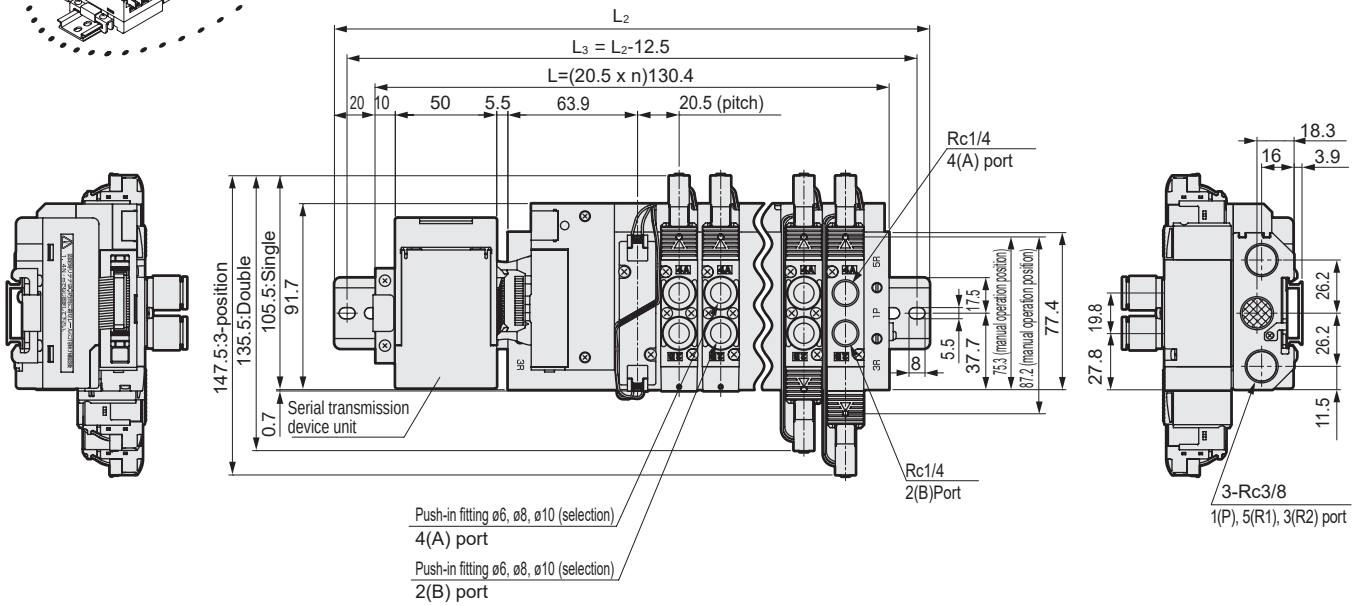
Dimensions CAD

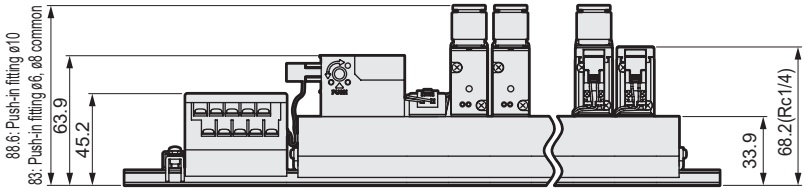
M4GD3

● Serial transmission (T6G1)
DIN rail mount (D)

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







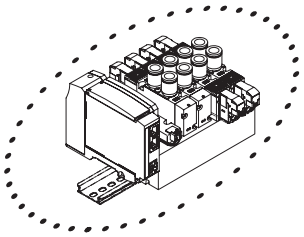
Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L	171.4	191.9	212.4	232.9	253.4	273.9	294.4	314.9	335.4	355.9	376.4	396.9	417.4	437.9	458.4
L_2	212.5	237.5	262.5	275.0	300.0	325.0	337.5	362.5	387.5	400.0	425.0	437.5	462.5	487.5	500.0
L_3	200.0	225.0	250.0	262.5	287.5	312.5	325.0	350.0	375.0	387.5	412.5	425.0	450.0	475.0	487.5

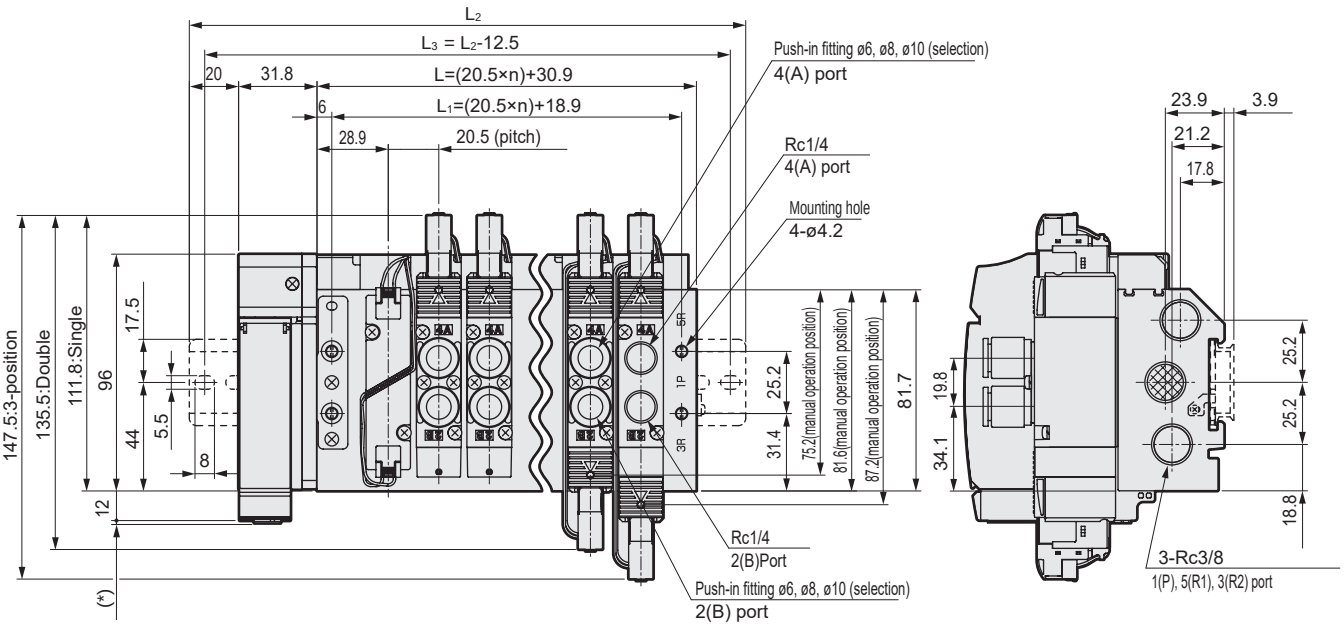
Dimensions CAD

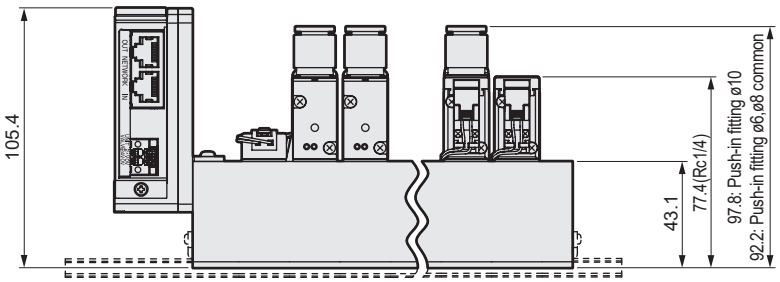
M4GD3

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

● Serial transmission (T8)
DIN rail mount (D)







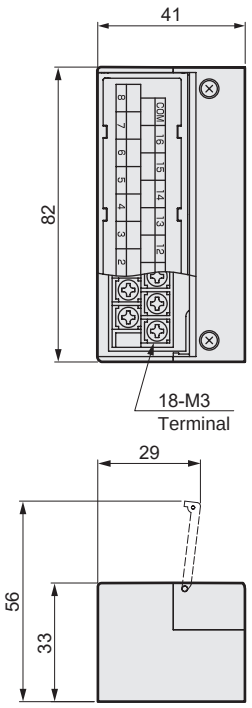
Serial transmission	* Dimensions
T8G □	1.0
T8P □	4.9
T8E □	1.5
T8D □	1.0

Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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

