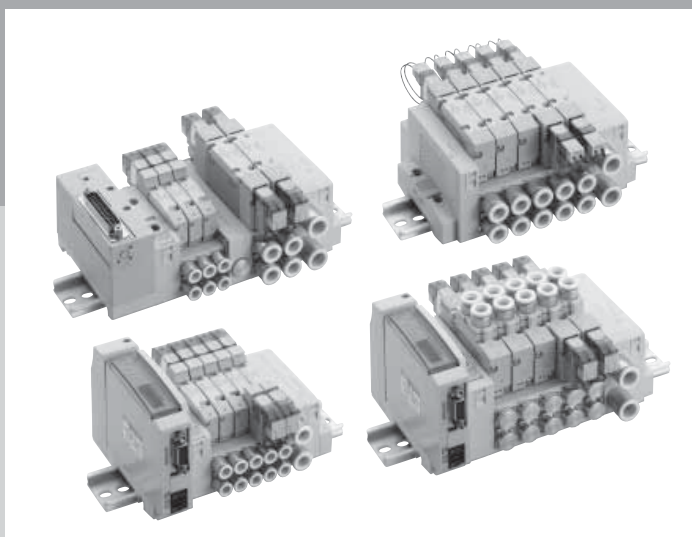


MN4GA & 4GB

3, 5 port pilot operated valve

Block manifold

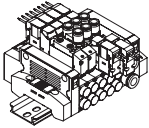
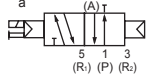
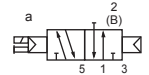
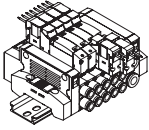
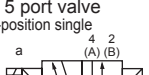
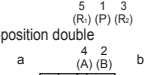
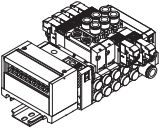
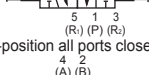
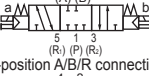
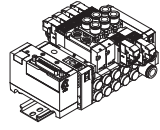
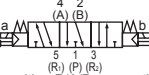
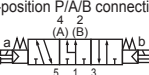
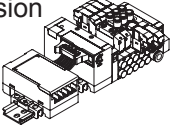
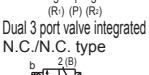
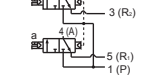
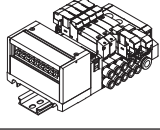
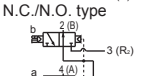

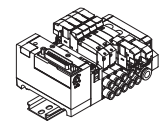


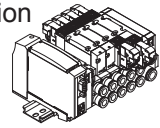
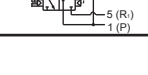


CONTENTS

| | |
|--|---------|
| 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 | | | |
| 4GAB Master valve | Individual wiring manifold | Body piping  | MN4GA180R | MN4GA1 | Blank -E* | ● 3 port valve 2-position single N.C. type  | 1.0 to 1.2 | φ20 to φ40 | 100 VAC 200 VAC 24 VDC | |
| | | | MN4GA180R | MN4GA2 | Blank -E* -B | | 2-position single N.O. type  | 2.2 to 2.5 | | φ40 to φ80 |
| | 4GD/E | Base piping |  | MN4GB180R | MN4GB1 | Blank -E* | ● 5 port valve 2-position single  | 1.0 to 1.2 | φ20 to φ40 | 3 VDC 5 VDC Note 2 |
| | | | | MN4GB180R | MN4GB2 | Blank -E* -B | | 2-position double  | 2.2 to 2.5 | |
| M4GD/E | Body piping | Terminal block MN4GA280R  | MN4GA1 (N3GA1) (N4GA1) | -T10 -T11 (- A2N) | 2-position double  | 1.0 to 1.2 | φ20 to φ40 | 24 VDC 12 VDC | | |
| | | | MN4GA2 (N3GA2) (N4GA2) | 3-position all ports closed  | | 1.0 to 1.2 | φ20 to φ40 | | | |
| | | Connector type MN4GA280R  | MN4GA1 (N3GA1) (N4GA1) | | -T30 -T5* (- A2N) | 3-position A/B/R connection  | 2.2 to 2.5 | φ40 to φ80 | | |
| | | | MN4GA2 (N3GA2) (N4GA2) | 3-position P/A/B connection  | 1.0 to 1.2 | | φ20 to φ40 | | | |
| | | Serial transmission MN4GA180R  | MN4GA1 (N3GA1) (N4GA1) | | -T6* -T7* -T8* (- A2N) | 3-position P/A/B connection  | 2.2 to 2.5 | φ40 to φ80 | | |
| | | | MN4GA2 (N3GA2) (N4GA2) | ● Dual 3 port valve integrated type N.C./N.C. type  | 1.0 to 1.2 | | φ20 to φ40 | | | |
| | Reduced wiring manifold | Base piping | Terminal block MN4GB180R  | | MN4GB1 (N4GB1) | -T10 -T11 (- A2N) | N.C./N.O. type  | 2.2 to 2.5 | φ40 to φ80 | |
| | | | | MN4GB2 (N4GB2) | N.O./N.C. type  | 1.0 to 1.2 | | φ20 to φ40 | | |
| | | Connector type MN4GB180R  | MN4GB1 (N4GB1) | -T30 -T5* (- A2N) | | N.O./N.O. type  | 2.2 to 2.5 | φ40 to φ80 | | |
| | | | MN4GB2 (N4GB2) | N.O./N.O. type  | 1.0 to 1.2 | | φ20 to φ40 | | | |
| | | Serial transmission MN4GB280R  | MN4GB1 (N4GB1) | | -T6* -T7* -T8* (- A2N) | N.O./N.O. type  | 2.2 to 2.5 | φ40 to φ80 | | |
| | | | MN4GB2 (N4GB2) | | 1.0 to 1.2 | | φ20 to φ40 | | | |

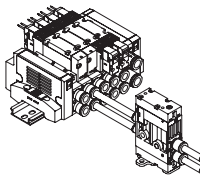
MN4GA & 4GB Series

| | | Electrical connections | | | | Manual operating device | Other options | | | | | |
|-------------------------|--|--|---|---|--|--|---|---|--|---|--|--|
| | | Discrete valve/individual wiring manifold | | Reduced wiring manifold | | | | | | | | |
| 4GAB | Blank i | Grommet lead wire 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 | |
| M4GAB | ● Lead wire length 300mm | | | | | | | (standard) | | | | |
| MN4GAB | E type connector i | 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) | K |
| Master valve | ● Lead wire length 300mm 500mm 1m 2m 3m | | | | | 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 | | A | | Main pressure and pilot pressure individual circuit specifications. | | |
| 4GAB | 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 _{2 3} | Flat cable without power supply terminal (left side) | Ozone/cutting water compatible product |
| 4GD/E | 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 _{2 3} | Flat cable power supply without terminal (right side) | M | Non-locking type | F | AB port filter integrated |
| M4GD/E | | | | | | | ① Push to turn ON, release to turn OFF | | | | | |
| MN4GD/E | E2 | E type connector (i s v) | E0*J | EJ type connector (i) | | | | | T30 | D-sub connector type (left side) | T6*0 T6*1 | Serial transmission |
| Technical data | | | ● Lead wire length 1m 2m 3m | | | | | Z3 | | Exhaust spacer | | |
| Safety precautions | 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 |
| Manifold Specifications | | | | | | | Z6 | | Spacer type Pilot check valve | | | |
| | | | | T8*1 T8*2 | | | | | Serial transmission thin model slot type | | | |

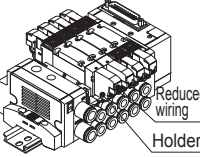
Electric connection circuit diagram

Other options

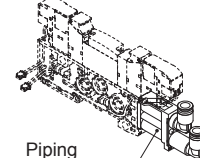
Pilot check valve (separate type)
* Refer to page 186



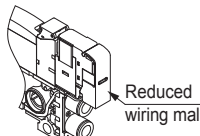
WI Single reduced wiring



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 | | ● | | | | |
| | E0N | E type connector | | | | ● | (±) ○ DC (⊖) ○ 100 VAC (⊖) ○ | |
| | E1 | E type connector | ● | | | | | |
| | E2 | E type connector | | ● | ● | ● | (±) ○ DC (⊖) ○ 100 VAC (⊖) ○ | |
| | E2*J | EJ type connector | | ● | ● | ● | | |
| | E2N | E type connector | | | ● | ● | ● | (±) ○ DC (⊖) ○ 100 VAC (⊖) ○ |
| | E3 | E type connector | ● | ● | ● | | | |
| | A2N | A type connector | | | ● | ● | ● | (±) ○ DC (⊖) ○ |
| B | DIN terminal box | | | | | | (±) ○ DC (⊖) ○ 100 VAC (⊖) ○ 200 VAC (⊖) ○ | |
| | DIN terminal box (Without terminal box) | ● | ● | ● | | | | |
| Option S | E2 | E type connector | | ● | ● | ● | (±) ○ DC (⊖) ○ | |
| | E2*J | EJ type connector | | ● | ● | ● | | |
| | E2N | E type connector | | | ● | ● | | ● |
| | A2N | A type connector | | | ● | ● | | ● |
| Option E | E2 | E type connector | | ● | ● | ● | (±) ○ DC (⊖) ○ Control circuit | |
| | E2*J | EJ type connector | | ● | ● | ● | | |
| | E2N | E type connector | | | ● | ● | | ● |
| | A2N | A type connector | | | ● | ● | | ● |

4GAB

M4GA/B

MN4GA/B

4GAB
Master valve

4GD/E

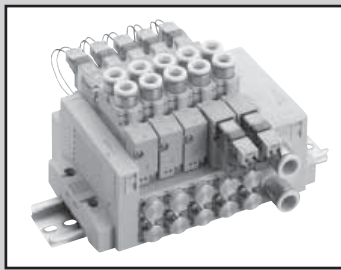
M4GD/E

MN4GD/E

Technical data

Safety precautions

Manifold Specifications



Individual wiring block manifold
Body piping

MN4GA1/2 Series

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



Refer to Ending for details.



4GAB

M4GAB

MN4GAB

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

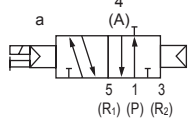
Technical data

Safety
precautions

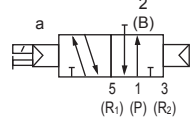
Manifold
Specifications

JIS symbol

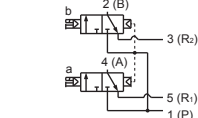
- 3 port valve
2-position single N. C. type



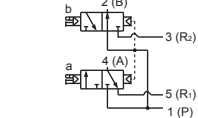
- 2-position single N. O. type



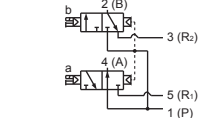
- Dual 3 port valve integrated type
(A side valve: N. C. type, B side valve: N. C. type)



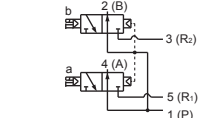
- (A side valve: N. O. type, B side valve: N. O. type)



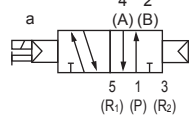
- (A side valve: N. O. type, B side valve: N. C. type)



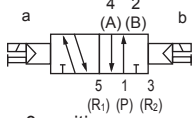
- (A side valve: N. O. type, B side valve: N. O. type)



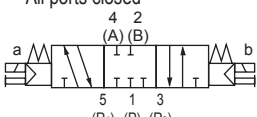
- 5 port valve
2-position single



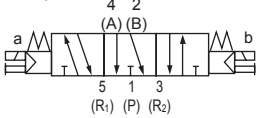
- 2-position double



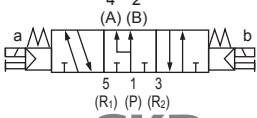
- 3-position
All ports closed



- 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 | | DC24 | DC12 | DC5 | DC3 | AC100 | AC200 |
|------------------------------|-------------------------------------|----------------|---------------|---------------|---------------|---------------|---------------|
| Rated voltage V | | | | | | | |
| 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 | Push-in fitting $\phi 4, \phi 6, \phi 8$ Rc1/8 |
| | Inch fitting/ M5, NPT thread | P/R port Push-in fitting $\phi 6, \phi 8$ | Push-in fitting $\phi 8, \phi 10$ |
| | | A/B port Push-in fitting $\phi 1/8$ inch, $\phi 5/32$ inch M5 | Push-in fitting $\phi 1/4$ inch $\phi 5/16$ inch 1/8NPT |
| | Milli fitting/ G thread | 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 |
| | A/B port | - | G1/8 |
| | P/R port | - | Push-in fitting $\phi 8, \phi 10$ |

- Refer to "Mounting attitude" on page 631 for DIN rail mounting.
- Refer to page 224 for weight.

| Descriptions | | MN3GA1/MN4GA1 | | MN3GA2/MN4GA2 | | |
|---------------|-----------------------------------|---------------|-----|---------------|-----|----|
| | | ON | OFF | ON | OFF | |
| Response time | Dual 3 port valve integrated type | 9 | 12 | 12 | 29 | |
| | 2-position | Single | 12 | 12 | 19 | 19 |
| | | Double | 9 | - | 18 | - |
| ms | 3-position ABR connection | 8 | 15 | 17 | 30 | |

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 | 0.92 | 0.34 | 1.0 — | 0.16 — |
| | | ABR connection | 0.92 | 0.29 | 1.1 (0.69) | 0.13 (0.22) |
| | PAB connection | 1.1 | 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 | 2.0 | 0.25 | 2.3 — | 0.10 — |
| | | ABR connection | 2.0 | 0.27 | 2.5 (1.7) | 0.18 (0.12) |
| | | PAB connection | 2.3 | 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 (E) 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**

4GAB

M4GAB

MN4GA/B

4GAB
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

Ⓐ Model no.

Ⓑ Valve Position

Ⓒ Port size
Note 1

Ⓓ Electrical connections

Ⓔ Option

Ⓕ Station no.

Ⓖ Voltage

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

| Symbol | Descriptions | MN3GA1 | MN3GA2 | MN4GA1 | MN4GA2 | (N) 3GA1 | (N) 3GA2 | (N) 4GA1 | (N) 4GA2 |
|-------------------------|--|-------------------------------|--------|--------|--------|----------|----------|----------|----------|
| Ⓑ 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 | ● | ● | | | ● | ● | | |
| 11 | 2-position single normally open | ● | ● | | | ● | ● | | |
| 66 | 3 port valve integrated type | A side valve: Normally closed | | | | | | | |
| | | B side valve: Normally closed | | | | ● | ● | | |
| 67 | Note 2, 3 | A side valve: Normally closed | | | | | | | |
| | | B side valve: Normally open | | | | ● | ● | | |
| 76 | Note 2, 3 | A side valve: Normally open | | | | | | | |
| | | B side valve: Normally closed | | | | ● | ● | | |
| 77 | Note 2, 3 | A side valve: Normally open | | | | | | | |
| | | B side valve: Normally open | | | | ● | ● | | |
| 8 | Mix manifold (In case of multiple Valve Positions) | ● | ● | ● | ● | ● | ● | ● | ● |

| Ⓒ Port size (A/B port) | | Type | Milli fitting/Rc thread | MN3GA1 | MN3GA2 | MN4GA1 | MN4GA2 | (N) 3GA1 | (N) 3GA2 | (N) 4GA1 | (N) 4GA2 | | |
|------------------------|----------------------------|------|---|--------------------------|---------------------------|--------|--------|----------|----------|----------|----------|---|---|
| Ⓒ | Type | 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 | ● | ● | ● | ● | ● | ● | ● | ● | | |
| | | M5 | M5 | ● | | ● | | ● | | ● | | | |
| | | O6 | Rc 1/8 | | ● | | ● | | ● | | ● | | |
| | | Ⓒ | 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 | | | | ● | | ● | | ● | | ● | | |
| CXN | Push-in fitting mix | | | ● | ● | ● | ● | ● | ● | ● | ● | | |
| O6N | 1/8NPT | | | | ● | | ● | | ● | | ● | | |
| Ⓒ | Type | | | G thread | | | | | | | | | |
| | | | | O6G | G1/8 | | ● | | ● | | ● | | ● |

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

| Ⓔ Option | | MN3GA1 | MN3GA2 | MN4GA1 | MN4GA2 | (N) 3GA1 | (N) 3GA2 | (N) 4GA1 | (N) 4GA2 |
|----------|--|--------|--------|--------|--------|----------|----------|----------|----------|
| Blank | Non-locking/locking common manual override | ● | ● | ● | ● | ● | ● | ● | ● |
| M | Non-locking manual override | ● | ● | ● | ● | ● | ● | ● | ● |
| H | With check valve | ● | ● | ● | ● | ● | ● | ● | ● |
| K | External pilot | ● | ● | ● | ● | ● | ● | ● | ● |
| A | Ozone/cutting oil proof | ● | ● | ● | ● | ● | ● | ● | ● |
| S | Surgeless | ● | ● | ● | ● | ● | ● | ● | ● |
| E | Low heat and energy saving circuit | ● | ● | ● | ● | ● | ● | ● | ● |
| F | A/B port filter integrated | ● | ● | ● | ● | ● | ● | ● | ● |
| Z1 | Air supply spacer | ● | ● | ● | ● | | | | |
| Z2 | In stop valve spacer | ● | ● | ● | ● | | | | |
| Z3 | Exhaust spacer | ● | ● | ● | ● | | | | |

| Ⓕ Station no. | | MN3GA1 | MN3GA2 | MN4GA1 | MN4GA2 | (N) 3GA1 | (N) 3GA2 | (N) 4GA1 | (N) 4GA2 |
|---------------|--|--------|--------|--------|--------|----------|----------|----------|----------|
| 1 | 1 stations | | | | | | | | |
| to | to | ● | ● | ● | ● | | | | |
| 24 | 24 Stations (The max. station no. of MN3GA2/MN4GA2 is 20.) | | | | | | | | |

| Ⓖ Voltage | | MN3GA1 | MN3GA2 | MN4GA1 | MN4GA2 | (N) 3GA1 | (N) 3GA2 | (N) 4GA1 | (N) 4GA2 |
|-----------|--------------------------------|--------|--------|--------|--------|----------|----------|----------|----------|
| 1 | 100 VAC (rectifier integrated) | ● | ● | ● | ● | ● | ● | ● | ● |
| 2 | 200 VAC (rectifier integrated) | ● | ● | ● | ● | ● | ● | ● | ● |
| 3 | 24 VDC | ● | ● | ● | ● | ● | ● | ● | ● |
| 4 | 12 VDC | ● | ● | ● | ● | ● | ● | ● | ● |
| 7 | 3 VDC | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 8 | 5 VDC | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

○ is not available.

○ Contact CKD for price and availability.

⚠ 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.
- 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.

MN4GA1/2 Series

Individual wiring block manifold; body piping

[Electrical connection list]

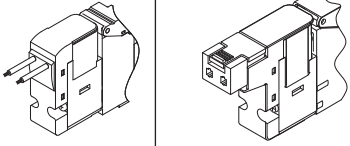
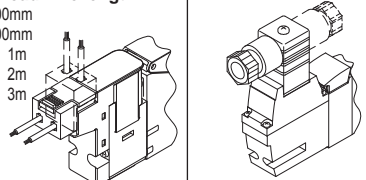
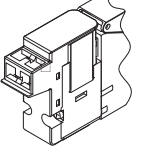
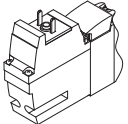
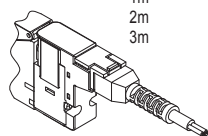
| A Model No. | | | | | | | |
|------------------------------|--------|--------------|--------|--|----------|----------|----------|
| Manifold | | | | Discrete valve block with solenoid valve / Discrete solenoid valve | | | |
| Dual 3 port valve integrated | | 5 port valve | | | | | |
| MN3GA1 | MN3GA2 | 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 |  |

4GAB

M4GA/B

MN4GA/B

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

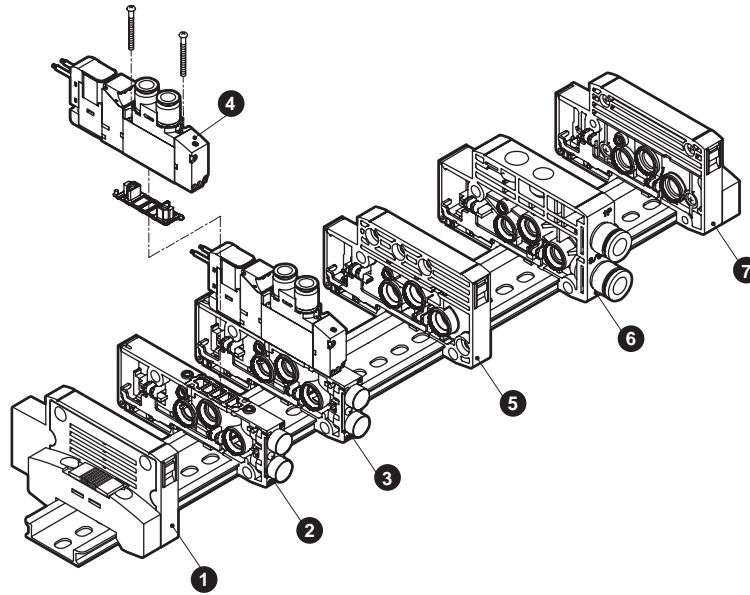
Safety
precautions

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 | N3GA110R-C6-3 | 70 | Valve block with masking plate | N4GA1R-MP | 34 |
| | N3GA1110R-C6-3 | 70 | | Supply and exhaust block | N4G1R-Q-8 |
| | N4GA110R-C6-3 | 70 | N4G1R-QK-8 | | 60 |
| | N4GA120R-C6-3 | 87 | End block | | N4G1R-E* |
| | N4GA110R-C6-3 | 91 | | N4G1R-EX* | 60 |
| N3GA1660R-C6-3 | 87 | Partition block | N4G1R-S | 45 | |

4GA2

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

Parts list

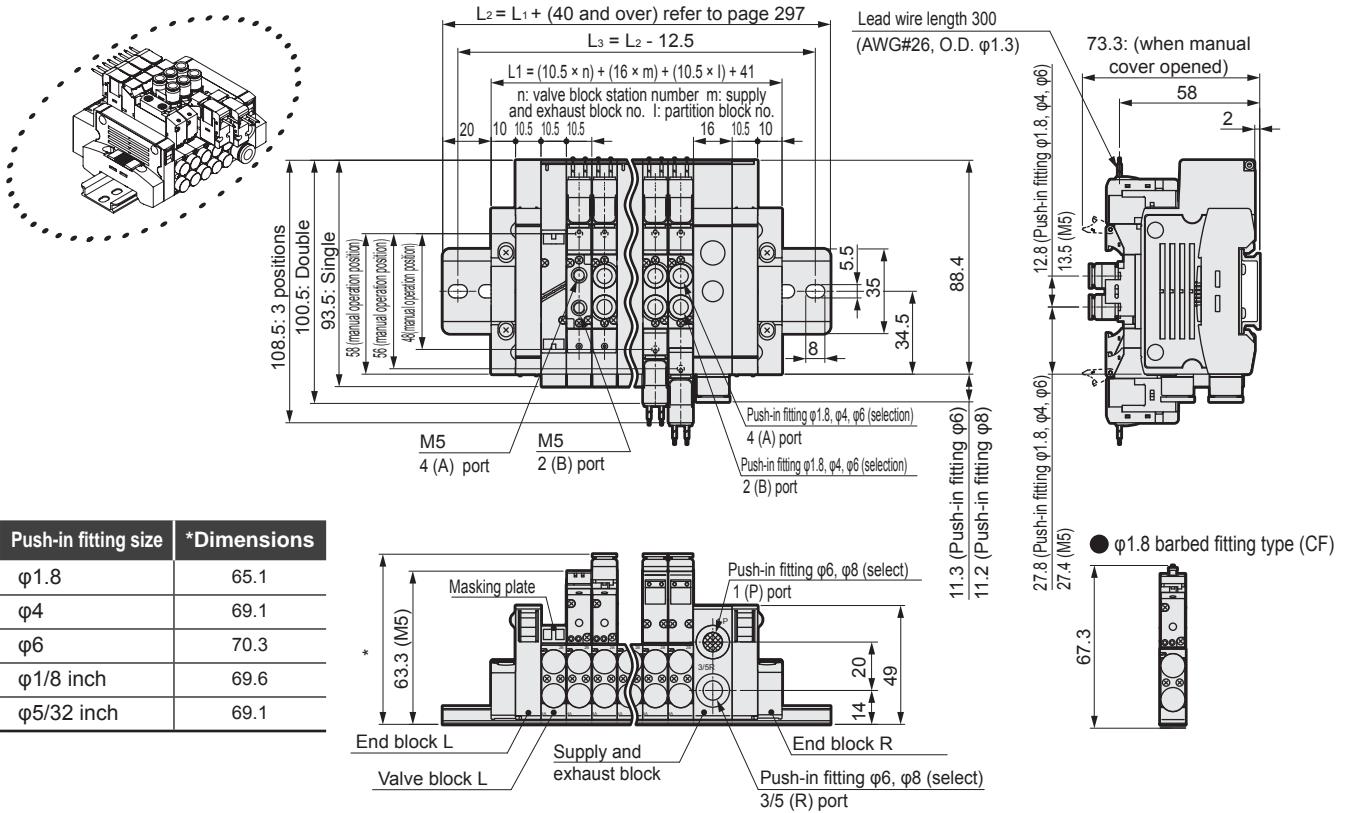
| Application | Parts name | Model no. | Application | Parts name | Model no. | |
|------------------|--|----------------|--------------|-------------------------------------|---|-----------------------|
| Valve 4G1 | Cartridge fitting ϕ 1.8 barbed type | 4G1R-JOINT-CF | Valve | Coil assembly | 4GR-[*1]-[*2]-COIL-[*3]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

Dimensions

MN4GA1

- Grommet lead wire (blank)

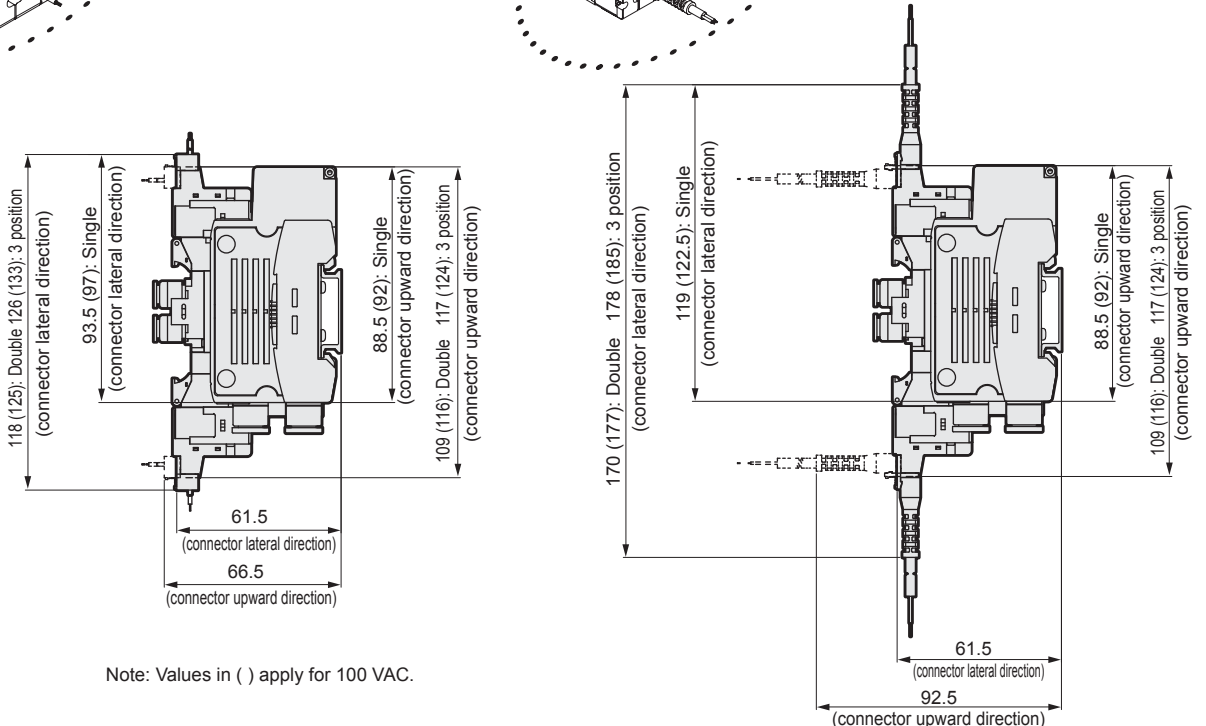
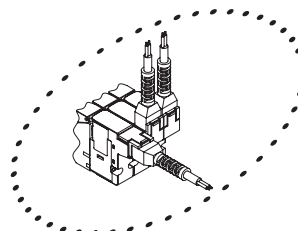
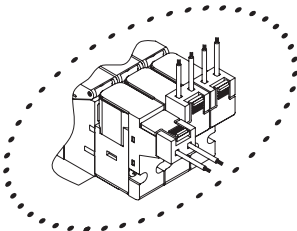
* For 2-position single 3 port valve, the port A or port B is a plug.
The dimension of dual 3 port valve integrated type is the same as that of the double type.



| 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 |

- 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

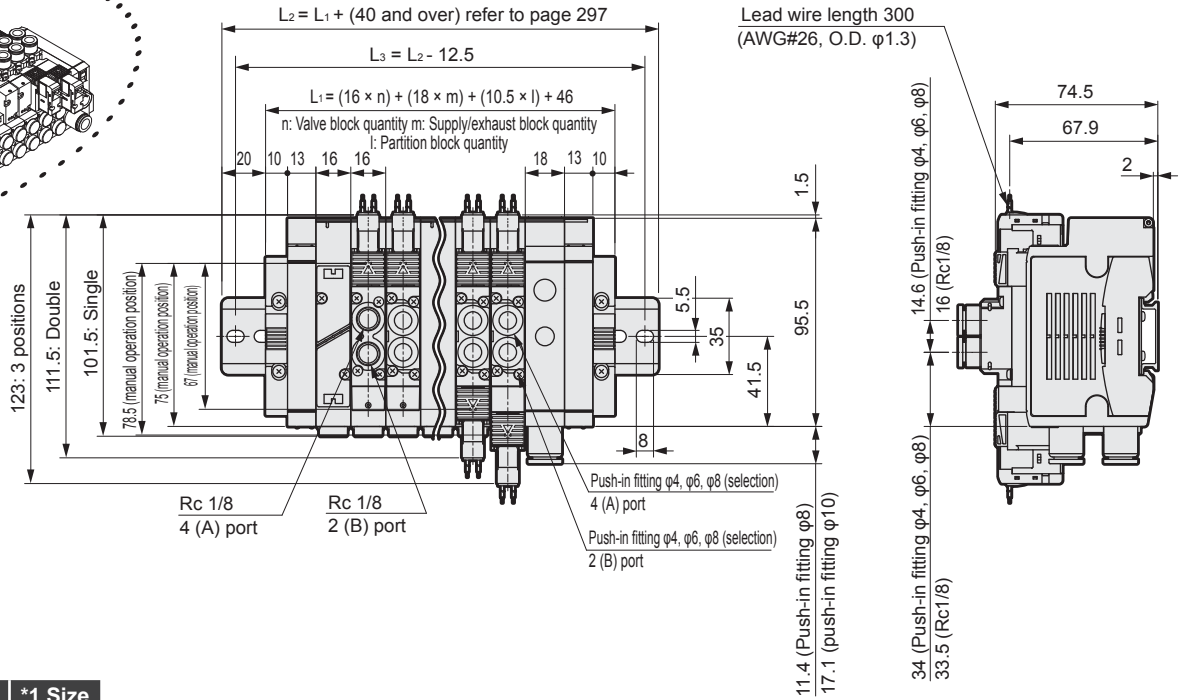
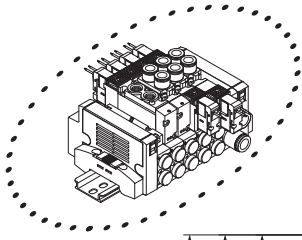
Dimensions



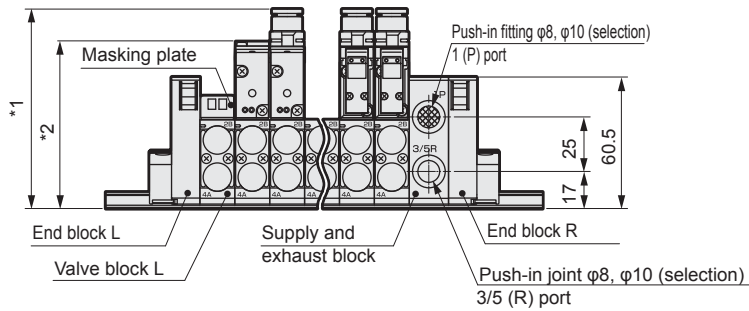
MN4GA2

- 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.



