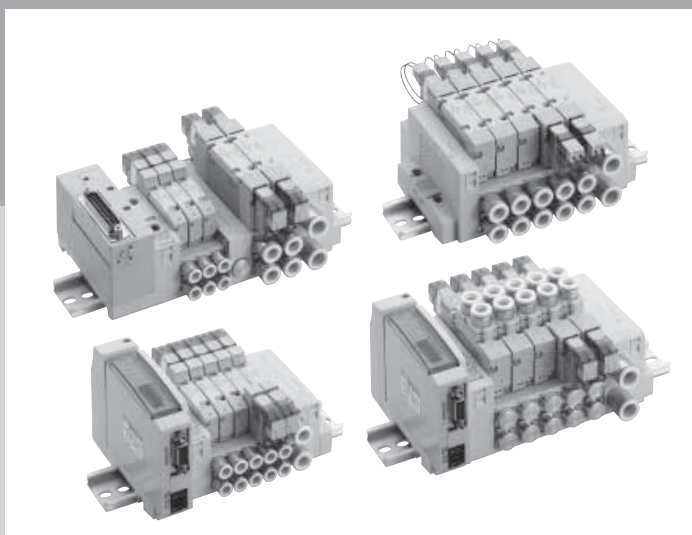


MN4GA & 4GB

3, 5 port pilot operated valve

Block manifold

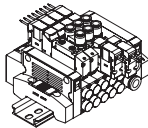
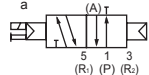
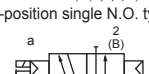
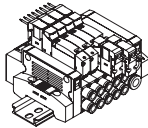
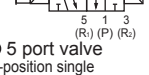
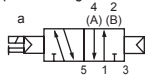
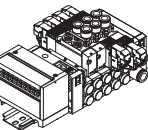
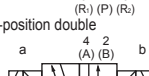
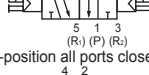
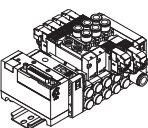
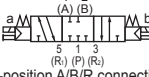
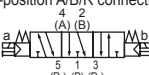
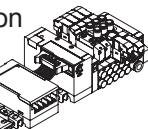
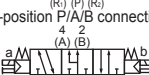
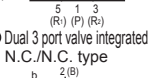
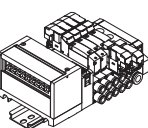
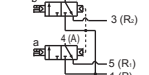
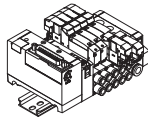
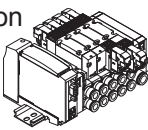


CONTENTS

Series variation	216
Electrical connections list (electrical connection/circuit)	219
Product introduction	Intro 1
Individual wiring block manifold	
● Body piping (MN4GA1/2)	220
● Base piping (MN4GB1/2)	228
Reduced wiring block manifold	
● Body piping (MN4GA1/2-T*)	236
● Base piping (MN4GB1/2-T*)	252
Internal structure and parts list	270
Mix manifold	
● 4G1/2 (MN3GAX12/MN4GAX12/MN4GBX12)	274
Block configurations	276
Related products (air supply spacer/pilot check valve/ silencer, blanking plug, etc.)	282
Related parts	286
Manifold specifications/wiring specifications	288
Technical data	
(1) Pneumatics system selection guide	620
(2) Notes when wiring	593
(3) Malfunction prevention valve	628
(4) How to expand reduced wiring manifold	612
⚠ Safety precautions	626

* Refer to page 5 for the metal base (integrated model).

* Refer to Page 407 for the master valve.

		Appearance	Model no.	Electrical connections	Number of Valve Position JIS symbol	Valve performance		Voltage (V)	
						Flow rate characteristics C (dm ³ /(s·bar)) Note 1	Applicable Cylinder diameter		
Individual wiring manifold	Body piping		MN4GA180R	Blank -E*	● 3 port valve 2-position single N.C. type 	1.0 to 1.2	φ20 to φ40	100 VAC	
			MN4GA2	Blank -E* -B	2-position single N.O. type 	2.2 to 2.5	φ40 to φ80	200 VAC	
	Base piping		MN4GB180R	Blank -E*	● 5 port valve 2-position single 	1.0 to 1.2	φ20 to φ40	24 VDC	
			MN4GB2	Blank -E* -B	2-position double 	2.2 to 2.5	φ40 to φ80	12 VDC	
Reduced wiring manifold	Body piping		MN4GA1 (N3GA1) (N4GA1)	-T10	● 3 port valve 2-position double 	1.0 to 1.2	φ20 to φ40	24 VDC	
			MN4GA2 (N3GA2) (N4GA2)	-T11 (- A2N)	3-position all ports closed 	2.2 to 2.5	φ40 to φ80	12 VDC	
			MN4GA1 (N3GA1) (N4GA1)	-T30	3-position A/B/R connection 	1.0 to 1.2	φ20 to φ40	24 VDC	
			MN4GA2 (N3GA2) (N4GA2)	-T5* (- A2N)	3-position P/A/B connection 	2.2 to 2.5	φ40 to φ80	12 VDC	
			MN4GA1 (N3GA1) (N4GA1)	-T6*	● Dual 3 port valve integrated type N.C./N.C. type 	1.0 to 1.2	φ20 to φ40	24 VDC	
			MN4GA2 (N3GA2) (N4GA2)	-T7* -T8* (- A2N)	N.O./N.C. type 	2.2 to 2.5	φ40 to φ80	12 VDC	
	Base piping		MN4GB1 (N4GB1)	-T10	N.O./N.O. type 	1.0 to 1.2	φ20 to φ40	24 VDC	
			MN4GB2 (N4GB2)	-T11 (- A2N)		2.2 to 2.5	φ40 to φ80	12 VDC	
			MN4GB1 (N4GB1)	-T30		1.0 to 1.2	φ20 to φ40	24 VDC	
			MN4GB2 (N4GB2)	-T5* (- A2N)		2.2 to 2.5	φ40 to φ80	12 VDC	
			MN4GB1 (N4GB1)	-T6*		1.0 to 1.2	φ20 to φ40	24 VDC	
			MN4GB2 (N4GB2)	-T7* -T8* (- A2N)		2.2 to 2.5	φ40 to φ80	12 VDC	

MN4GA & 4GB Series

Series variation

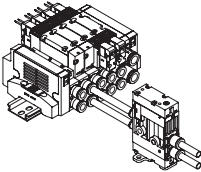
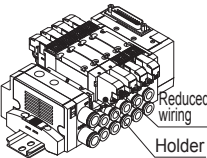
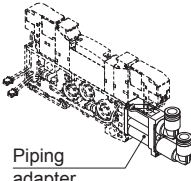
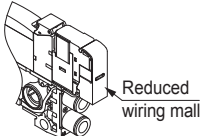
Note 1: Effective sectional area S and sonic conductance C are converted as $S \cong 5.0 \times C$.
 Note 2: Grommet lead wire specifications are only for DC voltage.
 Note 3: Compatible only with the base piping type.
 Note 4: These are specifications for mounting of the reduced wiring manifold.

	Valve Position									A/B Piping port										A/B Piping port	Electrical connections																Page																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	2-position Normally closed Normally open Single Double All ports closed ABR connection PAB connection Dual 3 port valves integrated type Mix									Barbed fitting	Push-in fitting					L type push-in fitting (upward) Note 3					L type push-in fitting (downward)					Female thread		Push-in fitting				Female thread		Discrete, individual wiring								Reduced wiring																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
											Note 2		Note 4		Note 4		Common terminal block		D-sub connector		Flat cable with power supply terminal		Flat cable without power supply terminal		Serial transmission																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
											Grommet lead		E type connector		EJ type connector		DIN terminal box		A type connector		Common terminal block		D-sub connector		Flat cable with power supply terminal		Flat cable without power supply terminal		Serial transmission																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
										φ1.8	φ1.8	φ4	φ6	φ8	φ1.8	φ4	φ6	φ8	φ1.8	φ4	φ6	φ8	M5	Rc1/8	φ1/8 inch	φ5/32 inch	φ1/4 inch	φ5/16 inch	1/8NPT	G1 / 8	Blank	E*	E*J	B*	A2N	T1*	T30	T50	T5*	T6*	T7*	T8*																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													</

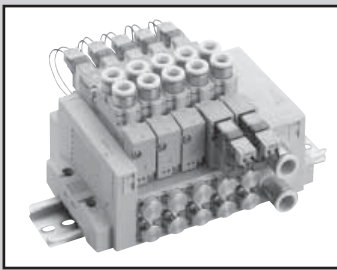
MN4GA & 4GB Series

Electrical connections					Manual operating device	Other options
Discrete valve/individual wiring manifold			Reduced wiring manifold			
Blank	Grommet lead wire ①	E3 E type connector with socket/terminal (S V)	T10 Common terminal block type M3 thread specifications (left side)	T50 Flat cable with power supply terminal (left side)	Blank Locking/non-locking common type	H With check valve
● Lead wire length 300mm					(standard)	 Provided as standard for pilot exhaust .
E0 E type connector ①	A2N A type connector downward without socket	T10R Common terminal block type M3 screw specifications (right side)	T50R Flat cable power supply with terminal (right side)	 ① For non-locking, push to turn ON, release to turn OFF ② For locking, push and turn 90° clockwise to hold the ON state. Turn counterclockwise to unlock and turn OFF	K External pilot	
● Lead wire length 300mm 500mm 1m 2m 3m					Main pressure and pilot pressure individual circuit specifications.	
E0N E type connector without socket	● With the model for 100 VAC, the dimensions for (a) will be 3.5 mm longer than the model for 12/24 VDC.	T11 Central terminal block type push tightening specifications (left side)	T5 ^{1 2 3} Flat cable without power supply terminal (left side)	M Non-locking type	A Ozone/cutting water compatible product	
					Select this model for compatibility with inflow of cutting oil and compatibility with ozone.	
E1 E type connector with socket/ terminal	B BN DIN terminal box (BN: without terminal box)	T11R Common terminal block type clamping specifications (right side)	T5 ^{1 2 3} Flat cable power supply without terminal (right side)	 Protective cover Manual button ① Push to turn ON, release to turn OFF	F AB port filter integrated	
					 A/B port filter	
E2 E type connector (i S V)	E0*J EJ type connector ①	T30 D-sub connector type (left side)	T6*0 T6*1 Serial transmission		Z1 Z3 Supply spacer Exhaust spacer	
	● Lead wire length 1m 2m 3m 				 Supply spacer	
E2N E type connector without socket (S V)	E2*J EJ type connector (i S V)	T30R D-sub connector type (right side)	T7*0 T7*1 Serial transmission thin model slot type		Z2 In stop valve Spacer	
					 Z6 Spacer type Pilot check valve	
			T8*1 T8*2 Serial transmission thin model slot type 			

Electric connection circuit diagram

Other options	
Pilot check valve (separate type) * Refer to page 186	
	
WI	Single reduced wiring
	
L	With piping adaptor
	
Q	Reduced wiring mall
	

Electrical connection		Without lead wire	With lead wire	With indicator light	With surge suppressor	Without socket	Circuit diagram
Blank	Grommet lead wire		●				(±) ○ DC (⌘) ○
	E0 E type connector		●				(±) ○ DC (⌘) ○
	E0*J EJ type connector		●				(±) ○ DC (⌘) ○
	E0N E type connector					●	(±) ○ DC (⌘) ○ 100 VAC (~) ○
	E1 E type connector	●					(±) ○ DC (⌘) ○ 100 VAC (~) ○
Option S	E2 E type connector		●	●	●		(±) ○ DC (⌘) ○ 100 VAC (~) ○
	E2*J EJ type connector		●	●	●		(±) ○ DC (⌘) ○ 100 VAC (~) ○
	E2N E type connector			●	●	●	(±) ○ DC (⌘) ○ 100 VAC (~) ○
	E3 E type connector	●		●	●		(±) ○ DC (⌘) ○ 100 VAC (~) ○
Option E	A2N A type connector			●	●	●	(±) ○ DC (⌘) ○ 100 VAC (~) ○
	B DIN terminal box			●	●	●	(±) ○ DC (⌘) ○ 100 VAC (~) ○
	BN DIN terminal box (Without terminal box)	●		●	●		(±) ○ DC (⌘) ○ 100 VAC (~) ○ 200 VAC (~) ○
	E2 E type connector		●	●	●		(±) ○ DC (⌘) ○
Option S	E2*J EJ type connector		●	●	●		(±) ○ DC (⌘) ○
	E2N E type connector			●	●	●	(±) ○ DC (⌘) ○
	A2N A type connector			●	●	●	(±) ○ DC (⌘) ○
	E2 E type connector		●	●	●		(±) ○ DC (⌘) ○
Option E	E2*J EJ type connector		●	●	●		(±) ○ DC (⌘) ○
	E2N E type connector			●	●	●	(±) ○ DC (⌘) ○
	A2N A type connector			●	●	●	(±) ○ DC (⌘) ○
	E2 E type connector		●	●	●		(±) ○ DC (⌘) ○



Individual wiring block manifold
Body piping

MN4GA1/2 Series

● Applicable cylinder bore size: $\phi 20$ to $\phi 80$

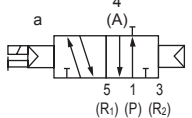


Refer to Ending for details.

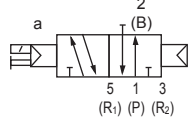


JIS symbol

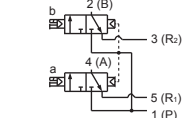
- 3 port valve
2-position single N. C. type



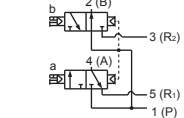
- 2-position single N. O. type



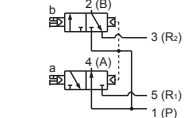
- Dual 3 port valve integrated type
(A side valve: N. C. type, B side valve: N. C. type)



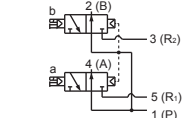
- (A side valve: N. O. type, B side valve: N. O. type)



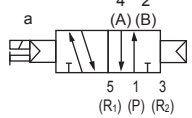
- (A side valve: N. O. type, B side valve: N. C. type)



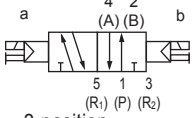
- (A side valve: N. O. type, B side valve: N. O. type)



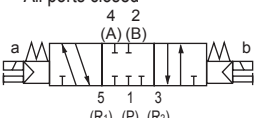
- 5 port valve
2-position single



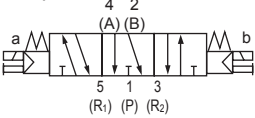
- 2-position double



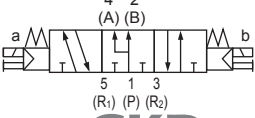
- 3-position
All ports closed



- 3-position A/B/R connection



- 3-position P/A/B connection



Manifold common specifications

Descriptions	
Manifold type	Block manifold
Mounting method	DIN rail mount type
Supply and exhaust method	Common supply/common exhaust (check valve integrated)
Pilot exhaust method	Main valve/pilot valve common exhaust (Pilot exhaust check valve integrated)
Piping direction	Valve top direction
Valve type and operation method	Pilot-operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	0.7
Min. working pressure MPa	0.2 Note 3
Proof pressure MPa	1.05
Ambient temperature °C	-5 to 55 (no freezing)
Fluid temperature °C	5 to 55
Manual operating device	Non-locking/locking common type (standard)
Lubrication Note 1	Not required
Degree of protection Note 2	Dust proof
Vibration resistance m/s ²	50 or less
Shock resistance m/s ²	300 or less
Atmosphere	Containing corrosive gas is not permissible

Note 1 Use the turbine oil Class 1 ISO VG32 if lubricated. Excessive or intermittent lubrication results in unstable operation.

Note 2 The degree of protection is dust proof. The unit is not water proof. Avoid water drops or oil, etc. during use.

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

Electrical specification

Descriptions							
Rated voltage V		DC24	DC12	DC5	DC3	AC100	AC200
Voltage fluctuation range		±10%					
Holding current A (Note 4)	Standard	0.015 (0.017)	0.030 (0.034)	0.072 (0.082)	0.120 (0.136)	0.009 (0.009)	0.006 (0.006)
	With low heat energy-saving circuit	0.005	0.010	-		-	
Power consumption W (Note 4)	Standard	0.35 (0.40)		0.35 (0.40)		-	
	With low heat energy-saving circuit	0.1		-		-	
Apparent power VA (Note 4)	Standard	-		-		0.93 (0.98)	1.08 (1.13)
Thermal class		B					
Surge suppressor		Option					
Indicator		Light (option)					

Note 4: Values in () apply when a light is attached. In addition, the low heat energy-saving circuits only have a light attached.

Individual specifications

Descriptions		MN3GA1/MN4GA1	MN3GA2/MN4GA2
Max. station no.		24 stations	20 stations
Port size	Milli fitting/ M5, Rc thread	A/B port	Barbed fitting $\phi 1.8$ push-in fitting $\phi 1.8, \phi 4, \phi 6$ M5
		P/R port	Push-in fitting $\phi 6, \phi 8$
	Inch fitting/ M5, NPT thread	A/B port	Push-in fitting $\phi 1/8$ inch, $\phi 5/32$ inch M5
		P/R port	Push-in fitting $\phi 1/4$ inch, $\phi 5/16$ inch
	Milli fitting/ G thread	A/B port	-
		P/R port	-

● Refer to "Mounting attitude" on page 631 for DIN rail mounting.

● Refer to page 224 for weight.

Descriptions		MN3GA1/MN4GA1		MN3GA2/MN4GA2	
Response time ms	Dual 3 port valve integrated type	ON	OFF	ON	OFF
	2-position	9	12	12	29
		12	12	19	19
	3-position ABR connection	9	-	18	-

Values including a light surge suppressor. The response time is the value at 0.5 MPa supply pressure, 20°C, with no lubrication. It varies depending on the pressure and the lubricant quality.

Flow characteristics

Model no.	Valve Position	P→A/B		A/B→R1/R2	
		C (dm ³ /(s·bar))	b	C (dm ³ /(s·bar))	b
MN3GA1 MN4GA1	Dual 3 port valve integrated type	0.87	0.37	1.0 (0.68)	0.14 (0.22)
	2-position	0.98	0.33	1.2 (0.71)	0.11 (0.27)
	3-position	All ports closed	0.34	1.0 —	0.16 —
		ABR connection	0.29	1.1 (0.69)	0.13 (0.22)
		PAB connection	0.35	1.1 —	0.17 —
MN3GA2 MN4GA2	Dual 3 port valve integrated type	1.7	0.37	2.2 (1.6)	0.13 (0.21)
	2-position	2.2	0.21	2.5 (1.7)	0.19 (0.10)
	3-position	All ports closed	0.25	2.3 —	0.10 —
		ABR connection	0.27	2.5 (1.7)	0.18 (0.12)
		PAB connection	0.31	2.3 —	0.16 —

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

Note 2: Values in () apply when a check valve is integrated.

Ozone specifications / Coolant proof specifications

Select the option "A" of ⑥ in how to order on page 222.

Clean room specifications (Catalog No. CB-033SA)

- Particle generation preventing structure for use in clean rooms

** - Voltage - **P7***

Specifications for secondary battery (Catalog No. CC-947A)

- In order to be applicable for secondary battery manufacturing process, confine materials for air passage and sliding section

** - Voltage - **P4**

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

MN4GA1/2 Series

Individual wiring block manifold; body piping

How to order

Manifold model no.

MN4GA1 ① 0 R - **C6** - **E2** **H** - **10** - **3**

3 port manifold model no.

MN3GA1 ① 0 R - **C6** - **E2** **H** - **10** - **3**

Discrete valve block with solenoid valve

N4GA1 ① 0 R - **C6** - **E2** **H** - **3**

Discrete 3 port valve block with solenoid valve

N3GA1 ① 0 R - **C6** - **E2** **H** - **3**

Discrete solenoid valve

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

Discrete 3 port solenoid valve

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

① Model no.

② Valve Position

③ Port size
Note 1

⚠ Cautions for model No. selection

- Note 1 Designate P/R port sizes with the supply/exhaust block in manifold specifications.
- Note 2 Select MN4GA*80 when mixing with 4, 5 port valves. Select MN3GA*80 when mixing with the masking plate.
- Note 3 Combination with the external pilot (K) is not available. Dimensions are the same as the respective 2-position double.
- Note 4 The push-in fitting cannot be mixed with the discrete valve's 4 (A) or 2 (B) port.
- Note 5 3-position all ports closed and PAB connection are not provided with check valve (H). Refer to page 627 for details on check valve.
- Note 6 Contact CKD when using a vacuum with the external pilot (K).
- Note 7 In addition, the surgeless "S" and low heat energy-saving circuit "E" cannot be selected at the same time.
- Note 8 This is surgeless specifications.
- Note 9 The P port has a filter built inside as a standard.
- Note 10 Specify the spacer mounting position and quantity in manifold specifications. Stacking multiple spacers is not supported. Combination with the masking plate is not supported. Refer to page 287 to 291 for details.
- Note 11 Combination with the external pilot (K) is not available.
- Note 12 Only the DIN terminal box are supported.

④ Electrical connections

⑤ Option

⑥ Station no.

⑦ Voltage

A Model No.							
Manifold				Discrete block with solenoid valve Discrete block / Discrete solenoid valve			
3 port valve		5 port valve					
MN3GA1	MN3GA2	MN4GA1	MN4GA2	(N) 3GA1	(N) 3GA2	(N) 4GA1	(N) 4GA2

Symbol	Descriptions		M	M	M	M	N	N	N	N
B Valve 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		Note 2	●	●			●	●	
11	2-position single normally open		Note 2	●	●			●	●	
66	3 port valve integrated type Note 2, 3	A side valve: Normally closed		●	●			●	●	
		B side valve: Normally closed								
67		A side valve: Normally closed		●	●			●	●	
		B side valve: Normally open								
76		A side valve: Normally open		●	●			●	●	
		B side valve: Normally closed								
77		A side valve: Normally open		●	●			●	●	
		B side valve: Normally open								
8	Mix manifold (In case of multiple Valve Positions)			●	●	●	●	●	●	●

C Port size (A/B port)										
Type	Milli fitting/Rc thread		MN3GA1	MN3GA2	MN4GA1	MN4GA2	(N) 3GA1	(N) 3GA2	(N) 4GA1	(N) 4GA2
CF	φ1.8 barbed fitting (applicable tube UP-9102-**)									
C18	φ1.8 push-in fitting (applicable tube UP-9402-**)									
C4	φ4 push-in fitting									
C6	φ6 push-in fitting									
C8	φ8 push-in fitting									
CX	Push-in fitting mix	Note 4								
M5	M5									
06	Rc 1/8									
Type	Inch fitting/Inch thread		MN3GA1	MN3GA2	MN4GA1	MN4GA2	(N) 3GA1	(N) 3GA2	(N) 4GA1	(N) 4GA2
C3N	φ1/8 inch push-in fitting									
C4N	φ5/32 inch push-in fitting									
C6N	φ1/4 inch push-in fitting									
C8N	φ5/16 inch push-in fitting									
CXN	Push-in fitting mix	Note 4								
06N	1/8NPT									
Type	G thread		MN3GA1	MN3GA2	MN4GA1	MN4GA2	(N) 3GA1	(N) 3GA2	(N) 4GA1	(N) 4GA2
06G	G1/8									

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

E Option										
Blank	Non-locking/locking common manual override									
M	Non-locking manual override									
H	With check valve	Note 5								
K	External pilot	Note 6								
A	Ozone/cutting oil proof									
S	Surgeless	Note 7								
E	Low heat and energy saving circuit	Note 7, Note 8								
F	A/B port filter integrated	Note 9								
Z1	Air supply spacer	Note 10								
Z2	In stop valve spacer	Note 10, Note 11								
Z3	Exhaust spacer	Note 10								

F Station no.										
1	1 stations									
to	to									
24	24 Stations (The max. station no. of MN3GA2/MN4GA2 is 20.)									

G Voltage										
1	100 VAC (rectifier integrated)									
2	200 VAC (rectifier integrated)	Note 12								
3	24 VDC									
4	12 VDC									
7	3 VDC									
8	5 VDC									

□ is not available.

○ Contact CKD for price and availability.

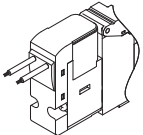
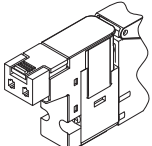
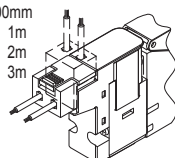
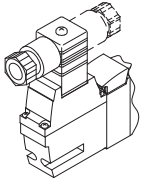
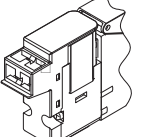
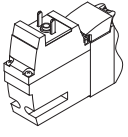
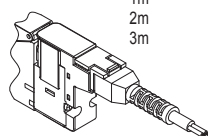
[Electrical connection list]

		A Model No.							
		Manifold				Discrete valve block with solenoid valve / Discrete solenoid valve			
		Dual 3 port valve integrated		5 port valve					
		MN3GA1	MN3GA2	MN4GA1	MN4GA2	(N) 3GA1	(N) 3GA2	(N) 4GA1	(N) 4GA2
D Electrical connections									
Blank	Grommet lead wire (300 mm)	Note 13	●	●	●	●	●	●	●
B	DIN terminal box (Pg7)	With surge suppressor/light	Note 14	●	●	●	●	●	●
BN	DIN terminal box (Pg7) (without terminal box)	with surge suppressor	Note 14	●	●	●	●	●	●
E type connector (upward/lateral direction common)									
E0	Lead wire (300 mm)	Note 15	●	●	●	●	●	●	●
E00	Lead wire (500 mm)	Note 15	●	●	●	●	●	●	●
E01	Lead wire (1000 mm)	Note 15	●	●	●	●	●	●	●
E02	Lead wire (2000 mm)	Note 15	●	●	●	●	●	●	●
E03	Lead wire (3000 mm)	Note 15	●	●	●	●	●	●	●
E0N	Without lead wire (without socket)	Note 15	●	●	●	●	●	●	●
E1	Without lead wire (with socket/terminal)	Note 15	●	●	●	●	●	●	●
E2	Lead wire (300mm)	With surge suppressor/light	●	●	●	●	●	●	●
E20	Lead wire (500mm)	With surge suppressor/light	●	●	●	●	●	●	●
E21	Lead wire (1000mm)	With surge suppressor/light	●	●	●	●	●	●	●
E22	Lead wire (2000mm)	With surge suppressor/light	●	●	●	●	●	●	●
E23	Lead wire (3000mm)	With surge suppressor/light	●	●	●	●	●	●	●
E2N	Without lead wire (without socket)	With surge suppressor/light	●	●	●	●	●	●	●
E3	Without lead wire (with socket/terminal)	With surge suppressor/light	●	●	●	●	●	●	●
EJ type connector (socket with cover, upward/lateral direction common)									
E01J	Lead wire (1000 mm)	Note 15	●	●	●	●	●	●	●
E02J	Lead wire (2000 mm)	Note 15	●	●	●	●	●	●	●
E03J	Lead wire (3000 mm)	Note 15	●	●	●	●	●	●	●
E21J	Lead wire (1000 mm) with surge suppressor/light	●	●	●	●	●	●	●	●
E22J	Lead wire (2000 mm) with surge suppressor/light	●	●	●	●	●	●	●	●
E23J	Lead wire (3000 mm) with surge suppressor/light	●	●	●	●	●	●	●	●

Note 13 Grommet lead wire specifications are only for DC voltage.

Note 14 Supports AC voltage and 12/24 VDC. The light is also attached to the terminal box.

Note 15 AC voltage comes with a rectifier circuit.

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

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

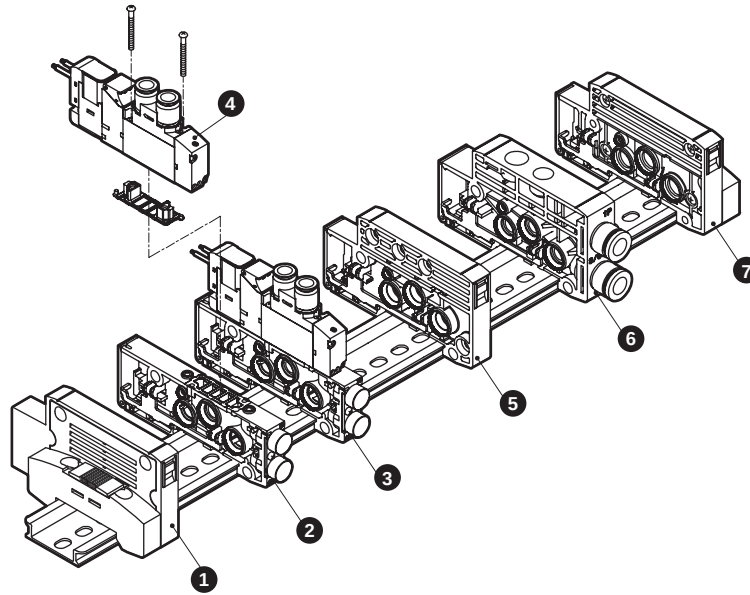
Safety
precautions

Manifold
Specifications

MN4GA1/2 Series

Individual wiring block manifold; body piping

Manifold components explanation and parts list



Main parts list (refer to page 276 to 294 for details)

No.	Component name	Model no. (example)	No.	Component name	Model no. (example)
1	End block L	N4G1R-EL	5	Partition block	N4G1R-S
2	Discrete valve block	N4GA1R-V1	6	Supply and exhaust block	N4G1R-Q-8
3	Discrete valve block with solenoid valve	N4GA110R-C6-H-3	7	End block R	N4G1R-ER
4	Solenoid valve body	4GA119R-C6-H-3			

A type reduced wiring weight

4GA1

Block type	Weight	Block type	Weight
Valve block with solenoid valve		Valve block with masking plate	
N3GA110R-C6-3	70	N4GA1R-MP	34
N3GA1110R-C6-3	70	N4G1R-Q-8	58
N4GA110R-C6-3	70	N4G1R-QK-8	60
N4GA120R-C6-3	87	N4G1R-E*	60
N4GA110R-C6-3	91	N4G1R-EX*	60
N3GA1660R-C6-3	87	Partition block	45

4GA2

Block type	Weight	Block type	Weight
Valve block with solenoid valve		Valve block with masking plate	
N3GA210R-C8-3	129	N4GA2R-MP	66
N3GA2110R-C8-3	129	N4G2R-Q-10	83
N4GA210R-C8-3	129	N4G2R-QK-10	85
N4GA220R-C8-3	147	N4G2R-E*	84
N4GA210R-C8-3	159	N4G2R-EX*	85
N4GA2660R-C8-3	147	Partition block	60

Parts list

Application	Parts name	Model no.	Application	Parts name	Model no.
Valve 4G1	Cartridge fitting ϕ 1.8 barbed type	4G1R-JOINT-CF	Valve	Coil assembly	4GR-[*1]-[*2]-COIL-[*3] *1: Electrical connection (blank, B, E0, ...), *3: Voltage (1, 2, 3, 4) *2: Ozone/cutting oil proof (blank, A)
	Cartridge fitting ϕ 1.8 straight type	4G1R-JOINT-C18			
	Cartridge fitting ϕ 4 straight type	4G1R-JOINT-C4		E type connector socket assembly	4GR-SOCKET-ASSY-[*1]-[*3] *1: Electrical connection (E0, E00, ...), *3: Voltage (1, 3, 4)
	Cartridge fitting ϕ 6 straight type	4G1R-JOINT-C6			
	Cartridge fitting ϕ 1/8 inch straight type	4G1R-JOINT-C3N		E type connector socket assembly	4GR-SOCKET-ASSY-[*1] *1: Electrical connection (E01J, E002J, ...)
	Cartridge fitting ϕ 5/32 inch straight type	4G1R-JOINT-C4N			
	Plug cartridge	4G1R-JOINT-CPG			
Valve For 4G2	Cartridge fitting: ϕ 4 straight type	4G2R-JOINT-C4	Valve 4G2	DIN terminal box assembly	4GR-TERMINAL-BOX-[*3] *3: Voltage (1,2,3,4)
	Cartridge fitting: ϕ 6 straight type	4G2R-JOINT-C6			
	Cartridge fitting: ϕ 8 straight type	4G2R-JOINT-C8			
	Cartridge fitting ϕ 1/4 inch straight type	4G2R-JOINT-C6N			
	Cartridge fitting ϕ 5/16 inch straight type	4G2R-JOINT-C8N			
	Plug cartridge	4G2R-JOINT-CPG			

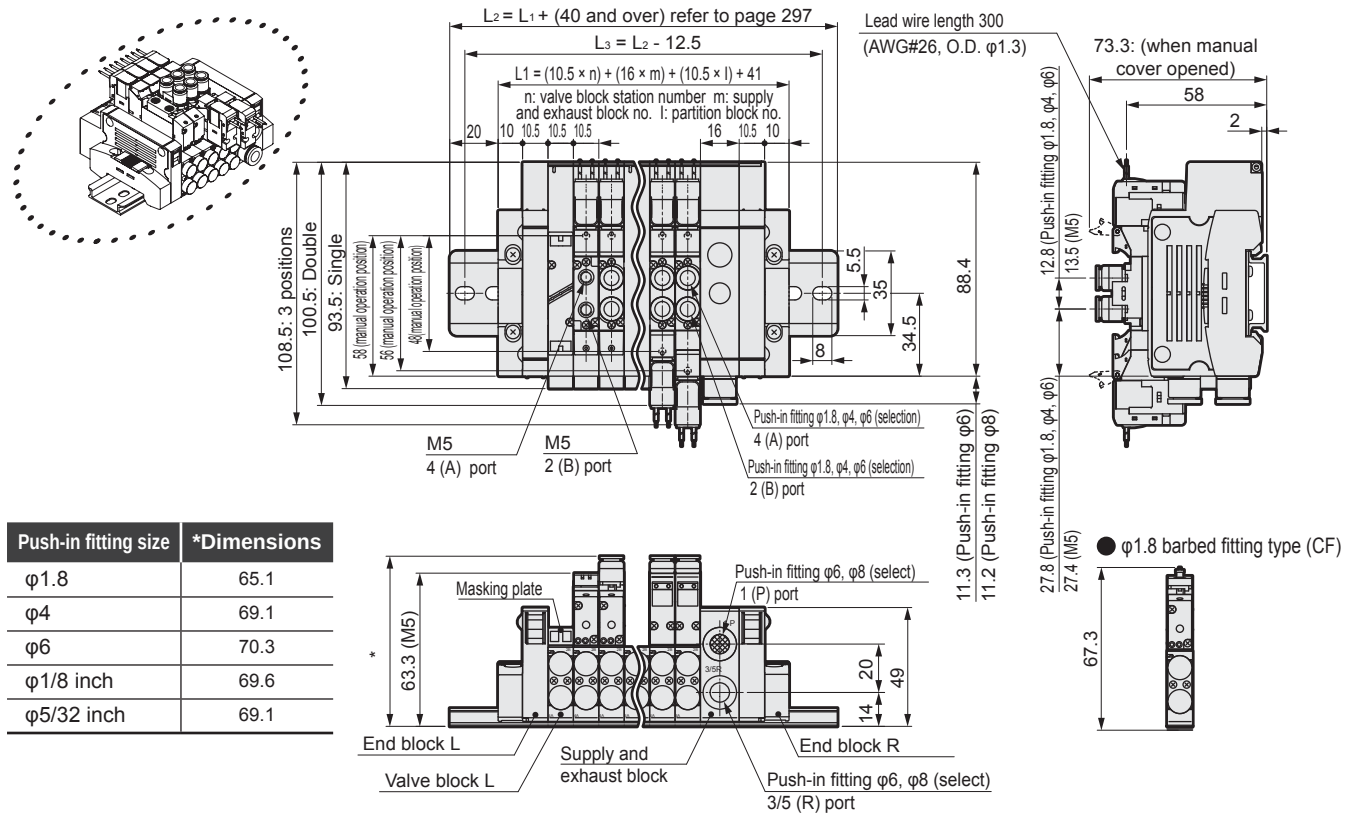
Dimensions



MN4GA1

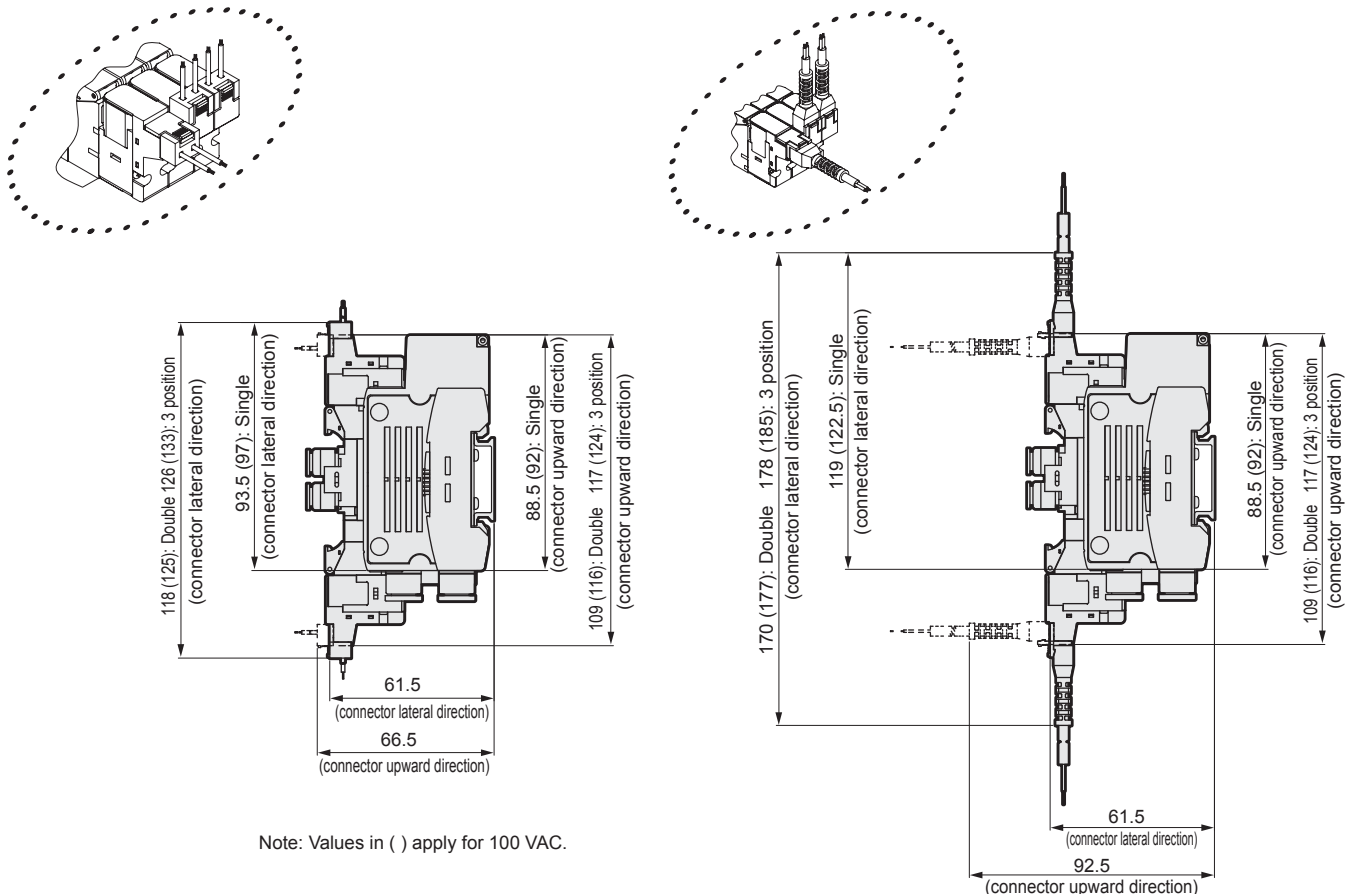
- Grommet lead wire (blank)

* For 2-position single 3 port valve, the port A or port B is a plug.
The dimension of dual 3 port valve integrated type is the same as that of the double type.



- E type connector type (E)

- EJ type connector type (E**J)



* Refer to page 251 for the dimension drawings of the push-in fitting for supply and exhaust block.

MN4GA2 Series

Individual wiring manifold; body piping

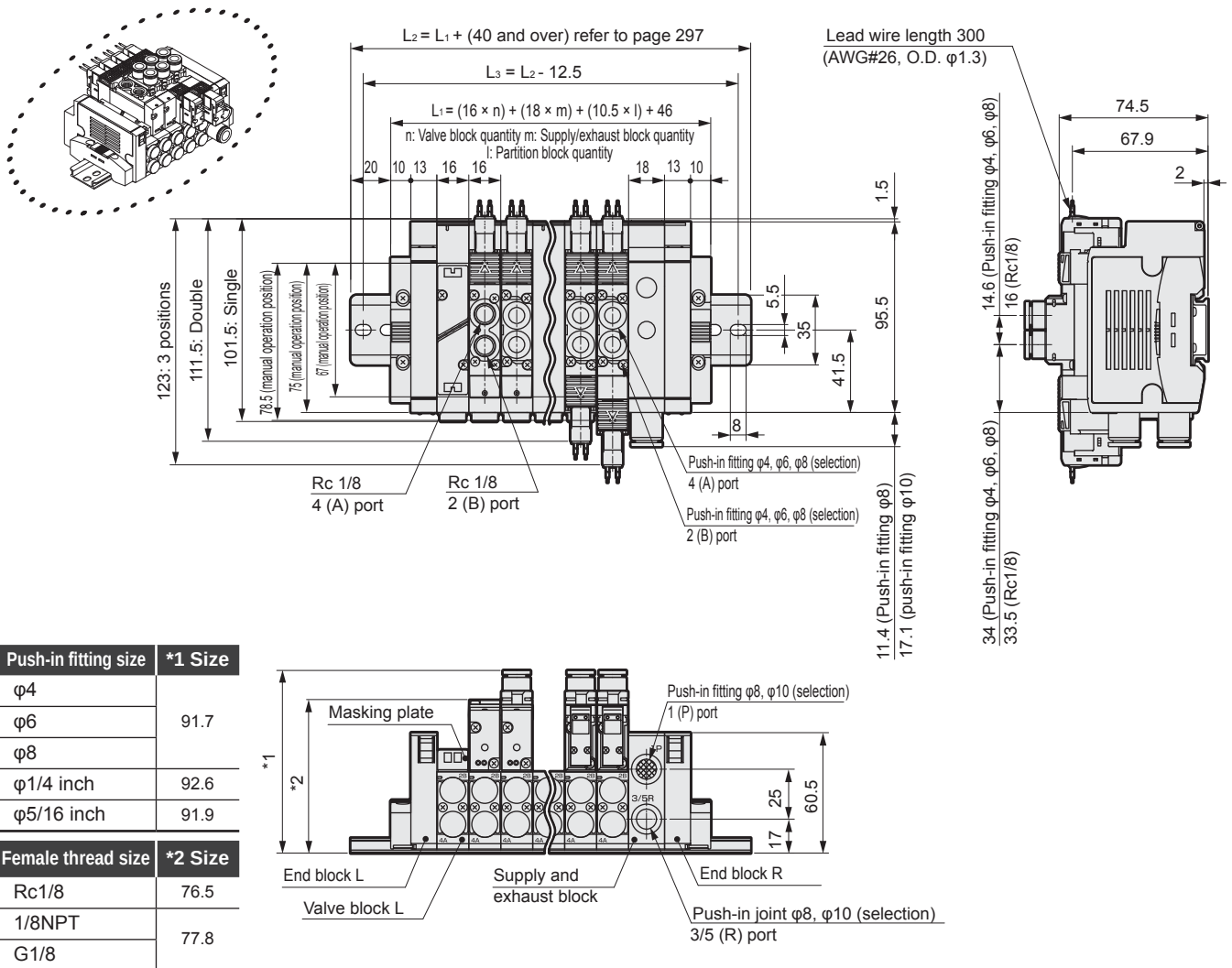
Dimensions



MN4GA2

- Grommet lead wire (blank)

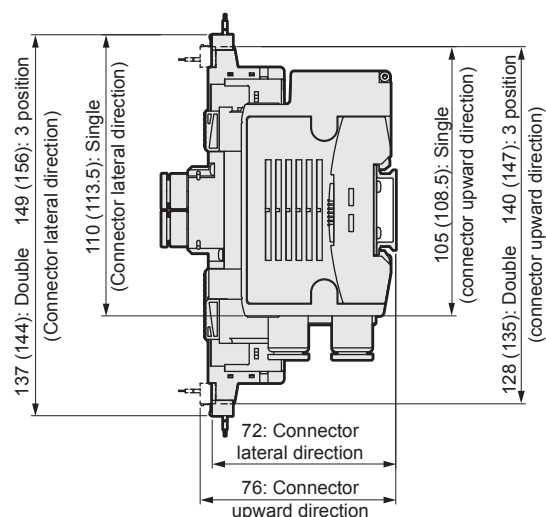
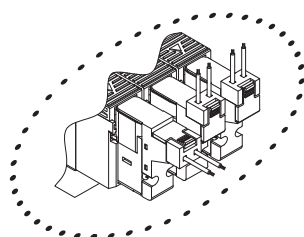
* For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.



Push-in fitting size	*1 Size
$\phi 4$	91.7
$\phi 6$	
$\phi 8$	
$\phi 1/4$ inch	92.6
$\phi 5/16$ inch	91.9
Female thread size	*2 Size
Rc1/8	76.5
1/8NPT	77.8
G1/8	

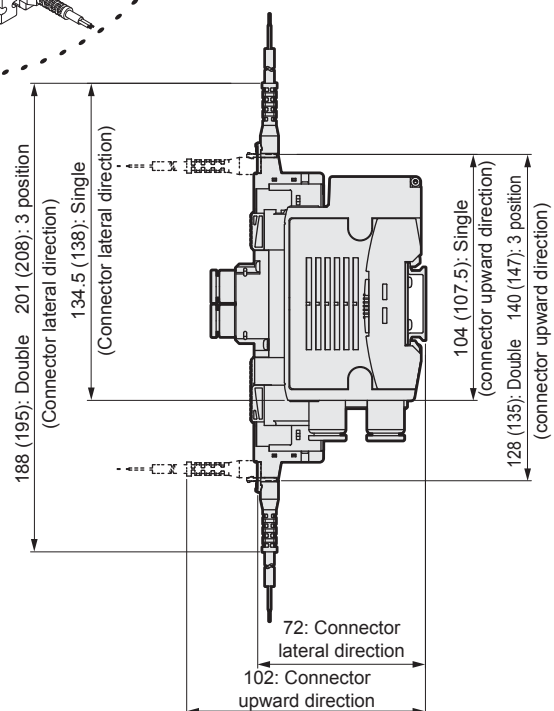
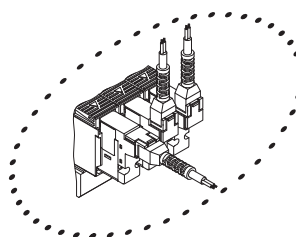
Dimensions

● E type connector type (E)

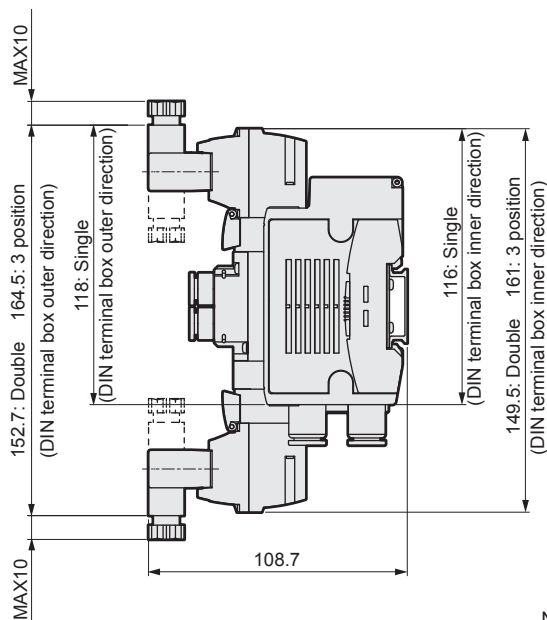
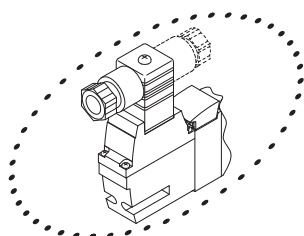


Note: Values in () apply for 100 VAC.

● EJ type connector type (E**J)



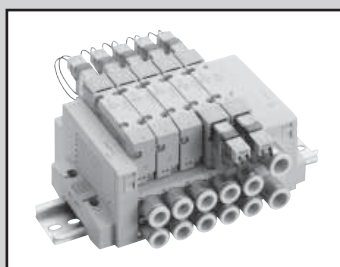
● DIN terminal box type (B)



Note: The DIN terminal box assembly is shipped facing inward.

* Refer to page 251 for the dimension drawings of the L type push-in fitting for supply and exhaust block.

4GAB	M4GA/B	MN4GA/B	4GAB Master valve	4GD/E	M4GD/E	MN4GD/E	Technical data	Safety precautions	Manifold Specifications
------	--------	---------	----------------------	-------	--------	---------	----------------	-----------------------	----------------------------



Individual wiring block manifold
Base piping

MN4GB1/2 Series

● Applicable cylinder bore size: $\phi 20 \sim \phi 80$

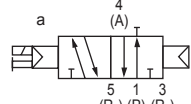


Refer to Ending for details.

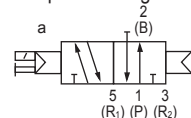


JIS symbol

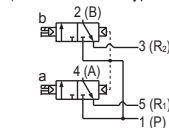
- 3 port valve
2-position single N.C. type



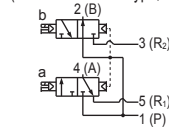
2-position single N.O. type



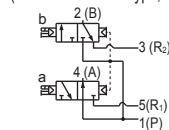
- Dual 3 port valve integrated type
(A side valve: N.C. type, B side valve: N.C. type)



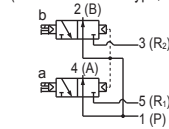
(A side valve: N.C. type, B side valve: N.O. type)



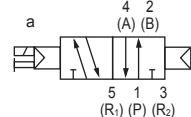
(A side valve: N.O. type, B side valve: N.C. type)



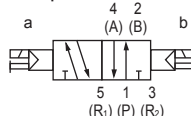
(A side valve: N.O. type, B side valve: N.O. type)



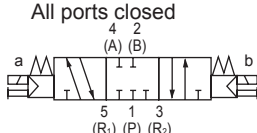
- 5 port valve
2-position single



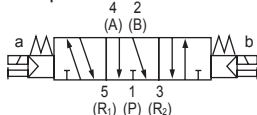
2-position double



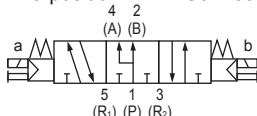
3-position
All ports closed



3-position A/B/R Connection



3-position P/A/B Connection



Manifold common specifications

Descriptions	
Manifold type	Block manifold
Mounting method	DIN rail mount type
Supply and exhaust method	Common supply/common exhaust (malfunction prevention valve integrated)
Pilot exhaust method	Main valve/pilot valve common exhaust (Pilot exhaust check valve integrated)
Piping direction	Base part lateral direction
Valve type and operation	Pilot operated type soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	0.7
Min. working pressure MPa	0.2 Note 3
Proof pressure MPa	1.05
Ambient temperature °C	-5 to 55 (no freezing)
Fluid temperature °C	5 to 55
Manual operating device	Non-locking/locking common type (standard)
Lubrication Note 1	Not required
Degree of protection Note 2	Dust proof
Vibration resistance m/s ²	50 or less
Vibration resistance m/s ²	300 or less
Atmosphere	Containing corrosive gas is not permissible

Note 1 Use the turbine oil Class 1 ISO VG32 if lubricated.

Excessive or intermittent lubrication results in unstable operation.

Note 2 The degree of protection is dust proof. The unit is not water proof.

Avoid water drops or oil, etc. during use.

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

Electrical specification

Descriptions							
Rated voltage V		24 VDC	12 VDC	5 VDC	3 VDC	100 VAC	200 VAC
Voltage fluctuation range		±10%					
Holding current A (Note 4)	Standard	0.015 (0.017)	0.030 (0.034)	0.072 (0.082)	0.120 (0.136)	0.009 (0.009)	0.006 (0.006)
	With low heat and energy saving circuit	0.005	0.010	-		-	
Power consumption W (Note 4)	Standard	0.35 (0.40)		0.35 (0.40)		-	
	With low heat and energy saving circuit	0.1		-		-	
Apparent power VA (Note 4)	Standard	-		-		0.93 (0.98)	1.08 (1.13)
Thermal class		B					
Surge suppressor		Option					
Indicator		Light (option)					

Note 4: Values in () apply when a light is attached. In addition, the low heat energy-saving circuits only have a light attached.

Individual specifications

Descriptions		M3GB1/M4GB1	M3GB2/M4GB2
Max. station no.		24 stations	20 stations
Port size	Milli fitting	A/B port Barbed fitting $\phi 1.8$ push-in fitting $\phi 1.8, \phi 4, \phi 6$	Push-in fitting $\phi 4, \phi 6, \phi 8$
		P/R port Push-in fitting $\phi 6, \phi 8$	Push-in fitting $\phi 8, \phi 10$
	Inch fitting	A/B port Push-in fitting $\phi 1/8$ inch, $\phi 5/32$ inch	Push-in fitting $\phi 1/4$ inch $\phi 5/16$ inch 1/8NPT
		P/R port Push-in fitting $\phi 1/4$ inch, $\phi 5/16$ inch	Push-in fitting $\phi 5/16$ inch, $\phi 3/8$ inch

• Refer to "Mounting attitude" on page 631 for DIN rail installation.

• Refer to page 232 for weight.