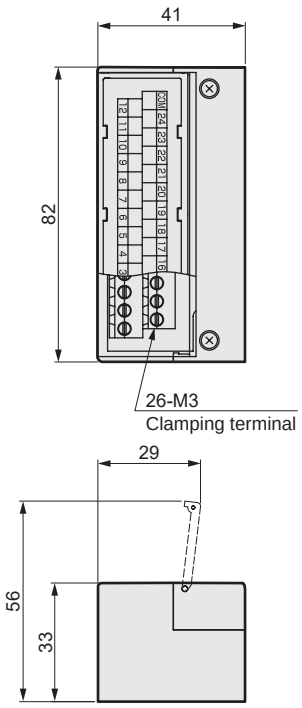
MEMO

Wiring block part: Dimensions

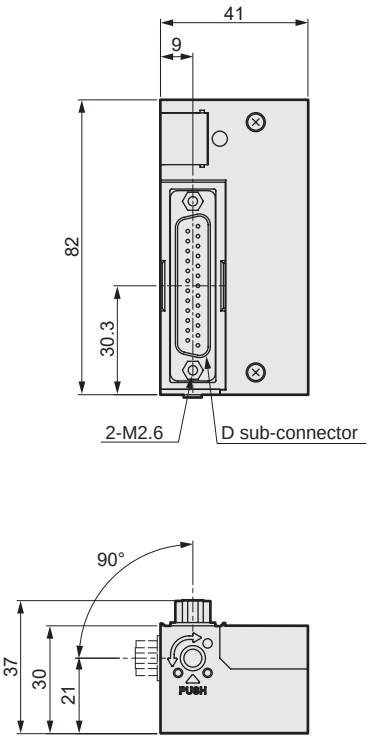
● Common terminal block (M3 thread) T10



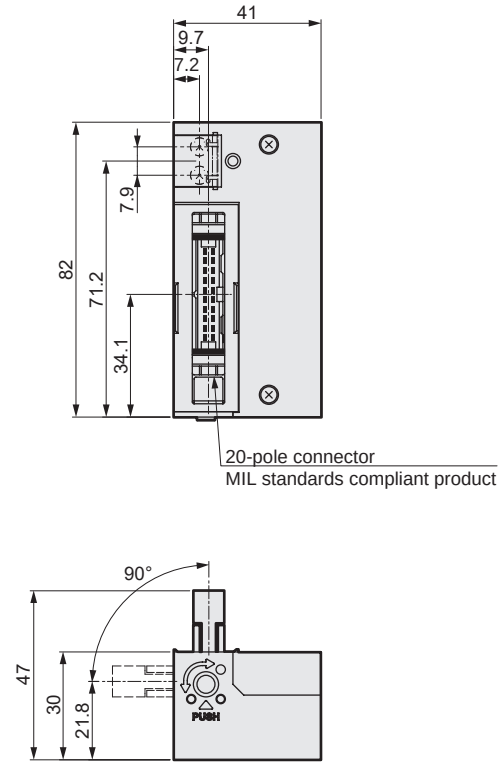
● Common terminal block (clamping) T11



● D sub-connector T30

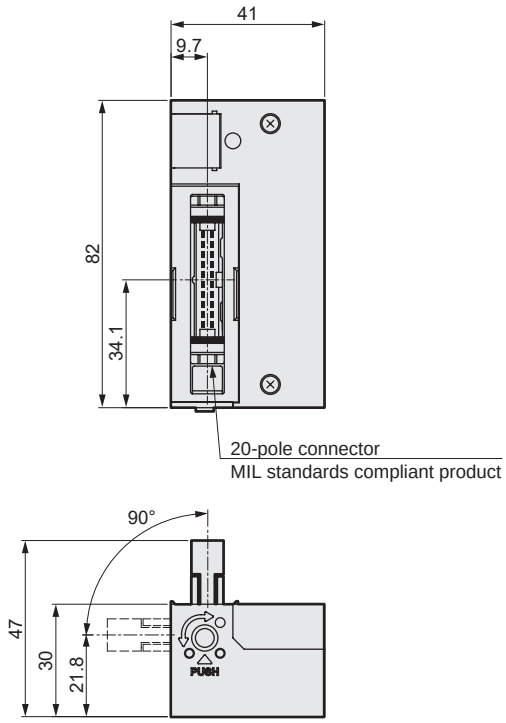


● 20-pin flat cable connector (with power supply terminal) T50

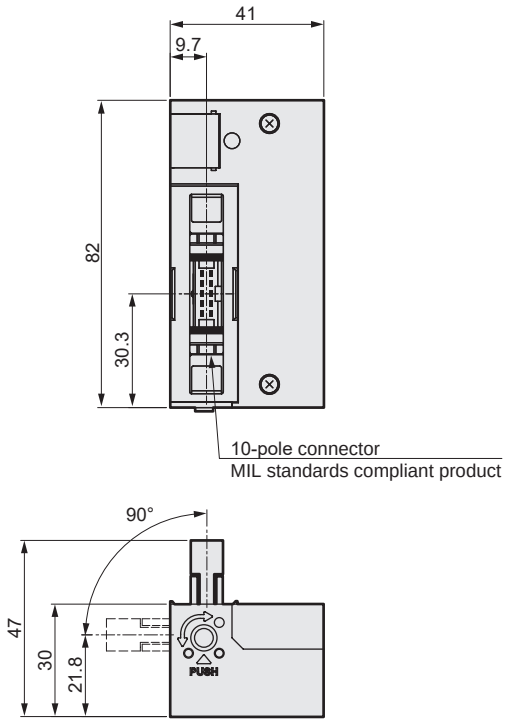


Wiring block part: Dimensions

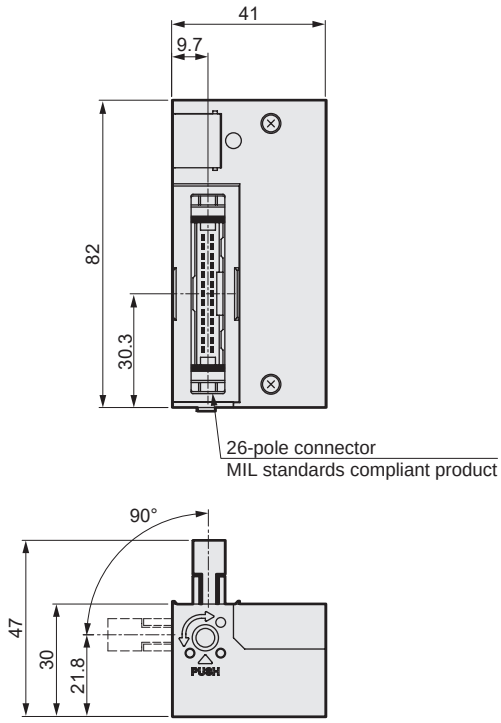
● 20-pin flat cable connector (without power supply terminal)
T51



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



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

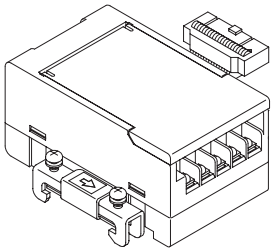


● Single unit serial transmission device (adapter) station (connector connection)

4GR – OPP3 – 1G

Ⓐ Wiring method

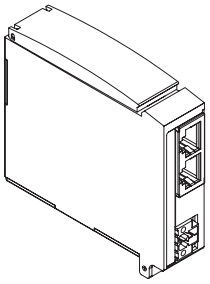
Code	Description			
Ⓐ Wiring method				
1G	T6G1	CC-Link	NPN	16 points



● Single unit serial transmission device (adapter) station (slim slot)

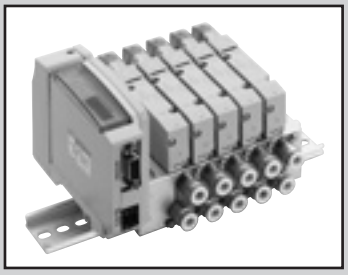
4GR – OPP7 – 2G

Ⓐ Wiring method



Code	Description			
Ⓐ Wiring method				
1G	T8G1	CC-Link	NPN	16 points
2G	T8G2			32 points
1G-P	T8GP1		PNP	16 points
2G-P	T8GP2			32 points
1P	T8P1	PROFIBUS-DP	NPN	16 points
2P	T8P2			32 points
1P-P	T8PP1		PNP	16 points
2P-P	T8PP2			32 points
1EC	T8EC1	EtherCAT	NPN	16 points
2EC	T8EC2			32 points
1EC-P	T8ECP1		PNP	16 points
2EC-P	T8ECP2			32 points
1EN	T8EN1	EtherNet/IP	NPN	16 points
2EN	T8EN2			32 points
1EN-P	T8ENP1		PNP	16 points
2EN-P	T8ENP2			32 points
1D	T8D1	DeviceNet	NPN	16 points
2D	T8D2			32 points
1D-P	T8DP1		PNP	16 points
2D-P	T8DP2			32 points
1EB	T8EB1	CC-Link IEF Basic	NPN	16 points
2EB	T8EB2			32 points
1EB-P	T8EBP1		PNP	16 points
2EB-P	T8EBP2			32 points
1EP	T8EP1	PROFINET	NPN	16 points
2EP	T8EP2			32 points
1EP-P	T8EPP1		PNP	16 points
2EP-P	T8EPP2			32 points

MEMO



Reduced wiring manifold
Base piping
Direct mount/DIN rail mount

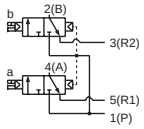
M3GE1/2-T*(D) Series
M4GE1/2/3-T*(D) Series

● Cylinder bore size: ø20 to ø100

RoHS CAD

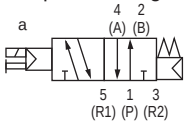
JIS symbol

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

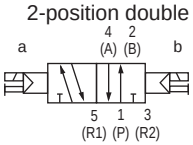


● 5-port valve

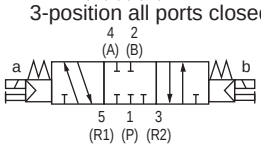
2-position single



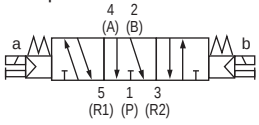
2-position double



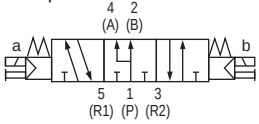
3-position all ports closed



3-position A/B/R connection



3-position P/A/B connection



Manifold common specifications

Item		Description
Manifold		Reduced wiring integrated base
Mounting method		Direct mount/DIN rail mount
Supply and exhaust method		Common supply/common exhaust (With internal exhaust check valve)
Pilot exhaust method	Internal pilot	Main valve/pilot valve common exhaust (Standard) (Pilot exhaust check valve built-in)
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)
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
Vibration resistance m/s^2		50 or less
Shock resistance m/s^2		300 or less
Atmosphere		Cannot be used in corrosive gas environments

*1: Use turbine oil Class 1 ISO VG32 for lubrication.
Excessive or intermittent lubrication results in unstable operation.
*2: Avoid dripping water or oil, etc., during use.

Electrical specifications

Item		Description		
		T1□, T30□, T5□		T6G1, T8□
Rated voltage	V	24 DC	12 DC	24 DC
Voltage fluctuation range	(*3)	±10%		+10%, -5%
Holding current	A	0.017	0.034	0.017
Power consumption	W	0.4		
Thermal class		B		
Surge suppressor		Zener diode		
Indicator		LED		

*3: T6G1 and T8□ (serial transmission) may experience voltage drops due to internal circuitry, so care should be taken when regulating voltages.

Manifold individual specifications

Common specifications

Item		M3GE1/M4GE1	M3GE2/M4GE2	M3GE3/M4GE3
Port size	A/B Port	Push-in fitting ø4, ø6 M5	Push-in fitting ø4, ø6, ø8 Rc1/8	Push-in fitting ø6, ø8, ø10 Rc1/4
	P/R1/R2 port	Rc1/8	Rc1/4	Rc3/8

T1□, T30□, T5□

Item	M3GE1/M4GE1		M3GE2/M4GE2		M3GE3/M4GE3	
	Direct mount	DIN rail mount	Direct mount	DIN rail mount	Direct mount	DIN rail mount
Max. station No.	20 stations	16 stations	20 stations	16 stations	16 stations	
Manifold base weight calculation formula (n: station No.) g	43n+335	45n+348	80n+398	82n+431	124n+548	126n+562

T6G1

Item	M3GE1/M4GE1	M3GE2/M4GE2	M3GE3/M4GE3
	DIN rail mount	DIN rail mount	DIN rail mount
Max. station No.	16 stations	16 stations	16 stations
Manifold base weight calculation formula (n: station No.) g	45n+495	82n+578	126n+729

T8□

Item	M3GE1/M4GE1		M3GE2/M4GE2		M3GE3/M4GE3	
	Direct mount	DIN rail mount	Direct mount	DIN rail mount	Direct mount	DIN rail mount
Max. station No.	20 stations	16 stations	20 stations	16 stations	16 stations	
Manifold base weight calculation formula (n: station No.) g	46n+305	49n+332	83n+318	86n+350	128n+384	132n+416

The manifold base weight is the value for screw connection specifications with DIN rail, wiring block or device unit.
The max. station number of the manifold is limited by the max. number of solenoid for each of the following wiring specifications.

Flow characteristics

Model No.	Solenoid position		P → A/B		A/B→R1/R2			
			C[dm³/(s·bar)]	b	C[dm³/(s·bar)]		b	
M3GE1 M4GE1	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	—
M3GE2 M4GE2	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	—
M4GE3	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 ≈ 5.0 × C.
*2: Values in ( ) are with the exhaust check valve.

Wiring specifications

Item	T10□ Common terminal block	T11□ Common terminal 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 fastening 18 terminals	Clamping 26 terminals	D-sub-connector 25-pin	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 ... 6th station			**Right side: T □ R** a solenoid side b solenoid side 1st station 2nd station 3rd station ... 6th station Wiring block			
Array method Blank: Standard sequential W: Double wiring	**(Ex.) In the case of T50 □** Manifold specifications 1a 2a 3a 4a S D S D 2b 4b 1st station 3rd station 2nd station 4th station			Standard wiring (sequential): Blank Connector pin No. 1 2 3 4 5 6 Valve solenoid No. 1a 2a 2b 3a 4a 4b		Double wiring: W Connector pin No. 1 2 3 4 5 6 7 8 Valve solenoid No. 1a Blank 2a 2b 3a Blank 4a 4b	

Serial transmission device unit specifications

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

Item		T6G1 *1
Network name		CC-Link ver1.10
Power supply voltage	Unit side	24 VDC ±10%
	Valve side	24 VDC +10% −5%
Current consumption	Unit side	100mA or less (when all output points are ON)
	Valve side	15 mA or less (when all output points are OFF)
No. of output points		16 points
Occupied number		1 station
Operation display		LED (power supply and communication status)

*1: CC-Link is ver. 1.10.

Item		T8G1 T8G2	T8GP1 T8GP2	T8P1 T8P2	T8PP1 T8PP2	T8EC1 T8EC2	T8ECP1 T8ECP2	T8EN1 T8EN2	T8ENP1 T8ENP2	T8D1 T8D2	T8DP1 T8DP2	T8EB1 T8EB2	T8EBP1 T8EBP2	T8EP1 T8EP2	T8EPP1 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 □ 1:15mA or less T8 □ 2:20mA 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

M4GE1/2/3-T*(D) Series

Reduced wiring manifold; base piping

How to order

Manifold model No.