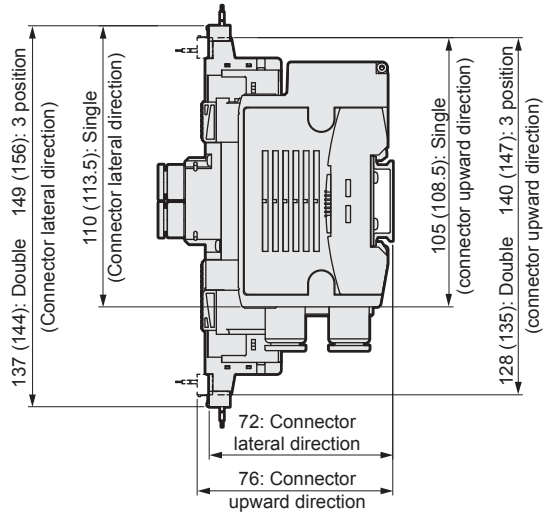
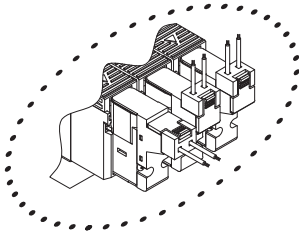
| Push-in fitting size | *1 Size |
|----------------------|---------|
| $\phi 4$ | |
| $\phi 6$ | 91.7 |
| $\phi 8$ | |
| $\phi 1/4$ inch | 92.6 |
| $\phi 5/16$ inch | 91.9 |
| Female thread size | *2 Size |
| Rc1/8 | 76.5 |
| 1/8NPT | |
| G1/8 | 77.8 |



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

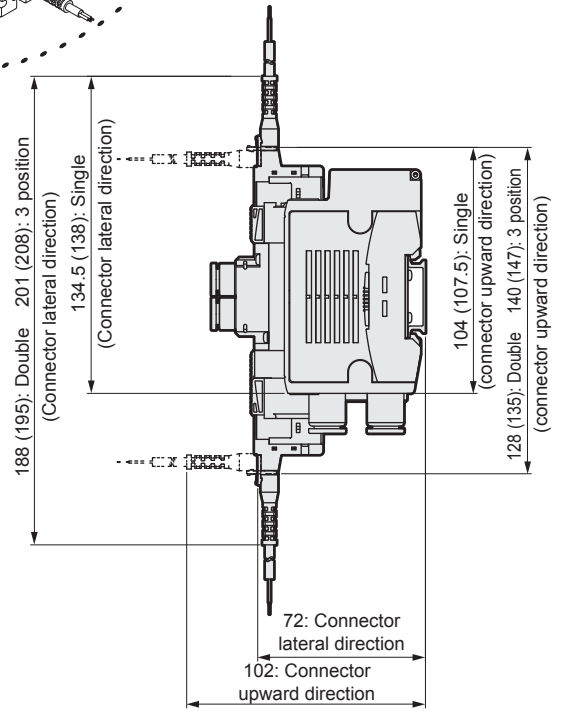
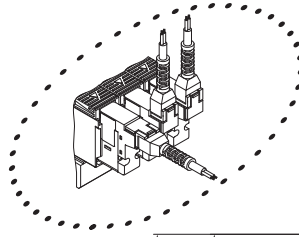
Dimensions

● E type connector type (E)

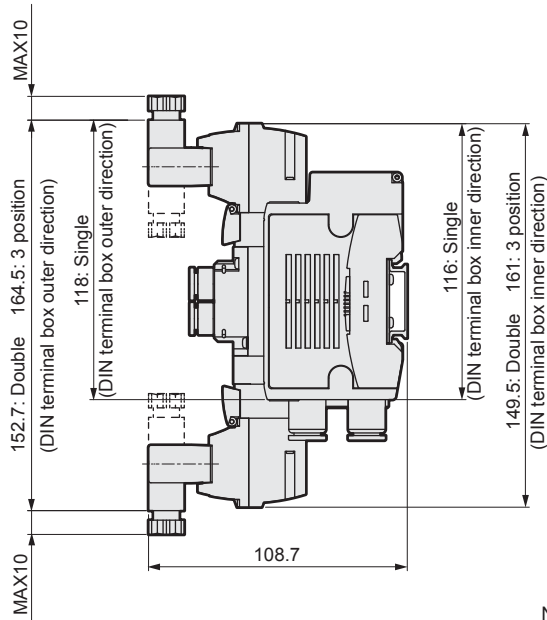
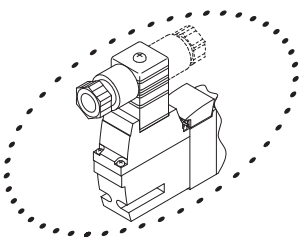


Note: Values in () apply for 100 VAC.

● EJ type connector type (E**J)

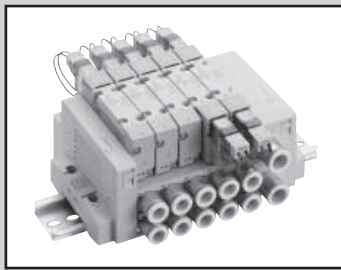


● DIN terminal box type (B)



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.



Individual wiring block manifold
Base piping

MN4GB1/2 Series

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



Refer to Ending for details.



4GAB

M4GAB/B

MN4GAB/B

4GAB/B
Master valve

4GD/E

M4GD/E

MN4GD/E

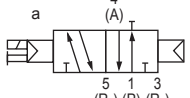
Technical data

Safety
precautions

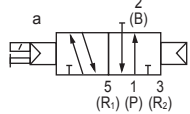
Manifold
Specifications

JIS symbol

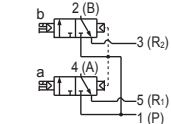
- 3 port valve
2-position single N.C. type



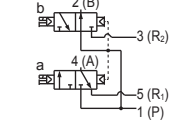
- 2-position single N.O. type



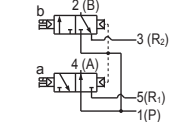
- Dual 3 port valve integrated type
(A side valve: N.C. type, B side valve: N.C. type)



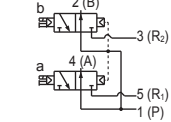
- (A side valve: N.C. type, B side valve: N.O. type)



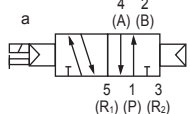
- (A side valve: N.O. type, B side valve: N.C. type)



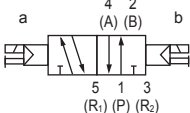
- (A side valve: N.O. type, B side valve: N.O. type)



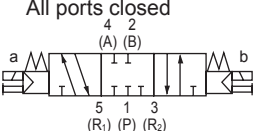
- 5 port valve
2-position single



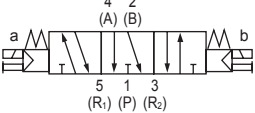
- 2-position double



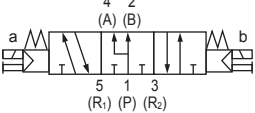
- 3-position
All ports closed



- 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 | | 24 VDC | 12 VDC | 5 VDC | 3 VDC | 100 VAC | 200 VAC |
|---------------------------|---|----------------|---------------|---------------|---------------|---------------|---------------|
| Rated voltage V | | | | | | | |
| Voltage fluctuation range | | ±10% | | | | | |
| Holding current | Standard | 0.015 (0.017) | 0.030 (0.034) | 0.072 (0.082) | 0.120 (0.136) | 0.009 (0.009) | 0.006 (0.006) |
| A (Note 4) | With low heat and energy saving circuit | 0.005 | 0.010 | - | - | - | - |
| Power consumption | Standard | 0.35 (0.40) | | 0.35 (0.40) | | - | |
| W (Note 4) | With low heat and energy saving circuit | 0.1 | | - | | - | |
| Apparent power | Standard | - | | - | | 0.93 (0.98) | 1.08 (1.13) |
| VA (Note 4) | | | | | | | |
| 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 $\phi 1.8, \phi 4, \phi 6$ |
| | | P/R port | Push-in fitting $\phi 6, \phi 8$ |
| | Inch fitting | A/B port | 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 "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 | Dual 3 port valve integrated type | 9 | 12 | 12 | 29 | |
| | 2-position | Single | 12 | 12 | 19 | 19 |
| | | Double | 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 $S \cong 5.0 \times C$.

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

Ozone specifications / Cutting oil proof type specifications

Select the option "A" of (E) 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

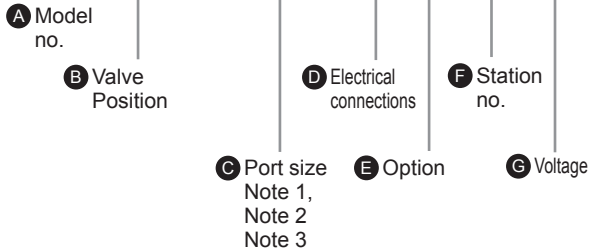
N3GB1 **1** **0** **R** - **C6** - **E2** **H** - **3**

Discrete solenoid valve

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

Discrete 3 port solenoid valve

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



⚠ 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 | | | | |
| MN3GB1 | MN3GB2 | MN4GB1 | MN4GB2 | (N)3GB1 | (N)3GB2 |
| | | | | (N)4GB1 | (N)4GB2 |

| Symbol | Descriptions | MN3GB1 | MN3GB2 | MN4GB1 | MN4GB2 | (N)3GB1 | (N)3GB2 | (N)4GB1 | (N)4GB2 |
|-------------------------|--|--------|--------|--------|--------|---------|---------|---------|---------|
| 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 | | ● | ● | | | ● | ● | |
| 67 | | | ● | ● | | | ● | ● | |
| 76 | | | ● | ● | | | ● | ● | |
| 77 | | | ● | ● | | | ● | ● | |
| 8 | Mix manifold (In case of multiple Valve Positions) | ● | ● | ● | ● | ● | ● | ● | ● |

| C Port size (A/B port) | | | | | | | | | |
|-----------------------------------|--|--------|--------|--------|--------|---------|---------|---------|---------|
| Type | Milli fitting/Rc thread | MN3GB1 | MN3GB2 | MN4GB1 | MN4GB2 | (N)3GB1 | (N)3GB2 | (N)4GB1 | (N)4GB2 |
| 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 | | Plug | | | | | |
| CFNC | φ1.8 barbed fitting (applicable tube UP-9102-**) Note 6 | ● | ● | ● | ● | ● | ● | ● | ● |
| 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 | 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 | ● | ● | ● | ● | ● | ● | ● | ● |
| 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 | 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 | ● | ● | ● | ● | ● | ● | ● | ● |
| 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 | 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 | ● | ● | ● | ● | ● | ● | ● | ● |
| 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 | | Plug | | | | | |
| 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 | 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 8 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| CL4NCN | L type φ5/32 inch push-in fitting (upward) Note 8 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| CL6NCN | L type φ1/4 inch push-in fitting (upward) Note 8 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| CL8NCN | L type φ5/16 inch push-in fitting (upward) Note 8 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| CL3NON | L type φ1/8 inch push-in fitting (upward) Note 8 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| CL4NON | L type φ5/32 inch push-in fitting (upward) Note 8 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| CL6NON | L type φ1/4 inch push-in fitting (upward) Note 8 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| CL8NON | L type φ5/16 inch push-in fitting (upward) Note 8 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 00 | Discrete valve for mounting base | ● | ● | ● | ● | ● | ● | ● | ● |

● is not available.

○ Contact CKD for price and availability.

MN4GB1/2 Series

Individual wiring manifold; base piping

(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.

4GAB

M4GAB

MN4GAB

4GAB Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

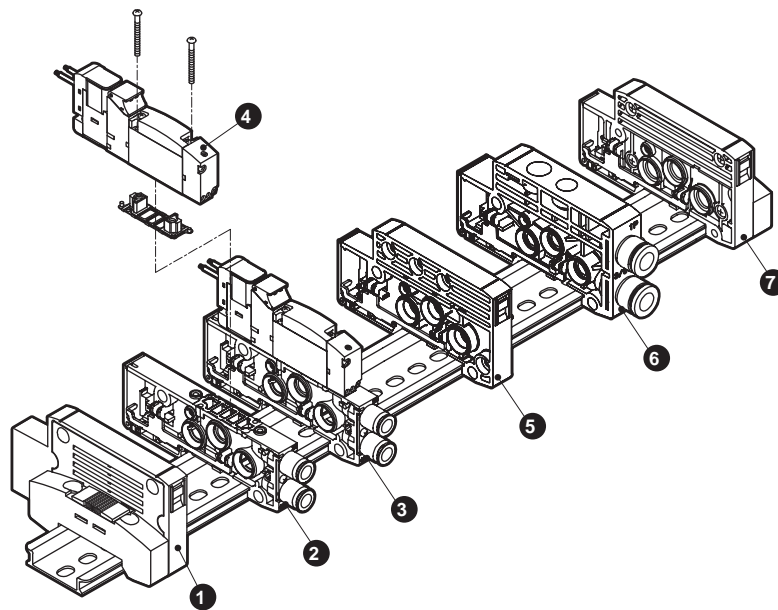
Safety precautions

Manifold Specifications

MN4GB1/2 Series

Individual wiring manifold; base piping

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 | N4GB110R-C6 | Supply and exhaust block | N4G1R-Q-8 |
| | N4GB120R-C6 | | N4G1R-QK-8 |
| | N4GB10R-C6 | End block | N4G1R-E* |
| | N3GB1660R-C6-3 | | N4G1R-EX* |
| Valve block with masking plate | N4GB1R-MP-C6 | Partition block | N4G1R-S |

4GB2

| Block type | Weight | Block type | Weight |
|---------------------------------|----------------|--------------------------|-------------|
| Valve block with solenoid valve | N4GB210R-C8 | Supply and exhaust block | N4G2R-Q-10 |
| | N4GB220R-C8 | | N4G2R-QK-10 |
| | N4GB20R-C8 | End block | N4G2R-E* |
| | N4GB2660R-C8-3 | | N4G2R-EX* |
| Valve block with masking plate | N4GB2R-MP-C8 | Partition block | N4G2R-S |

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 | | | E type connector socket assembly | 4GR-SOCKET-ASSY-[*1]-[*3] *1: Electrical connection (E0, E00...), *3: Voltage (1,3,4) |
| | φ6 elbow type | 4G1R-JOINT-CL6,CLL6 | | E type connector socket assembly | 4GR-SOCKET-ASSY-[*1] *1: Electrical connection (E01J, E02J, ...) | |
| | φ1/8 inch straight type | 4G1R-JOINT-C3N | | Valve 4G2 | DIN terminal box assembly | 4GR-TERMINAL-BOX-[*3] *3: Voltage (1,2,3,4) |
| | φ5/32 inch straight type | 4G1R-JOINT-C4N | | | | |
| | φ1/8 inch elbow type Note 1 | 4G1R-JOINT-CL3N | | | | |
| φ5/32 inch elbow type Note 1 | 4G1R-JOINT-CL4N | | | | | |
| 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.

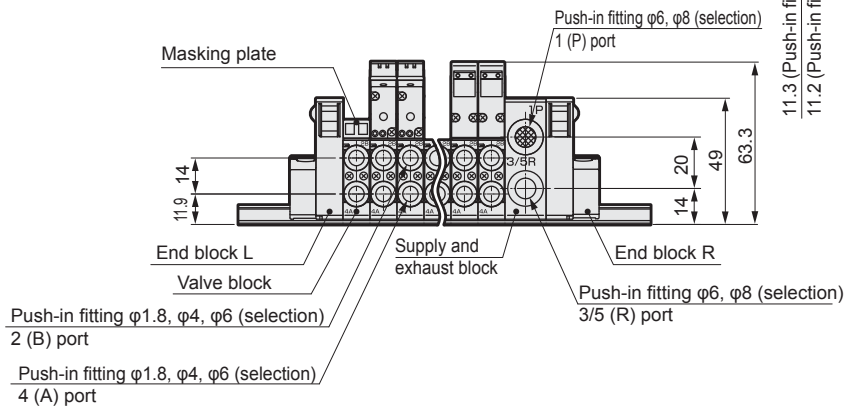
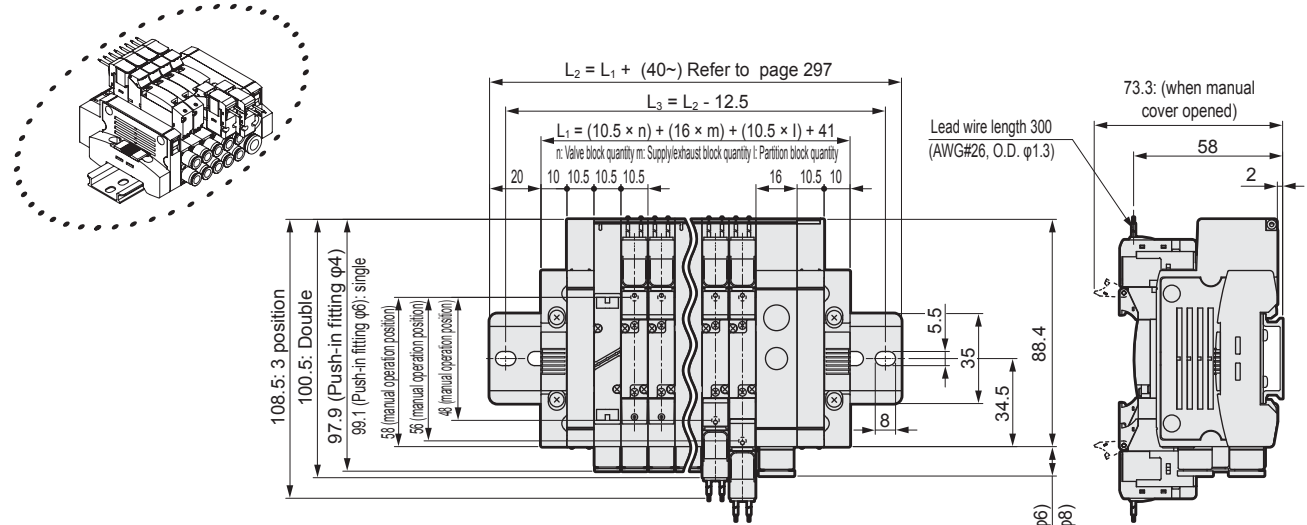
Dimensions



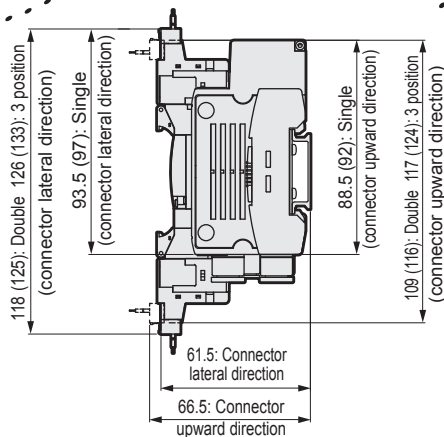
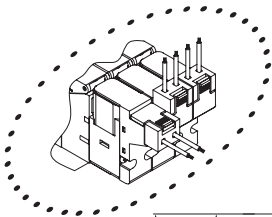
MN4GB1

- 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.

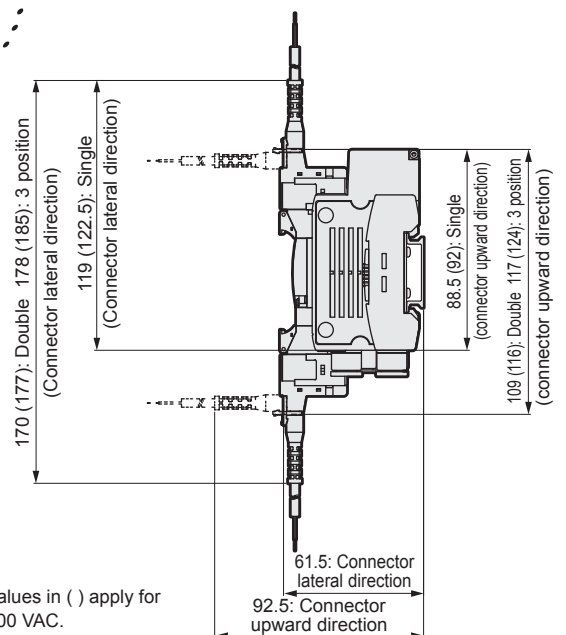
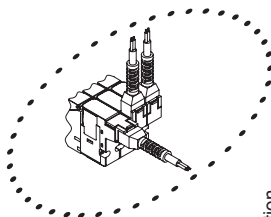


- E type connector type (E)



Note: Values in () apply for 100 VAC.

- EJ type connector type (E**J)




Note: Values in () apply for 100 VAC.

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

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

MN4GB2 Series

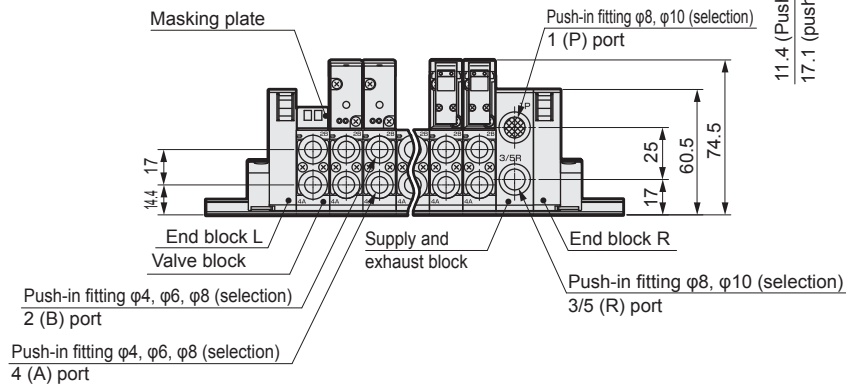
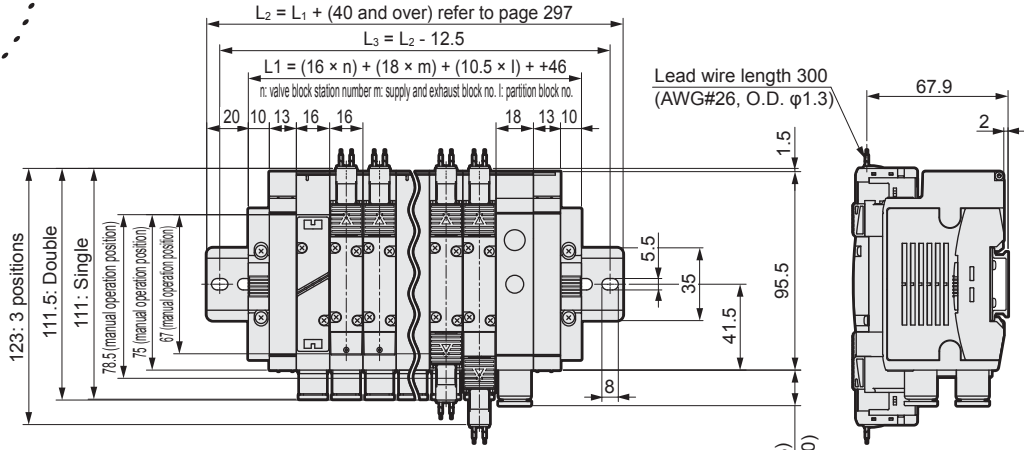
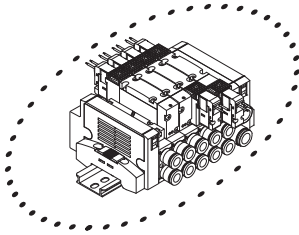
Individual wiring manifold; base piping

Dimensions 

MN4GB2

- 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.

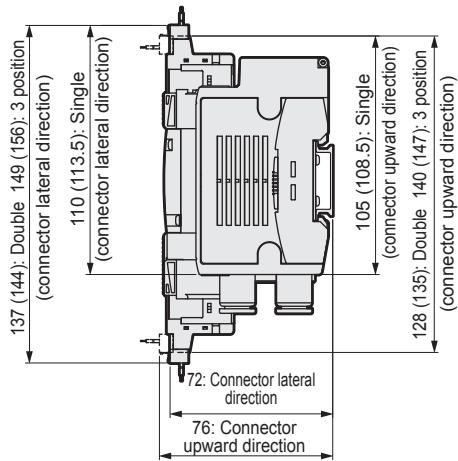
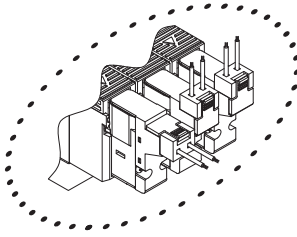


* Refer to page 268 for the dimension drawings of the push-in fitting for valve block and supply/exhaust block.

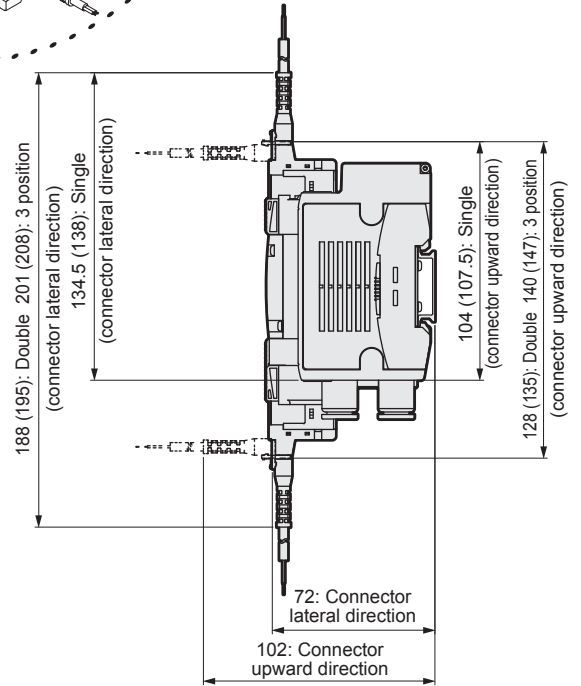
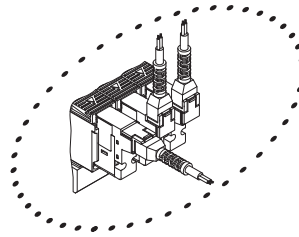
4GAB
M4GAB
MN4GAB
4GAB Master valve
4GD/E
M4GD/E
MN4GD/E
Technical data
Safety precautions
Manifold Specifications

Dimensions

● E type connector type (E)

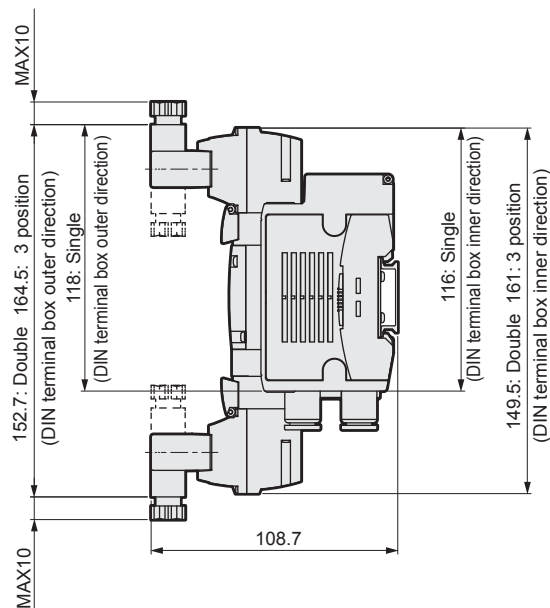
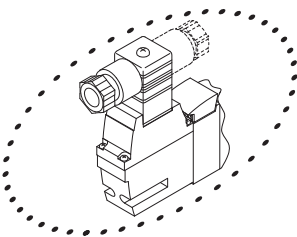


● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC.

● DIN terminal box type (B)



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

4G/A/B

M4G/A/B

MN4G/A/B

4G/A/B
Master valve

4G/D/E

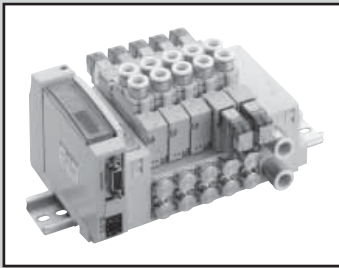
M4G/D/E

MN4G/D/E

Technical data

Safety
precautions

Manifold
Specifications



Reduced wiring block manifold
Body piping

MN4GA1, 2-T* Series

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



4GAB

M4GAB/B

MN4GAB/B

4GAB/B
Master valve

4GD/E

M4GD/E

MN4GD/E

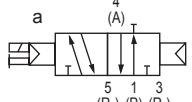
Technical data

Safety
precautions

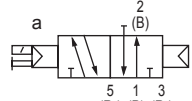
Manifold
Specifications

JIS symbol

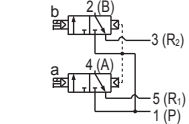
- 3 port valve
2-position single N.C. type



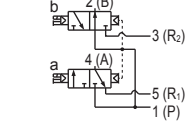
- 2-position single N.O. type



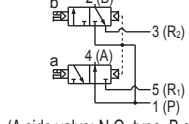
- Dual 3 port valve integrated type
(A side valve: N.C. type, B side valve: N.C. type)



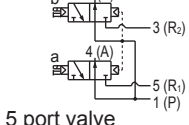
- (A side valve: N.C. type, B side valve: N.O. type)



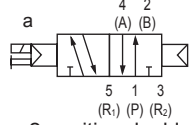
- (A side valve: N.O. type, B side valve: N.C. type)



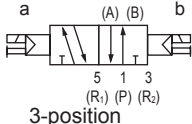
- (A side valve: N.O. type, B side valve: N.O. type)



- 5 port valve
2-position single

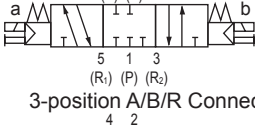


- 2-position double

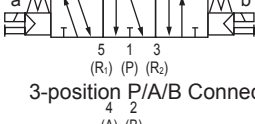


- 3-position

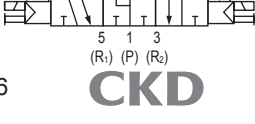
- All ports closed



- 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 | | | | | | | | | |
|-------------------------|-----------------------------|---------------|------------|---|------------|------------|-----------|--|---------------|---------------|----------------|
| | | T10 | T11 | T30 | T50 | T51 | T52 | T53 | T6*0/1 | T7*0/1 | T8*1/2 |
| Max. station no. | Standard wiring | 16 station | 24 station | 24 station | 16 station | 18 station | 8 station | 24 station | 8/16 stations | 8/16 stations | 16/24 stations |
| | 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 |
| Max. number of solenoid | | 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 | |
| | Inch fitting/M5, NPT thread | A/B port | | Push-in fitting $\phi 6, \phi 8$ | | | | | | | |
| | Milli fitting/G thread | A/B port | | Push-in fitting $\phi 1/8$ inch, $\phi 5/32$ inch | | | | | | | |
| | P/R port | P/R port | | Push-in fitting $\phi 1/4$ inch, $\phi 5/16$ inch | | | | | | | |

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

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 | 0.34 | 1.0 - | 0.16 - |
| | | ABR connection | 0.92 | 0.29 | 1.1 (0.69) | 0.13 (0.22) |
| 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 | 0.25 | 2.3 - | 0.10 - |
| | | ABR connection | 2.0 | 0.27 | 2.5 (1.7) | 0.18 (0.12) |
| | PAB connection | 2.3 | 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 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% | | | | |
| | Valve side | 24 VDC +10%, -5% | | | Power supply terminal common | | | | |
| Current consumption | Unit side | 100 mA or less (when all output points are ON) | | | 100 mA or less (when all output points are ON) | | | | |
| | Valve side | 15 mA or less (when all output points are OFF) | | | Load current is not included | | | | |
| 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 | | | | |
| Current consumption | Communication side | - | | | - | | 11 VDC to 25 VDC *8 | 14.0 VDC to 26.4 VDC | |
| | Unit side | 50 mA or less (when all output points are ON) | 90 mA or less (when all output points are ON) | | 110 mA or less (when all output points are ON) | | | 40 mA or less (when all output points are ON) | |
| | Valve side | 15 mA or less (when all output points are OFF) | Load current is not included | | Load current is not included | | | Load current is not included | |
| Current consumption | Communication side | - | | | - | | 50 mA or less | 65 mA or less (all points ON: 24 VDC) 95 mA or less (all points ON: 14 VDC) | |
| | 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.