Descriptions		MN3GB1/MN4GB1		MN3GB2/MN4GB2	
		ON	OFF	ON	OFF
Response time ms	Dual 3 port valve integrated type	9	12	12	29
	2-position Single	12	12	19	19
		9	-	18	-
	3-position ABR connection	8	15	17	30

Values including a light surge suppressor. Response time is the value at an air supply of 0.5 MPa, 20 °C, and oil-free. It varies depending on the pressure and the lubricant quality.

Flow characteristics

Model no.	Valve Position		P→A/B		A/B→R1/R2	
			C (dm ³ /(s·bar))	b	C (dm ³ /(s·bar))	b
MN3GB1 MN4GB1	Dual 3 port valve integrated type		0.86	0.35	1.0 (0.66)	0.15 (0.25)
	2-position		1.0	0.30	1.1 (0.72)	0.11 (0.26)
	3-position	All ports closed	0.96	0.32	1.0 -	0.14 -
		ABR connection	0.96	0.29	1.2 (0.71)	0.11 (0.30)
		PAB connection	1.1	0.31	1.0 -	0.15 -
MN3GB2 MN4GB2	Dual 3 port valve integrated type		1.7	0.42	2.2 (1.6)	0.15 (0.19)
	2-position		2.4	0.35	2.5 (1.7)	0.19 (0.19)
	3-position	All ports closed	2.2	0.38	2.3 -	0.17 -
		ABR connection	2.2	0.38	2.5 (1.7)	0.18 (0.20)
		PAB connection	2.3	0.29	2.3 -	0.15 -

Note 1: Effective sectional area S and sonic conductance C are converted as $S \div 5.0 \times C$.

Note 2: Values in () apply when a malfunction prevention valve is attached.

Ozone specifications / Cutting oil proof type specifications

Select the option "A" of ⑤ in how to order on page 231.

Clean room specifications (Catalog No. CB-033SA)

- Particle generation preventing structure for use in clean rooms

** - Voltage - **P7***

Specifications for secondary battery (Catalog No. CC-947A)

- In order to be applicable for secondary battery manufacturing process, confine materials for air passage and sliding section

** - Voltage - **P4**

4GAB

M4GAB

MN4GAB

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

MN4GB1/2 Series

Individual wiring manifold; base piping

How to order

Manifold model no.

MN4GB1 **1** **0 R** - **C6** - **E2 H** - **10** - **3**

3 port manifold model no.

MN3GB1 **1** **0 R** - **C6** - **E2 H** - **10** - **3**

Discrete valve block with solenoid valve

N4GB1 **1** **0 R** - **C6** - **E2 H** - **3**

Discrete 3 port valve block with solenoid valve

N3GB1 **1** **0 R** - **C6** - **E2 H** - **3**

Discrete solenoid valve

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

Discrete 3 port solenoid valve

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

A Model no.

B Valve Position

D Electrical connections

F Station no.

C Port size
Note 1,
Note 2
Note 3

E Option

G Voltage

⚠ Cautions for model No. selection

Note 1 A or B port plug specifications are available only for the 2-position single.

Designate P/R port sizes with the supply/exhaust block in manifold specifications.

Note 2 A/B port sizes do not differ for the mix (CX) of push-in fitting L type.

Note 3 In the case of a discrete solenoid valve, set the port size of "00".

Note 4 Select M4GB*80R when mixing with 4, 5 port valves. Select M3GB*80R when mixing with the masking plate.

Note 5 Combination with the external pilot (K) is not available. Dimensions are the same as the respective 2-position double solenoid.

Note 6 Please select option "L" at the same time as items other than single solenoids.

Note 7 Push-in fitting cannot be mixed with the discrete valve's 4 (A) or 2 (B) port.

Note 8 Only the single solenoid are supported.

A Model No.							
Manifold				Discrete block with solenoid valve/Discrete solenoid valve			
Dual 3 port valve integrated type		5 port valve		solenoid valve/Discrete solenoid valve		solenoid valve	
MN3GB1	MN3GB2	MN4GB1	MN4GB2	(N)3GB1	(N)3GB2	(N)4GB1	(N)4GB2

Symbol	Descriptions		1	2	3	4	5	6	7	8	9	10
B Valve 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	Dual 3 port valve integrated type Note 4, 5	A side valve: Normally closed	●	●				●	●			
		B side valve: Normally closed										
67		A side valve: Normally closed	●	●				●	●			
		B side valve: Normally open										
76		A side valve: Normally open	●	●				●	●			
		B side valve: Normally closed										
77		A side valve: Normally open	●	●				●	●			
		B side valve: Normally open										
8	Mix manifold (In case of multiple Valve Positions)		●	●	●	●		●	●	●	●	

C Port size (A/B port)								
Type	Milli fitting/Rc thread							
CF	φ1.8 barbed fitting (applicable tube UP-9102-**) Note 6				●	●	●	●
C18	φ1.8 push-in fitting (applicable tube UP-9402-**) Note 6				●	●	●	●
C4	φ4 push-in fitting				●	●	●	●
C6	φ6 push-in fitting				●	●	●	●
C8	φ8 push-in fitting				●	●	●	●
CL18	L type φ1.8 push-in fitting (upward) (applicable tube UP-9402-**) Note 6				●	●	●	●
CL4	L type φ4 push-in fitting (upward) Note 6				●	●	●	●
CL6	L type φ6 push-in fitting (upward) Note 6				●	●	●	●
CL8	L type φ8 push-in fitting (upward) Note 6				●	●	●	●
CD18	L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-**) Note 6				●	●	●	●
CD4	L type φ4 push-in fitting (downward)				●	●	●	●
CD6	L type φ6 push-in fitting (downward)				●	●	●	●
CD8	L type φ8 push-in fitting (downward)				●	●	●	●
CX	Push-in fitting mix Note 8				●	●	●	●
Single plug specifications								
Port A					Port B			
CFNC	φ1.8 barbed fitting (applicable tube UP-9102-**) Note 6				Plug			
C18NC	φ1.8 push-in fitting (applicable tube UP-9402-**) Note 6							
C4NC	φ4 push-in fitting							
C6NC	φ6 push-in fitting							
C8NC	φ8 push-in fitting							
CFNO	Plug				φ1.8 barbed fitting (applicable tube UP-9102-**) Note 6			
C18NO					φ1.8 push-in fitting (applicable tube UP-9402-**) Note 6			
C4NO					φ4 push-in fitting			
C6NO					φ6 push-in fitting			
C8NO	Plug				φ8 push-in fitting			
CL18NC					Plug			
CL4NC								
CL6NC								
CL8NC								
CL18NO	Plug				L type φ1.8 push-in fitting (upward) (applicable tube UP-9402-**) Note 6			
CL4NO					L type φ4 push-in fitting (upward) Note 6			
CL6NO					L type φ6 push-in fitting (upward) Note 6			
CL8NO					L type φ8 push-in fitting (upward) Note 6			
CD18NC	Plug				Plug			
CD4NC								
CD6NC								
CD8NC								
CD18NO	Plug				L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-**) Note 6			
CD4NO					L type φ4 push-in fitting (downward) Note 6			
CD6NO					L type φ6 push-in fitting (downward) Note 6			
CD8NO					L type φ8 push-in fitting (downward) Note 6			
Type	Inch fitting/Inch thread							
C3N	φ1/8 inch push-in fitting				●	●	●	●
C4N	φ5/32 inch push-in fitting				●	●	●	●
C6N	φ1/4 inch push-in fitting				●	●	●	●
C8N	φ5/16 inch push-in fitting				●	●	●	●
CL3N	L type φ1/8 inch push-in fitting (upward) Note 8				○	○	○	○
CL4N	L type φ5/32 inch push-in fitting (upward) Note 8				○	○	○	○
CL6N	L type φ1/4 inch push-in fitting (upward) Note 8				○	○	○	○
CL8N	L type φ5/16 inch push-in fitting (upward) Note 8				○	○	○	○
CXN	Push-in fitting mix Note 8				●	●	●	●
Single plug								
Port A					Port B			
C3NCN	φ1/8 inch push-in fitting				Plug			
C4NCN	φ5/32 inch push-in fitting							
C6NCN	φ1/4 inch push-in fitting							
C8NCN	φ5/16 inch push-in fitting							
C3NON	Plug				φ1/8 inch push-in fitting			
C4NON					φ5/32 inch push-in fitting			
C6NON					φ1/4 inch push-in fitting			
C8NON					φ5/16 inch push-in fitting			
CL3NCN	Plug				Plug			
CL4NCN								
CL6NCN								
CL8NCN								
CL3NON	Plug				L type φ1/8 inch push-in fitting (upward)			
CL4NON					L type φ5/32 inch push-in fitting (upward)			
CL6NON					L type φ1/4 inch push-in fitting (upward)			
CL8NON					L type φ5/16 inch push-in fitting (upward)			
00	Discrete valve for mounting base				●	●	●	●

is not available.

○ Contact CKD for price and availability.

(Option, Station no., Voltage and electrical connection list)

Symbol	Descriptions	A Model No.							
		Manifold				Discrete valve block with solenoid valve / Discrete solenoid valve			
		Dual 3 port valve integrated type	5 port valve						
		MN3GB1	MN3GB2	MN4GB1	MN4GB2	(N)3GB1	(N)3GB2	(N)4GB1	(N)4GB2
E Option									
Blank	Non-locking/locking common manual override	●	●	●	●	●	●	●	●
M	Non-locking manual override	●	●	●	●	●	●	●	●
H	With malfunction prevention valve	Note 9	●	●	●	●	●	●	●
K	External pilot	Note 10	●	●	●	●	●	●	●
A	Ozone/cutting oil proof	●	●	●	●	●	●	●	●
S	Surgeless	Note 11	●	●	●	●	●	●	●
E	Low heat and energy saving circuit	Note 11, Note 12	●	●	●	●	●	●	●
L	With piping adaptor	●	●	●	●	●	●	●	●
F	A/B port filter integrated	Note 13	●	●	●	●	●	●	●
Z1	Air supply spacer	Note 14	●	●	●	●	●	●	●
Z2	In stop valve spacer	Note 14, Note 15	●	●	●	●	●	●	●
Z3	Exhaust spacer	Note 14	●	●	●	●	●	●	●
Z6	Spacer type pilot check valve	Note 14, Note 20	●	●	●	●	●	●	●
F Station no.									
1	1 station	●	●	●	●	●	●	●	●
to	to	●	●	●	●	●	●	●	●
24	24 stations (The max. station no. of MN4GB2 is 20.)	●	●	●	●	●	●	●	●
G Voltage									
1	100 VAC (rectifier integrated)	●	●	●	●	●	●	●	●
2	200 VAC (rectifier integrated)	Note 16	●	●	●	●	●	●	●
3	24 VDC	●	●	●	●	●	●	●	●
4	12 VDC	●	●	●	●	●	●	●	●
7	3 VDC	○	○	○	○	○	○	○	○
8	5 VDC	○	○	○	○	○	○	○	○
D Electrical connections									
Blank	Grommet lead wire (300 mm)	Note 17	●	●	●	●	●	●	●
B	DIN terminal box (Pg7) with surge suppressor/light	Note 18	●	●	●	●	●	●	●
BN	DIN terminal box (Pg7) (without terminal box) with surge suppressor/light	Note 18	●	●	●	●	●	●	●
E type connector type (upward/lateral direction common)									
E0	Lead wire (300 mm)	Note 19	●	●	●	●	●	●	●
E00	Lead wire (500mm)	Note 19	●	●	●	●	●	●	●
E01	Lead wire (1000mm)	Note 19	●	●	●	●	●	●	●
E02	Lead wire (2000mm)	Note 19	●	●	●	●	●	●	●
E03	Lead wire (3000mm)	Note 19	●	●	●	●	●	●	●
E0N	Without lead wire (without socket)	Note 19	●	●	●	●	●	●	●
E1	Without lead wire (with socket/terminal)	Note 19	●	●	●	●	●	●	●
E2	Lead wire (300mm) With surge suppressor/light	●	●	●	●	●	●	●	●
E20	Lead wire (500mm) With surge suppressor/light	●	●	●	●	●	●	●	●
E21	Lead wire (1000mm) With surge suppressor/light	●	●	●	●	●	●	●	●
E22	Lead wire (2000mm) With surge suppressor/light	●	●	●	●	●	●	●	●
E23	Lead wire (3000mm) With surge suppressor/light	●	●	●	●	●	●	●	●
E2N	Without lead wire (without socket) with surge suppressor/light	●	●	●	●	●	●	●	●
E3	Without lead wire (with socket/terminal) with surge suppressor/light	●	●	●	●	●	●	●	●
EJ type connector type (socket with cover, upward/lateral direction common)									
E01J	Lead wire (1000 mm)	Note 19	●	●	●	●	●	●	●
E02J	Lead wire (2000mm)	Note 19	●	●	●	●	●	●	●
E03J	Lead wire (3000mm)	Note 19	●	●	●	●	●	●	●
E21J	Lead wire (1000mm) With surge suppressor/light	●	●	●	●	●	●	●	●
E22J	Lead wire (2000mm) With surge suppressor/light	●	●	●	●	●	●	●	●
E23J	Lead wire (3000mm) With surge suppressor/light	●	●	●	●	●	●	●	●

● is not available.

○ Contact CKD for price and availability.

Note 9 3-position all ports closed and PAB connection are not provided with malfunction prevention valve (H). Refer to page 628 for details on malfunction prevention valve.

Note 10 Contact CKD when using a vacuum with the external pilot (K).

Note 11 In addition, the surgeless "S" and low heat energy-saving circuit "E" cannot be selected at the same time.

Note 12 This is surgeless specifications.

Note 13 The P port has a filter built inside as a standard.

Note 14 Specify the spacer mounting position and quantity in manifold specifications. Stacking multiple spacers is not supported. Combination with the masking plate is not supported. Items other than single solenoids cannot be selected at the same time as the L type push-in fitting (upward). Refer to page 287 to 291 for details.

Note 15 Combination with the external pilot (K) is not available.

Note 16 Only the DIN terminal box are supported.

Note 17 Grommet lead wire specifications are only for DC voltage.

Note 18 Supports AC voltage and 12/24 VDC. The light is also attached to the terminal box.

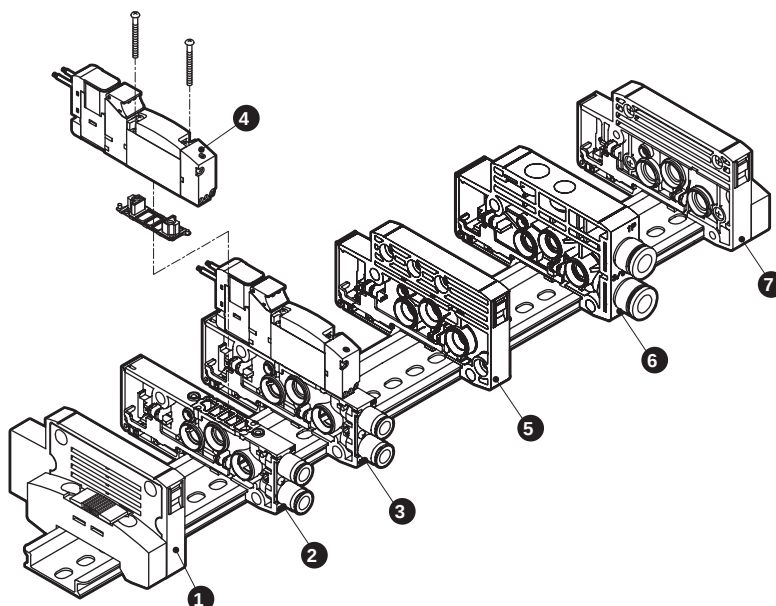
Note 19 AC voltage comes with a rectifier circuit.

Note 20 Combination with the push-in fitting L type (upward) is not available.

MN4GB1/2 Series

Individual wiring manifold; base piping

Manifold components explanation and parts list



Main parts list (refer to page 276 to 294 for details)

Product No.	Component name	Model no. (example)	No.	Component name	Model no. (example)
1	End block L	N4G1R - EL	5	Partition block	N4G1R-S
2	Discrete valve block	N4GB1R-V1-C6	6	Supply and exhaust block	N4G1R-Q-8
3	Discrete valve block with solenoid valve	N4GB110R-C6-H-3	7	End block R	N4G1R-ER
4	Solenoid valve body	4GB119R-00-H-3			

B type reduced wiring weight

4GB1

Block type	Weight	Block type	Weight
Valve block with solenoid valve		Supply and exhaust block	
N4GB110R-C6	67	N4G1R-Q-8	58
N4GB120R-C6	84	N4G1R-QK-8	60
N4GB1 0R-C6	85	End block	
N3GB1660R-C6-3	84	N4G1R-E*	60
		N4G1R-EX*	60
Valve block with masking plate		Partition block	
N4GB1R-MP-C6	37	N4G1R-S	45

4GB2

Block type	Weight	Block type	Weight
Valve block with solenoid valve		Supply and exhaust block	
N4GB210R-C8	128	N4G2R-Q-10	83
N4GB220R-C8	145	N4G2R-QK-10	85
N4GB2 0R-C8	156	End block	
N4GB2660R-C8-3	145	N4G2R-E*	84
		N4G2R-EX*	85
Valve block with masking plate		Partition block	
N4GB2R-MP-C8	69	N4G2R-S	60

Parts list

Application	Parts name	Model no.	Application	Parts name	Model no.
Valve 4G1	φ1.8 barbed type	4G1R-JOINT-CF	Valve 4G2	φ1/4 inch elbow type Note 1	4G2R-JOINT-CL6N
	φ1.8 straight type	4G1R-JOINT-C18		φ5/16 inch elbow type Note 1	4G2R-JOINT-CL8N
	φ4 straight type	4G1R-JOINT-C4		Plug cartridge	4G2R-JOINT-CPG
	φ6 straight type	4G1R-JOINT-C6	Valve	Coil assembly	4GR-[*1]-[*2]-COIL-[*3]
	φ1.8 elbow type	4G1R-JOINT-CL18,CLL18			*1: Electrical connection (blank, B, E0, ...), *2: Ozone/cutting oil proof (blank, A) *3: Voltage (1,2,3,4)
	φ4 elbow type	4G1R-JOINT-CL4,CLL4			4GR-SOCKET-ASSY-[*1]-[*3]
	φ6 elbow type	4G1R-JOINT-CL6,CLL6			*1: Electrical connection (E0, E00...), *3: Voltage (1,3,4)
	φ1/8 inch straight type	4G1R-JOINT-C3N		E type connector socket assembly	4GR-SOCKET-ASSY-[*1]
	φ5/32 inch straight type	4G1R-JOINT-C4N			*1: Electrical connection (E01J, E02J, ...)
	φ1/8 inch elbow type Note 1	4G1R-JOINT-CL3N	Valve 4G2	DIN terminal box assembly	4GR-TERMINAL-BOX-[*3]
	φ5/32 inch elbow type Note 1	4G1R-JOINT-CL4N			*3: Voltage (1,2,3,4)
	Plug cartridge	4G1R-JOINT-CPG			
Valve 4G2	φ4 straight type	4G2R-JOINT-C4			
	φ6 straight type	4G2R-JOINT-C6			
	φ8 straight type	4G2R-JOINT-C8			
	φ6 elbow type	4G2R-JOINT-CL6,CLL6			
	φ8 elbow type	4G2R-JOINT-CL8,CLL8			
	φ1/4 inch straight type	4G2R-JOINT-C6N			
	φ5/16 inch straight type	4G2R-JOINT-C8N			

Note 1: This is a available consult factory order.

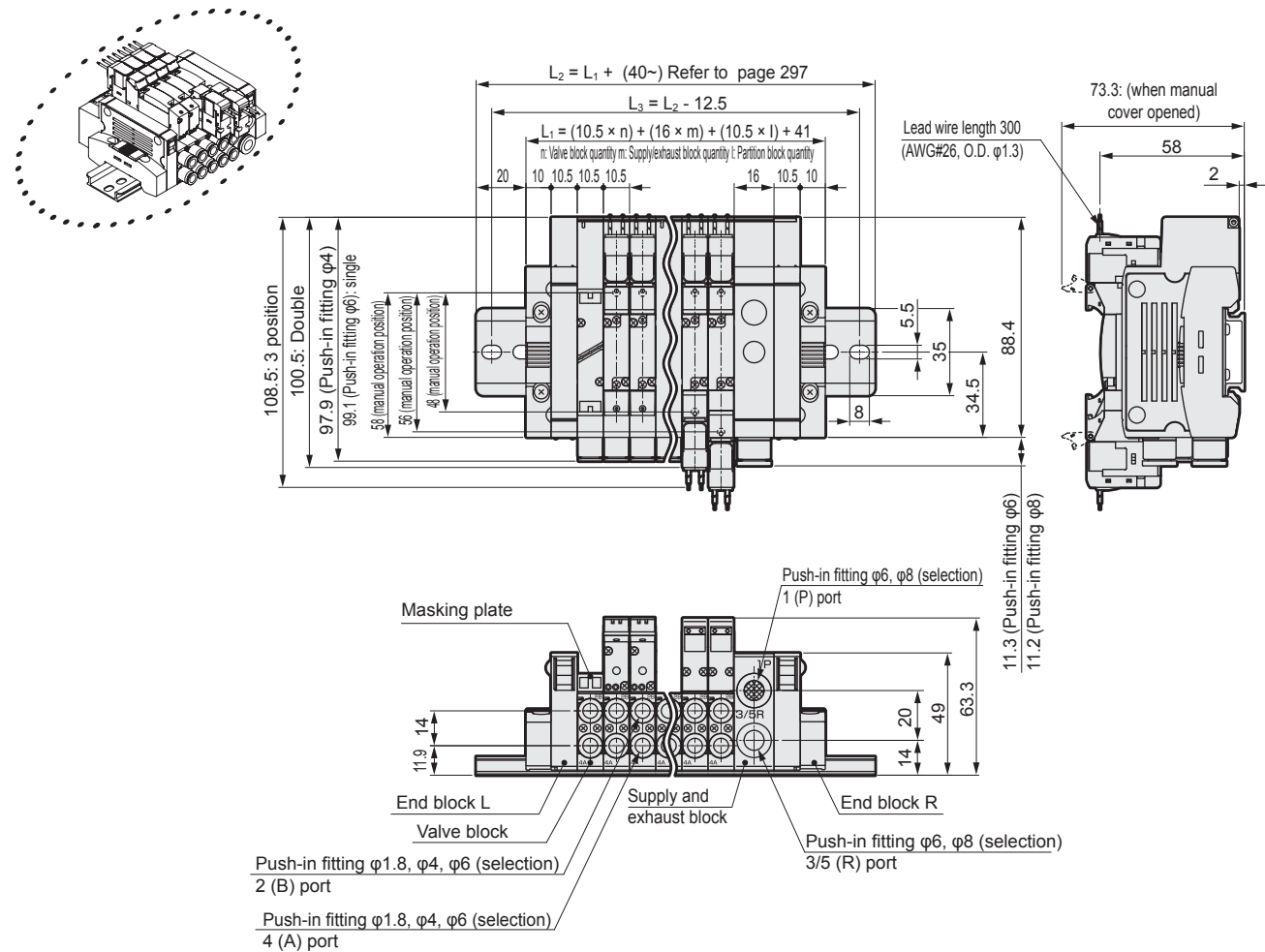
Dimensions



MN4GB1

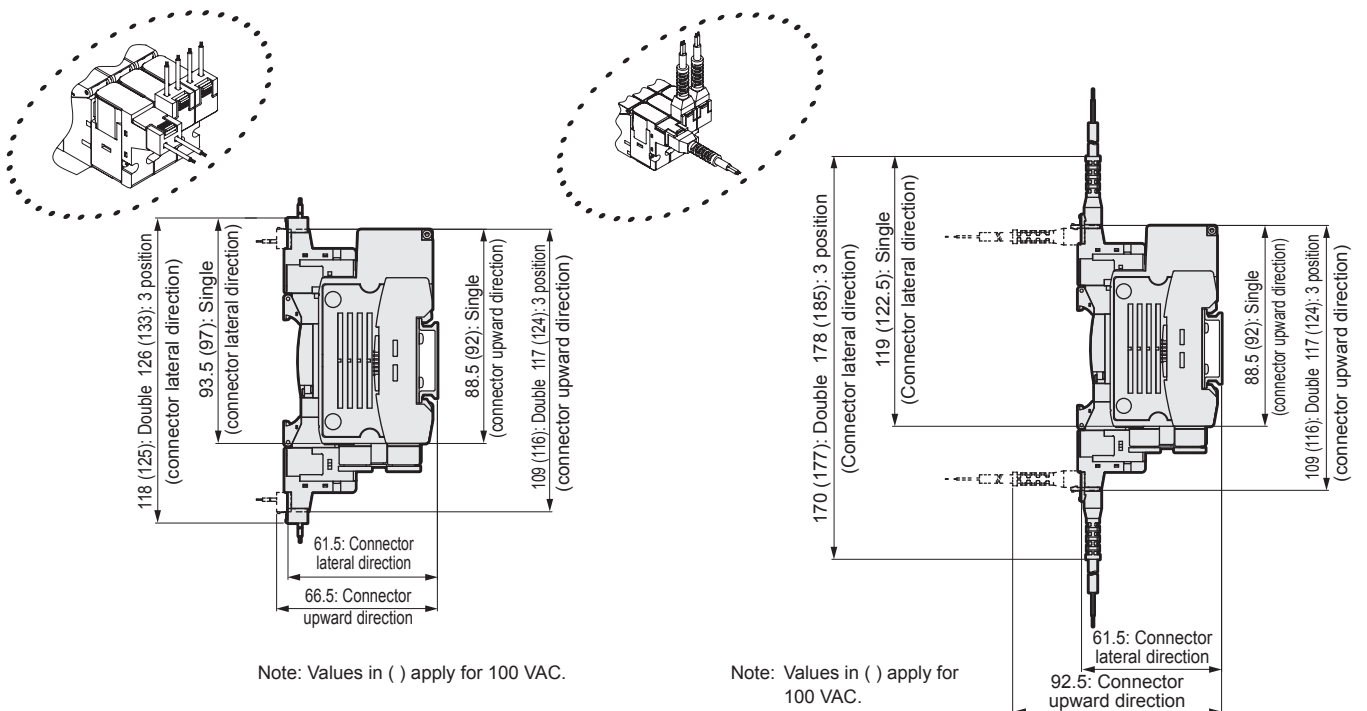
- Grommet lead wire (blank)

* For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.



- E type connector type (E)

- EJ type connector type (E**J)



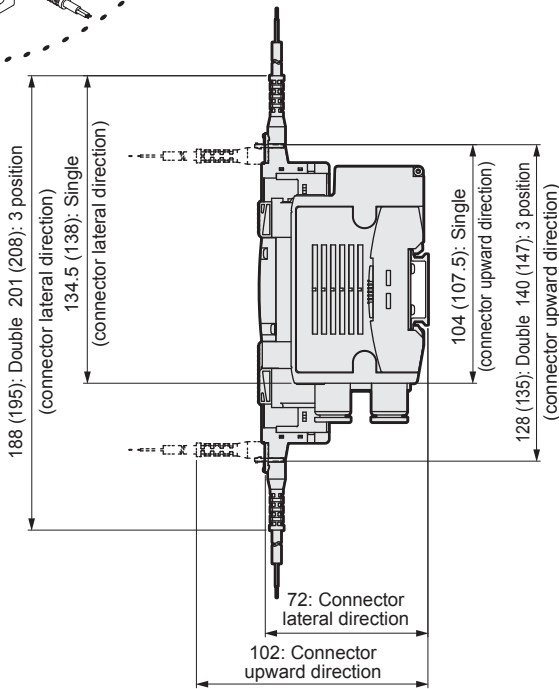
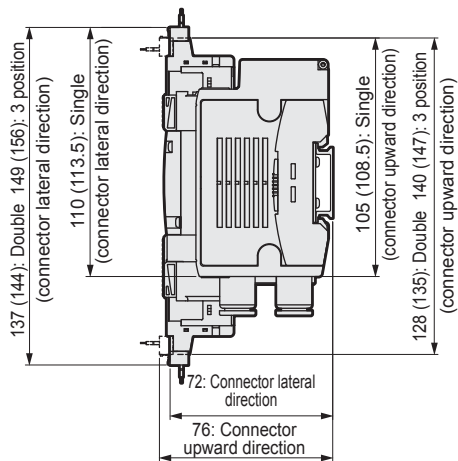
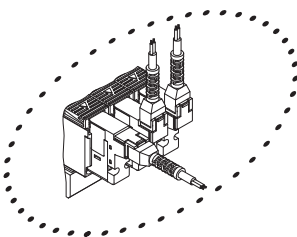
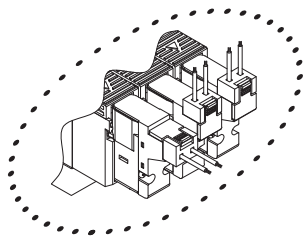
* Refer to page 266 for the dimension drawings of the push-in fitting for valve block and supply/exhaust block.



Dimensions

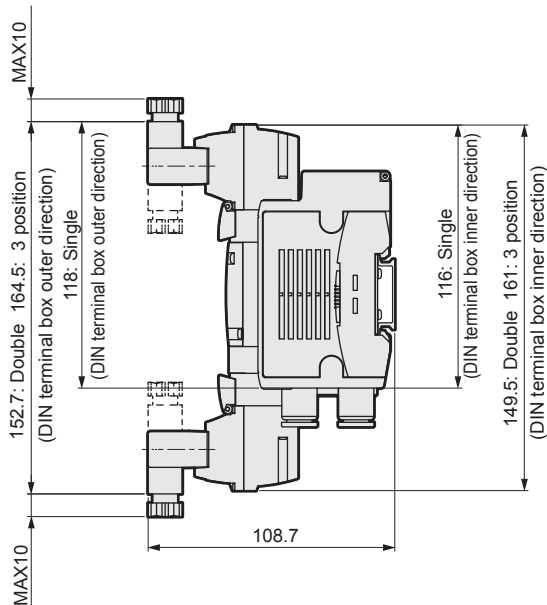
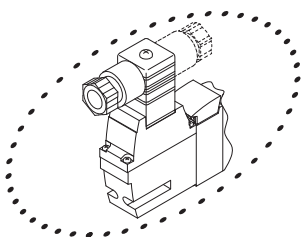
● E type connector type (E)

● EJ type connector type (E**J)



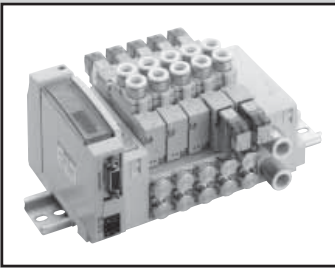
Note: Values in () apply for 100 VAC.

● DIN terminal box type (B)



Note: The DIN terminal box assembly is shipped facing inward.

4GAB	M4GA/B	MN4GA/B	4GAB Master valve	4GD/E	M4GD/E	MN4GD/E	Technical data	Safety precautions
							Manifold Specifications	



Reduced wiring block manifold
Body piping

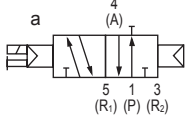
MN4GA1, 2-T* Series

● Applicable cylinder bore size: $\phi 20 \sim \phi 80$

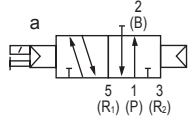


JIS symbol

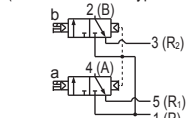
- 3 port valve
2-position single N.C. type



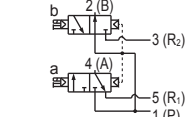
2-position single N.O. type



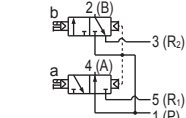
- Dual 3 port valve integrated type
(A side valve: N.C. type, B side valve: N.C. type)



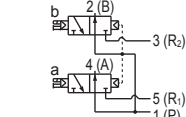
(A side valve: N.C. type, B side valve: N.O. type)



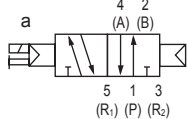
(A side valve: N.O. type, B side valve: N.C. type)



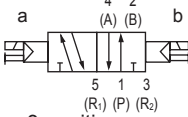
(A side valve: N.O. type, B side valve: N.O. type)



- 5 port valve
2-position single

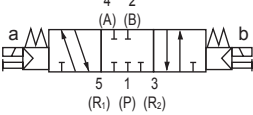


2-position double

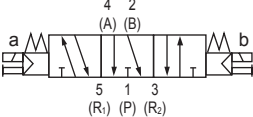


3-position

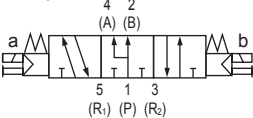
All ports closed



3-position A/B/R Connection



3-position P/A/B Connection



Manifold common specifications

Descriptions	
Manifold type	Block manifold
Mounting method	DIN rail mount type
Supply and exhaust method	Common supply/common exhaust (malfunction prevention valve integrated)
Pilot exhaust method	Main valve/pilot valve common exhaust (Pilot exhaust check valve integrated)
Piping direction	Valve top direction
Valve type and operation method	Pilot-operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	0.7
Min. working pressure MPa	0.2 Note 3
Proof pressure MPa	1.05
Ambient temperature °C	-5 to 55 (no freezing)
Fluid temperature °C	5 to 55
Manual operating device	Non-locking/locking common type (standard)
Lubrication Note 1	Not required
Degree of protection Note 2	Dust proof
Vibration resistance m/s ²	50 or less
Vibration resistance m/s ²	300 or less
Atmosphere	Containing corrosive gas is not permissible

Note 1 Use the turbine oil Class 1 ISO VG32 if lubricated. Excessive or intermittent lubrication results in unstable operation.

Note 2 The degree of protection is dust proof. The unit is not water proof. Avoid water drops or oil, etc. during use.

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

Individual specifications

Descriptions		MN3GA1/MN4GA1									
Max. station no.	Standard wiring	T10	T11	T30	T50	T51	T52	T53	T6*0/1	T7*0/1	T8*1/2
		16 station	24 station	24 station	16 station	18 station	8 station	24 station	8/16 stations	8/16 stations	16/24 stations
Max. number of solenoid	Double wiring	8 station	12 station	12 station	8 station	9 station	4 station	12 station	4/8 stations	4/8 stations	8/16 stations
		16 points	24 points	24 points	16 points	18 points	8 points	24 points	8/16 points	8/16 points	16/32 points
Port size	Milli fitting/M5, Rc thread	A/B port		Barbed fitting $\phi 1.8$ push-in fitting $\phi 1.8, \phi 4, \phi 6$ M5							
		P/R port		Push-in fitting $\phi 6, \phi 8$							
	Inch fitting/M5, NPT thread	A/B port		Push-in fitting $\phi 1/8$ inch, $\phi 5/32$ inch M5							
		P/R port		Push-in fitting $\phi 1/4$ inch, $\phi 5/16$ inch							
	Milli fitting/G thread	A/B port									
		P/R port									

Descriptions		MN3GA2/MN4GA2									
Max. station no.	Standard wiring	T10	T11	T30	T50	T51	T52	T53	T6*0/1	T7*0/1	T8*1/2
		16 station	20 station	20 station	16 station	18 station	8 station	20 station	8/16 stations	8/16 stations	16/20 stations
Max. number of solenoid	Double wiring	8 station	12 station	12 station	8 station	9 station	4 station	12 station	4/8 stations	4/8 stations	8/16 stations
		16 points	24 points	24 points	16 points	18 points	8 points	24 points	8/16 points	8/16 points	16/32 points
Port size	Milli fitting/M5, Rc thread	A/B port		Push-in fitting $\phi 4, \phi 6, \phi 8$ Rc1/8							
		P/R port		Push-in fitting $\phi 8, \phi 10$							
	Inch fitting/M5, NPT thread	A/B port		Push-in fitting $\phi 1/4$ inch, $\phi 5/16$ inch 1/8NPT							
		P/R port		Push-in fitting $\phi 5/16$ inch, $\phi 3/8$ inch							
	Milli fitting/G thread	A/B port		G1/8							
		P/R port		Push-in fitting $\phi 8, \phi 10$							

Refer to page 240 for weight.

flow characteristics

Model no.	Valve Position	P→A/B		A/B→R1/R2	
		C (dm ³ /(s·bar))	b	C (dm ³ /(s·bar))	b
MN3GA1 MN4GA1	Dual 3 port valve integrated type	0.87	0.37	1.0 (0.68)	0.14 (0.22)
	2-position	0.98	0.33	1.2 (0.71)	0.11 (0.27)
	3-position	All ports closed	0.92	1.0 -	0.16 -
		ABR connection	0.92	1.1 (0.69)	0.13 (0.22)
		PAB connection	1.1	1.1 -	0.17 -
MN3GA2 MN4GA2	Dual 3 port valve integrated type	1.7	0.37	2.2 (1.6)	0.13 (0.21)
	2-position	2.2	0.21	2.5 (1.7)	0.19 (0.10)
	3-position	All ports closed	2.0	2.3 -	0.10 -
		ABR connection	2.0	2.5 (1.7)	0.18 (0.12)
		PAB connection	2.3	2.3 -	0.16 -

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

Note 2: Values in () apply when a malfunction prevention valve is attached.

Reduced wiring specifications

Descriptions	T10	T11	T30	T50	T51	T52	T53
Type	Common terminal block M3 thread type	Common terminal block push tightening system	D sub-connector	20 pin flat cable connector (with power supply terminal)	20 pin flat cable connector (without power supply terminal)	10 pin flat cable connector (without power supply terminal)	26 pin flat cable connector (without power supply terminal)
Connector	-	-	D sub-connector 25 pin	MIL-C-83503 standard compliant pressure welding 20-pin socket	MIL-C-83503 standard compliant pressure welding 20-pin socket	MIL-C-83503 standard compliant pressure welding 10-pin socket	MIL-C-83503 standard compliant pressure welding 26-pin socket

Serial transmission slave unit specifications (refer to page 611 for applicable PLC table)

Descriptions		T6G1	T6C0*1	T6C1*1	T6A0*2	T6A1*2	T6J0*2	T6J1*2	T6E0	T6E1
Network name		CC-Link ver1.10	CompoBus/S		UNIWIRESYSTEM		UNIWIRESYSTEM H		S-LINK	
Power supply voltage	Unit side	24 VDC ±10%			24 VDC +10%, -5% Power supply terminal common					
	Valve side	24 VDC +10%, -5%								
Current consumption	Unit side	100 mA or less (when all output points are ON)			100 mA or less (when all output points are ON) Load current is not included					
	Valve side	15 mA or less (when all output points are OFF)								
Output points		16 points	8 points	16 points	8 points	16 points	8 points	16 points	8 points	16 points
Occupied number		1 station	1 node address (8-point mode)	2 node address (8-point mode)	Output 8 points	Output 16 points	Output 8 points	Output 16 points	FAN-in: 3 *3	FAN-in: 3 *3
Operation display		LED (power supply and communication state)								
Output type		NPN								

Descriptions		T7C0*4	T7C1*4	T7E0	T7E1	T7G1	T7L1*5	T7D1	T7S1	T7SP1
Network name		CompoBus/S		S-LINK		CC-Link ver1.10	SAVE NET	DeviceNet*6, *7	CompoNet	
Power supply voltage	Unit side	24 VDC ±10%		24 VDC +10%, -5%						
	Valve side	24 VDC +10%, -5%		Power supply terminal common						
	Communication side	-		-		-	-	11 VDC to 25 VDC *8	14.0 VDC to 26.4 VDC	
Current consumption	Unit side	50 mA or less (when all output points are ON)		90 mA or less (when all output points are ON) Load current is not included		110 mA or less (when all output points are ON) Load current is not included			40 mA or less (when all output points are ON) Load current is not included	
	Valve side	15 mA or less (when all output points are OFF)								
	Communication side	-		-		-	-	50 mA or less	65 mA or less (all points ON: 24 VDC) 95 mA or less (all points ON: 14 VDC)	
Output points		8 points	16 points	8 points	16 points	16 points	16 points	16 points	16 points	
Occupied number		1 node address (8-point mode)	2 node address (8-point mode)	FAN-in: 3 *3	FAN-in: 3 *3	1 station	1 station	2 bytes	Word slave 1 node (16 points)	
Operation display		LED (power supply and communication state)								
Output type		NPN							NPN	PNP

Descriptions		T8G1	T8GP1	T8P1	T8PP1	T8EC1	T8ECP1	T8EN1	T8ENP1
		T8G2	T8GP2	T8P2	T8PP2	T8EC2	T8ECP2	T8EN2	T8ENP2
Network name		CC-Link ver1.10		PROFIBUS-DP(V0)		EtherCAT		EtherNet/IP	
Power supply voltage	Unit side	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)		
	Valve side	T8*1: 15 mA or less T8*2: 20 mA or less (when all output points are ON) Load current is not included							
Output points		T8*1: 16 points T8*2: 32 points							
Occupied number		1 station							
Operation display		LED (power supply and communication state)							
Output type		NPN output	PNP output	NPN output	PNP output	NPN output	PNP output	NPN output	PNP output

*1 The long-distance communication mode is not available.

*2 Compatible with 128 transmission points and a transmission distance of 200 m. Contact CKD for other specifications.

*3 FAN-in indicates the capacity of the input from the D-G line. It is necessary to calculate the number of units to be connected.

*4 The long-distance communication mode is available.

*5 Compatible with a transmission bit rate of 128 bits and the transmission method of semi-duplicated communication. Contact CKD for other specifications.

*6 Compatible with DeviceNet compliant networks (DLNK, etc.) as well.

*7 Contact CKD for EDS file. EDS file: A file containing text for parameters for communication with masters of each company.

MN4GA1/2-T* Series

Reduced wiring manifold; body piping

How to order

Manifold model no.

MN4GA1 **1** **0** **R** - **C6** - **T30** **W** **H** - **10** - **3**

3 port manifold model no.

MN3GA1 **1** **0** **R** - **C6** - **T30** **W** **H** - **10** - **3**

Discrete valve block with solenoid valve

N4GA1 **1** **0** **R** - **C6** - **A2N** **1** **H** - **3**

Discrete 3 port valve block with solenoid valve

N3GA1 **1** **0** **R** - **C6** - **A2N** **1** **H** - **3**

Discrete solenoid valve

4GA1 **1** **9** **R** - **C6** - **A2N** **H** - **3**

Discrete 3 port solenoid valve

3GA1 **1** **9** **R** - **C6** - **A2N** **H** - **3**

A Model no.

B Valve Position

C Port size
Note 1

⚠ Cautions for model No. selection

- Note 1 Designate P/R port sizes with the supply/exhaust block in manifold specifications.
- Note 2 Select MN4GA*80R when mixing with 4, 5 port valves. Select MN4GA*80R when mixing with the masking plate.
- Note 3 Combination with the external pilot (K) is not available.
Dimensions are the same as the respective 2-position double solenoid.
- Note 4 The push-in fitting cannot be mixed with the discrete valve's 4 (A) or 2 (B) port.
- Note 5 Blank.....Wired based on the type of valve used.
W*.....Wired for the double solenoid regardless of the type of valve used.
- Note 6 Reduced wiring (A type socket assembly) is attached to the cap side. The discrete valve (A2N) comes with a holder for holding the socket assembly. Refer to page 293 for details.
- Note 7 3-position all ports closed and PAB connection are not provided with malfunction prevention valve (H). Refer to page 628 for details on malfunction prevention valve.
- Note 8 Contact CKD when using a vacuum with the external pilot (K).
- Note 9 In addition, the surgeless "S" and low heat energy-saving circuit "E" cannot be selected at the same time.
- Note 10 This is surgeless specifications.
- Note 11 The P port has a filter built inside as a standard.
- Note 12 Specify the spacer mounting position and quantity in manifold specifications. Stacking multiple spacers is not supported. Combination with the masking plate is not supported. Refer to page 287 to 291 for details.
- Note 13 Combination with the external pilot (K) is not available.

D Reduced wiring connection

E Terminal and connector pin array

F Option

G Station no.

H Voltage

A Model No.

Manifold		Discrete block with solenoid valve			
3 port valve	5 port valve	Discrete solenoid valve			
MN3GA1	MN3GA2	MN4GA1	MN4GA2	(N) 3GA1	(N) 3GA2
		(N) 4GA1	(N) 4GA2		

Symbol	Descriptions		M	M	M	N	N	N	N	
B Valve 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		Note 2	●	●			●	●	
11	2-position single normally open		Note 2	●	●			●	●	
66	Dual 3 port valve integrated type Note 2, 3	A side valve: Normally closed		●	●			●	●	
		B side valve: Normally closed								
67		A side valve: Normally closed		●	●			●	●	
		B side valve: Normally open								
76		A side valve: Normally open		●	●			●	●	
		B side valve: Normally closed								
77		A side valve: Normally open		●	●			●	●	
		B side valve: Normally open								
8	Mix manifold (In case of multiple Valve Positions)			●	●	●	●	●	●	●

C Port size (A/B port)										
Type	Milli fitting/Rc thread									
CF	Barbed fitting ϕ 1.8 (applicable tube UP-9102-**))									
C18	Push-in fitting for fiber ϕ 1.8 (applicable tube UP-9402-**))									
C4	Push-in fitting ϕ 4									
C6	Push-in fitting ϕ 6									
C8	Push-in fitting ϕ 8									
CX	Push-in fitting mix		Note 4							
M5	M5									
06	Rc1/8									
Type	Inch fitting/Inch thread									
C3N	ϕ 1/8 inch	push-in fitting								
C4N	ϕ 5/32 inch	push-in fitting								
C6N	ϕ 1/4 inch	push-in fitting								
C8N	ϕ 5/16 inch	push-in fitting								
CXN	Push-in fitting mix		Note 4							
06N	1/8NPT									
Type	G thread									
06G	G1/8									

D Reduced wiring connection, serial transmission

Refer to the next page for wire connections, serial transmission.

E Terminal connector pin array

Blank	Standard wiring	Note 5								
W	Double wiring	Note 5								
W1	Double wiring (With single reduced wiring)	Note 5, 6								

F Option

Blank	Non-locking/locking common manual override									
M	Non-locking manual override									
H	With malfunction prevention valve	Note 7								
K	External pilot	Note 8								
A	Ozone/cutting oil proof									
S	Surgeless	Note 9								
E	Low heat and energy saving circuit	Note 9, 10								
Q	Reduced wiring mall									
F	A/B port filter integrated	Note 11								
Z1	Air supply spacer	Note 12								
Z2	In stop valve spacer	Note 12, Note 13								
Z3	Exhaust spacer	Note 12								

G Station no.

1	1 station									
to	to									
24	24 stations (Refer to page 236 for the max. station no. for each model)									

H Voltage

3	24 VDC									
4	12 VDC									

is not available.

MN4GA1/2-T* Series

Reduced wiring manifold; body piping

			A Model No.							
			Manifold				Discrete valveblock with solenoid valve			
			Dual 3 port valve integrated type		5 port valve		Discrete solenoid valve			
			MN3GA1	MN3GA2	MN4GA1	MN4GA2	(N) 3GA1	(N) 3GA2	(N) 4GA1	(N) 4GA2
D Reduced wiring connection (light and surge suppressor provided as standard) 12/24 VDC										
T10	Common terminal block (M3 thread)	Left side specifications	●	●	●	●				
T10R		Right side specifications	●	●	●	●				
T11	Common terminal block (push tightening)	Left side specifications	●	●	●	●				
T11R		Right side specifications	●	●	●	●				
T30	D sub-connector	Left side specifications	●	●	●	●				
T30R		Right side specifications	●	●	●	●				
T50	20 pin flat cable connector (with power supply terminal)	Left side specifications	●	●	●	●				
T50R		Right side specifications	●	●	●	●				
T51	20 pin flat cable connector (without power supply terminal)	Left side specifications	●	●	●	●				
T51R		Right side specifications	●	●	●	●				
T52	10 pin flat cable connector (without power supply terminal)	Left side specifications	●	●	●	●				
T52R		Right side specifications	●	●	●	●				
T53	26 pin flat cable connector (without power supply terminal)	Left side specifications	●	●	●	●				
T53R		Right side specifications	●	●	●	●				
D Serial transmission (light and surge suppressor provided as standard) 24 VDC										
T6A0	UNIWIRED SYSTEM	NPN 8 points	●	●	●	●				
T6A1		NPN 16 points	●	●	●	●				
T6C0	CompoBus/S	NPN 8 points	●	●	●	●				
T6C1		NPN 16 points	●	●	●	●				
T6E0	S-LINK	NPN 8 points	●	●	●	●				
T6E1		NPN 16 points	●	●	●	●				
T6G1	CC-Link	NPN 16 points	●	●	●	●				
T6J0		NPN 8 points	●	●	●	●				
T6J1	UNIWIRED H SYSTEM	NPN 16 points	●	●	●	●				
T7C0		NPN 8 points	●	●	●	●				
T7C1	Thin type CompoBus/S	NPN 16 points	●	●	●	●				
T7D1		NPN 16 points	●	●	●	●				
T7E0	Thin type DeviceNet	NPN 8 points	●	●	●	●				
T7E1		NPN 16 points	●	●	●	●				
T7G1	Thin type S-LINK	NPN 16 points	●	●	●	●				
T7L1		NPN 16 points	●	●	●	●				
T7S1	Thin type CC-Link	NPN 16 points	●	●	●	●				
T7SP1		PNP 16 points	●	●	●	●				
T8G1	Thin type SAVE NET	NPN 16 points	●	●	●	●				
T8G2		PNP 16 points	●	●	●	●				
T8GP1	Thin type CompoNet	NPN 16 points	●	●	●	●				
T8GP2		PNP 32 points	●	●	●	●				
T8P1	Thin type CC-Link	NPN 16 points	●	●	●	●				
T8P2		NPN 32 points	●	●	●	●				
T8PP1	Thin type PROFIBUS-DP	PNP 16 points	●	●	●	●				
T8PP2		PNP 32 points	●	●	●	●				
T8EC1	Thin type EtherCAT	NPN 16 points	●	●	●	●				
T8EC2		NPN 32 points	●	●	●	●				
T8ECP1	Thin type EtherNet/IP	PNP 16 points	●	●	●	●				
T8ECP2		PNP 32 points	●	●	●	●				
T8EN1	Thin type EtherNet/IP	NPN 16 points	●	●	●	●				
T8EN2		NPN 32 points	●	●	●	●				
T8ENP1	Without lead wire (without socket)	PNP 16 points	●	●	●	●				
T8ENP2		PNP 32 points	●	●	●	●				
A2N	with surge suppressor/light						●	●	●	●

Ozone specifications / Coolant proof specifications

Select the option "A" of (F) in how to order on page 238.