M 4GE1 1 0R - C6 - T30 W H D - ○ - 3

3-port manifold model No.

M 3GE1 66 0R - C6 - T30 H D - ○ - 3

Discrete valve for mounting base

4GE1 1 9R - 00 - A2N H — 3

3-port discrete valve for mounting base

3GE1 66 9R - 00 - A2N H — 3

- 3GE1 66 → Ⓑ Solenoid position
- 4GE1 1 → Ⓐ Model No.
- 00 → Ⓒ Port size
- A2N indicates the A type (downward) connector, with lamp/surge suppressor and without lead wire.
- W → Ⓔ Terminal/connector pin array
- H → Ⓕ Option
- D → Ⓓ Reduced wiring
  Zener diode is used as a surge suppressor.
- ○ → Ⓖ Mount
- 3 → Ⓘ 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 : Select M4GE*80R when mixing with 3, 5-port valves.
Further, select M3GE*80R when mixing with masking plate.
*2 : Dimensions are the same as 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 A port and short elbow for B port.
*4 : A and B ports are the same size for push-in L fitting.
*5 : Blank...The wiring will be based on the type of valve used.
W*...All wired for double solenoid valves regardless of the type of valve used.
*6 : 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.
*7 : A filter is built into the P-port as standard.
*8 : Specify the spacer mounting position/ quantity in manifold specifications sheet.
Stacking of spacers is not possible.
Combination with the masking plate is not supported.
Refer to pages 576 to 580 for details.
*9 : The direct mount of M4GE1 cannot be changed after purchase to the DIN rail mount.

* Be sure to fill in the "Manifold specifications sheet" (pages 597 to 608).

Code	Description	Ⓐ Model No. 3GE1	3GE2	4GE1	4GE2	4GE3
Ⓑ 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	●	●			
	Two 3-port valves integrated (*1) (*2) — B side valve: Normally closed	●	●			
8	Mix manifold (when there are multiple solenoid positions)	●	●	●	●	●
Ⓒ Port size						
Port	4(A), 2(B) port	P/R1/R2 port (2)=Rc1/8 (3)=Rc1/4 (4)=Rc3/8				
C4	ø4 push-in fitting	(2)	(3)	(2)	(3)	
C6	ø6 push-in fitting	(2)	(3)	(2)	(3)	(4)
C8	ø8 push-in fitting		(3)		(3)	(4)
C10	ø10 push-in fitting					(4)
CL4	ø4 push-in L-fitting (upward) (*3) (*4)			(2)		
CL6	ø6 push-in L-fitting (upward) (*3) (*4)			(2)	(3)	
CL8	ø8 push-in L-fitting (upward) (*3) (*4)				(3)	(4)
CL10	ø10 push-in L-fitting (upward) (*3) (*4)					(4)
CD4	ø4 push-in L-fitting (downward) (*4)	(2)		(2)		
CD6	ø6 push-in L-fitting (downward) (*4)	(2)	(3)	(2)	(3)	
CD8	ø8 push-in L-fitting (downward) (*4)		(3)		(3)	(4)
CD10	ø10 push-in L-fitting (downward) (*4)					(4)
CX	Push-in fitting mix	(2)	(3)	(2)	(3)	(4)
M5	M5	(2)		(2)		
06	Rc1/8		(3)		(3)	
08	Rc1/4					(4)
00	Discrete valve for mounting base	●	●	●	●	●
Ⓓ Reduced wiring (lamp and surge suppressor provided as standard)						
	Refer to the next page for electrical connections.					
Ⓔ Terminal/connector pin array						
Blank	Standard wiring (*5)	●	●	●	●	●
W	Double wiring (*5)	●	●	●	●	●
Ⓕ Option						
Blank	Non-locking/locking common manual override	●	●	●	●	●
H	With exhaust check valve (*6)	●	●	●	●	●
A	Ozone/coolant proof	●	●	●	●	●
F	A/B port filter built in (*7)	●	●	●	●	●
Z1	Air supply spacer (*8)	●	●	●	●	●
Z2	In-stop valve spacer (*8)	●	●	●	●	●
Z3	Exhaust spacer (*8)	●	●	●	●	●
Ⓖ Mount						
Blank	Direct mount (*9)	●	●	●	●	●
D	DIN rail mount	●	●	●	●	●
Ⓗ Station No.						
2	2 stations	●	●	●	●	●
to	to					
20	Refer to page 554 for the max. station number per model.					
Ⓘ Voltage						
3	24 VDC	●	●	●	●	●
4	12 VDC	●	●	●	●	●

is not available.

Code	Description		Ⓐ Model No. 3GE1	3GE2	4GE1	4GE2	4GE3
Ⓓ Reduced wiring connection (lamp and surge suppressor equipped as standard) 12/24 VDC							
T10	Common terminal block (M3 thread)	Left-sided specs.	●	●	●	●	●
T10R		Right-sided specs.	●	●	●	●	●
T11	Common terminal block (clamping)	Left-sided specs.	●	●	●	●	●
T11R		Right-sided specs.	●	●	●	●	●
T30	D-sub-connector	Left-sided specs.	●	●	●	●	●
T30R		Right-sided specs.	●	●	●	●	●
T50	20-pin flat cable connector (with common power supply terminal)	Left-sided specs.	●	●	●	●	●
T50R		Right-sided specs.	●	●	●	●	●
T51	20-pin flat cable connector (no power supply terminal)	Left-sided specs.	●	●	●	●	●
T51R		Right-sided specs.	●	●	●	●	●
T52	10-pin flat cable connector (no power supply terminal)	Left-sided specs.	●	●	●	●	●
T52R		Right-sided specs.	●	●	●	●	●
T53	26-pin flat cable connector (no power supply terminal)	Left-sided specs.	●	●	●	●	●
T53R		Right-sided specs.	●	●	●	●	●
Ⓓ Serial transmission (lamp/surge suppressor equipped as standard) 24 VDC							
T6G1	CC-Link(Connector)	NPN 16 points	●	●	●	●	●
T8G1	CC-Link (thin type)	NPN 16 points	●	●	●	●	●
T8G2		NPN 32 points	●	●	●	●	●
T8GP1		PNP 16 points	●	●	●	●	●
T8GP2		PNP 32 points	●	●	●	●	●
T8P1	PROFIBUS-DP (thin type)	NPN 16 points	●	●	●	●	●
T8P2		NPN 32 points	●	●	●	●	●
T8PP1		PNP 16 points	●	●	●	●	●
T8PP2		PNP 32 points	●	●	●	●	●
T8EC1	EtherCAT (thin type)	NPN 16 points	●	●	●	●	●
T8EC2		NPN 32 points	●	●	●	●	●
T8ECP1		PNP 16 points	●	●	●	●	●
T8ECP2		PNP 32 points	●	●	●	●	●
T8EN1	EtherNet/IP (thin type)	NPN 16 points	●	●	●	●	●
T8EN2		NPN 32 points	●	●	●	●	●
T8ENP1		PNP 16 points	●	●	●	●	●
T8ENP2		PNP 32 points	●	●	●	●	●
T8D1	DeviceNet (Thin)	NPN 16 points	●	●	●	●	●
T8D2		NPN 32 points	●	●	●	●	●
T8DP1		PNP 16 points	●	●	●	●	●
T8DP2		PNP 32 points	●	●	●	●	●
T8EB1	CC-Link IEF Basic (Thin)	NPN 16 points	●	●	●	●	●
T8EB2		NPN 32 points	●	●	●	●	●
T8EBP1		PNP 16 points	●	●	●	●	●
T8EBP2		PNP 32 points	●	●	●	●	●
T8EP1	PROFINET (Thin)	NPN 16 points	●	●	●	●	●
T8EP2		NPN 32 points	●	●	●	●	●
T8EPP1		PNP 16 points	●	●	●	●	●
T8EPP2		PNP 32 points	●	●	●	●	●
A2N	Without lead wire (without socket) With surge suppressor/lamp		●	●	●	●	●

Ozone-proof specifications • Coolant proof specifications

Can be selected with option "A" of Item Ⓕ in How to order on page 556.

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**

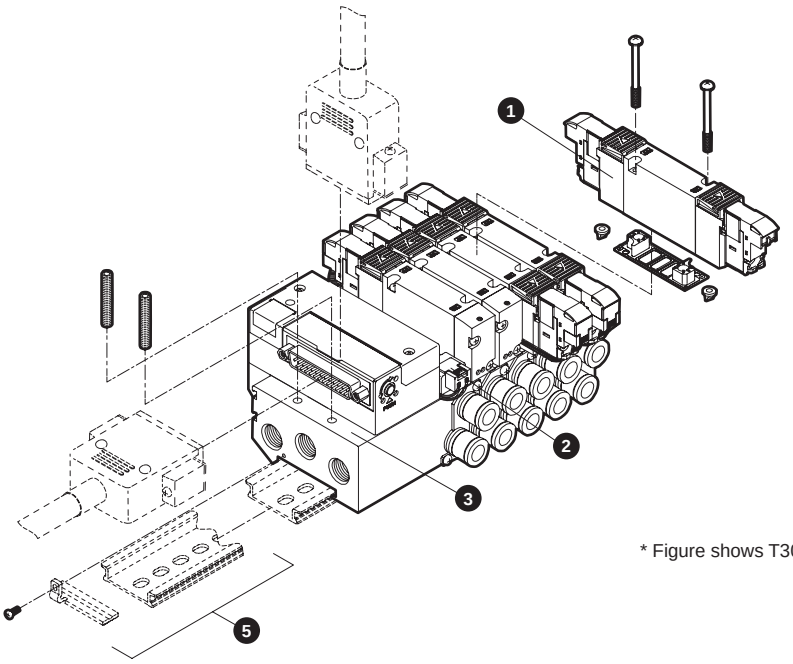
CE marking specifications

** - Voltage - **ST**

- Standard voltage of DC24V or less is CE marking-compatible even if the model No. is not indicated with "ST".

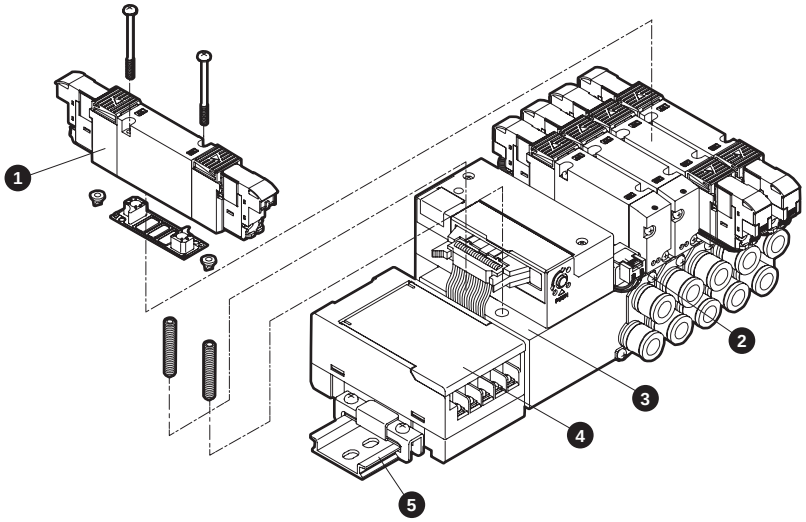
Manifold components explanation and parts list

- T10/T10R
- T11/T11R
- T30/T30R
- T50/T50R
- T51/T51R
- T52/T52R
- T53/T53R

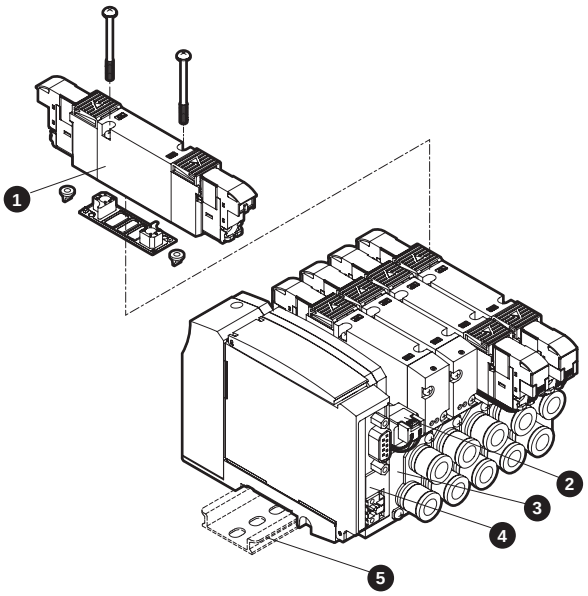


* Figure shows T30.