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

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 | MN3GA1 | MN3GA2 | MN4GA1 | MN4GA2 | (N) 3GA1 | (N) 3GA2 | (N) 4GA1 | (N) 4GA2 |
|---|---|--------|--------|-------------------------------|--------|----------|----------|----------|----------|
| 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 | ● | ● | A side valve: Normally closed | | | | ● | ● |
| | | | | B side valve: Normally closed | | | | | |
| 67 | integrated type Note 2, 3 | ● | ● | 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 φ1.8 (applicable tube UP-9102-**) | ● | ● | ● | ● | ● | ● | ● | ● |
| C18 | Push-in fitting for fiber φ1.8 (applicable tube UP-9402-**) | ● | ● | ● | ● | ● | ● | ● | ● |
| C4 | Push-in fitting φ4 | ● | ● | ● | ● | ● | ● | ● | ● |
| C6 | Push-in fitting φ6 | ● | ● | ● | ● | ● | ● | ● | ● |
| C8 | Push-in fitting φ8 | | ● | ● | ● | ● | ● | ● | ● |
| CX | Push-in fitting mix Note 4 | ● | ● | ● | ● | ● | ● | ● | ● |
| M5 | M5 | ● | ● | ● | ● | ● | ● | ● | ● |
| 06 | Rc1/8 | | ● | ● | ● | ● | ● | ● | ● |
| 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 | | ● | ● | ● | ● | ● | ● | ● |
| 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 | 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 | | NPN 8 points | ● | ● | ● | ● | | | | |
| T6J1 | UNIWIRESYSTEM | NPN 16 points | ● | ● | ● | ● | | | | |
| T7C0 | | NPN 8 points | ● | ● | ● | ● | | | | |
| T7C1 | Thin type CompoBus/S | NPN 16 points | ● | ● | ● | ● | | | | |
| T7D1 | | Thin type DeviceNet | NPN 16 points | ● | ● | ● | ● | | | |
| T7E0 | Thin type S-LINK | NPN 8 points | ● | ● | ● | ● | | | | |
| T7E1 | | NPN 16 points | ● | ● | ● | ● | | | | |
| T7G1 | Thin type CC-Link | NPN 16 points | ● | ● | ● | ● | | | | |
| T7L1 | | Thin type SAVE NET | NPN 16 points | ● | ● | ● | ● | | | |
| T7S1 | Thin type CompoNet | NPN 16 points | ● | ● | ● | ● | | | | |
| T7SP1 | | PNP 16 points | ● | ● | ● | ● | | | | |
| T8G1 | Thin type CC-Link | NPN 16 points | ● | ● | ● | ● | | | | |
| T8G2 | | NPN 32 points | ● | ● | ● | ● | | | | |
| T8GP1 | Thin type CC-Link | PNP 16 points | ● | ● | ● | ● | | | | |
| T8GP2 | | PNP 32 points | ● | ● | ● | ● | | | | |
| T8P1 | Thin type PROFIBUS-DP | 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 EtherCAT | PNP 16 points | ● | ● | ● | ● | | | | |
| T8ECP2 | | PNP 32 points | ● | ● | ● | ● | | | | |
| T8EN1 | Thin type EtherNet/IP | NPN 16 points | ● | ● | ● | ● | | | | |
| T8EN2 | | NPN 32 points | ● | ● | ● | ● | | | | |
| T8ENP1 | Thin type EtherNet/IP | PNP 16 points | ● | ● | ● | ● | | | | |
| T8ENP2 | | PNP 32 points | ● | ● | ● | ● | | | | |
| A2N | Without lead wire (without socket) | with surge suppressor/light | | | | | ● | ● | ● | ● |

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

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)

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

● Clean room specifications

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

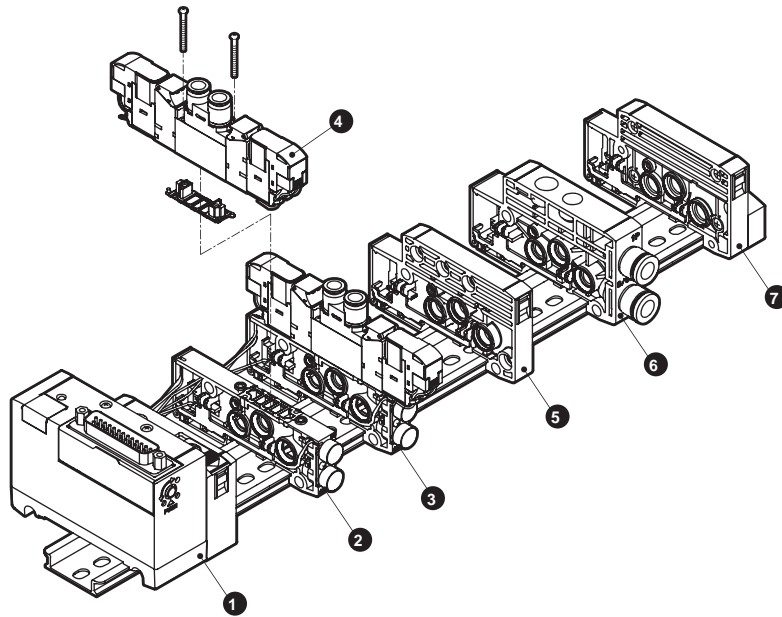
** - Voltage - P7*

** - 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 |
| | N3GA110R-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 |
| | N3GA210R-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 | | | | |

MEMO

4GAB

M4GA/B

MN4GA/B

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

MN4GA1/2-T10 Series

Reduced wiring manifold; body piping

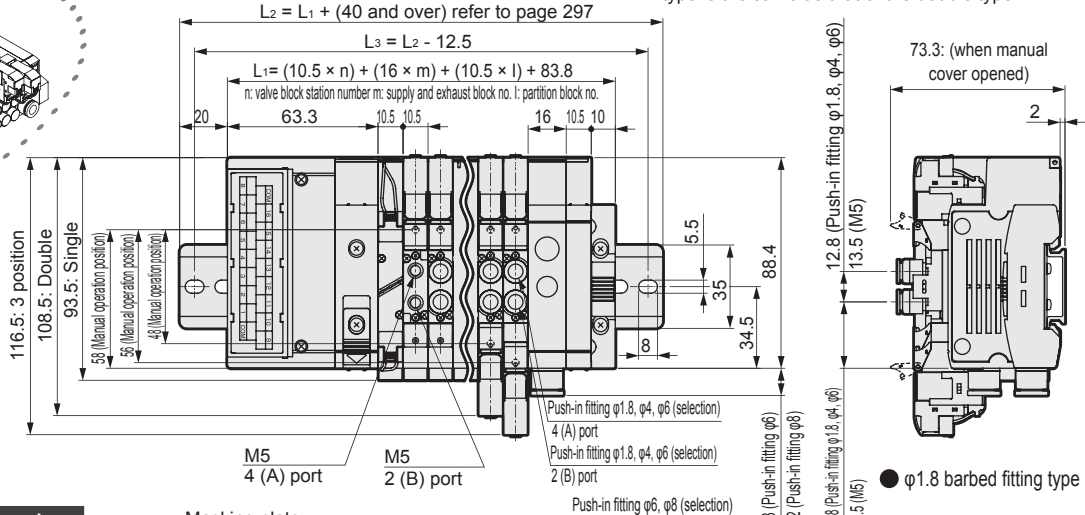
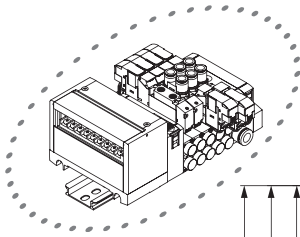
Dimensions 

MN4GA1

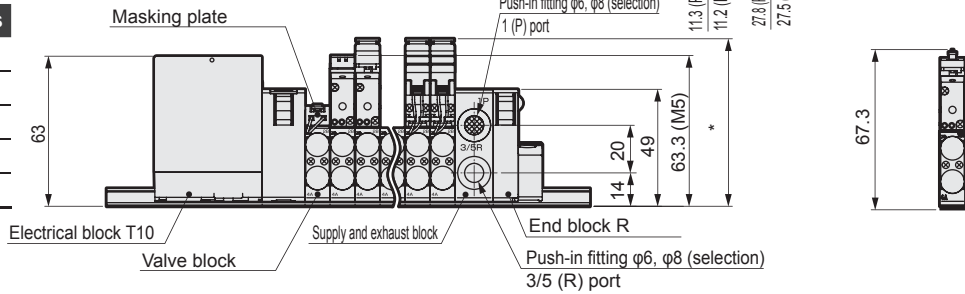
● Common terminal block (M3 thread) Left side (T10)

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.



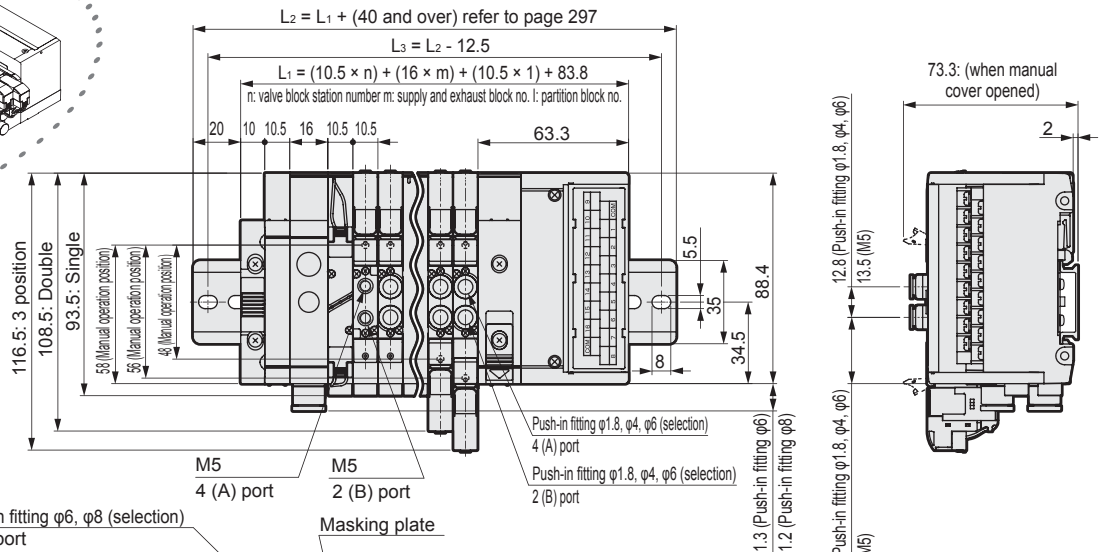
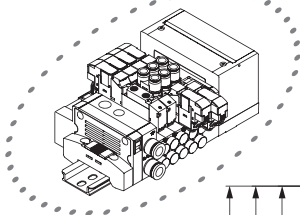
| Push-in fitting size | *Dimensions |
|----------------------|-------------|
| $\phi 1.8$ | 65.1 |
| $\phi 4$ | 69.1 |
| $\phi 6$ | 70.3 |
| $\phi 1/8$ inch | 69.6 |
| $\phi 5/32$ inch | 69.1 |



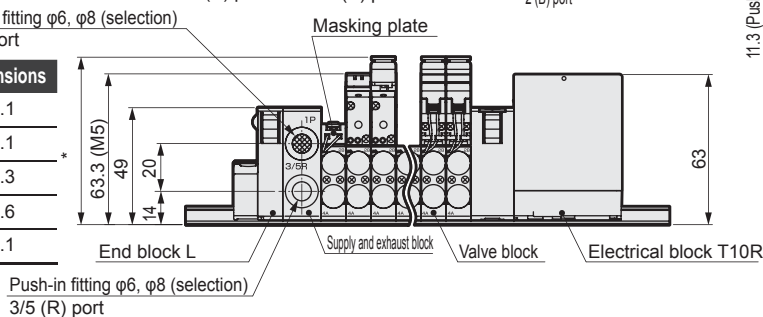
● Common terminal block (M3 thread) Right side (T10R)

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.



| 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 |



MN4GA1/2-T10 Series

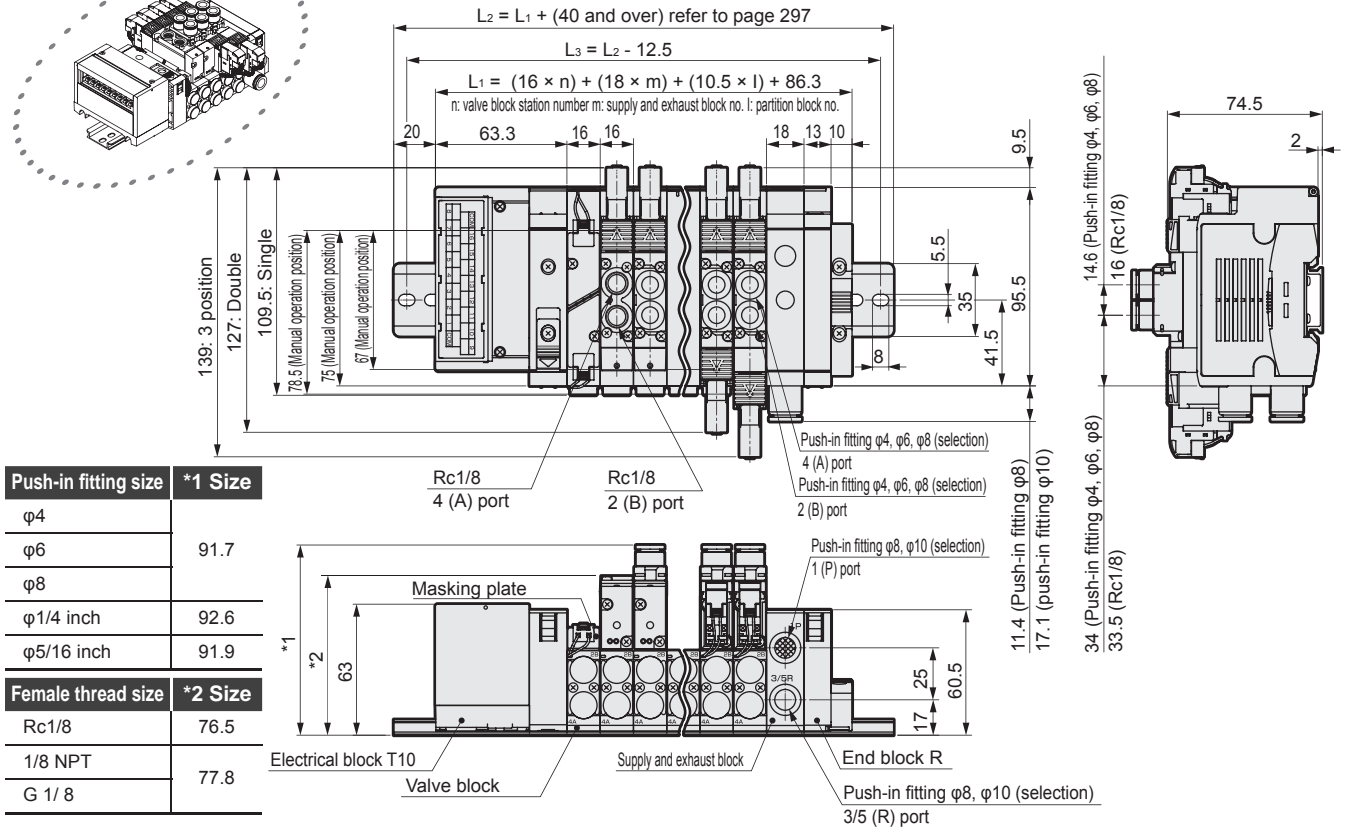
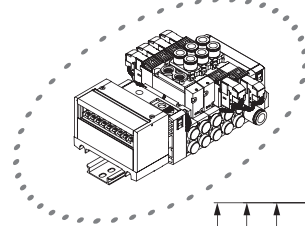
Reduced wiring manifold; body piping

Dimensions



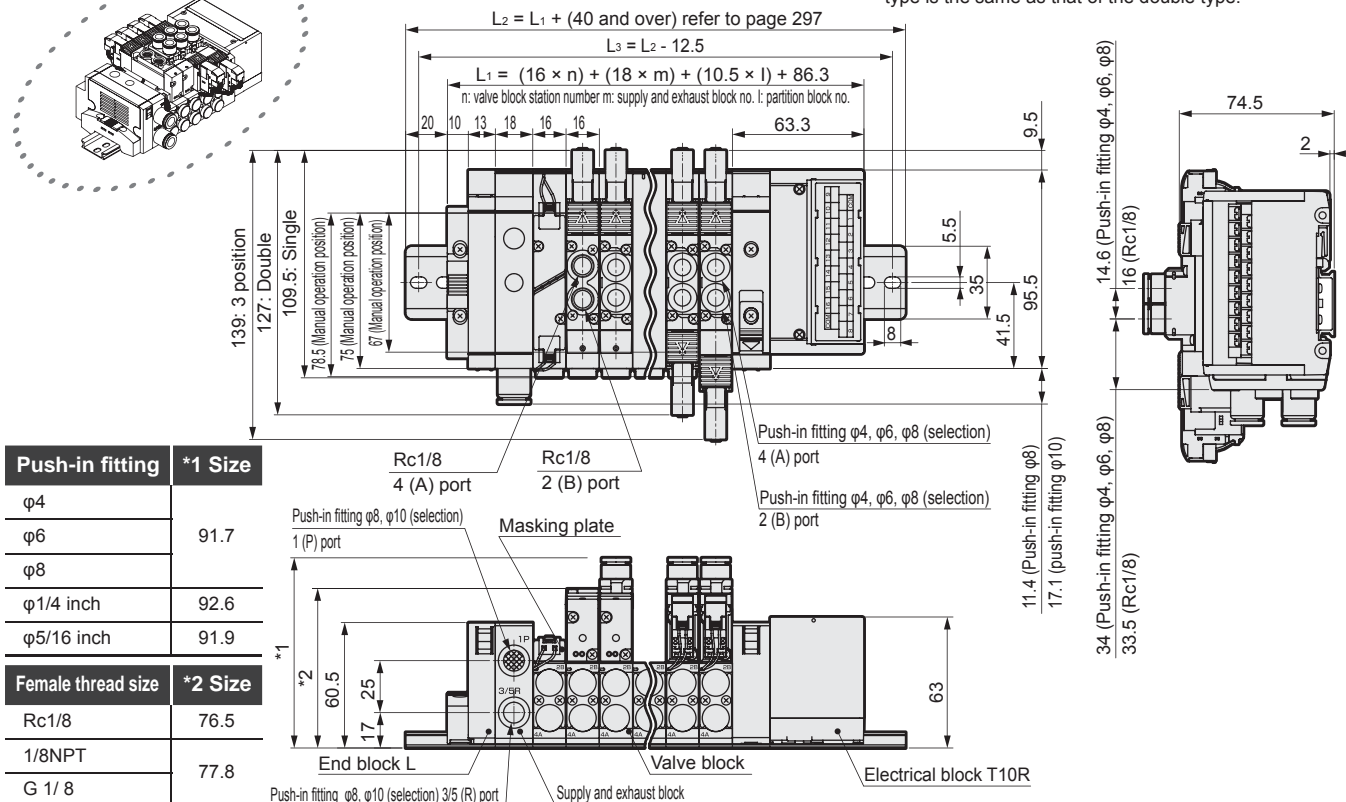
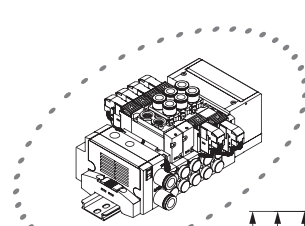
MN4GA2

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



| Push-in fitting size | *1 Size |
|----------------------|---------|
| φ4 | 91.7 |
| φ6 | |
| φ8 | |
| φ1/4 inch | 92.6 |
| φ5/16 inch | 91.9 |
| Female thread size | *2 Size |
| Rc1/8 | 76.5 |
| 1/8 NPT | 77.8 |
| G 1/8 | |

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



| Push-in fitting | *1 Size |
|--------------------|---------|
| φ4 | 91.7 |
| φ6 | |
| φ8 | |
| φ1/4 inch | 92.6 |
| φ5/16 inch | 91.9 |
| Female thread size | *2 Size |
| Rc1/8 | 76.5 |
| 1/8NPT | 77.8 |
| G 1/8 | |

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.

4GAB

M4GAB

MN4GA/B

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E


Technical data

Safety
precautions

Manifold
Specifications

MN4GA1/2-T30 Series

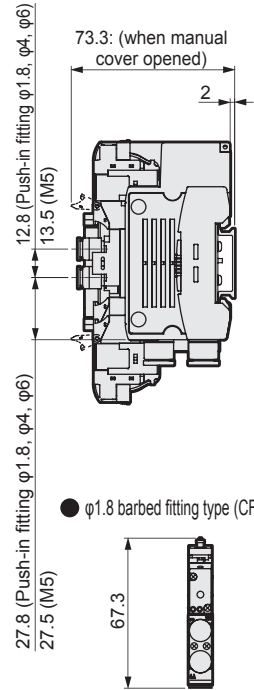
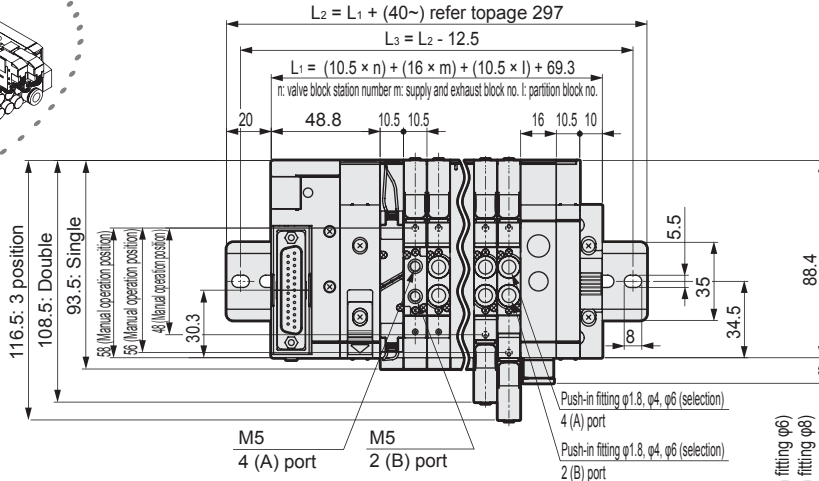
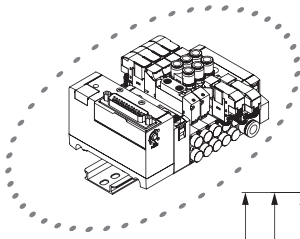
Reduced wiring manifold; body piping

Dimensions 

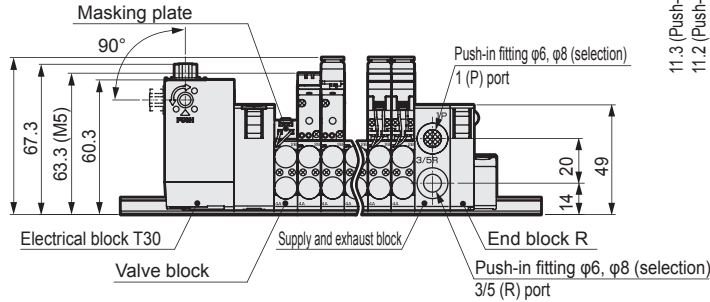
MN4GA1

● D-sub connector left side (T30)

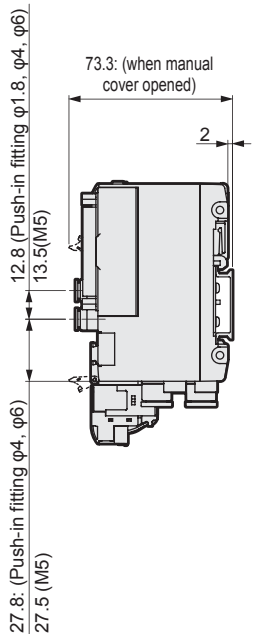
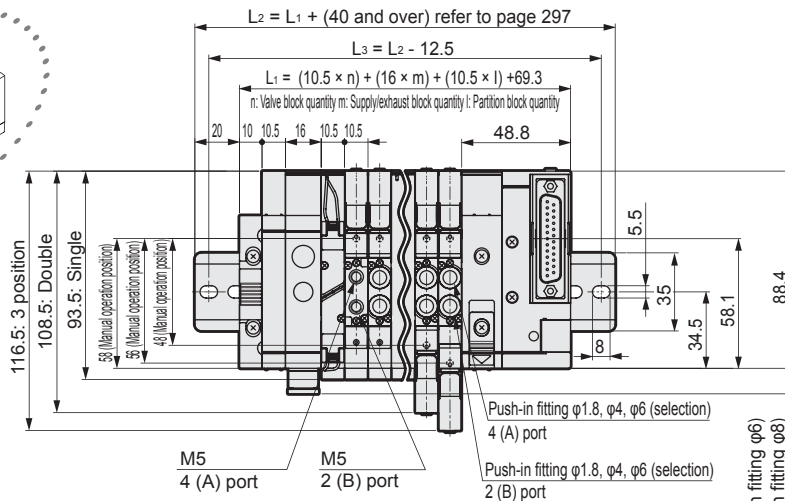
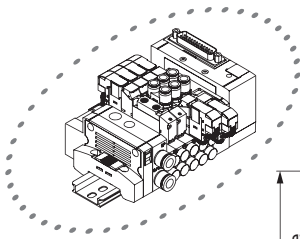
Note: For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.



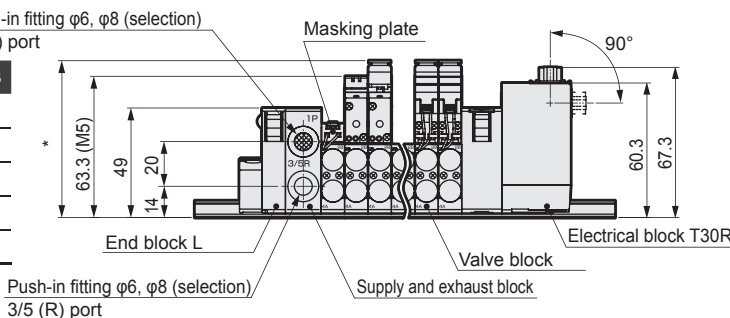
| Push-in fitting size | *Dimensions |
|----------------------|-------------|
| $\phi 1.8$ | 65.1 |
| $\phi 4$ | 69.1 |
| $\phi 6$ | 70.3 |
| $\phi 1/8$ inch | 69.6 |
| $\phi 5/32$ inch | 69.1 |



● D-sub connector right side (T30R)



| 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 |

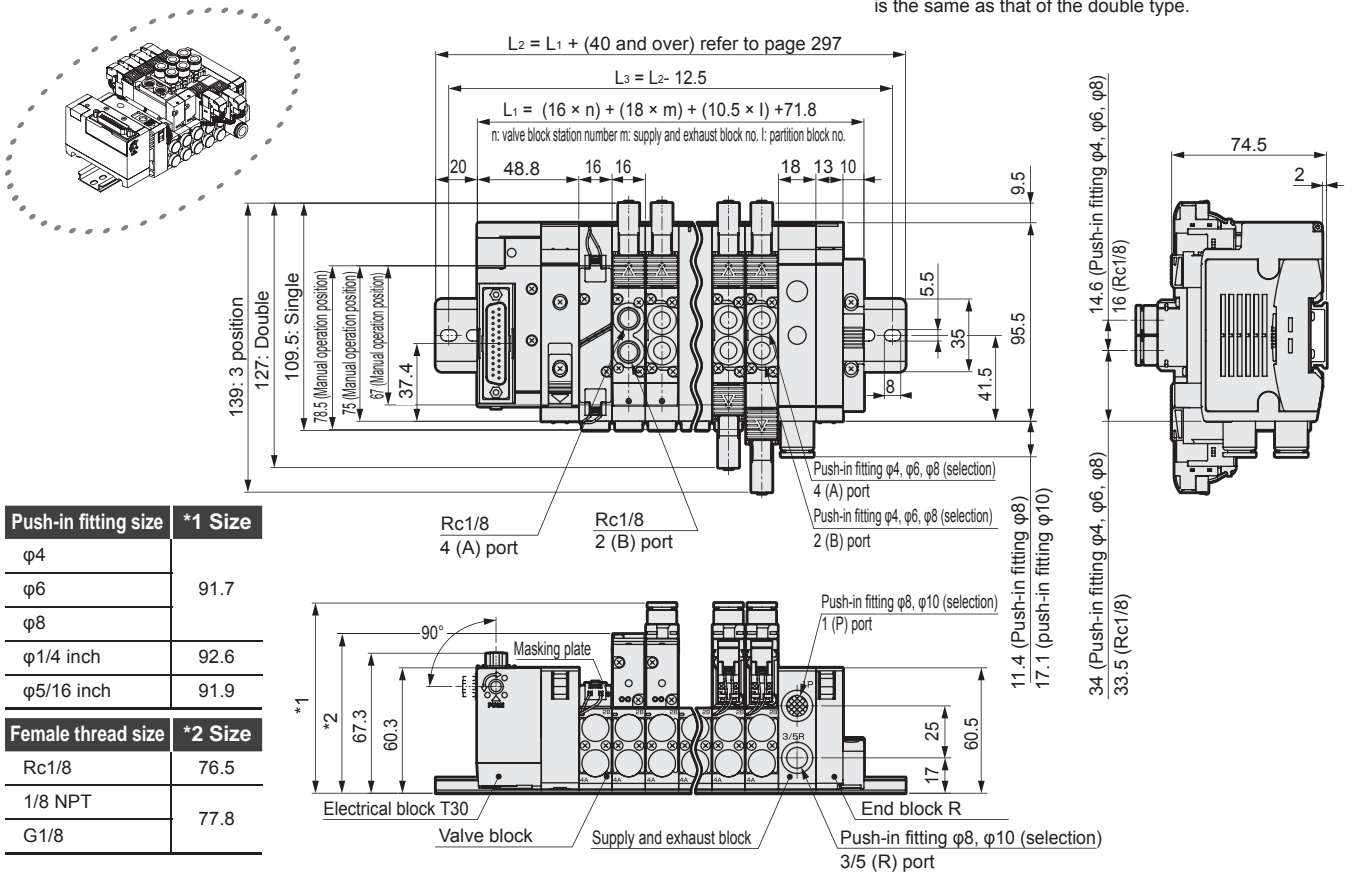


Dimensions

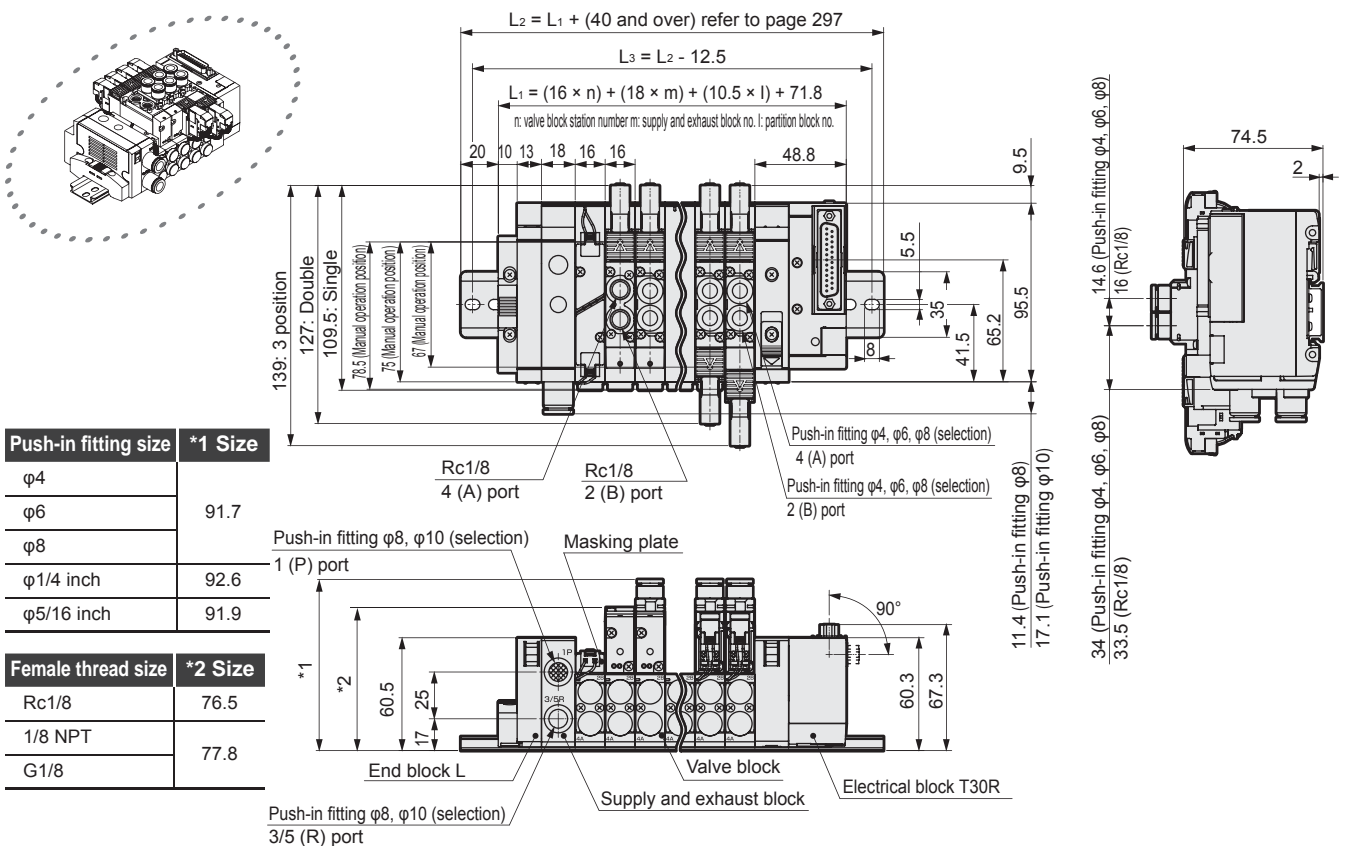
MN4GA2

● 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)