Clean room specifications (Catalog No. CB-033SA)

● Clean room specifications

** - Voltage - P7*

Specifications for secondary battery (Catalog No. CC-947A)

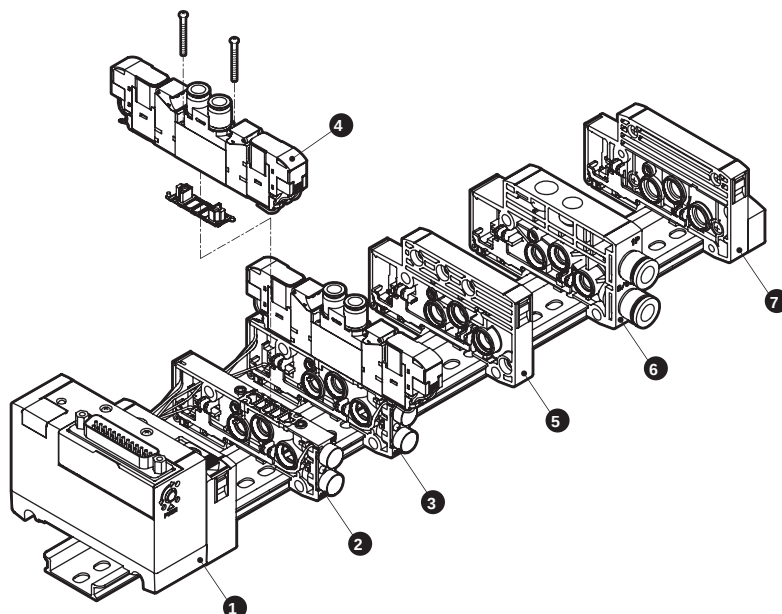
● In order to be applicable for secondary battery manufacturing process, confine materials for air passage and sliding section

** - Voltage - P4

MN4GA1/2-T* Series

Reduced wiring manifold; body piping

Manifold components explanation and parts list



Main parts list (refer to page 276 to 294 for details)

Product No.	Component name	Model no. (example)	No.	Component name	Model no. (example)
1	Electrical block	N4G1R-T30	5	Partition block	N4G1R-S
2	Discrete valve block	N4GA1R-V2	6	Supply and exhaust block	N4G1R-Q-8
3	Discrete valve block with solenoid valve	N4GA120R-C6-A2NH-3	7	End block R	N4G1R-ER
4	Solenoid valve body	4GA129R-C6-A2NH-3			

A type reduced wiring weight

4GA1

Parts name	Model no.	Weight	Parts name	Model no.	Weight	Parts name	Model no.	Weight
Valve block with solenoid valve	N3GA110R-C6-A2N-3	72	Supply and exhaust block	N4G1R-Q-8	58	Electrical block	N4G1R-T10(R)	207
	N3GA1110R-C6-A2N-3	72		N4G1R-QK-8	60		N4G1R-T30(R)	165
	N4GA110R-C6-A2N-3	72	End block	N4G1R-E*	60		N4G1R-T50(R)	167
	N4GA120R-C6-A2N-3	91		N4G1R-EX*	60		N4G1R-T6*	295
	N4GA1 $\frac{3}{4}$ 0R-C6-A2N-3	95	Partition block	N4G1R-S	45		N4G1R-T7*	203
	N3GA1660R-C6-A2N-3	91					N4G1R-T8*	229
Valve block with masking plate	N4GA1R-MP*-C6	34						

4GA2

Parts name	Model no.	Weight	Parts name	Model no.	Weight	Parts name	Model no.	Weight
Valve block with solenoid valve	N3GA210R-C8-A2N-3	131	Supply and exhaust block	N4G2R-Q-10	83	Electrical block	N4G2R-T10(R)	223
	N3GA2110R-C8-A2N-3	131		N4G2R-QK-10	85		N4G2R-T30(R)	182
	N4GA210R-C8-A2N-3	131	End block	N4G2R-E*	84		N4G2R-T50(R)	184
	N4GA220R-C8-A2N-3	151		N4G2R-EX*	85		N4G2R-T6*	312
	N4GA2 $\frac{3}{4}$ 0R-C8-A2N-3	163	Partition block	N4G2R-S	60		N4G2R-T7*	204
	N4GA2660R-C8-A2N-3	151					N4G2R-T8*	242
Valve block with masking plate	N4GA2R-MP*-C8	66						

Parts list

Application	Parts name	Model no.	Application	Parts name	Model no.
Valve 4G1	Cartridge fitting ϕ 1.8 barbed type	4G1R-JOINT-CF	Valve	Coil assembly	4GR-A2N-[*2]-COIL-[*3] *2: Ozone/cutting oil proof (Blank, A) *3: Voltage (3,4)
	Cartridge fitting ϕ 1.8 straight type	4G1R-JOINT-C18			
	Cartridge fitting ϕ 4 straight type	4G1R-JOINT-C4			
	Cartridge fitting ϕ 6 straight type	4G1R-JOINT-C6			
	Cartridge fitting ϕ 1/8 inch straight type	4G1R-JOINT-C3N			
	Cartridge fitting ϕ 5/32 inch straight type	4G1R-JOINT-C4N			
Valve 4G2	Plug cartridge	4G1R-JOINT-CPG	Manifold	Expansion socket assembly model no. (Details on page 613)	For a side solenoid N4GR-SOCKET-ASSY-(Selection no.) For b side solenoid N4GR-RELAY-SOCKET-(Selection no.)
	Cartridge fitting ϕ 4 straight type	4G2R-JOINT-C4			
	Cartridge fitting ϕ 6 straight type	4G2R-JOINT-C6			
	Cartridge fitting ϕ 8 straight type	4G2R-JOINT-C8			
	Cartridge fitting ϕ 1/4 inch straight type	4G2R-JOINT-C6N			
	Cartridge fitting ϕ 5/16 inch straight type	4G2R-JOINT-C8N			
	Plug cartridge	4G2R-JOINT-CPG			

4GA/B	M4GA/B	MN4GA/B	4GA/B Master valve	4GD/E	M4GD/E	MN4GD/E	Technical data	Safety precautions	Manifold Specifications
-------	--------	---------	-----------------------	-------	--------	---------	----------------	-----------------------	----------------------------

MN4GA1/2-T10 Series

Reduced wiring manifold; body piping

Dimensions



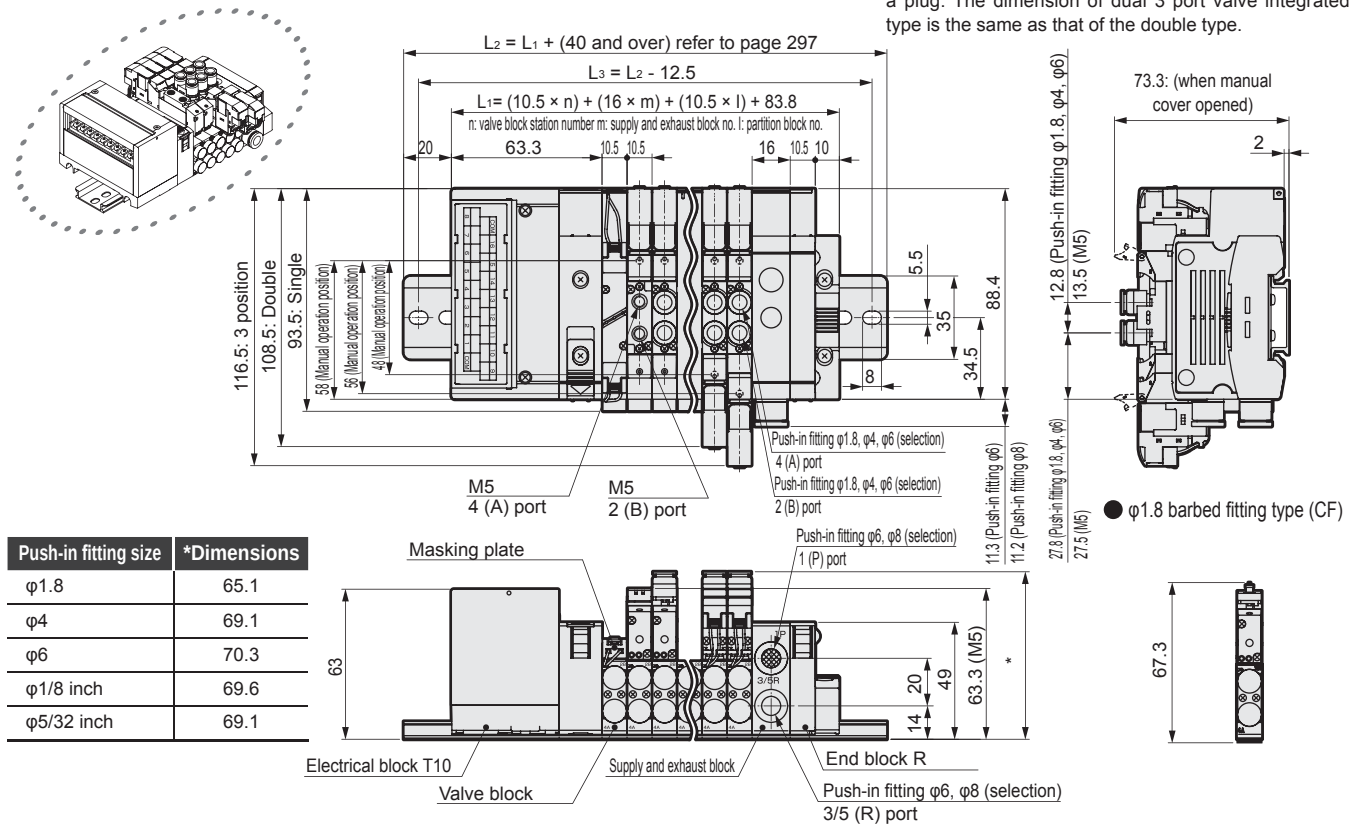
MN4GA1

● Common terminal block (M3 thread) Left side (T10)

Note 1: There are push tightening specifications (T11)

The dimensions are the same as T10.

Note 2: For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.

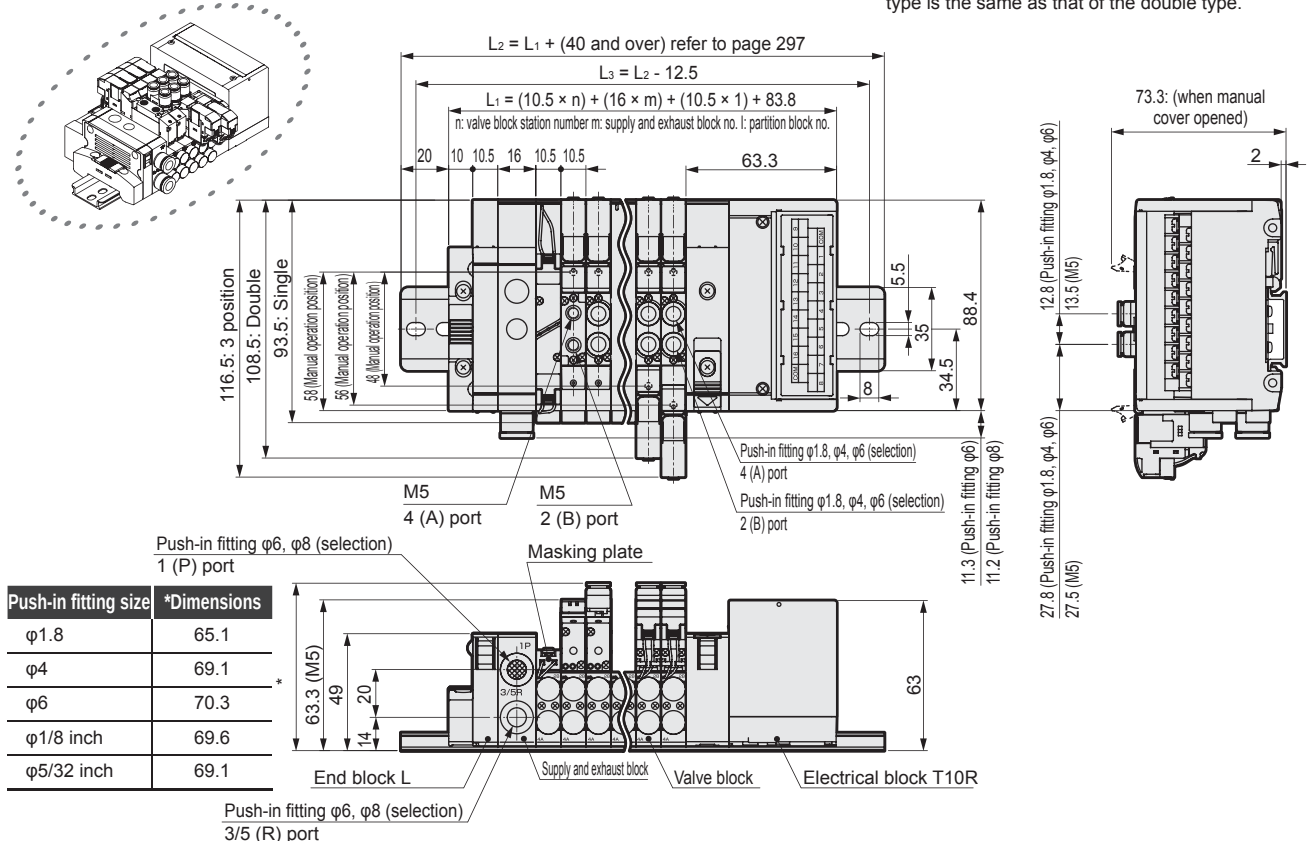


● Common terminal block (M3 thread) Right side (T10R)

Note 1: There are push tightening specifications (T11R).

The dimensions are the same as T10R.

Note 2: For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.

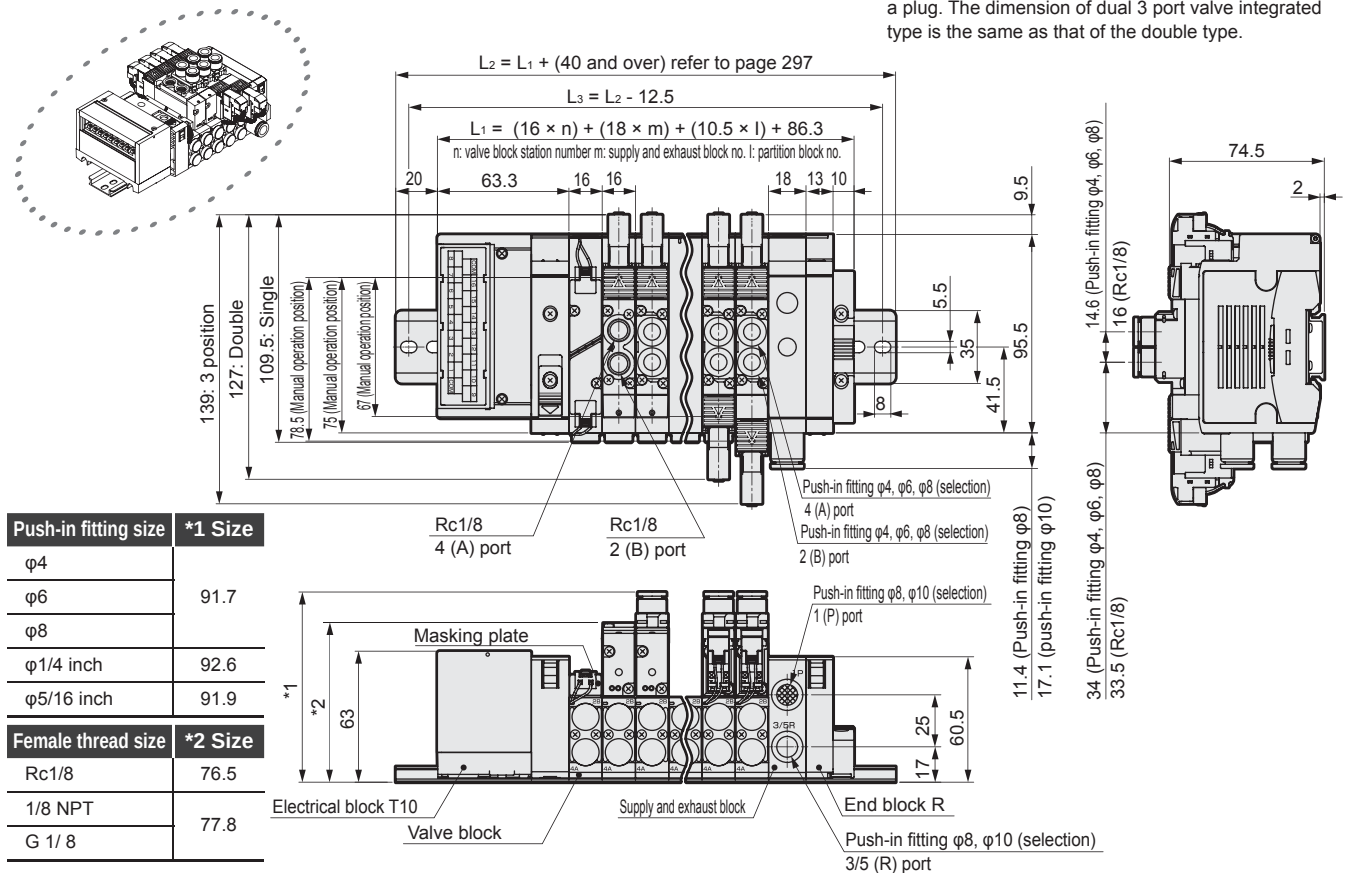


Dimensions

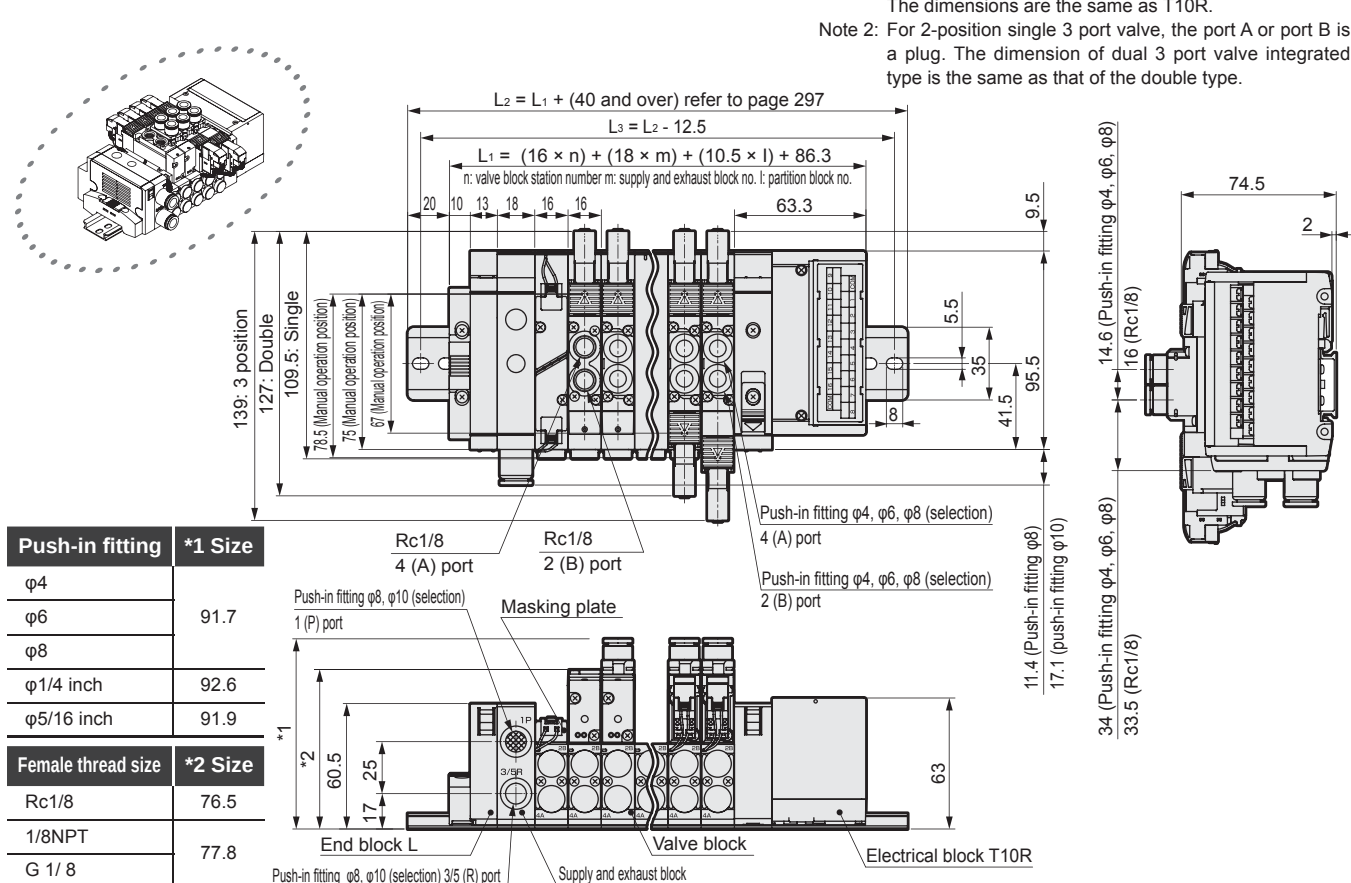


MN4GA2

● Common terminal block (M3 thread) Left side (T10)



● Common terminal block (M3 thread) Right side (T10R)



Note 1: There are push tightening specifications (T11)

The dimensions are the same as T10.

Note 2: For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.

Note 1: There are push tightening specifications (T11R).

The dimensions are the same as T10R.

Note 2: For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.

MN4GA1/2-T30 Series

Reduced wiring manifold; body piping

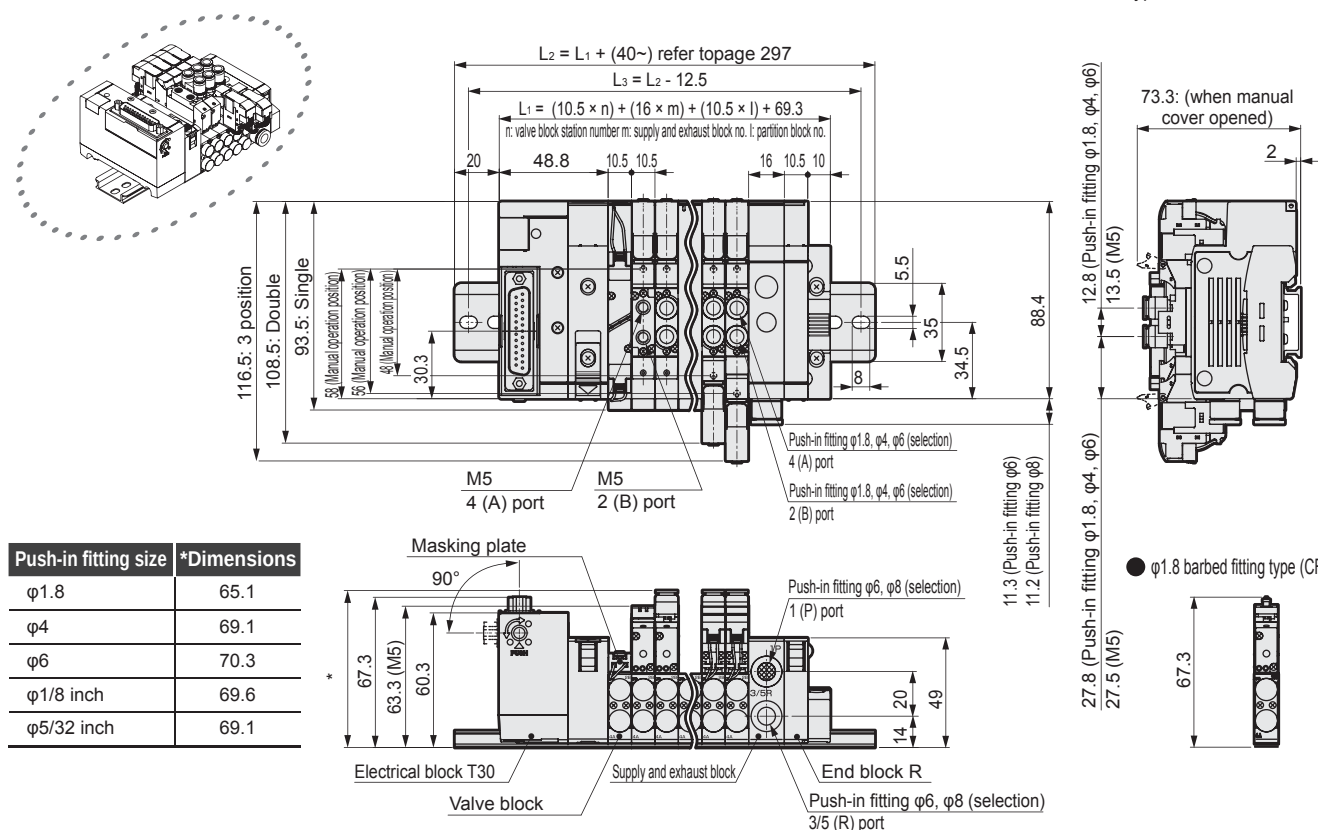
Dimensions



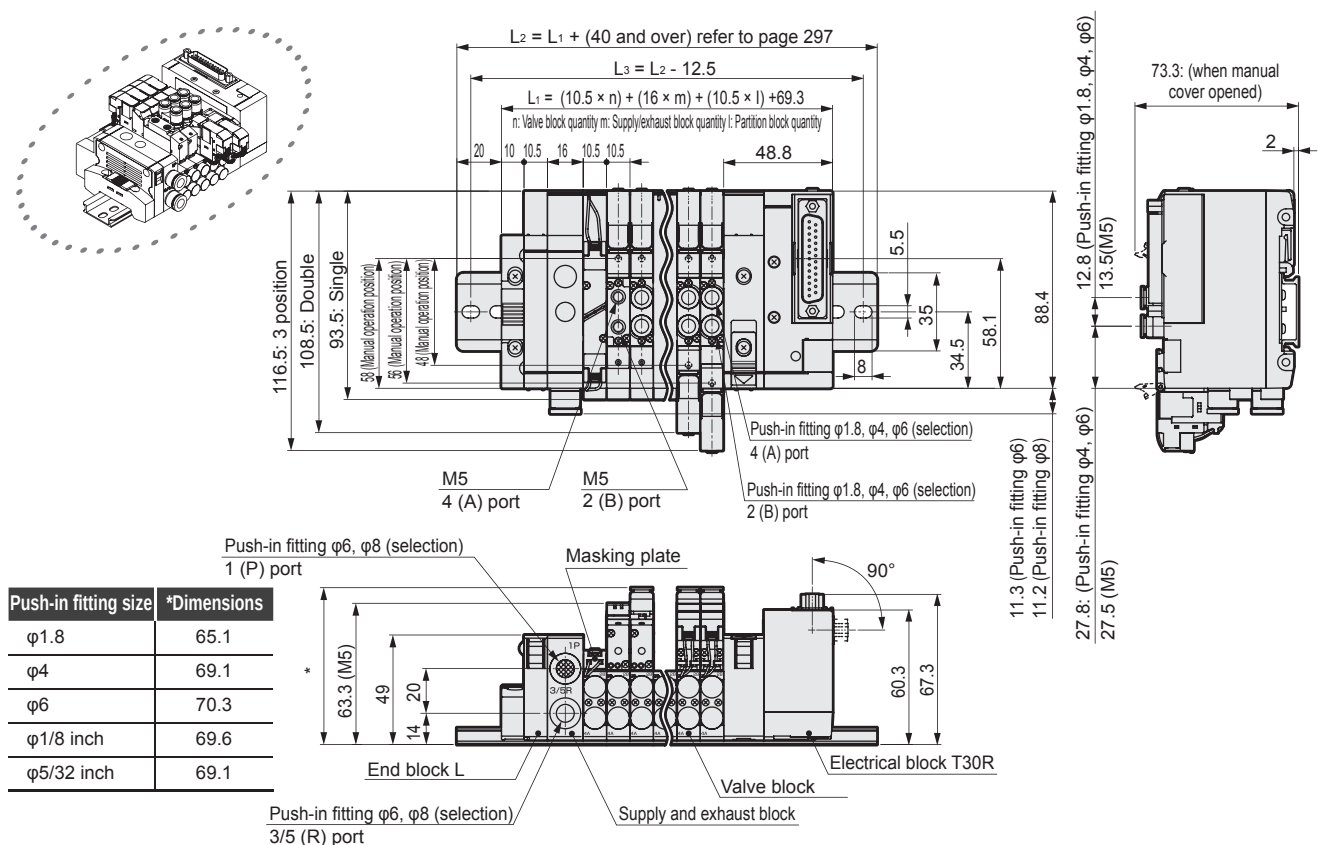
MN4GA1

● D-sub connector left side (T30)

Note: For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.



● D-sub connector right side (T30R)



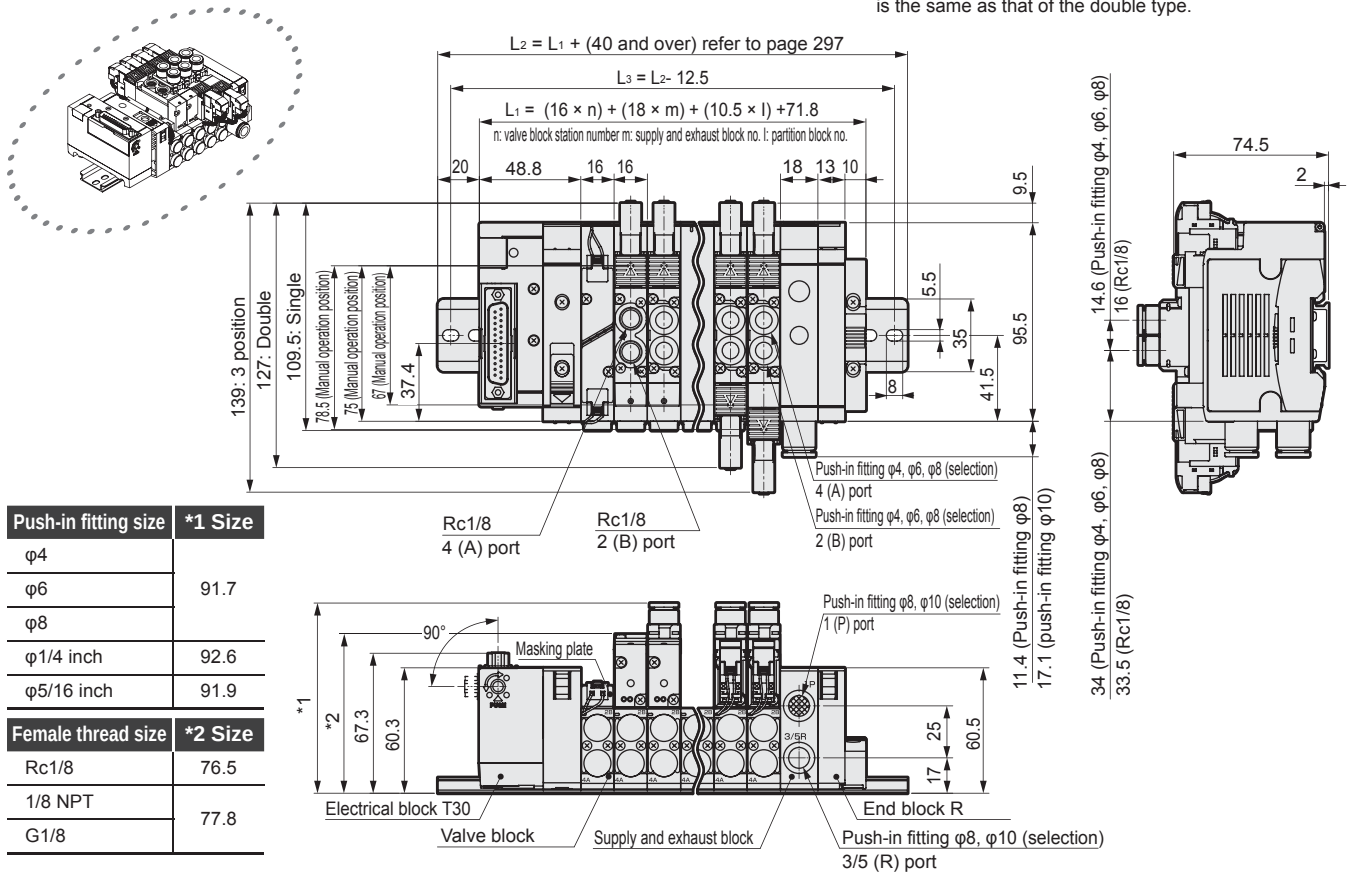
Dimensions



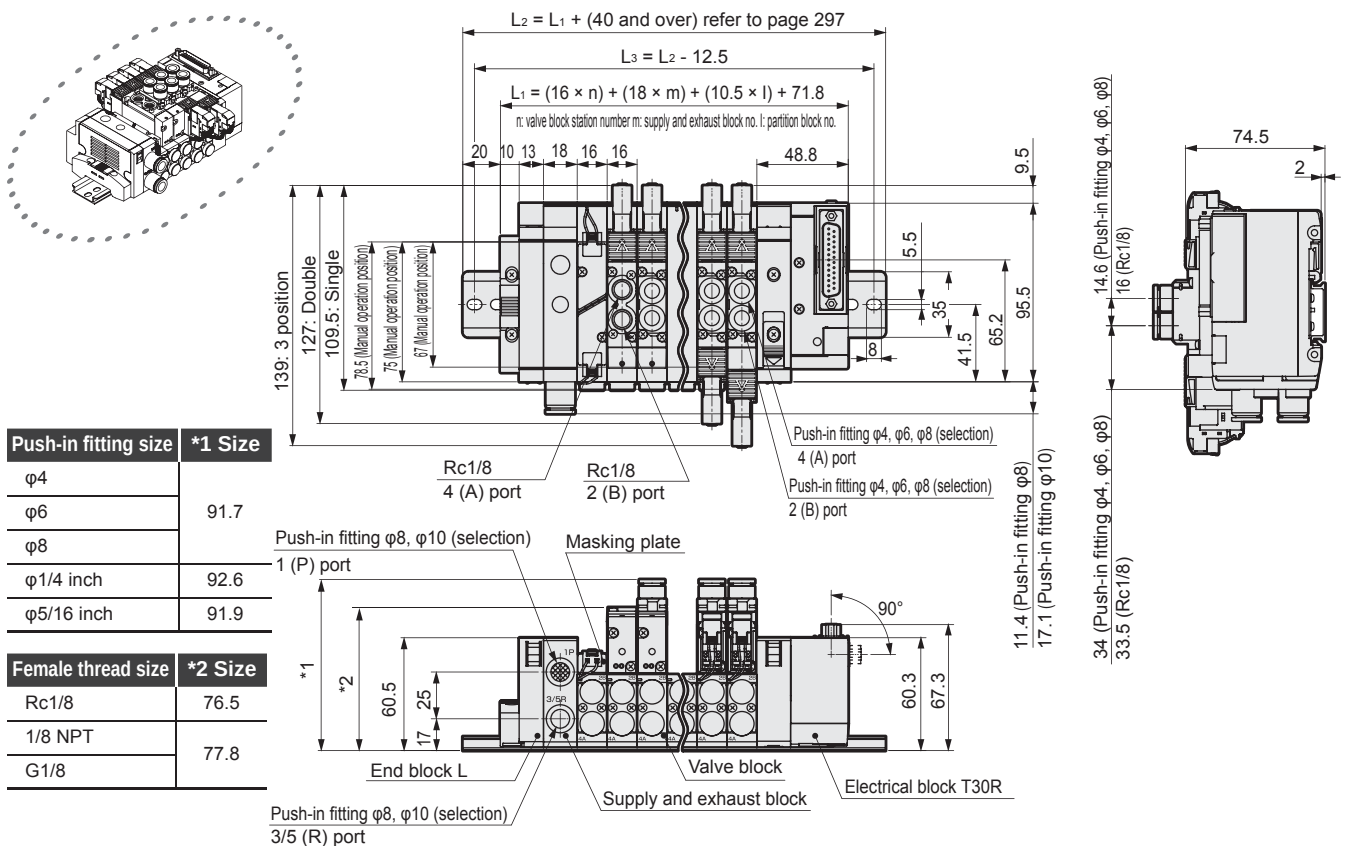
MN4GA2

● D-sub connector left side (T30)

Note: For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.



● D-sub connector right side (T30R)



MN4GA1/2-T50 Series

Reduced wiring manifold; body piping

Dimensions

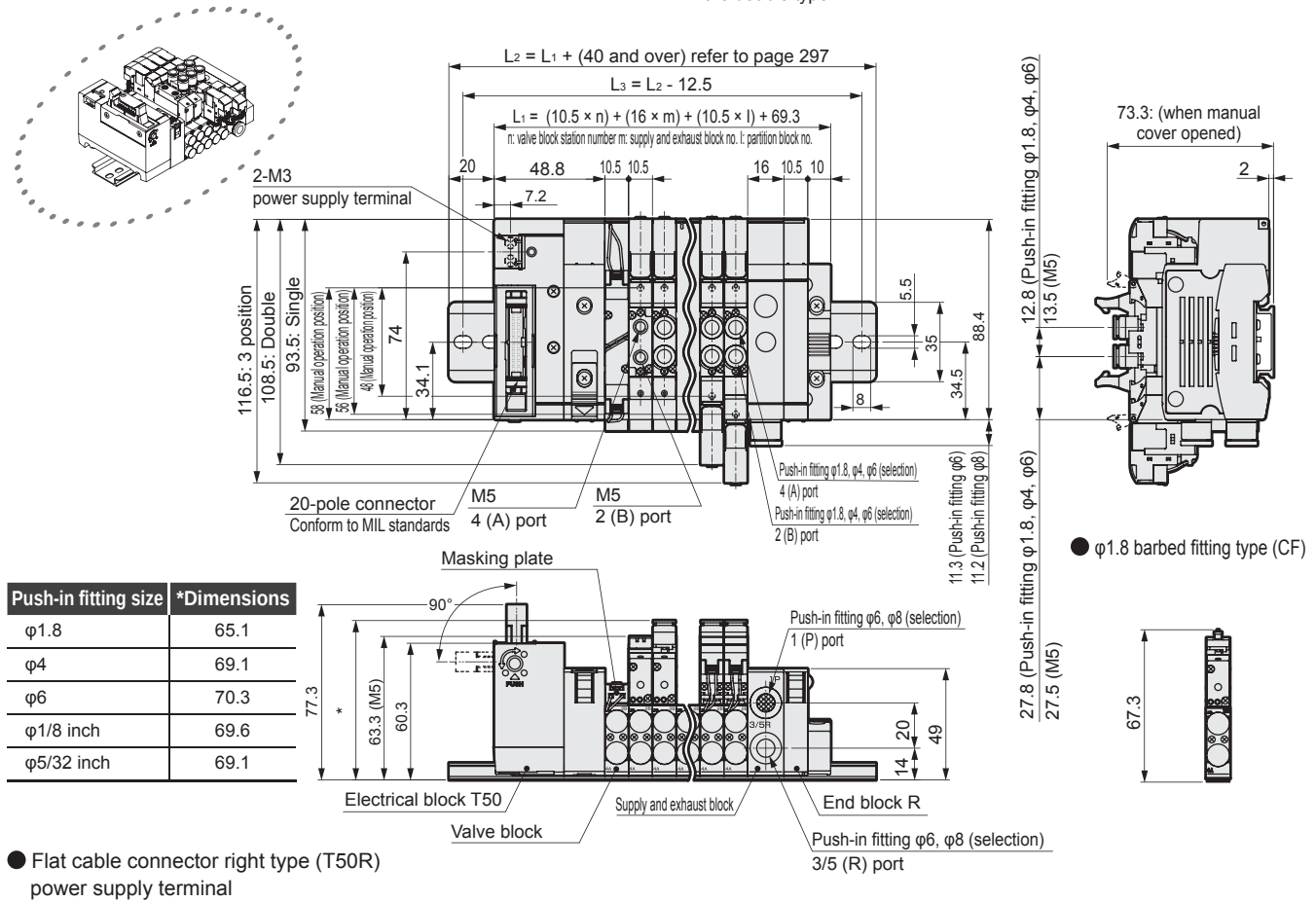


MN4GA1

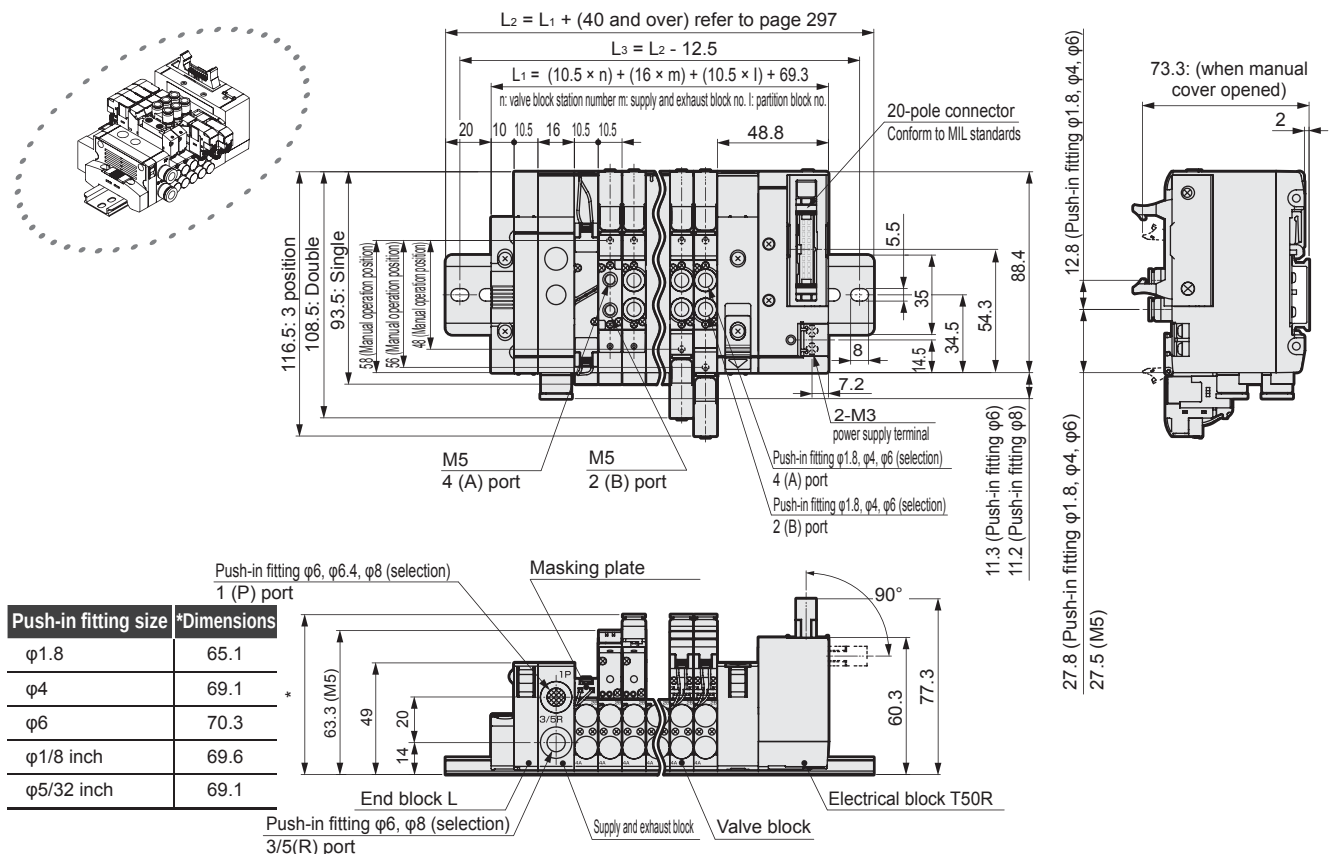
- Flat cable connector left side (T50)
With power supply terminal

Note 1: T51, T52, and T53 flat cable connectors are also available. The dimensions are the same as T50.

Note 2: For 2-position single 3 port valve, the port A or port B is a plug.
The dimension of dual 3 port valve integrated type is the same as that of the double type.



- Flat cable connector right type (T50R)
power supply terminal

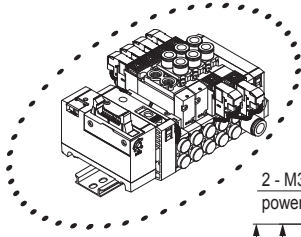


Dimensions

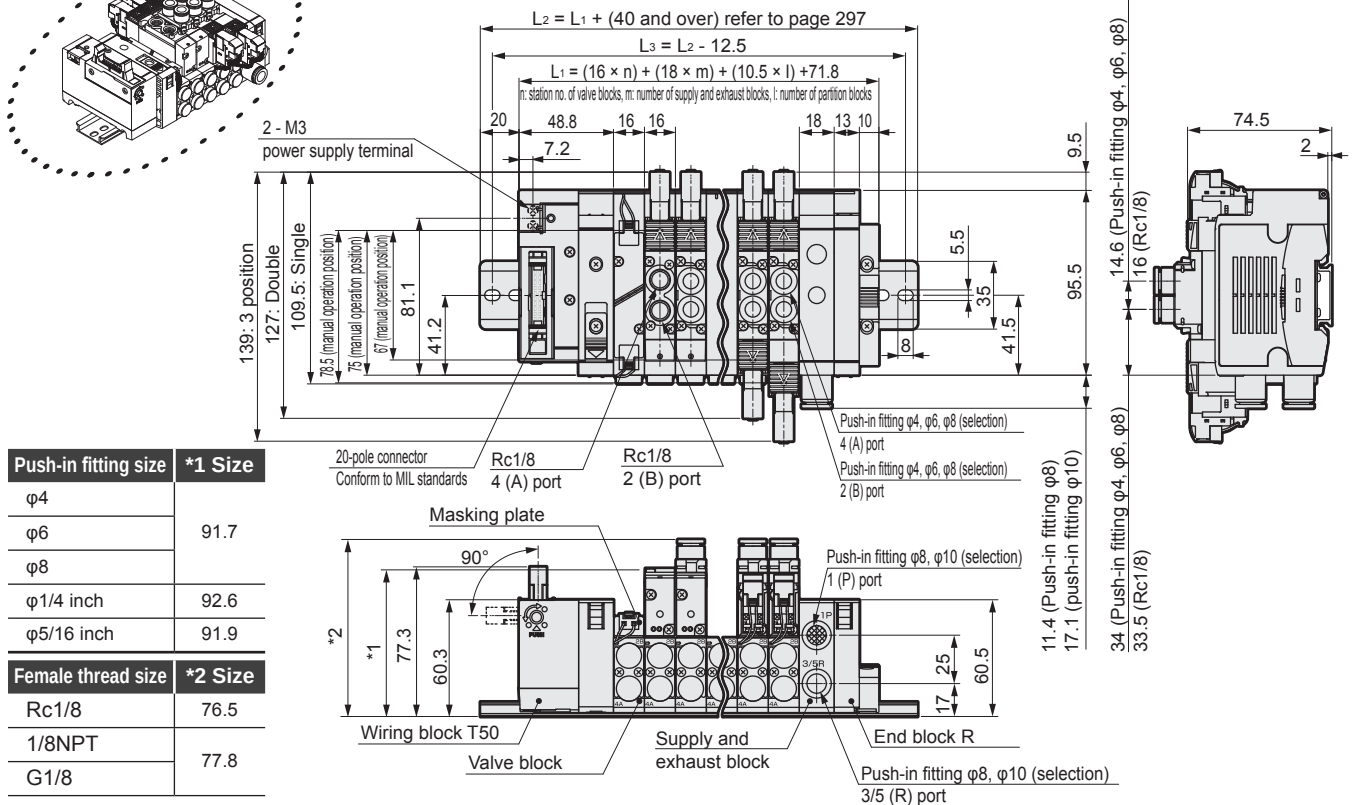


MN4GA2

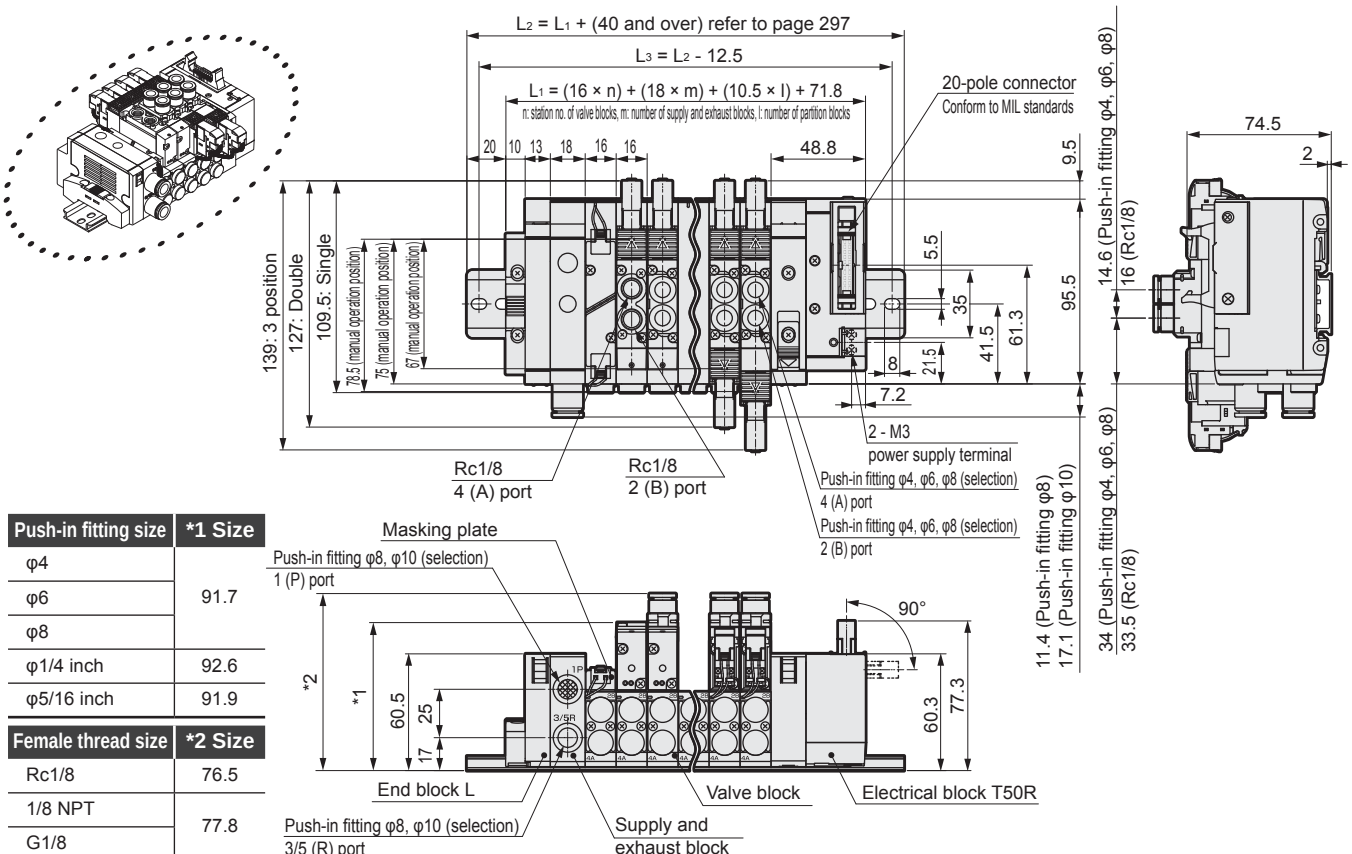
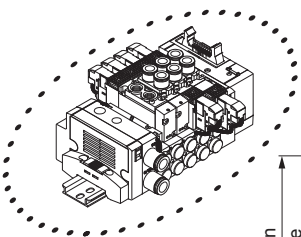
- Flat cable connector left side (T50)
With power supply terminal



- Note 1: T51, T52, and T53 flat cable connectors are also available. The dimensions are the same as T50.
- Note 2: For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.



- Flat cable connector right type (T50R)
With power supply terminal



MN4GA1/2-T6* Series

Reduced wiring manifold; body piping

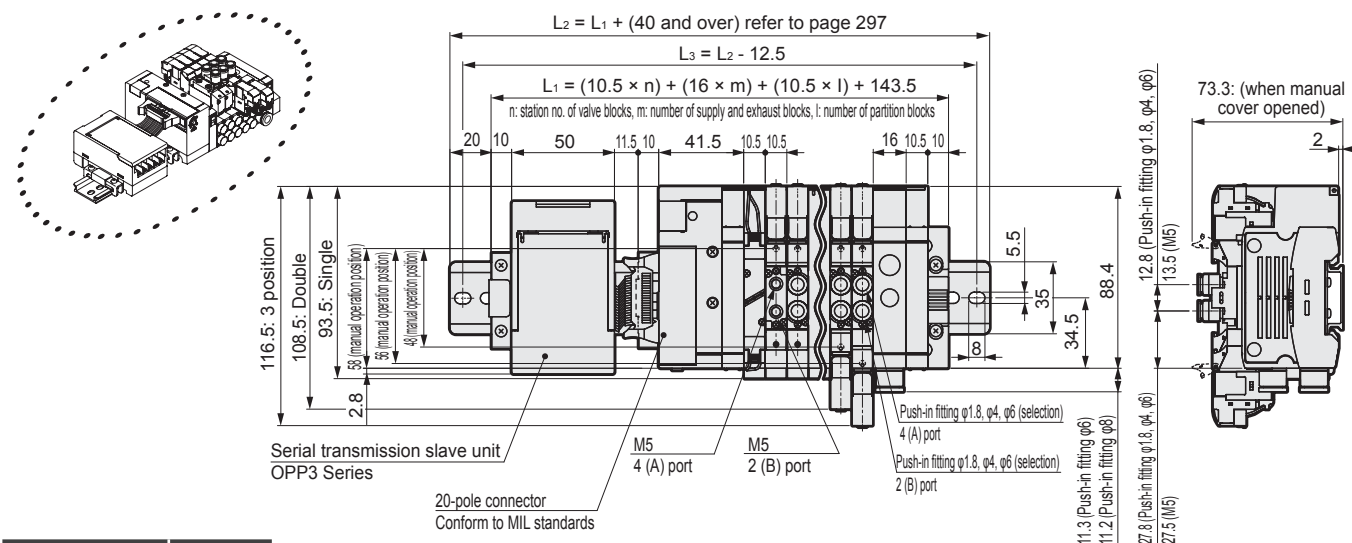
Dimensions



MN4GA1

- Serial transmission (T6*)

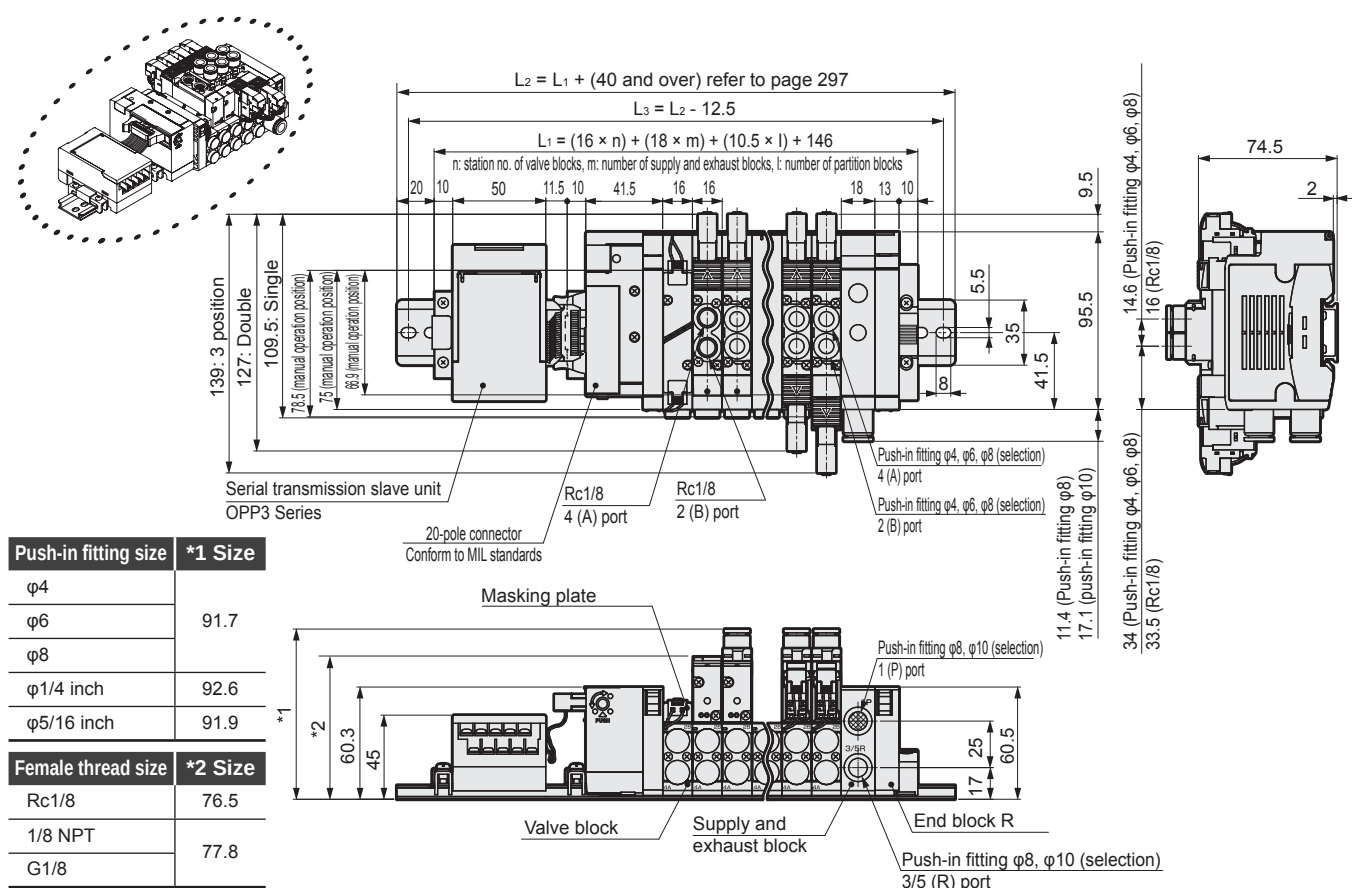
Note: For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.