- T6G1



- T8*



Main parts list

Part No.	Configuration parts name		Model No.	Description	Remarks
1	Discrete valve for integrated base		3/4GE□□9R-00-A2N Option - voltage Solenoid position Series flow rate size	Discrete valve Gasket 2 mounting screws (2 PR check valves)	Details on page 556
2	Masking plate	3G1/4G1	4G1R-MP	Masking plate Gasket Mounting screws 2	* 4G3R-MP has two PR check valves included.
		3G2/4G2	4G2R-MP		
		3G2/4G3	4G3R-MP		
3	Manifold base assembly		M4GE □R - Port size - T* - option - station No. Reduced wiring connection Series flow rate size	Manifold base Wiring block	
4	Serial transmission device unit		4GR-OPP3- Wiring method	Discrete serial transmission device unit (connector type)	Details on page 574
			4GR-OPP7- wiring method	Discrete serial transmission device unit (thin slot type)	
5	DIN rail kit		4GB□R-BAA Rail length - D Series flow rate size		Details on page 585

Parts list

Part No.	Part name	Model No.
-	Coil assembly	4GR-A2N- □ -COIL- Voltage Blank: Standard A: Ozone/coolant proof
-	A-connector Socket assembly Details on page 837	Series flow rate size 4G □R-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

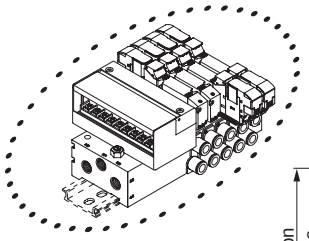
Part No.	Part name			Model No.
-	Cartridge push-in fitting and related parts	4G1	ø4 straight	4G1R-JOINT-C4
			ø6 straight	4G1R-JOINT-C6
			ø4 elbow	4G1R-JOINT-CL4,CLL4
			ø6 elbow	4G1R-JOINT-CL6,CLL6
			Plug cartridge	4G1R-JOINT-CPG
		4G2	ø4 straight	4G2R-JOINT-C4
			ø6 straight	4G2R-JOINT-C6
			ø8 straight	4G2R-JOINT-C8
			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
			Plug cartridge	4G3R-JOINT-CPG

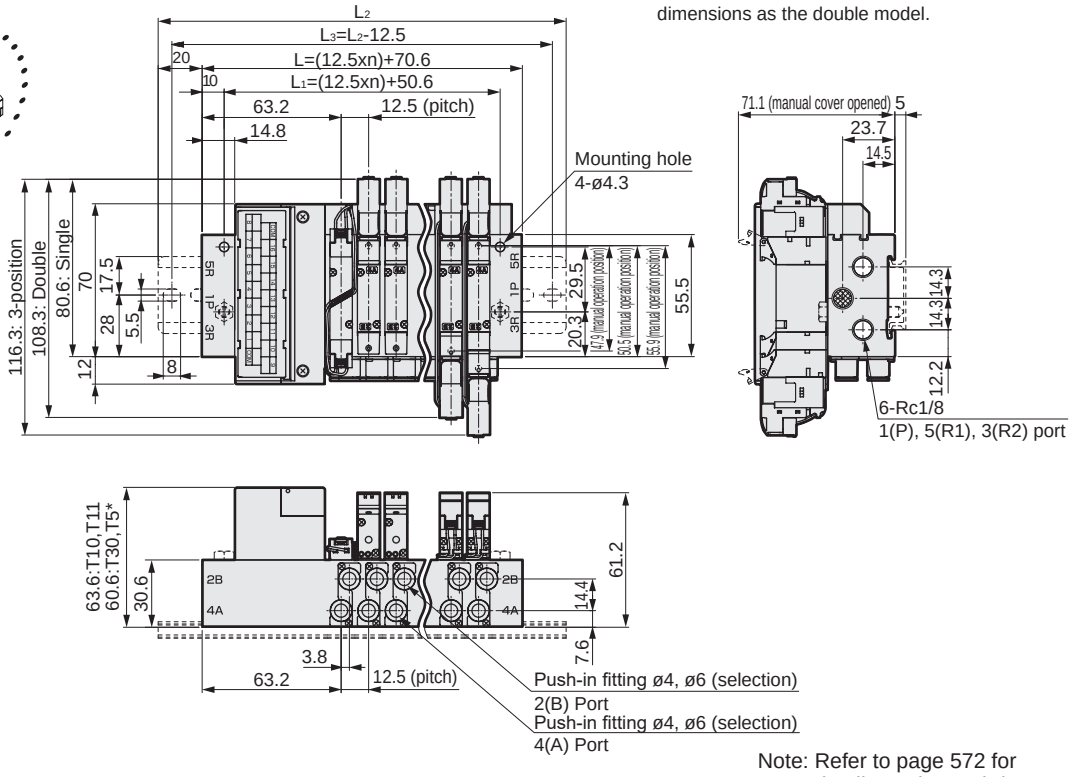
Dimensions CAD

M4GE1

*1 Figure shows T10. Refer to pages 570 and 571 for detailed wiring block dimensions.
*2 The two 3-port valve integrated has the same dimensions as the double model.

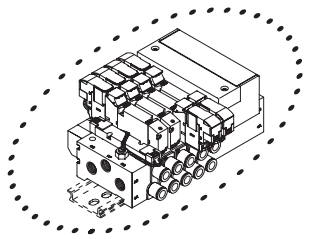
● Reduced wiring left side (T10/T11/T30/T50/T51/T52/T53)

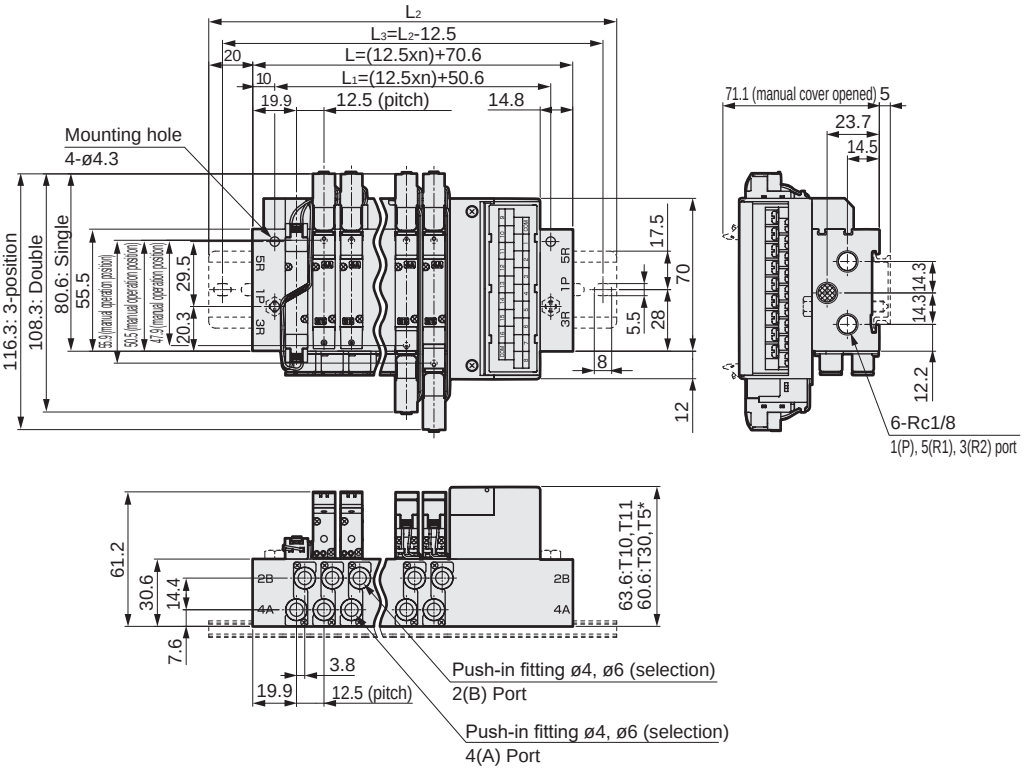




Note: Refer to page 572 for details on the push-in fitting elbow (upward) (downward).

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





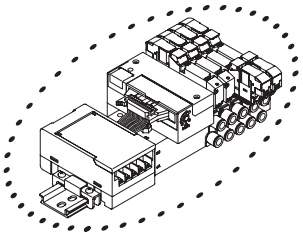
Stn No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	95.6	108.1	120.6	133.1	145.6	158.1	170.6	183.1	195.6	208.1	220.6	233.1	245.6	258.1	270.6	283.1	295.6	308.1	320.6
L_1	75.6	88.1	100.6	113.1	125.6	138.1	150.6	163.1	175.6	188.1	200.6	213.1	225.6	238.1	250.6	263.1	275.6	288.1	300.6
L_2	137.5	150.0	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				

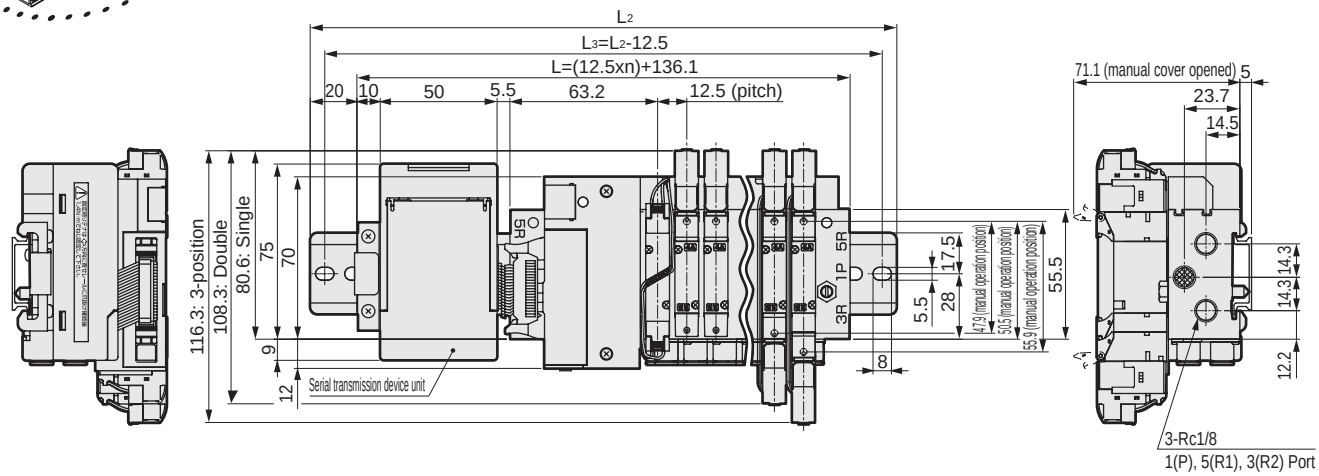
Dimensions

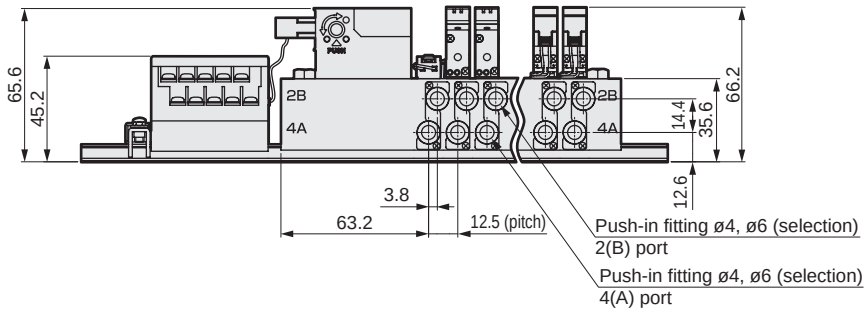
M4GE1

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

* The two 3-port valve integrated has the same dimensions as the double.







