Block manifold: Block configuration

As units can be freely assembled, it is easy to change the number of stations, perform maintenance, etc.

● Valve block with solenoid valve

(1) The types of solenoid valve required can be arranged on a DIN rail at the number of stations required.
However, the max. number of stations depends on the wiring method. (Refer to pages 246 and 262.)
(2) Solenoid valves are numbered 1, 2, 3... from the left with the fitting in front.

● Supply and exhaust block

(1) At the connecting part of each block, a number of blocks can be freely connected.
(2) Select internal or external pilot according to the solenoid valve.

● End block

(1) Install on both sides for individual wiring specifications.
(2) Install only on wiring block opposite side for reduced wiring specifications.

● Partition block

(1) Install in combination with supply and exhaust blocks for multi-pressure specifications.

● Mixed block

(1) Install when combining 4G1 and 4G2 as a mix on the same DIN rail. This will have the effect of reduced piping.
Note: 4G1 on the left side of the mixed block and 4G2 on the right side.

Block manifold configuration

Piping

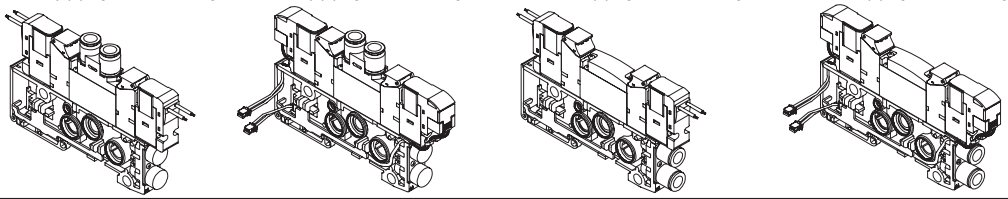
Wiring

Related products

Piping block

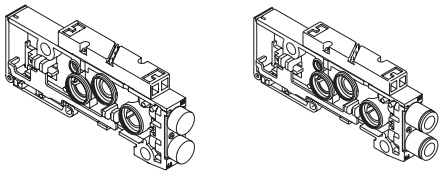
A Discrete valve block with solenoid valve

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



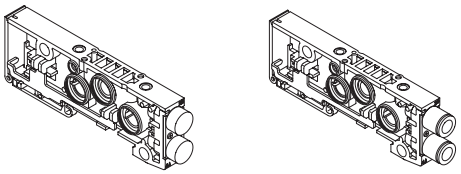
B Discrete valve block with masking plate

- For body piping
- For base piping



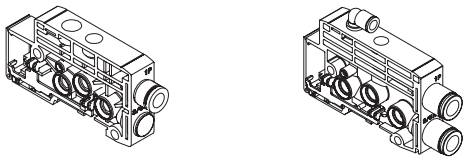
C Discrete valve block

- For body piping
- For base piping



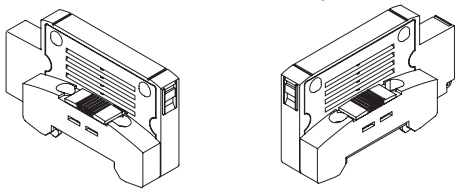
D Supply and exhaust block

- For internal pilot
- For external pilot

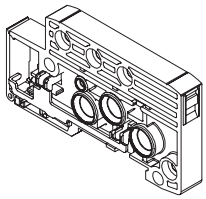


E End block

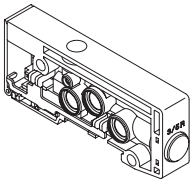
- For left
- For right



F Partition block



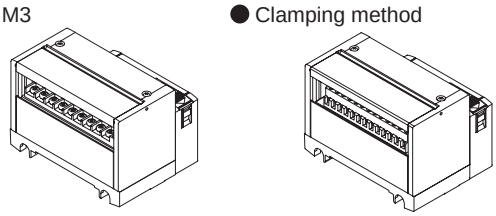
G Mixed block



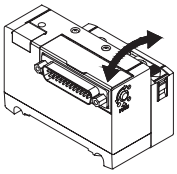
Wiring block

H Common terminal box

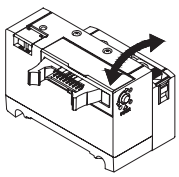
- M3
- Clamping method



I D sub-connector block

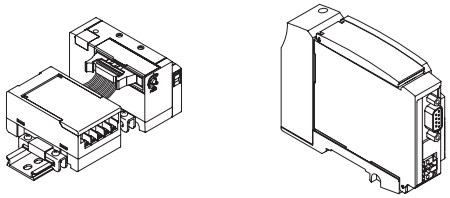


J Flat cable connector block



K Serial transmission block

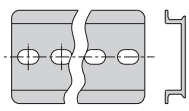
- Connector connection
- Thin slot



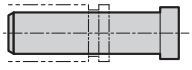
Related products

L Related products

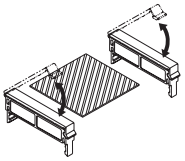
- Mounting rail



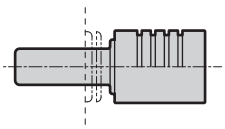
- Blanking plug



- Tag plate

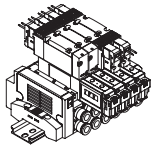


- Silencer

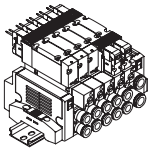


- Air supply spacer

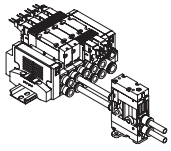
- Spacer pilot check valve



- In-stop valve spacer



- Pilot check valve



Piping

A. Discrete valve block with solenoid valve

Block assembled from solenoid valve body and valve block (split resin base). For model selection, refer to the following pages.
Body piping individual wiring: page 232, base piping individual wiring: page 240, body piping reduced wiring: page 248,
base piping reduced wiring: page 264

B. Discrete valve block with masking plate

Block assembled from masking plate and valve block (split resin base).

N4GA1 R - MP ——— 3

N4GB1 R - MPD - C4 - 3 F

Ⓐ Model No. Ⓑ Type Ⓒ Bore size Ⓓ Cable length *2 Ⓔ Option

Ⓑ Type

MP	For individual wiring
MPS	For reduced wiring single
MPD	For reduced wiring double/3-position

Ⓓ Cable length *3

Blank	For individual wiring
2 to 10	Select the length from page 290.

Ⓔ Option

Blank	No option
L	With piping adapter
F	A/B-port filter built in

*2: A socket assembly is attached with purchases for reduced wiring station expansion, so select “2 to 10”. Select a cable length from page 290 and fill in the Ⓓ cable length field. If ordering with the manifold specifications sheet, the cable length can be omitted.

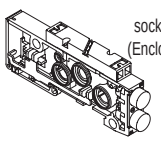
Code	Description	Ⓐ Model No. N4GA1	N4GA2	N4GB1	N4GB2
Ⓒ Port size (for base piping, this must be configured.)					
Type	Metric fitting/Rc thread				
CF	ø1.8 barbed fitting (compatible tube UP-9102-**)			●	
C18	ø1.8 push-in fitting (compatible tube UP-9402-**)			●	
C4	ø4 push-in fitting			●	●
C6	ø6 push-in fitting			●	●
C8	ø8 push-in fitting				●
CL18	ø1.8 push-in L-fitting upward (compatible tube UP-9402-**)			●	
CL4	ø4 push-in L-fitting (upward)			●	
CL6	ø6 push-in L-fitting (upward)			●	●
CL8	ø8 push-in L-fitting (upward)				●
CD18	ø1.8 push-in L-fitting downward (compatible tube UP-9402-**)			●	
CD4	ø4 push-in L-fitting (downward)			●	
CD6	ø6 push-in L-fitting (downward)			●	●
CD8	ø8 push-in L-fitting (downward)				●
Single, plug specs	A port / B port				
CFNC	ø1.8 barbed fitting (compatible tube UP-9102-**) / Plug			●	
C18NC	ø1.8 push-in fitting (compatible tube UP-9402-**) / Plug			●	
C4NC	ø4 push-in fitting / Plug			●	●
C6NC	ø6 push-in fitting / Plug			●	●
C8NC	ø8 push-in fitting / Plug				●
CFNO	Plug / ø1.8 barbed fitting (compatible tube UP-9102-**)			●	
C18NO	Plug / ø1.8 push-in fitting (compatible tube UP-9402-**)			●	
C4NO	Plug / ø4 push-in fitting			●	●
C6NO	Plug / ø6 push-in fitting			●	●
C8NO	Plug / ø8 push-in fitting				●
CL18NC	ø1.8 push-in L-fitting upward (compatible tube UP-9402-**) / Plug			●	
CL4NC	ø4 push-in L-fitting (upward) / Plug			●	●
CL6NC	ø6 push-in L-fitting (upward) / Plug			●	●
CL8NC	ø8 push-in L-fitting (upward) / Plug				●
CL18NO	Plug / ø1.8 push-in L-fitting upward (compatible tube UP-9402-**)			●	
CL4NO	Plug / ø4 push-in L-fitting (upward)			●	
CL6NO	Plug / ø6 push-in L-fitting (upward)			●	●
CL8NO	Plug / ø8 push-in L-fitting (upward)				●

Code	Description	Ⓐ Model No. N4GA1	N4GA2	N4GB1	N4GB2
Type	Metric fitting/Rc thread				
Single, plug specs	A port / B port				
CD18NC	ø1.8 push-in L-fitting downward (compatible tube UP-9402-**) / Plug			●	
CD4NC	ø4 push-in L-fitting (downward) / Plug			●	
CD6NC	ø6 push-in L-fitting (downward) / Plug			●	●
CD8NC	ø8 push-in L-fitting (downward) / Plug				●
CD18NO	Plug / ø1.8 push-in L-fitting downward (compatible tube UP-9402-**)			●	
CD4NO	Plug / ø4 push-in L-fitting (downward)			●	
CD6NO	Plug / ø6 push-in L-fitting (downward)			●	●
CD8NO	Plug / ø8 push-in L-fitting (downward)				●
Type	Inch fitting/inch thread				
C3N	ø1/8” push-in fitting			●	
C4N	ø5/32” push-in fitting			●	
C6N	ø1/4” push-in fitting				●
C8N	ø5/16” push-in fitting				●
CL3N	ø1/8” push-in L-fitting (upward) *1			○	
CL4N	ø5/32” push-in L-fitting (upward) *1			○	
CL6N	ø1/4” push-in L-fitting (upward) *1				○
CL8N	ø5/16” push-in L-fitting (upward) *1				○
Single, plug specs	A port / B port				
C3NCN	ø1/8” push-in fitting / Plug			●	
C4NCN	ø5/32” push-in fitting / Plug			●	
C6NCN	ø1/4” push-in fitting / Plug				●
C8NCN	ø5/16” push-in fitting / Plug				●
C3NON	Plug / ø1/8” push-in fitting			●	
C4NON	Plug / ø5/32” push-in fitting			●	
C6NON	Plug / ø1/4” push-in fitting				●
C8NON	Plug / ø5/16” push-in fitting				●
CL3NCN	ø1/8” push-in L-fitting upward *1 / Plug			○	
CL4NCN	ø5/32” push-in L-fitting upward *1 / Plug			○	
CL6NCN	ø1/4” push-in L-fitting upward *1 / Plug				○
CL8NCN	ø5/16” push-in L-fitting upward *1 / Plug				○
CL3NON	Plug / ø1/8” push-in L-fitting upward *1			○	
CL4NON	Plug / ø5/32” push-in L-fitting upward *1			○	
CL6NON	Plug / ø1/4” push-in L-fitting upward *1				○
CL8NON	Plug / ø5/16” push-in L-fitting upward *1				○

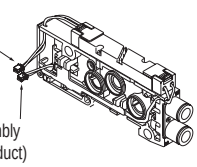
*1: Available as custom order.

is not available.
○ indicates a custom order.