Push-in fitting size	*Dimensions
$\phi 1.8$	65.1
$\phi 4$	69.1
$\phi 6$	70.3
$\phi 1/8$ inch	69.6
$\phi 5/32$ inch	69.1

MN4GA2

- Serial transmission (T6*)



Push-in fitting size	*1 Size
$\phi 4$	91.7
$\phi 6$	
$\phi 8$	
$\phi 1/4$ inch	92.6
$\phi 5/16$ inch	91.9
Female thread size	*2 Size
Rc1/8	76.5
1/8 NPT	77.8
G1/8	

MN4GA1/2-T7* Series

Reduced wiring manifold; body piping

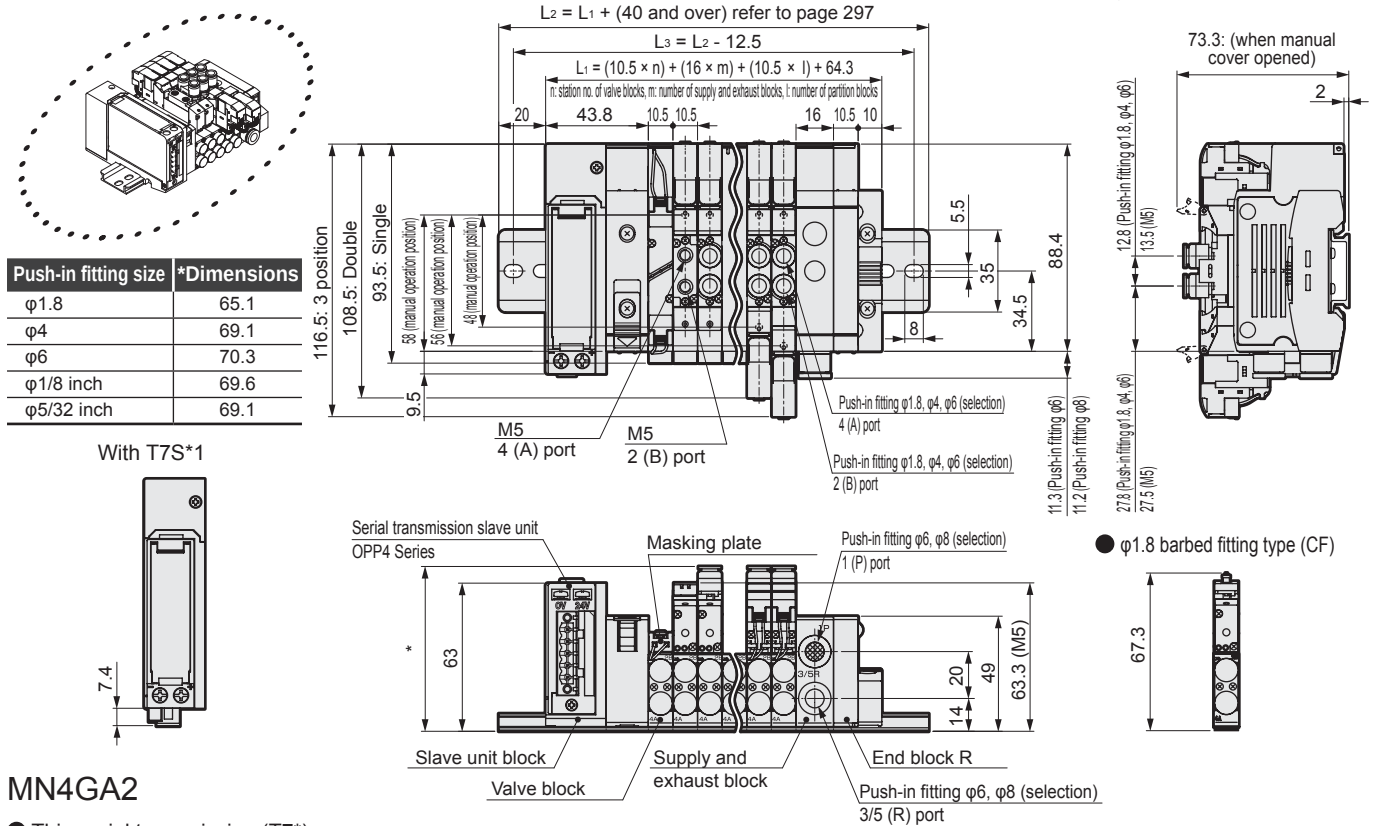
Dimensions



MN4GA1

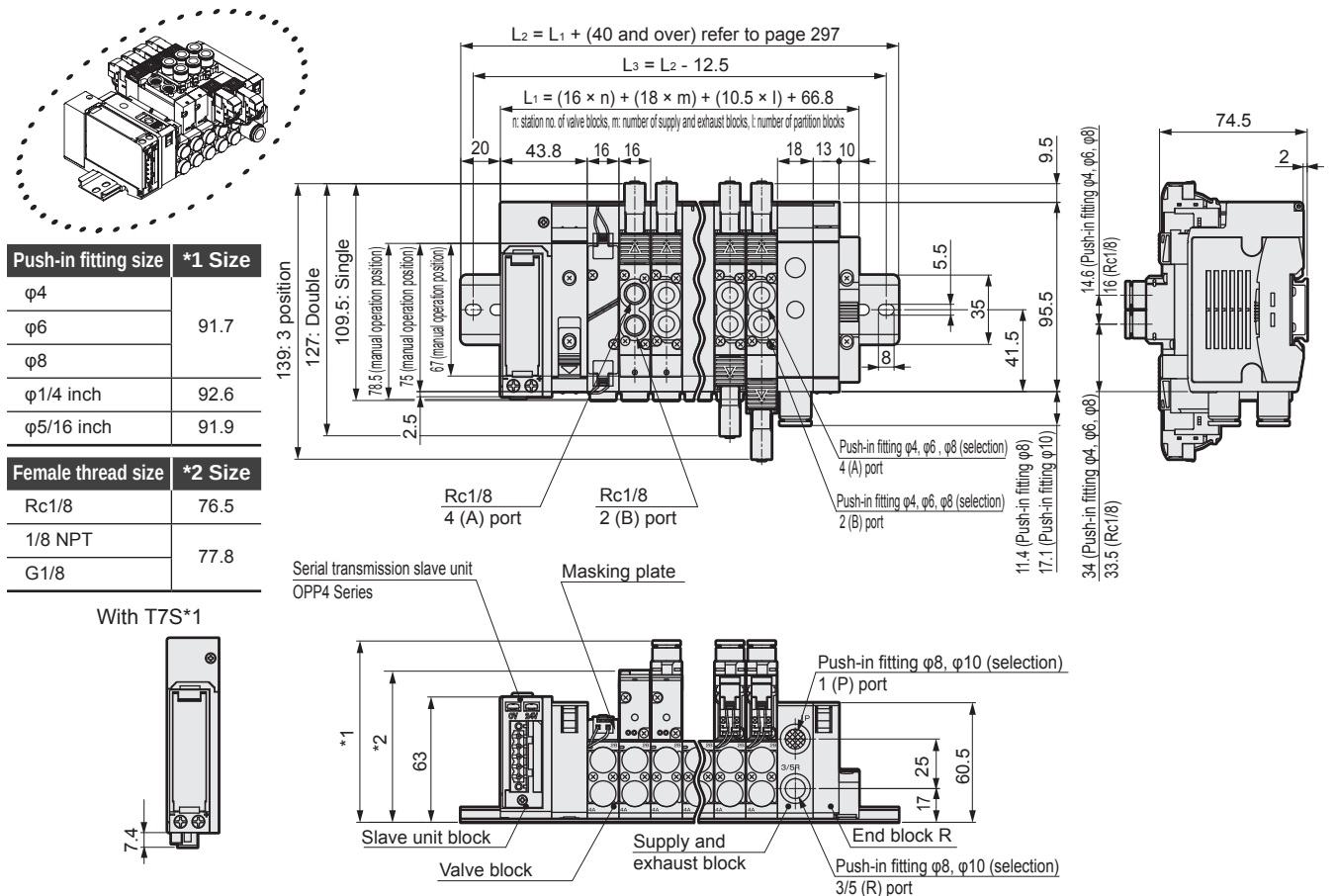
- Thin serial transmission (T7*)

Note: For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.



MN4GA2

- Thin serial transmission (T7*)



MN4GA1/2-T8* Series

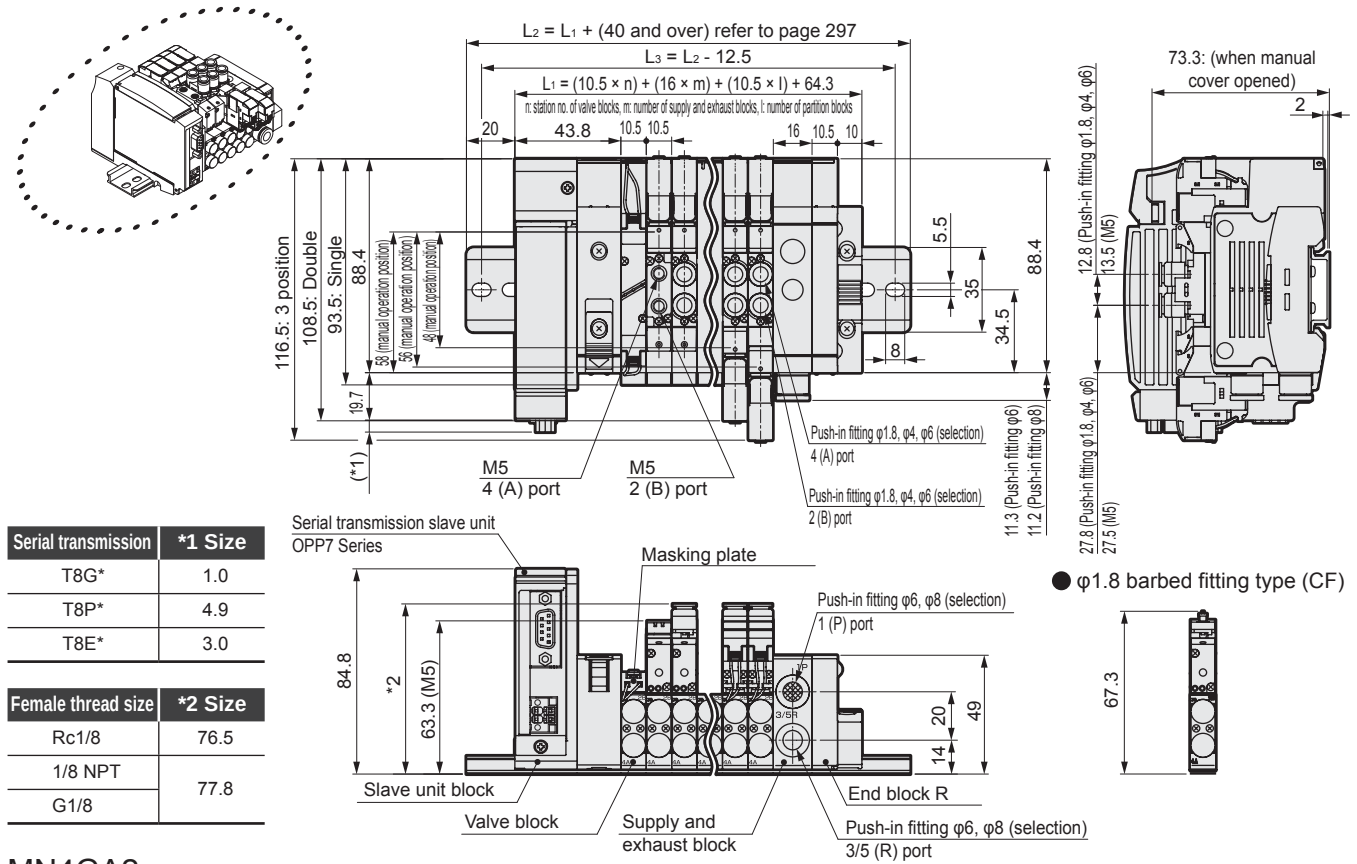
Reduced wiring manifold; body piping

Dimensions

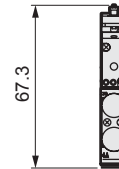
MN4GA1

- Thin serial transmission (T8*)

Note: For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.

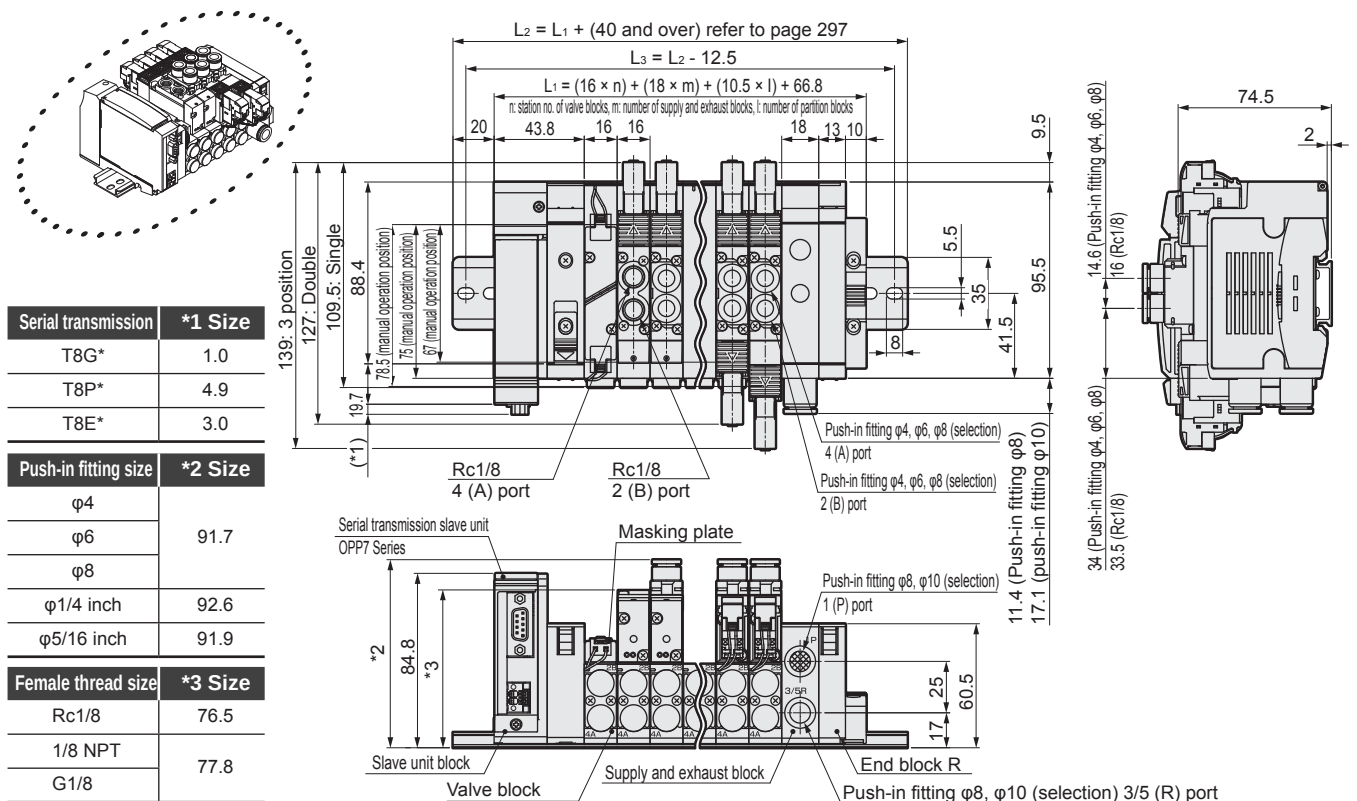


- $\phi 1.8$ barbed fitting type (CF)



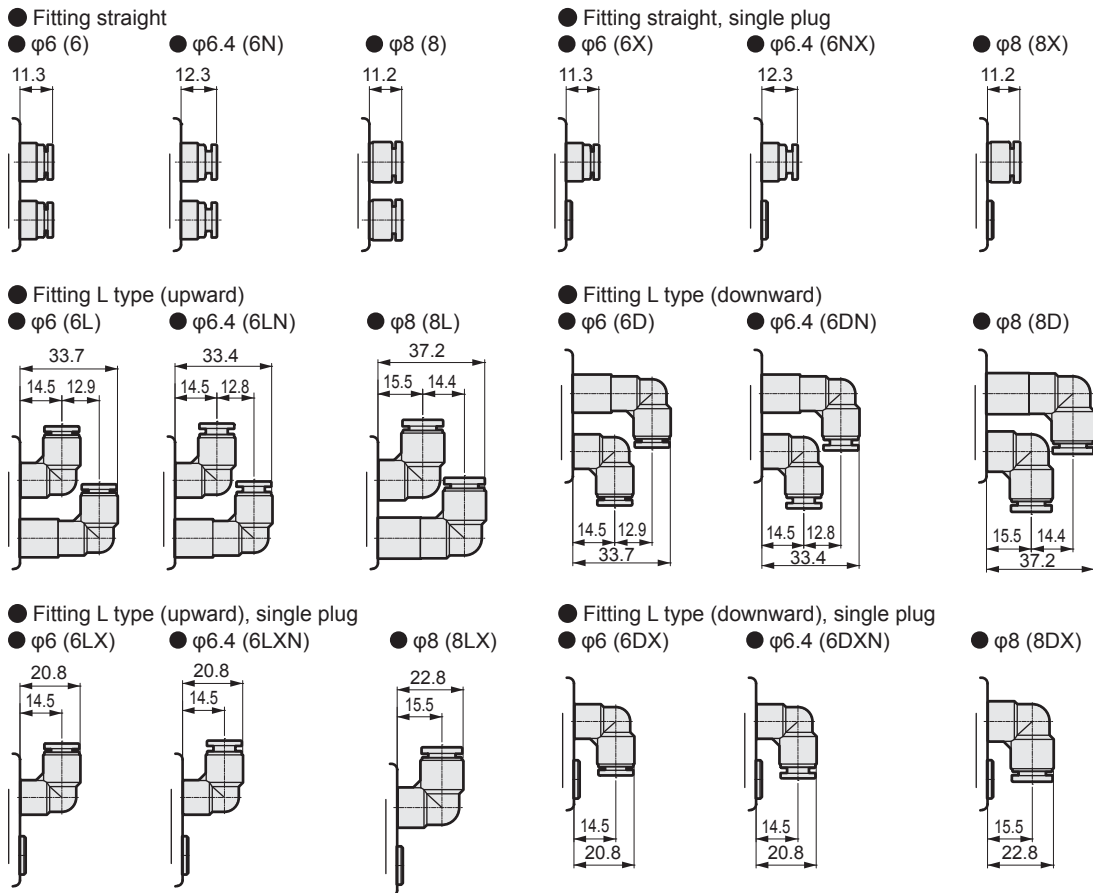
MN4GA2

- Serial transmission (T8*)

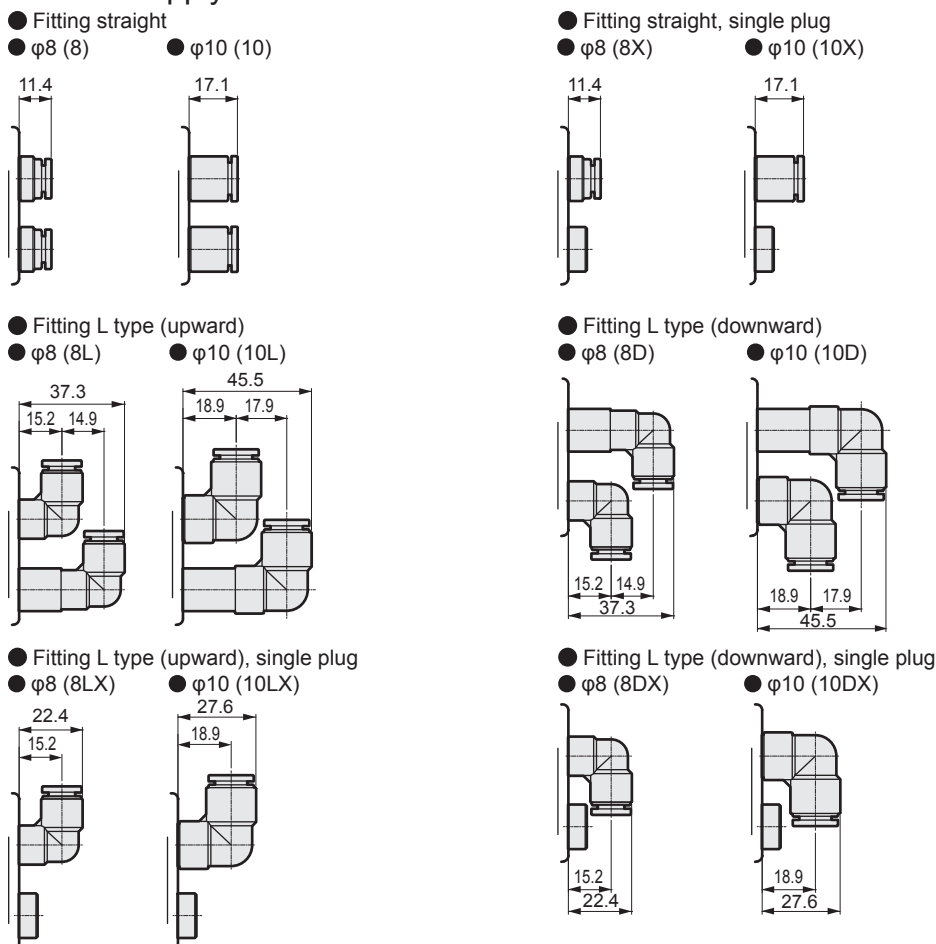


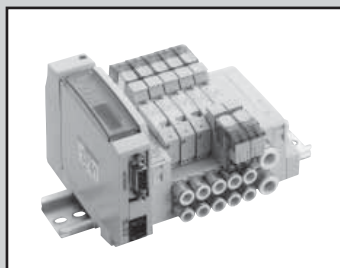
Dimensions

MN4G1 Supply/exhaust block



MN4G2 Supply/exhaust block





Reduced wiring block manifold
Base piping

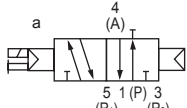
MN4GB1/2-T* Series

● Applicable cylinder bore size: $\phi 20$ to $\phi 80$

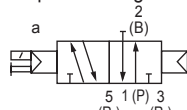


JIS symbol

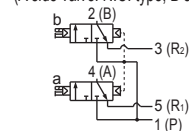
- 3 port valve
2-position single N.C. type



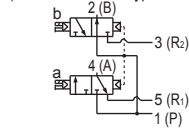
2-position single N.O. type



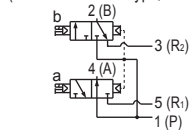
- Dual 3 port valve integrated type
(A side valve: N.C. type, B side valve: N.C. type)



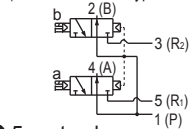
(A side valve: N.C. type, B side valve: N.O. type)



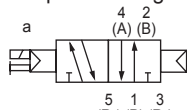
(A side valve: N.O. type, B side valve: N.C. type)



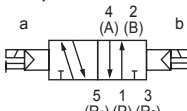
(A side valve: N.O. type, B side valve: N.O. type)



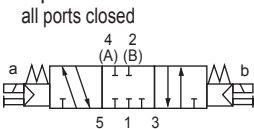
- 5 port valve
2-position single



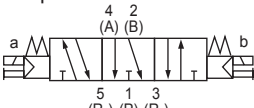
2-position double



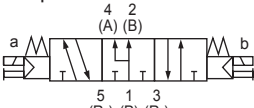
3-position
all ports closed



3-position A/B/R connection



3-position P/A/B Connection



Manifold common specifications

Descriptions	
Manifold type	Block manifold
Mounting method	DIN rail mount type
Supply and exhaust method	Common supply/common exhaust (malfunction prevention valve integrated)
Pilot exhaust method	Main valve/pilot valve common exhaust (Pilot exhaust check valve integrated)
Piping direction	Base part lateral direction
Valve type and operation	Pilot operated type soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	0.7
Min. working pressure MPa	0.2 Note 3
Proof pressure MPa	1.05
Ambient temperature °C	-5 to 55 (no freezing)
Fluid temperature °C	5 to 55
Manual operating device	Non-locking/locking common type (standard)
Lubrication Note 1	Not required
Degree of protection Note 2	Dust proof
Vibration resistance m/s ²	50 or less
Shock resistance m/s ²	300 or less
Atmosphere	Containing corrosive gas is not permissible

Electrical specification

Descriptions		T1*, T30*, T5*	T6*, T8*
Rated voltage		24 VDC 12 VDC	24 VDC
Voltage fluctuation range (Note 4)		±10%	+10%, -5%
Holding current	Standard	0.017	0.034
A	low heat/ With energy-saving circuit	0.005	0.010
Power consumption W	Standard	0.4	
	low heat/ With energy-saving circuit	0.1	
Thermal class		B	
Surge suppressor (Note 5)		Zener diode	
Indicator		LED	

Note 1 Use the turbine oil Class 1 ISO VG32 if lubricated. Excessive or intermittent lubrication results in unstable operation.

Note 2 The degree of protection is dust proof. The unit is not water proof. Avoid water drops or oil, etc. during use.

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

Note 4 Please note the voltage fluctuation range since the T6* and T8* (Serial transmission type) have a voltage drop due to the internal circuit.

Note 5 If you select the low heat energy-saving circuit or surgeless, it will become a diode.

Individual specifications

Descriptions		MN3GB1/MN4GB1									
		T10	T11	T30	T50	T51	T52	T53	T6*0/1	T7*0/1	T8*1/2
Max. station no.	Standard wiring	16 stations	24 stations	24 stations	16 stations	18 stations	8 stations	24 stations	8/16 stations	8/16 stations	16/24 stations
	Double wiring	8 stations	12 stations	12 stations	8 stations	9 stations	4 stations	12 stations	4/8 stations	4/8 stations	8/16 stations
Maximum solenoid number		16 points	24 points	24 points	16 points	18 points	8 points	24 points	8/16 points	8/16 points	16/32 points
Port size	Mini fitting	Barbed fitting $\phi 1.8$ Push-in fitting $\phi 1.8$, $\phi 4$, $\phi 6$									
	P/R port	Push-in fitting $\phi 6$, $\phi 8$									
	Inch fitting	Push-in fitting $\phi 1/8$ inch, $\phi 5/32$ inch									
	P/R port	Push-in fitting $\phi 1/4$ inch, $\phi 5/16$ inch									

- Refer to page 256 for weight.

Descriptions		MN3GB2/MN4GB2									
		T10	T11	T30	T50	T51	T52	T53	T6*0/1	T7*0/1	T8*1/2
Max. station no.	Standard wiring	16 stations	20 stations	20 stations	16 stations	18 stations	8 stations	20 stations	8/16 stations	8/16 stations	16/20 stations
	Double wiring	8 stations	12 stations	12 stations	8 stations	9 stations	4 stations	12 stations	4/8 stations	4/8 stations	8/16 stations
Maximum solenoid number		16 points	24 points	24 points	16 points	18 points	8 points	24 points	8/16 points	8/16 points	16/32 points
Port size	Milli fitting	Push-in fitting $\phi 4$, $\phi 6$, $\phi 8$									
	P/R port	Push-in fitting $\phi 8$, $\phi 10$									
	Inch fitting	Push-in fitting $\phi 1/4$ inch, $\phi 5/16$ inch 1/8NPT									
	P/R port	Push-in fitting $\phi 5/16$ inch, $\phi 3/8$ inch									

- Refer to page 256 for weight.

Flow characteristics

Model no.	Valve Position	P → A/B		A/B → R1/R2	
		C (dm ³ /(s·bar))	b	C (dm ³ /(s·bar))	b
MN3GB1 MN4GB1	Dual 3 port valve integrated type	0.86	0.35	1.0 (0.66)	0.15 (0.25)
	2-position	1.0	0.30	1.1 (0.72)	0.11 (0.26)
	3-position	All ports closed	0.96	1.0	0.14
		ABR connection	0.96	1.2 (0.71)	0.11 (0.30)
MN3GB2 MN4GB2	PAB connection	1.1	0.31	1.0	0.15
	Dual 3 port valve integrated type	1.7	0.42	2.2 (1.6)	0.15 (0.19)
	2-position	2.4	0.35	2.5 (1.7)	0.19 (0.19)
	3-position	All ports closed	2.2	2.3	0.17
		ABR connection	2.2	2.5 (1.7)	0.18 (0.20)
	PAB connection	2.3	0.29	2.3	0.15

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

Note 2: Values in () apply when a malfunction prevention valve is attached.

Reduced wiring specifications

Descriptions	T10	T11	T30	T50	T51	T52	T53
Type	Common terminal block M3 thread type	Common terminal block push tightening system	D sub-connector	20 pin flat cable connector with power supply terminal	20 pin flat cable connector without power supply terminal	10 pin flat cable connector without power supply terminal	26 pin flat cable connector without power supply terminal
Connector	-	-	D sub-connector 25 pin	MIL-C-83503 standards conformed pressure welding socket 20 pin	MIL-C-83503 standards conformed pressure welding socket 20 pin	MIL-C-83503 standards conformed pressure welding socket 10 pin	MIL-C-83503 standards conformed pressure welding socket 26 pin

Serial transmission slave unit specifications (refer to page 611 for applicable PLC table)

Descriptions		T6G1	T6C0+1	T6C1+1	T6A0+2	T6A1+2	T6J0+2	T6J1+2	T6E0	T6E1
Network name		CC-Link ver1.10	CompoBus/S		UNIWIRED SYSTEM		UNIWIRED H SYSTEM		S-LINK	
Power supply voltage	Unit side	24 VDC ±10%			24 VDC +10%, -5% Power supply terminal common					
	Valve side	24 VDC +10%, -5%								
Current consumption	Unit side	100mA or less (when all output points are ON)			100mA or less (when all output points are ON) Load current is not included					
	Valve side	15mA or less (when all output points are OFF)								
Output points		16 points	8 points	16 points	8 points	16 points	8 points	16 points	8 points	16 points
Occupied number		1 station	1 node address (8 point mode)	2 node address (8 point mode)	Output 8 points	Output 16 points	Output 8 points	Output 16 points	FAN-in : 3*3	FAN-in : 3*3
Operation display		LED (power supply and communication state)								
Output type		NPN								

Descriptions		T7C0 ^{*4}	T7C1 ^{*4}	T7E0	T7E1	T7G1	T7L1 ^{*5}	T7D1	T7S1	T7SP1	
Network name		CompoBus/S		S-LINK		CC-Link ver1.10	SAVE NET	Device Net *6, *7	CompoNet		
Power voltage	Unit side	24 VDC ±10%		24 VDC +10%, -5% Power supply terminal common							
	Valve side	24 VDC +10%, -5%									
	Communication side	-		-	-	-	11 VDC to 25 VDC *8	14.0 VDC to 26.4 VDC			
Current consumption	Unit side	50 mA or less (when all output points are ON)		90 mA or less (when all output points are ON) Load current is not included		110 mA or less (when all output points are ON) Load current is not included			40mA or less (when all output points are ON) Load current is not included		
	Valve side	15 mA or less (when all output points are OFF)									
	Communication side	-		-	-	-	50mA or less	65mA or less (all points ON: 24 VDC) 95mA or less (all points ON: 24 VDC)			
Output points		8 points	16 points	8 points	16 points	16 points	16 points	16 points	16 points		
Occupied number		1 node address (8 point mode)	2 node address (8 point mode)	FAN-in: 3 *3	FAN-in: 3 *3	1 station	1 station	2 byte	Word slave node (16 point)		
Operating indication		LED (power supply and communication state)									
Output type		NPN								PNP	

Descriptions		T8G1	T8GP1	T8P1	T8PP1	T8EC1	T8ECP1	T8EN1	T8ENP1
		T8G2	T8GP2	T8P2	T8PP2	T8EC2	T8ECP2	T8EN2	T8ENP2
Network name		CC-Link ver1.10		PROFIBUS-DP (V0)		EtherCAT		EtherNet/IP	
Power supply voltage	Unit side	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)	
	Valve side	T8*1: 15mA or less T8*2: 20mA or less (when all output points are ON) Load current is not included							
Output points		T8*1: 16 points T8*2: 32 points							
Occupied number		1 station							
Operation display		LED (power supply and communication state)							
Output type		NPN output	PNP output	NPN output	PNP output	NPN output	PNP output	NPN output	PNP output

*1 Long-distance communication mode is not supported.

*2 The number of transmission points of 128 points and the transmission distance of 200 m are supported. Contact CKD for other specifications.

*3 FAN-in indicates the capacity of the input from the D-G line. It is necessary to calculate the number of units to be connected.

*4 The long-distance communication mode is available.

*5 Compatible with a transmission bit rate of 128 bits and the transmission method of semi-duplicated communication. Contact CKD for other specifications.

*6 Compatible with DeviceNet compliant networks (DLNK, etc.) as well.

*7 Contact CKD for EDS file. EDS file: A file containing text for parameters for communication with masters of each company.

MN4GA1/2-T* Series

Reduced wiring block manifold; base piping

How to order

- Manifold model no.

MN4GB1 1 0 R - C6 - T30 W H - 10 - 3

- 3 port manifold model no.

MN3GB1 1 0 R - C6 - T30 W H - 10 - 3

- Discrete valve block with solenoid valve

N4GB1 1 0 R - C6 - A2N*1 H - 3

- Discrete 3 port valve block with solenoid valve

N3GB1 1 0 R - C6 - A2N*1 H - 3

- Discrete solenoid valve

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

- Discrete 3 port solenoid valve

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

B Valve Position

C Port size
Note 1
Note 2
Note 3

D Reduced wiring

G Station no.

H Voltage

F Option

E Terminal and connector pin array

⚠ Cautions for model No. selection

- Note 1 A or B port plug specifications are available only for the 2-position single. Designate P/R port sizes with the supply/exhaust block in manifold specifications.
- Note 2 A/B port sizes do not differ for the push-in fitting L type (upward) mix (CX).
- Note 3 In the case of a discrete solenoid valve, set the port size of "00".
- Note 4 Select M4GB*80R when mixing with 4, 5 port valves. Select MN3GB*80R when mixing with the masking plate.
- Note 5 Combination with the external pilot (K) is not available. Dimensions are the same as the respective 2-position double.
- Note 6 Please select option "L" at the same time as items other than single solenoids.
- Note 7 The push-in fitting cannot be mixed with the discrete valve's 4 (A) or 2 (B) port.
- Note 8 Only the single solenoid are supported.

				A Model No.								
				Manifold		Discrete valve block with solenoid valve/discrete solenoid valve						
				Dual 3 port valve integrated type	5 port valve							
				MN3GB1	MN3GB2	MN4GB1	MN4GB2	(N) 3GB1	(N)3GB2	(N)4GB1	(N) 4GB2	
Symbol	Descriptions											
B Valve 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	Dual 3 port valve integrated type Note 4, 5	A side valve: Normally closed		●	●			●	●			
67		B side valve: Normally closed										
		A side valve: Normally closed		●	●			●	●			
76		B side valve: Normally open										
		A side valve: Normally open		●	●			●	●			
77		B side valve: Normally closed		●	●			●	●			
	A side valve: Normally open		●	●			●	●				
	B side valve: Normally open		●	●			●	●				
8	Mix manifold (In case of multiple Valve Positions)			●	●	●	●	●	●	●	●	
C Port size (A/B port)												
Type	Milli fitting/Rc thread											
CF	φ1.8 barbed fitting (applicable tube UP-9102-**) Note 6			●		●		●		●		
C18	φ1.8 push-in fitting (applicable tube UP-9402-**) Note 6			●		●		●		●		
C4	φ4 push-in fitting			●	●	●		●	●	●	●	
C6	φ6 push-in fitting			●	●	●		●	●	●	●	
C8	φ8 push-in fitting			●	●	●		●	●	●	●	
CL18	L type φ1.8 push-in fitting (upward) (applicable tube UP-9402-**) Note 6			●		●		●		●		
CL4	L type φ4 push-in fitting (upward) Note 6			●	●	●		●	●	●	●	
CL6	L type φ6 push-in fitting (upward) Note 6			●	●	●		●	●	●	●	
CL8	L type φ8 push-in fitting (upward) Note 6			●	●	●		●	●	●	●	
CD18	L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-**) Note 6			●		●		●		●		
CD4	L type φ4 push-in fitting (downward) Note 6			●	●	●		●	●	●	●	
CD6	L type φ6 push-in fitting (downward) Note 6			●	●	●		●	●	●	●	
CD8	L type φ8 push-in fitting (downward) Note 6			●	●	●		●	●	●	●	
CX	Push-in fitting mix Note 7			●	●	●		●	●	●	●	
Single plug specifications	A Port		B Port									
CFNC	φ1.8 barbed fitting (applicable tube UP-9102-**) Note 6		Plug							●		
C18NC	φ1.8 push-in fitting (applicable tube UP-9402-**) Note 6									●		
C4NC	φ4 push-in fitting					●	●			●	●	
C6NC	φ6 push-in fitting					●	●			●	●	
C8NC	φ8 push-in fitting					●	●			●	●	
CFNO	Plug		φ1.8 barbed fitting (applicable tube UP-9102-**) Note 6			●				●		
C18NO			φ1.8 push-in fitting (applicable tube UP-9402-**) Note 6			●				●		
C4NO			φ4 push-in fitting			●	●			●	●	
C6NO			φ6 push-in fitting			●	●			●	●	
C8NO			φ8 push-in fitting			●	●			●	●	
CL18NC	L type φ1.8 push-in fitting (upward) (applicable tube UP-9402-**) Note 6		Plug							●		
CL4NC	L type φ4 push-in fitting (upward) Note 6									●		
CL6NC	L type φ6 push-in fitting (upward) Note 6					●	●			●	●	
CL8NC	L type φ8 push-in fitting (upward) Note 6					●	●			●	●	
CL18NO	Plug			L type φ1.8 push-in fitting (upward) (applicable tube UP-9402-**) Note 6							●	
CL4NO			L type φ4 push-in fitting (upward) Note 6							●		
CL6NO			L type φ6 push-in fitting (upward) Note 6			●	●			●	●	
CL8NO			L type φ8 push-in fitting (upward) Note 6			●	●			●	●	
CD18NC			L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-**) Note 6		Plug			●				●
CD4NC	L type φ4 push-in fitting (downward) Note 6					●	●			●	●	
CD6NC	L type φ6 push-in fitting (downward) Note 6					●	●			●	●	
CD8NC	L type φ8 push-in fitting (downward) Note 6					●	●			●	●	
CD18NO	Plug		L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-**) Note 6				●				●	
CD4NO			L type φ4 push-in fitting (downward) Note 6			●	●			●	●	
CD6NO			L type φ6 push-in fitting (downward) Note 6			●	●			●	●	
CD8NO			L type φ8 push-in fitting (downward) Note 6			●	●			●	●	
Type	Inch fitting/Inch thread											
C3N	φ1/8 inch	push-in fitting		●		●		●		●		
C4N	φ5/32 inch	push-in fitting								●		
C6N	φ1/4 inch	push-in fitting		●		●					●	
C8N	φ5/16 inch	push-in fitting						●	●			
CL3N	L type φ1/8 inch	push-in fitting (upward) Note 8	○		○			○		○		
CL4N	L type φ5/32 inch	push-in fitting (upward) Note 8	○		○			○				
CL6N	L type φ1/4 inch	push-in fitting (upward) Note 8		○		○			○		○	
CL8N	L type φ5/16 inch	push-in fitting (upward) Note 8		○		○			○		○	
CXN	Push-in fitting mix Note 7			●	●	●						
Single plug specifications	A Port		B Port									
C3NCN	φ1/8 inch	push-in fitting	Plug			●				●		
C4NCN	φ5/32 inch	push-in fitting									●	
C6NCN	φ1/4 inch	push-in fitting					●					●
C8NCN	φ5/16 inch	push-in fitting						●				●
C3NON	Plug			φ1/8 inch push-in fitting			●					
C4NON			φ5/32 inch push-in fitting			●					●	
C6NON			φ1/4 inch push-in fitting				●					●
C8NON			φ5/16 inch push-in fitting					●				●
CL3NCN			L type φ1/8 inchpush-in fitting (upward)	Plug			○				○	
CL4NCN	L type φ5/32 inchpush-in fitting (upward)				○				○			
CL6NCN	L type φ1/4 inchpush-in fitting (upward)					○					○	
CL8NCN	L type φ5/16 inchpush-in fitting (upward)					○					○	
CL3NON	L type φ1/8 inchpush-in fitting (upward)					○				○		
CL4NON	L type φ5/32 inchpush-in fitting (upward)				○				○			
CL6NON	L type φ1/4 inchpush-in fitting (upward)					○					○	
CL8NON	L type φ5/16 inchpush-in fitting (upward)					○					○	
00	Discrete valve for mounting base							●	●	●	●	

(Port size, Wiring method list)

Sym-bol		Descriptions	A Model No.							
			Manifold				Discrete valve			
			Dual 3 port valve integrated type	5 port valve	block with solenoid valve/discrete solenoid valve					
			MN3GB1	MN3GB2	MN4GB1	MN4GB2	(N) 3GB1	(N) 3GB2	(N) 4GB1	(N) 4GB2
E Terminal and connector pin array										
Blank	Standard wiring	Note 9	●	●	●	●	●	●	●	●
W	Double wiring	Note 9	●	●	●	●	●	●	●	●
W1	Double wiring (With single spare wiring)	Note 9, Note 10	●	●	●	●	●	●	●	●
F Option										
Blank	Non-locking/locking common manual override		●	●	●	●	●	●	●	●
M	Non-locking manual override		●	●	●	●	●	●	●	●
H	With malfunction prevention valve	Note 11	●	●	●	●	●	●	●	●
K	External pilot	Note 12	●	●	●	●	●	●	●	●
A	Ozone/cutting oil proof		●	●	●	●	●	●	●	●
S	Surgeless	Note 13	●	●	●	●	●	●	●	●
E	Low heat and energy saving circuit	Note 13, Note 14	●	●	●	●	●	●	●	●
L	With piping adaptor		●	●	●	●	●	●	●	●
Q	Reduced wiring mall	Note 18	●	●	●	●	●	●	●	●
F	A/B port filter integrated	Note 15	●	●	●	●	●	●	●	●
Z1	Air supply spacer	Note 16	●	●	●	●	●	●	●	●
Z2	In stop valve spacer	Note 16, Note 17	●	●	●	●	●	●	●	●
Z3	Exhaust spacer	Note 16	●	●	●	●	●	●	●	●
Z6	Spacer type pilot check valve	Note 16	●	●	●	●	●	●	●	●
G Station no.										
1	1 station		●	●	●	●	●	●	●	●
to	to		●	●	●	●	●	●	●	●
24	24 Stations (The max. station no. of MN4GB2 is 20.)		●	●	●	●	●	●	●	●
H Voltage										
3	24 VDC		●	●	●	●	●	●	●	●
4	12 VDC		●	●	●	●	●	●	●	●
D Reduced wiring connection (light and surge suppressor provided as standard) 12/24 VDC										
T10	Common terminal block (M3 thread)	Left side specifications	●	●	●	●	●	●	●	●
T10R		Right side specifications	●	●	●	●	●	●	●	●
T11	Common terminal block (push tightening)	Left side specifications	●	●	●	●	●	●	●	●
T11R		Right side specifications	●	●	●	●	●	●	●	●
T30	D sub-connector	Left side specifications	●	●	●	●	●	●	●	●
T30R		Right side specifications	●	●	●	●	●	●	●	●
T50	20 pin flat cable connector	Left side specifications	●	●	●	●	●	●	●	●
T50R	(with power supply terminal)	Right side specifications	●	●	●	●	●	●	●	●
T51	20 pin flat cable connector	Left side specifications	●	●	●	●	●	●	●	●
T51R	(without power supply terminal)	Right side specifications	●	●	●	●	●	●	●	●
T52	10 pin flat cable connector	Left side specifications	●	●	●	●	●	●	●	●
T52R	(without power supply terminal)	Right side specifications	●	●	●	●	●	●	●	●
T53	26 pin flat cable connector	Left side specifications	●	●	●	●	●	●	●	●
T53R	(without power supply terminal)	Right side specifications	●	●	●	●	●	●	●	●
D Serial transmission (light and surge suppressor provided as standard) 24 VDC										
T6A0	UNIWIRESYSTEM	NPN 8 points	●	●	●	●	●	●	●	●
T6A1		NPN 16 points	●	●	●	●	●	●	●	●
T6C0	CompoBus/S	NPN 8 points	●	●	●	●	●	●	●	●
T6C1		NPN 16 points	●	●	●	●	●	●	●	●
T6E0	S-LINK	NPN 8 points	●	●	●	●	●	●	●	●
T6E1		NPN 16 points	●	●	●	●	●	●	●	●
T6G1	CC-Link	NPN 16 points	●	●	●	●	●	●	●	●
T6J0	UNIWIRESYSTEM H	NPN 8 points	●	●	●	●	●	●	●	●
T6J1		NPN 16 points	●	●	●	●	●	●	●	●
T7C0	CompoBus/S	NPN 8 points	●	●	●	●	●	●	●	●
T7C1		NPN 16 points	●	●	●	●	●	●	●	●
T7D1	DeviceNet (Thin type)	NPN 16 points	●	●	●	●	●	●	●	●
T7E0	S-LINK (Thin type)	NPN 8 points	●	●	●	●	●	●	●	●
T7E1		NPN 16 points	●	●	●	●	●	●	●	●
T7G1	CC-Link (Thin type)	NPN 16 points	●	●	●	●	●	●	●	●
T7L1	SAVE NET (Thin type)	NPN 16 points	●	●	●	●	●	●	●	●
T7S1	CompoNet (Thin type)	NPN 16 points	●	●	●	●	●	●	●	●
T7SP1		PNP 16 points	●	●	●	●	●	●	●	●
T8G1		NPN 16 points	●	●	●	●	●	●	●	●
T8G2		NPN 32 points	●	●	●	●	●	●	●	●
T8GP1	CC-Link (Thin type)	PNP 16 points	●	●	●	●	●	●	●	●
T8GP2		PNP 32 points	●	●	●	●	●	●	●	●
T8P1		NPN 16 points	●	●	●	●	●	●	●	●
T8P2	PROFIBUS-DP (Thin type)	NPN 32 points	●	●	●	●	●	●	●	●
T8PP1		PNP 16 points	●	●	●	●	●	●	●	●
T8PP2		PNP 32 points	●	●	●	●	●	●	●	●
T8EC1		NPN 16 points	●	●	●	●	●	●	●	●
T8EC2		NPN 32 points	●	●	●	●	●	●	●	●
T8ECP1	EtherCAT (Thin type)	PNP 16 points	●	●	●	●	●	●	●	●
T8ECP2		PNP 32 points	●	●	●	●	●	●	●	●
T8EN1		NPN 16 points	●	●	●	●	●	●	●	●
T8EN2		NPN 32 points	●	●	●	●	●	●	●	●
T8ENP1	EtherNet/IP (Thin type)	PNP 16 points	●	●	●	●	●	●	●	●
T8ENP2		PNP 32 points	●	●	●	●	●	●	●	●
A2N	Without lead wire (without socket)	with surge suppressor/light	●	●	●	●	●	●	●	●

Ozone specifications / Coolant proof specifications

Select the option "A" of ⑤ in how to order

Clean room specifications (Catalog No. CB-033SA)

● Clean room specifications

** - Voltage - P7*

Specification for secondary battery production (Catalog No. CC-947A)

● In order to be applicable for secondary battery manufacturing process, confine materials for air passage and sliding section

** - Voltage - P4

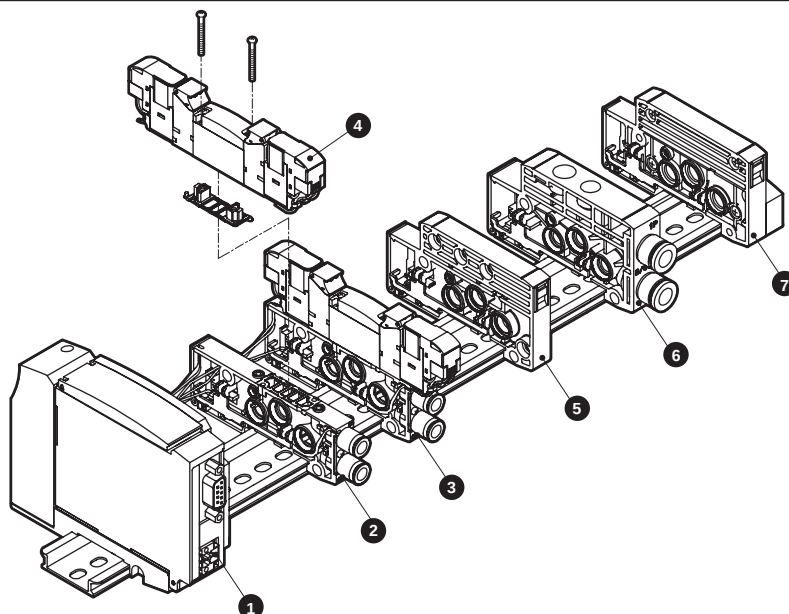
⚠ Cautions for model No. selection

- Note 9 Blank·····Wired based on the type of valve used.
W·····Wired for the double solenoid regardless of the type of valve used.
- Note 10 Spare wiring (A type socket assembly) is attached to the cap side.
The discrete valve (A2N) comes with a holder for holding the socket assembly. Refer to page 293 for details.
- Note 11 3-position all ports closed and PAB connection are not provided with exhaust malfunction prevention valve (H). Refer to Page 628 for details on the check valve.
- Note 12 Contact CKD when using a vacuum with the external pilot (K).
- Note 13 In addition, the surgeless "S" and low heat energy-saving circuit "E" cannot be selected at the same time.
- Note 14 This is surgeless specifications.
- Note 15 The P port has a filter built inside as a standard.
- Note 16 Specify the spacer mounting location and quantity in manifold specifications.
Stacking multiple spacers is not supported.
Combination with the masking plate is not supported.
- Note 17 L type push-in fitting (upward) cannot be selected at the same time.
Refer to page 287 to 291 for details.
- Note 18 Combination with the external pilot (K) is not available.
- Note 18 L type push-in fitting are available only for the 2-position single.

MN4GB1/2-T* Series

Reduced wiring block manifold; base piping

Manifold components explanation and parts list



Main parts list (refer to page 276 to 294 for details)

Product No.	Component name	Model no. (example)	No.	Component name	Model no. (example)
1	Electrical block	N4G1R-T8P1	5	Partition block	N4G1R-S
2	Discrete valve block	N4GB1R-V2-C6	6	Supply and exhaust block	N4G1R-Q-8
3	Discrete valve block with solenoid valve	N4GB120R-C6-A2NH-3	7	End block R	N4G1R - ER
4	Solenoid valve body	4GB129R-00-A2NH-3			

B type reduced wiring weight

4GB1

Product name	Model no.	Weight	Product name	Model no.	Weight	Product name	Model no.	Weight
Valve block with solenoid valve	N4GB110R-C6-A2N-3	69	Supply and exhaust block	N4G1R-Q-8	58	Electrical block	N4G1R-T10(R)	207
	N4GB120R-C6-A2N-3	88		N4G1R-QK-8	60		N4G1R-T30(R)	165
	N4GB1 $\frac{3}{4}$ 0R-C6-A2N-3	89	End block	N4G1R-E*	60		N4G1R-T50(R)	167
	N3GB1660R-C6-A2N-3	88		N4G1R-EX*	60		N4G1R-T6*	295
Valve block with masking plate	N4GB1R-MP*-C6	37	Partition block	N4G1R-S	45		N4G1R-T7*	203
							N4G1R-T8*	229

4GB2

Product name	Model no.	Weight	Product name	Model no.	Weight	Product name	Model no.	Weight
Valve block with solenoid valve	N4GB210R-C8-A2N-3	130	Supply and exhaust block	N4G2R-Q-10	83	Electrical block	N4G2R-T10 (R)	223
	N4GB220R-C8-A2N-3	149		N4G2R-QK-10	85		N4G2R-T30 (R)	182
	N4GB2 $\frac{3}{4}$ 0R-C8-A2N-3	160	End block	N4G2R-E*	84		N4G2R-T50 (R)	184
	N4GB2660R-C8-A2N-3	149		N4G2R-EX*	85		N4G2R-T6*	312
Valve block with masking plate	N4GB2R-MP*-C8	69	Partition block	N4G2R-S	60		N4G2R-T7*	204
							N4G2R-T8*	242

Parts list

Applica-tion	Parts name	Model no.	Application	Parts name	Model no.
Valve 4G1	φ1.8 barbed type	4G1R-JOINT-CF	Valve 4G2	φ1/4 inch elbow type Note 1	4G2R-JOINT-CL6N
	φ1.8 straight type	4G1R-JOINT-C18		φ5/16 inch elbow type Note 1	4G2R-JOINT-CL8N
	φ4 straight type	4G1R-JOINT-C4		Plug cartridge	4G2R-JOINT-CPG
	φ6 straight type	4G1R-JOINT-C6	Valve	Coil assembly	4GR-A2N-[*2]-COIL-[*3]
	φ1.8 elbow type	4G1R-JOINT-CL18, CLL18			*2: Ozone/cutting oil proof (blank, A)
	φ4 elbow type	4G1R-JOINT-CL4, CLL4			*3: Voltage (1, 3, 4)
	φ6 elbow type	4G1R-JOINT-CL6, CLL6		Expansion socket assembly (Details on page 401)	For a side solenoid
	φ1/8 inch straight type	4G1R-JOINT-C3N			N4GR-SOCKET-ASSY- (Selection no.)
	φ5/32 inch straight type	4G1R-JOINT-C4N			For b side solenoid
	φ1/8 inch elbow type Note 1	4G1R-JOINT-CL3N			N4GR-RELAY-SOCKET-(Selection no.)
	φ5/32 inch elbow type Note 1	4G1R-JOINT-CL4N			
	Plug cartridge	4G1R-JOINT-CPG			
	φ4 straight type	4G2R-JOINT-C4			
	φ6 straight type	4G2R-JOINT-C6			
	φ8 straight type	4G2R-JOINT-C8			
	φ6 elbow type	4G2R-JOINT-CL6, CLL6			
	φ8 elbow type	4G2R-JOINT-CL8, CLL8			
Valve 4G2	φ1/4 inch straight type	4G2R-JOINT-C6N			
	φ5/16 inch straight type	4G2R-JOINT-C8N			

Note 1: This is a available consult factory order.