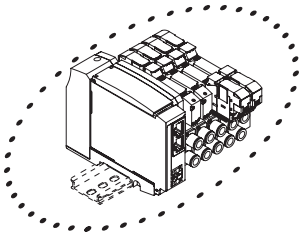
Stn No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L	161.1	173.6	186.1	198.6	211.1	223.6	236.1	248.6	261.1	273.6	286.1	298.6	311.1	323.6	336.1
L_2	212.5	225.0	237.5	250.0	262.5	275.0	287.5	300.0	312.5	325.0	337.5	350.0	362.5	375.0	387.5
L_3	200.0	212.5	225.0	237.5	250.0	262.5	275.0	287.5	300.0	312.5	325.0	337.5	350.0	362.5	375.0

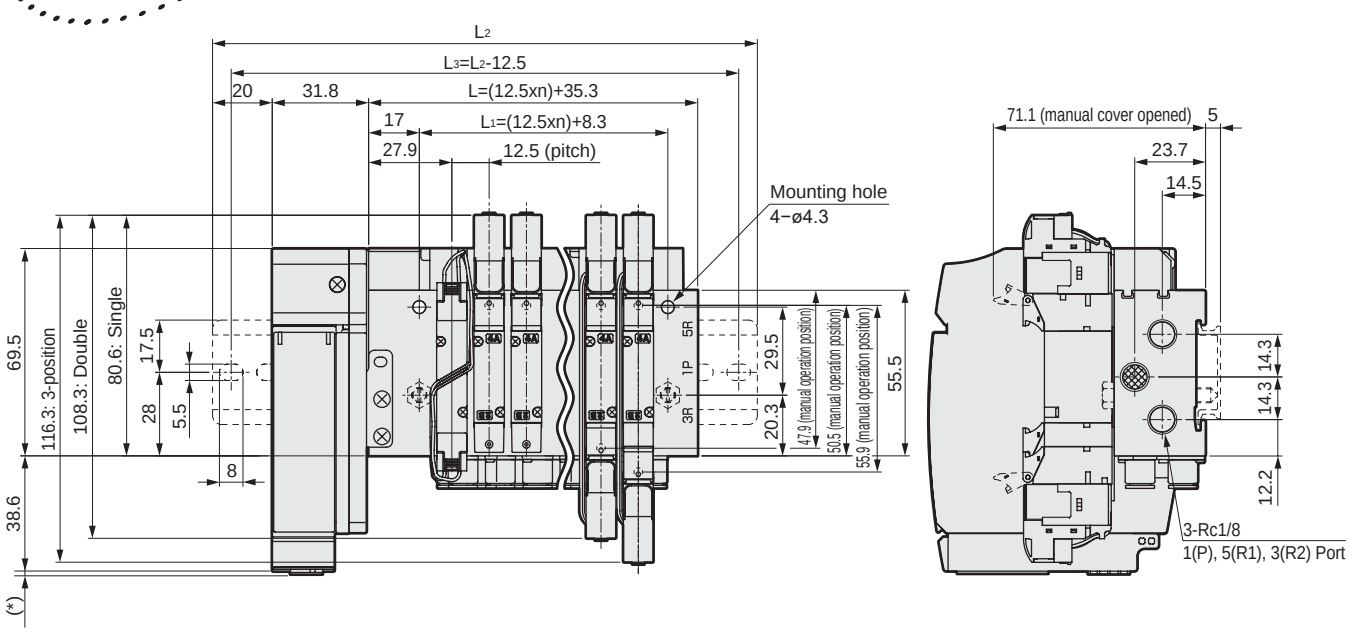
Dimensions CAD

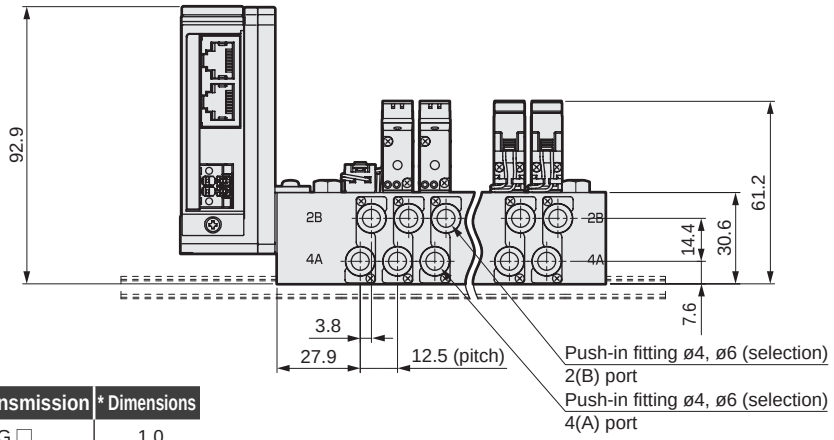
M4GE1

● Serial transmission (T8)
DIN rail mounting (D)

* The two 3-port valve integrated has the same dimensions as the double.







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

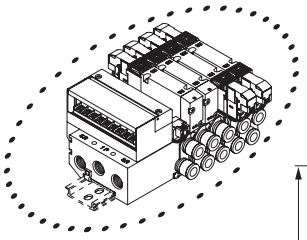
Stn No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	60.3	72.8	85.3	97.8	110.3	122.8	135.3	147.8	160.3	172.8	185.3	197.8	210.3	222.8	235.3	247.8	260.3	272.8	285.3
L1	33.3	45.8	58.3	70.8	83.3	95.8	108.3	120.8	133.3	145.8	158.3	170.8	183.3	195.8	208.3	220.8	233.3	245.8	258.3
L2	137.5	150.0	162.5	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				

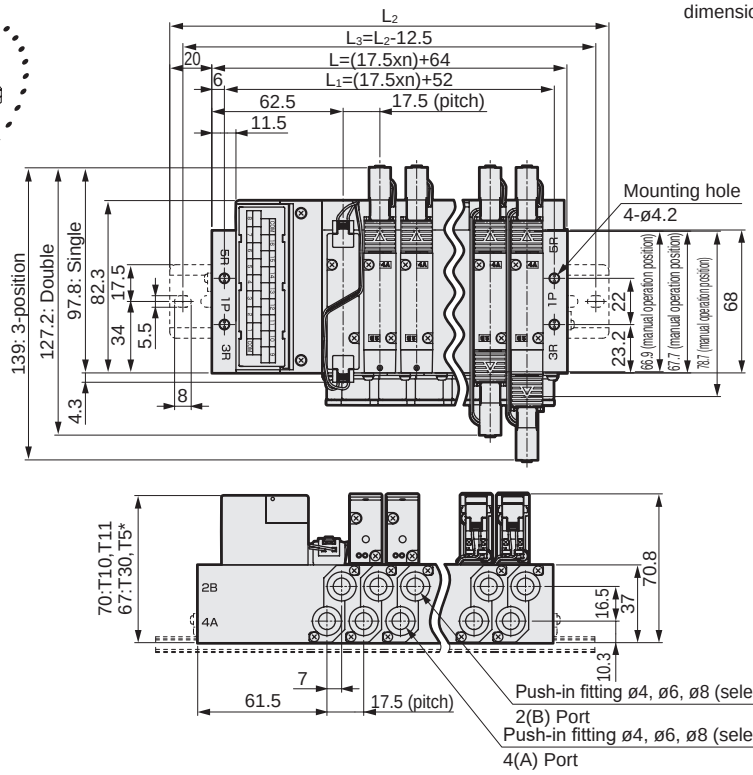
Dimensions CAD

M4GE2

*1 Figure shows T10. Refer to pages 570 and 571 for detailed wiring block dimensions.
*2 The two 3-port valve integrated has the same dimensions as the double model.

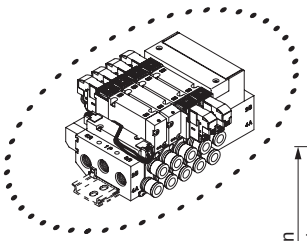
● Reduced wiring left side (T10/T11/T30/T50/T51/T52/T53)

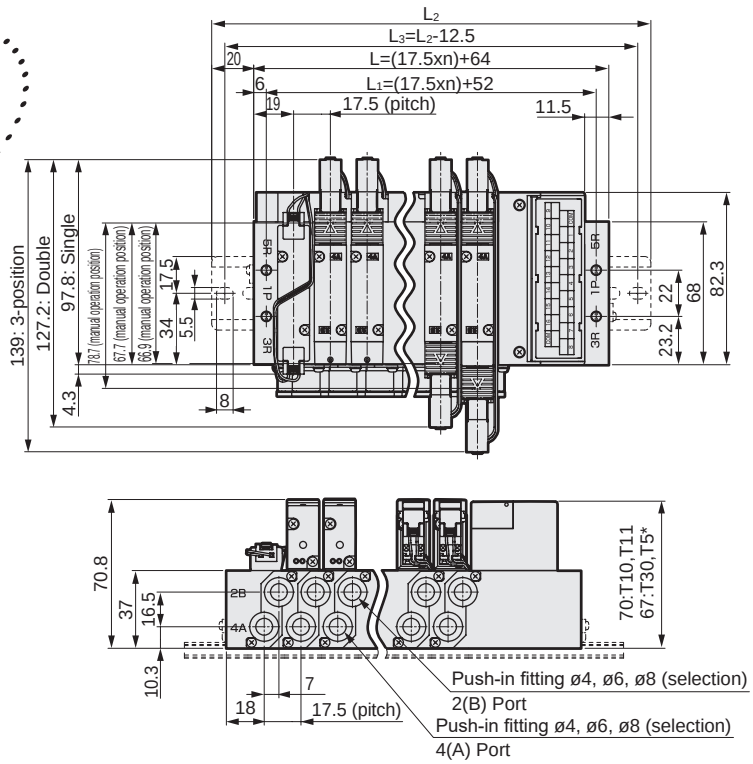




● Reduced wiring right side (T10R/T11R/T30R/T50R/T51R/T52R/T53R)

Note: Refer to page 572 for details on the push-in fitting elbow (upward) (downward).