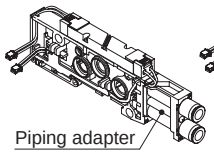
N4GA1R-MP



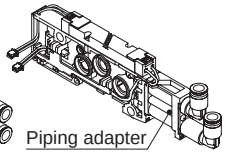
N4GB1R-MPD-C4-3



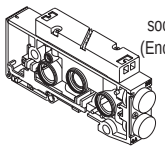
N4GB1R-MPD-C4-3L



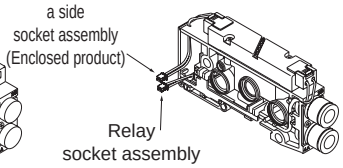
N4GB1R-MPD-CL4-3L



N4GA2R-MP



N4GB2R-MPD-C6-5

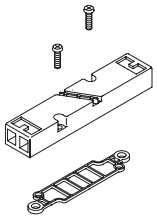


B-1. Masking plate

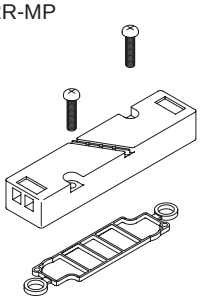
4G1R - MP

Ⓐ Model No.

4G1R-MP



4G2R-MP



Piping

C. Discrete valve block (separate item only)

Discrete valve block (split resin base).

N4GA1 R - V1 ——— 3
N4GB1 R - V2 - C4 - 3 F

A Model No. / B Type / C Bore size / D Cable length *2 / E Option

B Type

V1	For individual wiring For reduced wiring single
V2	Reduced wiring double/3 For position

D Cable length *3

Blank	For individual wiring
2 to 10	Select the length from page 290.

*2: A socket assembly is attached with purchases for reduced wiring station expansion, so select "2 to 10". Select a cable length from page 290 and fill in the D cable length field. If ordering with the manifold specifications sheet, the cable length can be omitted.

Code	Description	A Model No. N4GA1	N4GA2	N4GB1	N4GB2
C Port size (for base piping, this must be configured.)					
Type	Metric fitting/RcThread				
CF	ø1.8 barbed fitting (compatible tube UP-9102-**)			●	
C18	ø1.8 push-in fitting (compatible tube UP-9402-**)			●	
C4	ø4 push-in fitting			●	●
C6	ø6 push-in fitting			●	●
C8	ø8 push-in fitting				●
CL18	ø1.8 push-in L-fitting upward (compatible tube UP-9402-**)			●	
CL4	ø4 push-in L-fitting (upward)			●	
CL6	ø6 push-in L-fitting (upward)			●	●
CL8	ø8 push-in L-fitting (upward)				●
CD18	ø1.8 push-in L-fitting downward (compatible tube UP-9402-**)			●	
CD4	ø4 push-in L-fitting (downward)			●	
CD6	ø6 push-in L-fitting (downward)			●	●
CD8	ø8 push-in L-fitting (downward)				●
Single, plug specs	A Port / B Port				
CFNC	ø1.8 barbed fitting (compatible tube UP-9102-**) / Plug			●	
C18NC	ø1.8 push-in fitting (compatible tube UP-9402-**) / Plug			●	
C4NC	ø4 push-in fitting / Plug			●	●
C6NC	ø6 push-in fitting / Plug			●	●
C8NC	ø8 push-in fitting / Plug				●
CFNO	Plug / ø1.8Barbed fitting (Compatible tube UP-9102-**)			●	
C18NO	Plug / ø1.8Push-in fitting (Compatible tube UP-9402-**)			●	
C4NO	Plug / ø4Push-in fitting			●	●
C6NO	Plug / ø6Push-in fitting			●	●
C8NO	Plug / ø8Push-in fitting				●
CL18NC	ø1.8 push-in L-fitting upward (compatible tube UP-9402-**) / Plug			●	
CL4NC	ø4 push-in L-fitting (upward) / Plug			●	●
CL6NC	ø6 push-in L-fitting (upward) / Plug			●	●
CL8NC	ø8 push-in L-fitting (upward) / Plug				●
CL18NO	Plug / ø1.8 push-in L-fitting upward (compatible tube UP-9402-**)			●	
CL4NO	Plug / ø4 push-in L-fitting (upward)			●	
CL6NO	Plug / ø6 push-in L-fitting (upward)			●	●
CL8NO	Plug / ø8 push-in L-fitting (upward)				●

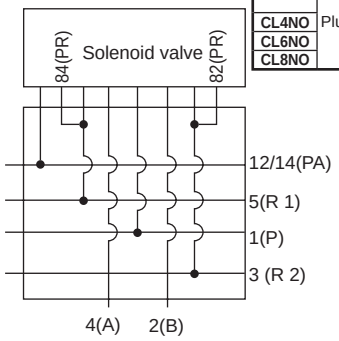
Code	Description	A Model No. N4GA1	N4GA2	N4GB1	N4GB2
Type	Metric fitting/RcThread				
Single, plug specs	A Port / B Port				
CD18NC	ø1.8 push-in L-fitting downward (compatible tube UP-9402-**) / Plug			●	
CD4NC	ø4 push-in L-fitting (downward) / Plug			●	
CD6NC	ø6 push-in L-fitting (downward) / Plug			●	●
CD8NC	ø8 push-in L-fitting (downward) / Plug				●
CD18NO	Plug / ø1.8 push-in L-fitting downward (compatible tube UP-9402-**)			●	
CD4NO	Plug / ø4 push-in L-fitting (downward)			●	
CD6NO	Plug / ø6 push-in L-fitting (downward)			●	●
CD8NO	Plug / ø8 push-in L-fitting (downward)				●
Type	Inch fitting/inch thread				
C3N	ø1/8" push-in fitting			●	
C4N	ø5/32" push-in fitting			●	
C6N	ø1/4" push-in fitting				●
C8N	ø5/16" push-in fitting				●
CL3N	ø1/8" push-in L-fitting (upward) *1			○	
CL4N	ø5/32" push-in L-fitting (upward) *1			○	
CL6N	ø1/4" push-in L-fitting (upward) *1				○
CL8N	ø5/16" push-in L-fitting (upward) *1				○
Single, plug specs	A Port / B Port				
C3NCN	ø1/8" push-in fitting / Plug			●	
C4NCN	ø5/32" push-in fitting / Plug			●	
C6NCN	ø1/4" push-in fitting / Plug				●
C8NCN	ø5/16" push-in fitting / Plug				●
C3NON	Plug / ø1/8" push-in fitting			●	
C4NON	Plug / ø5/32" push-in fitting			●	
C6NON	Plug / ø1/4" push-in fitting				●
C8NON	Plug / ø5/16" push-in fitting				●
CL3NCN	ø1/8" push-in L-fitting upward *1 / Plug			○	
CL4NCN	ø5/32" push-in L-fitting upward *1 / Plug			○	
CL6NCN	ø1/4" push-in L-fitting upward *1 / Plug				○
CL8NCN	ø5/16" push-in L-fitting upward *1 / Plug				○
CL3NON	Plug / ø1/8" push-in L-fitting upward *1			○	
CL4NON	Plug / ø5/32" push-in L-fitting upward *1			○	
CL6NON	Plug / ø1/4" push-in L-fitting upward *1				○
CL8NON	Plug / ø5/16" push-in L-fitting upward *1				○

E Option

Blank	No option	●	●	●	●
L	With piping adapter			●	●
F	Port A/B filter built in			●	●
Z6	For spacer pilot check valve mounting			●	●

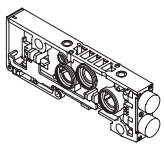
*1: Available as made to order.

is not available.
○ indicates made to order.

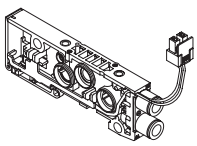


Discrete valve block circuit diagram

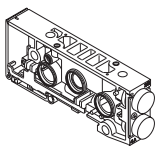
N4GA1R-V1



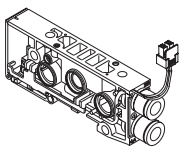
N4GB1R-V2-C4



N4GA2R-V1

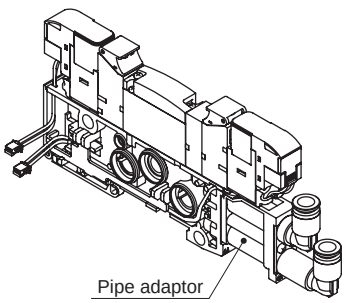


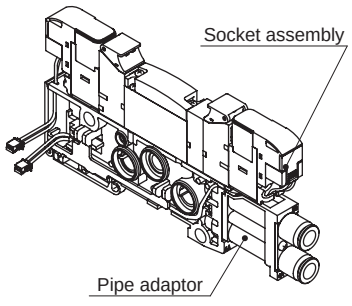
N4GB2R-V2-C6



Option L piping adapter

When using radial upward push-in fittings with double or 3-position types, select L (with piping adapter).
In addition, combining axial push-in fittings with piping adapters may cause the fitting to protrude past the socket assembly, making tube attachment and removal easier.





Piping

As problems may occur depending on the configuration, make selections with a sufficient understanding of the features of each block.