Dimensions

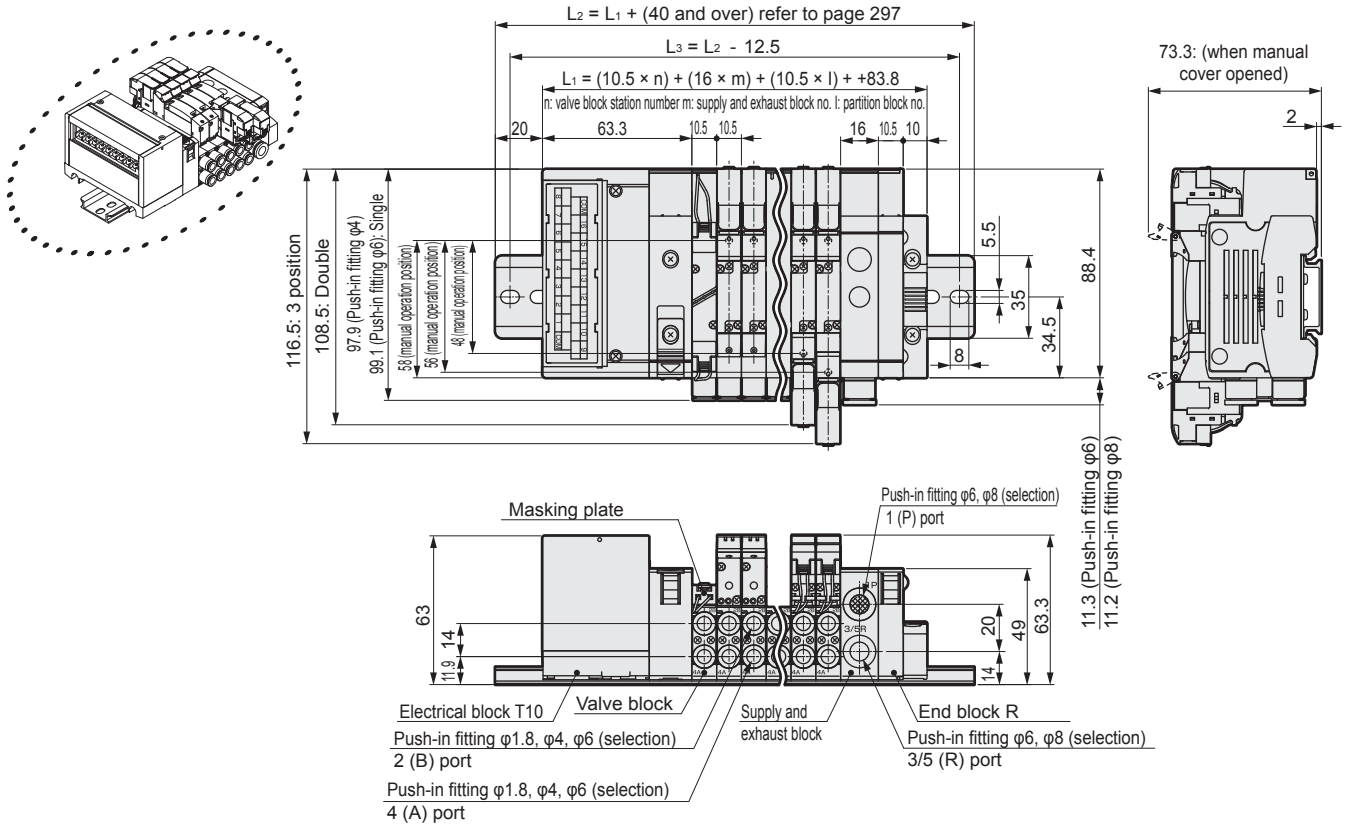


MN4GB1

Common terminal block (M3 thread) Left side (T10)

Note: There are push tightening specifications (T11)
The dimensions are the same as T10.

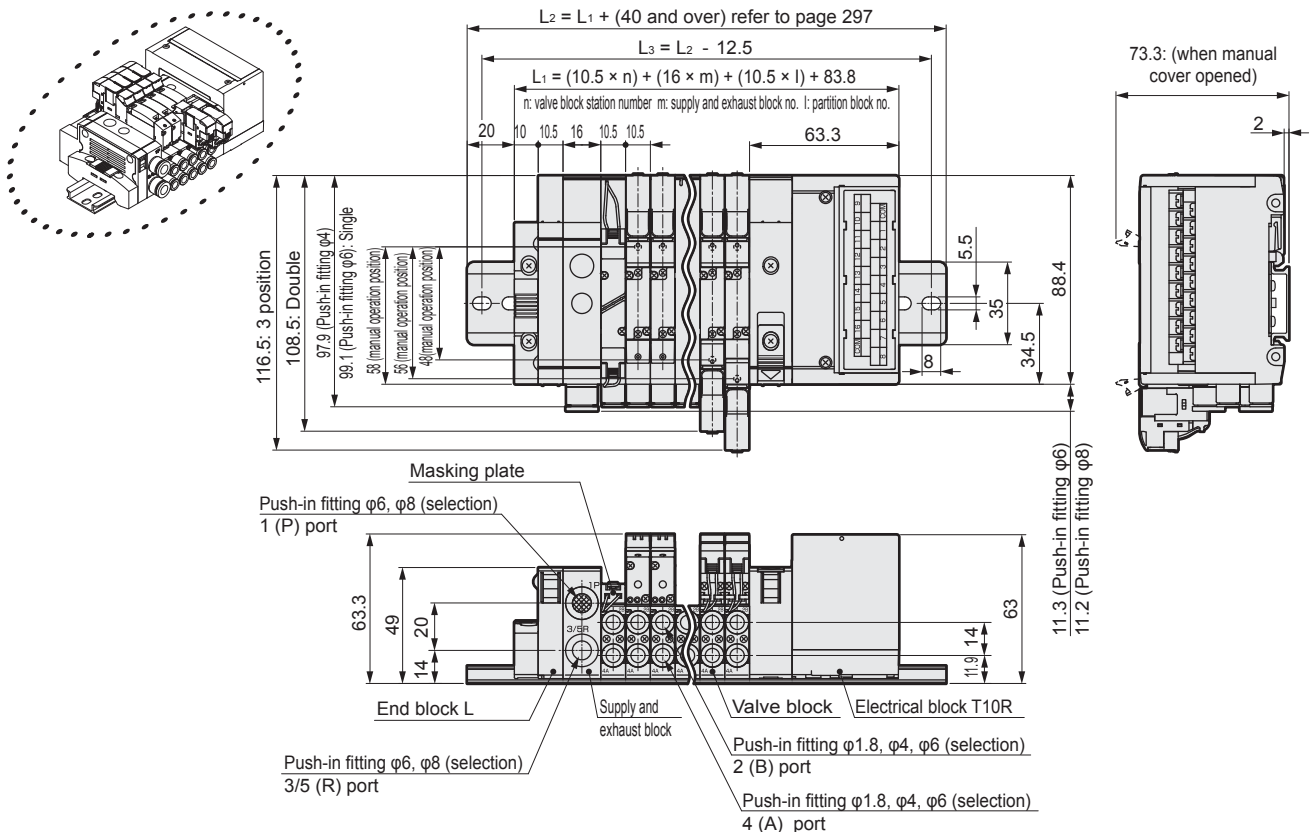
Note: The dimension of dual 3 port valve integrated type is the same as that of the double type.



Common terminal block (M3 thread) Right side (T10R)

Note: There are push tightening specifications (T11R).
The dimensions are the same as T10R.

Note: Refer to 266 page for details on L type push-in fitting.



MN4GB2-T10 Series

Reduced wiring block manifold; base piping

Dimensions

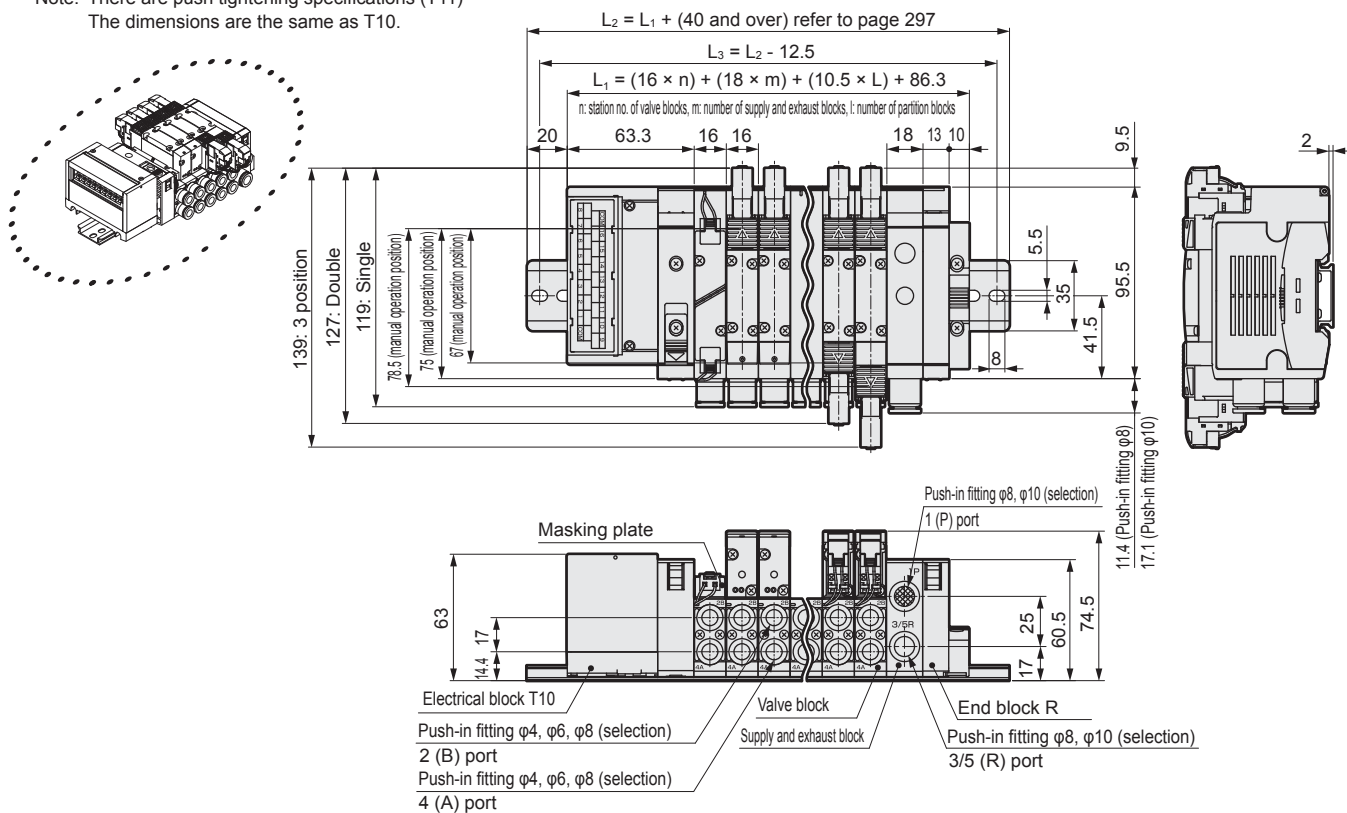


MN4GB2

● Common terminal block (M3 thread) left side (T10)

Note: There are push tightening specifications (T11)
The dimensions are the same as T10.

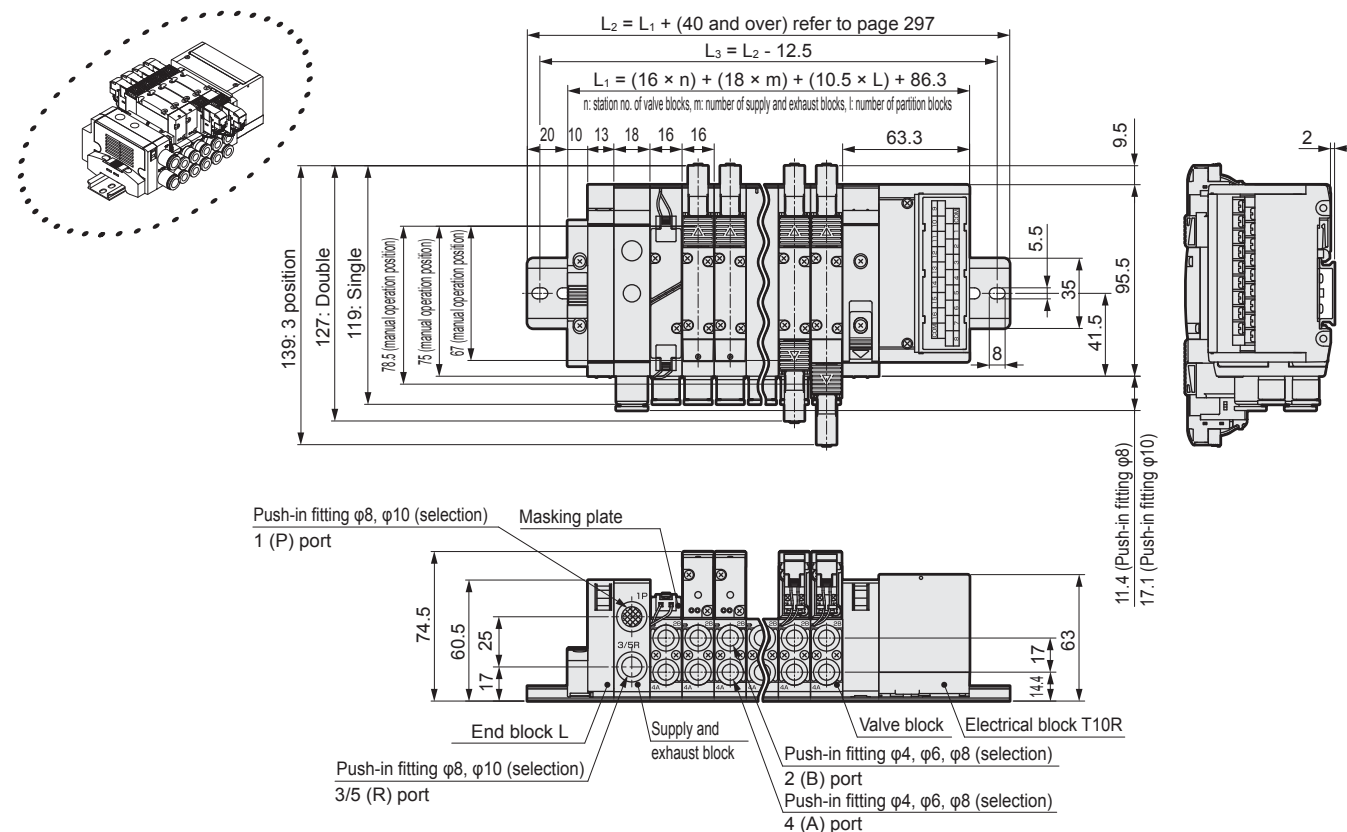
Note: The dimension of dual 3 port valve integrated type is the same as that of the double type.



● Common terminal block (M3 thread) right side (T10R)

Note: There are push tightening specifications (T11R).
The dimensions are the same as T10R.

Note: Refer to 268 page for details on L type push-in fitting.



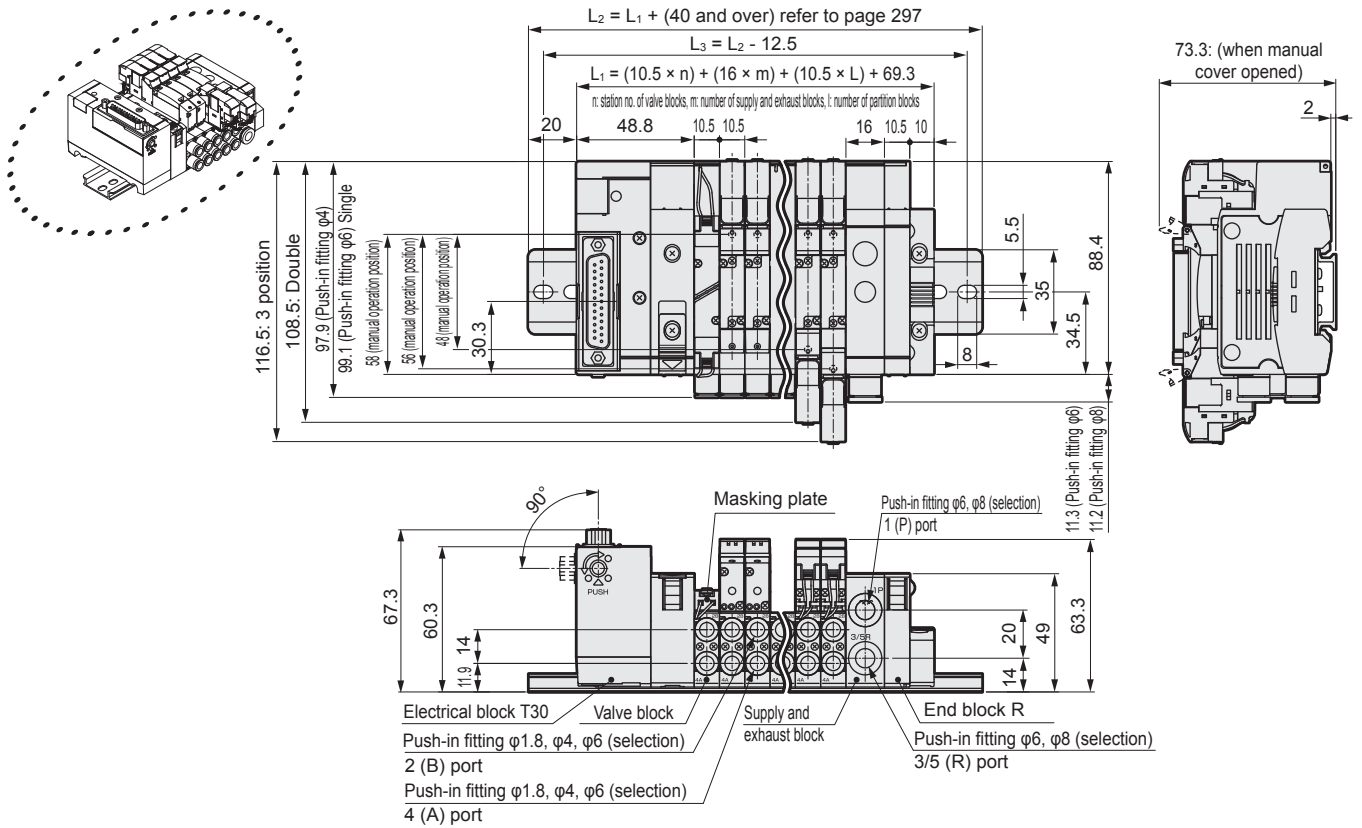
Dimensions



MN4GB1

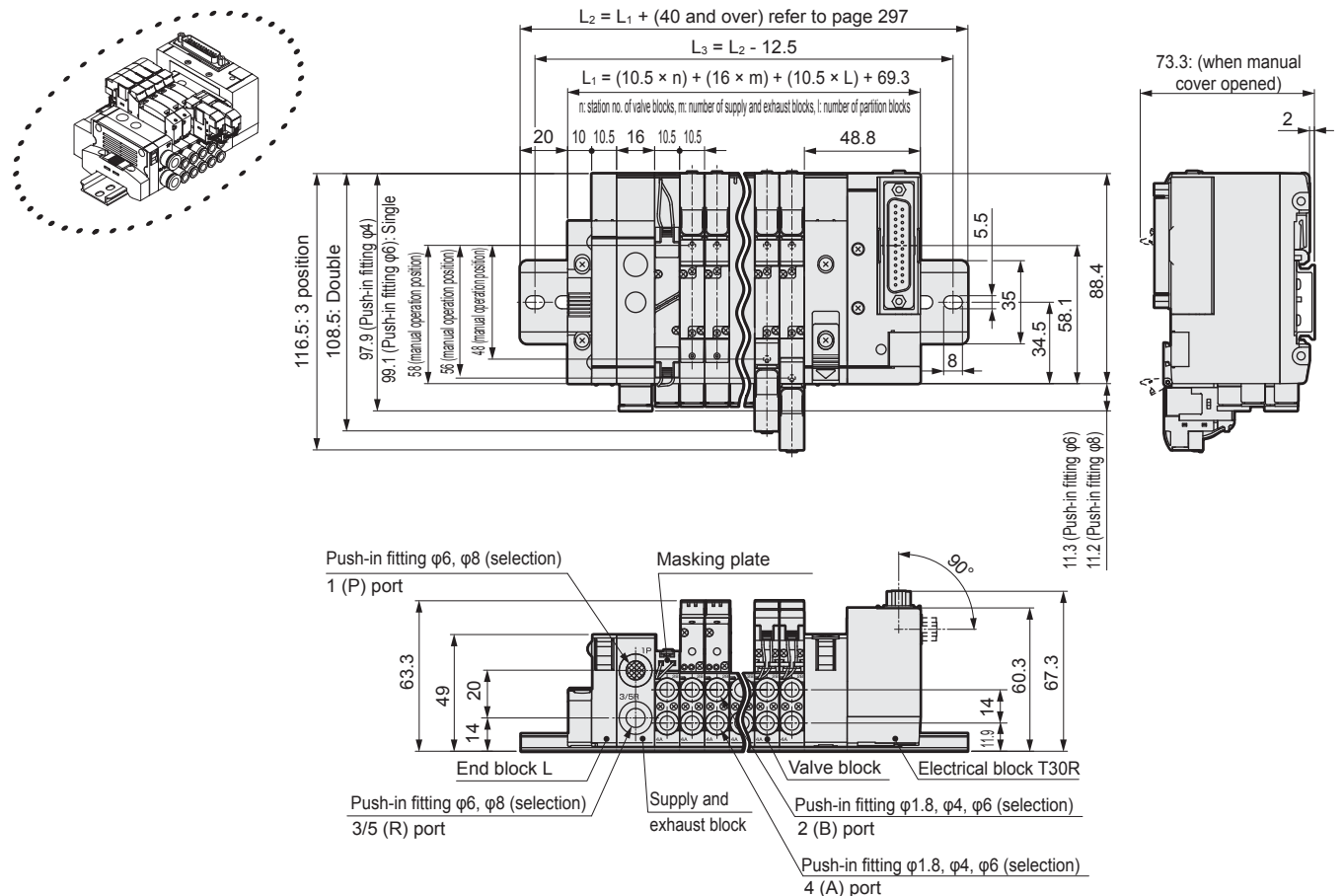
● D-sub connector left side (T30)

Note: The dimension of dual 3 port valve integrated type is the same as that of the double type.



● D-sub connector right side (T30R)

Note: Refer to 266 page for details on L type push-in fitting.



MN4GB2-T30 Series

Reduced wiring block manifold; base piping

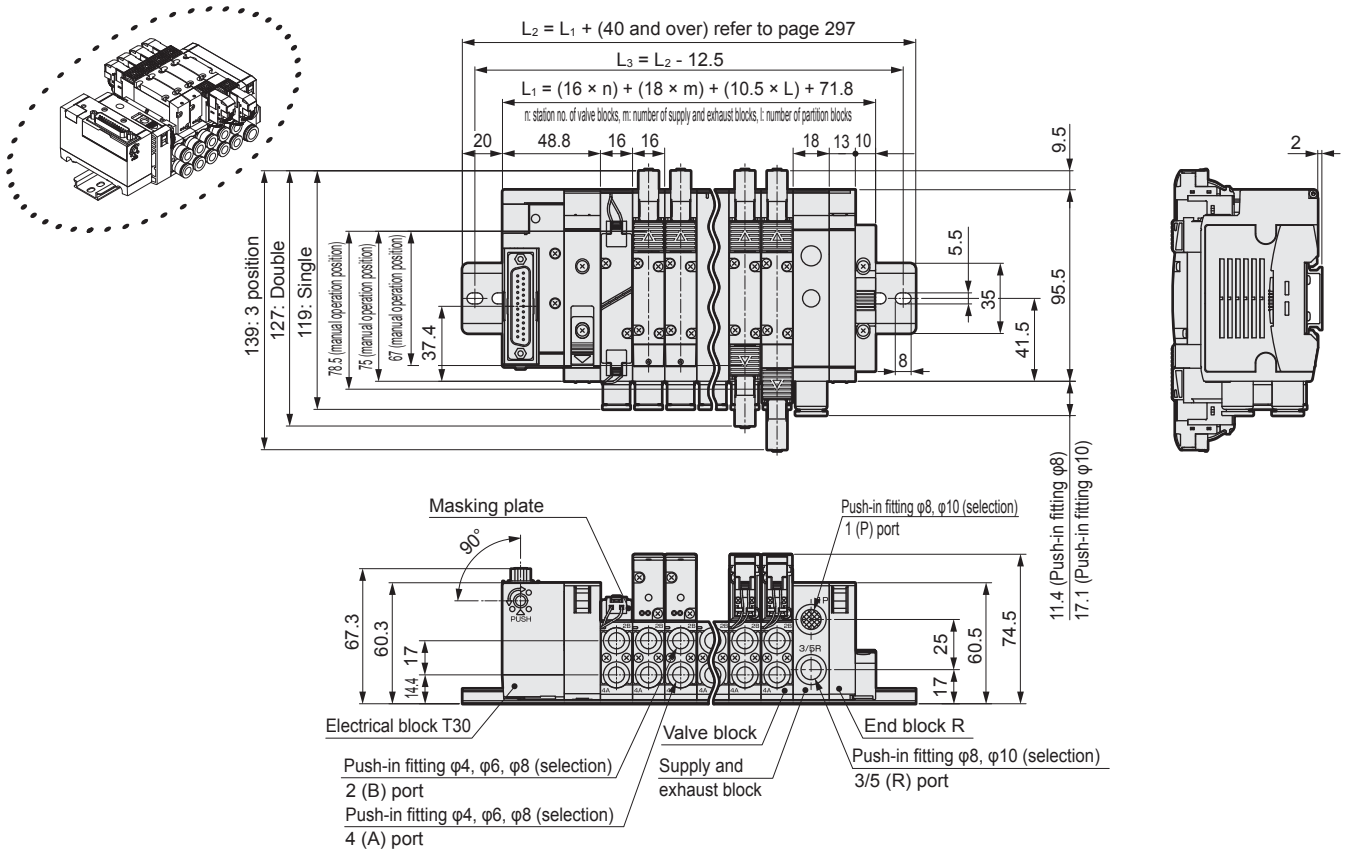
Dimensions



MN4GB2

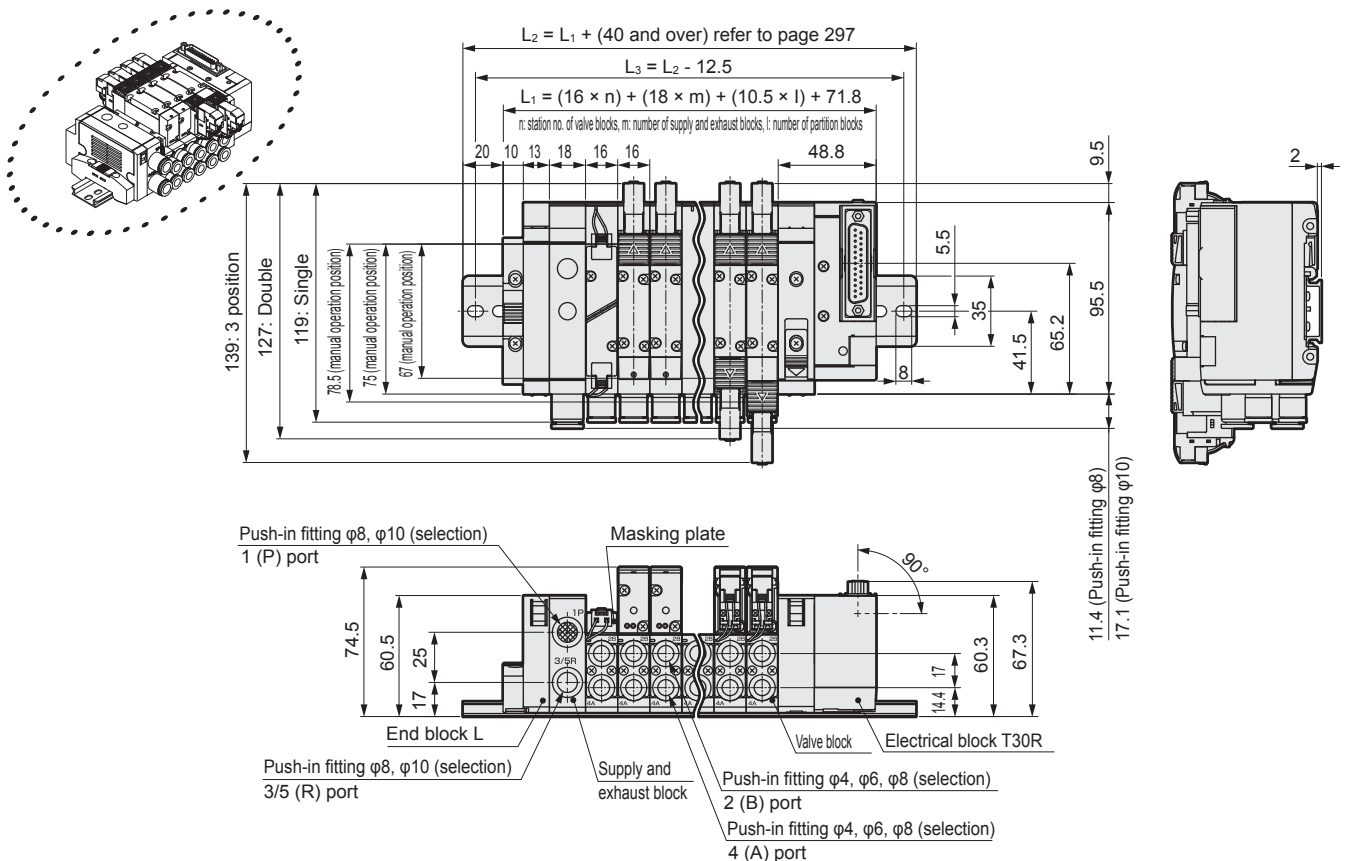
● D-sub connector left side (T30)

Note: The dimension of dual 3 port valve integrated type is the same as that of the double type.



● D-sub connector right side (T30R)

Note: Refer to 268 page for details on L type push-in fitting.

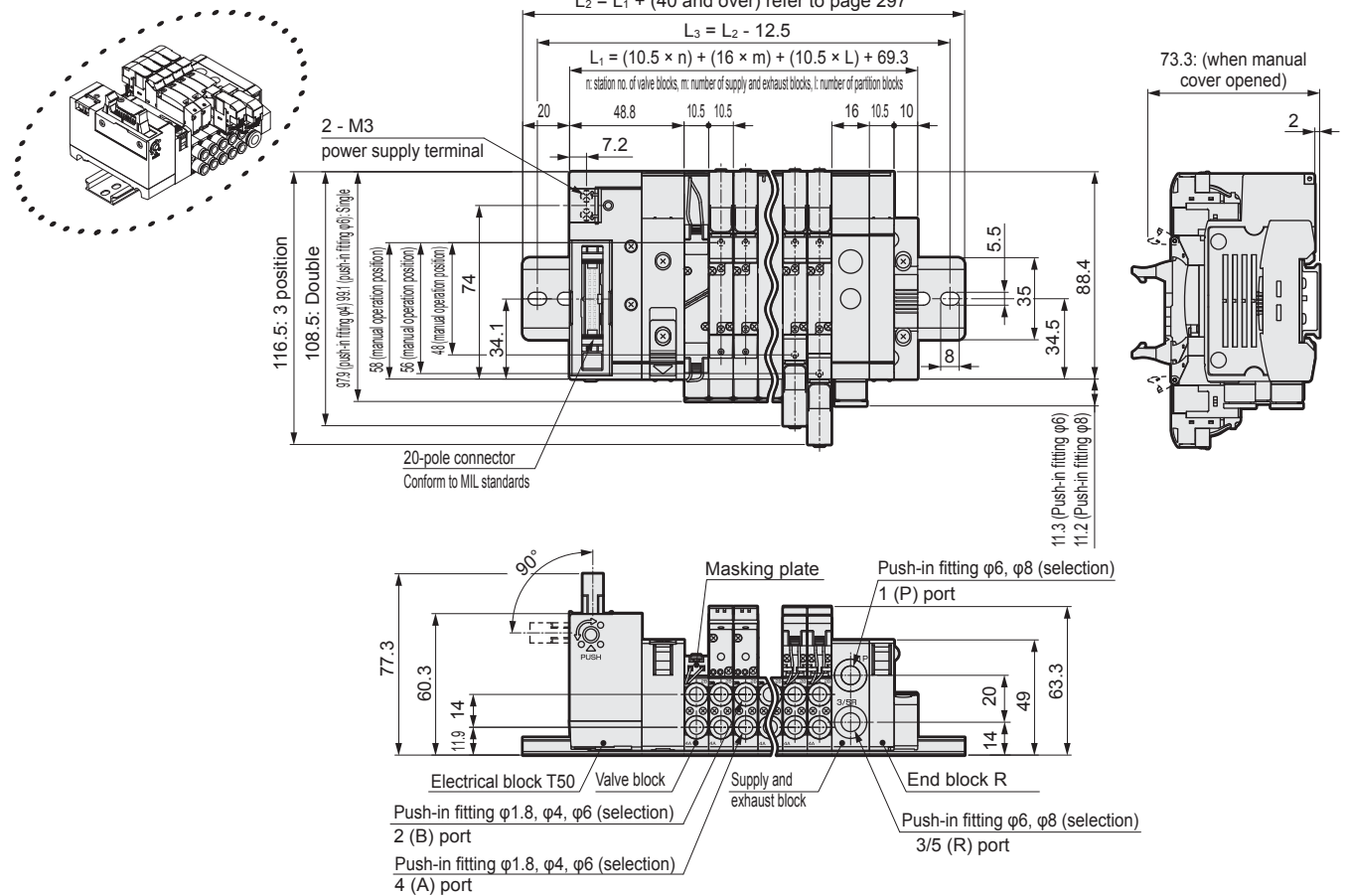


Dimensions



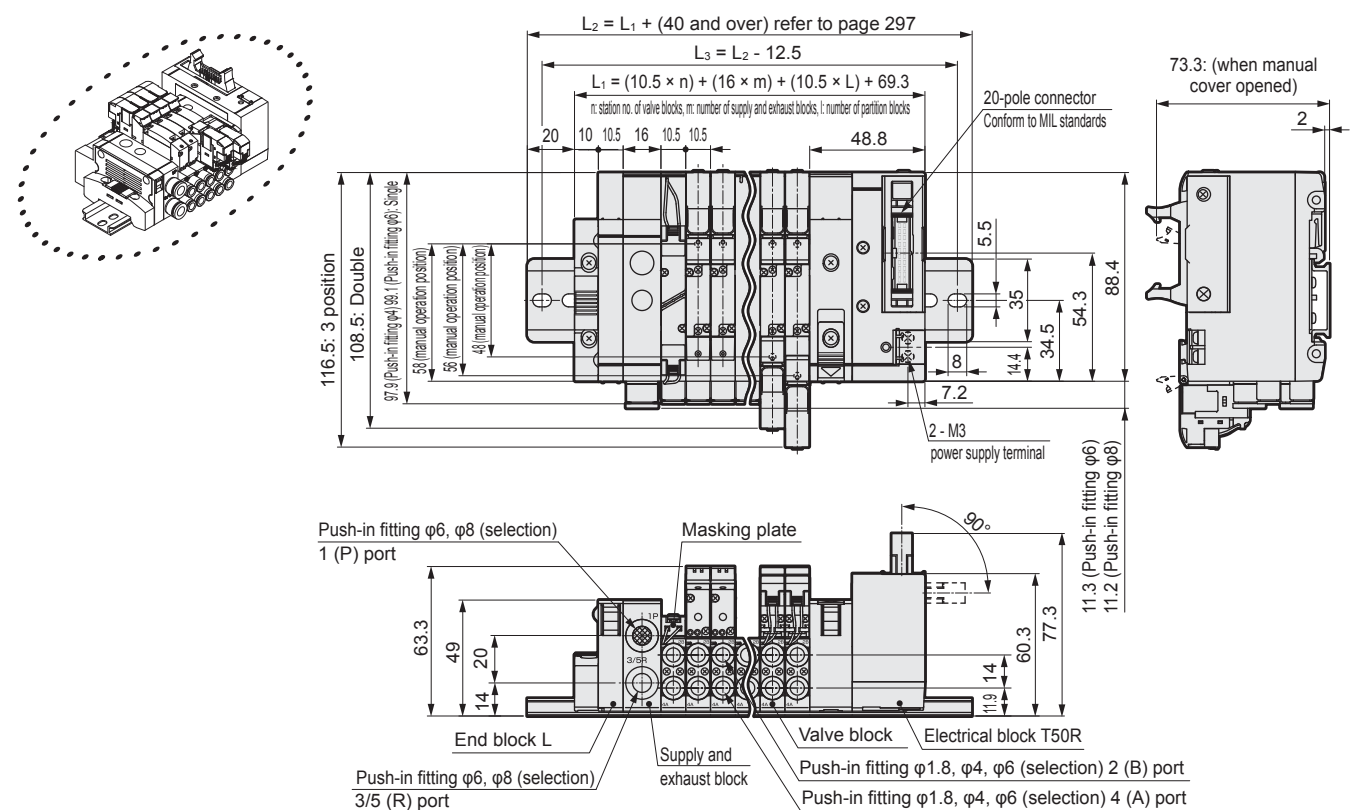
MN4GB1

- Flat cable connector left side (T50)
With power supply terminal



- Flat cable connector right type (T50R)
With power supply terminal

Note: Refer to 266 page for details on L type push-in fitting.



MN4GB2-T50 Series

Reduced wiring block manifold; base piping

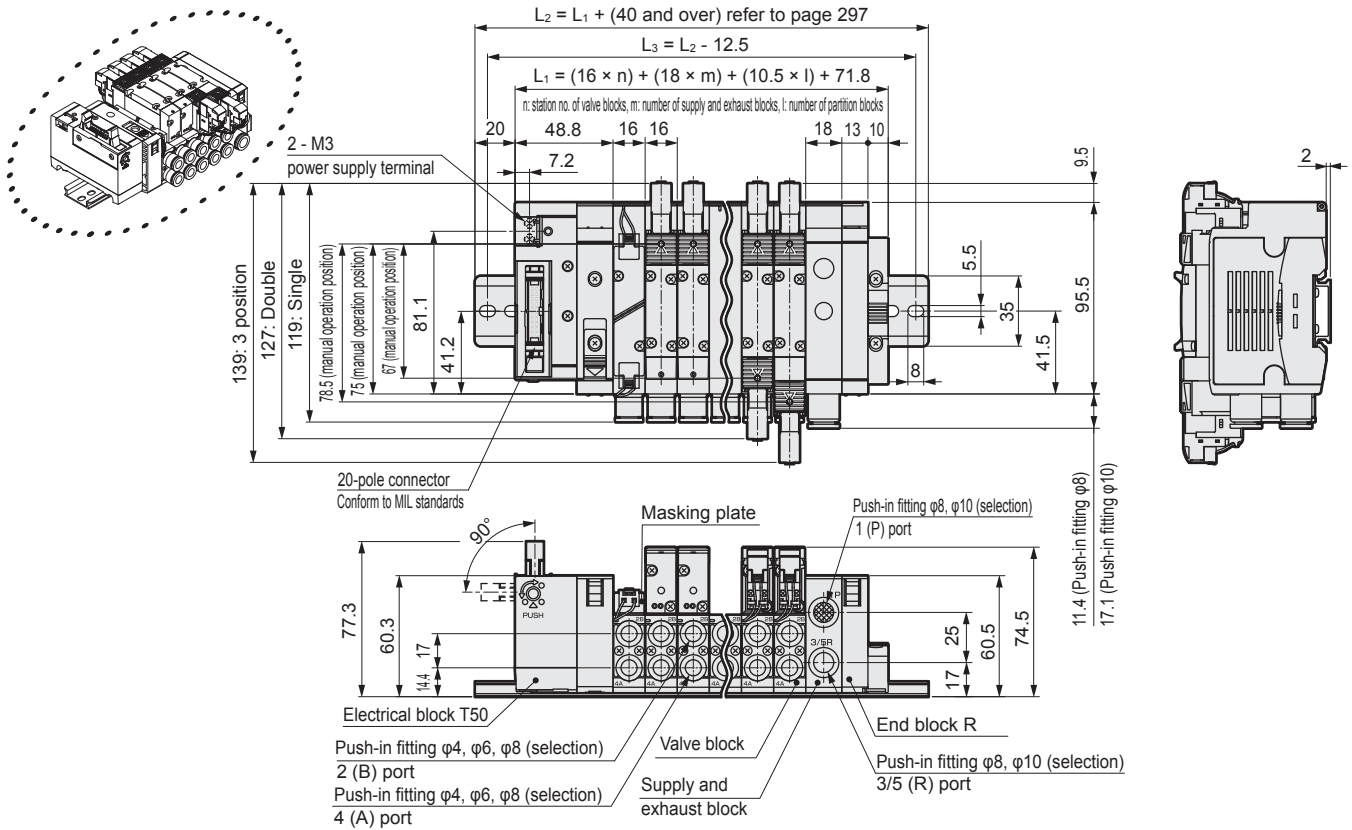
Dimensions



MN4GB2

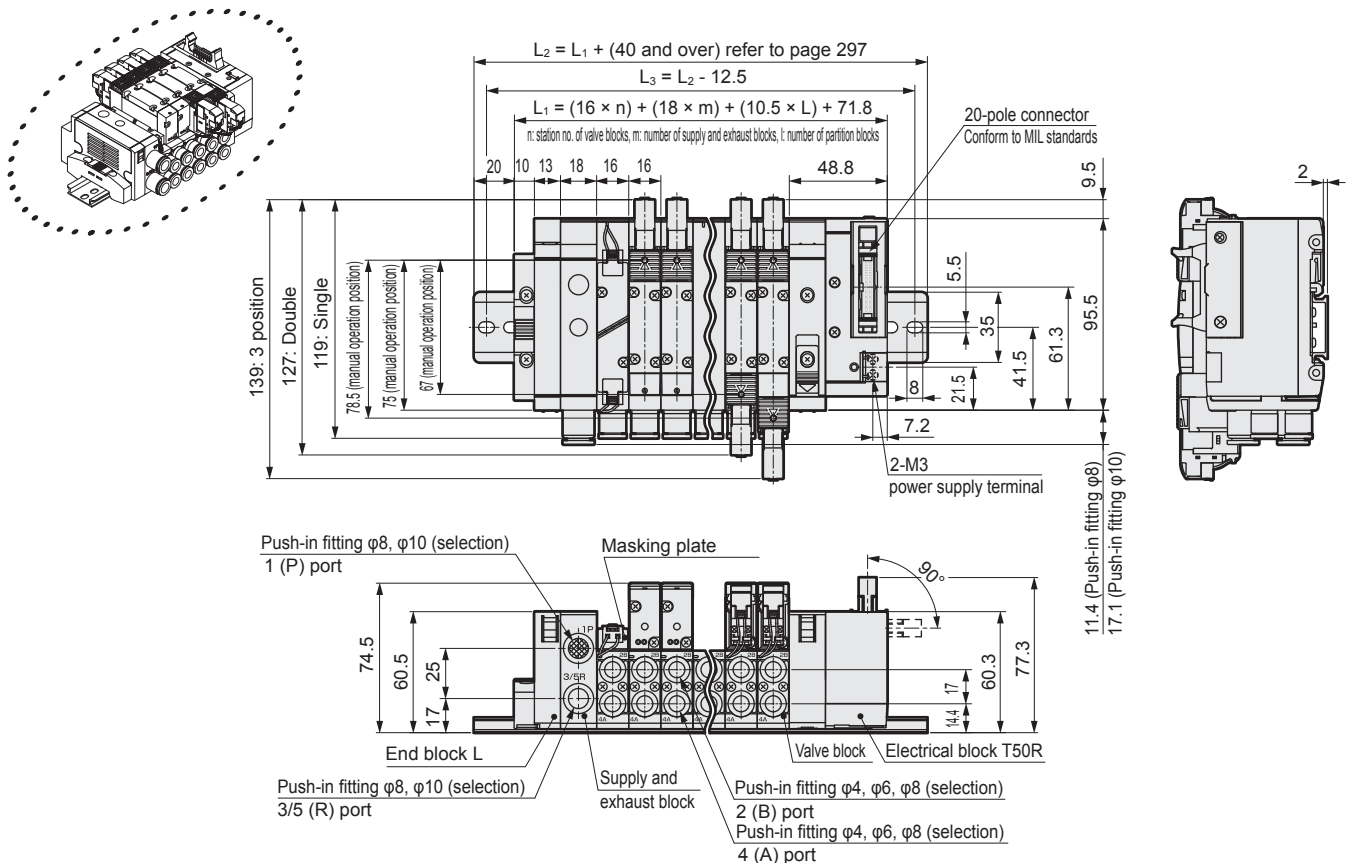
- Flat cable connector left side
With power supply terminal (T50)

- Note 1: T51, T52, and T53 flat cable connectors are also available. The dimensions are the same as T50.
- Note 2: The dimension of dual 3 port valve integrated type is the same as that of the double type.



- Flat cable connector right type
With power supply terminal (T50R)

Note: Refer to 268 page for details on L type push-in fitting.



MN4GB1/2-T6* Series

Reduced wiring block manifold; base piping

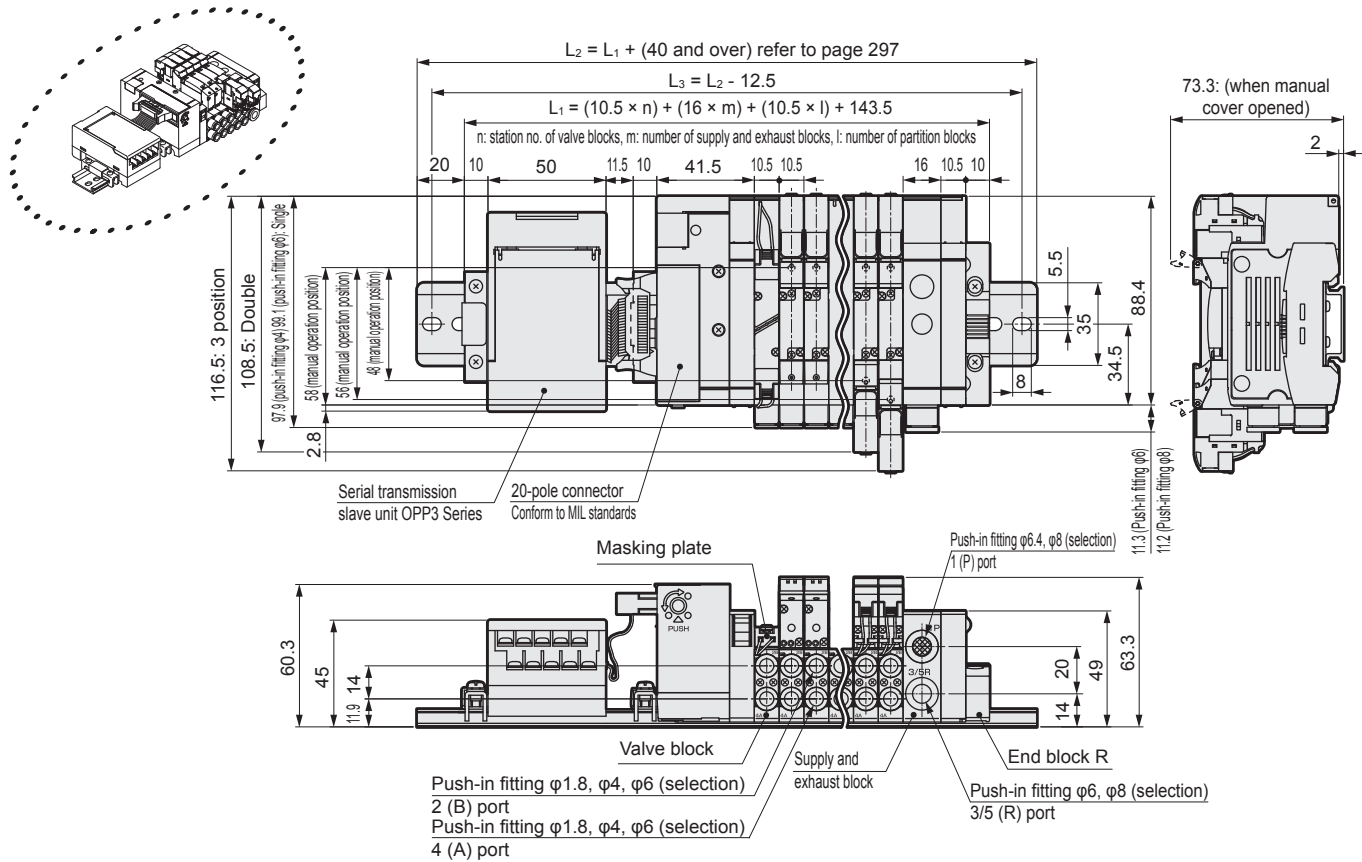
Dimensions



MN4GB1

- Serial transmission (T6*)

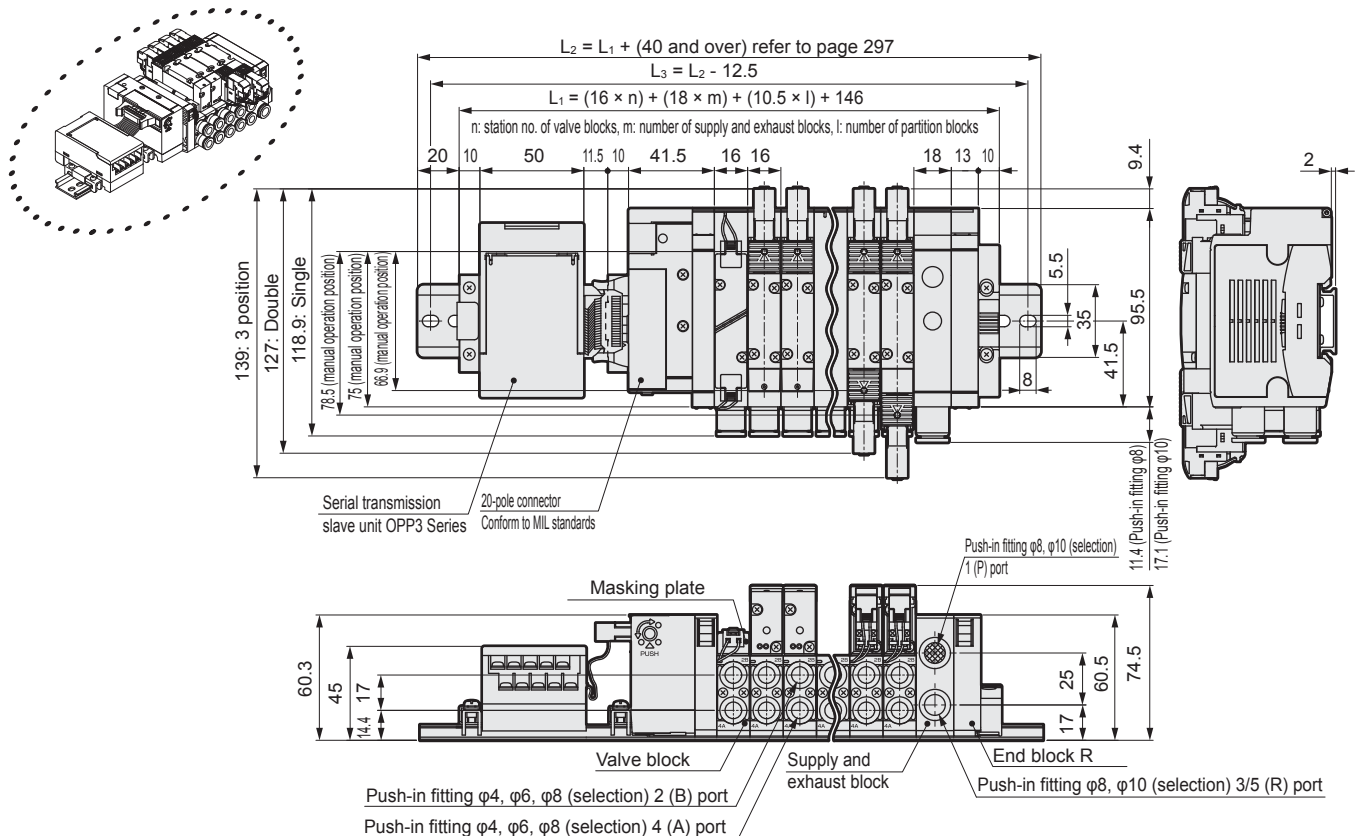
Note: The dimension of dual 3 port valve integrated type is the same as that of the double type.