4GAB

M4GA/B

MN4GA/B

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

MN4GA1/2-T50 Series

Reduced wiring manifold; body piping

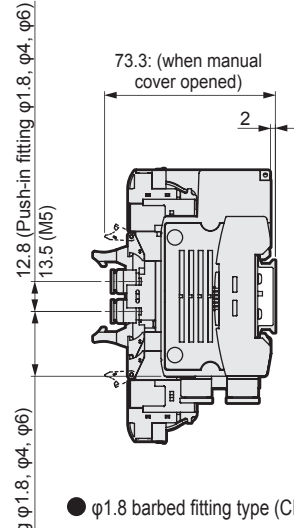
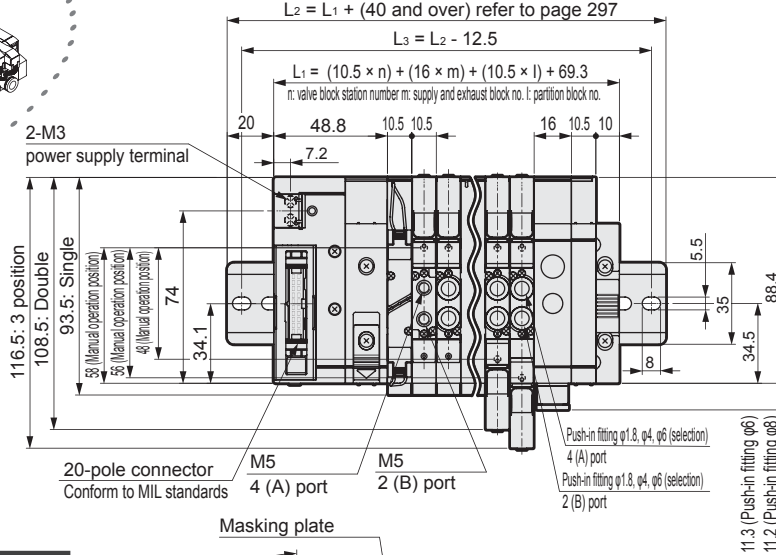
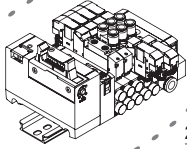
Dimensions

MN4GA1

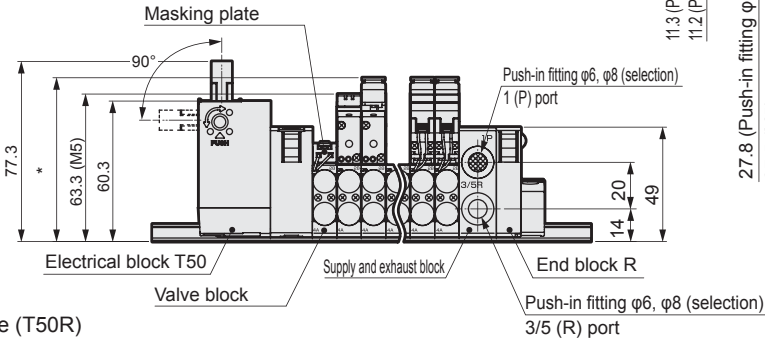
- Flat cable connector left side (T50)
With power supply terminal

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

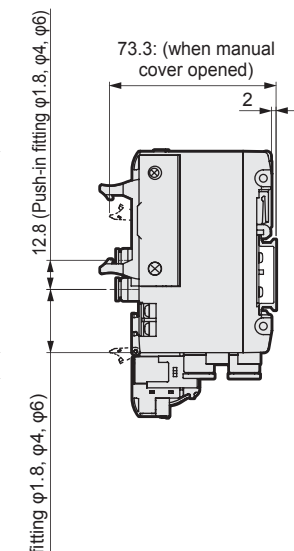
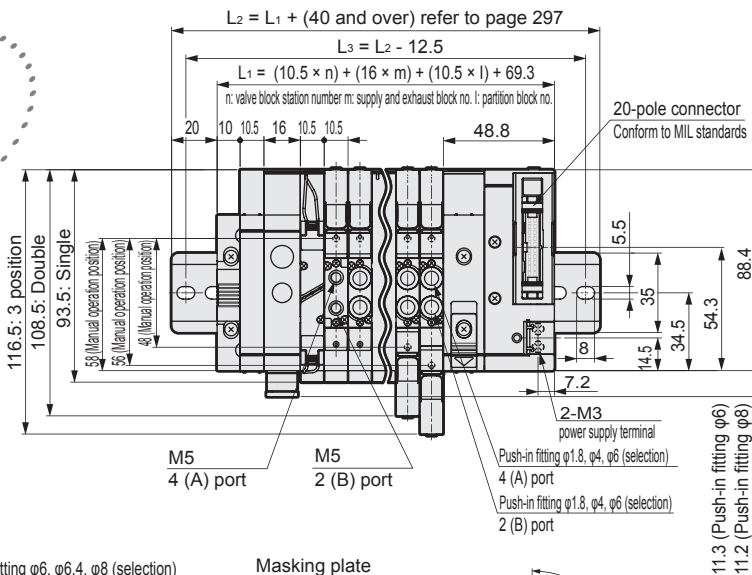
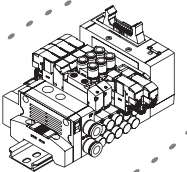
Note 2: For 2-position single 3 port valve, the port A or port B is a plug.
The dimension of dual 3 port valve integrated type is the same as that of the double type.



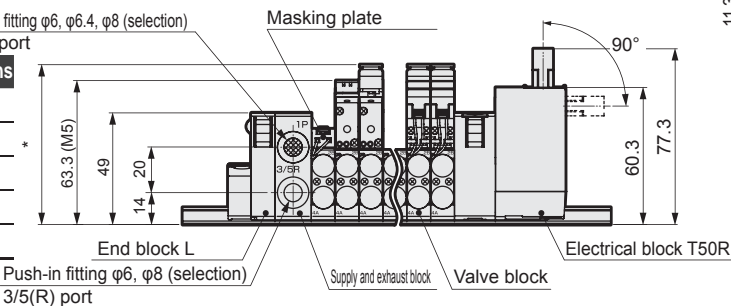
| Push-in fitting size | *Dimensions |
|----------------------|-------------|
| $\phi 1.8$ | 65.1 |
| $\phi 4$ | 69.1 |
| $\phi 6$ | 70.3 |
| $\phi 1/8$ inch | 69.6 |
| $\phi 5/32$ inch | 69.1 |



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



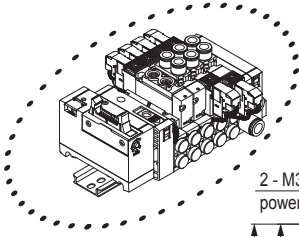
| Push-in fitting size | *Dimensions |
|----------------------|-------------|
| $\phi 1.8$ | 65.1 |
| $\phi 4$ | 69.1 |
| $\phi 6$ | 70.3 |
| $\phi 1/8$ inch | 69.6 |
| $\phi 5/32$ inch | 69.1 |



Dimensions

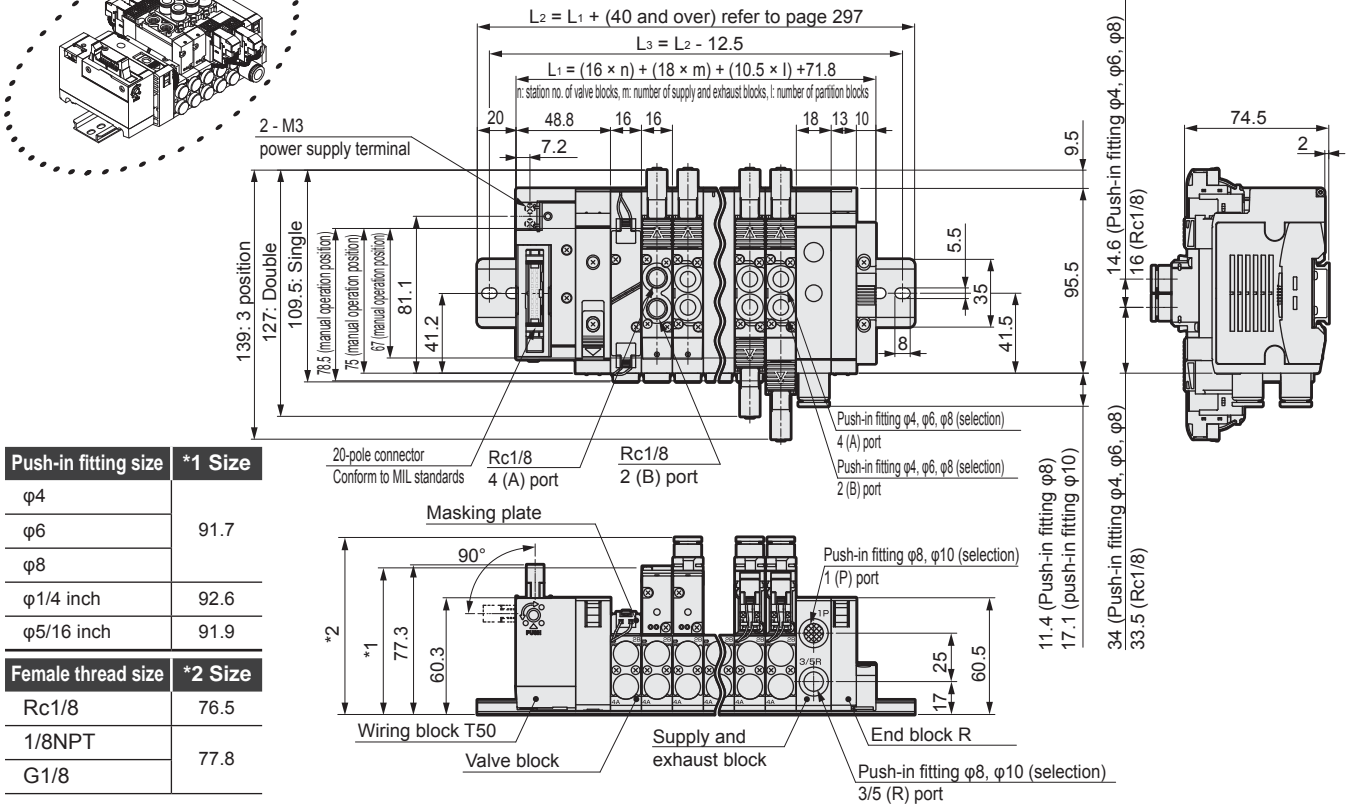
MN4GA2

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

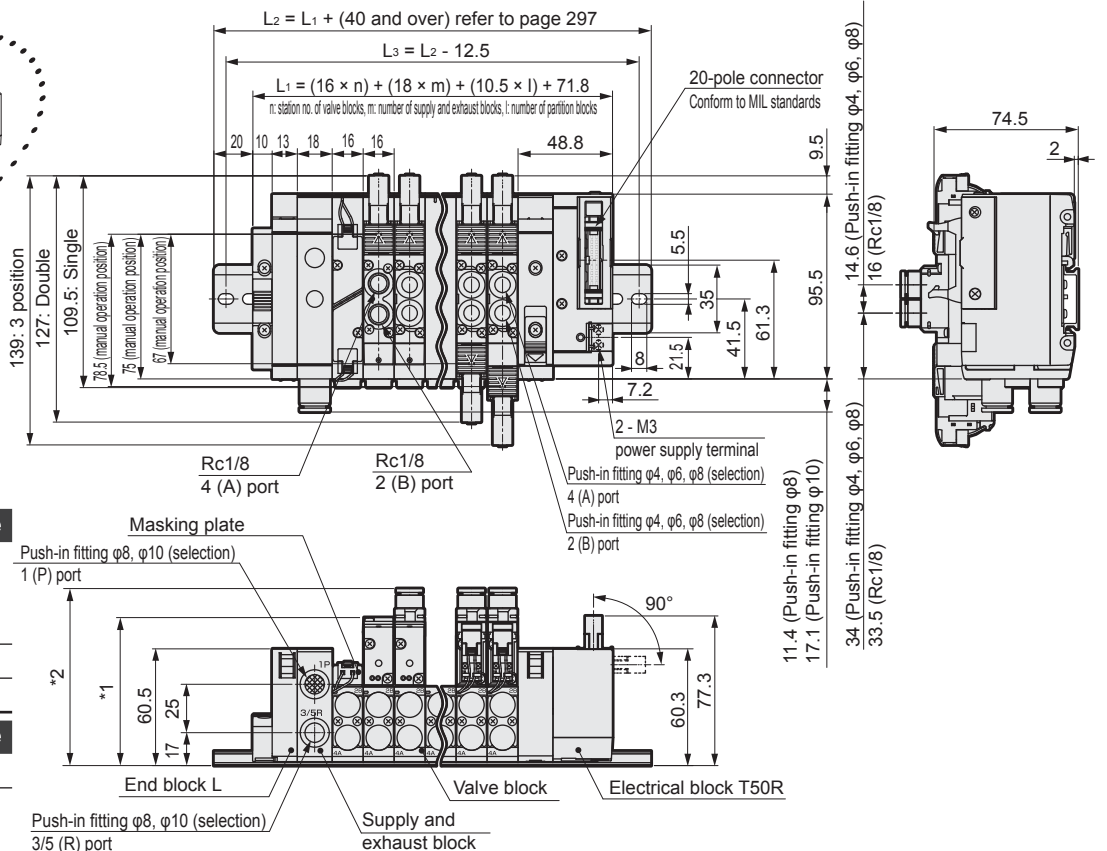
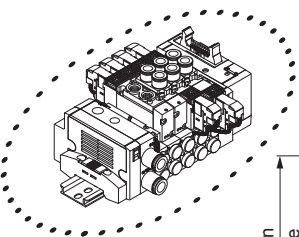


Note 1: T51, T52, and T53 flat cable connectors are also available. The dimensions are the same as T50.

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



| Push-in fitting size | *1 Size |
|----------------------|---------|
| φ4 | 91.7 |
| φ6 | |
| φ8 | |
| φ1/4 inch | 92.6 |
| φ5/16 inch | 91.9 |
| Female thread size | *2 Size |
| Rc1/8 | 76.5 |
| 1/8 NPT | 77.8 |
| G1/8 | |

4GAB

M4GA/B

MN4GA/B

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

MN4GA1/2-T6* Series

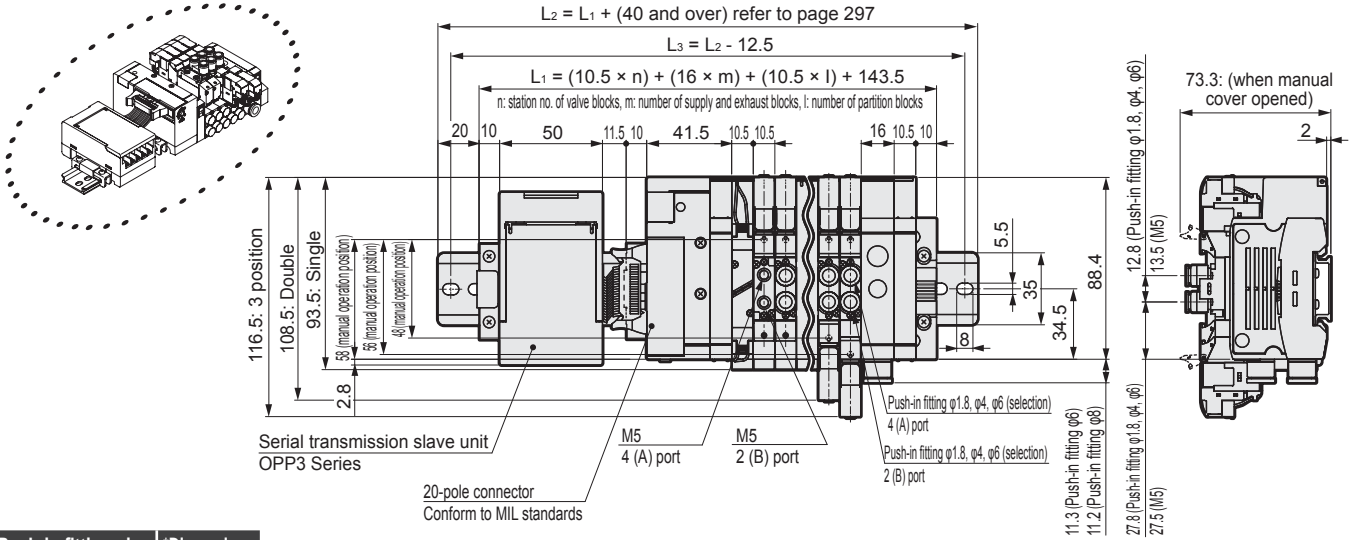
Reduced wiring manifold; body piping

Dimensions

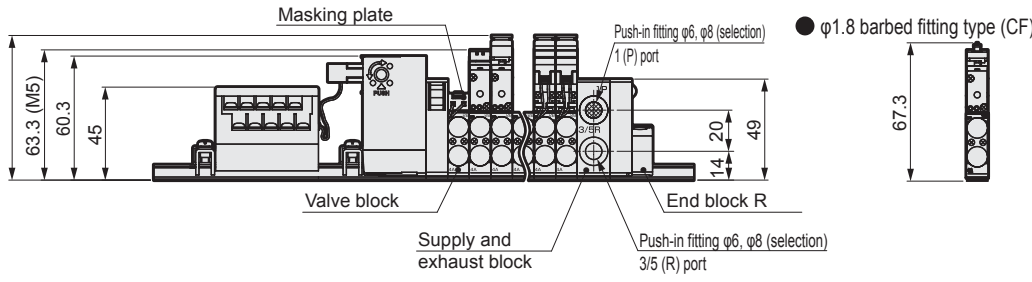
MN4GA1

● 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.

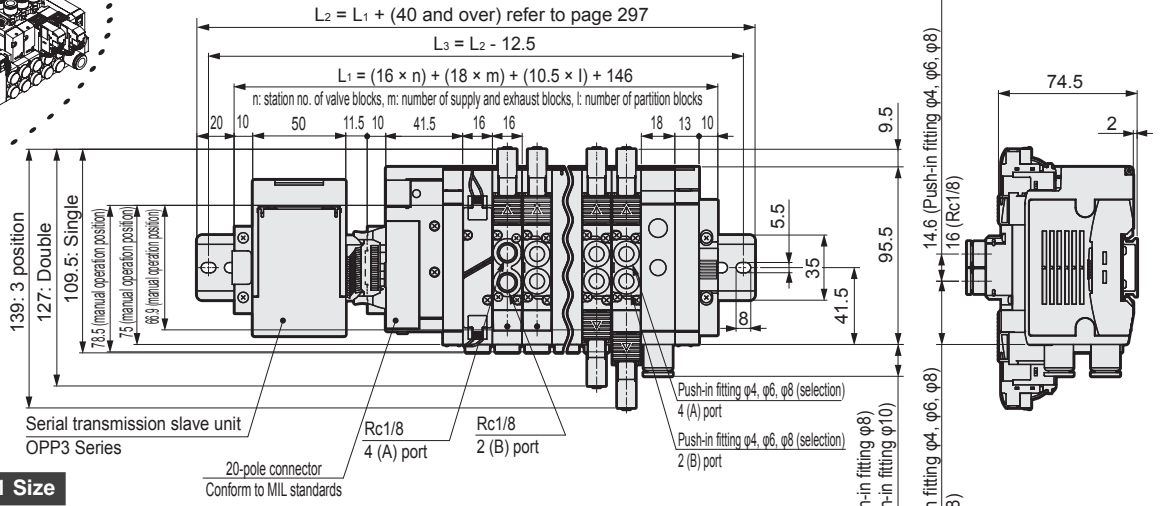
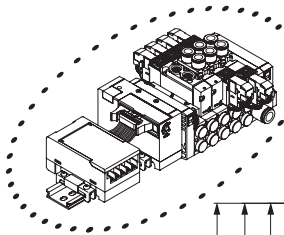


| Push-in fitting size | *Dimensions |
|----------------------|-------------|
| $\phi 1.8$ | 65.1 |
| $\phi 4$ | 69.1 |
| $\phi 6$ | 70.3 |
| $\phi 1/8$ inch | 69.6 |
| $\phi 5/32$ inch | 69.1 |

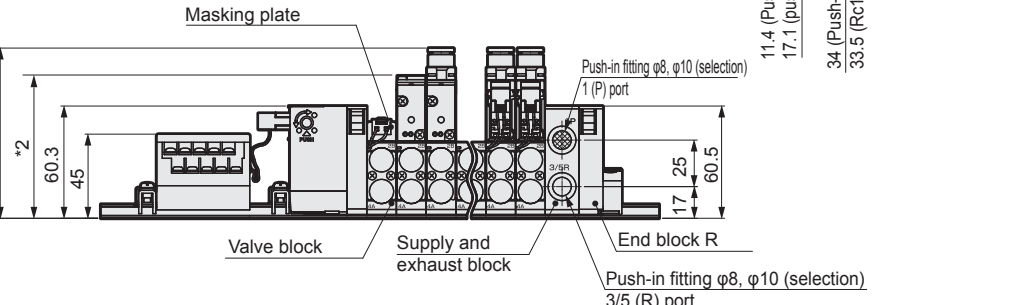


MN4GA2

● 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

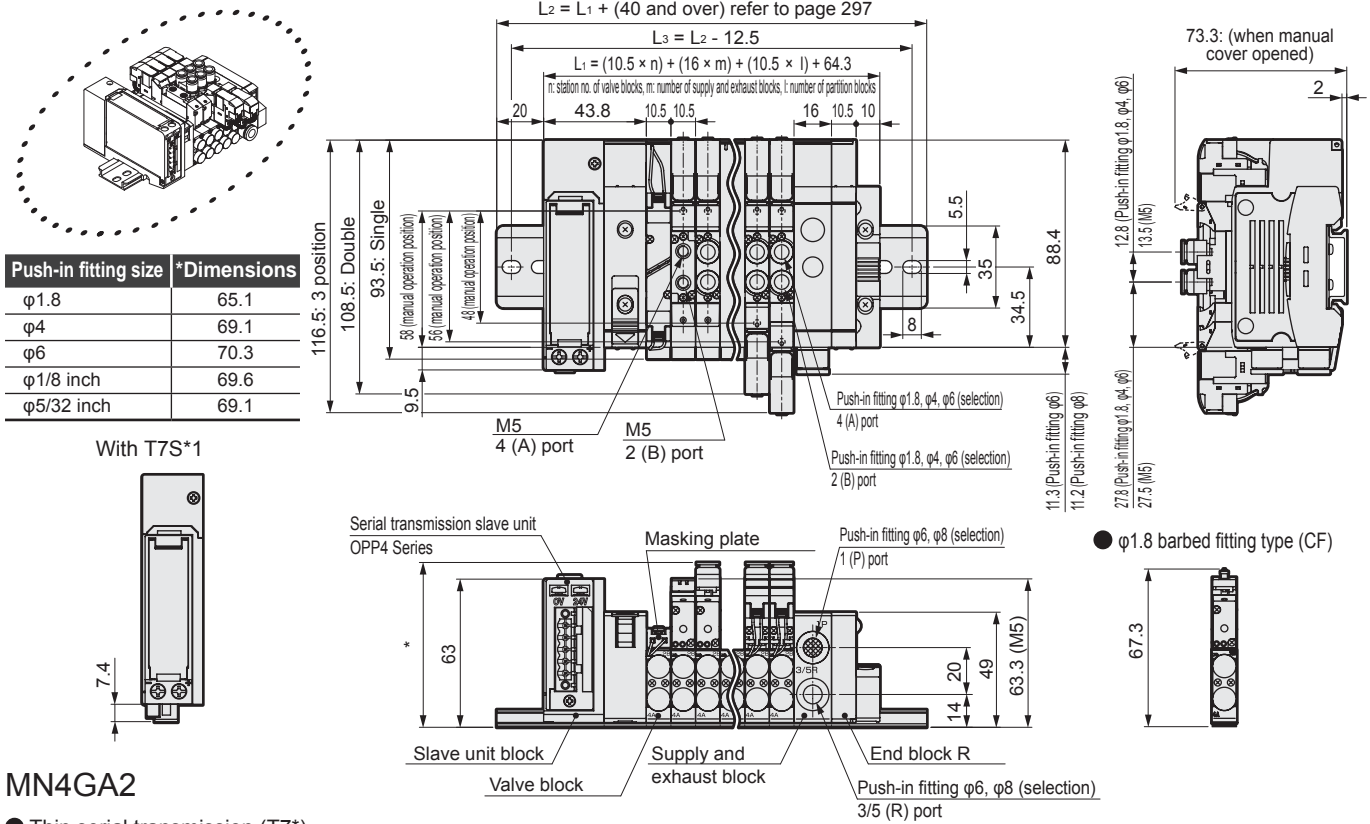
Reduced wiring manifold; body piping

Dimensions

MN4GA1

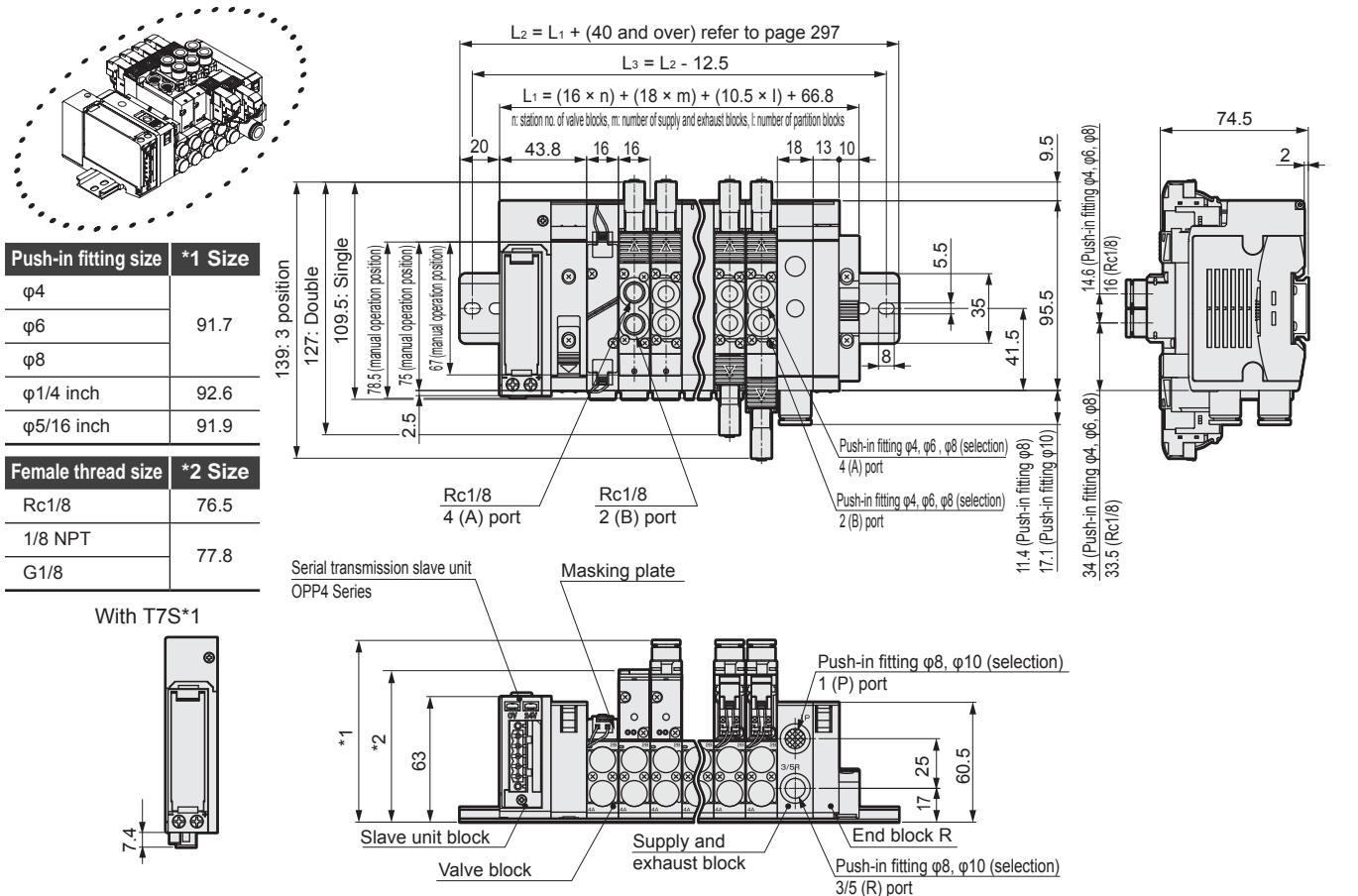
● Thin serial transmission (T7*)

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*)



| 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 | |

4GAB

M4GA/B

MN4GA/B

4GAB Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety precautions

Manifold Specifications

Dimensions

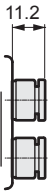
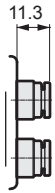
MN4G1 Supply/exhaust block

● Fitting straight

● $\phi 6$ (6)

● $\phi 6.4$ (6N)

● $\phi 8$ (8)



● Fitting straight, single plug

● $\phi 6$ (6X)

● $\phi 6.4$ (6NX)

● $\phi 8$ (8X)

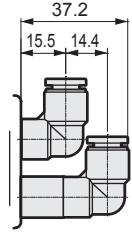
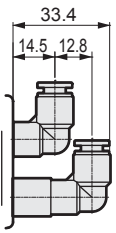
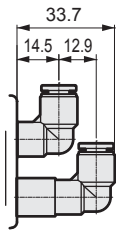


● Fitting L type (upward)

● $\phi 6$ (6L)

● $\phi 6.4$ (6LN)

● $\phi 8$ (8L)

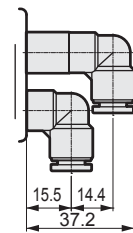
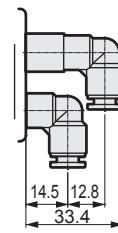
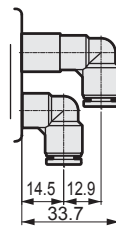


● Fitting L type (downward)

● $\phi 6$ (6D)

● $\phi 6.4$ (6DN)

● $\phi 8$ (8D)

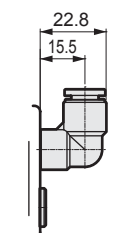
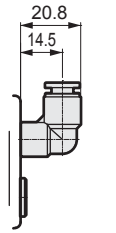
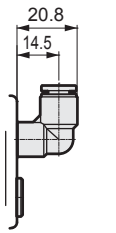


● Fitting L type (upward), single plug

● $\phi 6$ (6LX)

● $\phi 6.4$ (6LXN)

● $\phi 8$ (8LX)

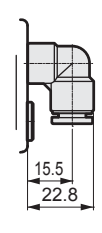
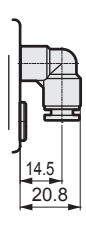
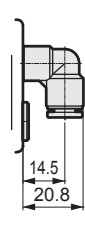


● Fitting L type (downward), single plug

● $\phi 6$ (6DX)

● $\phi 6.4$ (6DXN)

● $\phi 8$ (8DX)



MN4G2 Supply/exhaust block

● Fitting straight

● $\phi 8$ (8)

● $\phi 10$ (10)



● Fitting straight, single plug

● $\phi 8$ (8X)

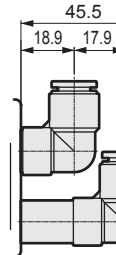
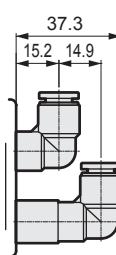
● $\phi 10$ (10X)



● Fitting L type (upward)

● $\phi 8$ (8L)

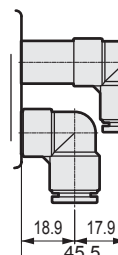
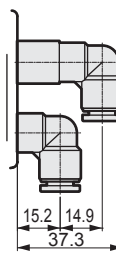
● $\phi 10$ (10L)



● Fitting L type (downward)

● $\phi 8$ (8D)