C. Discrete valve block (separate item only)

Valve block for expansion Cable length

Calculate the distance W between the expansion position and the wiring block (Fig. 1), and select an appropriate cable length from [Table 1].
Note that the required socket assembly will differ between the a side solenoid and the b side solenoid.
While Fig. 1 shows the wiring block with left side specifications, similarly calculate the distance W between the expansion position and the wiring block for the right side specifications.

Calculation of W

· For MN4G1
W=(10.5xn)+(16xm)+(10.5xl)

· For MN4G2
W=(16xn)+(18xm)+(10.5xl)

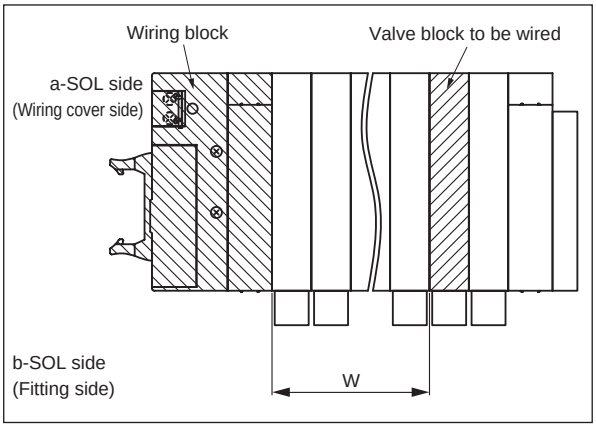
n: number of valve blocks m: number of supply and exhaust blocks l: number of partition blocks

· For MN4GX
Calculate W using the mix block width of 16.

[Table 1] W length - selection No. compatibility table

Selection No.	Type of wiring		
	T10/11(R)	T30/5*/6* (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 and 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 necessary for combinations with partition blocks or in order to increase the flow rate for supply and exhaust.

In order to prevent foreign matter from entering, the P-port is equipped with a filter.

N4G1R - Q - 8 X

Model No. Ⓐ Type Ⓑ Bore size Ⓒ Exhaust

Ⓐ Type	
Q	Internal pilot
QK	External pilot

*1: Available as custom order.
*2: Select 6*M or 8*M when using a silencer with inch fitting specification.
*3: For X, select atmosphere release (EX) for the end block.

Ⓑ Bore size	
6	ø6 push-in fitting
6L	ø6 push-in fitting upward
6D	ø6 push-in fitting down
8	ø8 push-in fitting
8L	ø8 push-in fitting upward
8D	ø8 push-in fitting downward
6N	ø1/4" push-in fitting
6LN	ø1/4" push-in upward *1
6DN	ø1/4" push-in downward *1
8N	ø5/16" push-in fitting
8LN	ø5/16" push-in upward *1
8DN	ø5/16" push-in downward *1
6M *2	P port ø1/4" push-in fitting R port ø6 push-in fitting
6LM *1, 2	P port ø1/4" push-in fitting upward R port ø6 push-in fitting upward
6DM *1, 2	P port ø1/4" push-in fitting downward R port ø6 push-in fitting downward
8M *2	P port ø5/16" push-in fitting R port ø8 push-in fitting *2
8LM *1, 2	P port ø5/16" push-in fitting upward R port ø8 push-in fitting upward
8DM *1, 2	P port ø5/16" push-in fitting downward R port ø8 push-in fitting downward

Ⓒ Exhaust	
Blank	Common exhaust
X*3	Atmospheric release

N4G2R - QK - 10L X

Model No. Ⓐ Type Ⓑ Bore size Ⓒ Exhaust

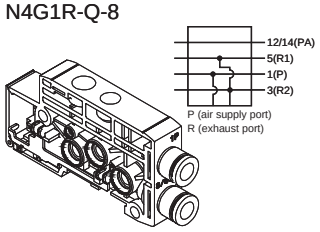
Ⓐ Type	
Q	Internal pilot
QK	External pilot

*1: Available as custom order.
*2: Select 6*M or 8*M when using a silencer with inch fitting specification.
*3: For X, select atmosphere release (EX) for the end block.

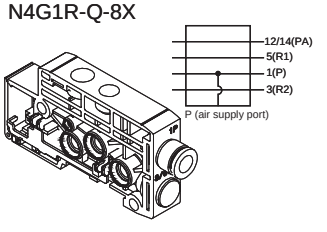
Ⓑ Bore size	
8	ø8 push-in fitting
8L	ø8 push-in fitting upward
8D	ø8 push-in fitting down
10	ø10 push-in fitting
10L	ø10 push-in fitting upward
10D	ø10 push-in fitting down
8N	ø5/16" push-in fitting
8LN	ø5/16" push-in upward *1
8DN	ø5/16" push-in downward *1
10N	ø3/8" push-in fitting
10LN	ø3/8" push-in upward *1
10DN	ø3/8" push-in downward *1
8M *2	P port ø5/16" push-in fitting R port ø8 push-in fitting
8LM *1, 2	P port ø5/16" push-in fitting upward R port ø8 push-in fitting upward
8DM *1, 2	P port ø5/16" push-in fitting downward R port ø8 push-in fitting downward
10M *2	P port ø3/8" push-in fitting R port ø10 push-in fitting
10LM *1, 2	P port ø3/8" push-in fitting upward R port ø10 push-in fitting upward
10DM *1, 2	P port ø3/8" push-in fitting downward R port ø10 push-in fitting downward

Ⓒ Exhaust	
Blank	Common exhaust
X*3	Atmospheric release

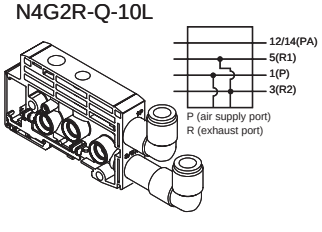
N4G1R-Q-8



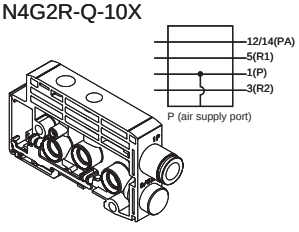
N4G1R-Q-8X



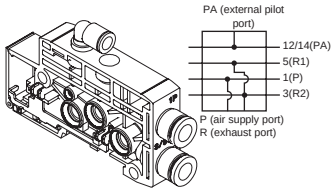
N4G2R-Q-10L



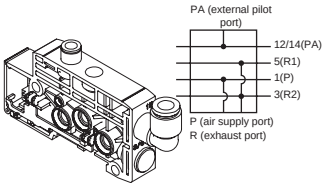
N4G2R-Q-10X



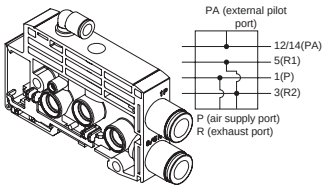
N4G1R-QK-8



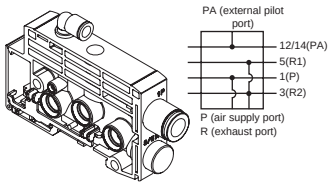
N4G1R-QK-8LX



N4G2R-QK-10



N4G2R-QK-10X



* External pilot port: ø6 push-in fitting

* External pilot port: ø6 push-in fitting

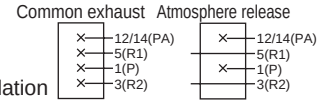
Piping

E. End block

Install on both ends of the manifold for individual wiring. Install on opposite sides of the wiring block for reduced wiring.
An exhaust muffler is built into the atmosphere release.

N4G1R - E R

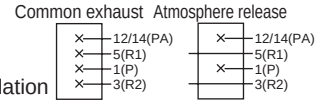
Model No. Ⓐ Type Ⓑ Installation position



Ⓐ Type		Ⓑ Installation position	
E	Common exhaust	L	For left side
EX	Atmospheric release	R	For right side

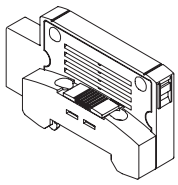
N4G2R - EX L

Model No. Ⓐ Type Ⓑ Installation position

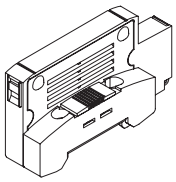


Ⓐ Type		Ⓑ Installation position	
E	Common exhaust	L	For left side
EX	Atmospheric release	R	For right side

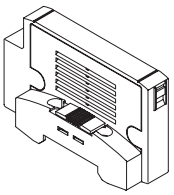
N4G1R-EL



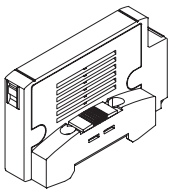
N4G1R-ER



N4G2R-EL



N4G2R-ER



F. Partition block

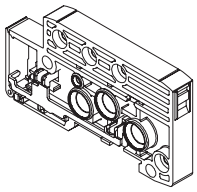
Multi-pressure mixing and measures for back pressure increase prevention can be achieved by combining partition blocks and supply and exhaust blocks.

N4G1R - S

Model No. Ⓐ Type

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

N4G1-S

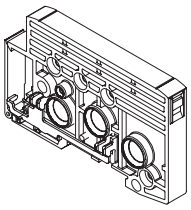


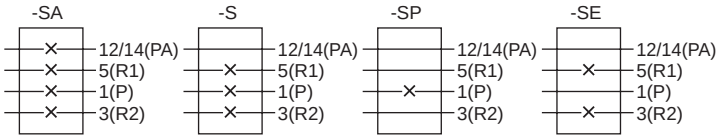
N4G2R - SA

Model No. Ⓐ Type

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

N4G2-S

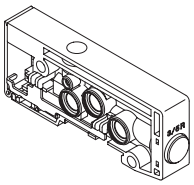


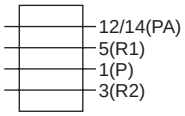


G. Mixed block

Install when 4G1 and 4G2 will be mixed within the same manifold.
Installation positions are 4G1 on the left side of the mixed block and 4G2 on the right side.

N4G12R - MIX





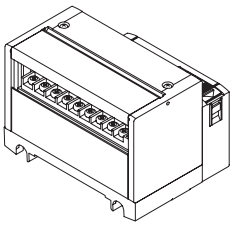
Wiring Wiring block cannot be ordered as a single item.

* "Wiring block" is the overall term for H. common terminal blocks, I. D-sub-connector blocks, J. flat cable connector blocks, and K. serial transmission blocks.