MN4GB2

- Serial transmission (T6*)

Note: Refer to 266 page for details on L type push-in fitting.



MN4GB1/2-T7* Series

Reduced wiring block manifold; base piping

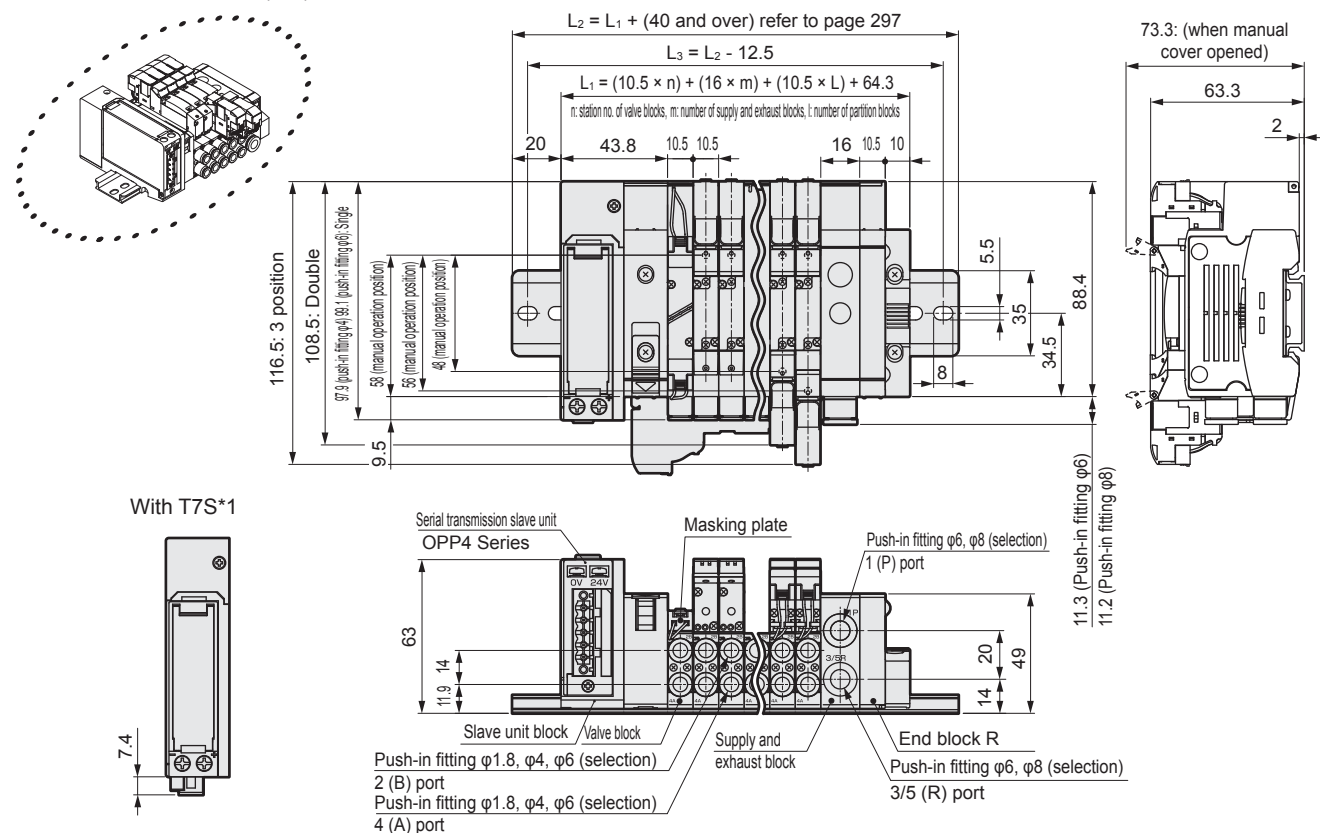
Dimensions



MN4GB1

- Thin serial transmission (T7*)

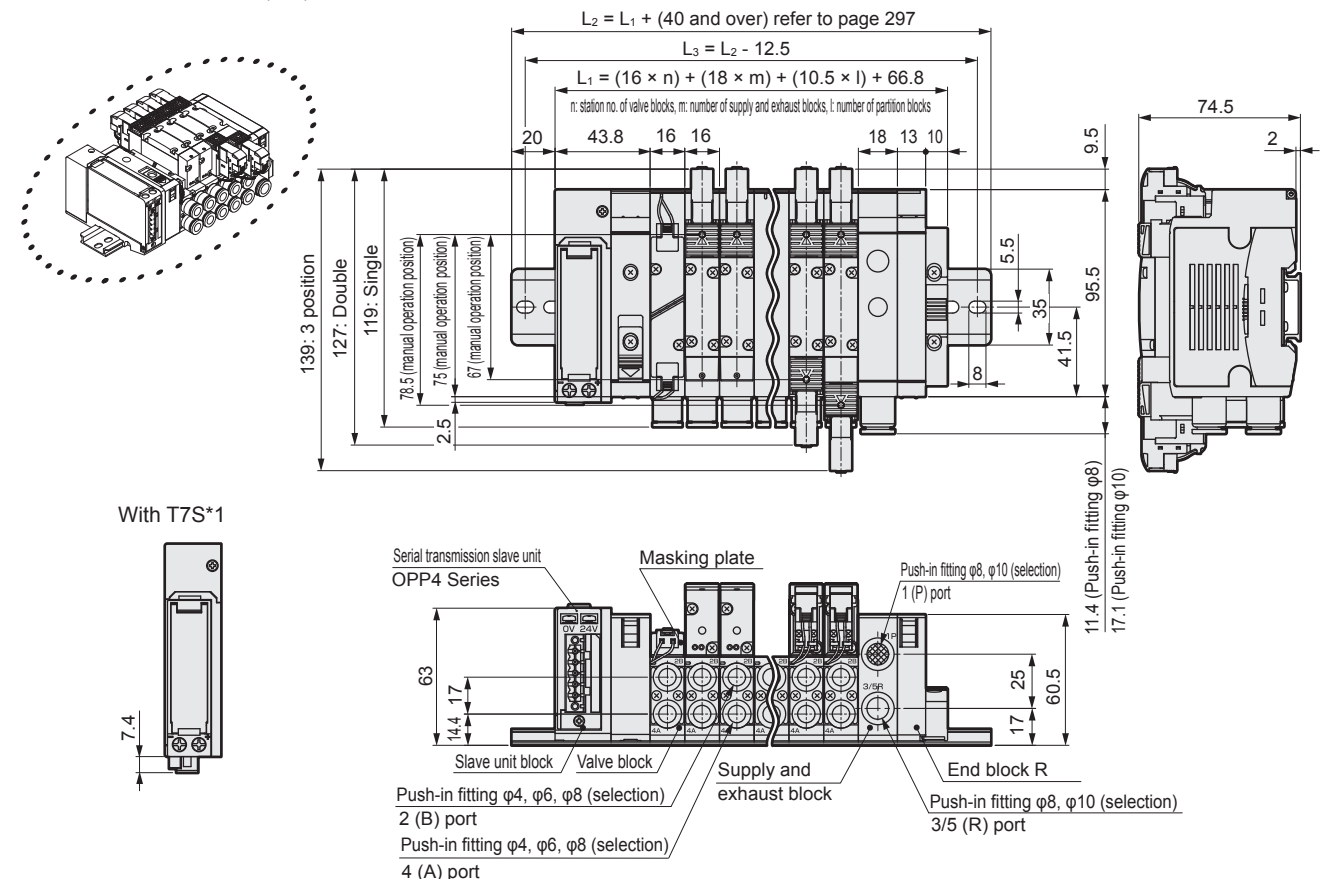
Note: The dimension of dual 3 port valve integrated type is the same as that of the double type.



MN4GB2

- Thin serial transmission (T7*)

Note: Refer to 266 page for details on L type push-in fitting.



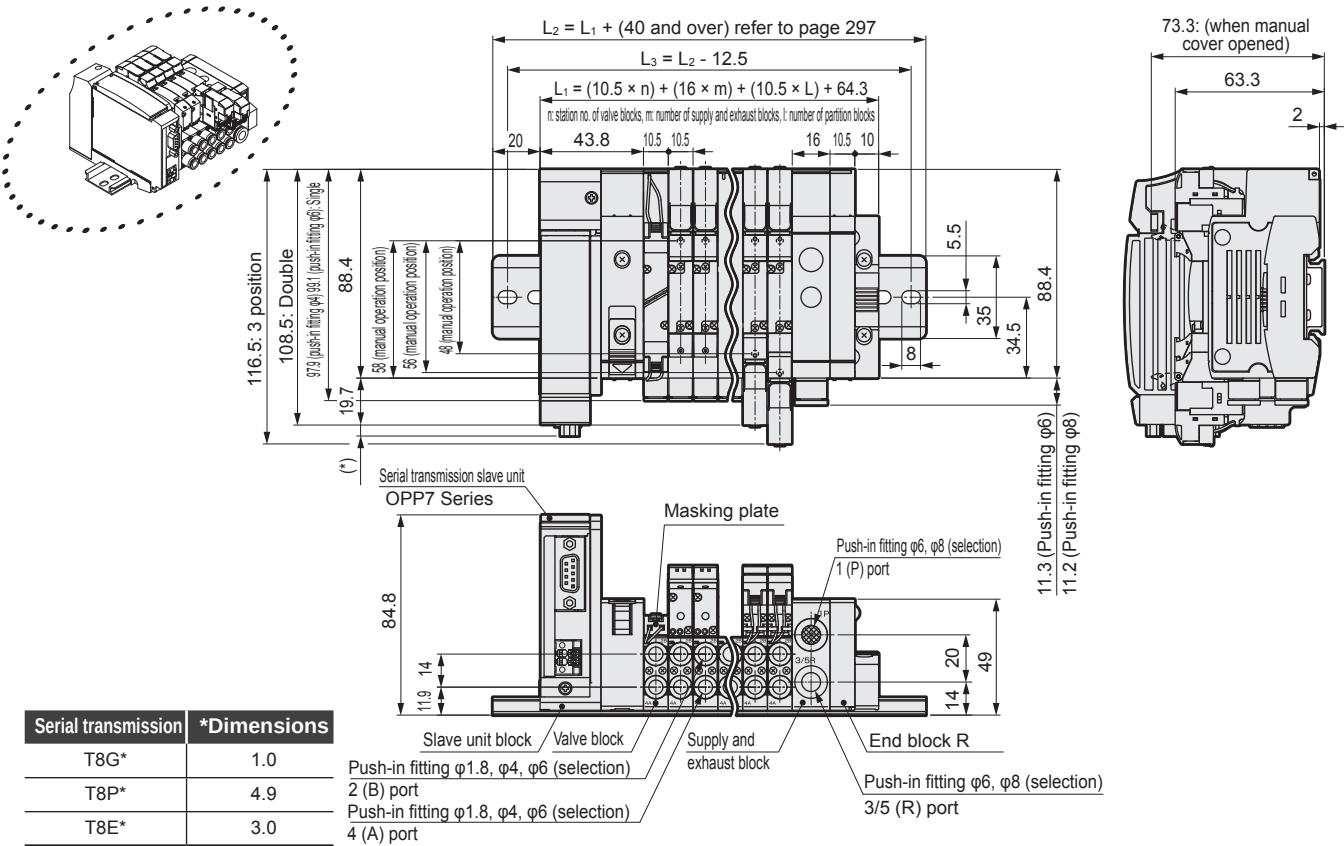
Dimensions



MN4GB1

- Thin serial transmission (T8*)

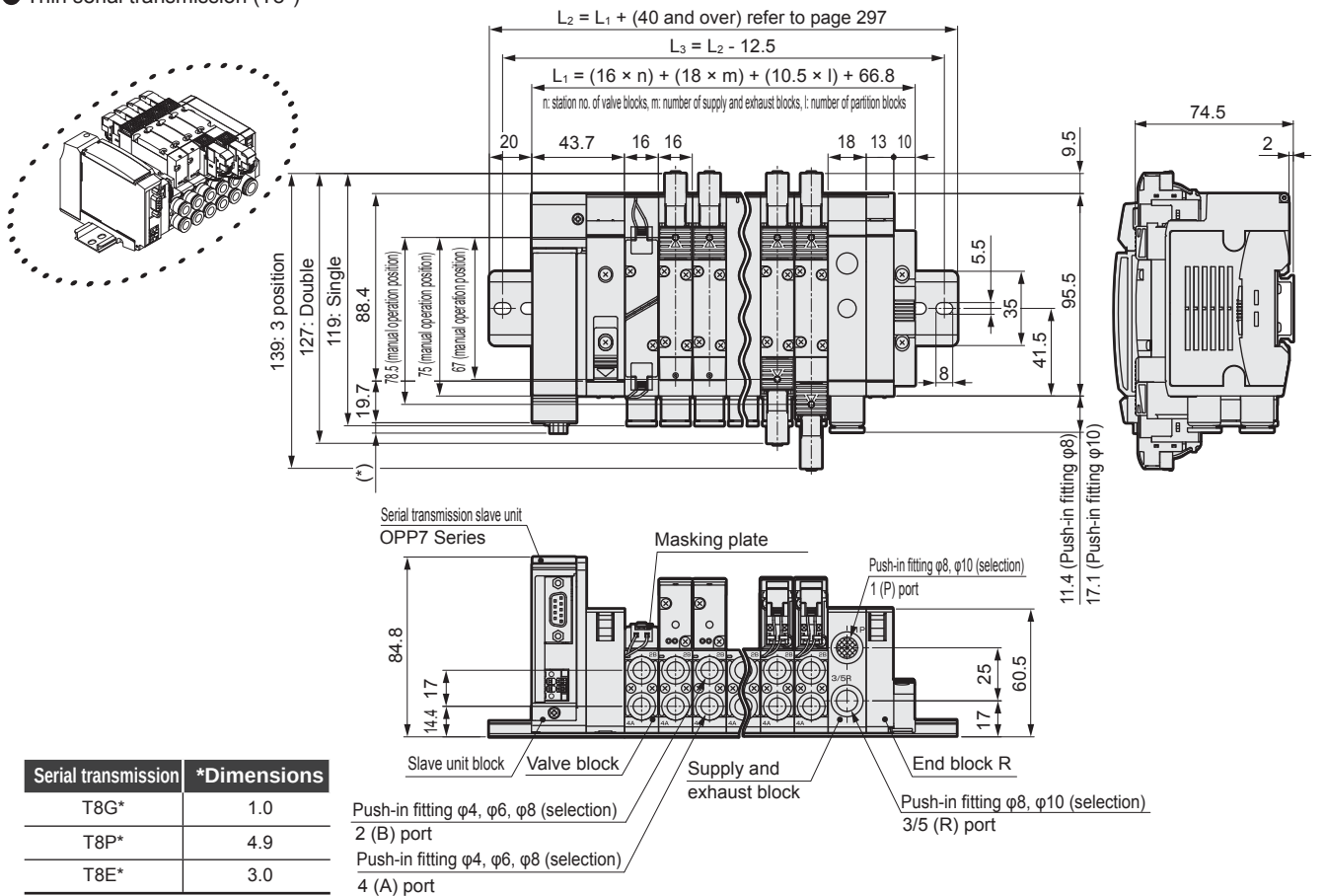
Note: The dimension of dual 3 port valve integrated type is the same as that of the double type.



MN4GB2

- Thin serial transmission (T8*)

Note: Refer to 266 page for details on L type push-in fitting.



Dimensions

MN4GB1 Valve block

- Fitting straight
- $\phi 1.8$ (CF)



- $\phi 1.8$ (C18)



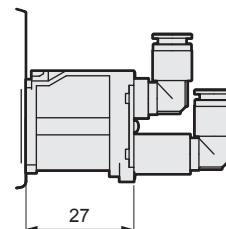
- $\phi 4$ (C4)



- $\phi 6$ (C6)



- Option L (With piping adaptor)
- Add 27mm during selection.

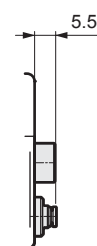


- Fitting straight, single plug

- $\phi 1.8$ (CFNC)



- $\phi 1.8$ (C18NC)



- $\phi 4$ (C4NC)



- $\phi 6$ (C6NC)



- $\phi 1.8$ (CFNO)



- $\phi 1.8$ (C18NO)



- $\phi 4$ (C4NO)

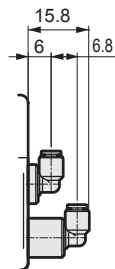


- $\phi 6$ (C6NO)

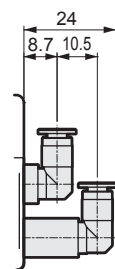


- Fitting L type (upward)

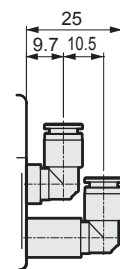
- $\phi 1.8$ (CL18)



- $\phi 4$ (CL4)

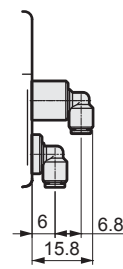


- $\phi 6$ (CL6)

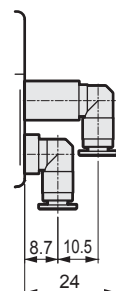


- Fitting L type (downward)

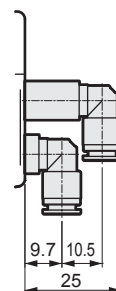
- $\phi 1.8$ (CD18)



- $\phi 4$ (CD4)



- $\phi 6$ (CD6)

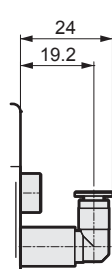


- Fitting L type (upward), single plug

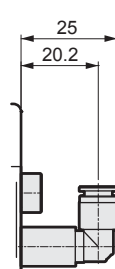
- $\phi 1.8$ (CL18NC)



- $\phi 4$ (CL4NC)



- $\phi 6$ (CL6NC)



- $\phi 1.8$ (CL18NO)



- $\phi 4$ (CL4NO)

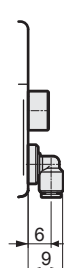


- $\phi 6$ (CL6NO)



- Fitting L type (downward), single plug

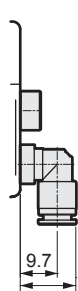
- $\phi 1.8$ (CD18NC)



- $\phi 4$ (CD4NC)



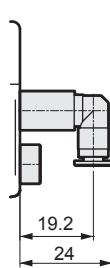
- $\phi 6$ (CD6NC)



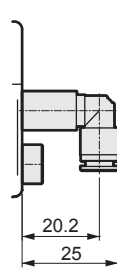
- $\phi 1.8$ (CD18NO)



- $\phi 4$ (CD4NO)



- $\phi 6$ (CD6NO)



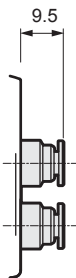
Dimensions

MN4GB1 Valve block

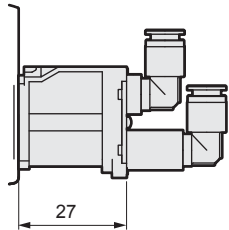
- Fitting straight
- $\phi 1/8$ inch (C3N)



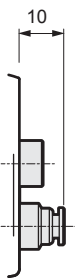
- $\phi 5/32$ inch (C4N)



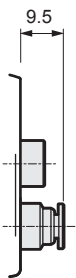
- Option L (With piping adaptor)
- Add 27mm during selection.



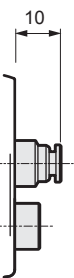
- Fitting straight, single plug
- $\phi 1/8$ inch (C3NCN)



- $\phi 5/32$ inch (C4NCN)



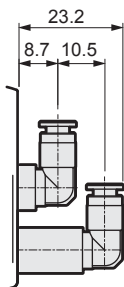
- $\phi 1/8$ inch (C3NON)



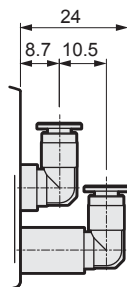
- $\phi 5/32$ inch (C4NON)



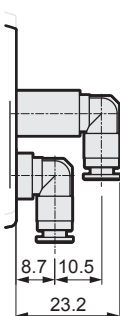
- Fitting L type (upward)
- $\phi 1/8$ inch (CL3N)



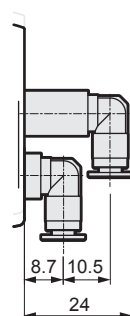
- $\phi 5/32$ inch (CL4N)



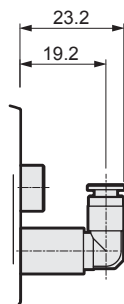
- $\phi 1/8$ inch (CD3N)



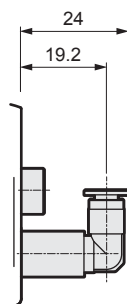
- $\phi 5/32$ inch (CD4N)



- Fitting L type (upward), single plug
- $\phi 1/8$ inch (CL3NCN)



- $\phi 5/32$ inch (CL4NCN)



- $\phi 1/8$ inch (CL3NON)



- $\phi 5/32$ inch (CL4NON)



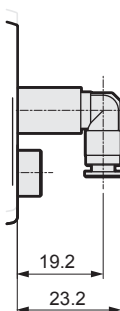
- Fitting L type (downward), single plug
- $\phi 1/8$ inch (CD3NCN)



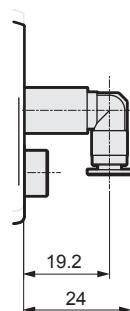
- $\phi 5/32$ inch (CD4NCN)



- $\phi 1/8$ inch (CD3NON)



- $\phi 5/32$ inch (CD4NON)



Dimensions

MN4GB2 Valve block

● Fitting straight

● $\phi 4$ (C4)



● $\phi 6$ (C6)

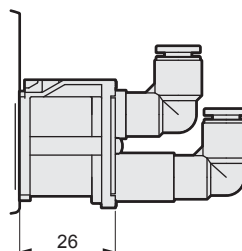


● $\phi 8$ (C8)



● Option L (With piping adaptor)

Add 26mm during selection.



● Fitting straight, single plug

● $\phi 4$ (C4NC)



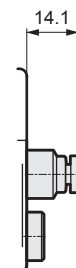
● $\phi 6$ (C6NC)



● $\phi 8$ (C8NC)



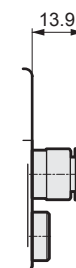
● $\phi 4$ (C4NO)



● $\phi 6$ (C6NO)

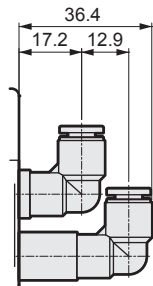


● $\phi 8$ (C8NO)

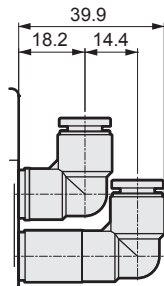


● Fitting L type (upward)

● $\phi 6$ (CL6)

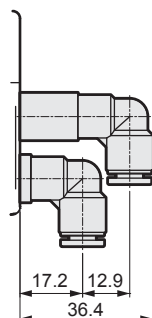


● $\phi 8$ (CL8)

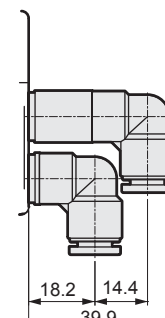


● Fitting L type (downward)

● $\phi 6$ (CD6)

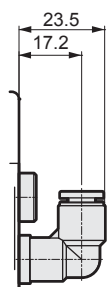


● $\phi 8$ (CD8)



● Fitting L type (upward), single plug

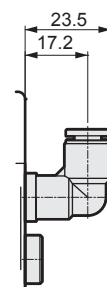
● $\phi 6$ (CL6NC)



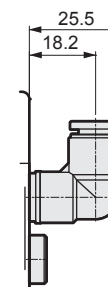
● $\phi 8$ (CL8NC)



● $\phi 6$ (CL6NO)

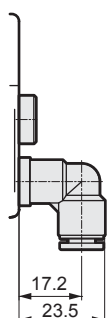


● $\phi 8$ (CL8NO)

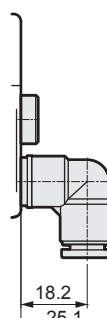


● Fitting L type (downward), single plug

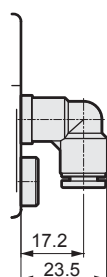
● $\phi 6$ (CD6NC)



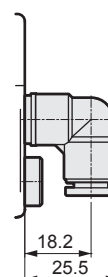
● $\phi 8$ (CD8NC)



● $\phi 6$ (CD6NO)



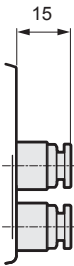
● $\phi 8$ (CD8NO)



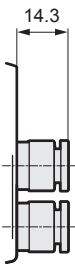
Dimensions

MN4GB2 Valve block

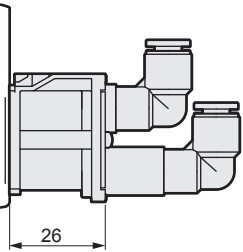
- Fitting straight
- $\phi 1/4$ inch (C6N)



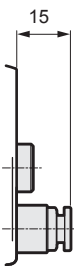
- $\phi 5/16$ inch (C8N)



- Option L (With piping adaptor)
- Add 26mm during selection.



- Fitting straight, single plug
- $\phi 1/4$ inch (C6NNC)
- $\phi 5/16$ inch (C8NNC)



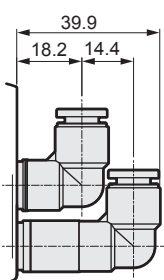
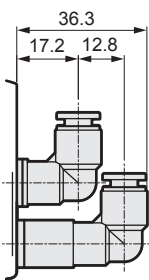
- $\phi 1/4$ inch (C6NON)



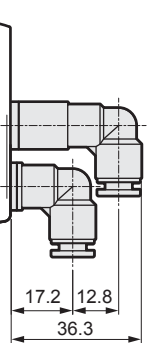
- $\phi 5/16$ inch (C8NON)



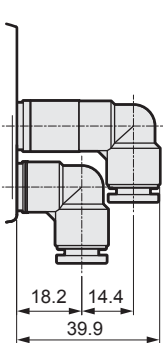
- Fitting L type (upward)
- $\phi 1/4$ inch (CL6N)
- $\phi 5/16$ inch (CL8N)



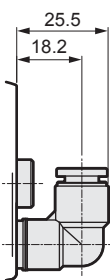
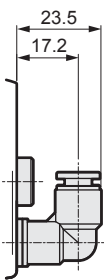
- Fitting L type (downward)
- $\phi 1/8$ inch (CD6N)



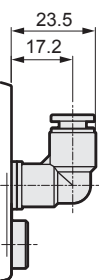
- $\phi 5/32$ inch (CD8N)



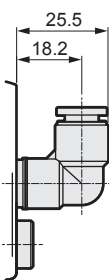
- Fitting L type (upward), single plug
- $\phi 1/4$ inch (CL6NNC)
- $\phi 5/16$ inch (CL8NNC)



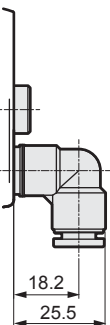
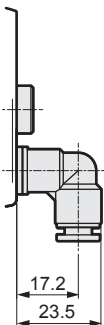
- $\phi 1/4$ inch (CL6NON)



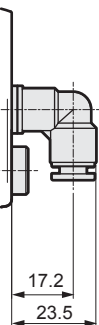
- $\phi 5/16$ inch (CL8NON)



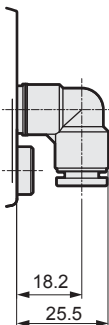
- Fitting L type (downward), single plug
- $\phi 1/4$ inch (CD6NNC)
- $\phi 5/16$ inch (CD8NNC)



- $\phi 1/4$ inch (CD6NON)



- $\phi 5/16$ inch (CD8NON)



4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

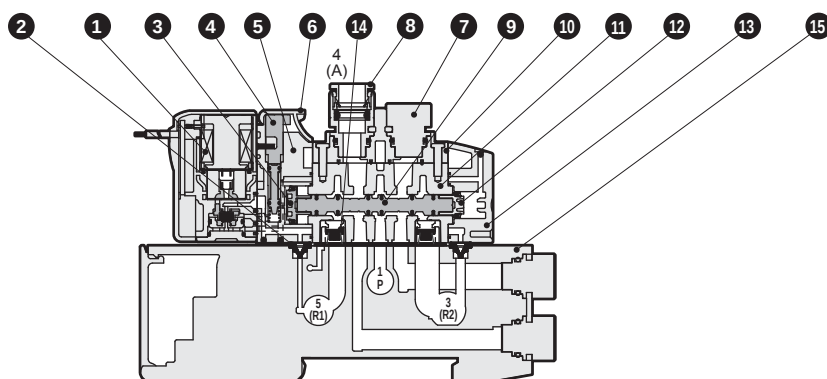
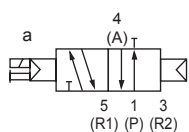
Manifold
Specifications

MN3GA1/2 Series

Internal structure and parts list

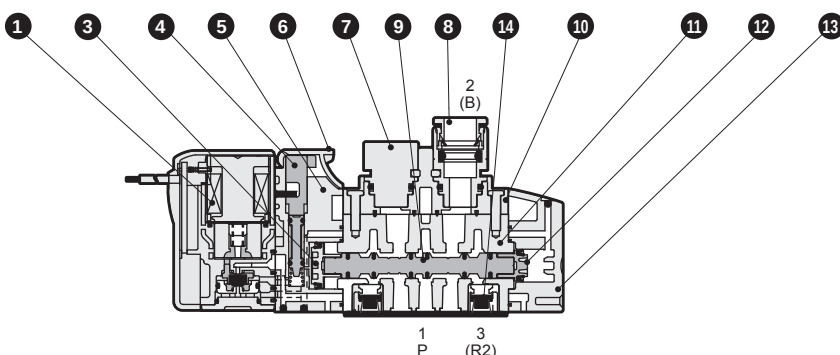
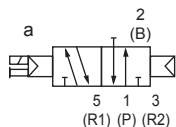
N3GA110R/N3GA210R

- 2-position single: Normally closed
- Grommet lead wire (blank)



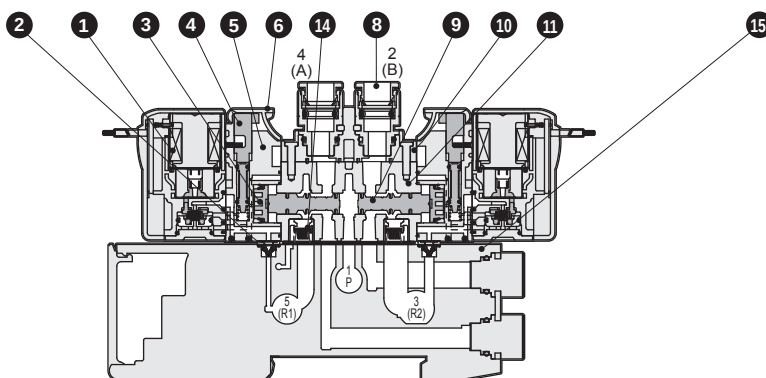
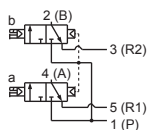
N3GA1110R/N3GA2110R

- 2-position single: Normally closed
- Grommet lead wire (blank)



N3GA1660R/N3GA2660R

- Dual 3 port valve integrated type
- A side valve: Normally closed, B side valve: Normally closed
- Grommet lead wire (blank)



Main parts list

No.	Parts name	Material
1	Coil assembly	-
2	Pilot exhaust check valve	Hydrogenated nitrile rubber, HNBR
3	Piston D assembly	-
4	Manual operating device	Plastic
5	Piston room	Plastic
6	Manual protection cover	Plastic
7	Plug cartridge	Aluminum
8	Cartridge type push-in fitting	-
9	Spool assembly	-
10	Fitting adaptor	Plastic
11	Body	Aluminum alloy die-casting
12	Piston S assembly	-
13	Cap	Plastic
14	Malfunction prevention valve	-
15	Valve block	Plastic

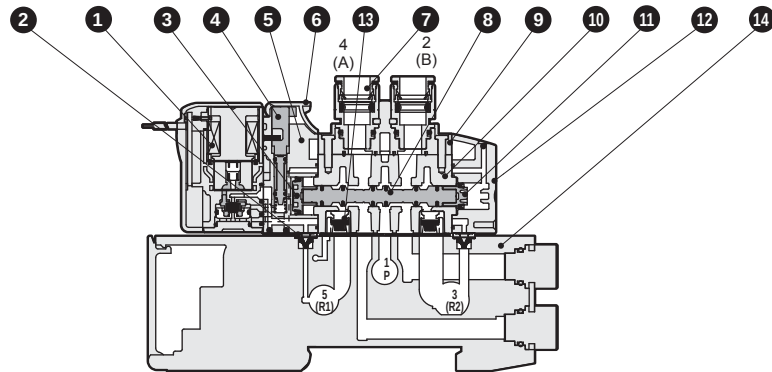
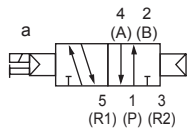
Parts list

No.	Parts name			Model no.
1	Coil assembly			4GR-[Electrical connections]-*-COIL-[Voltage] Blank: Standard A: Ozone specifications
8	Cartridge type Push-in fitting and related parts	3G1 4G1	φ1.8 barbed type	4G1R-JOINT-CF
			φ1.8 straight type	4G1R-JOINT-C18
			φ4 straight type	4G1R-JOINT-C4
			φ6 straight type	4G1R-JOINT-C6
			φ1/8 inch straight type	4G1R-JOINT-C3N
			φ5/32 inch straight type	4G1R-JOINT-C4N
		3G2 4G2	Plug cartridge	4G1R-JOINT-CPG
			φ4 straight type	4G2R-JOINT-C4
			φ6 straight type	4G2R-JOINT-C6
			φ8 straight type	4G2R-JOINT-C8
			φ1/4 inch straight type	4G2R-JOINT-C6N
			φ5/16 inch straight type	4G2R-JOINT-C8N
		Plug cartridge	4G2R-JOINT-CPG	
-	E type connector socket assembly			4GR-SOCKET-ASSY-[Electrical connection]-[Voltage]
-	EJ type connector socket assembly			4GR-SOCKET-ASSY-[Electrical connections]
-	DIN terminal box assembly (only 3GA2)			4GR-TERMINAL-BOX-[Voltage]

Internal structure and parts list

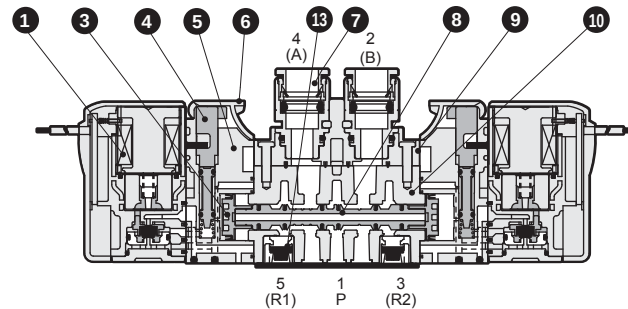
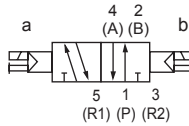
N4GA110R/N4GA210R

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



N4GA120R/N4GA220R

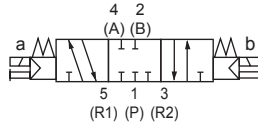
- 2-position double
- Grommet lead wire (blank)



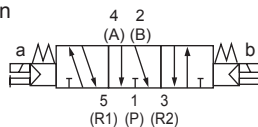
N4GA1³0R/N4GA2³0R

- 3-position
- Grommet lead wire (blank)

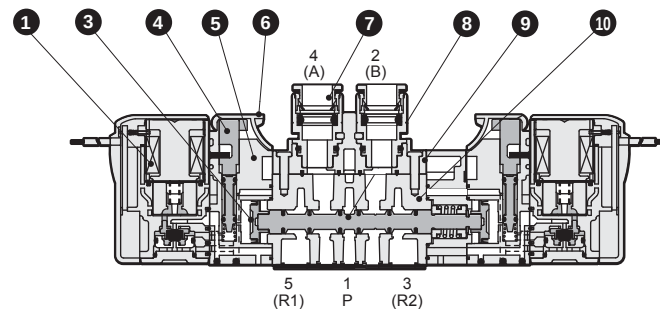
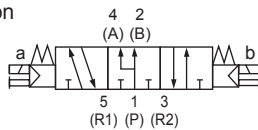
All ports closed



A/B/R connection



P/A/B Connection



Main parts list

No.	Parts name	Material
1	Coil assembly	-
2	Pilot exhaust check valve	Hydrogenated nitrile rubber, HNBR
3	Piston D assembly	-
4	Manual operating device	Plastic
5	Piston room	Plastic
6	Manual protection cover	Plastic
7	Cartridge type push-in fitting	-
8	Spool assembly	-
9	Fitting adaptor	Plastic
10	Body	Aluminum alloy die-casting
11	Piston S assembly	-
12	Cap	Plastic
13	Malfunction prevention valve	-
14	Valve block	Plastic

Parts list

No.	Parts name	Model no.																																							
1	Coil assembly	4GR-[Electrical connections]-*COIL-[Voltage] Blank: Standard A: Ozone specifications																																							
7	Cartridge type Push-in fitting and related parts	<table> <tr> <td>3G1</td><td>φ1.8 barbed type</td><td>4G1R-JOINT-CF</td></tr> <tr> <td>4G1</td><td>φ1.8 straight type</td><td>4G1R-JOINT-C18</td></tr> <tr> <td></td><td>φ4 straight type</td><td>4G1R-JOINT-C4</td></tr> <tr> <td></td><td>φ6 straight type</td><td>4G1R-JOINT-C6</td></tr> <tr> <td></td><td>φ1/8 inch straight type</td><td>4G1R-JOINT-C3N</td></tr> <tr> <td></td><td>φ5/32 inch straight type</td><td>4G1R-JOINT-C4N</td></tr> <tr> <td></td><td>Plug cartridge</td><td>4G1R-JOINT-CPG</td></tr> <tr> <td>3G2</td><td>φ4 straight type</td><td>4G2R-JOINT-C4</td></tr> <tr> <td>4G2</td><td>φ6 straight type</td><td>4G2R-JOINT-C6</td></tr> <tr> <td></td><td>φ8 straight type</td><td>4G2R-JOINT-C8</td></tr> <tr> <td></td><td>φ1/4 inch straight type</td><td>4G2R-JOINT-C6N</td></tr> <tr> <td></td><td>φ5/16 inch straight type</td><td>4G2R-JOINT-C8N</td></tr> <tr> <td></td><td>Plug cartridge</td><td>4G2R-JOINT-CPG</td></tr> </table>	3G1	φ1.8 barbed type	4G1R-JOINT-CF	4G1	φ1.8 straight type	4G1R-JOINT-C18		φ4 straight type	4G1R-JOINT-C4		φ6 straight type	4G1R-JOINT-C6		φ1/8 inch straight type	4G1R-JOINT-C3N		φ5/32 inch straight type	4G1R-JOINT-C4N		Plug cartridge	4G1R-JOINT-CPG	3G2	φ4 straight type	4G2R-JOINT-C4	4G2	φ6 straight type	4G2R-JOINT-C6		φ8 straight type	4G2R-JOINT-C8		φ1/4 inch straight type	4G2R-JOINT-C6N		φ5/16 inch straight type	4G2R-JOINT-C8N		Plug cartridge	4G2R-JOINT-CPG
3G1	φ1.8 barbed type	4G1R-JOINT-CF																																							
4G1	φ1.8 straight type	4G1R-JOINT-C18																																							
	φ4 straight type	4G1R-JOINT-C4																																							
	φ6 straight type	4G1R-JOINT-C6																																							
	φ1/8 inch straight type	4G1R-JOINT-C3N																																							
	φ5/32 inch straight type	4G1R-JOINT-C4N																																							
	Plug cartridge	4G1R-JOINT-CPG																																							
3G2	φ4 straight type	4G2R-JOINT-C4																																							
4G2	φ6 straight type	4G2R-JOINT-C6																																							
	φ8 straight type	4G2R-JOINT-C8																																							
	φ1/4 inch straight type	4G2R-JOINT-C6N																																							
	φ5/16 inch straight type	4G2R-JOINT-C8N																																							
	Plug cartridge	4G2R-JOINT-CPG																																							
-	E type connector socket assembly	4GR-SOCKET-ASSY-[Electrical connection]-[Voltage]																																							
-	EJ type connector socket assembly	4GR-SOCKET-ASSY-[Electrical connections]																																							
-	DIN terminal box assembly (only 4GA2)	4GR-TERMINAL-BOX-[Voltage]																																							

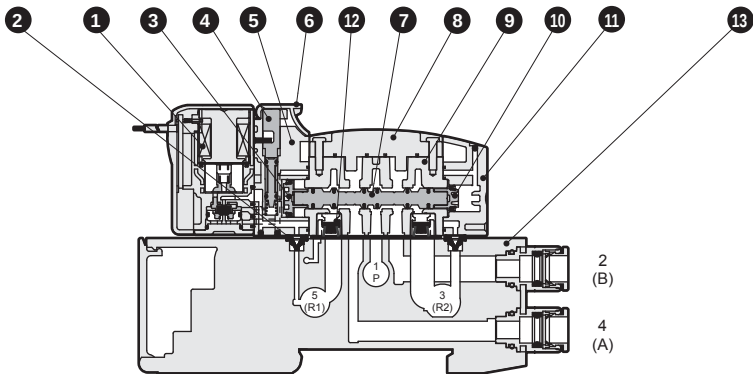
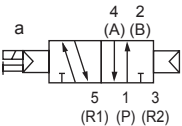
Internal structure and parts list

N3GB1660R/N3GB2660R

- Dual 3 port valve integrated type A side valve: Normally closed, B side valve: Normally closed
- Grommet lead wire (Blank) Refer to page 273.

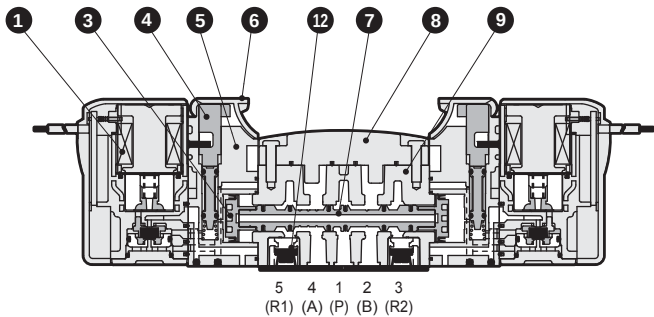
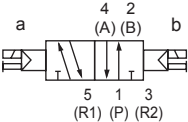
N4GB110R/N4GB210R

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



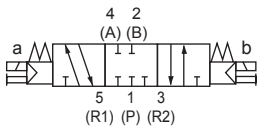
N4GB120R/N4GB220R

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

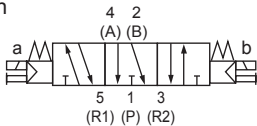


N4GB150R/N4GB250R

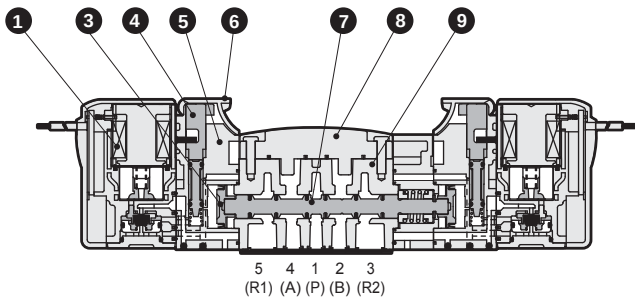
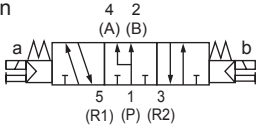
- 3-position
- Grommet lead wire (blank)
- All ports closed



A/B/R connection



P/A/B Connection



Main parts list

No.	Parts name	Material
1	Coil assembly	-
2	Pilot exhaust check valve	Hydrogenated nitrile rubber, HNBR
3	Piston D assembly	-
4	Manual operating device	Plastic
5	Piston room	Plastic
6	Manual protection cover	Plastic
7	Spool assembly	-
8	Plate	Plastic
9	Body	Aluminum alloy die-casting
10	Piston S assembly	-
11	Cap	Plastic
12	Malfunction prevention valve	-
13	Valve block	Plastic

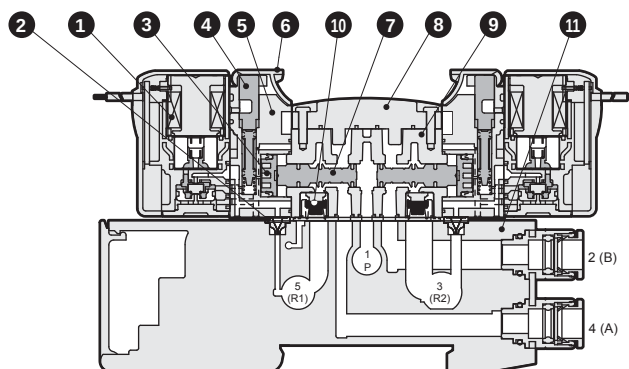
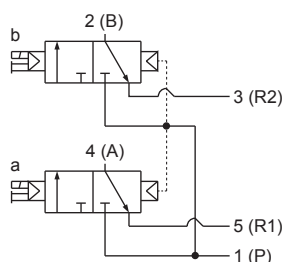
Parts list

No.	Parts name	Model no.
1	Coil assembly	4GR-[Electrical connections]-*-COIL-[Voltage] Blank: Standard A: Ozone specifications
-	E type connector socket assembly	4GR-SOCKET-ASSY-[Electrical connection]-[Voltage]
-	EJ type connector socket assembly	4GR-SOCKET- ASSY-[Electrical connections]
-	DIN terminal box assembly (only 4GB2)	4GR-TERMINAL-BOX-[Voltage]

Internal structure and parts list

N3GB1660R/N3GB2660R

- Dual 3 port valve integrated type A side valve: Normally closed, B side valve: Normally closed
Grommet lead wire (blank)

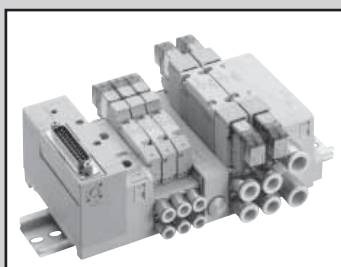


Main parts list

No.	Parts name	Material
1	Coil assembly	-
2	Pilot exhaust check valve	Hydrogenated nitrile rubber, HNBR
3	Piston assembly	-
4	Manual operating device	Plastic
5	Piston room	Plastic
6	Manual protection cover	Plastic
7	Spool assembly	-
8	Plate	Plastic
9	Body	Aluminum alloy die-casting
10	Malfunction prevention valve	-
11	Valve block	Plastic

Parts list

No.	Parts name	Model no.
1	Coil assembly	4GR-[Electrical connections]-*COIL-[Voltage] Blank: Standard A: Ozone specifications
-	E type connector socket assembly	4GR-SOCKET-ASSY-[Electrical connection]-[Voltage]
-	EJ type connector socket assembly	4GR-SOCKET-ASSY-[Electrical connections]
-	DIN terminal box assembly (only 3GB2)	4GR-TERMINAL-BOX-[Voltage]



4G1/2 Mix manifold

MN3GAX12, MN4GAX12 MN4GBX12 Series

● Applicable cylinder bore size: $\phi 20$ to $\phi 80$



Specifications

Common to each series.

For individual wiring, refer to page 220 (body piping) or page 228 (base piping), and for reduced wiring, refer to page 236 (body piping) or page 252 (base piping).

How to order

MN3G^A_BX12R - [Diagram showing terminal and connector pin array]

MN4G^A_BX12R - [Diagram showing terminal and connector pin array]

A Model no.

B Port size

C Electrical connections
(Reduced wiring connection)

D Terminal and connector pin array

E Option

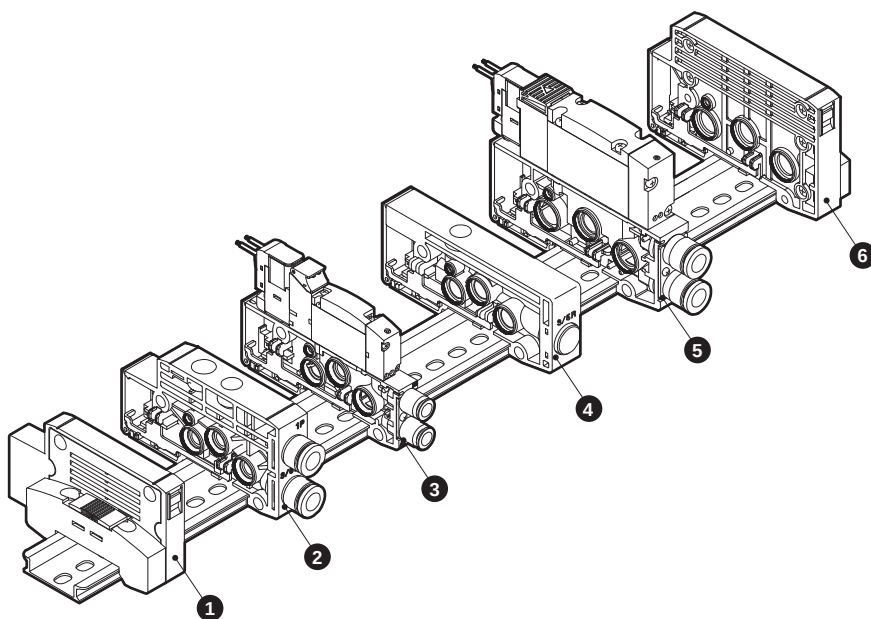
F Station no.

G Voltage

* The model no. will be "MN*G*X12R-". Other items are common with the example of model no. for each series.

For individual wiring, refer to page 222 (body piping) or page 230 (base piping), and for reduced wiring, refer to page 238 (body piping) or page 254 (base piping).

Manifold components explanation and parts list



* Precautions regarding 4G1/2 mix manifolds

With the fitting facing forward, the left side of the mix block will be 4G1 Series while the right side will be the 4G2 Series.
(Note that a reverse position cannot be set.)

Main parts list (refer to page 276 to 294 for details)

No.	Component name	Model no. (example)
1	End block L	N4G1R - EL
2	Supply and exhaust block	N4G1R-Q-8
3	Discrete valve block with solenoid valve	N4GB110R-C6-H-3
4	Mix block	N4G12R-MIX
5	Discrete valve block with solenoid valve	N4GB210R-C8-H-3
6	End block R	N4G2R-ER

Weight

N4G12R-MIX: 49a

Refer to the specifications of each series for other components.

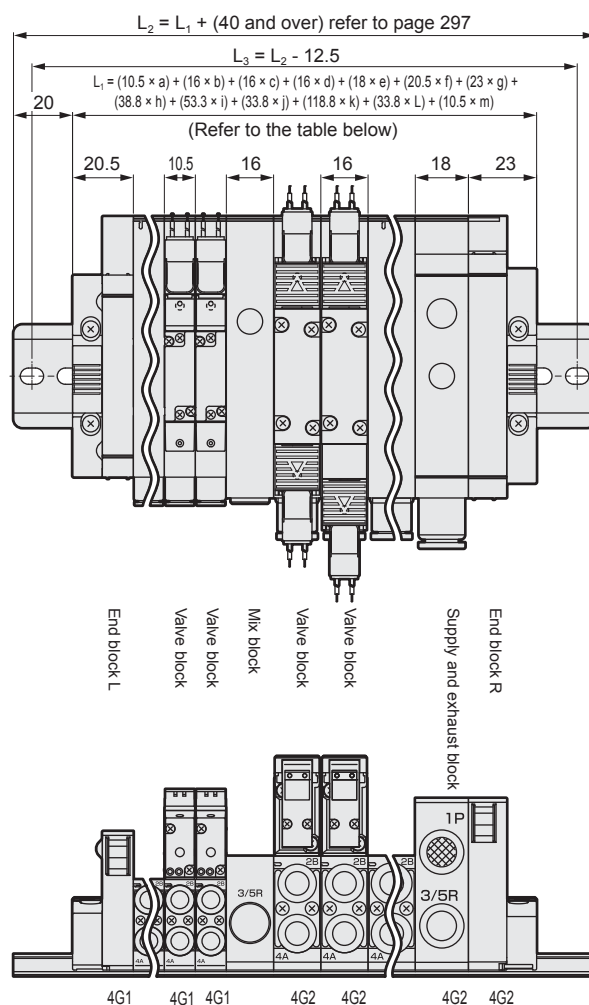
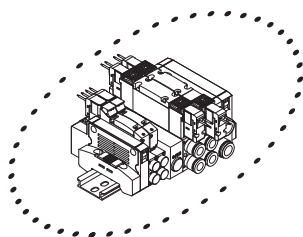
Mix block: dimensions

Unit: mm

MN4GBX12R

Note: For details regarding E type connector, EJ type connector, and DIN terminal box, refer to the pages of each model (MN4GA: from page 225~, MN4GB: from page 233~).

Note: Refer to pages 266 to 269 for details of the L type push-in fitting.



This diagram is an example of a mix manifold.
The combinations can be configured freely.
As the dimensions are as listed below, configure combinations while referring to the previous page.

Part name	Dimensions
a: 4G1 number of valve blocks	$10.5 \times a$
b: 4G2 number of valve blocks	$16 \times b$
c: number of mix blocks	$16 \times c$
d: 4G1 number of supply and exhaust blocks	$16 \times d$
e: 4G2 number of supply and exhaust blocks	$18 \times e$
f: 4G1 number of end block L	$20.5 \times f$
g: 4G2 number of end block R	$23 \times g$
h: 4G1/2 number of T30/T5* reduced wiring	$38.8 \times h$
i: 4G1/2 number of T10 reduced wiring	$53.3 \times i$
j: 4G1/2 number of T7* reduced wiring	$33.8 \times j$
k: 4G1/2 number of T6* reduced wiring	$118.8 \times K$
l: 4G1/2 number of T8* reduced wiring	$33.8 \times L$
m: 4G1/2 number of partition blocks	$10.5 \times m$

Note 1: The mix block is placed between 4G1 and 4G2.