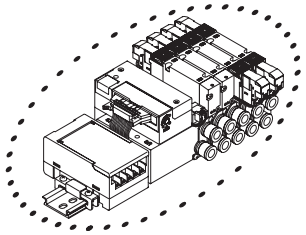
Stn No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	99.0	116.5	134.0	151.5	169.0	186.5	204.0	221.5	239.0	256.5	274.0	291.5	309.0	326.5	344.0	361.5	379.0	396.5	414.0
L_1	87.0	104.5	122.0	139.5	157.0	174.5	192.0	209.5	227.0	244.5	262.0	279.5	297.0	314.5	332.0	349.5	367.0	384.5	402.0
L_2	150.0	162.5	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				
L_3	137.5	150.0	162.5	187.5	200.0	225.0	237.0	250.0	275.0	287.5	312.5	325.0	337.5	362.5	375.0				

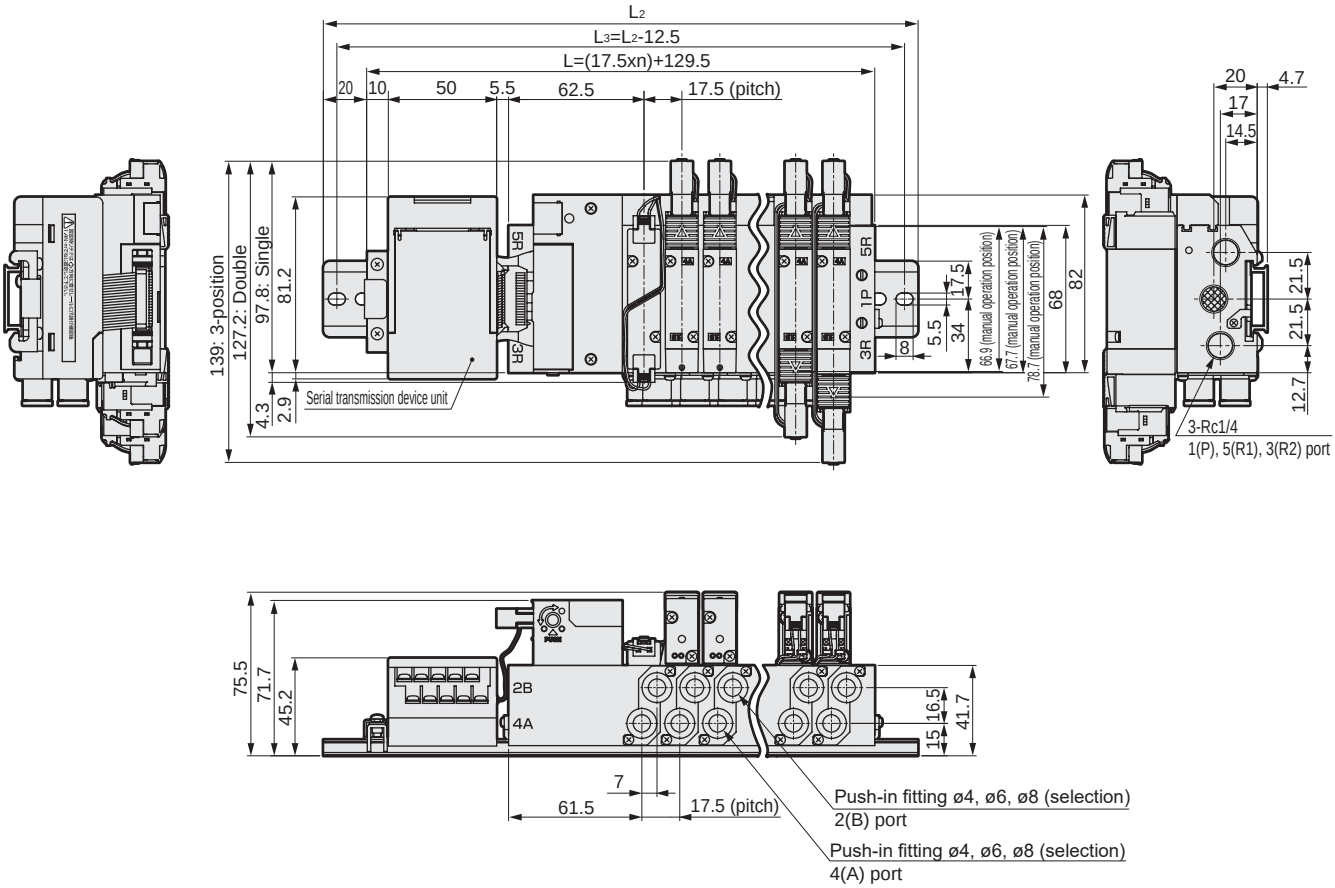
Dimensions CAD

M4GE2

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

* The two 3-port valve integrated has the same dimensions as the double.





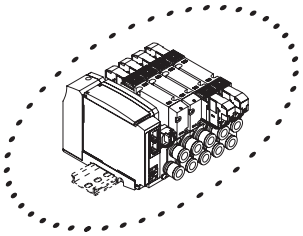
Stn No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L	164.5	182.0	199.5	217.0	234.5	252.0	269.5	287.0	304.5	322.0	339.5	357.0	374.5	392.0	409.5
L_2	212.5	225.0	250.0	262.5	275.0	300.0	312.5	337.5	350.0	362.5	387.5	400.0	425.0	437.5	450.0
L_3	200.0	212.5	237.5	250.0	262.5	287.5	300.0	325.0	337.5	350.0	375.0	387.5	412.5	425.0	437.5

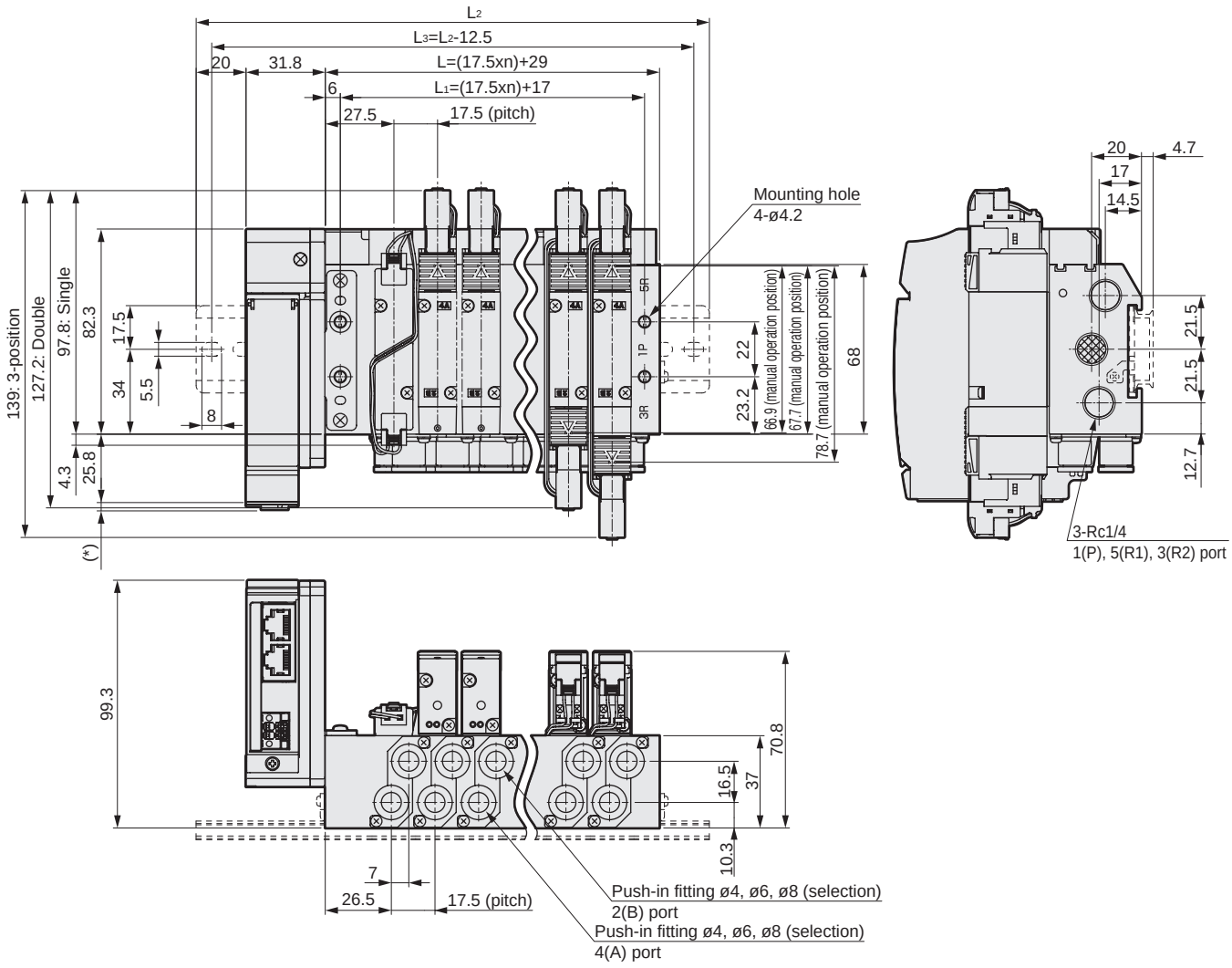
Dimensions CAD

M4GE2

● Serial transmission (T8)
DIN rail mounting (D)

* The two 3-port valve integrated has the same dimensions as the double.





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

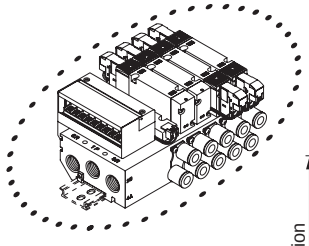
Stn No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	64.0	81.5	99.0	116.5	134.0	151.5	169.0	186.5	204.0	221.5	239.0	256.5	274.0	291.5	309.0	326.5	344.0	361.5	379.0
L_1	52.0	69.5	87.0	104.5	122.0	139.5	157.0	174.5	192.0	209.5	227.0	244.5	262.0	279.5	297.0	314.5	332.0	349.5	367.0
L_2	137.5	162.5	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				

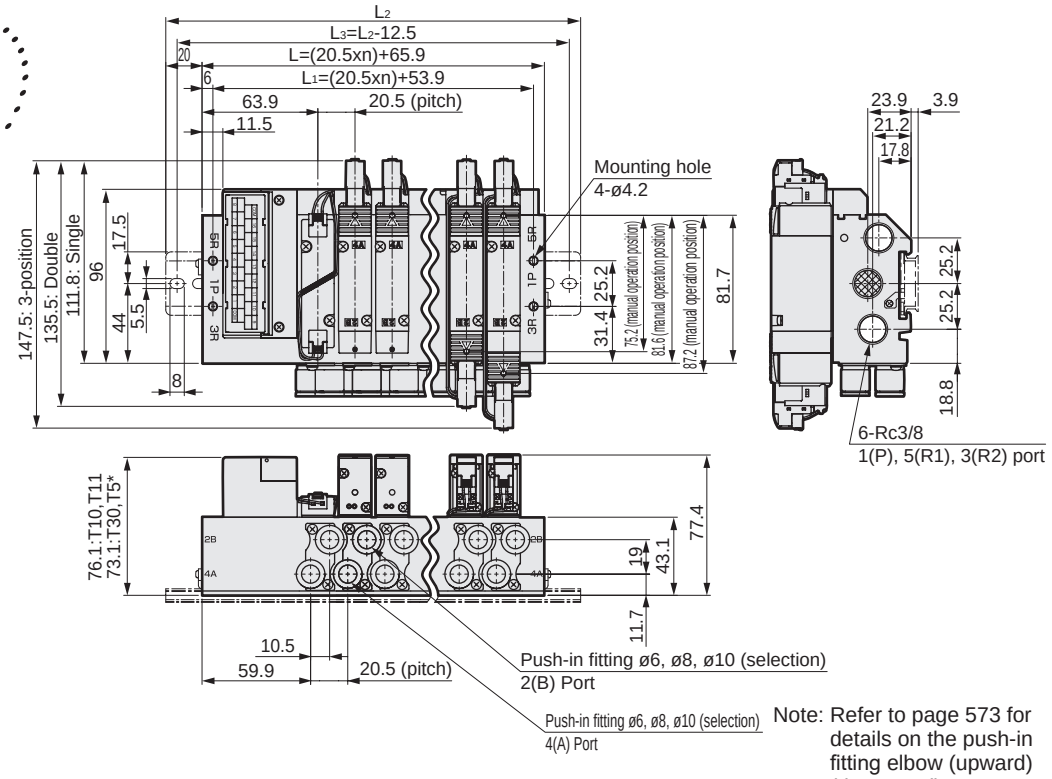
Dimensions CAD

M4GE3

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

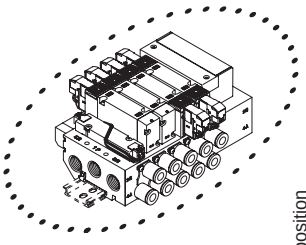
* Figure shows T10. Refer to pages 570 and 571 for detailed wiring block dimensions.