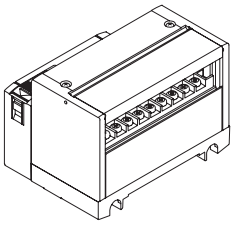
H. Common terminal box

M3 thread specifications

N4G1R-T10

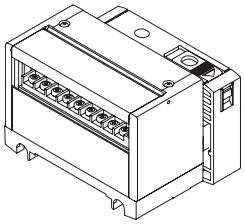


N4G1R-T10R

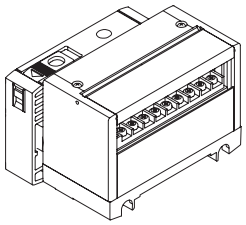


M3 thread specifications

N4G2R-T10

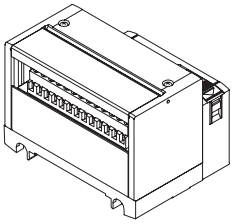


N4G2R-T10R

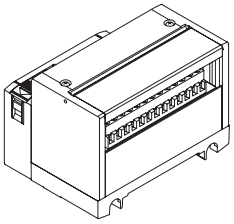


Clamping specifications

N4G1R-T11

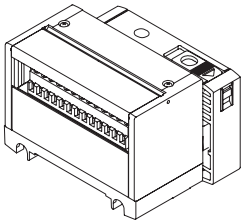


N4G1R-T11R

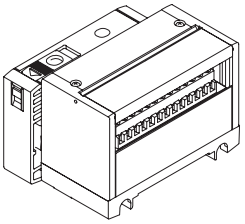


Clamping specifications

N4G2R-T11

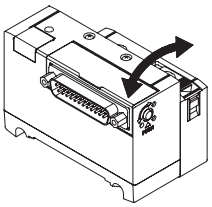


N4G2R-T11R

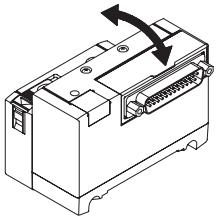


I. D sub-connector block

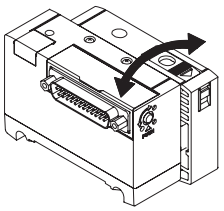
N4G1R-T30



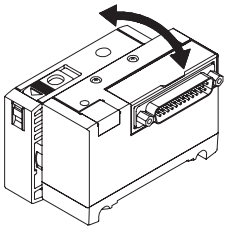
N4G1R-T30R



N4G2R-T30



N4G2R-T30R

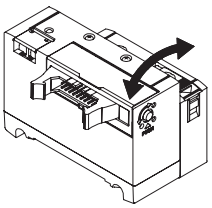


* Refer to page 819 for the model No. of cables with D sub-connector.

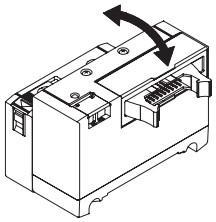
J. Flat cable connector block

● With power supply terminal

N4G1R-T50

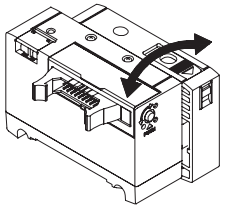


N4G1R-T50R

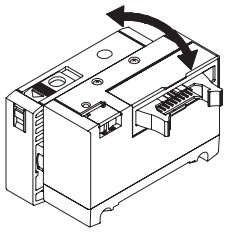


● With power supply terminal

N4G2R-T50

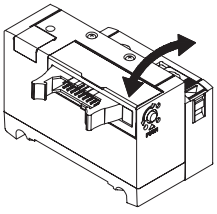


N4G2R-T50R

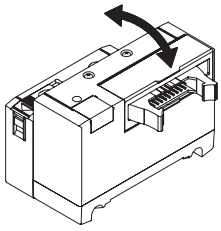


● Without power supply terminal

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

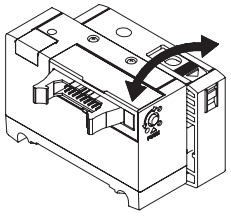


N4G1R-T51R(N4G1R-T52R) (N4G1R-T53R)

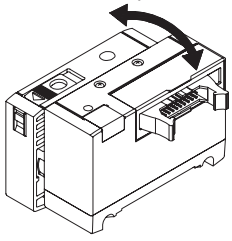


● Without power supply terminal

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



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



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

Wiring (Wiring block) * Wiring block cannot be ordered as a separate item.

K. Serial transmission block

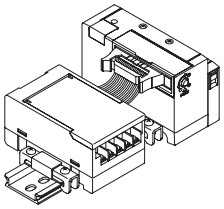
● Connector type

N4G1R - T6G1

Model No. Ⓐ Type

Ⓐ Type			
T6G1	CC-Link	NPN	16 points

N4G1R-T6*

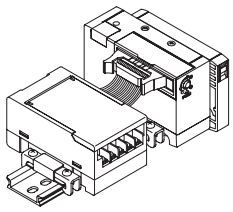


N4G2R - T6G1

Model No. Ⓐ Type

Ⓐ Type			
T6G1	CC-Link	NPN	16 points

N4G2R-T6*



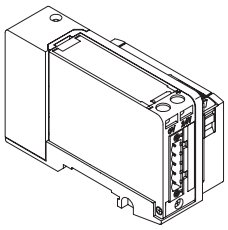
● Slim slot

N4G1R - T7D1

Model No. Ⓐ Type

Ⓐ Type			
T7D1	DeviceNet	NPN	16 points
T7G1	CC-Link		16 points
T7L1	SAVE NET		16 points
T7S1	CompoNet	NPN	16 points
T7SP1		PNP	

N4G1R-T7*

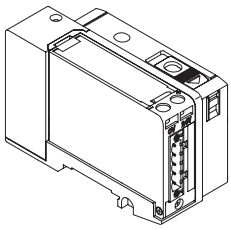


N4G2R - T7G1

Model No. Ⓐ Type

Ⓐ Type			
T7D1	DeviceNet	NPN	16 points
T7G1	CC-Link		16 points
T7L1	SAVE NET		16 points
T7S1	CompoNet	NPN	16 points
T7SP1		PNP	

N4G2R-T7*



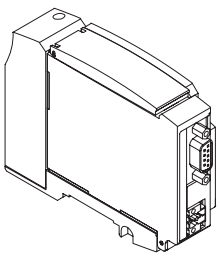
● Slim slot

N4G1R - T8G1

Ⓐ Wiring method

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

N4G1R-T8*

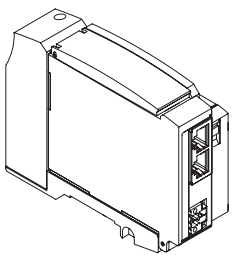


N4G2R - T8G1

Ⓐ Wiring method

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

N4G2R-T8*



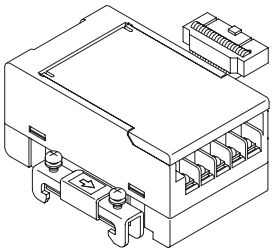
L. Serial transmission device unit* The serial transmission device unit may be ordered as a separate item.

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

4GR - OPP3 - 1G

Ⓐ Wiring method

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

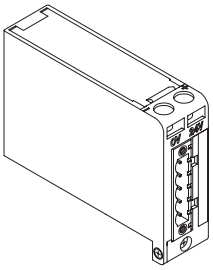


● Single unit serial transmission device (adapter) station (slim slot)

4GR - OPP4 - 1D

Ⓐ Wiring method

Code	Description			
Ⓐ Wiring method				
1D	T7D1	DeviceNet	NPN	16 points
1G	T7G1	CC-Link	NPN	16 points
1L	T7L1	SAVE NET	NPN	16 points
1S	T7S1	CompoNet	NPN	16 points
1S-P	T7SP1		PNP	16 points

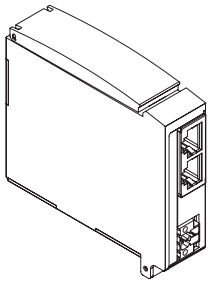


● Single unit serial transmission device (adapter) station (slim slot)

4GR - OPP7 - 2G

Ⓐ Wiring method

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

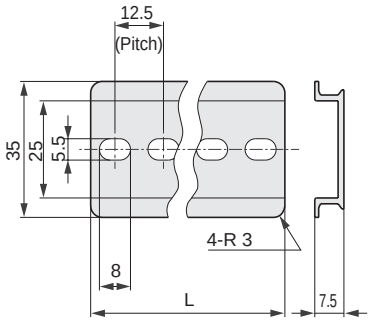


Related products

Mounting rail, silencer, blanking plug, tag plate

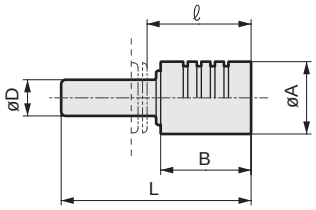
● Mounting rail

N4GR-BAA [length]



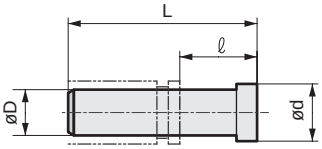
· Minimum length is 87.5 mm.
· Select the length at 12.5 mm pitch.
· Refer to page 308 for details.

● Silencer



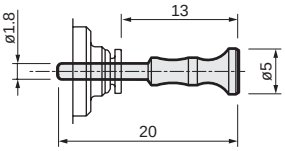
Model No.	D	L	A	B	ℓ
SLW-H6	ø6	41	16	20	23.5
SLW-H8	ø8	42	16	20	23
SLW-H10	ø10	53	20	27	31.5

● Blanking plug



Model No.	D	L	ℓ	d
GWP4-B	ø4	27	16	6
GWP6-B	ø6	29	11.5	8
GWP8-B	ø8	33	14	10
GWP10-B	ø10	40	18.5	12

PG-P2-B (for ø1.8)



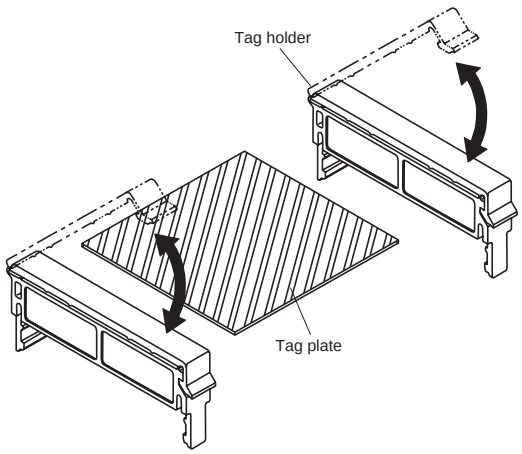
● Tag plates are shipped attached to the manifold body.
When required, mark a circle in the field for tag plates in the manifold specifications on pages 310 to 313.