Note 2: The max. station no. is 20.

MN4GA & 4GB Series

Block configurations

Block manifold; block configuration

Flexible assembly enables expansion of stations and maintenance.

● Valve block with solenoid valve

- (1) The required types of solenoid valves for the required number of stations can be arranged on a DIN rail.
Note that the number of stations is determined based on the wiring method. (Refer to Page 236, 252.)
- (2) The solenoid valve no. is numbered in a series as 1, 2, 3 and so forth from the left side with the fitting facing forward.

● Supply and exhaust block

- (1) A necessary number of these can be freely arranged at the connecting sections of each block.
- (2) As there are blocks for internal pilots and external pilots, configure an appropriate model depending on the type of solenoid valve.

● End block

- (1) Install end blocks on both sides for individual wiring specifications.
- (2) Install end blocks on only the opposite side of the wiring block for reduced wiring specifications.

● Partition block

- (1) Install as a combination with supply and exhaust blocks when using different pressure specifications.

● Mix block

- (1) Install when combining 4G1 and 4G2 as a mix on the same DIN rail. This effectively reduces piping.

4GAB
M4GA/B
MN4GA/B
4GAB Master valve
4GD/E
M4GD/E
MN4GD/E
Technical data
Safety precautions
Manifold Specifications

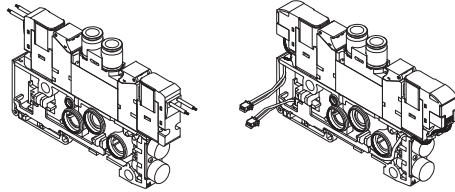
Block manifold configuration

Piping section

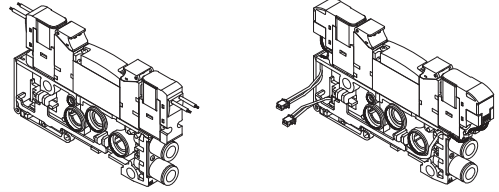
Piping block

A Discrete valve block with solenoid valve

- For body piping individual wiring
- For body piping reduced wiring

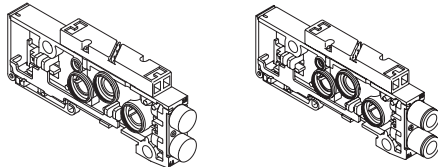


- For base piping individual wiring
- For base piping reduced wiring



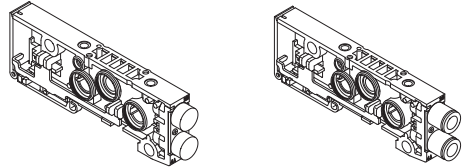
B Discrete valve block with masking plate

- For body piping
- For base piping



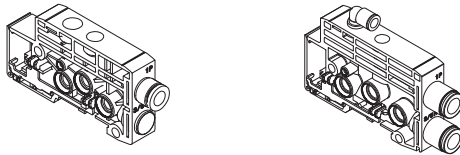
C Discrete valve block

- For body piping
- For base piping



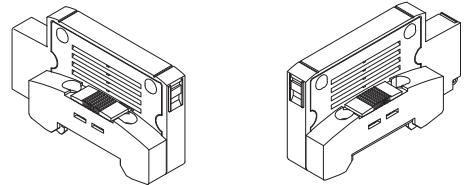
D Supply and exhaust block

- For internal pilot
- For external pilot

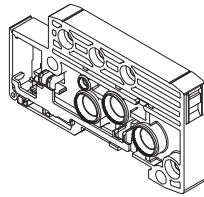


E End block

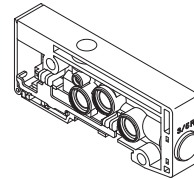
- For left
- For right



F Partition block

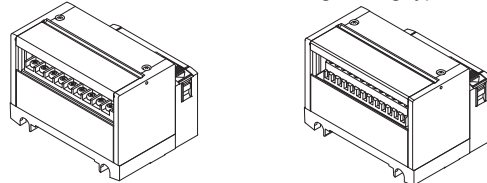


G Mix block

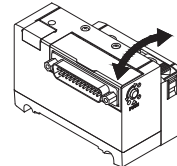


H Common terminal block

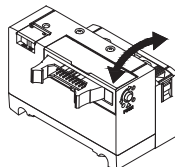
- M3
- Push tightening type



I D sub-connector block

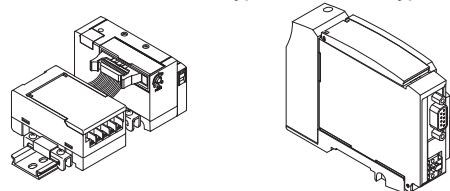


J Flat cable connector block



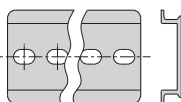
K Serial transmission block

- Connector connection type
- Thin slot type

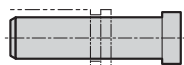


L Related products

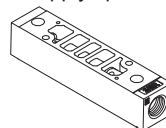
- Mounting rail



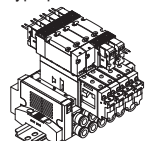
- Blank plug



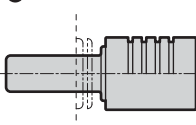
- Air supply spacer



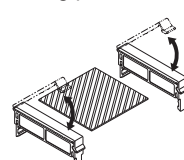
- Spacer type pilot check valve



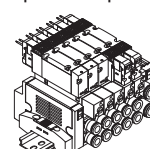
- Silencer



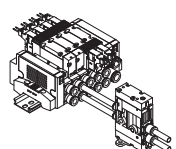
- Tag plate



- In stop valve spacer



- Pilot check valve



Wiring section

Wiring block

Related products

Related products

4GAB

M4GAB

MN4GAB

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

MN4GA & 4GB Series

Block manifold: piping section

Piping section

A. Discrete valve block with solenoid valve

A block assembled with solenoid valve and a valve block (split plastic base). For selection guides, refer to the following pages.
Body piping individual wiring: page 222, base piping individual wiring: page 230, body piping reduced wiring: page 238,
base piping reduced wiring: page 254

B. Discrete valve block with masking plate

A block assembled with a masking plate and a valve block (split plastic base).



A Model no.

B Type

C Port size

E Option

D Cable length Note 2

A Model No.			
N4GA1	N4GA2	N4GB1	N4GB2

A Model No.			
N4GA1	N4GA2	N4GB1	N4GB2

B Type	
MP	For individual wiring
MPS	For reduced wiring single
MPD	For reduced wiring double3-position

D Cable length Note 3	
Blank	For individual wiring
2 to 10	Select a length from page 280.

E Option	
Blank	No option
L	With piping adaptor
F	A/B port filter integrated

Note 2 When a purchase is made for the expansion of stations of reduced wiring, a socket assembly will be attached to the product, select "2 to 10".
Select a cable length from the following **D** page 280 and indicate the length in the field for the D cable length. When ordering the part with the manifold specifications, the cable length does not need to be filled in.

Symbol	Descriptions		N4	N4	N4	N4
C Post size (it is necessary to configure this with base piping.)						
Type	Milli fitting/Rc thread					
CF	φ1.8 barbed fitting (applicable tube UP-9102-**)					●
C18	φ1.8 push-in fitting (applicable tube UP-9402-**)					●
C4	φ4 push-in fitting					●
C6	φ6 push-in fitting					●●
C8	φ8 push-in fitting					●●
CL18	L type φ1.8 push-in fitting (upward) (applicable tube UP-9402-**)					●
CL4	L type φ4 push-in fitting (upward)					●
CL6	L type φ6 push-in fitting (upward)					●●
CL8	L type φ8 push-in fitting (upward)					●●
CD18	L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-**)					●
CD4	L type φ4 push-in fitting (downward)					●
CD6	L type φ6 push-in fitting (downward)					●●
CD8	L type φ8 push-in fitting (downward)					●●
Single side plugged specifications	A Port	B Port				
CFNC	φ1.8 barbed fitting (applicable tube UP-9102-**)	Plug				●
C18NC	φ1.8 push-in fitting (applicable tube UP-9402-**)					●
C4NC	φ4 push-in fitting					●●
C6NC	φ6 push-in fitting					●●
C8NC	φ8 push-in fitting					●
CFNO	Plug	φ1.8 barbed fitting (applicable tube UP-9102-**)				●
C18NO		φ1.8 push-in fitting (applicable tube UP-9402-**)				●
C4NO		φ4 push-in fitting				●●
C6NO		φ6 push-in fitting				●●
C8NO		φ8 push-in fitting				●●
CL18NC	L type φ1.8 push-in fitting (upward) (applicable tube UP-9402-**)	Plug				●
CL4NC	L type φ4 push-in fitting (upward)					●●
CL6NC	L type φ6 push-in fitting (upward)					●●
CL8NC	L type φ8 push-in fitting (upward)					●●
CL18NO	L type φ1.8 push-in fitting (upward) (applicable tube UP-9402-**)					●
CL4NO	Plug	L type φ4 push-in fitting (upward)				●
CL6NO		L type φ6 push-in fitting (upward)				●●
CL8NO		L type φ8 push-in fitting (upward)				●●

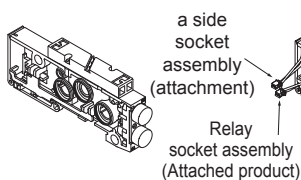
Symbol	Descriptions		Z	Z	Z	Z
Type	Milli fitting/Rc thread					
Single side plugged specifications	A Port	B Port				
CD18NC	L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-*)	Plug				●
CD4NC	L type φ4 push-in fitting (downward)					●
CD6NC	L type φ6 push-in fitting (downward)					●
CD8NC	L type φ8 push-in fitting (downward)					●
CD18NO	Plug	L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-*)				●
CD4NO		L type φ4 push-in fitting (downward)				●
CD6NO		L type φ6 push-in fitting (downward)				●
CD8NO		L type φ8 push-in fitting (downward)				●
Type	Inch fitting/Inch thread					
C3N	φ1/8 inch	push-in fitting				●
C4N	φ5/32 inch	push-in fitting				●
C6N	φ1/4 inch	push-in fitting				●
C8N	φ5/16 inch	push-in fitting				●
CL3N	L type φ1/8 inch	push-in fitting (upward) Note 1			○	○
CL4N	L type φ5/32 inch	push-in fitting (upward) Note 1				○
CL6N	L type φ1/4 inch	push-in fitting (upward) Note 1				○
CL8N	L type φ5/16 inch	push-in fitting (upward) Note 1				○
Single side plugged specifications	A Port	B Port				
C3NCN	φ1/8 inch	push-in fitting				●
C4NCN	φ5/32 inch	push-in fitting				●
C6NCN	φ1/4 inch	push-in fitting				●
C8NCN	φ5/16 inch	push-in fitting				●
C3NON	Plug	φ1/8 inch	push-in fitting			●
C4NON		φ5/32 inch	push-in fitting			●
C6NON		φ1/4 inch	push-in fitting			●
C8NON		φ5/16 inch	push-in fitting			●
CL3NCN	L type φ1/8 inch	push-in fitting (upward) Note 1				○
CL4NCN	L type φ5/32 inch	push-in fitting (upward) Note 1				○
CL6NCN	L type φ1/4 inch	push-in fitting (upward) Note 1				○
CL8NCN	L type φ5/16 inch	push-in fitting (upward) Note 1				○
CL3NON	Plug	L type φ1/8 inch	push-in fitting (upward) Note 1			○
CL4NON		L type φ5/32 inch	push-in fitting (upward) Note 1			○
CL6NON		L type φ1/4 inch	push-in fitting (upward) Note 1			○
CL8NON		L type φ5/16 inch	push-in fitting (upward) Note 1			○

Note 1: This is a available consult factory order.

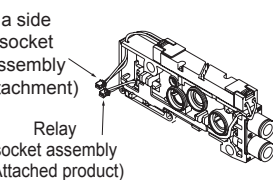
is not available.

○ Contact CKD for price and availability.

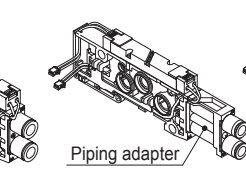
N4GA1R-MP



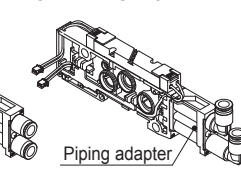
N4GB1R-MPD-C4-3



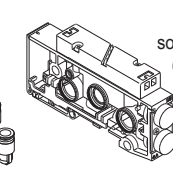
N4GB1-MPD-C4-3L



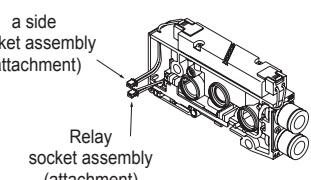
N4GB1-MPD-CL4-3L



N4GA2R-MP



N4GB2R-MPD-C6-5

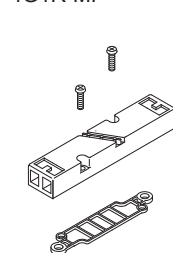


B-1. Masking plate

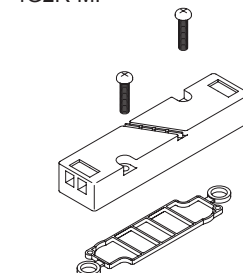
4G1R - MP

A Model no.

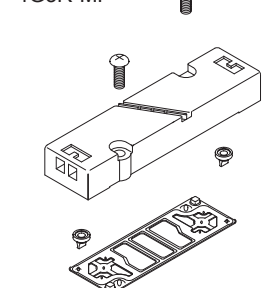
4G1R-MP



4G2R-MP



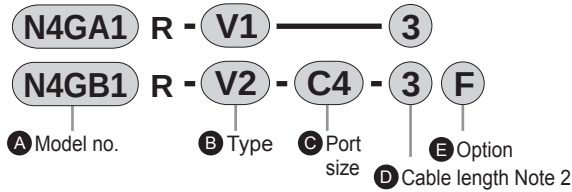
4G3R-MP



Piping section

C. Discrete valve block (discrete only)

A discrete valve block (split plastic base).

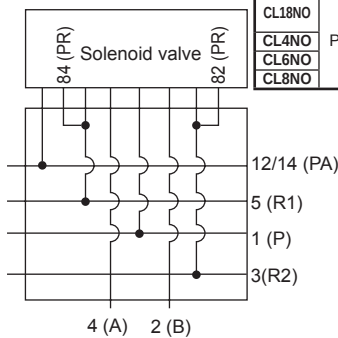


B Type	
V1	For individual wiring For reduced wiring single
V2	For reduced wiring double/3-position

D Cable length Note 3	
Blank	For individual wiring
2 to 10	Select a length from page 280.

E Option	
Blank	No option
L	With piping adaptor
F	A/B port filter integrated

Note 2 When a purchase is made for the expansion of stations of reduced wiring, a socket assembly will be attached to the product, select "2 to 10". Select a cable length from the following D page 280 and indicate the length in the field for the D cable length. However, it will not be necessary to include the cable length when making arrangements with the manifold specifications.



Discrete valve lock circuit diagram

Symbol	Descriptions		Z	Z	Z	Z
C Post size (it is necessary to configure this with base piping.)						
Type	Milli fitting/Rc thread					
CF	φ1.8 barbed fitting (applicable tube UP-9102-**)				●	
C18	φ1.8 push-in fitting (applicable tube UP-9402-**)				●	
C4	φ4 push-in fitting				●	●
C6	φ6 push-in fitting				●	●
C8	φ8 push-in fitting					●
CL18	L type φ1.8 push-in fitting (upward) (applicable tube UP-9402-**)				●	
CL4	L type φ4 push-in fitting (upward)				●	
CL6	L type φ6 push-in fitting (upward)				●	●
CL8	L type φ8 push-in fitting (upward)					●
CD18	L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-**)				●	
CD4	L type φ4 push-in fitting (downward)				●	
CD6	L type φ6 push-in fitting (downward)				●	●
CD8	L type φ8 push-in fitting (downward)					●
Single side plugged specifications			A Port		B Port	
CFNC	φ1.8 barbed fitting (applicable tube UP-9102-**)	Plug			●	
C18NC	φ1.8 push-in fitting (applicable tube UP-9402-**)				●	
C4NC	φ4 push-in fitting				●	●
C6NC	φ6 push-in fitting				●	●
C8NC	φ8 push-in fitting				●	●
CFNO	Plug	φ1.8 barbed fitting (applicable tube UP-9102-**)			●	
C18NO		φ1.8 push-in fitting (applicable tube UP-9402-**)			●	
C4NO		φ4 push-in fitting			●	●
C6NO		φ6 push-in fitting			●	●
C8NO		φ8 push-in fitting				●
CL18NC	L type φ1.8 push-in fitting (upward) (applicable tube UP-9402-**)	Plug			●	
CL4NC	L type φ4 push-in fitting (upward)				●	●
CL6NC	L type φ6 push-in fitting (upward)				●	●
CL8NC	L type φ8 push-in fitting (upward)					●
CL18NO	L type φ1.8 push-in fitting (upward) (applicable tube UP-9402-**)				●	
CL4NO	Plug	L type φ4 push-in fitting (upward)			●	●
CL6NO		L type φ6 push-in fitting (upward)			●	●
CL8NO		L type φ8 push-in fitting (upward)				●

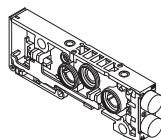
Symbol	Descriptions		Z	Z	Z	Z
Type	Milli fitting/Rc thread					
Single side plugged specifications	A Port	B Port				
CD18NC	L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-**))	Plug			●	
CD4NC	L type φ4 push-in fitting (downward)				●	
CD6NC	L type φ6 push-in fitting (downward)				●	
CD8NC	L type φ8 push-in fitting (downward)				●	
CD18NO	Plug	L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-**))			●	
CD4NO		L type φ4 push-in fitting (downward)			●	
CD6NO		L type φ6 push-in fitting (downward)			●	●
CD8NO		L type φ8 push-in fitting (downward)			●	●
Type	Inch fitting/Inch thread					
C3N	φ1/8 inch	push-in fitting			●	
C4N	φ5/32 inch	push-in fitting			●	
C6N	φ1/4 inch	push-in fitting				●
C8N	φ5/16 inch	push-in fitting				●
CL3N	L type φ1/8 inch	push-in fitting (upward) Note 1			○	
CL4N	L type φ5/32 inch	push-in fitting (upward) Note 1			○	
CL6N	L type φ1/4 inch	push-in fitting (upward) Note 1				○
CL8N	L type φ5/16 inch	push-in fitting (upward) Note 1				○
Single side plugged specifications	A Port	B Port				
C3NCN	φ1/8 inch	push-in fitting			●	
C4NCN	φ5/32 inch	push-in fitting			●	
C6NCN	φ1/4 inch	push-in fitting				●
C8NCN	φ5/16 inch	push-in fitting				●
C3NON	Plug	φ1/8 inch push-in fitting			●	
C4NON		φ5/32 inch push-in fitting			●	
C6NON		φ1/4 inch push-in fitting				●
C8NON		φ5/16 inch push-in fitting				●
CL3NCN	L type φ1/8 inch push-in fitting (upward) Note 1	Plug			○	
CL4NCN	L type φ5/32 inch push-in fitting (upward) Note 1				○	
CL6NCN	L type φ1/4 inch push-in fitting (upward) Note 1					○
CL8NCN	L type φ5/16 inch push-in fitting (upward) Note 1					○
CL3NON	Plug	L type φ1/8 inch push-in fitting (upward) Note 1			○	
CL4NON		L type φ5/32 inch push-in fitting (upward) Note 1			○	
CL6NON		L type φ1/4 inch push-in fitting (upward) Note 1				○
CL8NON		L type φ5/16 inch push-in fitting (upward) Note 1				○

Note 1: This is a available consult factory order.

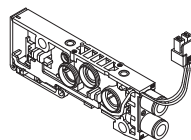
■ is not available.

○ Contact CKD for price and availability.

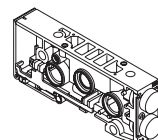
N4GA1R - V1



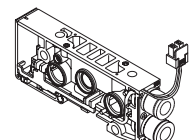
N4GB1R-V2-C4



N4GA2R-V1



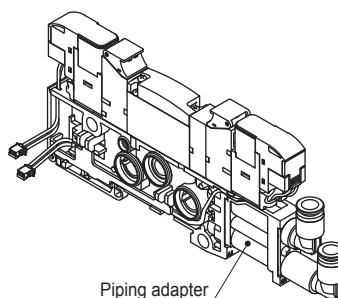
N4GB2R-V2-C6



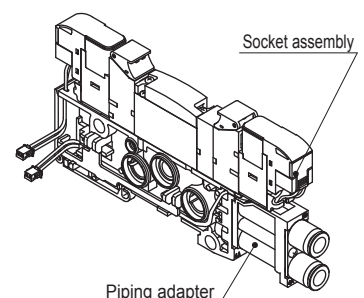
● Option L (With piping adaptor)

Select L (with piping adapter) if using a L type push-in fitting (upward) in 2 or 3 positions.

In addition, tube desorption workability is improved for fittings that protrude from the socket assembly in the combination of the push-in fitting straight type and piping adapter.



Piping adapter



Piping adapter

Socket assembly

MN4GA & 4GB Series

Block manifold: piping section

Piping section

Problems could arise depending on the structure, so the function of each block should be studied in detail before making a selection.

C. Discrete valve block (discrete only)

Valve block for expansion, cable length

Calculate the distance W between the expansion position and the electrical block (Fig. 1), and select a cable of an appropriate length from <Table 1>. Please be aware that the required socket assembly is different between a side solenoid and b side solenoid.

Although Fig. 1 shows specifications where the electrical block is on the left side, similarly calculate the distance W between the expansion position and the electrical block with right side specifications.

Calculation of W

· For MN4G1

$$W = (10.5 \times n) + (16 \times m) + (10.5 \times l)$$

· For MN4G2

$$W = (16 \times n) + (18 \times m) + (10.5 \times l)$$

n: station no. of valve blocks, m: number of supply and exhaust blocks, l: number of partition blocks

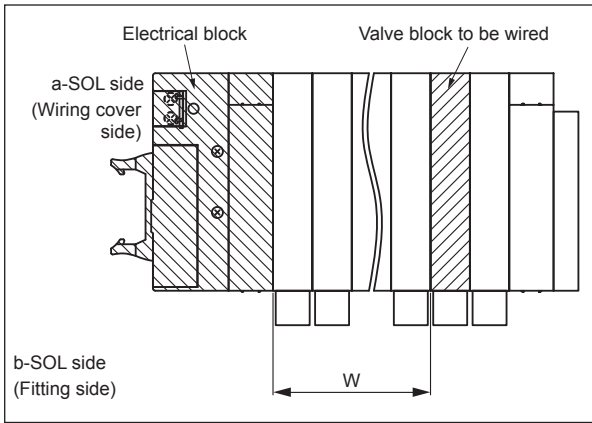
· For MN4GX

Calculate using 16 for the mix block width.

<Table 1> W length - selection no. compatibility table

Selection no.	Wiring type		
	T10/11 (R)	T30/5*/16*(R)	T7*/T8*
2		0	25 or less
3	20 or less	Over 0 to 30	Over 25 to 55
4	Over 20 to 70	Over 30 to 80	Over 55 to 105
5	Over 70 to 120	Over 80 to 130	Over 105 to 155
6	Over 120 to 170	Over 130 to 180	Over 155 to 205
7	Over 170 to 260	Over 180 to 270	Over 205 to 295
8	Over 260 to 350	Over 270 to 360	Over 295 to 385
9	Over 350 to 450	Over 360 to 460	Over 385 to 485
10	Over 450 to 570	Over 460 to 580	Over 485 to 605

Fig. 1



D. Supply/exhaust block

The supply and exhaust block can be installed at any position adjacent to the valve block.

As there is no set number of units, install two or more units when requiring combinations with partition blocks or when increasing the flow rate for supply and exhaust. In order to prevent foreign matters from entering in, P port is equipped with a filter.

N4G1 R-Q-8-X

Model no.

A Type **B** Port size **C** Exhaust size

A Type	B Port size	6M	6LM	6DM	8M	8LM	8DM	C Exhaust
Q Internal pilot	6	q6 push-in fitting	q6 push-in fitting (upward)	q6 push-in fitting (downward)	q6 push-in fitting (upward)	q6 push-in fitting (downward)	q6 push-in fitting (downward)	Blank Common exhaust
QK External pilot	6L	q6 push-in fitting (upward)	q6 push-in fitting (upward)	q6 push-in fitting (downward)	q6 push-in fitting (upward)	q6 push-in fitting (downward)	q6 push-in fitting (downward)	X Note 3 Atmospheric release
Note 1: This is a available consult factory order.								
Note 2: Select 6*M and 8*M if using a silencer in the inch fitting specifications.								
Note 3: When designating X, select the atmosphere release (EX) for the end block.								
	8	q8 push-in fitting (downward)	q8 push-in fitting (upward)	q8 push-in fitting (downward)	q8 push-in fitting (upward)	q8 push-in fitting (downward)	q8 push-in fitting (downward)	
	8L	q8 push-in fitting (upward)	q8 push-in fitting (upward)	q8 push-in fitting (downward)	q8 push-in fitting (upward)	q8 push-in fitting (downward)	q8 push-in fitting (downward)	
	8D	q8 push-in fitting (downward)	q8 push-in fitting (upward)	q8 push-in fitting (downward)	q8 push-in fitting (upward)	q8 push-in fitting (downward)	q8 push-in fitting (downward)	
	6N	q1/4 inch push-in fitting	q1/4 inch push-in fitting (upward)	q1/4 inch push-in fitting (downward)	q1/4 inch push-in fitting (upward)	q1/4 inch push-in fitting (downward)	q1/4 inch push-in fitting (downward)	
	6LN	q1/4 inch push-in fitting (upward)	q1/4 inch push-in fitting (upward)	q1/4 inch push-in fitting (downward)	q1/4 inch push-in fitting (upward)	q1/4 inch push-in fitting (downward)	q1/4 inch push-in fitting (downward)	
	6DN	q1/4 inch push-in fitting (downward)	q1/4 inch push-in fitting (upward)	q1/4 inch push-in fitting (downward)	q1/4 inch push-in fitting (upward)	q1/4 inch push-in fitting (downward)	q1/4 inch push-in fitting (downward)	
	8N	q5/16 inch push-in fitting	q5/16 inch push-in fitting (upward)	q5/16 inch push-in fitting (downward)	q5/16 inch push-in fitting (upward)	q5/16 inch push-in fitting (downward)	q5/16 inch push-in fitting (downward)	
	8LN	q5/16 inch push-in fitting (upward)	q5/16 inch push-in fitting (upward)	q5/16 inch push-in fitting (downward)	q5/16 inch push-in fitting (upward)	q5/16 inch push-in fitting (downward)	q5/16 inch push-in fitting (downward)	
	8DN	q5/16 inch push-in fitting (downward)	q5/16 inch push-in fitting (upward)	q5/16 inch push-in fitting (downward)	q5/16 inch push-in fitting (upward)	q5/16 inch push-in fitting (downward)	q5/16 inch push-in fitting (downward)	

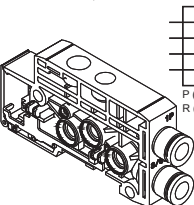
N4G2 R-QK-10L-X

Model no.

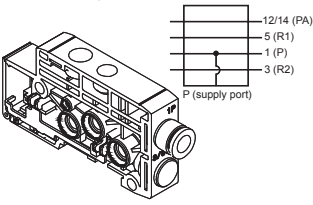
A Type **B** Port size **C** Exhaust size

A Type	B Port size	8M	8ML	8DM	10M	10LM	10DM	C Exhaust
Q Internal pilot	8	q8 push-in fitting	q8 push-in fitting (upward)	q8 push-in fitting (downward)	q8 push-in fitting (upward)	q8 push-in fitting (downward)	q8 push-in fitting (downward)	Blank Common exhaust
QK External pilot	8L	q8 push-in fitting (upward)	q8 push-in fitting (upward)	q8 push-in fitting (downward)	q8 push-in fitting (upward)	q8 push-in fitting (downward)	q8 push-in fitting (downward)	X Note 3 Atmospheric release
Note 1: This is a available consult factory order.								
Note 2: Select 6*M and 8*M if using a silencer in the inch fitting specifications.								
Note 3: When designating X, select the atmosphere release (EX) for the end block.								
	8D	q8 push-in fitting (downward)	q8 push-in fitting (upward)	q8 push-in fitting (downward)	q8 push-in fitting (upward)	q8 push-in fitting (downward)	q8 push-in fitting (downward)	
	10	q10 push-in fitting	q10 push-in fitting (upward)	q10 push-in fitting (downward)	q10 push-in fitting (upward)	q10 push-in fitting (downward)	q10 push-in fitting (downward)	
	10L	q10 push-in fitting (upward)	q10 push-in fitting (upward)	q10 push-in fitting (downward)	q10 push-in fitting (upward)	q10 push-in fitting (downward)	q10 push-in fitting (downward)	
	10D	q10 push-in fitting (downward)	q10 push-in fitting (upward)	q10 push-in fitting (downward)	q10 push-in fitting (upward)	q10 push-in fitting (downward)	q10 push-in fitting (downward)	
	8N	q5/16 inch push-in fitting	q5/16 inch push-in fitting (upward)	q5/16 inch push-in fitting (downward)	q5/16 inch push-in fitting (upward)	q5/16 inch push-in fitting (downward)	q5/16 inch push-in fitting (downward)	
	8LN	q5/16 inch push-in fitting (upward)	q5/16 inch push-in fitting (upward)	q5/16 inch push-in fitting (downward)	q5/16 inch push-in fitting (upward)	q5/16 inch push-in fitting (downward)	q5/16 inch push-in fitting (downward)	
	8DN	q5/16 inch push-in fitting (downward)	q5/16 inch push-in fitting (upward)	q5/16 inch push-in fitting (downward)	q5/16 inch push-in fitting (upward)	q5/16 inch push-in fitting (downward)	q5/16 inch push-in fitting (downward)	
	10N	q3/8 inch push-in fitting	q3/8 inch push-in fitting (upward)	q3/8 inch push-in fitting (downward)	q3/8 inch push-in fitting (upward)	q3/8 inch push-in fitting (downward)	q3/8 inch push-in fitting (downward)	
	10LN	q3/8 inch push-in fitting (upward)	q3/8 inch push-in fitting (upward)	q3/8 inch push-in fitting (downward)	q3/8 inch push-in fitting (upward)	q3/8 inch push-in fitting (downward)	q3/8 inch push-in fitting (downward)	
	10DN	q3/8 inch push-in fitting (downward)	q3/8 inch push-in fitting (upward)	q3/8 inch push-in fitting (downward)	q3/8 inch push-in fitting (upward)	q3/8 inch push-in fitting (downward)	q3/8 inch push-in fitting (downward)	

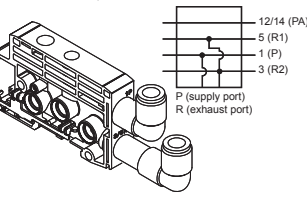
N4G1R-Q-8



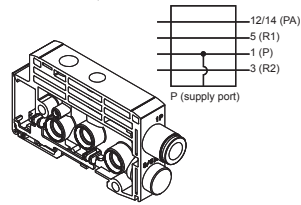
N4G1R-Q-8X



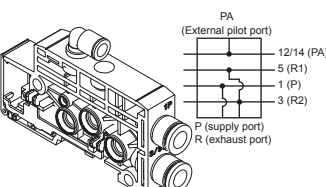
N4G2R-Q-10L



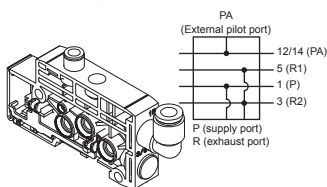
N4G2R-Q-10X



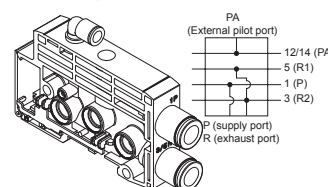
N4G1R-QK-8



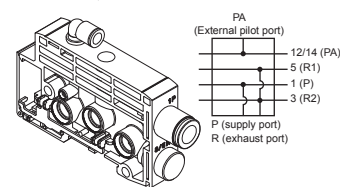
N4G1R-QK-8LX



N4G2R-QK-10



N4G2R-QK-10X



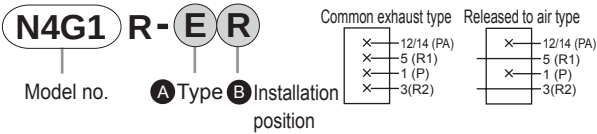
* External pilot port: q6 push-in fitting

* External pilot port: q6 push-in fitting

Piping section

E. End block

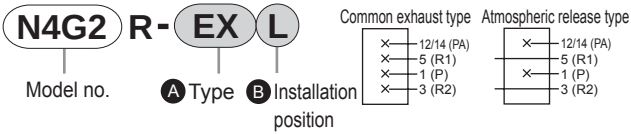
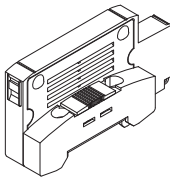
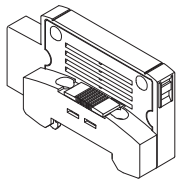
Install the units on both ends of the manifold with individual wiring. Install the units on opposite sides of the electrical block with reduced wiring. An exhaust muffler is built into the released to air type.



A Type		B Installation position	
E	Common exhaust	L	Left
EX	Atmospheric release	R	Right

N4G1R - EL

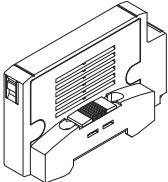
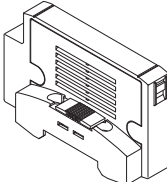
N4G1R - ER



A Type		B Installation position	
E	Common exhaust	L	Left
EX	Atmospheric release	R	Right

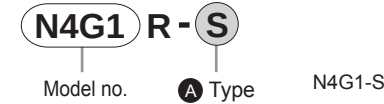
N4G2R-EL

N4G2R-ER

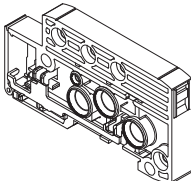


F. Partition block

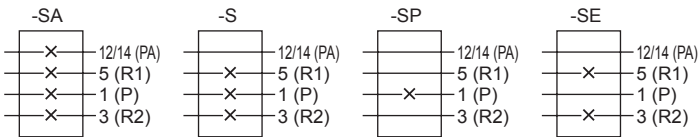
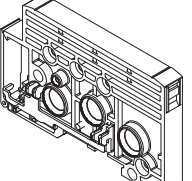
It is possible to implement measures to prevent mixture of different pressures and increase of back pressure by using the combination of a partition block and a supply and exhaust block.



A Type	
SA	P/R/PA stop
S	P/R stop PA through
SP	P stop R/PA through
SE	R stop P/PA through

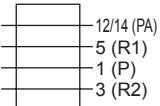
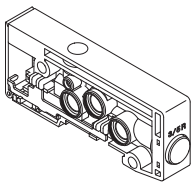


A Type	
SA	P/R/PA stop
S	P/R stop PA through
SP	P stop R/PA through
SE	R stop P/PA through



G. Mix block

Installed in cases when 4G1 and 4G2 coexist in the same manifold.
The installation positions will be 4G1 on the left side of the mix block and 4G2 on the right side.



MN4GA & 4GB Series

Block manifold: wiring section

Wiring section

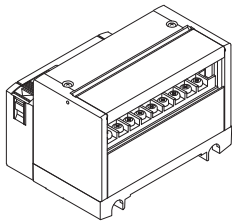
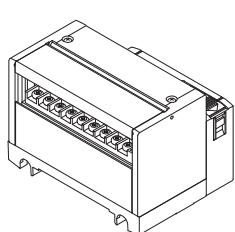
(Electrical block) * Orders cannot be placed for only an electrical block.

H. Common terminal block

M3 thread specifications

N4G1R-T10

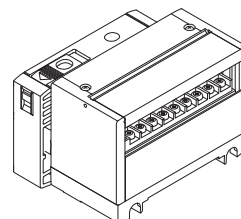
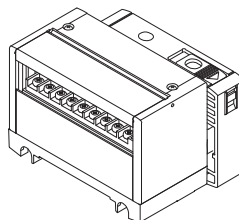
N4G1R-T10R



M3 thread specifications

N4G2R-T10

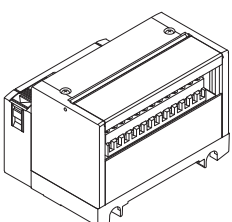
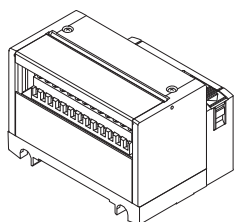
N4G2R-T10R



Push tightening specifications

N4G1R-T11

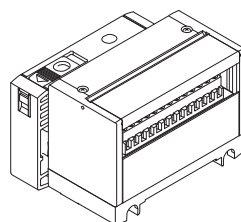
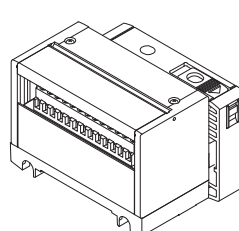
N4G1R-T11R



Push tightening specifications

N4G2R-T11

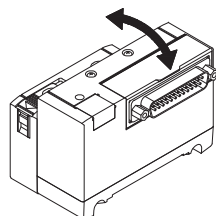
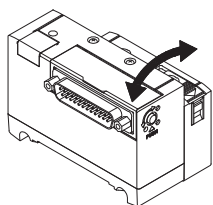
N4G2R-T11R



I. D sub-connector block

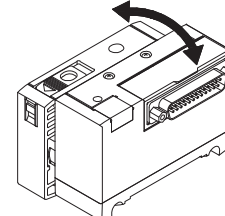
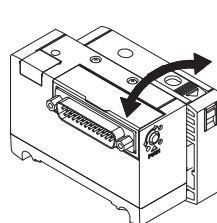
N4G1R-T30

N4G1R-T30R



N4G2R-T30

N4G2R-T30R



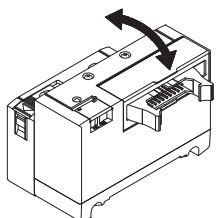
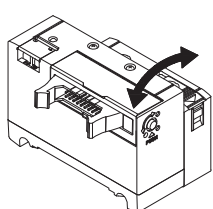
*Refer to page 597 for cable model no. with D-sub connector.

J. Flat cable connector block

● With power supply terminal

N4G1R-T50

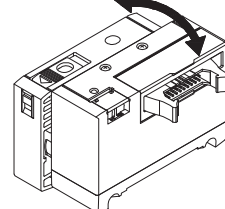
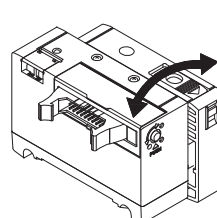
N4G1R-T50R



● With power supply terminal

N4G2R-T50

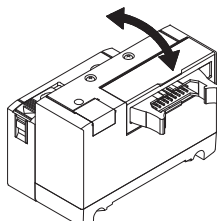
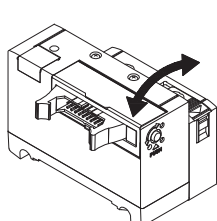
N4G2R-T50R



● Without power supply terminal

N4G1R-T51 (N4G1R-T52)
(N4G1R-T53)

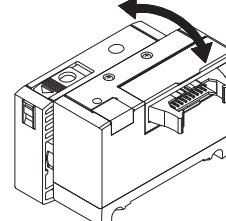
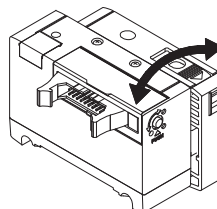
N4G1R-T51R (N4G1R-T52R)
(N4G1R-T53R)



● Without power supply terminal

N4G2R-T51 (N4G2R-T52)
(N4G2R-T53)

N4G2R-T51R (N4G2R-T52R)
(N4G2R-T53R)



* The appearance of the connector section varies with T52 and T53.

Wiring section

(Electrical block) * Orders cannot be placed for only an electrical block.

K. Serial transmission block

● Connector connection type

N4G1 R - **T6G1**

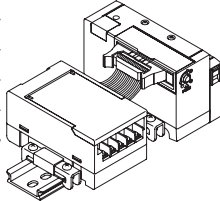
Model no.

A Type

A Type		
T6A0/1	UNIWIRED SYSTEM	8 points/16 points
T6C0/1	CompoBus/S	8 points/16 points
T6G1	CC-Link	NPN 16 points
T6E0/1	S-LINK	8 points/16 points
T6J0/1	UNIWIRED H SYSTEM	8 points/16 points

* T6C0/1 does not support the long-distance communication mode.

N4G1R-T6*



N4G2 R - **T6G1**

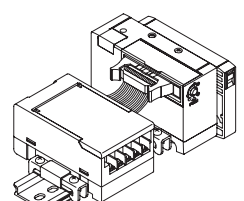
Model no.

A Type

A Type		
T6A0/1	UNIWIRED SYSTEM	8 points/16 points
T6C0/1	CompoBus/S	8 points/16 points
T6G1	CC-Link	NPN 16 points
T6E0/1	S-LINK	8 points/16 points
T6J0/1	UNIWIRED H SYSTEM	8 points/16 points

* T6C0/1 does not support the long-distance communication mode.

N4G2R-T6*



● Thin slot type

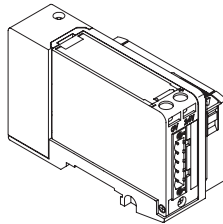
N4G1 R - **T7D1**

Model no.

A Type

A Type		
T7C0/1	CompoBus/S	8 points/16 points
T7D1	DeviceNet	16 points
T7E0/1	S-LINK	NPN 8 points/16 points
T7G1	CC-Link	16 points
T7L1	SAVE NET	16 points
T7S1	CompoNet	NPN 16 points
T7SP1		PNP

N4G1R-T7*



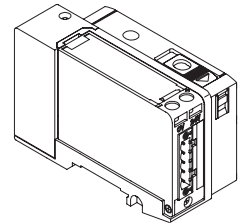
N4G2 R - **T7G1**

Model no.

A Type

A Type		
T7C0/1	CompoBus/S	8 points/16 points
T7D1	DeviceNet	16 points
T7E0/1	S-LINK	NPN 8 points/16 points
T7G1	CC-Link	16 points
T7L1	SAVE NET	16 points
T7S1	CompoNet	NPN 16 points
T7SP1		PNP

N4G2R-T7*



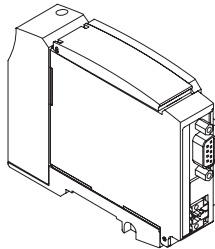
● Discrete serial transmission slave unit (Thin slot-insertion type)

N4G1 R - **T8G1**

A Wiring method

A Wiring method			
T8G1	CC-Link (Thin type)	NPN	16 points
T8G2			32 points
T8GP1		PNP	16 points
T8GP2			32 points
T8P1	PROFIBUS-DP (Thin type)	NPN	16 points
T8P2			32 points
T8PP1		PNP	16 points
T8PP2			32 points
T8EC1	EtherCAT (Thin type)	NPN	16 points
T8EC2			32 points
T8ECP1		PNP	16 points
T8ECP2			32 points
T8EN1	EtherNet/IP (Thin type)	NPN	16 points
T8EN2			32 points
T8ENP1		PNP	16 points
T8ENP2			32 points

N4G1R-T8*

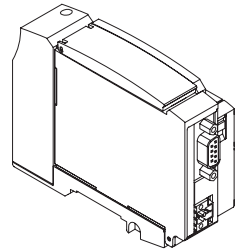


N4G2 R - **T8G1**

A Wiring method

A Wiring method			
T8G1	CC-Link (Thin type)	NPN	16 points
T8G2			32 points
T8GP1		PNP	16 points
T8GP2			32 points
T8P1	PROFIBUS-DP (Thin type)	NPN	16 points
T8P2			32 points
T8PP1		PNP	16 points
T8PP2			32 points
T8EC1	EtherCAT (Thin type)	NPN	16 points
T8EC2			32 points
T8ECP1		PNP	16 points
T8ECP2			32 points
T8EN1	EtherNet/IP (Thin type)	NPN	16 points
T8EN2			32 points
T8ENP1		PNP	16 points
T8ENP2			32 points

N4G2R-T8*



MN4GA & 4GB Series

Block manifold: wiring section

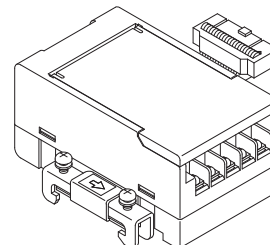
L. Serial transmission slave unit * It is possible to place an order for only the serial transmission slave unit.

● Discrete serial transmission slave unit (Connector connection type)

4GR - OPP3 - 0A

A Wiring method

Symbol	Descriptions			
A Wiring method				
0A	T6A0	UNIWIRED SYSTEM	NPN	8 points
1A	T6A1			16 points
0C	T6C0	CompoBus/S		8 points
1C	T6C1			16 points
0E	T6E0	S-LINK		8 points
1E	T6E1			16 points
1G	T6G1	CC-Link		16 points
0J	T6J0	UNIWIRED H SYSTEM		8 points
1J	T6J1			16 points

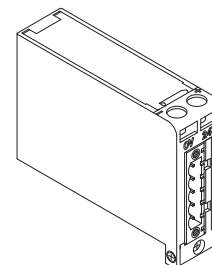


● Discrete serial transmission slave unit (Thin slot-insertion type)

4GR - OPP4 - 0CA

A Wiring method

Symbol	Descriptions			
A Wiring method				
0CA	T7C0	CompoBus/S	NPN	8 points
1CA	T7C1	(Thin type)		16 points
1D	T7D1	DeviceNet (Thin type)	NPN	16 points
0E	T7ED	S-LINK	NPN	8 points
1E	T7E1	(Thin type)		16 points
1G	T7G1	CC-Link (Thin type)	NPN	16 points
1L	T7L1	SAVE NET (Thin type)	NPN	16 points
1S	T7S1	CompoNet	NPN	16 points
1S-P	T7SP1	(Thin type)	PNP	16 points

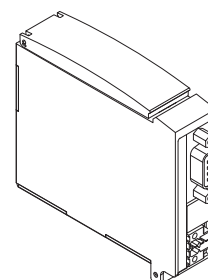


● Discrete serial transmission slave unit (Thin slot-insertion type)

4GR - OPP7 - 2G

A Wiring method

Symbol	Descriptions			
A Wiring method				
1G	T8G1	CC-Link (Thin type)	NPN	16 points
2G	T8G2			32 points
1G-P	T8GP1		PNP	16 points
2G-P	T8GP2			32 points
1P	T8P1	PROFIBUS-DP (Thin type)	NPN	16 points
2P	T8P2			32 points
1P-P	T8PP1		PNP	16 points
2P-P	T8PP2			32 points
1EC	T8EC1	EtherCAT (Thin type)	NPN	16 points
2EC	T8EC2			32 points
1EC-P	T8ECP1		PNP	16 points
2EC-P	T8ECP2			32 points
1EN	T8EN1	EtherNet/IP (Thin type)	NPN	16 points
2EN	T8EN2			32 points
1EN-P	T8ENP1		PNP	16 points
2EN-P	T8ENP2			32 points

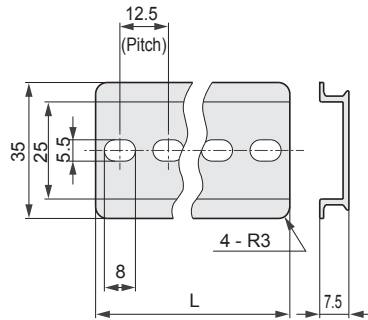


Related products

Mounting rail, silencer, blank plug, tag plate

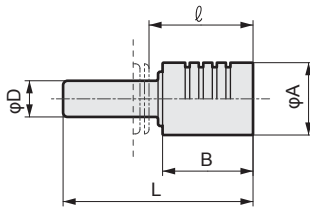
● Mounting rail

N4GR-BAA <length>



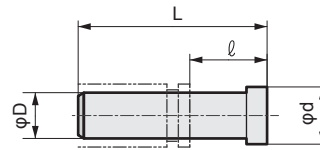
- The min. length is 87.5 mm.
- Select the length in pitches of 12.5 mm.
- Refer to page 297 for details.

● Silencer



Model no.	D	L	A	B	ℓ
SLW-H6	φ6	41	16	20	23.5
SLW-H8	φ8	42	16	20	23
SLW-H10	φ10	53	20	27	31.5

● Blanking plug



Model no.	D	L	ℓ	d
GWP4-B	φ4	27	16	6
GWP6-B	φ6	29	11.5	8
GWP8-B	φ8	33	14	10
GWP10-B	φ10	40	18.5	12

● Tag plate Shipped upon being attached to the manifold.

When required, place a circle on the field for tag plates in the manifold specifications on pages 299 to 302.

<Tag holder>

N4G1 R-TAG-HOLDER

A Model No.

N4G1

N4G2

(Available in sets of 2.)

<Tag plate>

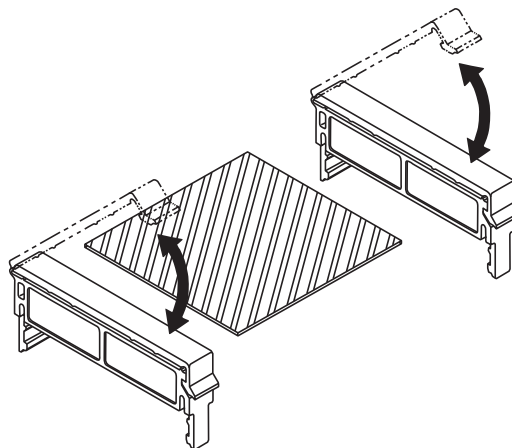
N4G1 R-TAG-PLATE - A - 200^{Note 1}

A Model No.	B Type	C Length (mm) ^{Note 1}
N4G1	A	MN4GA1/2 shared 200
	B1	Wide type for MN4GB1 300
	B2	Narrow type for MN4GB1 ^{Note 2} 400
N4G2	B	For MN4GB2

Note 1: As the <length> of the plates are available in the three different lengths of 200, 300, and 400, cut the plates to suit the product length.

Note 2: With the narrow type, manual operations are possible even with the tag plate covering the unit.

Note 3: Tag plates cannot be attached when spacers are used in the manifold specifications.



4GAB

M4GA/B

MN4GA/B

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

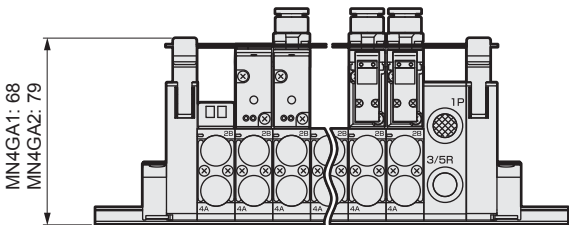
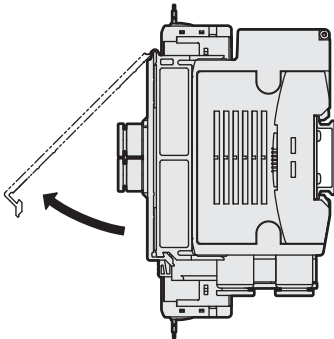
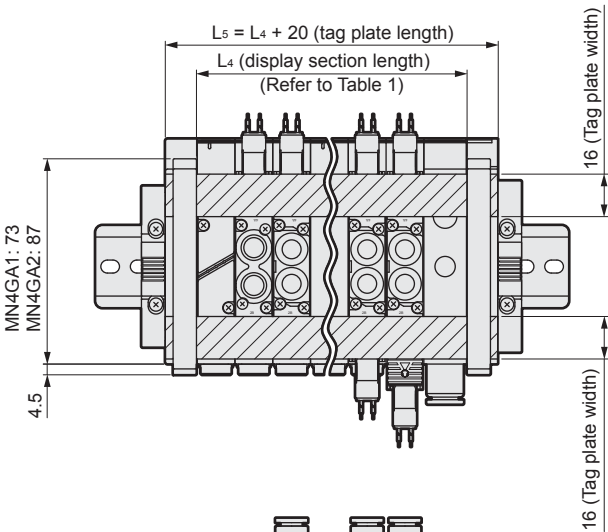
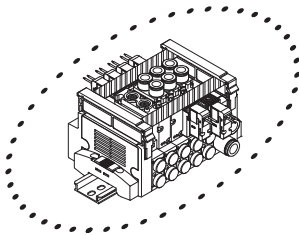
MN4GA & 4GB Series

Block manifold; related products

Dimensions: tag plate

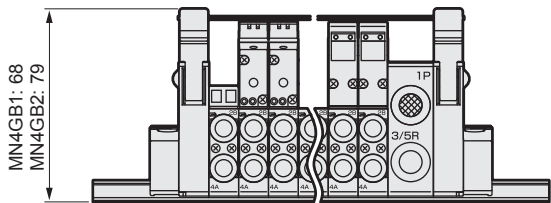
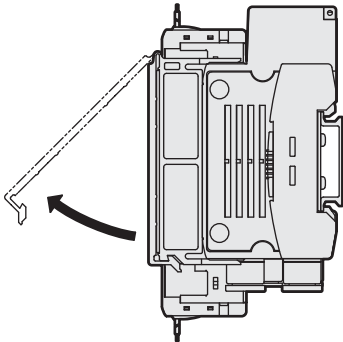
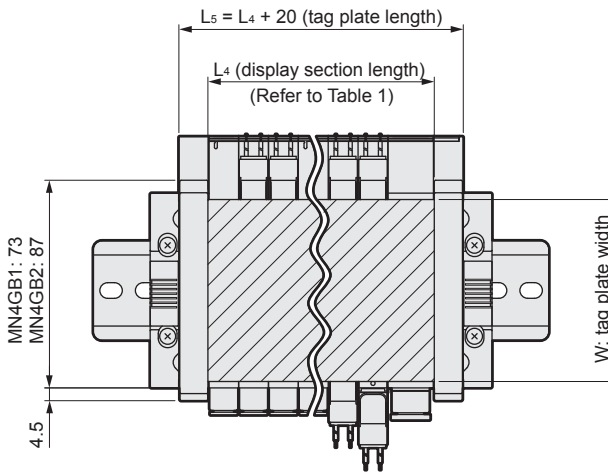
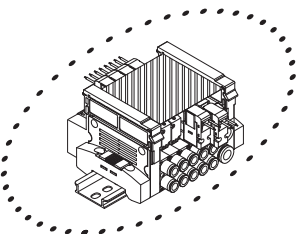
MN4GA1/2

● Tag plate



MN4GB1/2

● Tag plate



Model no.	W
N4G1R-TAG-PLATE-B1-length	64
N4G1R-TAG-PLATE-B2-length	30
N4G2R-TAG-PLATE-B-length	45

Table 1: Formula for calculation of L_5 (tag plate length)

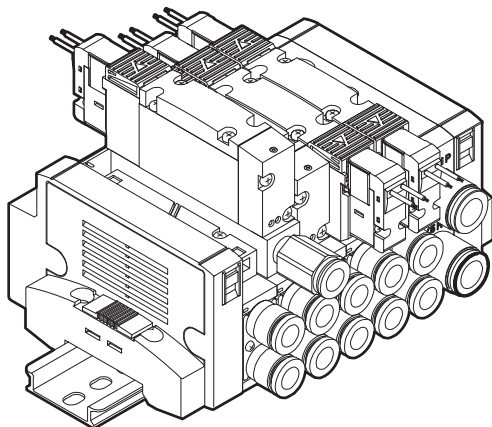
MN4GA			MN4GB		
MN4GA1	$L_5 = (10.5 \times n) + (16 \times m) + (10.5 \times l) + 20$		MN4GB1	$L_5 = (10.5 \times n) + (16 \times m) + (10.5 \times l) + 20$	
MN4GA2	$L_5 = (16 \times n) + (18 \times m) + (10.5 \times l) + 20$		MN4GB2	$L_5 = (16 \times n) + (18 \times m) + (10.5 \times l) + 20$	

n: number of valve blocks
 m: number of supply and exhaust blocks
 l: number of partition blocks

Related products

Air supply spacer

● Air supply spacer



Specifications

Model no.	P→A/B		A/B→R		Weight g
	C (dm ³ /(s·bar))	b	C (dm ³ /(s·bar))	b	
4G1	0.70	0.23	0.93	0.16	8
4G2	1.6	0.17	1.8	0.16	35

Note 1: These are values when a valve is mounted.