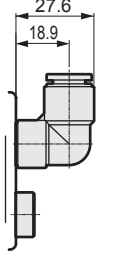
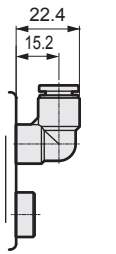
● $\phi 10$ (10D)



● Fitting L type (upward), single plug

● $\phi 8$ (8LX)

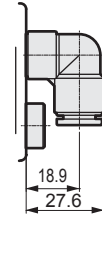
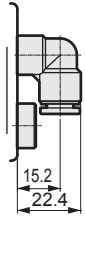
● $\phi 10$ (10LX)



● Fitting L type (downward), single plug

● $\phi 8$ (8DX)

● $\phi 10$ (10DX)



4GAB

M4GAB

MN4GAB

4GAB
Master valve

4GD/E

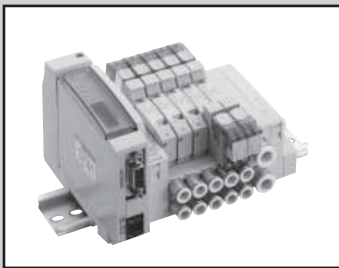
M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications



Reduced wiring block manifold
Base piping

MN4GB1/2-T* Series

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



4GAB

M4GAB

MN4GAB

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

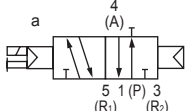
Technical data

Safety
precautions

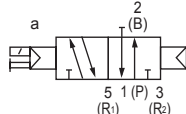
Manifold
Specifications

JIS symbol

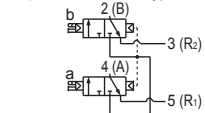
- 3 port valve
2-position single N.C. type



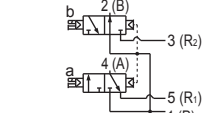
- 2-position single N.O. type



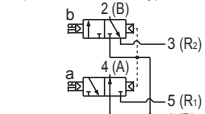
- Dual 3 port valve integrated type
(A side valve: N.C. type, B side valve: N.C. type)



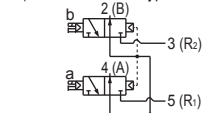
- (A side valve: N.C. type, B side valve: N.O. type)



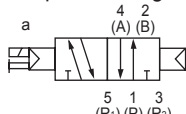
- (A side valve: N.O. type, B side valve: N.C. type)



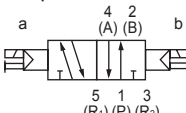
- (A side valve: N.O. type, B side valve: N.O. type)



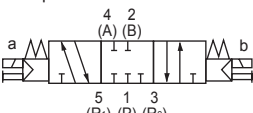
- 5 port valve
2-position single



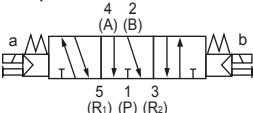
- 2-position double



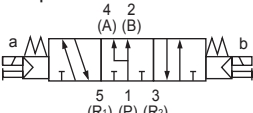
- 3-position
all ports closed



- 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 | | | |
|---|---|----------|-----------|
| Rated voltage | T1*, T30*, T5* | T6*, T8* | |
| | 24 VDC | 12 VDC | 24 VDC |
| Voltage fluctuation range (Note 4) | ±10% | | +10%, -5% |
| | Holding current | Standard | 0.017 |
| 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 | A/B port | 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 | A/B port | 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 | A/B port | Push-in fitting $\phi 4, \phi 6, \phi 8$ | | | | | | | | |
| | | P/R port | Push-in fitting $\phi 8, \phi 10$ | | | | | | | | |
| | Inch fitting | 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 | | | | | | | | |

- 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 | 0.32 | 1.0 | 0.14 |
| | | ABR connection | 0.96 | 0.29 | 1.2 (0.71) | 0.11 (0.30) |
| 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) |
| 3-position | 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 | | UNIWIRESYSTEM | | UNIWIRESYSTEM H | | S-LINK | |
| Power supply voltage | Unit side | 24 VDC ±10% | | | 24 VDC +10%, -5% | | | | |
| | Valve side | 24 VDC +10%, -5% | | | Power supply terminal common | | | | |
| Current consumption | Unit side | 100mA or less (when all output points are ON) | | | 100mA or less (when all output points are ON) | | | | |
| | Valve side | 15mA or less (when all output points are OFF) | | | Load current is not included | | | | |
| 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% | | | | |
| | 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) | | 110 mA or less (when all output points are ON) | | | 40mA or less (when all output points are ON) | |
| | Valve side | 15 mA or less (when all output points are OFF) | Load current is not included | | Load current is not included | | | Load current is not included | |
| | 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*) (H) - (3)

● Discrete 3 port valve block with solenoid valve
N3GB1 (1) 0 R - (C6) - (A2N*) (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)

A Model no.
B Valve Position
C Port size
 Note 1
 Note 2
 Note 3
D Reduced wiring
E Terminal and connector pin array
F Option
G Station no.
H Voltage

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

| Symbol | Descriptions | MN3GB1 | MN3GB2 | MN4GB1 | MN4GB2 | (N) 3GB1 | (N) 3GB2 | (N) 4GB1 | (N) 4GB2 |
|-------------------------|--|--------|--------|--------|--------|----------|----------|----------|----------|
| 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 | | | | | | | | |
| 67 | | | | | | | | | |
| 76 | | | | | | | | | |
| 77 | | | | | | | | | |
| 8 | Mix manifold (In case of multiple Valve Positions) | | | | | | | | |

| C Port size (A/B port) | | | | | | | | | |
|-------------------------------|--|--------|--------|--------|--------|----------|----------|----------|----------|
| Type | Milli fitting/Rc thread | MN3GB1 | MN3GB2 | MN4GB1 | MN4GB2 | (N) 3GB1 | (N) 3GB2 | (N) 4GB1 | (N) 4GB2 |
| 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-**) 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 7 | | | | | | | | |

| Single plug specifications | | A Port | B Port | MN3GB1 | MN3GB2 | MN4GB1 | MN4GB2 | (N) 3GB1 | (N) 3GB2 | (N) 4GB1 | (N) 4GB2 |
|----------------------------|--|--------|--------|--------|--------|--------|--------|----------|----------|----------|----------|
| 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 | φ1.8 barbed fitting (applicable tube UP-9102-*) | Plug | | | | | | | | | |
| 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-*) | Plug | | | | | | | | | |
| CL4NO | L type φ4 push-in fitting (upward) | | | | | | | | | | |
| CL6NO | L type φ6 push-in fitting (upward) | | | | | | | | | | |
| CL8NO | L type φ8 push-in fitting (upward) | | | | | | | | | | |
| 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 | L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-*) | Plug | | | | | | | | | |
| 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 | MN3GB1 | MN3GB2 | MN4GB1 | MN4GB2 | (N) 3GB1 | (N) 3GB2 | (N) 4GB1 | (N) 4GB2 |
|------|---|--------|--------|--------|--------|----------|----------|----------|----------|
| 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 | MN3GB1 | MN3GB2 | MN4GB1 | MN4GB2 | (N) 3GB1 | (N) 3GB2 | (N) 4GB1 | (N) 4GB2 |
|----------------------------|--|--------|--------|--------|--------|--------|--------|----------|----------|----------|----------|
| 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 | φ1/8 inch push-in fitting | Plug | | | | | | | | | |
| 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) | Plug | | | | | | | | | |
| CL4NCN | L type φ5/32 inch push-in fitting (upward) | | | | | | | | | | |
| CL6NCN | L type φ1/4 inch push-in fitting (upward) | | | | | | | | | | |
| CL8NCN | L type φ5/16 inch push-in fitting (upward) | | | | | | | | | | |
| CL3NON | L type φ1/8 inch push-in fitting (upward) | Plug | | | | | | | | | |
| 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.

⚠ 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.

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

MN4GA1/2-T* Series

Reduced wiring block manifold; base piping

(Port size, Wiring method list)

| Sym- bol | Descriptions | A Model No. | | | | | | | | |
|--|---|--|-----------------|--------|--------|---|----------|----------|----------|---|
| | | Manifold | | | | Discrete valve block with solenoid valve/discrete solenoid valve | | | | |
| | | Dual 3 port valve integrated type | 5 port valve | | | (N) 3GB1 | | (N) 4GB1 | | |
| | | 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 SYSTEM | 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 | CC-Link (Thin type) | NPN 32 points | ● | ● | ● | ● | ● | ● | ● | ● |
| T8GP1 | | 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 (F) 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 17 Combination with the external pilot (K) is not available.
- Note 18 L type push-in fitting are available only for the 2-position single.

4GAB

M4GA/B

MN4GA/B

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

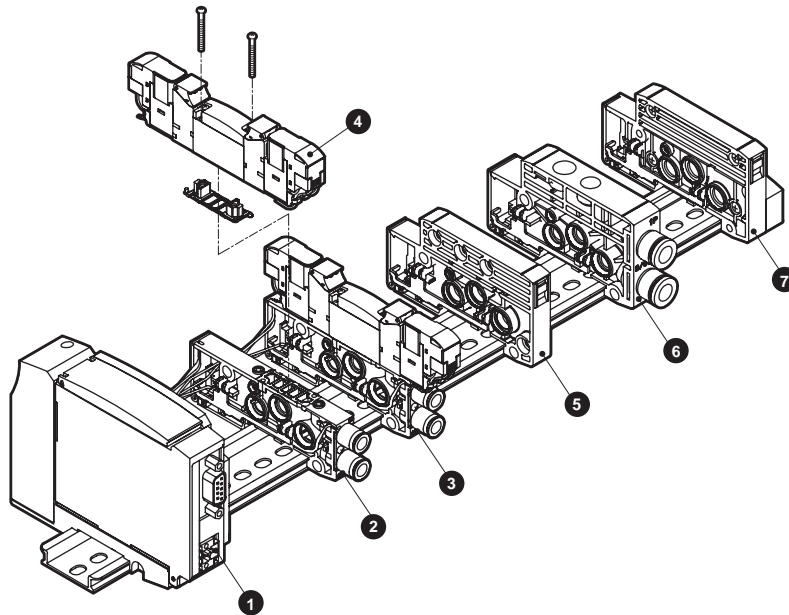
Safety
precautions

Manifold
Specifications

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) *3: Voltage (1, 3, 4) |
| | φ4 elbow type | 4G1R-JOINT-CL4, CLL4 | Manifold | Expansion socket assembly (Details on page 401) | For a side solenoid N4GR-SOCKET-ASSY- (Selection no.) |
| | φ6 elbow type | 4G1R-JOINT-CL6, CLL6 | | | For b side solenoid N4GR-RELAY-SOCKET-(Selection no.) |
| | φ1/8 inch straight type | 4G1R-JOINT-C3N | | | |
| | φ5/32 inch straight type | 4G1R-JOINT-C4N | | | |
| | φ1/8 inch elbow type Note 1 | 4G1R-JOINT-CL3N | | | |
| | φ5/32 inch elbow type Note 1 | 4G1R-JOINT-CL4N | | | |
| | 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

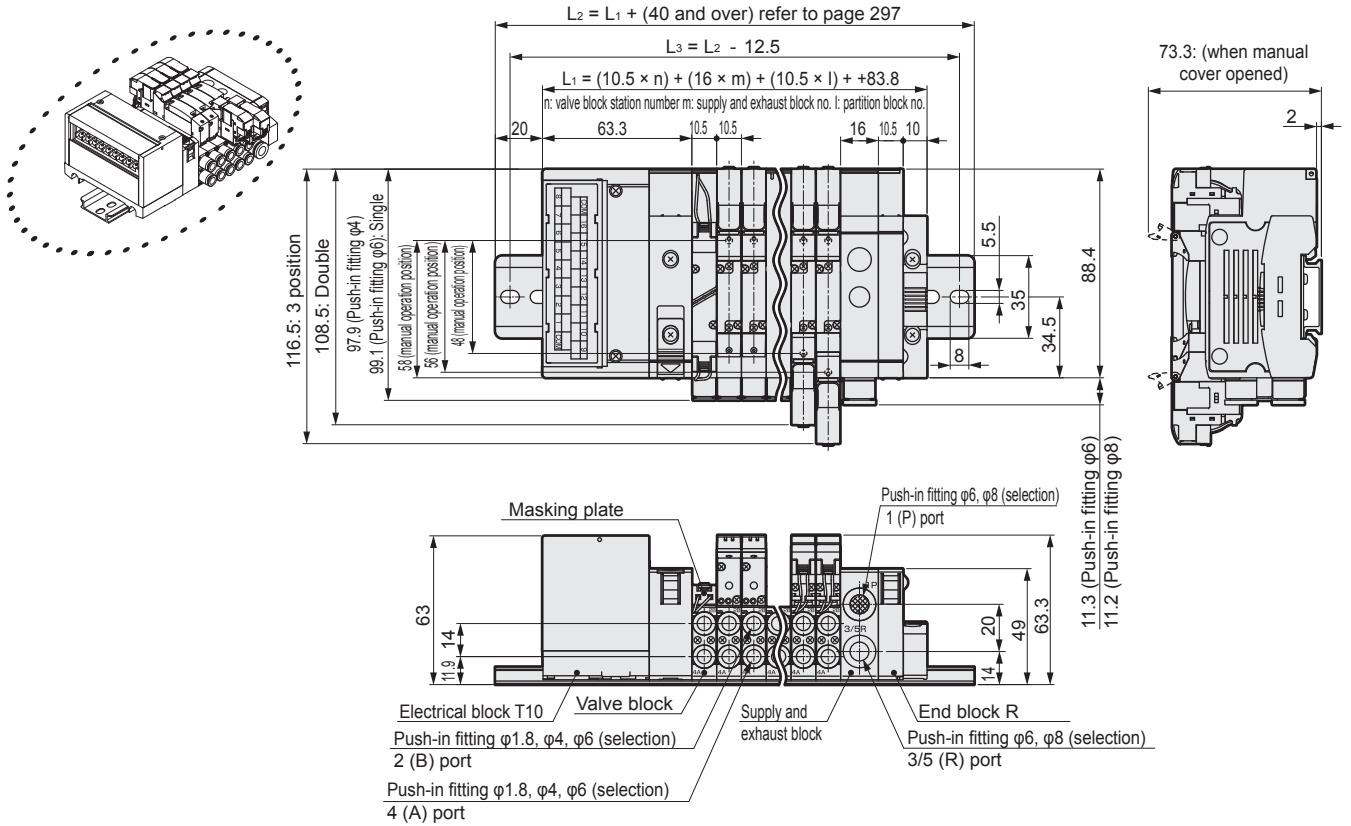


MN4GB1

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

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

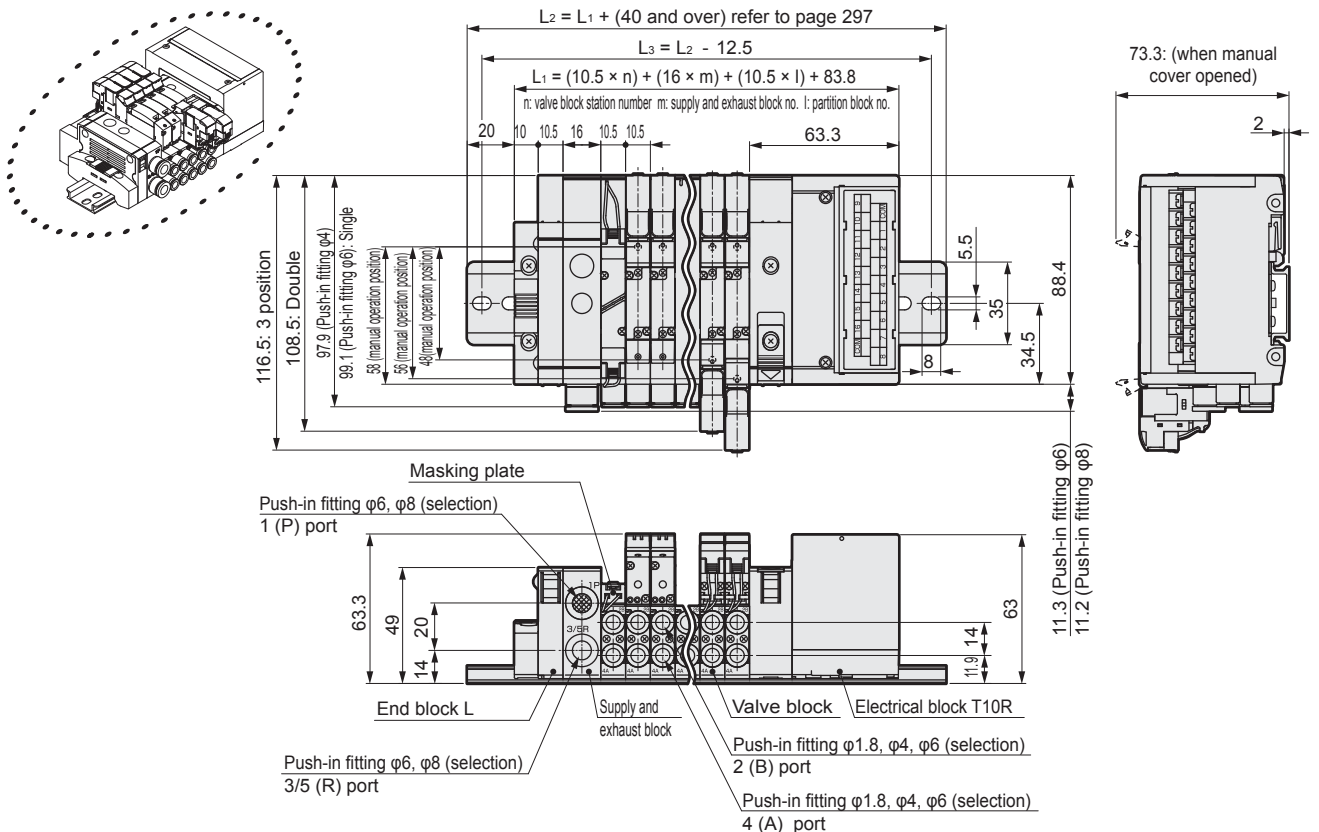
Note: The dimension of dual 3 port valve integrated type is the same as that of the double type.



● 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.



4GAB

M4GA/B

MN4GA/B

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

MN4GB2-T10 Series

Reduced wiring block manifold; base piping

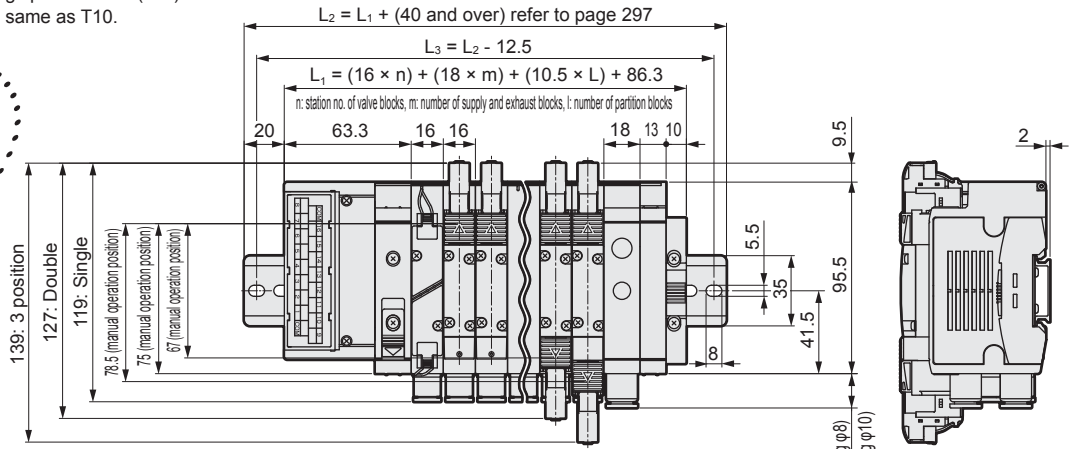
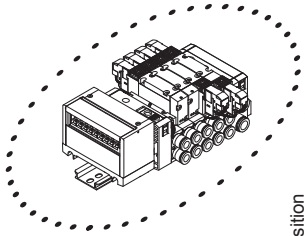
Dimensions



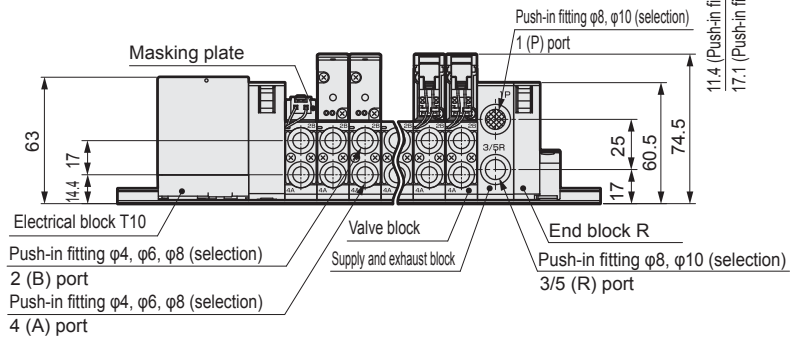
MN4GB2

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

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



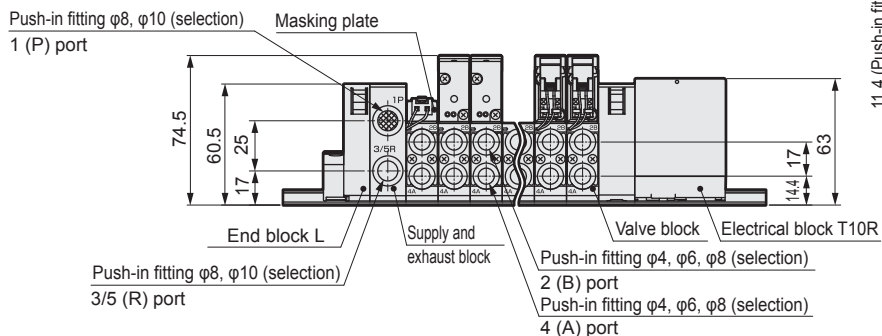
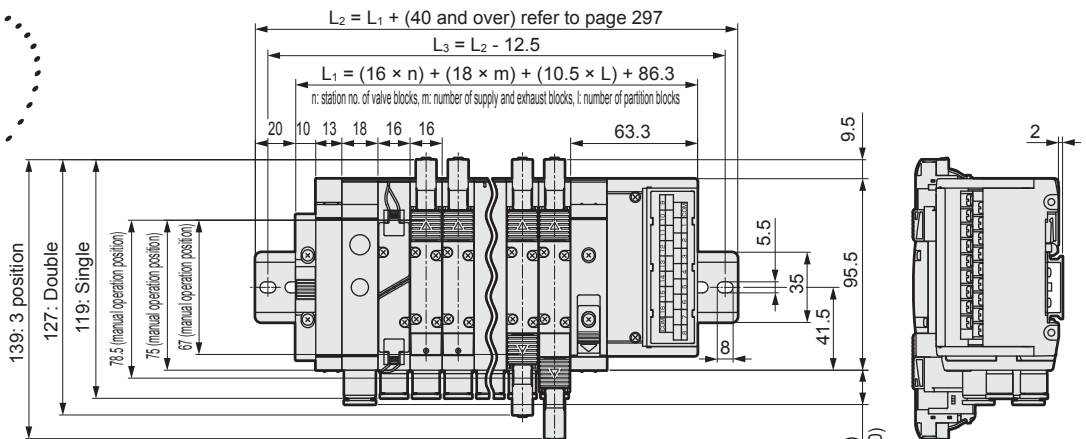
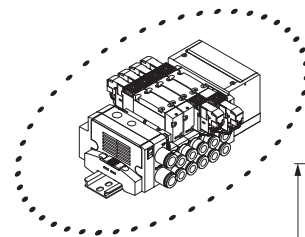
Note: The dimension of dual 3 port valve integrated type is the same as that of the double type.



- 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.



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

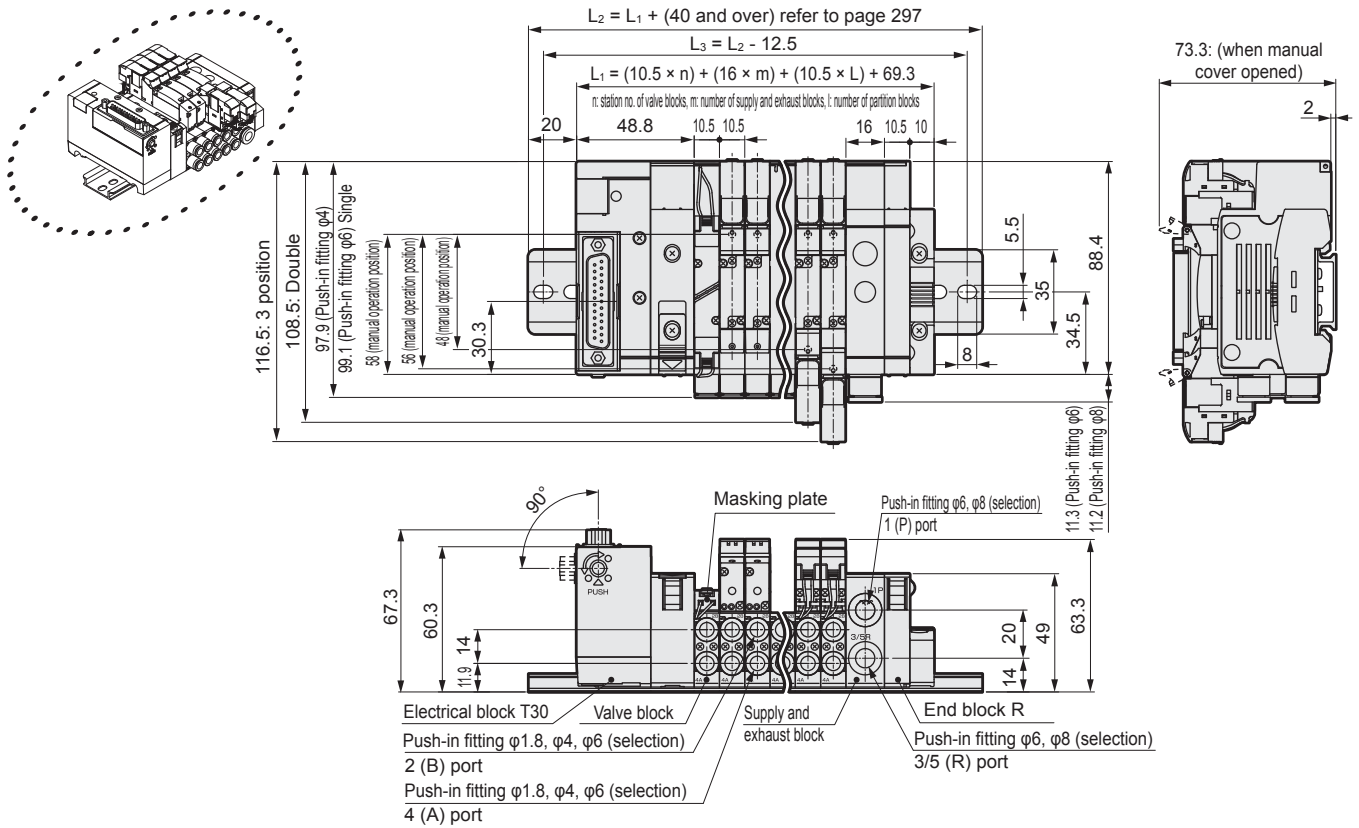
Dimensions



MN4GB1

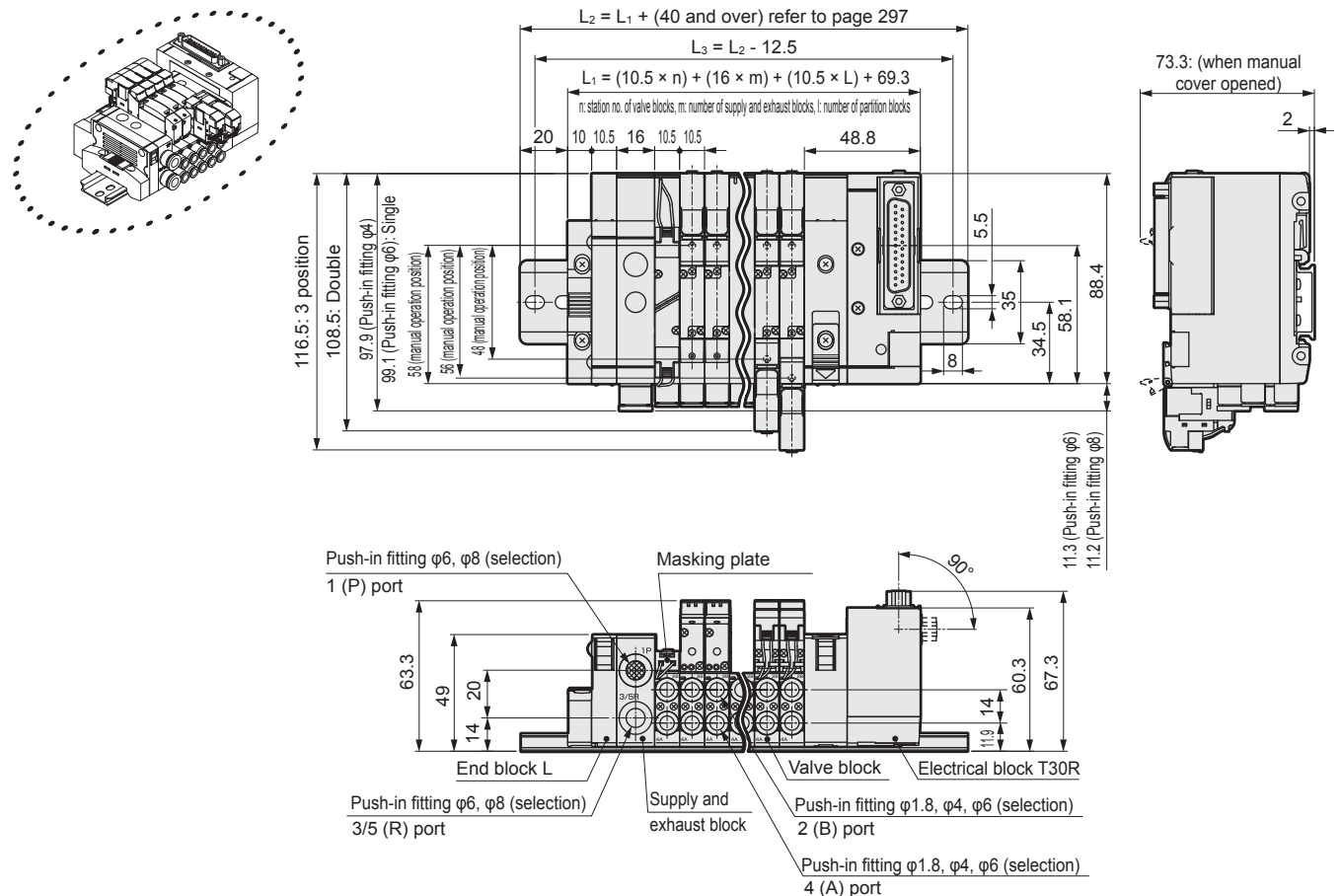
● D-sub connector left side (T30)

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.