[Tag holder]

N4G1 R-TAG-HOLDER

Ⓐ Model No.
N4G1
N4G2

(available in sets of 2.)



[Tag plate]

N4G1 R-TAG-PLATE-A-200 *1

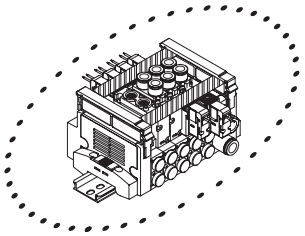
Ⓐ Model No.	Ⓑ Type		Ⓒ Length (mm) *1
N4G1	A	MN4GA1/2 common	200
	B1	For MN4GB1, wide	300
	B2	For MN4GB1, narrow *2	400
N4G2	B	For MN4GB2	

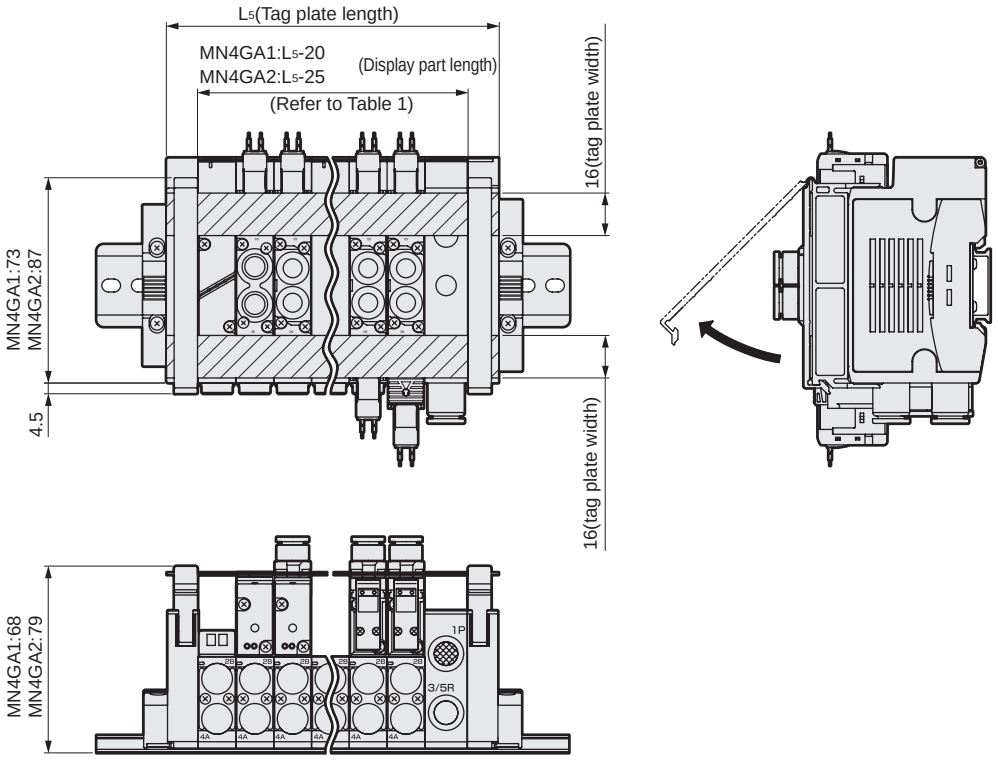
*1: [Length] 200, 300 and 400 mm are available. Select according to the product length and cut the resin as required.
*2: With the narrow, manual operation is possible even with the tag plate on.
*3: Tag plates will not be attached when spacers are used in the manifold specifications.
*4: When DIN terminal box MN3GA2/MN4GA2 is selected, tag plates will not be attached.

Dimensions: Tag plate

MN4GA1/2

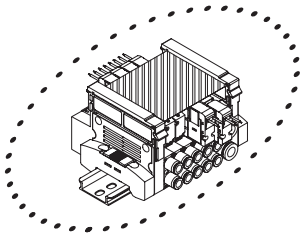
● Tag plate

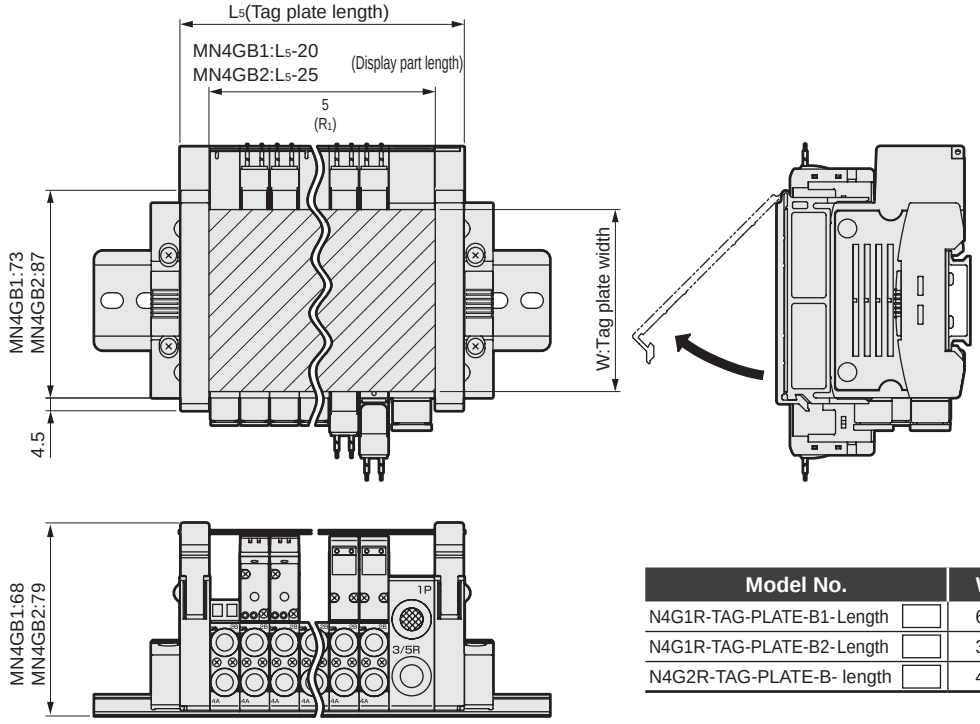




MN4GB1/2

● Tag plate





Model No.		W
N4G1R-TAG-PLATE-B1-Length	□	64
N4G1R-TAG-PLATE-B2-Length	□	30
N4G2R-TAG-PLATE-B- length	□	45

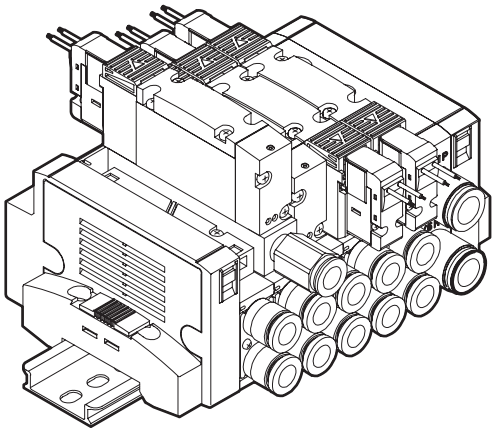
Table 1: Formula of L_5 (tag plate length)

MN4GA1	Individual wiring	$L_5=(10.5\times n)+(16\times m)+(10.5\times l)+20$
MN4GB1	Reduced wiring	$L_5=(10.5\times n)+(16\times m)+(10.5\times l)+25$
MN4GA2	Individual wiring	$L_5=(16\times n)+(18\times m)+(10.5\times l)+20$
MN4GB2	Reduced wiring	$L_5=(16\times n)+(18\times m)+(10.5\times l)+25$

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[dm³/(s·bar)]	b	C[dm³/(s·bar)]	b	
4G1	0.70	0.23	0.93	0.16	8
4G2	1.6	0.17	1.8	0.16	35

*1: Values are when a valve is mounted.
*2: Effective cross-sectional area S and sonic conductance C are converted as S ≈ 5.0 x C.

How to order discrete units

4G 2 R − P − GWS6

Ⓐ Air supply spacer model No.
Ⓑ Port size

Code	Content	Model No. 4GA1	4GB1	4GA2	4GB2
Ⓐ Air supply spacer model No.					
1	For 4G1	●			
2	For 4G2			●	
Ⓑ Port size					
Blank	M5 (4G1), Rc1/8 (4G2)	●		●	
GWS4	ø4 fitting	●			
GWS6	ø6 fitting	●		●	
GWS8	ø8 fitting			●	
06N	1/8NPT thread			●	
06G	G1/8 thread			●	

is not available.

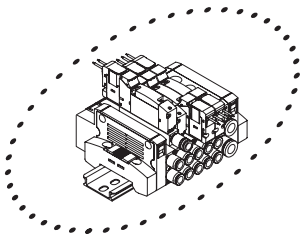
Attached products: 4G1 set screws (2), dedicated gasket (1)
4G2 set screws (2), PR check valves (2), body gasket (1)

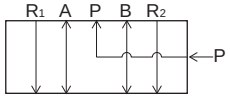
⚠ Precautions for model selection

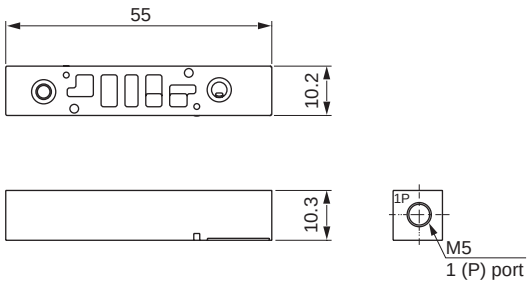
*1 Specify the positions and quantity of air supply spacers for manifold in the manifold specifications sheet.
*2 If the A/B port fitting is elbow, turn the air supply port of the air supply spacer toward the reverse side (“a” solenoid side).
*3 If the elbow (upward) A/B port fitting is used for the reduced wiring manifold, the air supply spacer cannot be selected.
*4 Combination with the masking plate is not supported.