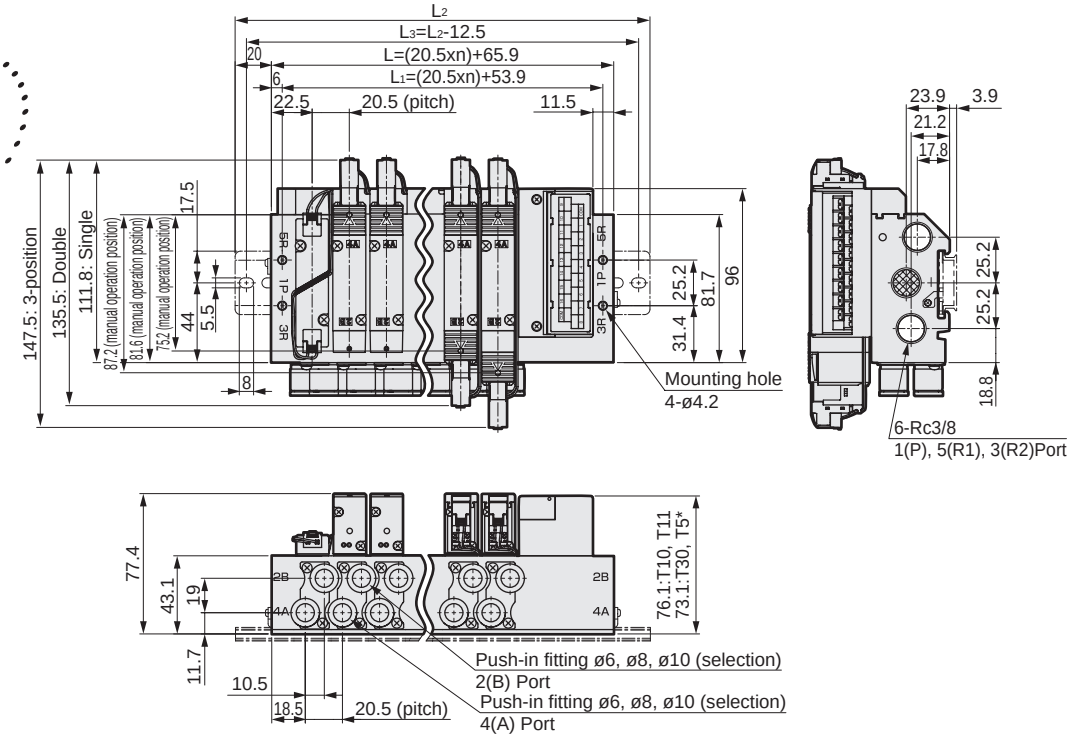




Note: Refer to page 573 for details on the push-in fitting elbow (upward) (downward).

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



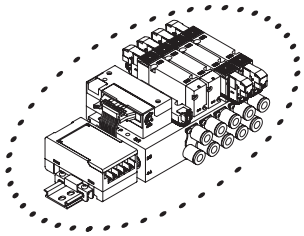


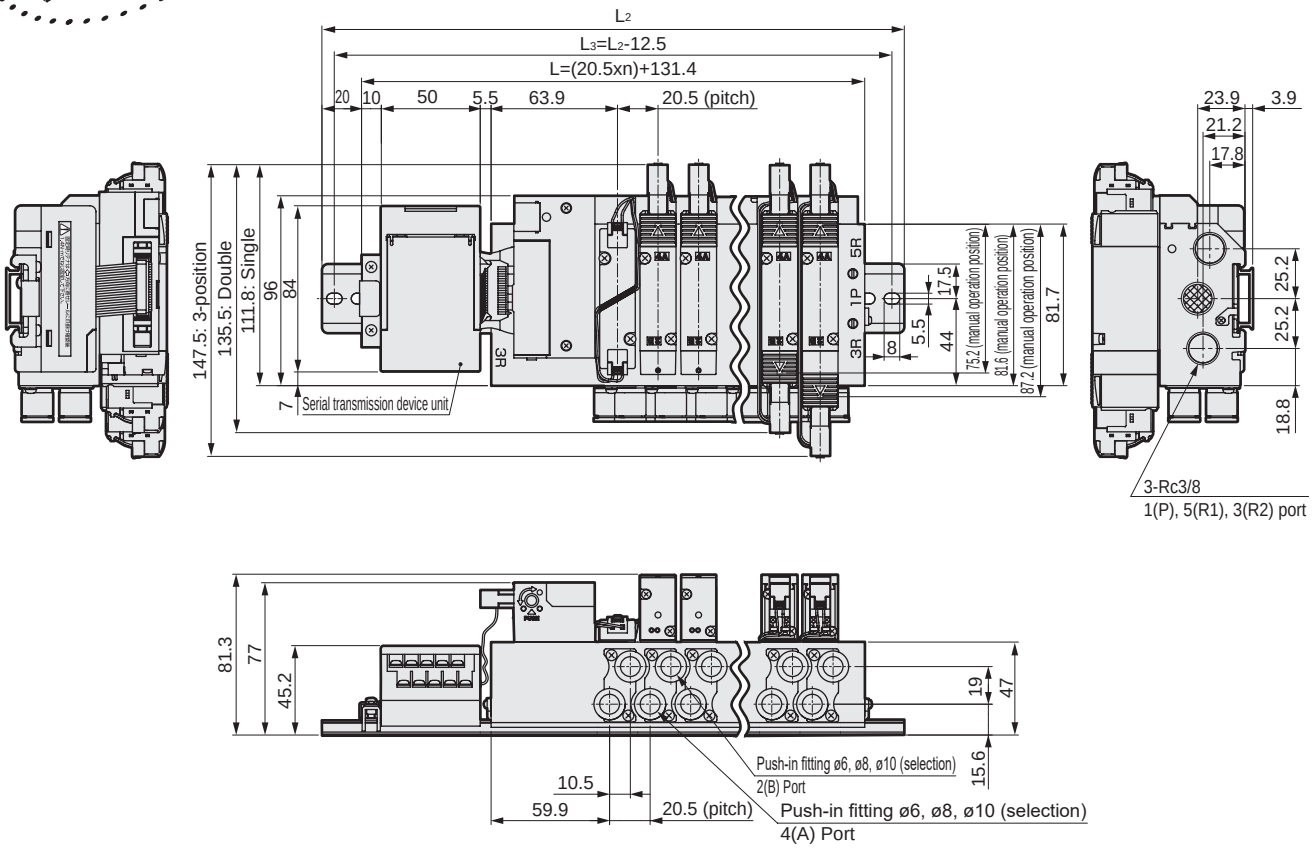
Stn No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L	106.9	127.4	147.9	168.4	188.9	209.4	229.9	250.4	270.9	291.4	311.9	332.4	352.9	373.4	393.9
L_1	94.9	115.4	135.9	156.4	176.9	197.4	217.9	238.4	258.9	279.4	299.9	320.4	340.9	361.4	381.9
L_2	150.0	175.0	200.0	212.5	237.5	250.0	275.0	300.0	312.5	337.5	362.5	375.0	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

Dimensions

M4GE3

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



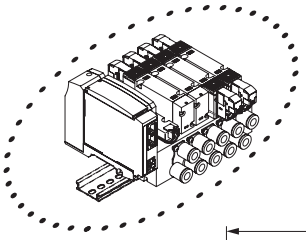


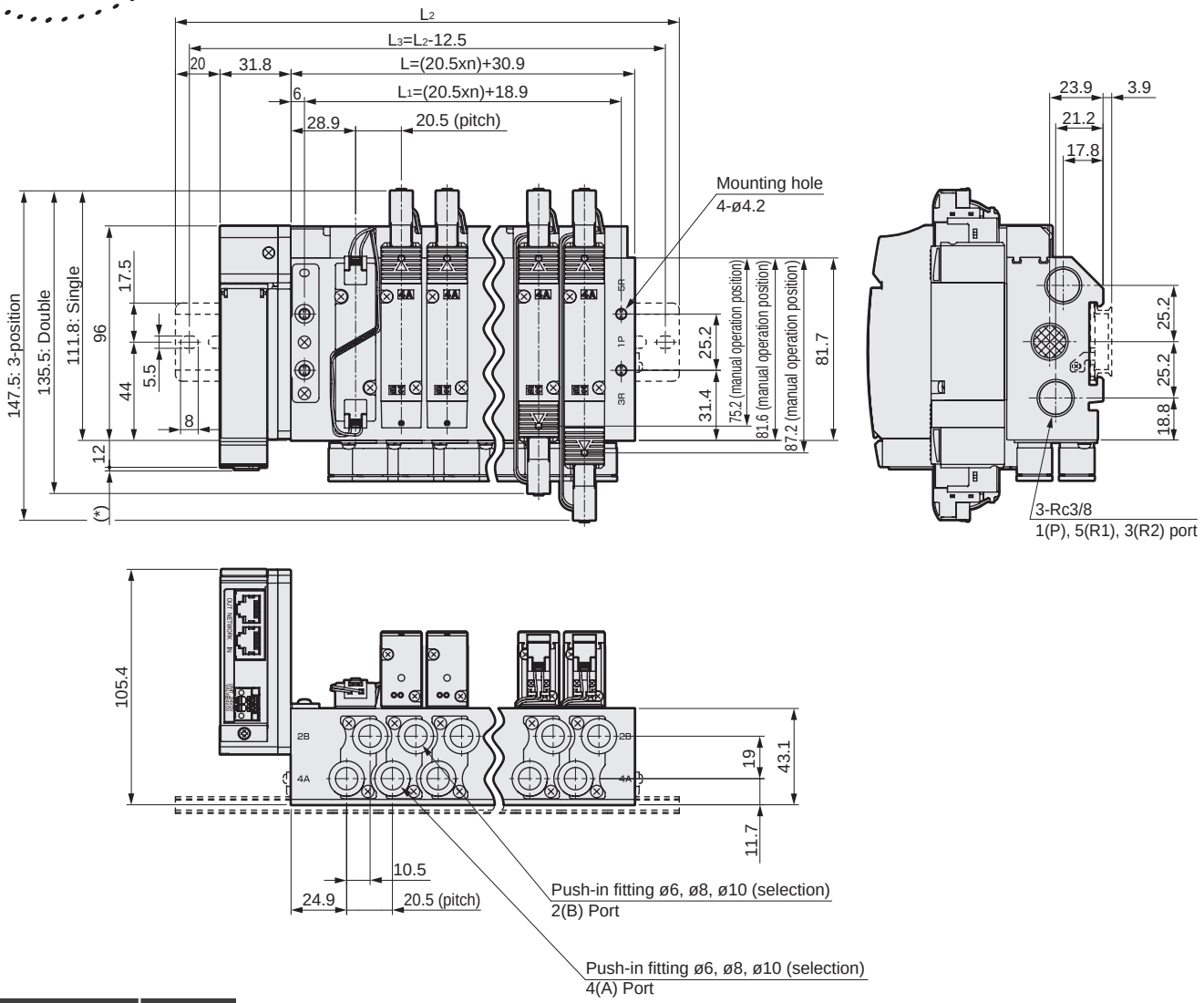
Stn No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L	172.4	192.9	213.4	233.9	254.4	274.9	295.4	315.9	336.4	356.9	377.4	397.9	418.4	438.9	459.4
L_2	212.5	237.5	262.5	275.0	300.0	325.0	337.5	362.5	387.5	400.0	425.0	450.0	462.5	487.5	500.0
L_3	200.0	225.0	250.0	262.5	287.5	312.5	325.0	350.0	375.0	387.5	412.5	437.5	450.0	475.0	487.5

Dimensions CAD

M4GE3

● Serial transmission (T8)
DIN rail mounting (D)





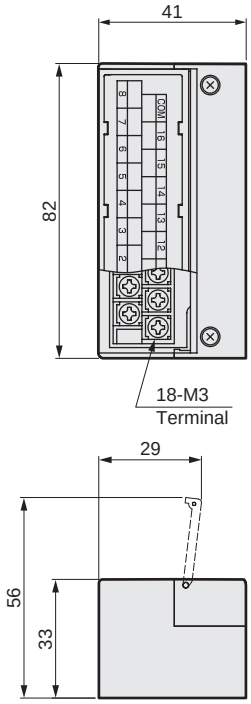
Serial transmission	* Dimensions
T8G □	1.0
T8P □	4.9
T8E □	1.5
T8D □	1.0