4GAB

M4GAB

MN4GAB

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

MN4GB2-T30 Series

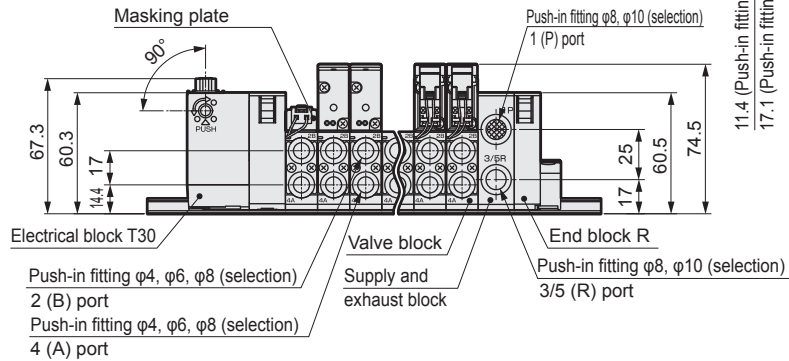
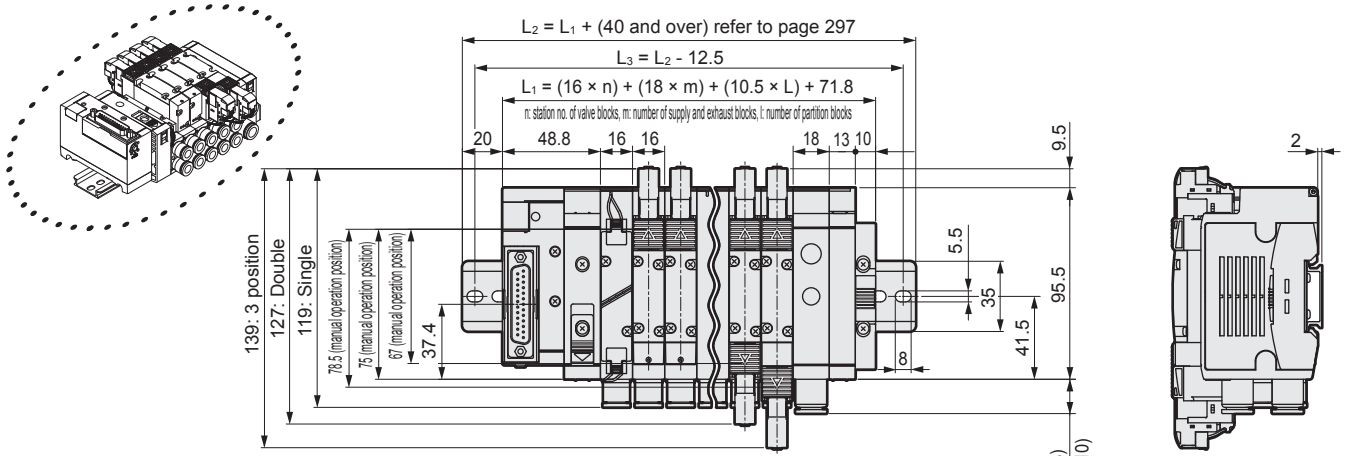
Reduced wiring block manifold; base piping

Dimensions 

MN4GB2

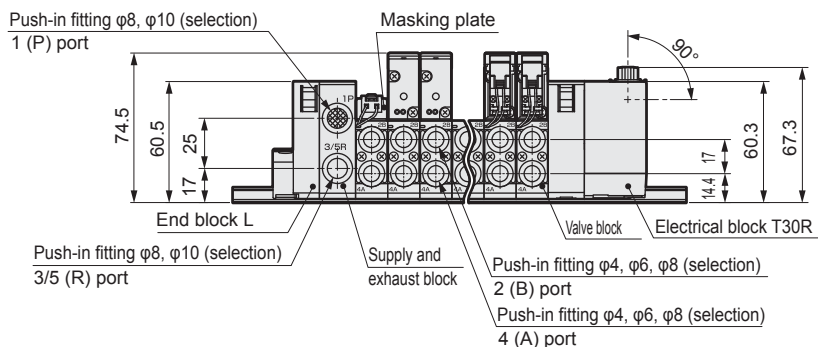
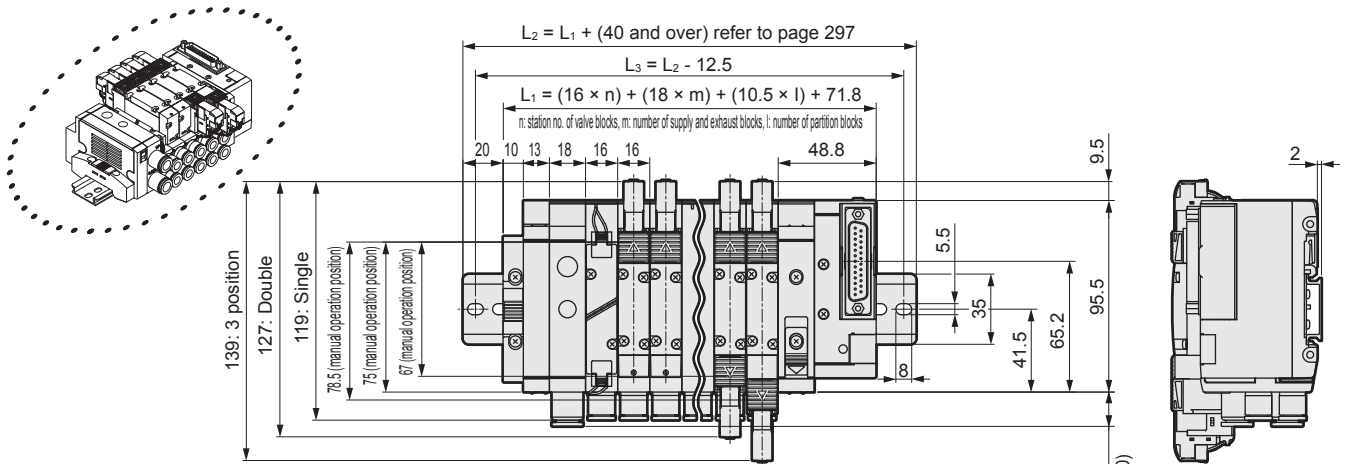
● D-sub connector left side (T30)

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.

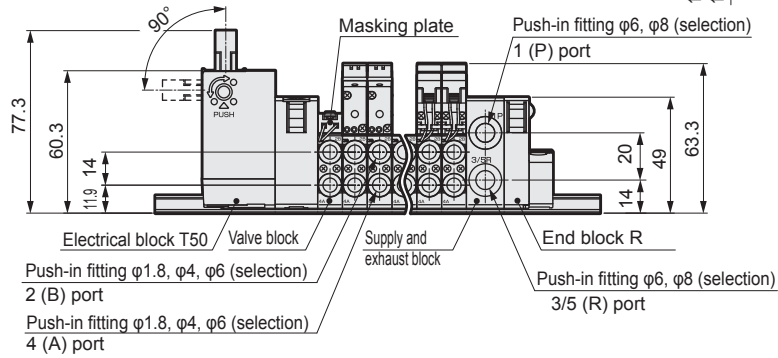
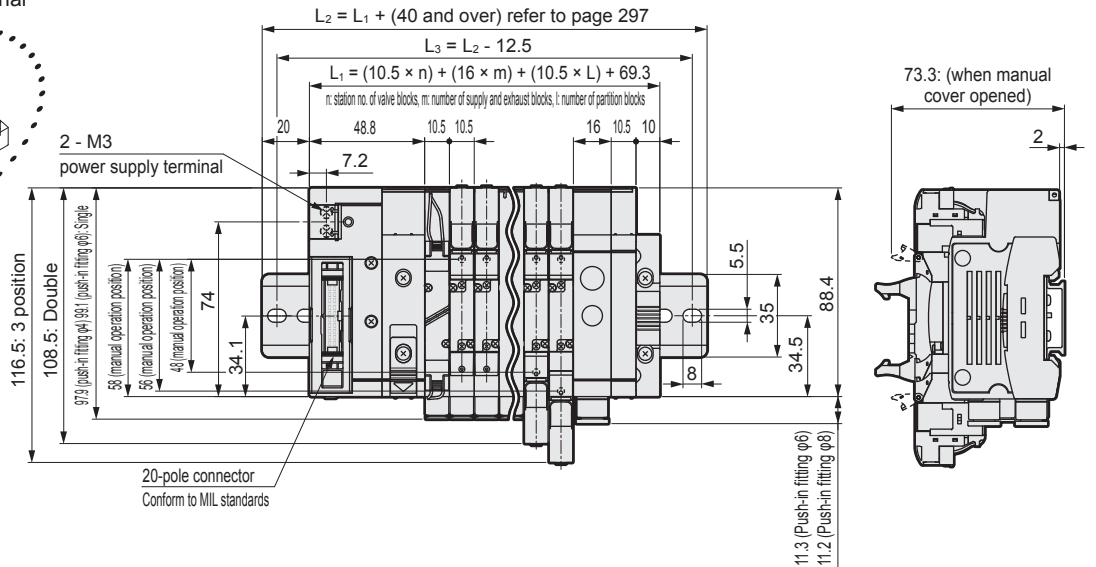
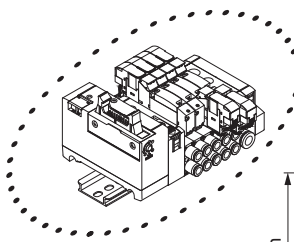


Dimensions

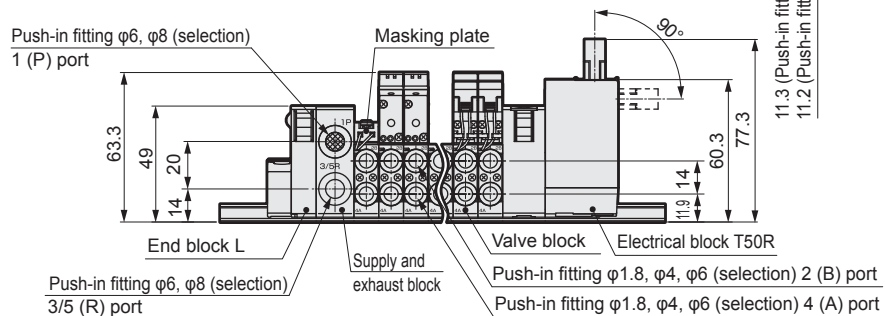
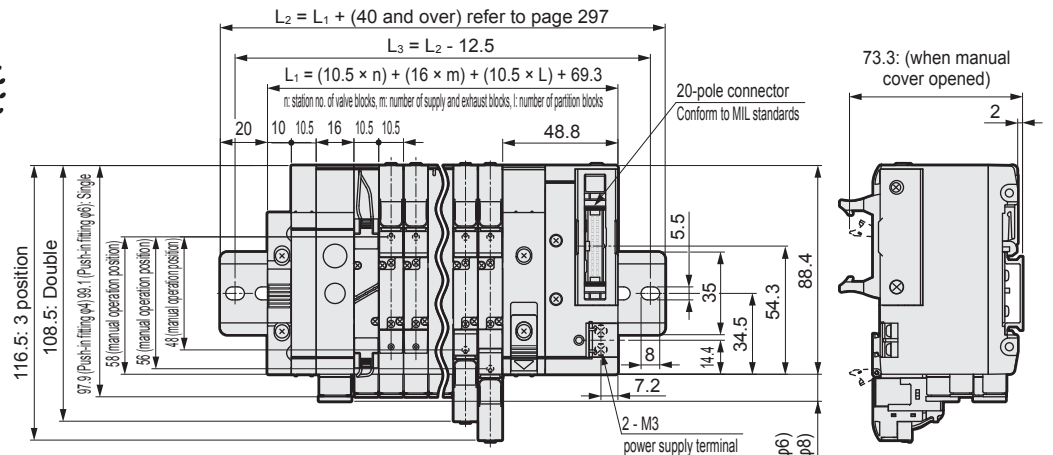
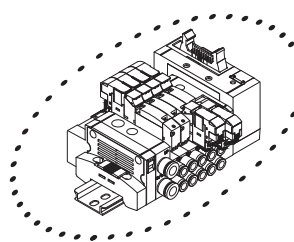


MN4GB1

- 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.

4GAB

M4GAB

MN4GAB

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

MN4GB2-T50 Series

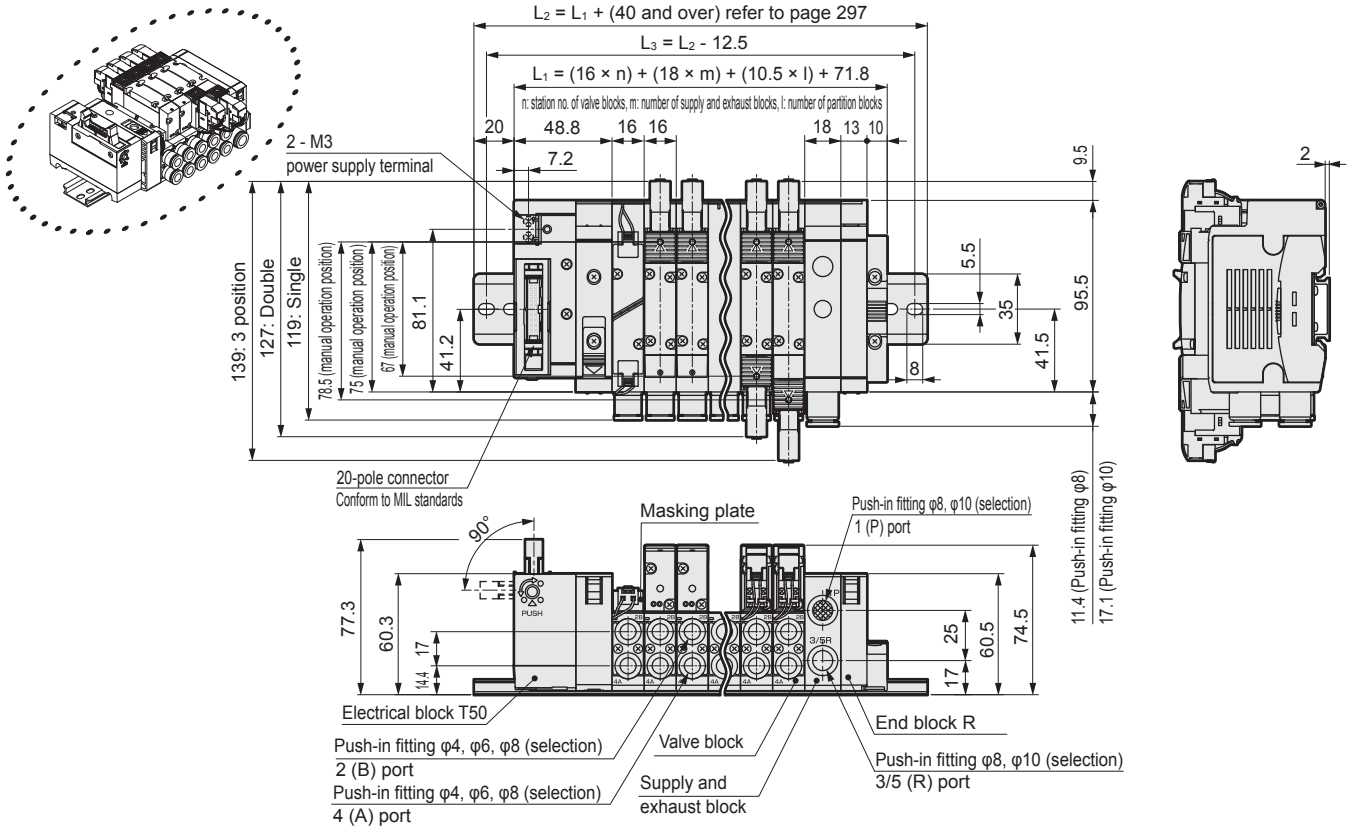
Reduced wiring block manifold; base piping

Dimensions

MN4GB2

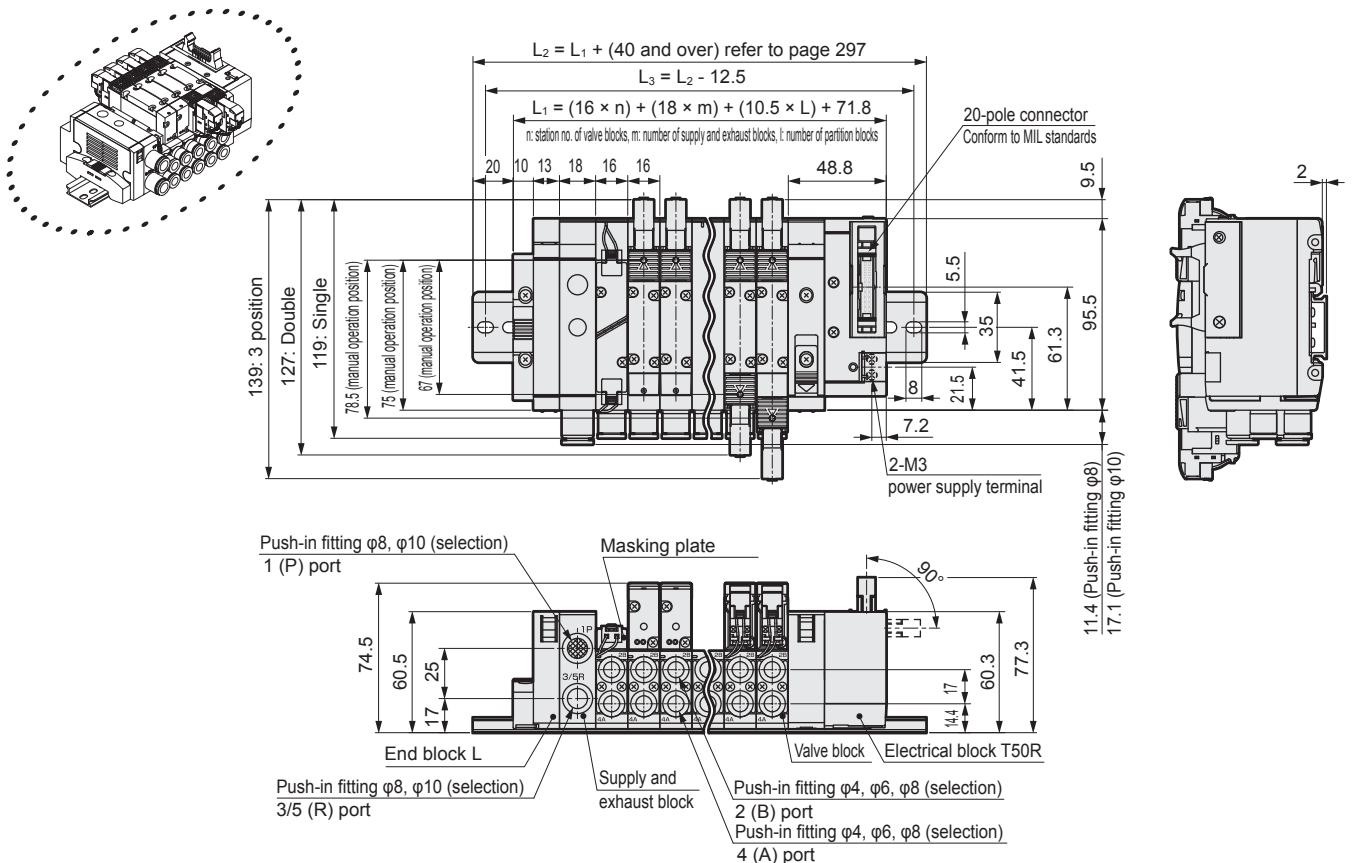
- Flat cable connector left side
With power supply terminal (T50)

- 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.



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

MN4GB1/2-T6* Series

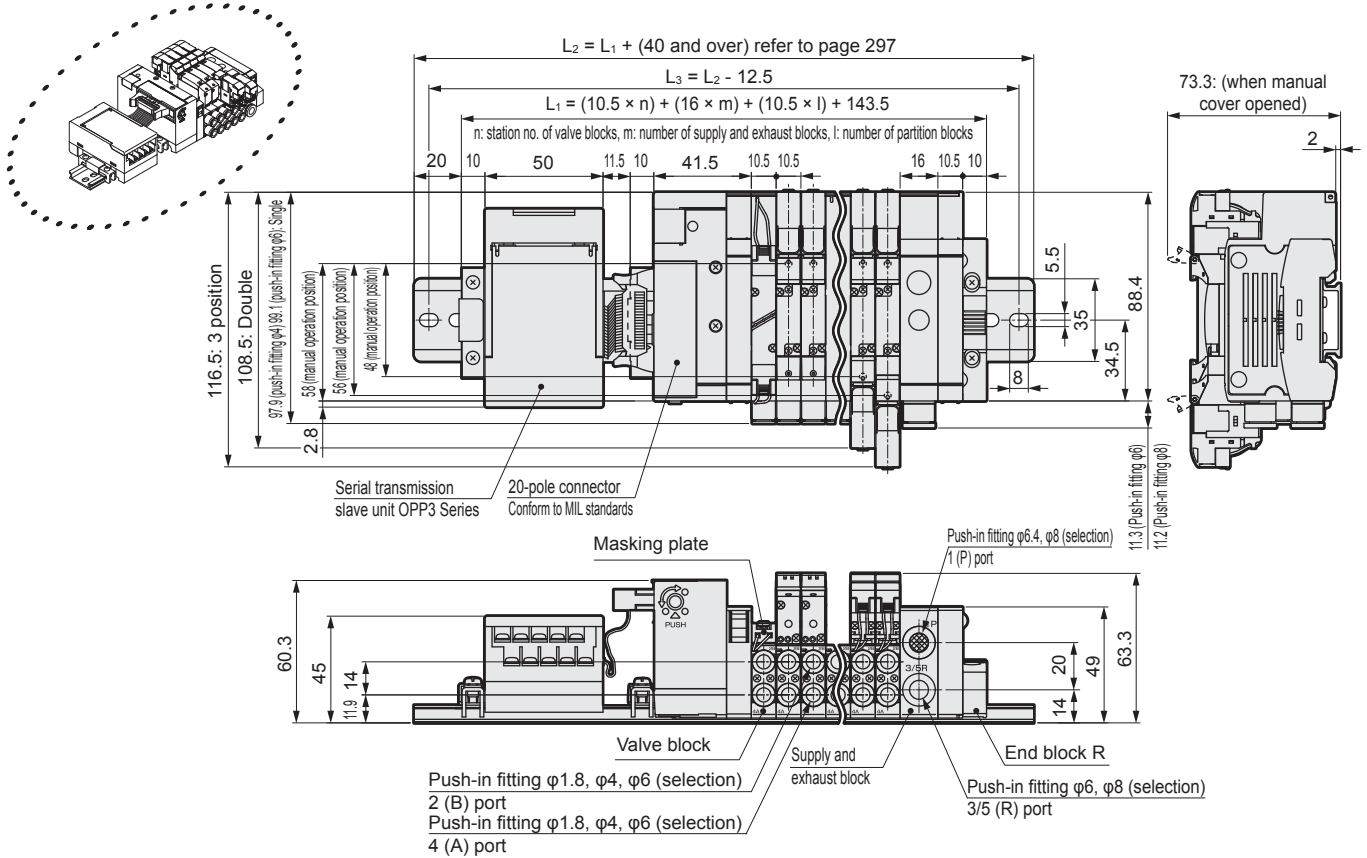
Reduced wiring block manifold; base piping

Dimensions

MN4GB1

- Serial transmission (T6*)

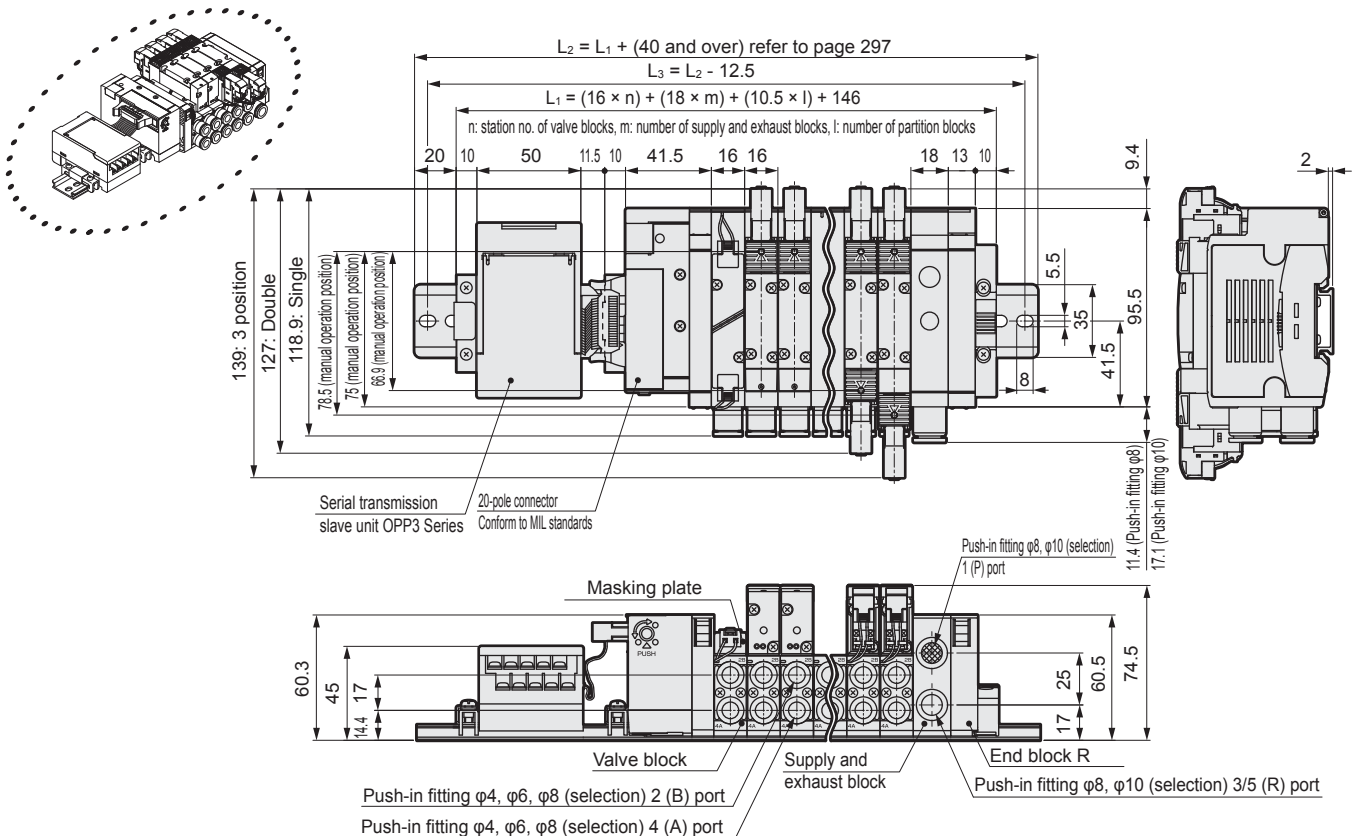
Note: The dimension of dual 3 port valve integrated type is the same as that of the double type.



MN4GB2

- Serial transmission (T6*)

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



4GAB

M4GAB

MN4GAB

4GAB Master valve

4GD/E

M4GD/E

MN4GD/E


Technical data

Safety precautions

Manifold Specifications

MN4GB1/2-T7* Series

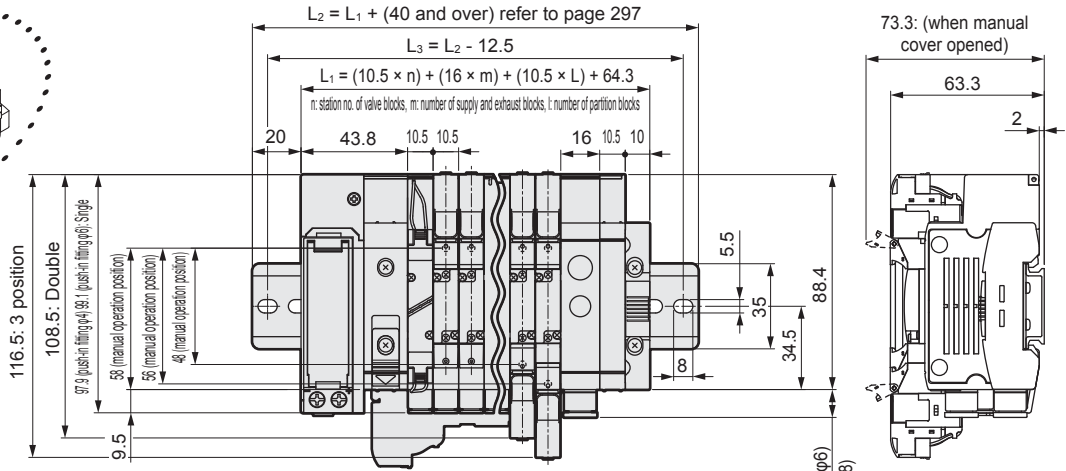
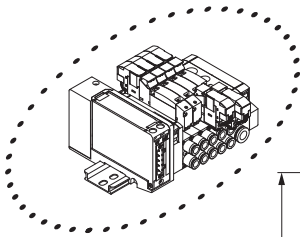
Reduced wiring block manifold; base piping

Dimensions 

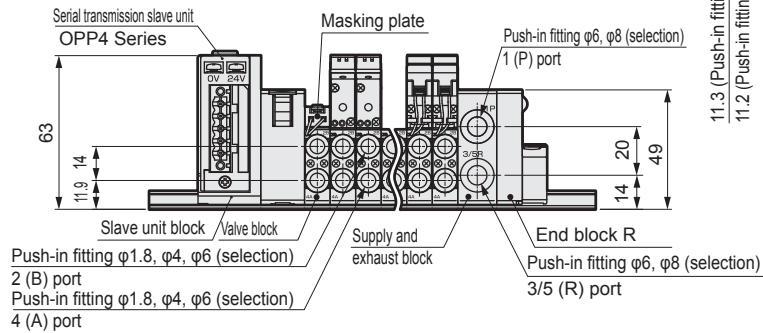
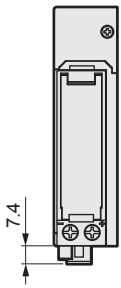
MN4GB1

- Thin serial transmission (T7*)

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



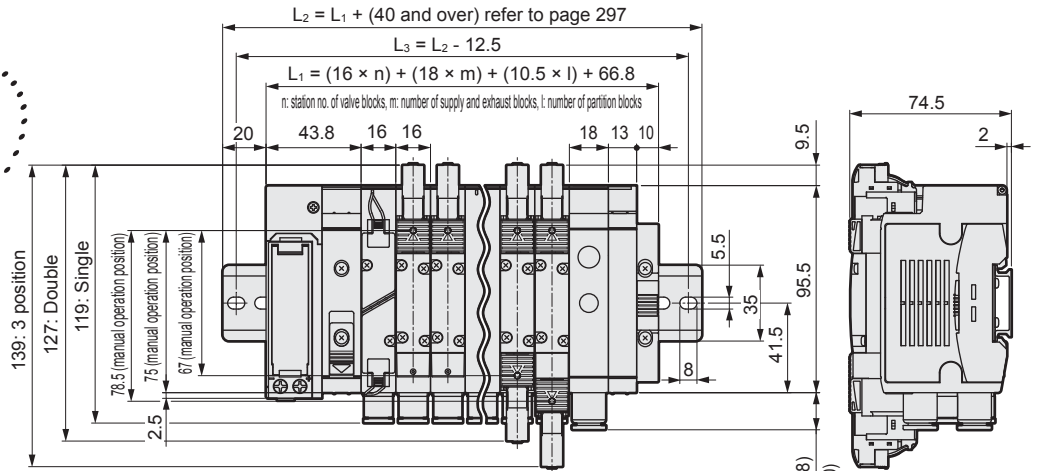
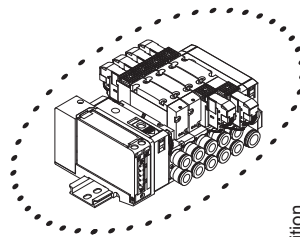
With T7S*1



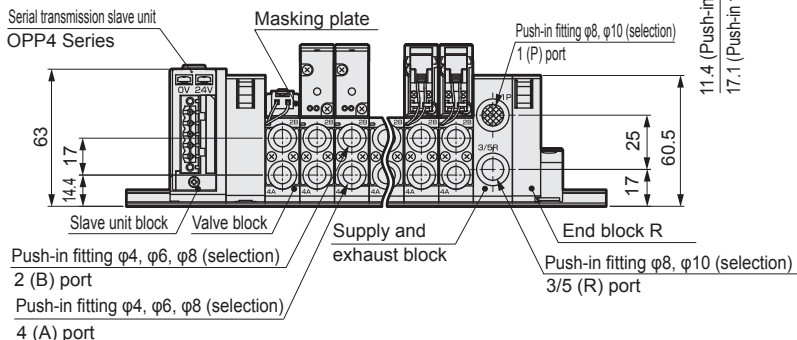
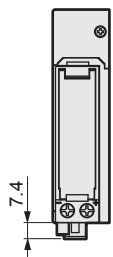
MN4GB2

- Thin serial transmission (T7*)