Dimensions

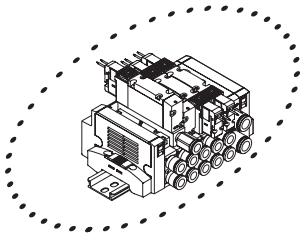
● 4G1

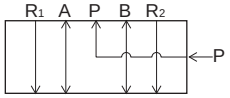


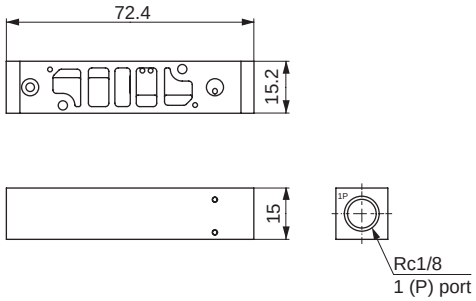




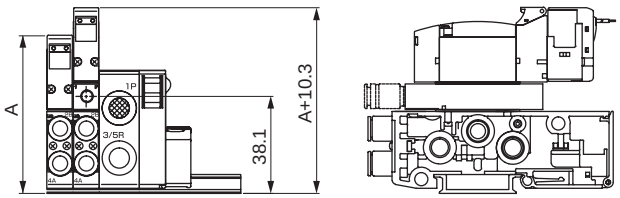
● 4G2



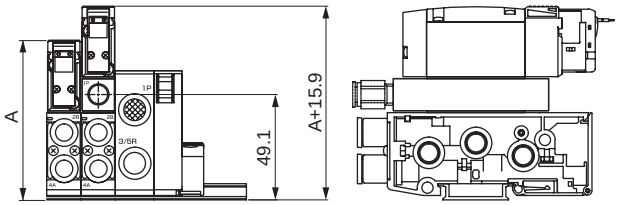




Dimensions when mounted



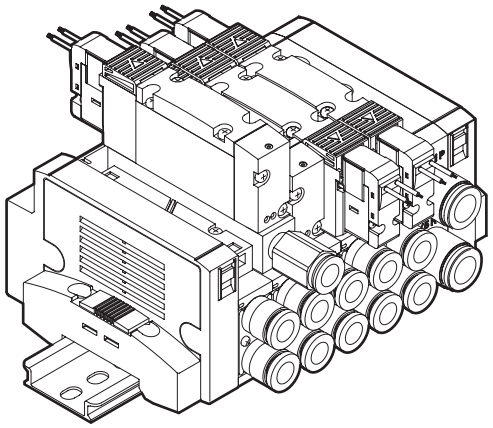
Dimensions when mounted



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

Related products Exhaust spacer

● Exhaust spacer



Specifications

Model No.	P→A/B		A/B→R		Weight g
	C[dm³/(s·bar)]	b	C[dm³/(s·bar)]	b	
4G1	0.94	0.28	0.68	0.33	7
4G2	1.5	0.24	1.9	0.24	34

*1: Values are when a valve is mounted.
*2: Effective cross-sectional area S and sonic conductance C are converted as S ≈ 5.0 x C.

How to order discrete units

4G ② R − R − GWS6

Ⓐ Exhaust spacer model No.
Ⓑ Port size

Code	Content	Model No. 4GA1	4GB1	4GA2	4GB2
Ⓐ Exhaust spacer model No.					
1	For 4G1	●			
2	For 4G2			●	
Ⓑ Port size					
Blank	M5 (4G1), Rc1/8 (4G2)	●		●	
GWS4	ø4 fitting	●			
GWS6	ø6 fitting	●		●	
GWS8	ø8 fitting			●	
06N	1/8NPT thread			●	
06G	G1/8 thread			●	

is not available.

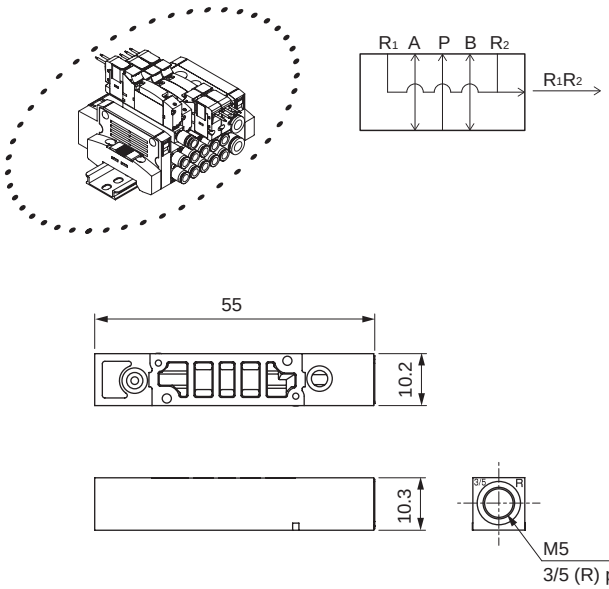
Attached products: 4G1 set screws (2), dedicated gasket (1)
4G2 set screws (2), PR check valves (2), body gasket (1)

⚠ Precautions for model selection

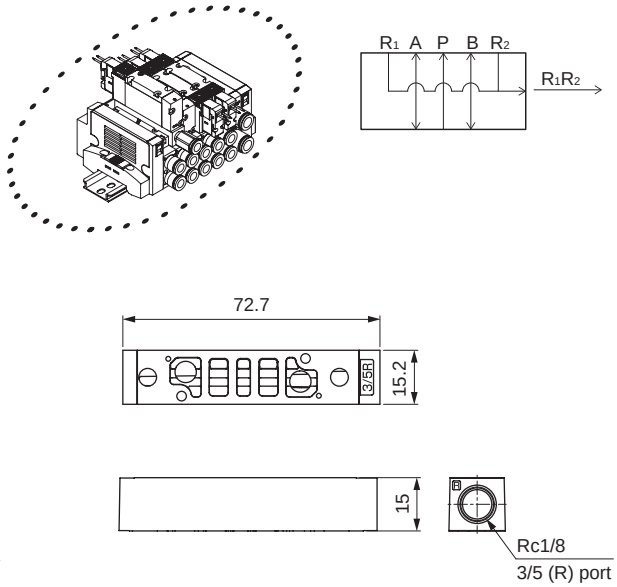
*1 Specify the positions and quantity of exhaust spacers for manifold in the manifold specifications sheet.
*2 If the A/B port fitting is elbow, turn the exhaust port of the exhaust spacer toward the reverse side (“a” solenoid side).
*3 If the elbow upward A/B port fitting is used for the reduced wiring manifold, the exhaust spacer cannot be selected.
*4 Combination with the masking plate is not supported.

Dimensions

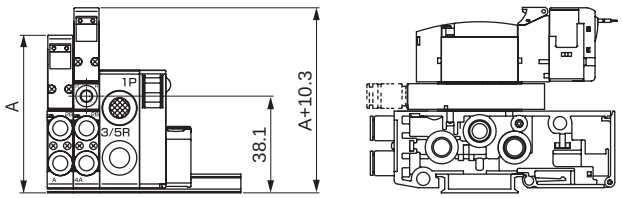
● 4G1



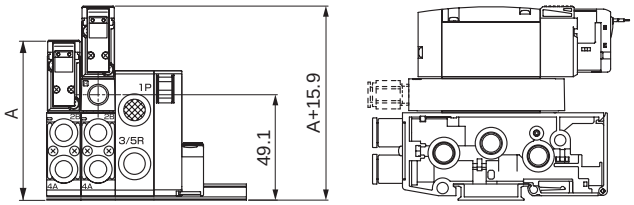
● 4G2



Dimensions when mounted



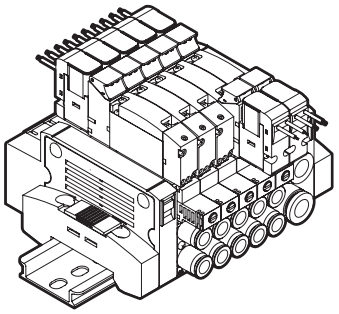
Dimensions when mounted



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

Related products In-stop valve spacer

● In-stop valve spacer



Specifications

Model No.	P→A/B		A/B→R		Weight g
	C[dm³/(s·bar)]	b	C[dm³/(s·bar)]	b	
4G1	0.54	0.03	0.82	0.27	17
4G2	1.5	0.17	1.6	0.20	63

*1: Values with base piping and 2-position valve mounted.
*2: The effective cross-sectional area when discharging residual pressure is 1.0 mm² (reference value).
*3: Effective cross-sectional area S and sonic conductance C are converted as S ≈ 5.0 x C.
Attached products: PR check valve (2), body gasket (1)

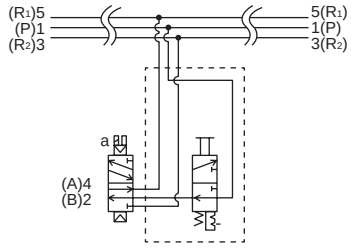
How to order discrete units

4G1R - IS

4G2R - IS

In-stop valve spacer

JIS symbol

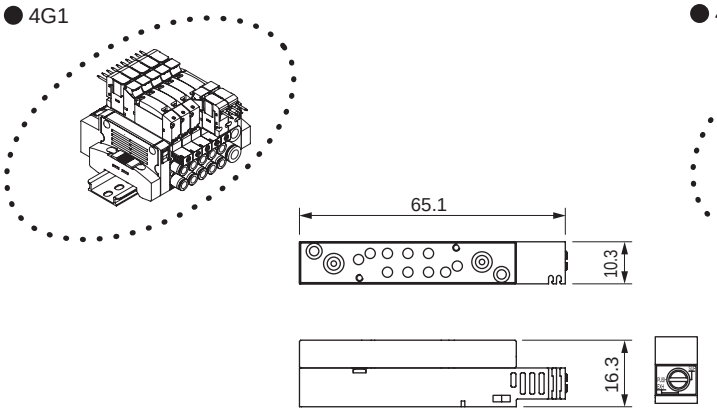


⚠ Precautions for model No. selection

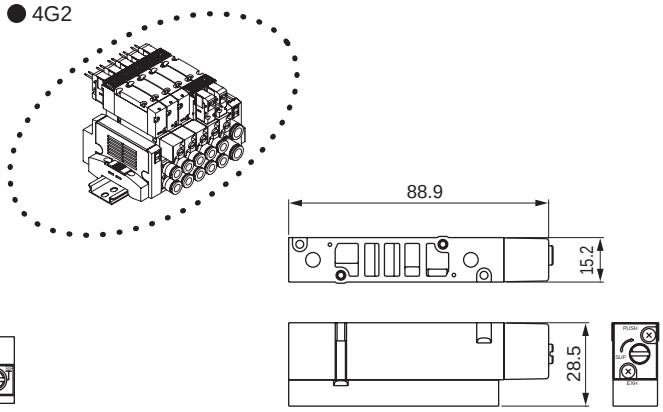
*1: Specify the spacer mounting position and quantity in manifold specifications sheet.
*2: If the A/B port fitting is the elbow (upward), turn the operation part of the in-stop valve spacer toward the reverse side (“a” solenoid side).
*3: If the elbow (upward) A/B port fitting is used for the reduced wiring manifold, the in-stop valve spacer cannot be selected.
*4: The in-stop valve spacer cannot be used with the external pilot (K).
*5: When retrofitting to the reduced wiring manifold, the existing wiring may be too short. Contact CKD for details.