Note 2: Effective cross-sectional area S and sonic conductance C are converted as $S \approx 5.0 \times C$.

How to order discrete part

4G 2 R - P - GWS6

A Air supply spacer model no.

B Port size
Note 1

Symbol		Model no.			
		4GA1	4GB1	4GA2	4GB2
A Air supply spacer model no.					
1	For 4G1	●			
2	For 4G2			●	
B Port size					
Blank	M5 thread (4G1), Rc thread (4G2)	(1)	(2)		
GWS4	φ4 fitting	●			
GWS6	φ6 fitting	●		●	
GWS8	φ8 fitting			●	
06N	1/8NPT thread			●	
06G	G 1/8 thread			●	

is not available.

Accessories: 4G1 set screws (2), dedicated gasket (1) 4G2 set screws (2), PR check valves (2), body gasket (1)

⚠ Cautions for model No. selection

Note 1 Blank indicates (1) M5, (2) Rc1/8.

Note 2 Indicate the mounting positions and quantity of the air supply spacers for manifolds in the manifold specifications.

Note 3 When the A/B port fitting is an elbow type, the intake port of the air supply spacer will be faced towards the opposite side (a solenoid side).

Note 4 With the reduced wiring manifold, when the A/B port fitting is an elbow type (upward), the air supply spacer cannot be selected.

Note 5 Combination with the masking plate is not available.

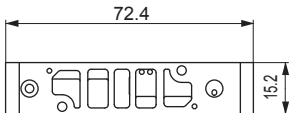
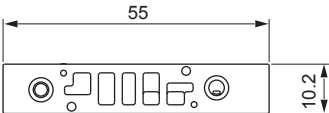
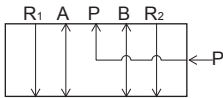
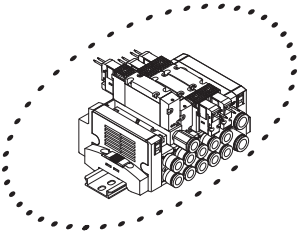
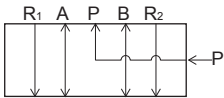
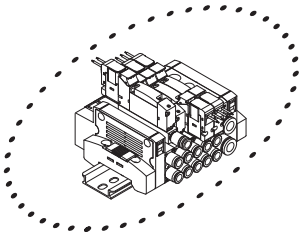
MN4GA & 4GB Series

Block manifold; related products

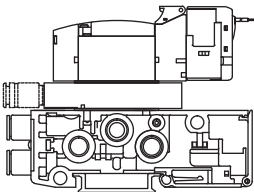
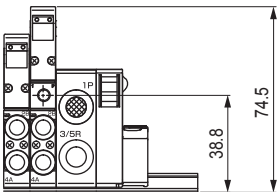
Dimensions

● 4G1

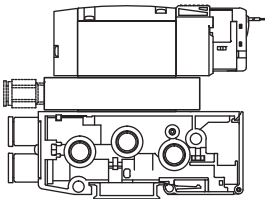
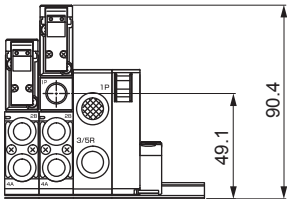
● 4G2



Dimensions when mounted



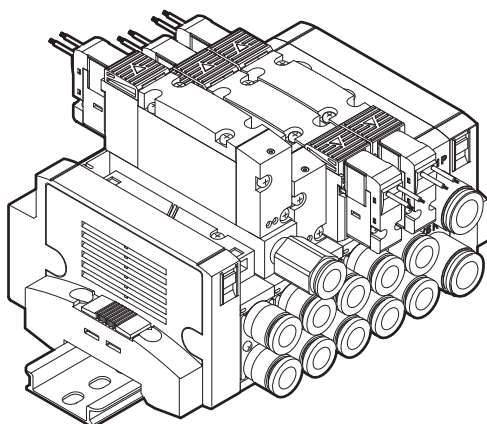
Dimensions when mounted



Related products

Exhaust spacer

● Exhaust spacer



Specifications

Model no.	P→A/B		A/B→R		Weight g
	C (dm ³ /(s·bar))	b	C (dm ³ /(s·bar))	b	
4G1	0.94	0.28	0.68	0.33	7
4G2	1.5	0.24	1.9	0.24	34

Note 1: These are values when a valve is mounted.

Note 2: Effective cross-sectional area S and sonic conductance C are converted as $S \approx 5.0 \times C$.

How to order discrete part

4G 2 R - R - GWS6

A Exhaust spacer model no.

B Port size
Note 1

		Model no.			
		4GA1	4GB1	4GA2	4GB2
Symbol	Descriptions				
A Exhaust spacer model no.					
1	For 4G1	●			
2	For 4G2			●	
B Port size					
Blank	M5 thread (4G1), Rc thread (4G2)	(1)		(2)	
GWS4	φ4 fitting	●			
GWS6	φ6 fitting	●		●	
GWS8	φ8 fitting			●	
06N	1/8NPT thread			●	
06G	G 1/8 thread			●	

is not available.

Accessories: 4G1 set screws (2), dedicated gasket (1)
4G2 set screws (2), PR check valves (2), body gasket (1)

⚠ Cautions for model No. selection

Note 1 Blank indicates (1) M5, (2) Rc1/8.

Note 2 Indicate the mounting positions and quantity of the air supply spacers for manifolds in the manifold specifications.

Note 3 When the A/B port fitting is an elbow type, the intake port of the air supply spacer will be faced towards the opposite side (a solenoid side).

Note 4 With the reduced wiring manifold, when the A/B port fitting is an elbow type (upward), the air supply spacer cannot be selected.

Note 5 Combination with the masking plate is not available.

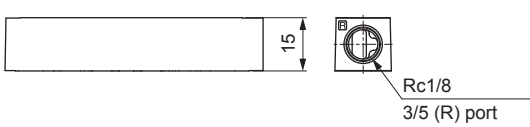
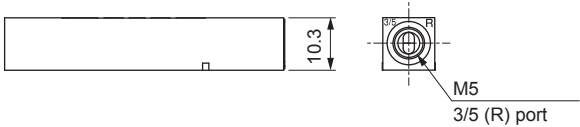
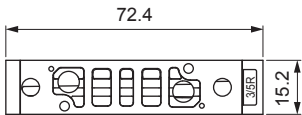
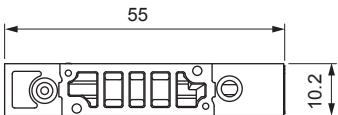
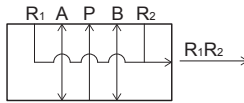
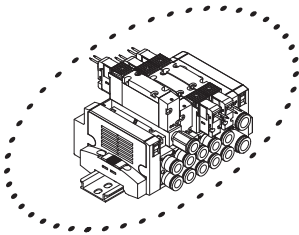
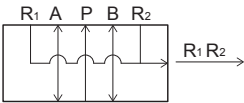
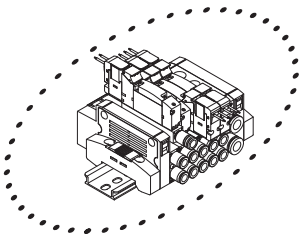
MN4GA & 4GB Series

Block manifold; related products

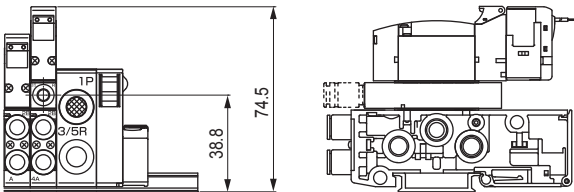
Dimensions

● 4G1

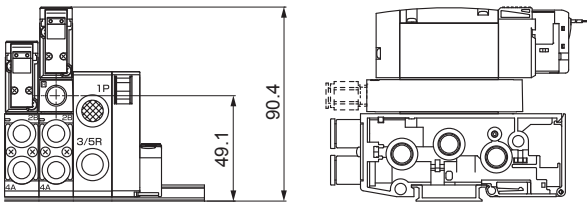
● 4G2



Dimensions when mounted



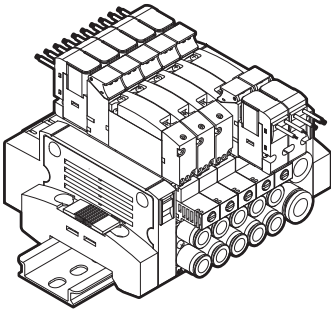
Dimensions when mounted



Related products

In stop valve spacer

● In stop valve spacer



Specifications

Model no.	P→A/B		A/B→R		Weight g
	C (dm ³ /(s·bar))	b	C (dm ³ /(s·bar))	b	
4G*1	0.54	0.03	0.82	0.27	17
4G*2	1.5	0.17	1.6	0.20	63

Note 1: These are values when base piping and 2-position valve are mounted.

Note 2: The effective cross-sectional area when discharging residual pressure is 1.0 mm² (reference value).

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

Attached product: PR check valve 2, body gasket 1

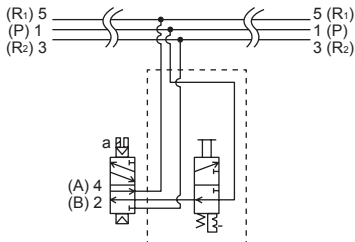
How to order discrete part

4G1 R - IS

4G2 R - IS

In stop valve spacer

JIS symbol



⚠ Note on model no. selection

Note 1: Specify the spacer mounting position and quantity in manifold specifications.

Note 2: If the A/B port fitting is the elbow type (upward), turn the operation part of the in stop valve spacer toward the reverse side (a solenoid side).

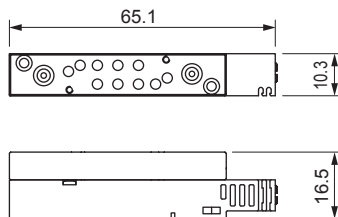
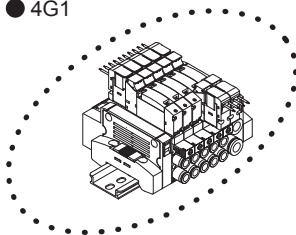
Note 3: If the elbow type (upward) A/B port fitting is used for the reduced wiring manifold, the in stop valve spacer cannot be selected.

Note 4: The in stop valve spacer cannot be used with the external pilot (K).

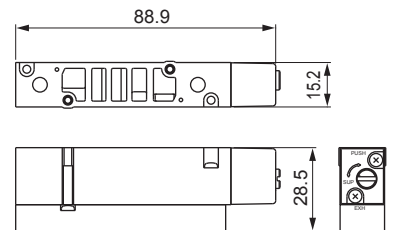
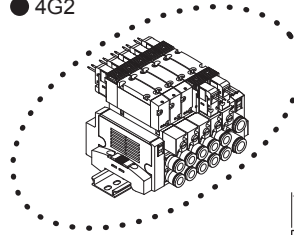
Note 5: When adding to the reduced wiring manifold, the existing electric wire may be too short. Contact CKD for details.

Dimensions

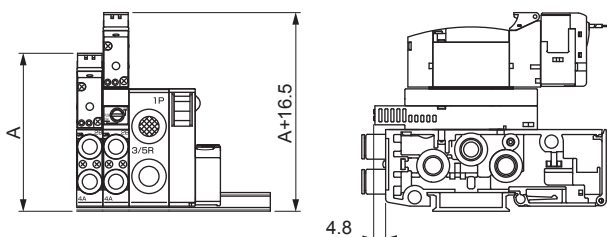
● 4G1



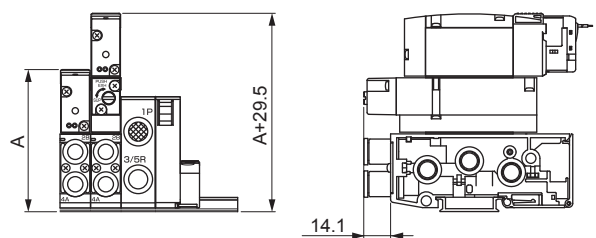
● 4G2



Dimensions when mounted



Dimensions when mounted



Note: For A dimensions, check the dimensions of respective specifications.

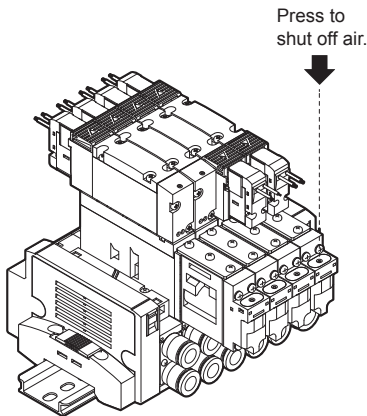
MN4GA & 4GB Series

Block manifold; related products

Related products

Spacer type pilot check valve

- Spacer type pilot check valve

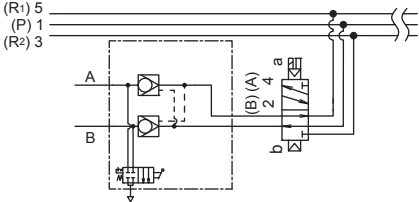


Specifications

Pilot check valve	4G2R-PC-M	
Working fluid	Compressed air	
Max. working pressure	MPa	0.7
Min. working pressure	MPa	0.2
Proof pressure	MPa	1.05
Effective sectional area	mm ²	4 (With solenoid valve)
Ambient temperature	°C	-5 to 55 (no freezing)
Fluid temperature	°C	5 to 55
Lubrication	Note 1	Not required
Atmosphere	Containing corrosive gas is not permissible	
Weight	g	182.5

Note 1: Use the turbine oil Class 1 ISO VG32 if lubricated.
Excessive or intermittent lubrication results in unstable operation.

JIS symbol



Note: Please be careful since this may lead to a bad intermediate stop as well as a decline in the used intermediate stop frequency in the diameter of a large cylinder (standard more than φ50) that has almost no diaphragm on the exhaust side (ex: no speed controller, no silencer).

Discrete model no.

4G2 R - PC - M

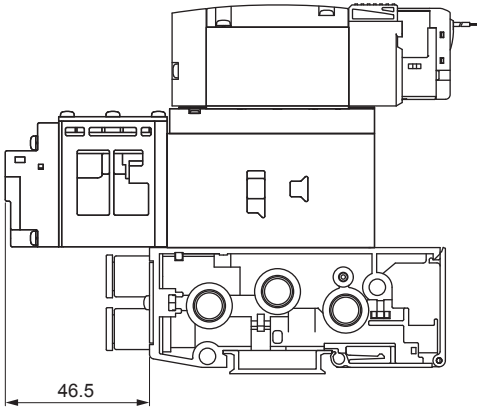
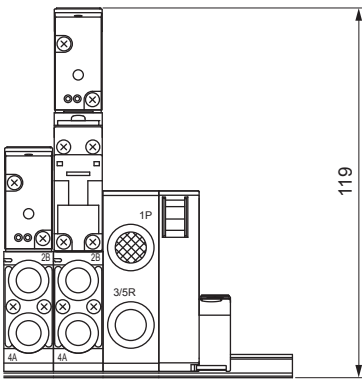
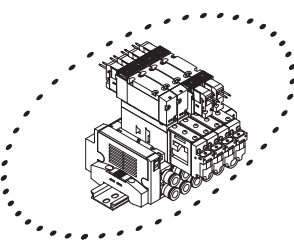
Model no. Pilot check valve With a residual pressure function

⚠ Note on model no. selection

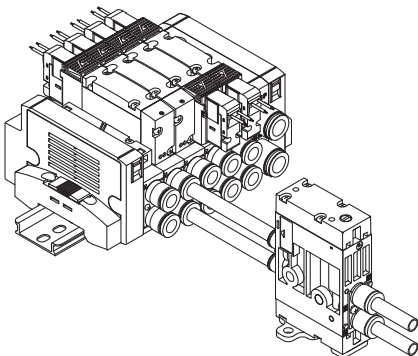
- Note 1: Specify the spacer mounting position and quantity in manifold specifications.
- Note 2: The spacer type pilot check valve cannot be selected in the case of an elbow A/B port fitting.
- Note 3: Stacking multiple spacers is not supported.
- Note 4: The spacer and masking plate can not be combined.
- Note 5: The spacer type pilot check valve that can be installed in the piping system is only the base piping type.

Dimensions

- MN4GB2



- Pilot check valve



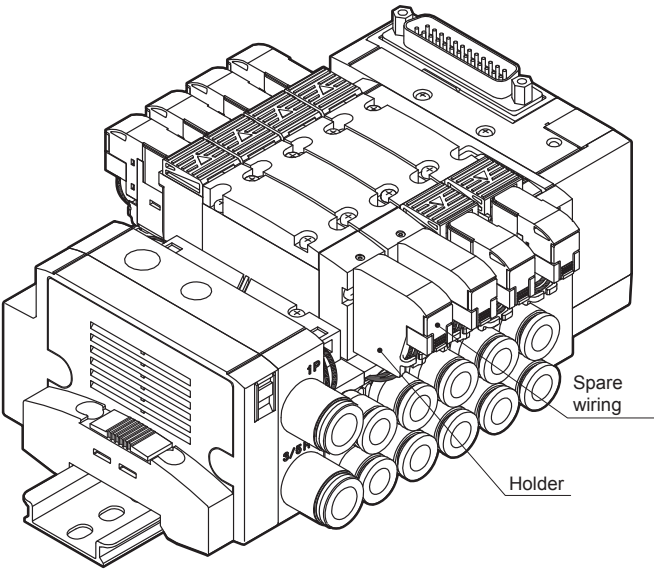
Refer to page 186 for details.

Related products

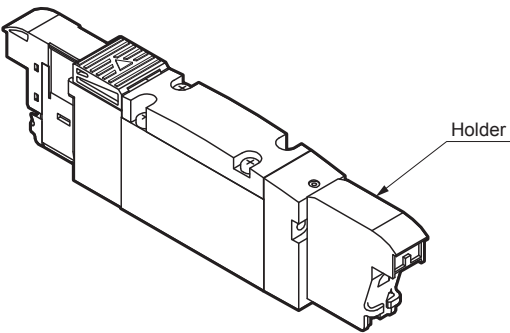
Double wiring (With single spare wiring)

● Double wiring (With single spare wiring) (W1)

Manifold



Discrete valve (A2N)

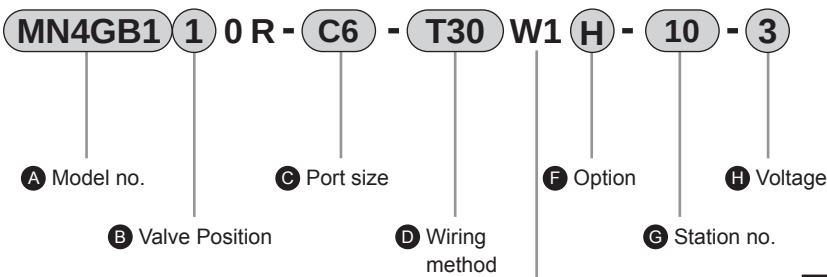


This comes with a holder for holding the socket assembly.
(The A type socket assembly is not attached.)
If you want to change the valve from a double solenoid to a single solenoid, the unnecessary socket assembly is assembled and held.

The single solenoid valve cap side spare wiring (holder and A type socket assembly) is attached.
If you want to change the valve from the from a single solenoid to a double solenoid, valve change work is easier because there is no need to arrange the A type socket assembly separately.

Example of model no.

● Manifold model no. (example)



Symbol	Descriptions
E	Terminal and connector pin array
W1	Double wiring (With single spare wiring)

* Refer to How to order of each series for details.

MN4GA & 4GB Series

Block manifold; related products

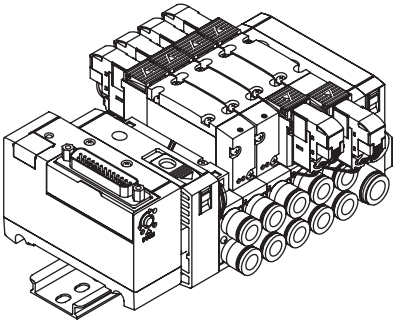
Related products

Reduced wiring mall

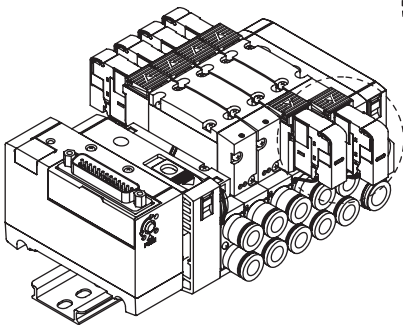
● Reduced wiring mall (Q)

This will protect the A-connector lead wire portion.

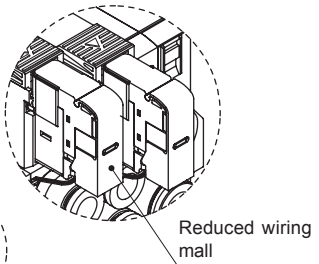
- Selection is possible in the case of the reduced wiring type manifold (T*, T*R) and reduced wiring single valve (A2N).



Standard



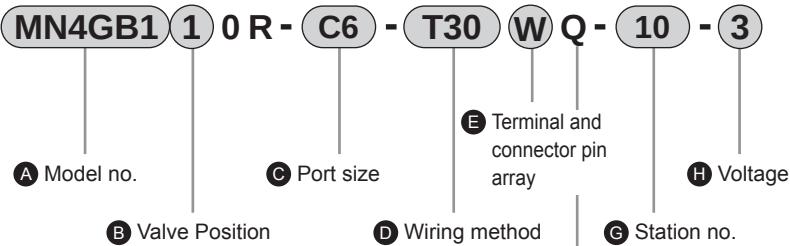
When Q (Reduced wiring mall) is selected



Reduced wiring mall

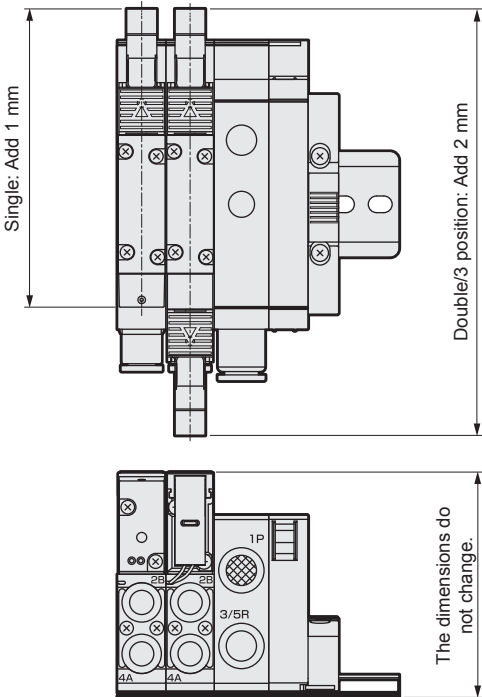
Example of model no.

● Manifold model no. (example)

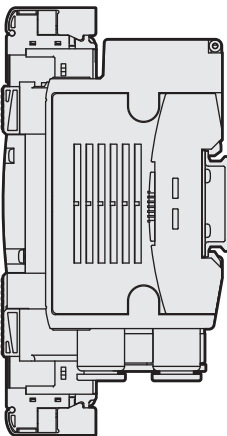


Symbol	Descriptions
F	Option
Q	Reduced wiring mall

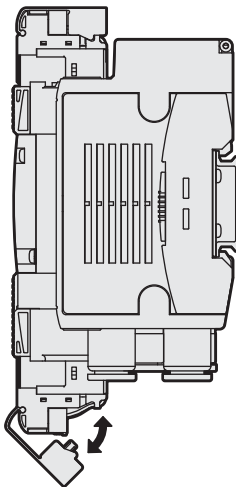
● Dimensions



Reduced wiring mall closed

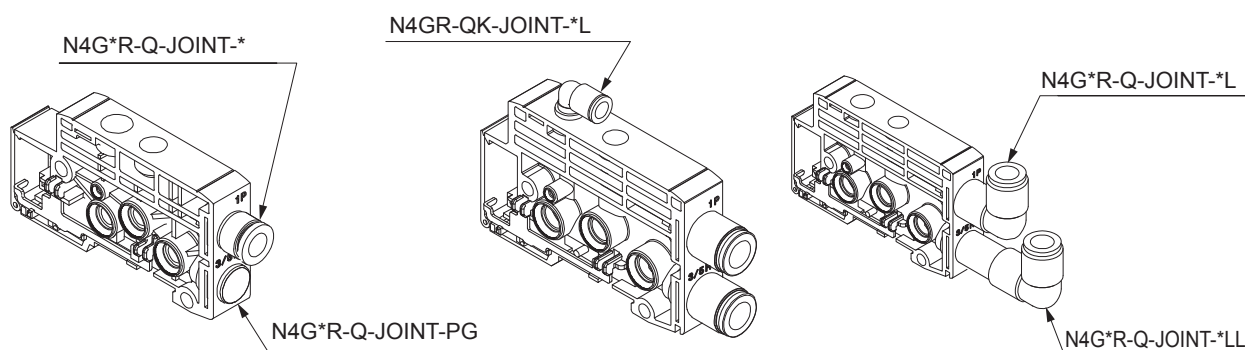


Open



Related parts

1. Cartridge type push-in fitting for MN4G supply and exhaust blocks



1.1 MN4G1 supply and exhaust block, fitting for 1(P), 3/5(R)

Port size	Part model no.
φ6 straight type	N4G1R-Q-JOINT-6
φ8 straight type	N4G1R-Q-JOINT-8
φ6 elbow type	N4G1R-Q-JOINT-6L,6LL
φ8 elbow type	N4G1R-Q-JOINT-8L,8LL
φ1/4 inch straight type	N4G1R-Q-JOINT-6N
φ5/16 inch straight type	N4G1R-Q-JOINT-8N
φ1/4 inch elbow type	N4G1R-Q-JOINT-6LN, 6LLN
φ5/16 inch elbow type	N4G1R-Q-JOINT-8LN, 8LLN
Plug cartridge	N4G1R-Q-JOINT-PG

1.2 MN4G2 supply and exhaust block, fitting for 1(P), 3/5(R)

Port size	Part model no.
φ8 straight type	N4G2R-Q-JOINT-8
φ10 straight type	N4G2R-Q-JOINT-10
φ8 elbow type	N4G2R-Q-JOINT-8L,8LL
φ10 elbow type	N4G2R-Q-JOINT-10L,10LL
φ5/16 inch straight type	N4G2R-Q-JOINT-8N
φ3/8 inch straight type	N4G2R-Q-JOINT-10N
φ5/16 inch elbow type	N4G2R-Q-JOINT-8LN,8LLN
φ3/8 inch elbow type	N4G2R-Q-JOINT-10LN,10LLN
Plug cartridge	N4G2R-Q-JOINT-PG

1.3 MN4G1/2 common, fitting for 12/14(PA)

Port size	Part model no.
φ6 straight type	N4GR-QK-JOINT-6
φ6 elbow type	N4GR-QK-JOINT-6L

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

MN4GA & 4GB Series

How to prepare block manifold MN4G Series manifold specifications

● Example of manifold model no.

MN **4GA1** **8** **0R-** **CX** - **T50** **W** **H** - **8** - **3**

A Model No. **B** Valve Position **C** Port size **D** Electric connection (Reduced wiring connection) **E** Terminal/connector pin Array (Note: Indicate for reduced wiring.) **F** Option **G** Station no. **H** Voltage

When filling in this field, select the model no. from "Block configurations" (pages 277 to 294).

Part name	Model no.	Layout position																														Quantity	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Electrical block (page 282, 283)	N4G1R-T 50	☐																														1	
Valve block with solenoid valve (page 278)	N4GA1 1 0R- C4	☐	☐	☐																												2	
	N4GA1 2 0R- C6					☐																										1	
	N4GA1 3 0R- C4				☐																											1	
	N4GA1 0R-																																
	N4GA1 0R-																																
	N4GA1 0R-																																
	N3GA1 1 0R- C4									☐	☐	☐																					3
	N3GA1 0R-																																
Valve block with masking plate (page 278)	N4GA1R-MP																																
	N4GA1R-MPS																																
	N4GA1R-MPD						☐																									1	
Supply and exhaust blocks (page 280)	N4G1R-Q 8L							☐					☐																			2	
	N4G1R-Q																																
	N4G1R-Q																																
Partition blocks (page 281)	N4G1R-S A								☐																							1	
	N4G1R-S																																
	N4G1R-S																																
End block (page 281)	N4G1R-E R													☐																		1	
	N4G1R-E																																
Mounting rail	L ₂ = (How to calculate length on next page)	Blanking plug										Silencer										Tag plate (attached)										Accessories	
		GWP4-B					GWP6-B					GWP8-B					SLW-H6					SLW-H8					A						☐
		Cable with D-sub connector					4GR-CABLE-D0*~*					Push-in fitting tube remover (standard) ☐ Not required																					

* A circuit diagram of the above manifold model no. (example) is provided on the next page. Use this for reference.

Check if the tube remover (standard attached product) is not required.

Preparing the manifold specifications

- Fill in order from the left with the piping port facing forward.
(Please include the model no. of the block selected from block configurations (pages 277 to 294) and instructions for the arrangement.)
- Indicate the total number of blocks specified in the quantity on the right end of the table.
- Place a circle on the required accessories.
- Indicate the mounting rail length. (indicate only when a length other than the standard length is required.)
- Manifold specifications are available for individual series, so fill out corresponding specifications.
 - MN4GA1: Page 299
 - MN4GB1: Page 300
 - MN4GA2: Page 301
 - MN4GB2: Page 302
 - MN4GA × 1/2 (mix manifold): Page 303
 - MN4GB × 1/2 (mix manifold): Page 304

MN4GA & 4GB Series

Mounting rail length (L2)

- (1) Determine the rail length using the calculation method shown below.
The obtained length is standard.
- (2) For the standard length, it is not necessary to indicate the length (L2) in the specifications.
Indicate the length when using a non-standard length.

● Calculating the mounting rail length

$$\text{Manifold length (L1)} = (\text{A} \times \text{Quantity}) + (\text{B} \times \text{Quantity}) + (\text{C} \times \text{Quantity}) + \text{D} + \text{E}$$

$$\text{Mounting rail length (L2)} = \text{L1}' \times 12.5$$

A, B, C, D, and E each indicate the length (width) of each block.

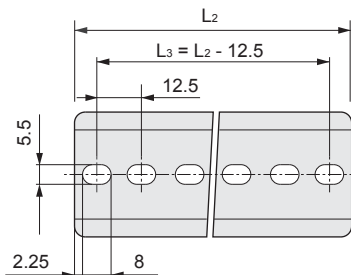
$$\text{L2}' = \frac{\text{L1} + 40}{12.5} \rightarrow \text{rounded up to integer}$$

$$\text{Rail mounting pitch (L3)} = \text{L2} - 12.5$$

● DIN rail length quick reference table

L ₁ : Manifold length		Over 47.5 to 60 or less	60 to 72.5	72.5 to 85	85 to 97.5	97.5 to 110	110 to 122.5	122.5 to 135	135 to 147.5	147.5 to 160	160 to 172.5	172.5 to 185	185 to 197.5	197.5 to 210	210 to 222.5	222.5 to 235	235 to 247.5	247.5 to 260	260 to 272.5	272.5 to 285	285 to 297.5	297.5 to 310	310 to 322.5	322.5 to 335	335 to 347.5	347.5 to 360
	L ₂ : Rail length	87.5	100	112.5	125	137.5	150	162.5	175	187.5	200	212.5	225	237.5	250	262.5	275	287.5	300	312.5	325	337.5	350	362.5	375	387.5
Pitch L ₃	75	87.5	100	112.5	125	137.5	150	162.5	175	187.5	200	212.5	225	237.5	250	262.5	275	287.5	300	312.5	325	337.5	350	362.5	375	387.5

Note 1: When L1 exceeds this table, calculate the length by referring to "How to calculate the length of the mounting rail".



Block length (width) dimensions table

(mm)

		MN4GA/B1	MN4GA/B2	MN4G1/2MIX	
				MN4GA/B1	MN4GA/B2
A	Valve block	10.5	16	10.5	16
B	Supply and exhaust block	16	18	16	18
C	Partition block	10.5	10.5	10.5	10.5
D	Individual wiring	41	46	44.5	
	Electrical block for reduced wiring	T10/T11	83.8	86.3	86.3
		T10R/T11R	83.8	86.3	83.8
		T30/T5*	69.3	71.8	71.8
		T30R/T5*R	69.3	71.8	69.3
		T6*	143.5	146	146
		T7*	64.3	66.8	66.8
		T8*	64.3	66.8	66.8
E	Mix block			16	

* The end block is included in the electrical block.

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautionsManifold
Specifications

MN4GA & 4GB Series

How to fill out wiring specifications form

This is not required for standard wiring and double wiring.

● Wiring specifications (example)

* The following example is completed based on the previous page's manifold specifications.

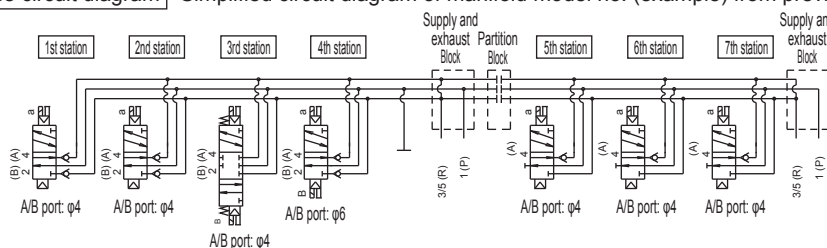
Connector pin no.				Valve No.																							
T50/T50R	T51/T51R	T52/T52R	T53/T53R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	1	1	1	a																							
2	2	2	2		a																						
3	3	3	3				a																				
4	4	4	4				b																				
5	5	5	5					a																			
6	6	6	6					b																			
7	7	7	7			a																					
8	8	8	8			b																					
9 - Power supply	9	9 COM	9																								
10 + (COM) Power supply	10	10 COM	10																								
11	11		11						a																		
12	12		12							a																	
13	13		13								a																
14	14		14																								
15	15		15																								
16	16		16																								
17	17		17																								
18	18		18																								
19 - Power supply	19 COM		19																								
20 + (COM) Power supply	20 COM		20																								
			21																								
			22																								
			23																								
			24																								
			25 COM																								
			26 COM																								

* When selecting T50/T50R wiring, the COM polarity will be + (plus).

● Precaution regarding wiring specifications

- (1) Fill in and attach the form to the manifold specifications for those other than the standard wiring or double wiring. Contact CKD since products will be prepared as available consult factory order in such case.
- (2) The valve no. is determined by counting the valve blocks only in order from the left with the ports facing forward. This will differ from the numbers for the installation positions.
- (3) As the connector pin no. and valve no. will differ for every reduced wiring method (T1*/T30/T5*/T6*/T7*/T8*), fill out the form upon reviewing the precautions (pages 593 to 611) for each reduced wiring method.
- (4) Wiring (socket assembly) will be included in the valve blocks with masking plates. A side only for "-MPS". On both the A and B sides for "-MPD".
- (5) It is not possible to assemble a double solenoid or 3-position solenoid valve to "-MPS". Make arrangements for the valve block with solenoid valve and perform the task of expansion.
- (6) It is not possible to install spare wires for expansions of stations in advance. Wire the socket assembly of the solenoid valve for expansion of stations. Refer to page 612 for instructions on how to expand stations.

Reference circuit diagram Simplified circuit diagram of manifold model no. (example) from previous page



* Manifold stations are set in order from the left with the piping port facing forward.

(The electrical blocks, supply and exhaust blocks, partition block, and end block are not included in the number of manifold stations)

* Select the model no. from block configurations (pages 277 to 294) and the page for model nos. of each of the specifications.

* The positions of arrangements are set in order from the left with the piping port facing forward.

MN4GA1 Block manifold specifications

● Contact ● Quantity set ● Request date month day Issue / /
 Slip No. Order No. Your company name
 Contact
 Order no.

● Manifold model no.

MN GA1 0R- - -
 (A) Model No. (B) Valve Position (C) Port size (D) Electrical connections (E) Terminal/connector pin (F) Option (G) Station no. (H) Voltage
 (Reduced wiring connection) Array (Note: Indicate for reduced wiring.)

When completing this form, select the type from the "Block configuration" (pages 277 to 294).

Part name (Reference page)	Model no.	Layout position																														Quantity
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Electrical block (page 282, 283)	N4G1R-T																															
Valve block with solenoid valve (page 278)	N4GA1	0R-																														
	N4GA1	0R-																														
	N4GA1	0R-																														
	N4GA1	0R-																														
	N4GA1	0R-																														
	N4GA1	0R-																														
	N3GA1	0R-																														
	N3GA1	0R-																														
Valve block with masking plate (page 278)	N4GA1R-MP																															
	N4GA1R-MPS																															
	N4GA1R-MPD																															
Air supply spacer (page 287)	4G1R-P-																															
	4G1R-P-																															
Exhaust spacer (page 289)	4G1R-R-																															
In stop valve spacer (page 291)	4G1R-IS																															
Supply and exhaust block (page 280)	N4G1R-Q																															
	N4G1R-Q																															
	N4G1R-Q																															
Partition block (page 281)	N4G1R-S																															
	N4G1R-S																															
	N4G1R-S																															
End block (page 281)	N4G1R-E																															
	N4G1R-E																															
Mounting rail	L ₂ =		Blanking plug															Silencer					Tag plate (attached)					Attached Part				
	* Fill in the integral multiple of 12.5. (How to determine the length refer to page 297)		GWP4-B					GWP6-B					GWP8-B					SLW - 6S			SLW - 6S			A								
		Cable with D-sub connector					4GR-CABLE-D0*-*					Push-in fitting tube remover (standard)					Not required (check)															

MN4GB1 Block manifold specifications

● Contact ● Quantity set ● Request date month day

Issue / /

Slip No.

Order No.

Your company name

● Manifold model no.

MN4GB1 **0R-** - - -

Contact

Order no.

A Model No. **B** Valve Position **C** Port size **D** Electrical connections **E** Terminal/connector pin **F** Option **G** Station no. **H** Voltage

(Reduced wiring connection) Array (Note: Indicate for reduced wiring.)

When completing this form, select the type from the "Block configuration" (pages 277 to 294).

Part name (Reference page)	Model no.	Layout position																														Quantity
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Electrical block (page 282, 283)	N4G1R-T																															
Valve block with solenoid valve (page 278)	N4GB1	0R-																														
	N4GB1	0R-																														
	N4GB1	0R-																														
	N4GB1	0R-																														
	N4GB1	0R-																														
	N4GB1	0R-																														
	N3GB1	0R-																														
	N3GB1	0R-																														
Valve block with masking plate (page 278)	N4GB1R-MP-																															
	N4GB1R-MPS-																															
	N4GB1R-MPD-																															
Air supply spacer (page 287)	4G1R-P-																															
	4G1R-P-																															
Exhaust spacer (page 289)	4G1R-R-																															
In stop valve Spacer (page 291)	4G1R-IS																															
Supply and exhaust block (page 280)	N4G1R-Q	-																														
	N4G1R-Q	-																														
	N4G1R-Q	-																														
Partition block (page 281)	N4G1R-S																															
	N4G1R-S																															
	N4G1R-S																															
End block (page 281)	N4G1R-E																															
	N4G1R-E																															
Mounting rail	L ₂ =	Blanking plug															Silencer					Tag plate (attached)					Attached Part					
	* Fill in the integral multiple of 12.5. (How to determine the length refer to page 297)	GWP4-B			GWP6-B			GWP8-B			SLW-H6			SLW-H8			B1			B2												
		Cable with D-sub connector			4GR-CABLE-D0*-*			Push-in fitting tube remover (standard)			Not required (check)																					

MN4GA2 Block manifold specifications

● Contact ● Quantity set ● Request date month day Issue / /
 Slip No. Order No. Your company name
 ● Manifold model no. Contact
 Order no.

MN GA2 0R- - -

(A) Model No. (B) Valve Position (C) Port size (D) Electrical connections (E) Terminal/connector pin (F) Option (G) Station no. (H) Voltage
 (Reduced wiring connection) Array (Note: Indicate for reduced wiring.)

When completing this form, select the type from the "Block configuration" (pages 277 to 294).

Part name (Reference page)	Model no.	Layout position																														Quantity
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Electrical block (page 282, 283)	N4G2R-T																															
Valve block with solenoid valve (page 278)	N4GA2	0R-																														
	N4GA2	0R-																														
	N4GA2	0R-																														
	N4GA2	0R-																														
	N4GA2	0R-																														
	N4GA2	0R-																														
	N3GA2	0R-																														
	N3GA2	0R-																														
Valve block with masking plate (page 278)	N4GA2R-MP																															
	N4GA2R-MPS																															
	N4GA2R-MPD																															
Air supply spacer (Note 287)	4G2R-P-																															
	4G2R-P-																															
Exhaust spacer (page 289)	4G2R-R-																															
In stop valve Spacer (page 291)	4G2R-IS																															
Supply and exhaust block (page 280)	N4G2R-Q	-																														
	N4G2R-Q	-																														
	N4G2R-Q	-																														
Partition block (page 281)	N4G2R-S																															
	N4G2R-S																															
	N4G2R-S																															
End block (page 281)	N4G2R-E																															
	N4G2R-E																															
Mounting rail	L ₂ = * Fill in the integral multiple of 12.5. (How to determine the length refer to page 297)	Blanking plug										Silencer										Tag plate (attached)										Attached Part
		GWP4-B					GWP8-B					SLW-H8					A															
		GWP6-B					GWP10-B					SLW-H10																				
		Cable with D-sub connector										4GR-CABLE-D0*-*																				

4GAB

M4GA/B

MN4GA/B

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

MN4GB2 Block manifold specifications

● Contact ● Quantity set ● Request date month day

Issue /

Your company name

Contact

Order no.

A Model No. **B** Valve Position **C** Port size **D** Electrical connections
(Reduced wiring connection) **E** Terminal/connector pin
Array (Note: Indicate for reduced wiring.) **F** Option **G** Station no. **H** Voltage

When completing this form, select the type from the "Block configuration" (pages 277 to 294).

Part name (Reference page)	Model no.	Layout position																														Quantity
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Electrical block (page 282, 283)	N4G2R-T																															
Valve block with solenoid valve (page 278)	N4GB2	0R-																														
	N4GB2	0R-																														
	N4GB2	0R-																														
	N4GB2	0R-																														
	N4GB2	0R-																														
	N4GB2	0R-																														
	N3GB2	0R-																														
	N3GB2	0R-																														
Valve block with masking plate (page 278)	N4GB2R-MP-																															
	N4GB2R-MPS-																															
	N4GB2R-MPD-																															
Air supply spacer (page 287)	4G2R-P-																															
	4G2R-P-																															
Exhaust spacer (page 289)	4G2R-R-																															
In stop valve Spacer (page 291)	4G2R-IS																															
Spacer type Pilot check valve (page ●●●)	4G2R-PC-M																															
Supply and exhaust block (page 280)	N4G2R-Q	-																														
	N4G2R-Q	-																														
	N4G2R-Q	-																														
Partition block (page 281)	N4G2R-S																															
	N4G2R-S																															
	N4G2R-S																															
End block (page 281)	N4G2R-E																															
	N4G2R-E																															
Mounting rail	L ₂ = * Fill in the integral multiple of 12.5. (How to determine the length refer to page 297)	Blanking plug										Silencer										Tag plate (attached)										Attached Part
		GWP4-B				GWP8-B				SLW-H8				B																		
		GWP6-B				GWP10-B				SLW-H10																						
		Cable with D-sub connector					4GR-CABLE-D0*-*																									

MN4GA1/2 Mix manifold specifications

● Contact ● Quantity set ● Request date month day Issue / /

Slip No. Order No. Your company name

● Manifold model no.

MN GAX12R- - - -

(A) Model No. (C) Port size (D) Electrical connections (E) Terminal/connector pin (F) Option (G) Station no. (H) Voltage

(Reduced wiring connection) Array (Note: Indicate for reduced wiring.)

When completing this form, select the type from the "Block configuration" (pages 277 to 294).

Part name (Reference page)	Model no.	Layout position																														Quantity
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Electrical block (page 282, 283)	N4G R-T																															
Valve block with solenoid valve (page 278)	N4GA 0R-																															
	N4GA 0R-																															
	N4GA 0R-																															
	N4GA 0R-																															
	N4GA 0R-																															
	N4GA 0R-																															
	N3GA 0R-																															
	N3GA 0R-																															
Valve block with masking plate (page 278)	N4GA R-MP																															
	N4GA R-MPS																															
	N4GA R-MPD																															
Air supply spacer (page 287)	4G1R-P-																															
	4G2R-P-																															
Exhaust spacer (page 289)	4G1R-R-																															
	4G2R-R-																															
In stop valve spacer (page 291)	4G1R-1S																															
	4G2R-1S																															
Mix block (page 765)	N4G12R-MIX																															
Supply and exhaust blocks (page 280)	N4G R-Q -																															
	N4G R-Q -																															
	N4G R-Q -																															
Partition blocks (page 281)	N4G R-S																															
	N4G R-S																															
	N4G R-S																															
End block (page 281)	N4G R-E																															
	N4G R-E																															
Mounting rail	L ₂ = * Fill in the integral multiple of 12.5. (How to determine the length refer to page 297)	Blanking plug															Silencer															Attached Part
		GWP -B	GWP -B	GWP -B	GWP -B	SLW-H	SLW-H																									
		Cable with D-sub connector					4GR-CABLE-D0*-*					Push-in fitting tube remover (standard) ☐ Not required (check)																				

MN4GB1/2 Mix manifold specifications

● Contact

● Quantity

set

● Request date

month

day

Issue

/

/

Slip No.

Order No.

● Manifold model no.

MN4GBX12R-

-

-

-

● Your company name

Contact

Order no.

● Model No.

● Port size

● Electrical connections

● Terminal/connector pin

● Option

● Station no.

● Voltage

(Reduced wiring connection)

Array (Note: Indicate for reduced wiring.)

When completing this form, select the type from the "Block configuration" (pages 277 to 294).

Part name	Model no.		Layout position																														Quantity				
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30					
Electrical block (page 282, 283)	N4G		R-T																																		
Valve block with solenoid valve (page 278)	N4GB		0R-																																		
	N4GB		0R-																																		
	N4GB		0R-																																		
	N4GB		0R-																																		
	N4GB		0R-																																		
	N4GB		0R-																																		
	N3GB		0R-																																		
	N3GB		0R-																																		
Valve block with masking plate (page 278)	N4GB		R-MP-																																		
	N4GB		R-MPS-																																		
	N4GB		R-MPD-																																		
Air supply spacer (page 287)	4G1R-P-																																				
	4G2R-P-																																				
Mix block (page 765)	N4G12R-MIX																																				
Supply and exhaust blocks (page 280)	N4G		R-Q	-																																	
	N4G		R-Q	-																																	
	N4G		R-Q	-																																	
Partition blocks (page 281)	N4G		R-S																																		
	N4G		R-S																																		
	N4G		R-S																																		
End block (page 281)	N4G		R-E																																		
	N4G		R-E																																		
Mounting rail	L ₂ = * Fill in the integral multiple of 12.5. (How to determine the length refer to page 297)			Blanking plug															Silencer															Attached Part			
				GWP -B					GWP -B					GWP -B					GWP -B					SLW-H					SLW-H								
				Cable with D-sub connector					4GR-CABLE-D0*-*										Push-in fitting tube remover (standard) ☐ Not required (check)																		

Flat cable connector type (T50/T51/T52/T53) wiring specifications

* Please fill in and attach to the manifold specifications for those other than the standard wiring or double wiring. (Available consult factory order)
* This is not required for standard wiring/double wiring.

Connector pin no.				Valve No.																							
T50/ T50R	T51/ T51R	T52/ T52R	T53/ T53R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	1	1	1																								
2	2	2	2																								
3	3	3	3																								
4	4	4	4																								
5	5	5	5																								
6	6	6	6																								
7	7	7	7																								
8	8	8	8																								
9 - Power supply	9	9 COM	9																								
10 + (COM) Power supply	10	10 COM	10																								
11	11		11																								
12	12		12																								
13	13		13																								
14	14		14																								
15	15		15																								
16	16		16																								
17	17		17																								
18	18		18																								
19 - Power supply	19 COM		19																								
20 + (COM) Power supply	20 COM		20																								
			21																								
			22																								
			23																								
			24																								
			25 COM																								
			26 COM																								

* When selecting T50/T50R wiring, the COM polarity will be + (plus).

Serial transmission (T6*/T7*) wiring specifications

* Please fill in and attach to the manifold specifications for those other than the standard wiring or double wiring. (Available consult factory order)
* This is not required for standard wiring/double wiring.

Serial transmission type	Connector pin no.		Valve No.															
	T6*	T7*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Connector connection type	1	1																
T6A0: UNIWIRE SYSTEM 8 points	2	2																
T6A1: UNIWIRE SYSTEM 16 points	3	3																
T6C0: CompoBus/S 8 points	4	4																
T6C1: CompoBus/S 16 points	5	5																
T6G1: CC-Link 16 points	6	6																
T6E0: S-LINK 8 points	7	7																
T6E1: S-LINK 16 points	8	8																
T6J0: UNIWIRE H SYSTEM 8 points	9	9																
T6J1: UNIWIRE H SYSTEM 16 points	10 COM	10																
	11	11																
	12	12																
Thin slot-insertion type	13	13																
T7C0: CompoBus/S 8 points	14	14																
T7C1: CompoBus/S 16 points	15	15																
T7D1: DeviceNet 16 points	16	16																
T7E0: S-LINK 8 points	17	17																
T7E1: S-LINK 16 points	18	18																
T7G1: CC-Link 16 points	19	19																
T7L1: SAVE NET 16 points	20 COM	20																

Serial transmission (T8*) wiring specifications

* Please fill in and attach to the manifold specifications for those other than the standard wiring or double wiring. (Available consult factory order)

* This is not required for standard wiring/double wiring.

Serial transmission type				Connector pin no.	Valve No.																							
				T8*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
T8G1	CC-Link	NPN	16 points	1																								
T8G2			32 points	2																								
T8GP1		PNP	16 points	3																								
T8GP2			32 points	4																								
T8P1	PROFIBUS-DP	NPN	16 points	5																								
T8P2			32 points	6																								
T8PP1		PNP	16 points	7																								
T8PP2			32 points	8																								
T8EC1	EtherCAT	NPN	16 points	9																								
T8EC2			32 points	10																								
T8ECP1		PNP	16 points	11																								
T8ECP2			32 points	12																								
T8EN1	EtherNet/IP	NPN	16 points	13																								
T8EN2			32 points	14																								
T8ENP1		PNP	16 points	15																								
T8ENP2			32 points	16																								
				17																								
				18																								
				19																								
				20																								
				21																								
				22																								
				23																								
				24																								
				25																								
				26																								
				27																								
				28																								
				29																								
				30																								
				31																								
				32																								

4GAB

M4GA/B

MN4GA/B

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

MEMO

4GAB	M4GAB	MN4GAB	4GAB Master valve	4GD/E	M4GD/E	MN4GD/E	Technical data	Safety precautions	Manifold Specifications
------	-------	--------	----------------------	-------	--------	---------	----------------	-----------------------	----------------------------