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



With T7S*1



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

MN4GB1/2-T8* Series

Reduced wiring block manifold; base piping

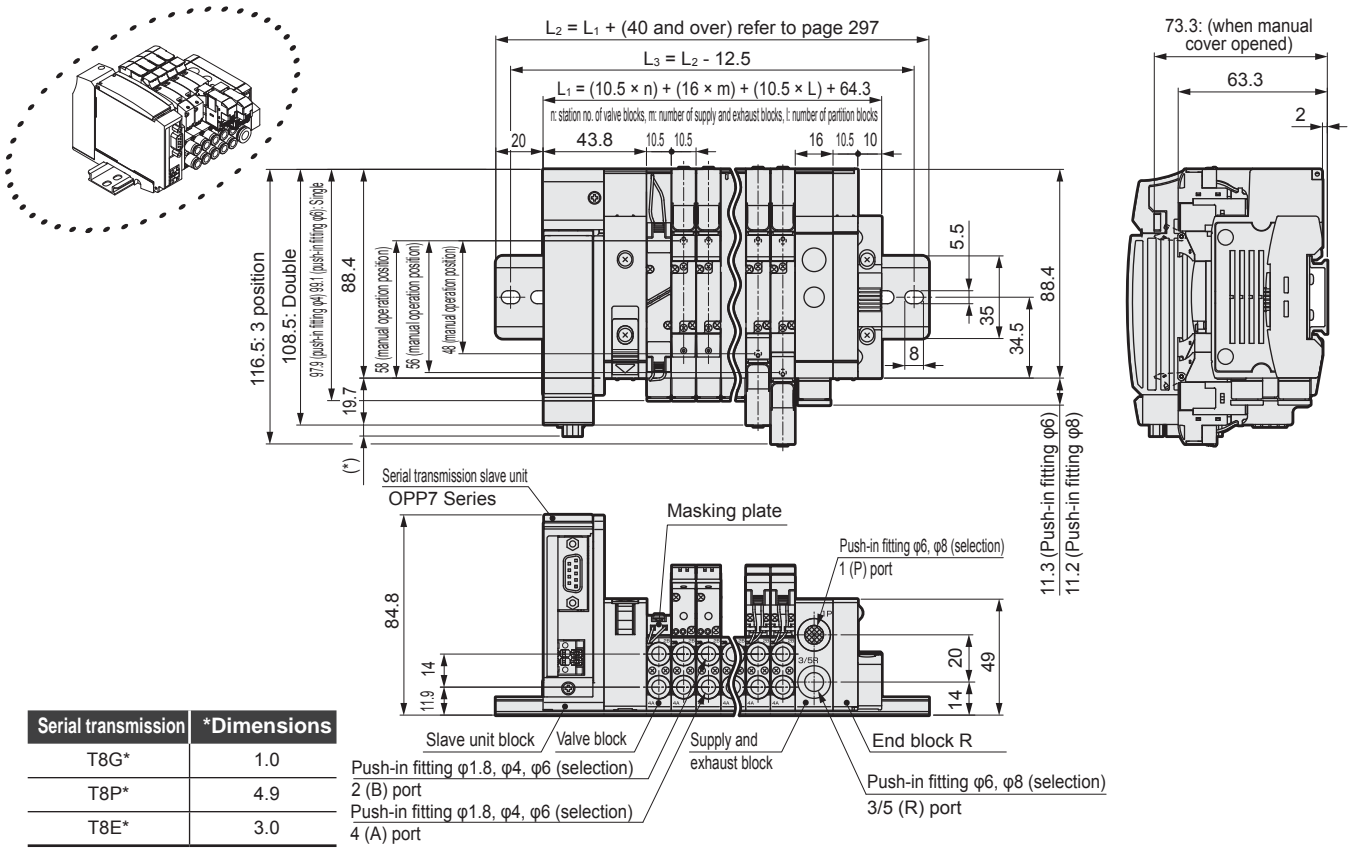
Dimensions



MN4GB1

- Thin serial transmission (T8*)

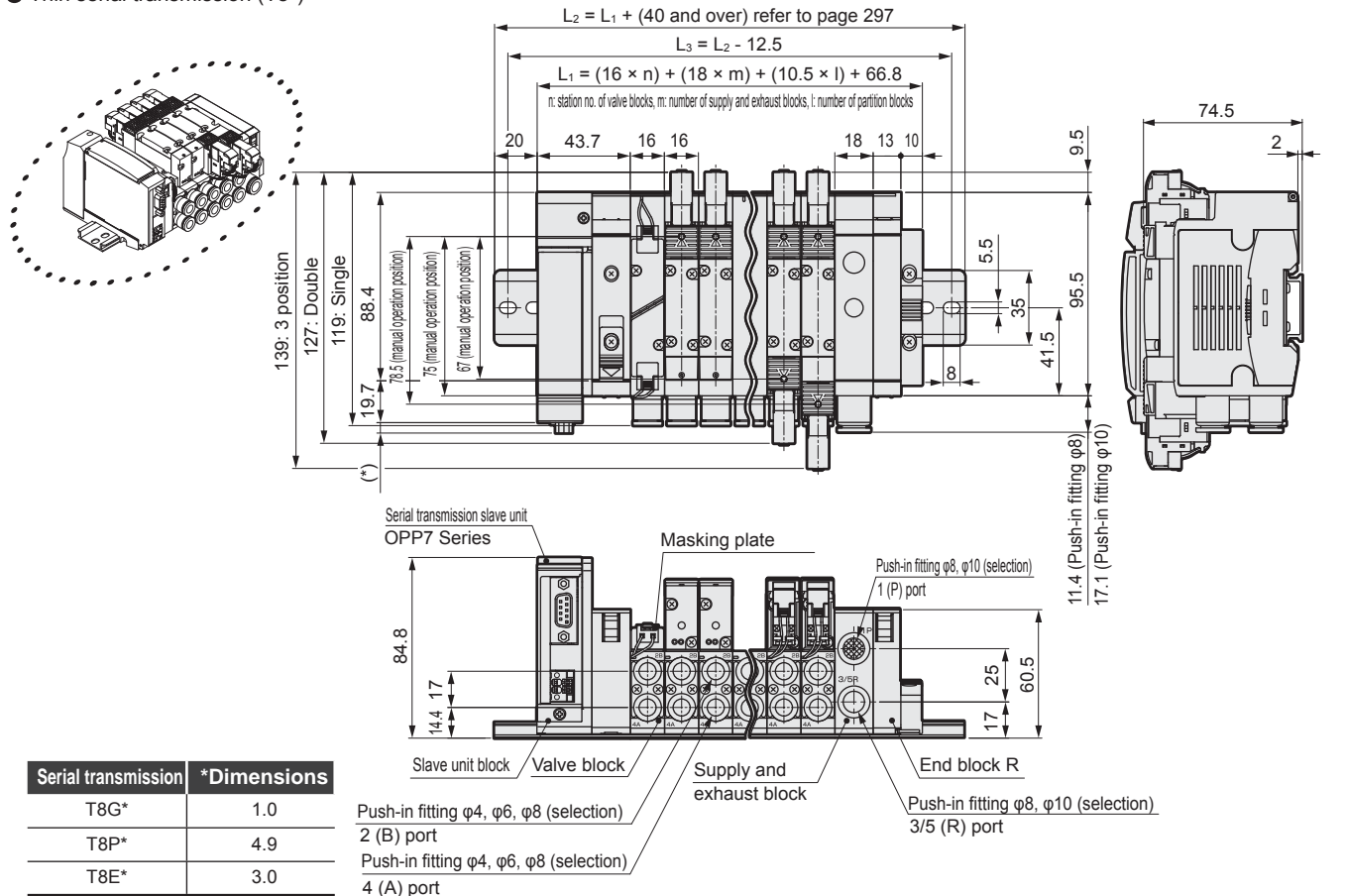
Note: The dimension of dual 3 port valve integrated type is the same as that of the double type.



MN4GB2

- Thin serial transmission (T8*)

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



4GAB

M4GA/B

MN4GA/B

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

MN4GB1/2-T* Series

Dimensions

MN4GB1 Valve block

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



- $\phi 1.8$ (C18)



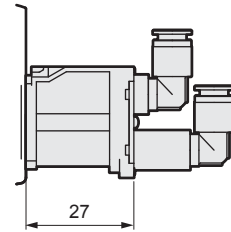
- $\phi 4$ (C4)



- $\phi 6$ (C6)



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

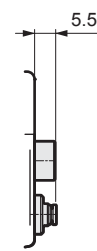


- Fitting straight, single plug

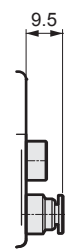
- $\phi 1.8$ (CFNC)



- $\phi 1.8$ (C18NC)



- $\phi 4$ (C4NC)



- $\phi 6$ (C6NC)



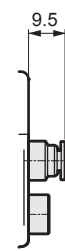
- $\phi 1.8$ (CFNO)



- $\phi 1.8$ (C18NO)



- $\phi 4$ (C4NO)

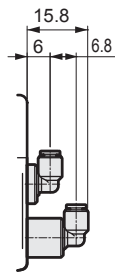


- $\phi 6$ (C6NO)

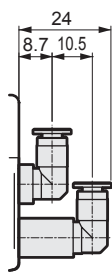


- Fitting L type (upward)

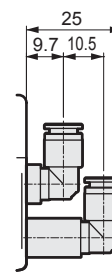
- $\phi 1.8$ (CL18)



- $\phi 4$ (CL4)

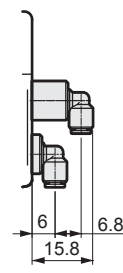


- $\phi 6$ (CL6)

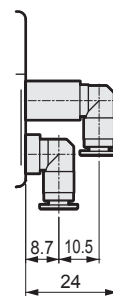


- Fitting L type (downward)

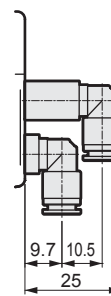
- $\phi 1.8$ (CD18)



- $\phi 4$ (CD4)

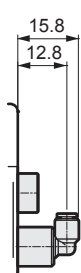


- $\phi 6$ (CD6)

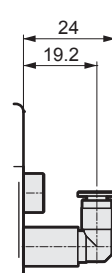


- Fitting L type (upward), single plug

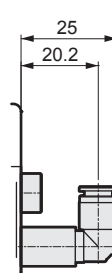
- $\phi 1.8$ (CL18NC)



- $\phi 4$ (CL4NC)



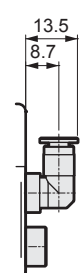
- $\phi 6$ (CL6NC)



- $\phi 1.8$ (CL18NO)



- $\phi 4$ (CL4NO)



- $\phi 6$ (CL6NO)

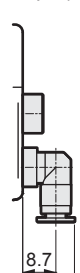


- Fitting L type (downward), single plug

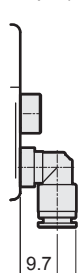
- $\phi 1.8$ (CD18NC)



- $\phi 4$ (CD4NC)



- $\phi 6$ (CD6NC)



- $\phi 1.8$ (CD18NO)



- $\phi 4$ (CD4NO)



- $\phi 6$ (CD6NO)



Dimensions

MN4GB1 Valve block

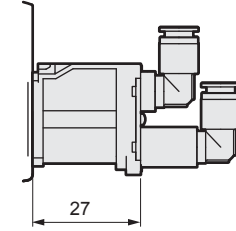
- Fitting straight
- $\phi 1/8$ inch (C3N)



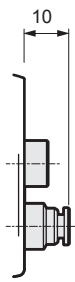
- $\phi 5/32$ inch (C4N)



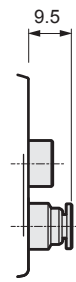
- Option L (With piping adaptor)
- Add 27mm during selection.



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



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



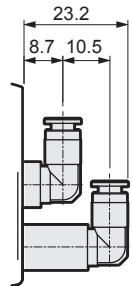
- $\phi 1/8$ inch (C3NON)



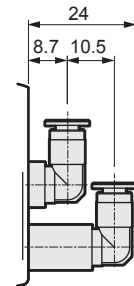
- $\phi 5/32$ inch (C4NON)



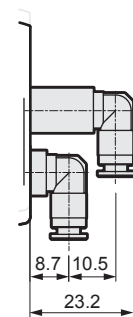
- Fitting L type (upward)
- $\phi 1/8$ inch (CL3N)



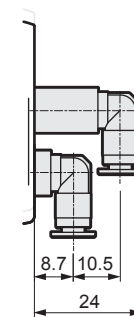
- $\phi 5/32$ inch (CL4N)



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

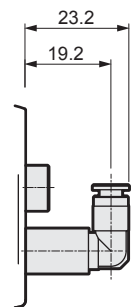


- $\phi 5/32$ inch (CD4N)

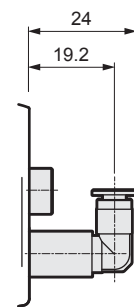


- Fitting L type (upward), single plug

- $\phi 1/8$ inch (CL3NCN)



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



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



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



- Fitting L type (downward), single plug

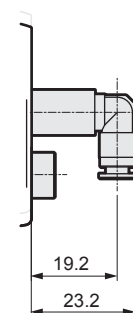
- $\phi 1/8$ inch (CD3NCN)



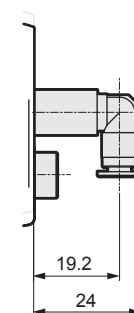
- $\phi 5/32$ inch (CD4NCN)



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



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



4GAB

M4GAB

MN4GAB

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

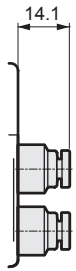
Manifold
Specifications

Dimensions

MN4GB2 Valve block

● Fitting straight

● $\phi 4$ (C4)



● $\phi 6$ (C6)

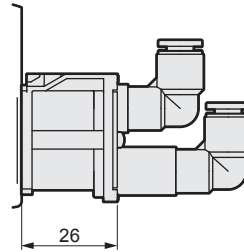


● $\phi 8$ (C8)



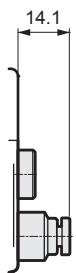
● Option L (With piping adaptor)

Add 26mm during selection.



● Fitting straight, single plug

● $\phi 4$ (C4NC)



● $\phi 6$ (C6NC)



● $\phi 8$ (C8NC)



● $\phi 4$ (C4NO)



● $\phi 6$ (C6NO)

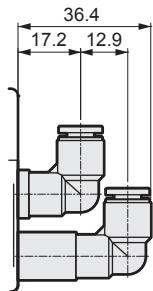


● $\phi 8$ (C8NO)

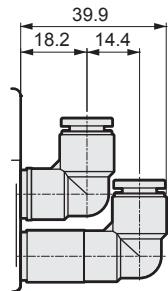


● Fitting L type (upward)

● $\phi 6$ (CL6)

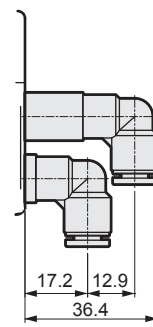


● $\phi 8$ (CL8)

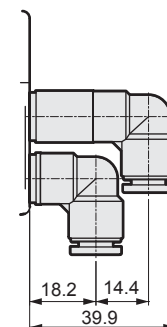


● Fitting L type (downward)

● $\phi 6$ (CD6)

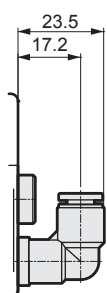


● $\phi 8$ (CD8)



● Fitting L type (upward), single plug

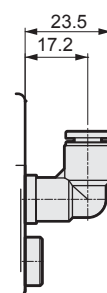
● $\phi 6$ (CL6NC)



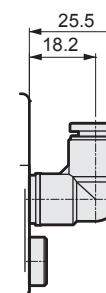
● $\phi 8$ (CL8NC)



● $\phi 6$ (CL6NO)

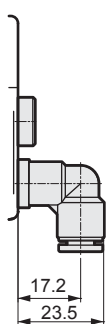


● $\phi 8$ (CL8NO)

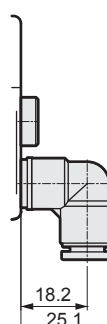


● Fitting L type (downward), single plug

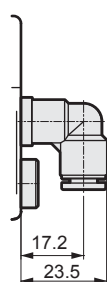
● $\phi 6$ (CD6NC)



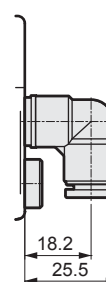
● $\phi 8$ (CD8NC)



● $\phi 6$ (CD6NO)



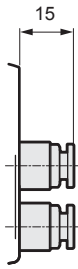
● $\phi 8$ (CD8NO)



Dimensions

MN4GB2 Valve block

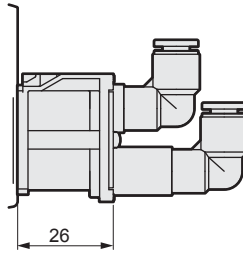
- Fitting straight
- $\phi 1/4$ inch (C6N)



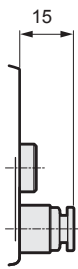
- $\phi 5/16$ inch (C8N)



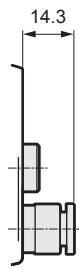
- Option L (With piping adaptor)
- Add 26mm during selection.



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



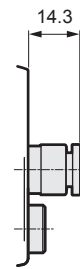
- $\phi 5/16$ inch (C8NNC)



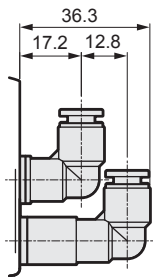
- $\phi 1/4$ inch (C6NON)



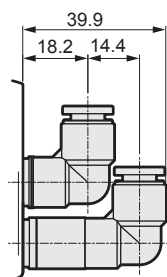
- $\phi 5/16$ inch (C8NON)



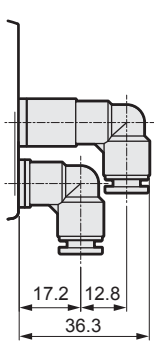
- Fitting L type (upward)
- $\phi 1/4$ inch (CL6N)



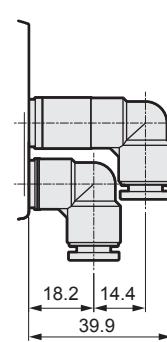
- $\phi 5/16$ inch (CL8N)



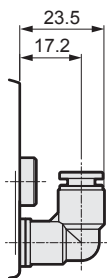
- Fitting L type (downward)
- $\phi 1/8$ inch (CD6N)



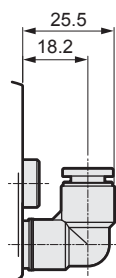
- $\phi 5/32$ inch (CD8N)



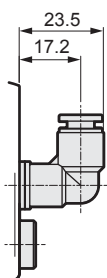
- Fitting L type (upward), single plug
- $\phi 1/4$ inch (CL6NNC)



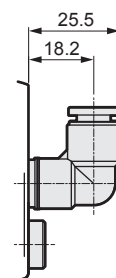
- $\phi 5/16$ inch (CL8NNC)



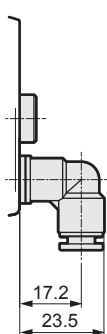
- $\phi 1/4$ inch (CL6NON)



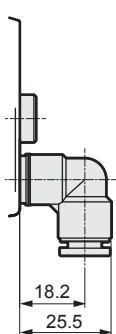
- $\phi 5/16$ inch (CL8NON)



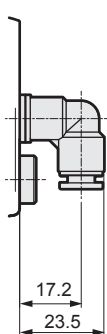
- Fitting L type (downward), single plug
- $\phi 1/4$ inch (CD6NNC)



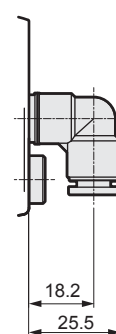
- $\phi 5/16$ inch (CD8NNC)



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



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



4GAB

M4GA/B

MN4GA/B

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

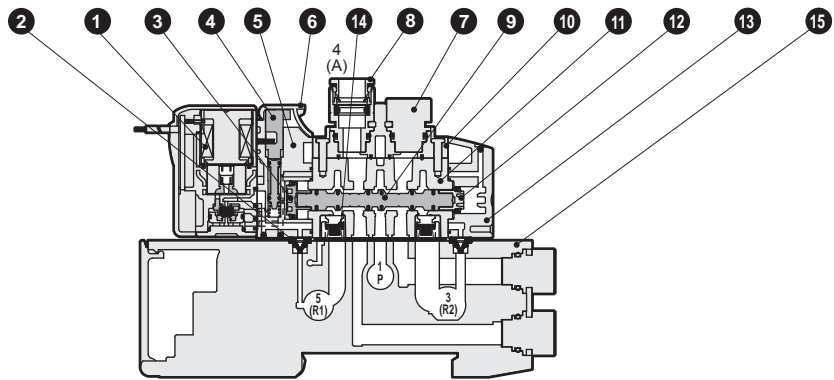
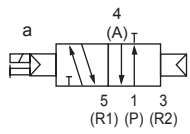
Manifold
Specifications

MN3GA1/2 Series

Internal structure and parts list

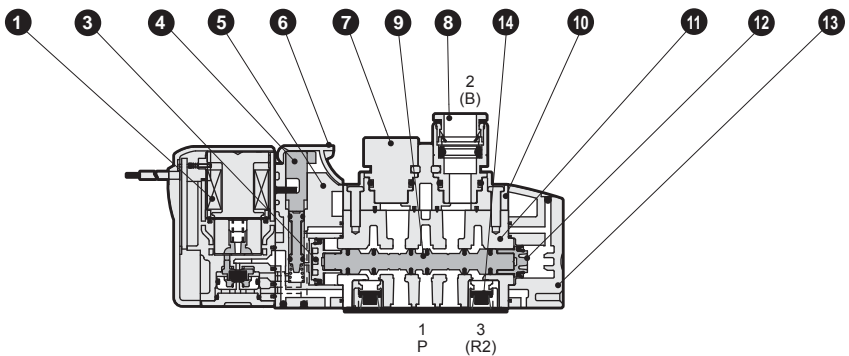
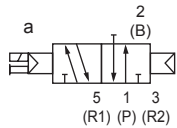
N3GA110R/N3GA210R

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



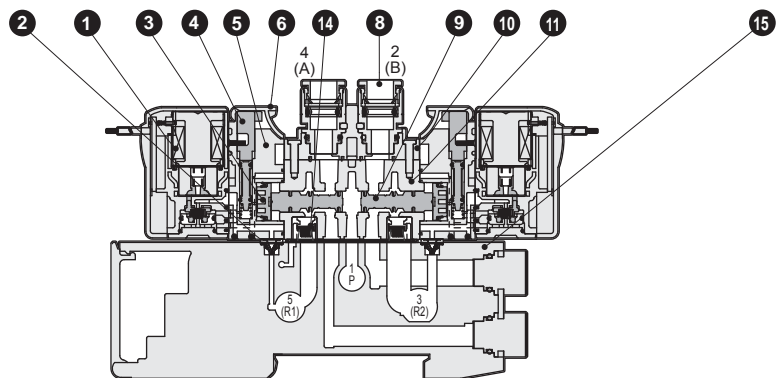
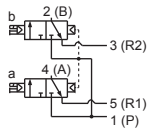
N3GA1110R/N3GA2110R

- 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 |

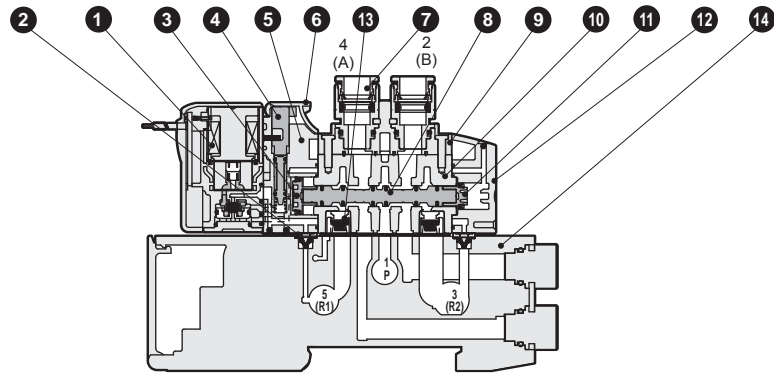
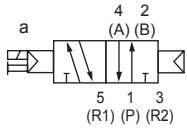
Parts list

| No. | Parts name | Model no. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|---|--|--------------------------|------------------|---------------|--------------------|----------------|------------|------------------|---------------|------------------|---------------|------------|-------------------------|----------------|--------------------------|----------------|------------|----------------|----------------|------------------|---------------|------------------|---------------|------------------|---------------|-------------------------|----------------|--------------------------|----------------|--|----------------|----------------|
| 1 | Coil assembly | 4GR- <u>Electrical connections</u> -*COIL- <u>Voltage</u> Blank: Standard A: Ozone specifications | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Cartridge type Push-in fitting and related parts | <table border="0"> <tr> <td rowspan="2">3G1 4G1</td> <td>φ1.8 barbed type</td> <td>4G1R-JOINT-CF</td> </tr> <tr> <td>φ1.8 straight type</td> <td>4G1R-JOINT-C18</td> </tr> <tr> <td rowspan="2">3G2 4G2</td> <td>φ4 straight type</td> <td>4G1R-JOINT-C4</td> </tr> <tr> <td>φ6 straight type</td> <td>4G1R-JOINT-C6</td> </tr> <tr> <td rowspan="2">3G1 4G1</td> <td>φ1/8 inch straight type</td> <td>4G1R-JOINT-C3N</td> </tr> <tr> <td>φ5/32 inch straight type</td> <td>4G1R-JOINT-C4N</td> </tr> <tr> <td rowspan="6">3G2 4G2</td> <td>Plug cartridge</td> <td>4G1R-JOINT-CPG</td> </tr> <tr> <td>φ4 straight type</td> <td>4G2R-JOINT-C4</td> </tr> <tr> <td>φ6 straight type</td> <td>4G2R-JOINT-C6</td> </tr> <tr> <td>φ8 straight type</td> <td>4G2R-JOINT-C8</td> </tr> <tr> <td>φ1/4 inch straight type</td> <td>4G2R-JOINT-C6N</td> </tr> <tr> <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 4G1 | φ1.8 barbed type | 4G1R-JOINT-CF | φ1.8 straight type | 4G1R-JOINT-C18 | 3G2 4G2 | φ4 straight type | 4G1R-JOINT-C4 | φ6 straight type | 4G1R-JOINT-C6 | 3G1 4G1 | 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 |
| | | 3G1 4G1 | | φ1.8 barbed type | 4G1R-JOINT-CF | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | φ1.8 straight type | 4G1R-JOINT-C18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 3G2 4G2 | φ4 straight type | 4G1R-JOINT-C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | φ6 straight type | 4G1R-JOINT-C6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 3G1 4G1 | 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- <u>Electrical connection</u> - <u>Voltage</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| - | EJ type connector socket assembly | 4GR-SOCKET-ASSY- <u>Electrical connections</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| - | DIN terminal box assembly (only 3GA2) | 4GR-TERMINAL-BOX- <u>Voltage</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Internal structure and parts list

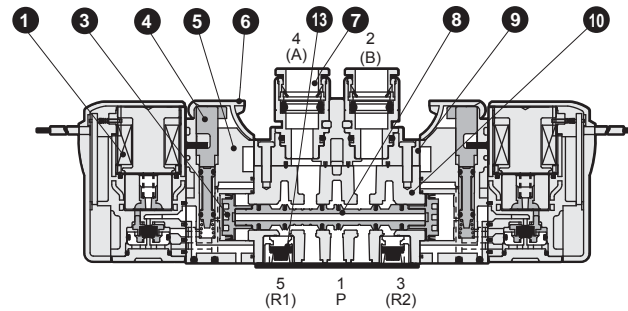
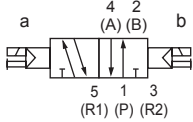
N4GA110R/N4GA210R

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



N4GA120R/N4GA220R

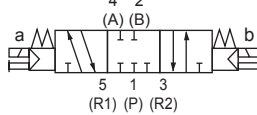
- 2-position double
- Grommet lead wire (blank)



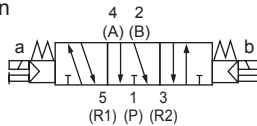
N4GA1₃0R/N4GA2₃0R

- 3-position
- Grommet lead wire (blank)

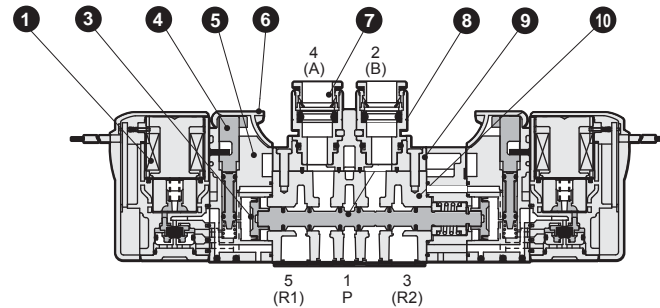
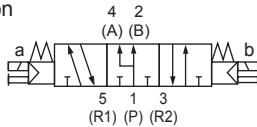
All ports closed



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]-[Voltage] Blank: Standard A: Ozone specifications | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Cartridge type Push-in fitting and related parts | <table border="1"> <tbody> <tr> <td rowspan="2">3G1</td> <td>4G1</td> <td>φ1.8 barbed type</td> <td>4G1R-JOINT-CF</td> </tr> <tr> <td></td> <td>φ1.8 straight type</td> <td>4G1R-JOINT-C18</td> </tr> <tr> <td rowspan="2">4G1</td> <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 rowspan="5">3G2</td> <td rowspan="2">4G2</td> <td>φ1/8 inch straight type</td> <td>4G1R-JOINT-C3N</td> </tr> <tr> <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 rowspan="3">4G2</td> <td></td> <td>φ4 straight type</td> <td>4G2R-JOINT-C4</td> </tr> <tr> <td></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 rowspan="2">4G2</td> <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> </tbody> </table> | 3G1 | 4G1 | φ1.8 barbed type | 4G1R-JOINT-CF | | φ1.8 straight type | 4G1R-JOINT-C18 | 4G1 | | φ4 straight type | 4G1R-JOINT-C4 | | φ6 straight type | 4G1R-JOINT-C6 | 3G2 | 4G2 | φ1/8 inch straight type | 4G1R-JOINT-C3N | φ5/32 inch straight type | 4G1R-JOINT-C4N | | Plug cartridge | 4G1R-JOINT-CPG | 4G2 | | φ4 straight type | 4G2R-JOINT-C4 | | φ6 straight type | 4G2R-JOINT-C6 | | φ8 straight type | 4G2R-JOINT-C8 | 4G2 | | φ1/4 inch straight type | 4G2R-JOINT-C6N | | φ5/16 inch straight type | 4G2R-JOINT-C8N | | Plug cartridge | 4G2R-JOINT-CPG |
| 3G1 | 4G1 | φ1.8 barbed type | | 4G1R-JOINT-CF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | φ1.8 straight type | 4G1R-JOINT-C18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4G1 | | φ4 straight type | 4G1R-JOINT-C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | φ6 straight type | 4G1R-JOINT-C6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3G2 | 4G2 | φ1/8 inch straight type | 4G1R-JOINT-C3N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | φ5/32 inch straight type | 4G1R-JOINT-C4N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Plug cartridge | 4G1R-JOINT-CPG | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4G2 | | φ4 straight type | 4G2R-JOINT-C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | φ6 straight type | 4G2R-JOINT-C6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | φ8 straight type | 4G2R-JOINT-C8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4G2 | | 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] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

MN4GB1/2 Series

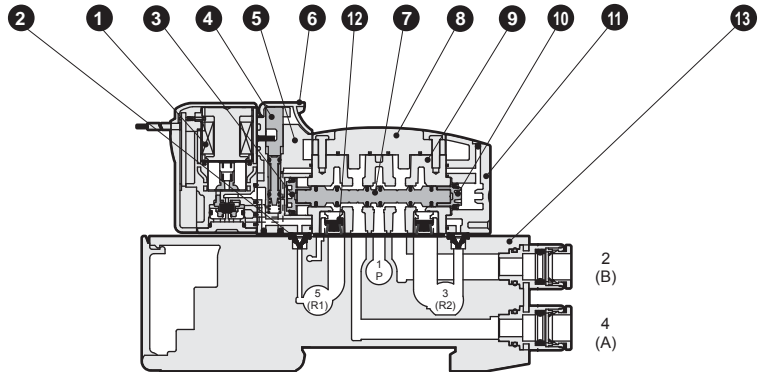
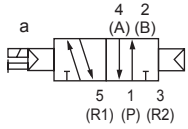
Internal structure and parts list

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.