Dimensions

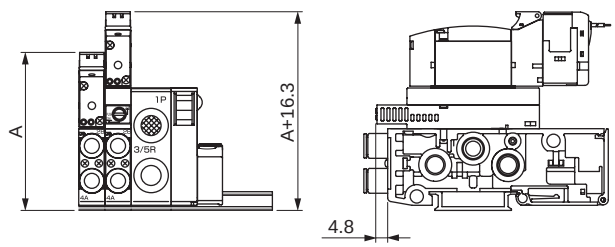
● 4G1



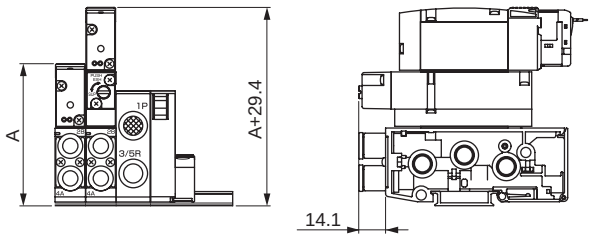
● 4G2



Dimensions when mounted



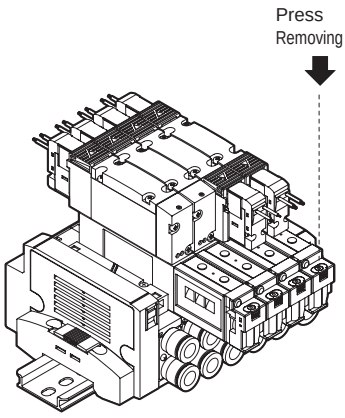
Dimensions when mounted



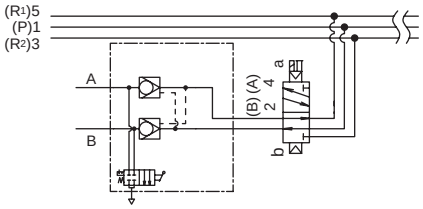
Note: For A dimensions, check the dimensions of the respective specifications.

Related products Spacer pilot check valve

● Spacer pilot check valve

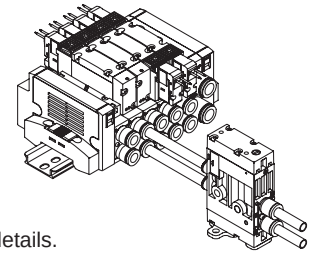


JIS symbol



Note: Using a cylinder with a large diameter (more than ø50 as a guide) with little exhaust restriction (eg, no speed controller, no silencer) may lead to a decrease in intermediate stop accuracy and stopping error. Please be careful.

● Pilot check valve



Refer to page 194 for details.

Specifications

Pilot check valve		4G1R-PC-M	4G2R-PC-M
Working fluid		Compressed air	
Max. working pressure	MPa	0.7	
Min. working pressure	MPa	0.2	0.1
Proof pressure	MPa	1.05	
Effective cross-sectional area	mm^2	1.6 (Solenoid valve)	3.5 (Solenoid valve)
Ambient temperature	°C	−5 to 55 (no freezing)	
Working fluid temperature	°C	5 to 55	
Lubrication	*1	Not required	
Atmosphere		Cannot be used in corrosive gas environment.	
Weight	g	22	54

*1:Use turbine oil Class 1 ISO VG32 for lubrication. Note that excessive lubricant may cause unstable operation.

Discrete model No.

4G1R -PC- M

Ⓐ Model No.
Pilot check valve

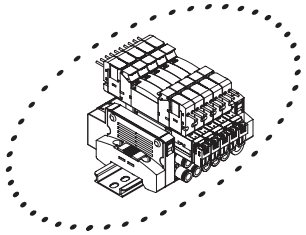
Code	Description	Ⓐ Model No. 4G1R	Ⓐ Model No. 4G2R
Ⓑ Residual pressure exhaust function			
M	Manual override of non-locking	●	●
M1	Locking manual override	●	●
Blank	Without manual override	●	●

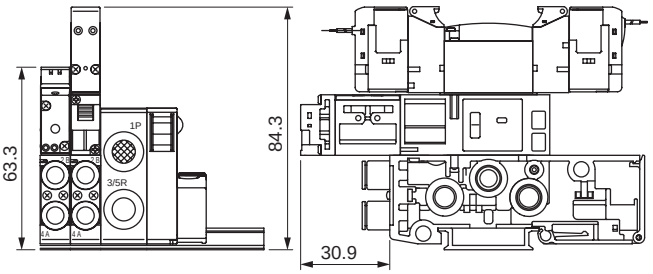
⚠ Precautions for model No. selection

*1: Specify the spacer positions in the manifold specifications sheet.
*2: Spacer pilot check valve is not available when the fitting for port A/B is elbow.
*3: Stacking of spacers is not possible.
*4: A spacer cannot be combined with a masking plate.
*5: The spacer pilot check valve can be mounted only when the piping method is base piping.
*6: When adding a spacer to the reduced wiring manifold, the socket assembly lead wire will not reach far enough. Replace the valve block. (Refer to page 289 for details.)

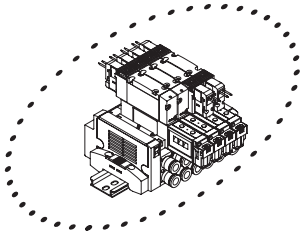
Dimensions

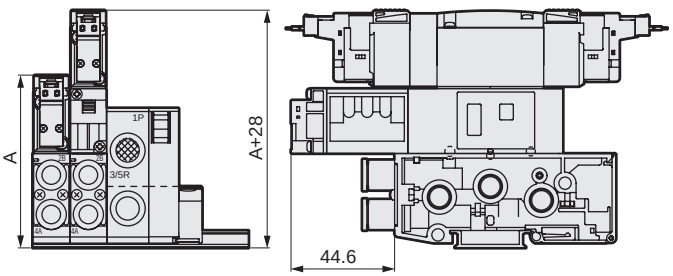
● MN4GB1





● MN4GB2



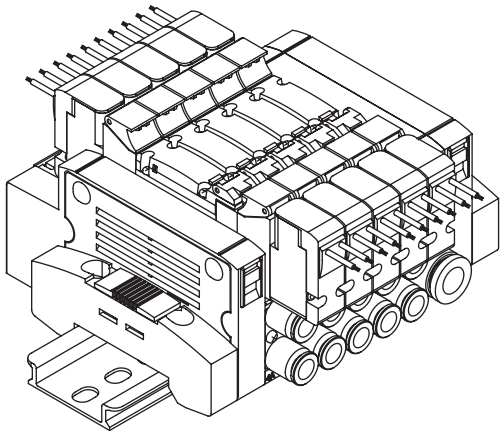


Note: For A dimension, check the Dimensions of the respective specifications.

Related products

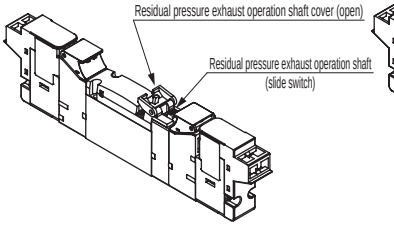
● Residual pressure exhaust option

For manifolds

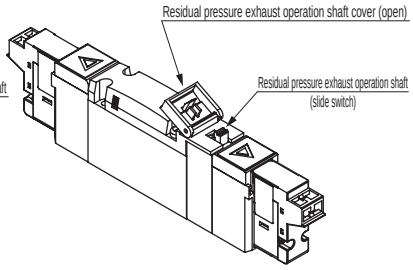


Discrete valve

4GB1



4GB2



Example of model No.

● Block manifold model No.

MN4GB1 4 0R - C4 - E2 X1 - 10 - 3

Ⓐ Model No.
Ⓑ Solenoid position
Ⓒ Port size
Ⓓ Electrical connections
Ⓔ Option
Ⓕ Station No.
Ⓖ Voltage

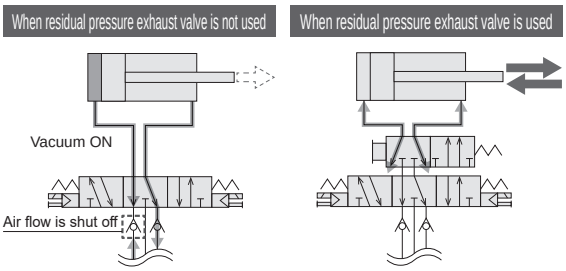
Code	Description	Ⓐ Model No. MN4GB1	Ⓐ Model No. MN4GB2
Ⓔ Option			
X	Non-locking exhaust structure	●	●
X1	Locking exhaust structure	●	●

Pressure sensor (G1, G2) and residual pressure exhaust structure (X, X1) cannot be selected simultaneously. Exhaust structure is only compatible with 4GB1 and 4GB2 valve positions 3 and 4.

* Refer to How to order for each series for details about model numbers.

Applications

- 3-position all ports closed residual pressure exhaust for emergency stop
- Rod transfer after intermediate cylinder stop for three-position APR connection (with malfunction prevention valve)

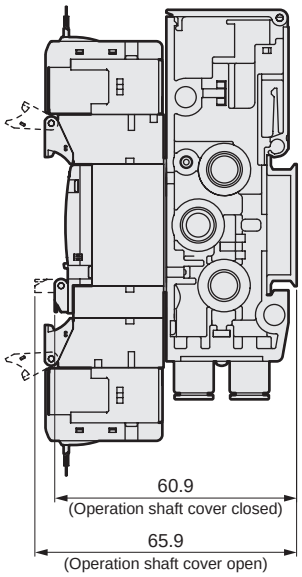


The malfunction prevention valve shuts off air flow. The cylinder rod cannot be adjusted.

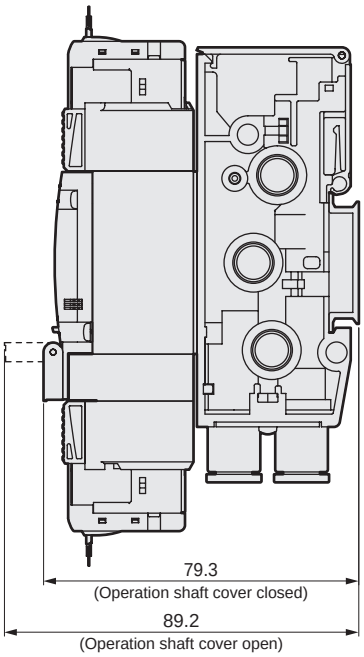
The residual pressure discharger enables communication with the atmosphere. The cylinder rod can be adjusted.