Stn 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

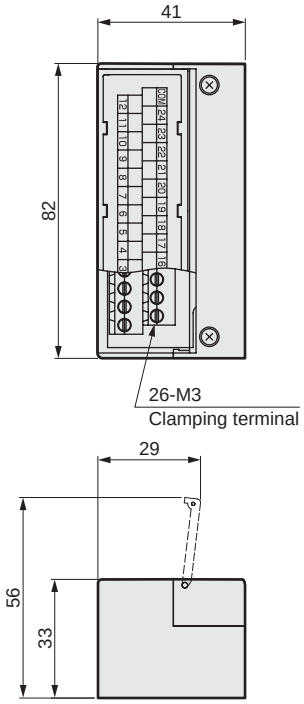
MEMO

Reduced wiring part: Dimensions

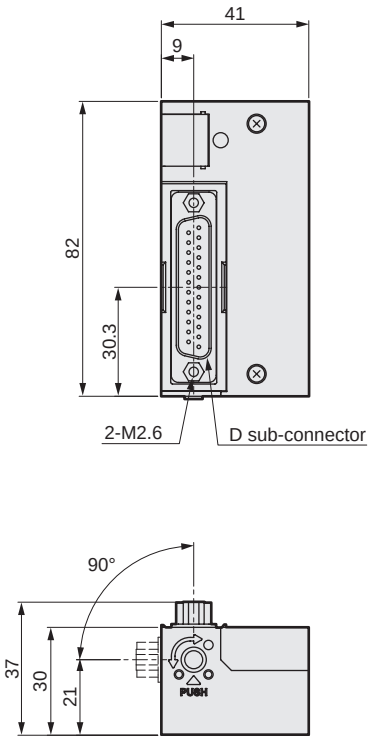
● Common terminal block (M3 thread)
T10



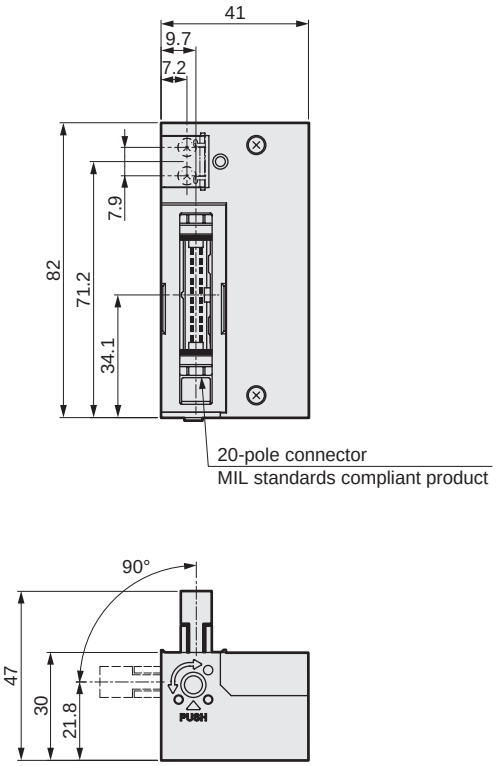
● Common terminal block (clamping)
T11



● D sub-connector
T30

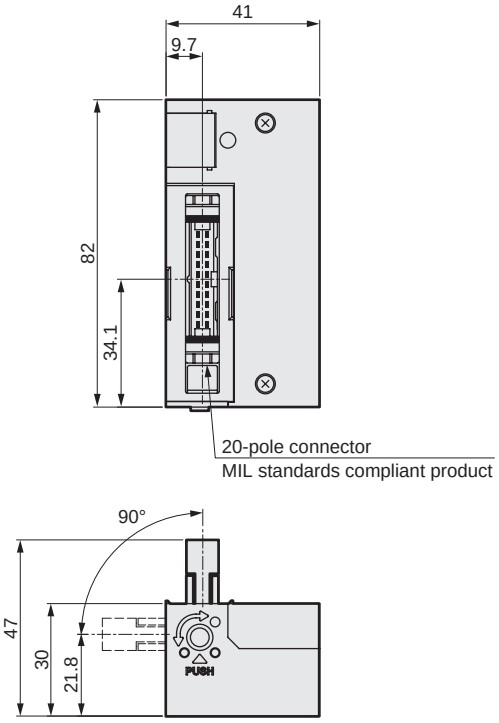


● 20-pin flat cable connector (with power supply terminal)
T50

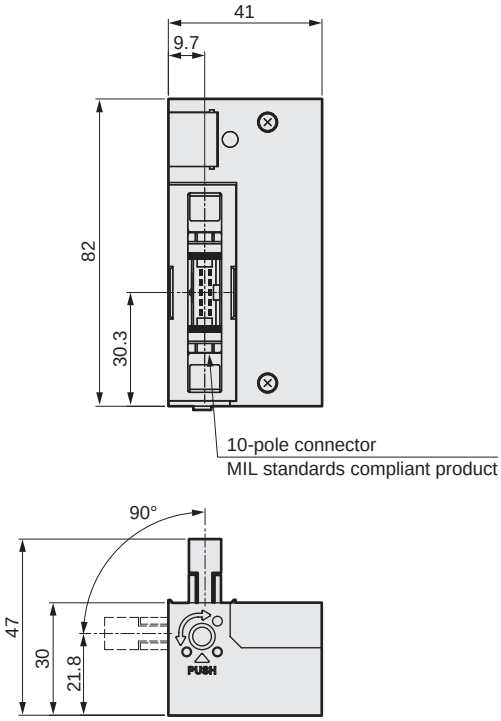


Reduced wiring part: Dimensions

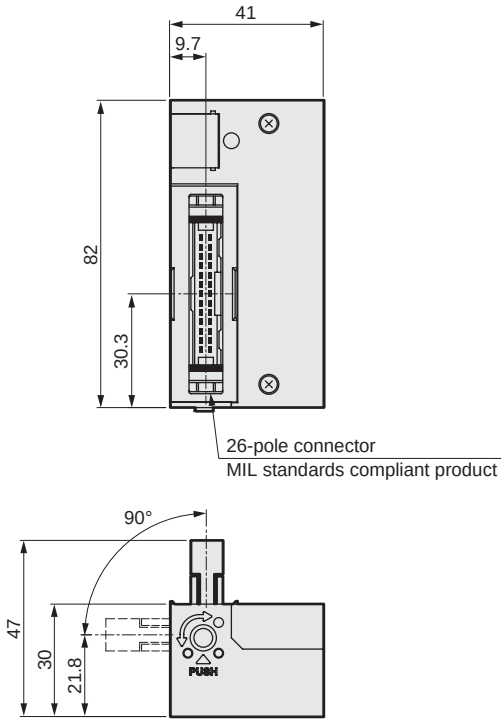
● 20-pin flat cable connector (without power supply terminal)
T51



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



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

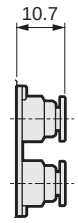


Dimensions

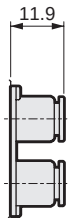
M4GE1

Fitting straight

● ø4(C4)

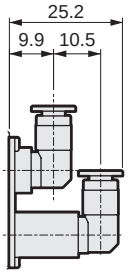


● ø6(C6)

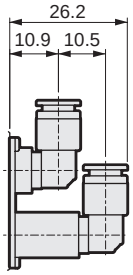


L Fitting (upward)

● ø4(CL4)

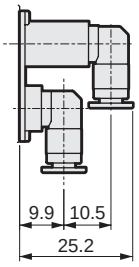


● ø6(CL6)

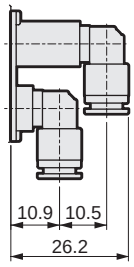


L Fitting (downward)

● ø4(CD4)



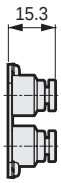
● ø6(CD6)



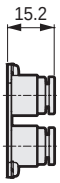
M4GE2

Fitting straight

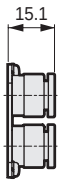
● ø4(C4)



● ø6(C6)

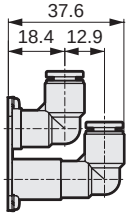


● ø8(C8)

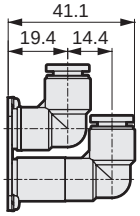


L Fitting (upward)

● ø6(CL6)

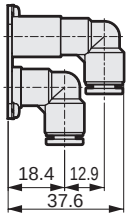


● ø8(CL8)

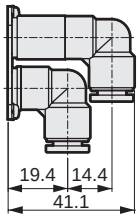


L Fitting (downward)

● ø6(CD6)



● ø8(CD8)

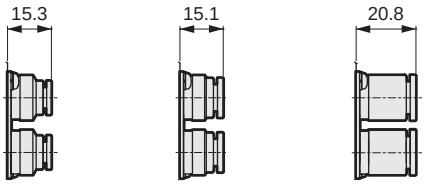


Dimensions

M4GE3

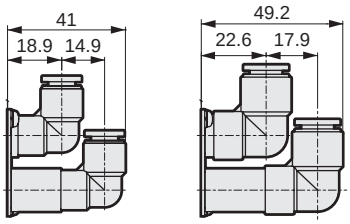
Fitting straight

● ø6(C6) ● ø8(C8) ● ø10(C10)



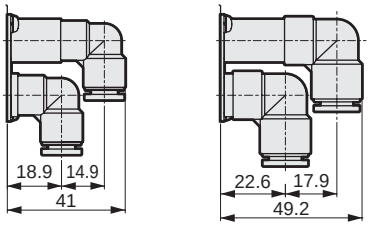
L Fitting (upward)

● ø8(CL8) ● ø10(CL10)



L Fitting (downward)

● ø8(CD8) ● ø10(CD10)

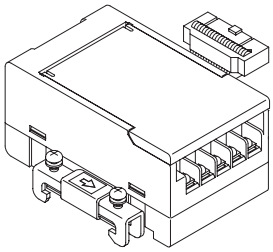


● Single unit serial transmission device (adapter) station (connector connection)

4GR – OPP3 – 1G

Ⓐ Wiring method

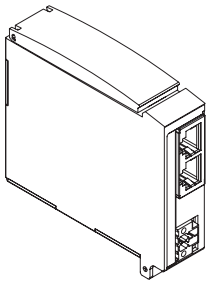
Code	Description			
Ⓐ Wiring method				
1G	T6G1	CC-Link	NPN	16 points



● Single unit serial transmission device (adapter) station (slim slot)

4GR – OPP7 – 2G

Ⓐ Wiring method



Code	Description			
Ⓐ Wiring method				
1G	T8G1	CC-Link	NPN	16 points
2G	T8G2			32 points
1G-P	T8GP1		PNP	16 points
2G-P	T8GP2			32 points
1P	T8P1	PROFIBUS-DP	NPN	16 points
2P	T8P2			32 points
1P-P	T8PP1		PNP	16 points
2P-P	T8PP2			32 points
1EC	T8EC1	EtherCAT	NPN	16 points
2EC	T8EC2			32 points
1EC-P	T8ECP1		PNP	16 points
2EC-P	T8ECP2			32 points
1EN	T8EN1	EtherNet/IP	NPN	16 points
2EN	T8EN2			32 points
1EN-P	T8ENP1		PNP	16 points
2EN-P	T8ENP2			32 points
1D	T8D1	DeviceNet	NPN	16 points
2D	T8D2			32 points
1D-P	T8DP1		PNP	16 points
2D-P	T8DP2			32 points
1EB	T8EB1	CC-Link IEF Basic	NPN	16 points
2EB	T8EB2			32 points
1EB-P	T8EBP1		PNP	16 points
2EB-P	T8EBP2			32 points
1EP	T8EP1	PROFINET	NPN	16 points
2EP	T8EP2			32 points
1EP-P	T8EPP1		PNP	16 points
2EP-P	T8EPP2			32 points