Dimensions

● N4GB1



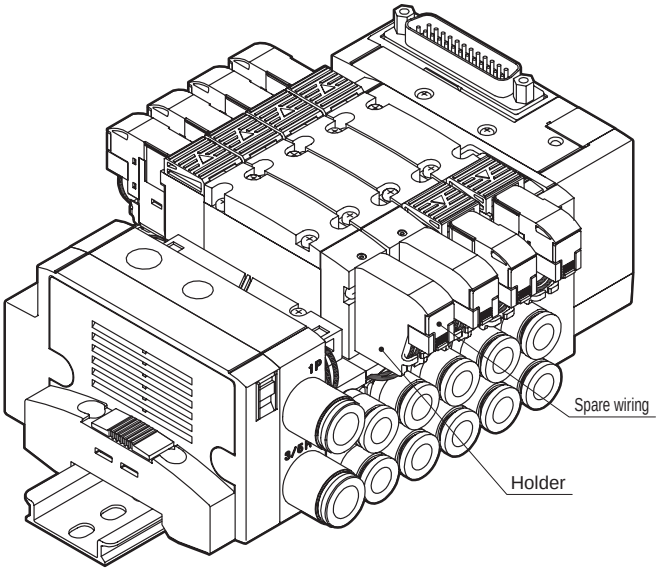
● N4GB2



Related products Double wiring (with single spare wiring)

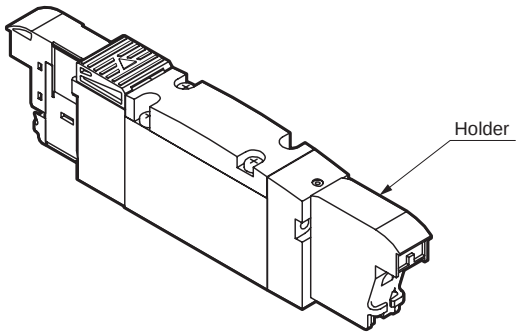
● Double wiring (with single spare wiring) (W1)

For manifolds



Spare wiring (holder and A type socket assembly) is included on the cap side for single solenoid valves.
This simplifies the workflow when changing valves from a single solenoid to a double solenoid, as you do not need to prepare the A type socket assembly separately.

For discrete valves (2-position single)



A holder for retaining the socket assembly is included.
(Not included for A type sockets.)
This can be used to hold the socket assembly no longer required when changing the valve from a double solenoid to a single solenoid.

Example of model No.

● Manifold model No. (example)

MN4GB1 1 0 R - C6 - T30 W1 H - 10 - 3

- Ⓐ Model No.
- Ⓑ Solenoid position
- Ⓒ Port size
- Ⓓ Wiring method
- Ⓕ Option
- Ⓖ Station No.
- Ⓗ Voltage

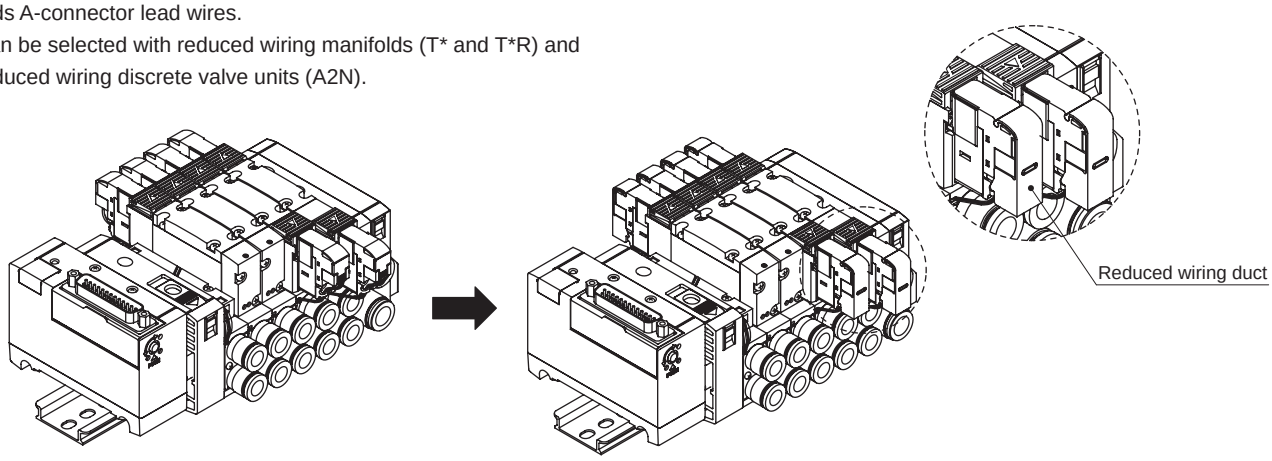
Code	Description
Ⓔ **Terminal/connector pin array**	
W1	Double wiring (with single spare wiring)

* Refer to How to order for each series for details about model numbers.
Not compatible with combination with port size C*NC or C*NO.

Related products Reduced wiring duct

● Reduced wiring duct (Q)

Holds A-connector lead wires.
· Can be selected with reduced wiring manifolds (T* and T*R) and reduced wiring discrete valve units (A2N).



Standard

When Q (reduced wiring duct) selected

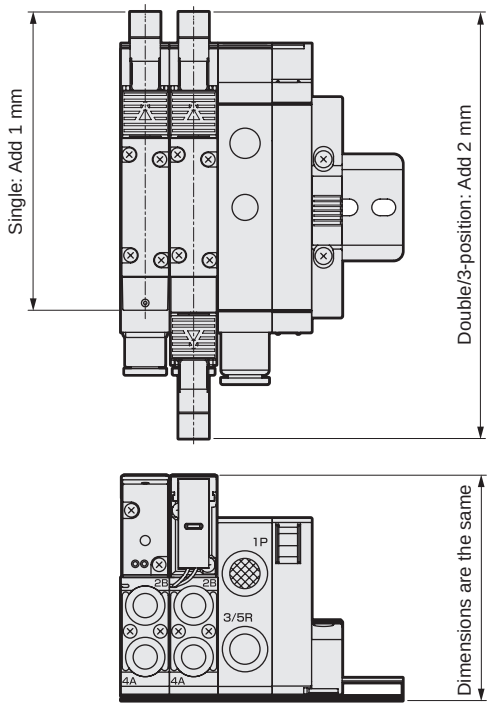
Example of model No.

● Manifold model No. (example)

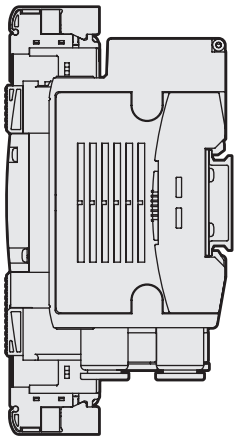
MN4GB1 (A) 1 (B) 0 R - C6 (C) - T30 (D) W (E) Q - 10 (G) - 3 (H)

Code	Description
(F) Option	
Q	Reduced wiring duct

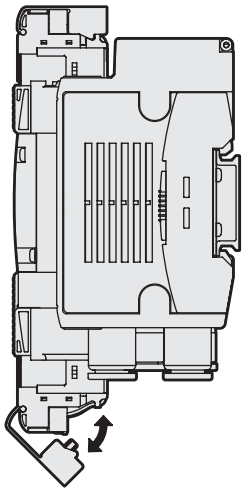
● Dimension lines



Reduced wiring duct closed state

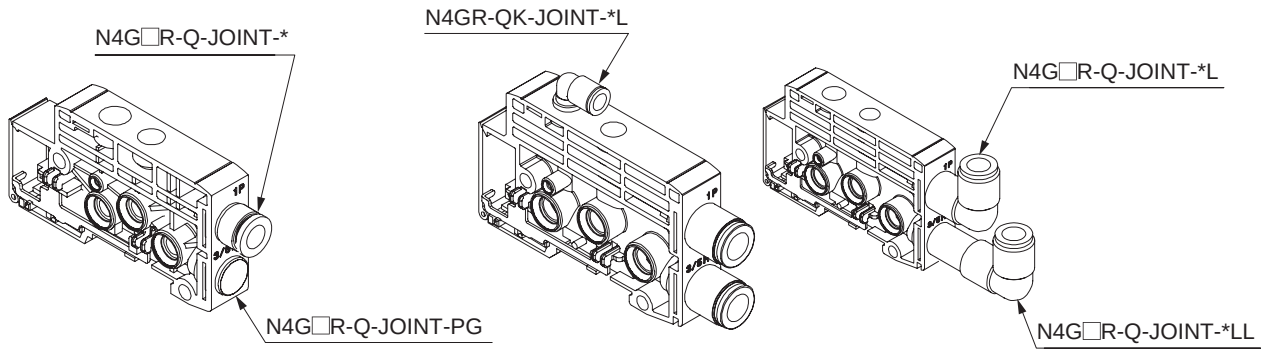


Open state



Related parts

1. MN4G cartridge push-in fitting for supply and exhaust block



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

Bore size	Part model No.
ø6 straight	N4G1R-Q-JOINT-6
ø8 straight	N4G1R-Q-JOINT-8
ø6 elbow	N4G1R-Q-JOINT-6L,6LL
ø8 elbow	N4G1R-Q-JOINT-8L,8LL
ø1/4” straight	N4G1R-Q-JOINT-6N
ø5/16” straight	N4G1R-Q-JOINT-8N
ø1/4” elbow	N4G1R-Q-JOINT-6LN,6LLN
ø5/16” elbow	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)

Bore size	Part model No.
ø8 straight	N4G2R-Q-JOINT-8
ø10 straight	N4G2R-Q-JOINT-10
ø8 elbow	N4G2R-Q-JOINT-8L,8LL
ø10 elbow	N4G2R-Q-JOINT-10L,10LL
ø5/16” straight	N4G2R-Q-JOINT-8N
ø3/8” straight	N4G2R-Q-JOINT-10N
ø5/16” elbow	N4G2R-Q-JOINT-8LN,8LLN
ø3/8” elbow	N4G2R-Q-JOINT-10LN,10LLN
Plug cartridge	N4G2R-Q-JOINT-PG

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

Bore size	Part model No.
ø6 straight	N4GR-QK-JOINT-6
ø6 elbow	N4GR-QK-JOINT-6L