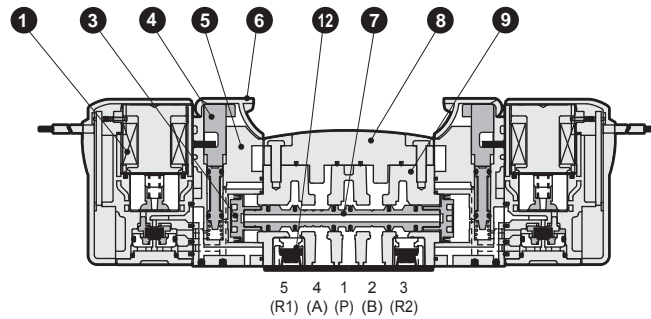
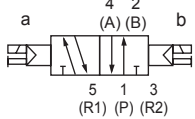
N4GB110R/N4GB210R

- 2-position single
Grommet lead wire (blank)



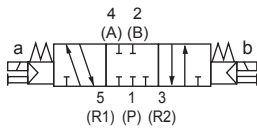
N4GB120R/N4GB220R

- 2-position double
Grommet lead wire (blank)

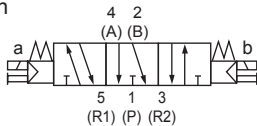


N4GB1³/₅0R/N4GB2³/₅0R

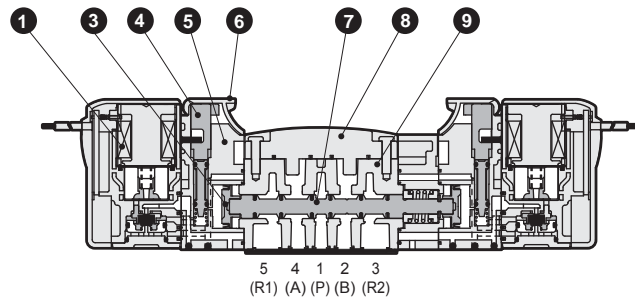
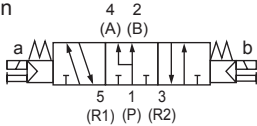
- 3-position
Grommet lead wire (blank)
All ports closed



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 |

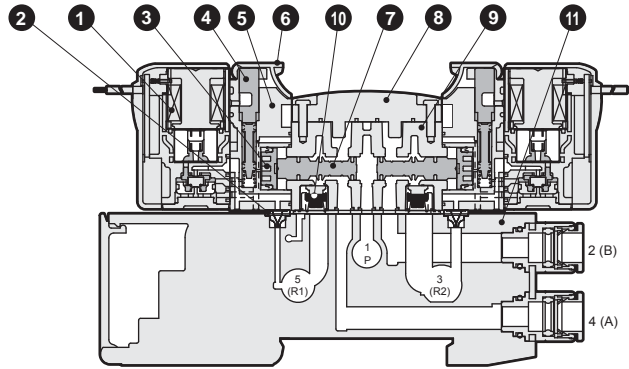
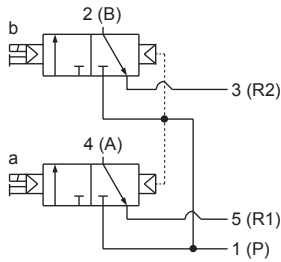
Parts list

| No. | Parts name | Model no. |
|-----|---------------------------------------|--|
| 1 | Coil assembly | 4GR- <input type="text" value="Electrical connections"/> -COIL- <input type="text" value="Voltage"/> Blank: Standard A: Ozone specifications |
| - | E type connector socket assembly | 4GR-SOCKET-ASSY- <input type="text" value="Electrical connection"/> - <input type="text" value="Voltage"/> |
| - | EJ type connector socket assembly | 4GR-SOCKET- ASSY- <input type="text" value="Electrical connections"/> |
| - | DIN terminal box assembly (only 4GB2) | 4GR-TERMINAL-BOX- <input type="text" value="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] |

4G/A/B

M4G/A/B

MN4G/A/B

4G/A/B
Master valve

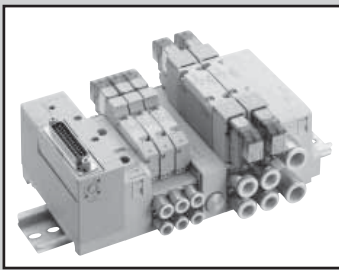
4G/D/E

M4G/D/E

MN4G/D/E

Technical data

Safety
precautionsManifold
Specifications



4G1/2 Mix manifold

MN3GAX12, MN4GAX12 MN4GBX12 Series

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

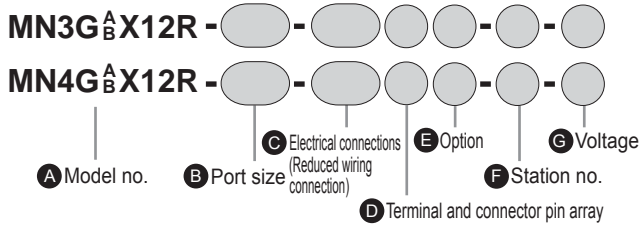


Specifications

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).

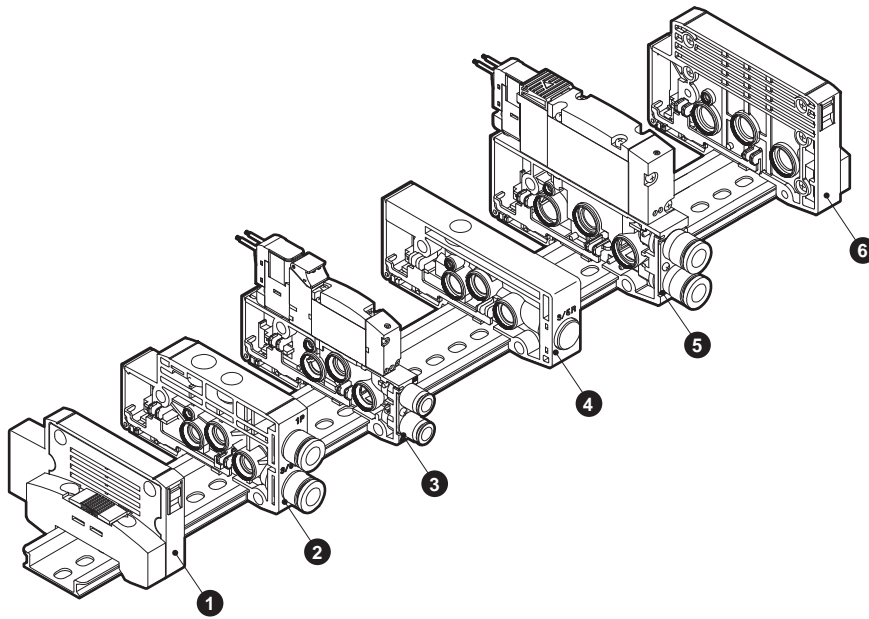
How to order



* 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: 49g

Refer to the specifications of each series for other components.

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

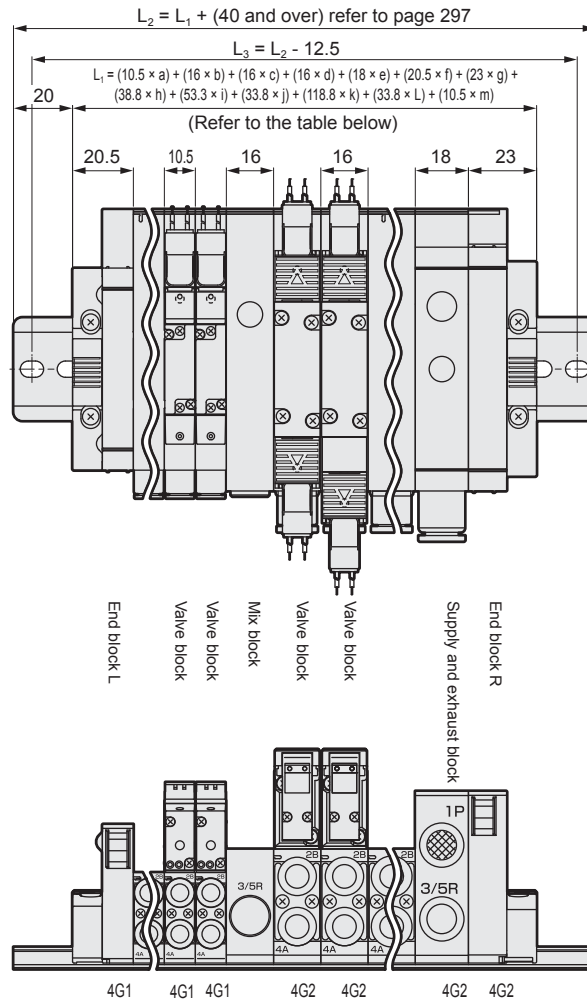
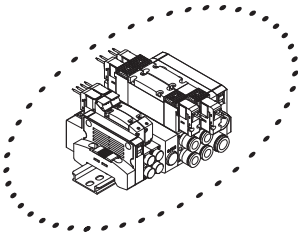
Mix block: dimensions

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

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

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

4GAB

M4GA/B

MN4GA/B

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

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.

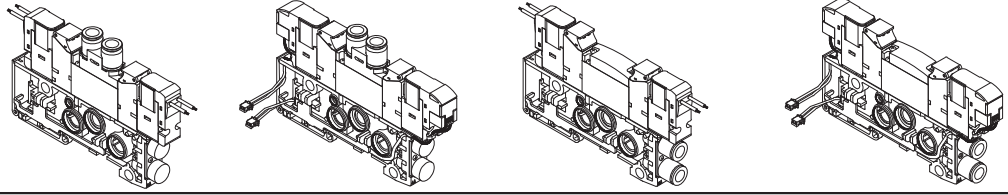
| |
|----------------------------|
| 4GAB |
| M4GAB |
| MN4GAB |
| 4GAB Master valve |
| 4GD/E |
| M4GD/E |
| MN4GD/E |
| Technical data |
| Safety precautions |
| Manifold Specifications |

Block manifold configuration

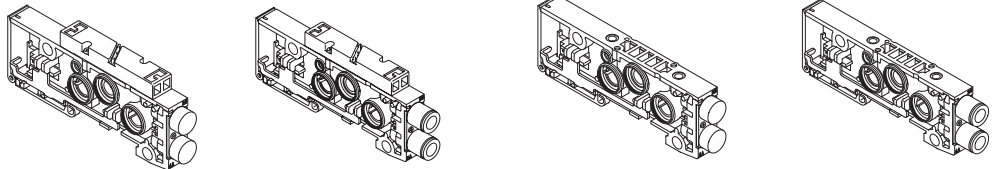
Piping section

Piping block

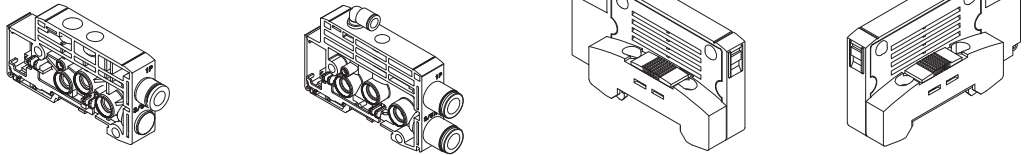
- A** Discrete valve block with solenoid valve
 ● For body piping individual wiring ● For body piping reduced wiring ● For base piping individual wiring ● For base piping reduced wiring



- B** Discrete valve block with masking plate ● For body piping ● For base piping
C Discrete valve block ● For body piping ● For base piping



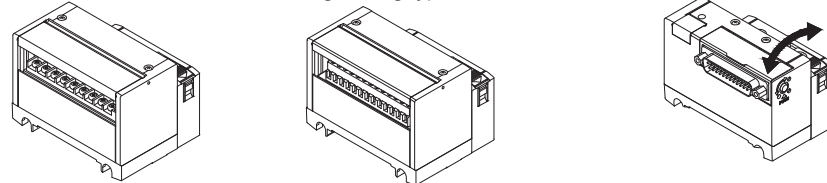
- D** Supply and exhaust block ● For internal pilot ● For external pilot
E End block ● For left ● For right



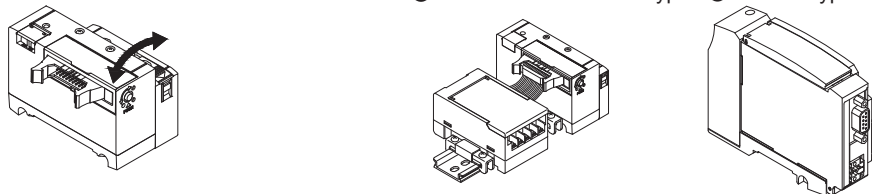
- F** Partition block
G Mix block



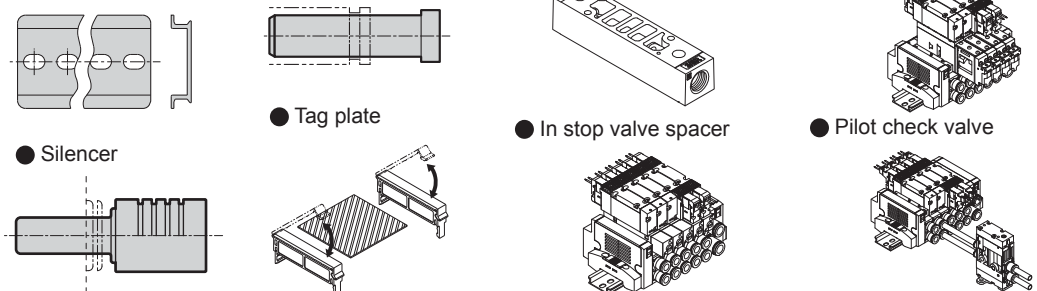
- H** Common terminal block ● M3 ● Push tightening type
I D sub-connector block



- 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



Wiring section

Wiring block

Related products

Related products

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: 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).

N4GA1 R - MP - 3

N4GB1 R - MPD - C4 - 3 F

A Model no. **B** Type **C** Port size **D** Cable length Note 2 **E** Option

| 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 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 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.

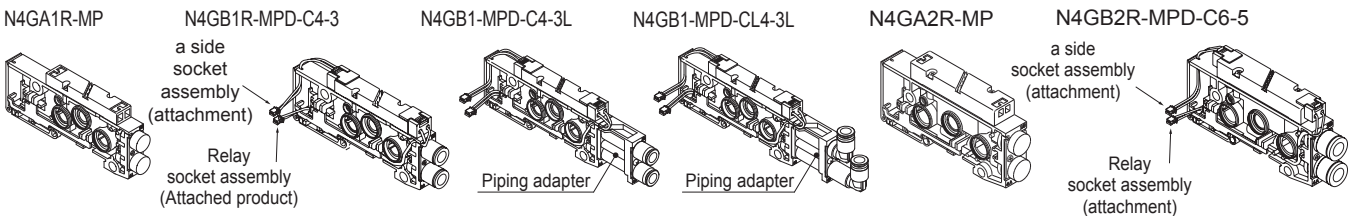
| Symbol | Descriptions | N4GA1 | N4GA2 | N4GB1 | N4GB2 |
|--|--|-------|-------|-------|-------|
| C Post size (it is necessary to configure this with base piping.) | | | | | |
| Type | Milli fitting/Rc thread | | | | |
| CF | φ1.8 barbed fitting (applicable tube UP-9102-**) | | | ● | |
| C18 | φ1.8 push-in fitting (applicable tube UP-9402-**) (upward) | | | ● | |
| C4 | φ4 push-in fitting (upward) | | | ● | |
| C6 | φ6 push-in fitting (upward) | | | ● | |
| C8 | φ8 push-in fitting (upward) | | | ● | |
| CL18 | L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-**) (downward) | | | ● | |
| CL4 | L type φ4 push-in fitting (downward) | | | ● | |
| CL6 | L type φ6 push-in fitting (downward) | | | ● | |
| CL8 | L type φ8 push-in fitting (downward) | | | ● | |
| CD18 | L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-**) (downward) | | | ● | |
| 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-**) (downward) | | | ● | |
| C18NC | φ1.8 push-in fitting (applicable tube UP-9402-**) (downward) | | | ● | |
| C4NC | φ4 push-in fitting (downward) | | | ● | |
| C6NC | φ6 push-in fitting (downward) | | | ● | |
| C8NC | φ8 push-in fitting (downward) | | | ● | |
| CFNO | φ1.8 barbed fitting (applicable tube UP-9102-**) (downward) | | | ● | |
| C18NO | φ1.8 push-in fitting (applicable tube UP-9402-**) (downward) | | | ● | |
| C4NO | φ4 push-in fitting (downward) | | | ● | |
| C6NO | φ6 push-in fitting (downward) | | | ● | |
| C8NO | φ8 push-in fitting (downward) | | | ● | |
| CL18NC | L type φ1.8 push-in fitting (upward) (applicable tube UP-9402-**) (upward) | | | ● | |
| 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-**) (upward) | | | ● | |
| CL4NO | 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 | N4GA1 | N4GA2 | N4GB1 | N4GB2 |
|------------------------------------|--|-------|-------|-------|-------|
| Milli fitting/Rc thread | | | | | |
| Type | A Port | | | | |
| | B Port | | | | |
| Single side plugged specifications | | | | | |
| CD18NC | L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-**) (downward) | | | ● | |
| 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 | L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-**) (downward) | | | ● | |
| CD4NO | L type φ4 push-in fitting (downward) | | | ● | |
| CD6NO | L type φ6 push-in fitting (downward) | | | ● | |
| CD8NO | L type φ8 push-in fitting (downward) | | | ● | |
| Inch fitting/Inch thread | | | | | |
| Type | | | | | |
| 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 (downward) | | | ● | |
| C4NCN | φ5/32 inch push-in fitting (downward) | | | ● | |
| C6NCN | φ1/4 inch push-in fitting (downward) | | | ● | |
| C8NCN | φ5/16 inch push-in fitting (downward) | | | ● | |
| C3NON | φ1/8 inch push-in fitting (downward) | | | ● | |
| C4NON | φ5/32 inch push-in fitting (downward) | | | ● | |
| C6NON | φ1/4 inch push-in fitting (downward) | | | ● | |
| C8NON | φ5/16 inch push-in fitting (downward) | | | ● | |
| 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 | 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.

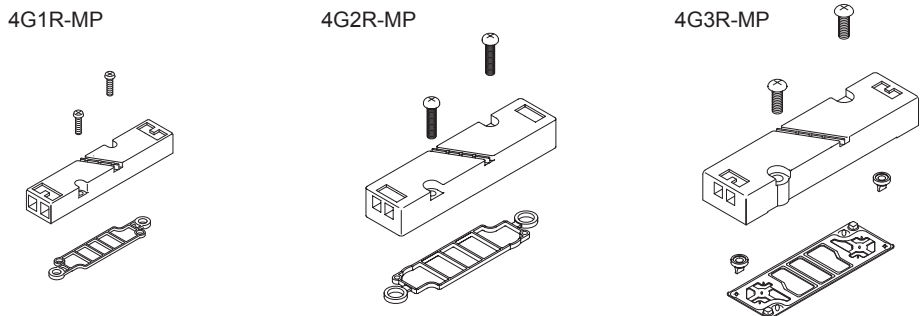
○ Contact CKD for price and availability.



B-1. Masking plate

4G1R - MP

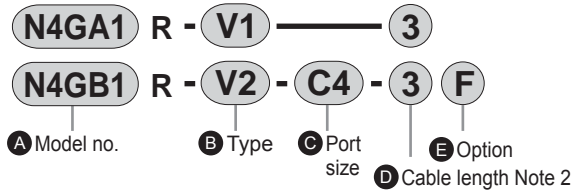
A Model no.



Piping section

C. Discrete valve block (discrete only)

A discrete valve block (split plastic base).

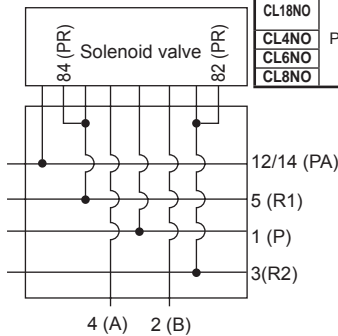


| B Type | |
|--------|--|
| V1 | For individual wiring For reduced wiring single |
| V2 | For reduced wiring double/3-position |

| 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 |

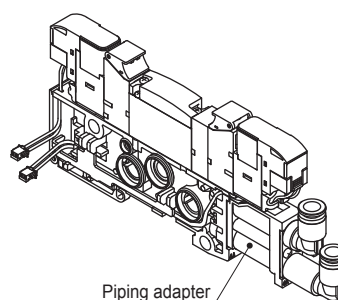
Note 2 When a purchase is made for the expansion of stations of reduced wiring, a socket assembly will be attached to the product, select "2 to 10". Select a cable length from the following D page 280 and indicate the length in the field for the D cable length. However, it will not be necessary to include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



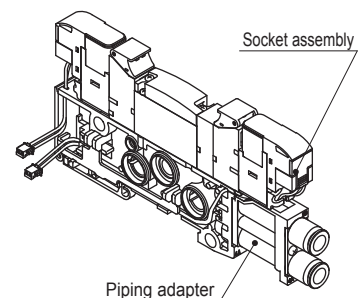
Discrete valve lock circuit diagram

Option L (With piping adaptor)

Select L (with piping adaptor) 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 adaptor.



Piping adaptor



Socket assembly

Piping adaptor

| Symbol | Descriptions | A Model No. | | | |
|--|--|-------------|-------|-------|-------|
| | | N4GA1 | N4GA2 | N4GB1 | N4GB2 |
| 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-**) Plug | | | ● | |
| C4NC | φ4 push-in fitting | | | ● | |
| C6NC | φ6 push-in fitting | | | ● | |
| C8NC | φ8 push-in fitting | | | ● | |
| CFNO | φ1.8 barbed fitting (applicable tube UP-9102-**) Plug | | | ● | |
| C18NO | φ1.8 push-in fitting (applicable tube UP-9402-**) Plug | | | ● | |
| 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) Plug | | | ● | |
| CL6NC | L type φ6 push-in fitting (upward) Plug | | | ● | |
| CL8NC | L type φ8 push-in fitting (upward) Plug | | | ● | |
| CL18NO | L type φ1.8 push-in fitting (upward) (applicable tube UP-9402-**) Plug | | | ● | |
| CL4NO | L type φ4 push-in fitting (upward) Plug | | | ● | |
| CL6NO | L type φ6 push-in fitting (upward) Plug | | | ● | |
| CL8NO | L type φ8 push-in fitting (upward) Plug | | | ● | |

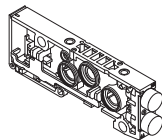
| Symbol | Descriptions | A Model No. | | | |
|------------------------------------|--|-------------|-------|-------|-------|
| | | N4GA1 | N4GA2 | N4GB1 | N4GB2 |
| Type | Milli fitting/Rc thread | | | | |
| Single side plugged specifications | A Port | | | | |
| | B Port | | | | |
| CD18NC | L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-**) Plug | | | ● | |
| CD4NC | L type φ4 push-in fitting (downward) Plug | | | ● | |
| CD6NC | L type φ6 push-in fitting (downward) Plug | | | ● | |
| CD8NC | L type φ8 push-in fitting (downward) Plug | | | ● | |
| CD18NO | L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-**) Plug | | | ● | |
| CD4NO | L type φ4 push-in fitting (downward) Plug | | | ● | |
| CD6NO | L type φ6 push-in fitting (downward) Plug | | | ● | |
| CD8NO | L type φ8 push-in fitting (downward) Plug | | | ● | |
| 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 Plug | | | ● | |
| C4NCN | φ5/32 inch push-in fitting Plug | | | ● | |
| C6NCN | φ1/4 inch push-in fitting Plug | | | ● | |
| C8NCN | φ5/16 inch push-in fitting Plug | | | ● | |
| C3NON | φ1/8 inch push-in fitting Plug | | | ● | |
| C4NON | φ5/32 inch push-in fitting Plug | | | ● | |
| C6NON | φ1/4 inch push-in fitting Plug | | | ● | |
| C8NON | φ5/16 inch push-in fitting Plug | | | ● | |
| 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 Plug | | | ○ | |
| CL6NCN | L type φ1/4 inch push-in fitting (upward) Note 1 Plug | | | ○ | |
| CL8NCN | L type φ5/16 inch push-in fitting (upward) Note 1 Plug | | | ○ | |
| CL3NON | L type φ1/8 inch push-in fitting (upward) Note 1 Plug | | | ○ | |
| CL4NON | L type φ5/32 inch push-in fitting (upward) Note 1 Plug | | | ○ | |
| CL6NON | L type φ1/4 inch push-in fitting (upward) Note 1 Plug | | | ○ | |
| CL8NON | L type φ5/16 inch push-in fitting (upward) Note 1 Plug | | | ○ | |

Note 1: This is a available consult factory order.

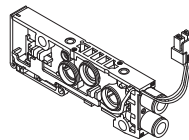
■ is not available.

○ Contact CKD for price and availability.

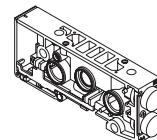
N4GA1R - V1



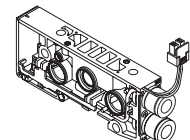
N4GB1R-V2-C4



N4GA2R-V1



N4GB2R-V2-C6



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: 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

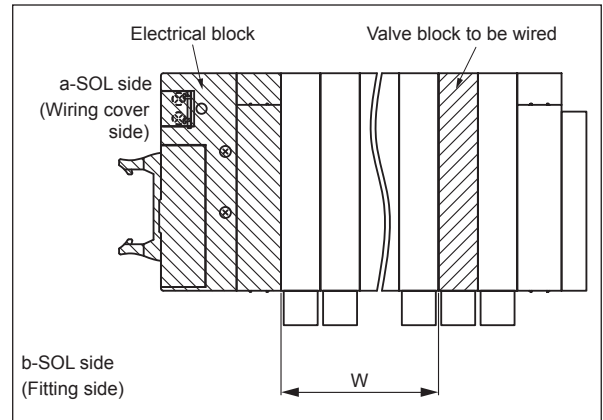
· For MN4GX

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 | |
|---|---|-------------|---|------------------------------|---|
| Q | Internal pilot | 6 | φ6 push-in fitting | Note 2 | P port φ1/4 inch push-in fitting R port φ6 push-in fitting |
| QK | External pilot | 6L | φ6 push-in fitting (upward) | 6LM | P port φ1/4 inch push-in fitting (upward) R port φ6 push-in fitting (upward) |
| Note 1: This is a available consult factory order. Select 6*M and 8*M if using a silencer in the inch fitting specifications. | Note 2: When designating X, select the atmosphere release (EX) for the end block. | 6D | φ6 push-in fitting (downward) | 6DM | P port φ1/4 inch push-in fitting (downward) R port φ6 push-in fitting (downward) |
| | | 8 | φ8 push-in fitting | 8M | P port φ5/16 inch push-in fitting R port φ8 push-in fitting |
| | | 8L | φ8 push-in fitting (upward) | 8LM | P port φ5/16 inch push-in fitting (upward) R port φ8 push-in fitting (upward) |
| Note 3: When designating X, select the atmosphere release (EX) for the end block. | | 8D | φ8 push-in fitting (downward) | 8DM | P port φ5/16 inch push-in fitting (downward) R port φ8 push-in fitting (downward) |
| | | 6N | φ1/4 inch push-in fitting | 6DN | P port φ1/4 inch push-in fitting (downward) Note 1 |
| | | 6LN | φ1/4 inch push-in fitting (upward) Note 1 | 6LNM | P port φ1/4 inch push-in fitting (upward) Note 1 R port φ6 push-in fitting (upward) Note 1 |
| | | | | C Exhaust | |
| | | | | Blank Common exhaust | |
| | | | | X Note 3 Atmospheric release | |

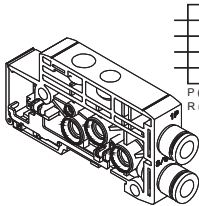
N4G2 R-QK-10L X

Model no.

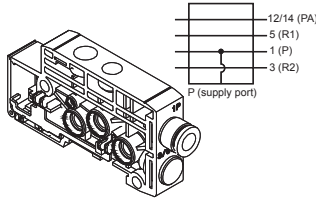
A Type **B** Port size **C** Exhaust size

| A Type | | B Port size | | 8M | |
|---|---|-------------|--|------------------------------|--|
| Q | Internal pilot | 8 | φ8 push-in fitting | Note 2 | P port φ5/16 inch push-in fitting R port φ8 push-in fitting |
| QK | External pilot | 8L | φ8 push-in fitting (upward) | 8ML | P port φ5/16 inch push-in fitting (upward) R port φ8 push-in fitting (upward) |
| Note 1: This is a available consult factory order. Select 6*M and 8*M if using a silencer in the inch fitting specifications. | Note 2: When designating X, select the atmosphere release (EX) for the end block. | 8D | φ8 push-in fitting (downward) | 8DM | P port φ5/16 inch push-in fitting (downward) R port φ8 push-in fitting (downward) |
| | | 10 | φ10 push-in fitting | 10M | P port φ3/8 inch push-in fitting R port φ10 push-in fitting |
| | | 10L | φ10 push-in fitting (upward) | 10LM | P port φ3/8 inch push-in fitting (upward) R port φ10 push-in fitting (upward) |
| Note 3: When designating X, select the atmosphere release (EX) for the end block. | | 10D | φ10 push-in fitting (downward) | 10DM | P port φ3/8 inch push-in fitting (downward) R port φ10 push-in fitting (downward) |
| | | 8N | φ5/16 inch push-in fitting | 8NM | P port φ5/16 inch push-in fitting (upward) Note 1 R port φ8 push-in fitting (upward) Note 1 |
| | | 8LN | φ5/16 inch push-in fitting (upward) Note 1 | 8LNM | P port φ5/16 inch push-in fitting (upward) Note 1 R port φ8 push-in fitting (upward) Note 1 |
| | | | | C Exhaust | |
| | | | | Blank Common exhaust | |
| | | | | X Note 3 Atmospheric release | |

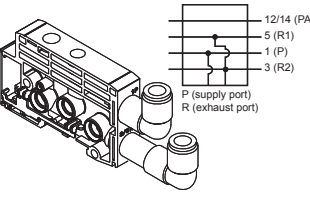
N4G1R-Q-8



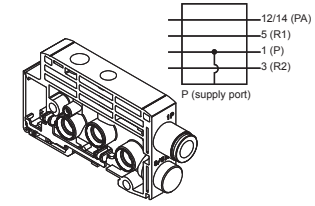
N4G1R-Q-8X



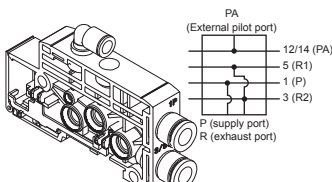
N4G2R-Q-10L



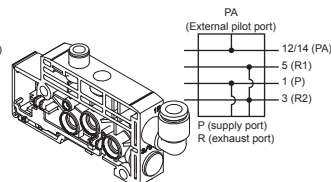
N4G2R-Q-10X



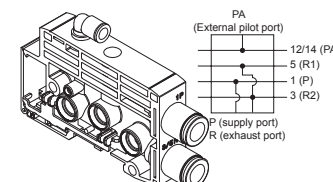
N4G1R-QK-8



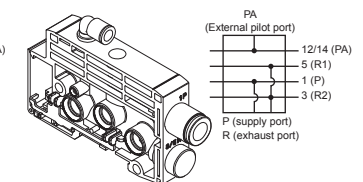
N4G1R-QK-8LX



N4G2R-QK-10



N4G2R-QK-10X



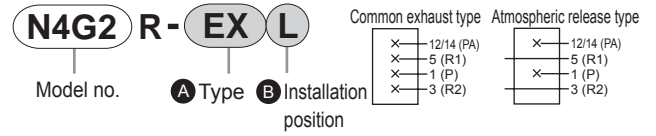
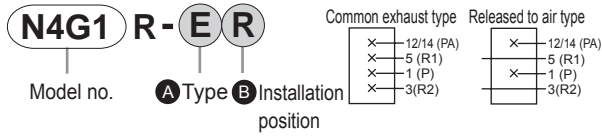
* External pilot port: φ6 push-in fitting

*External pilot port: φ6 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 |

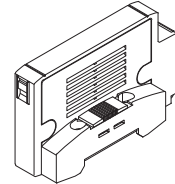
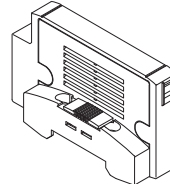
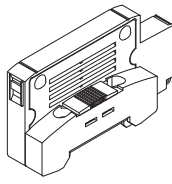
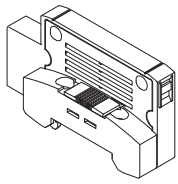
| A Type | | B Installation position | |
|--------|---------------------|-------------------------|-------|
| E | Common exhaust | L | Left |
| EX | Atmospheric release | R | Right |

N4G1R - EL

N4G1R - ER

N4G2R-EL

N4G2R-ER

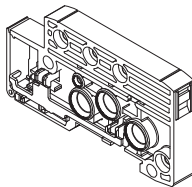


F. Partition block

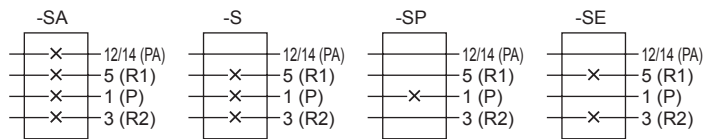
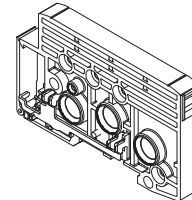
It is possible to implement measures to prevent mixture of different pressures and increase of back pressure by using the combination of a partition block and a supply and exhaust block.



| 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 |

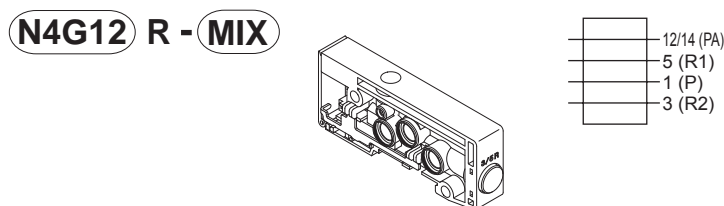


| A Type | |
|--------|---------------------|
| SA | P/R/PA stop |
| S | P/R stop PA through |
| SP | P stop R/PA through |
| SE | R stop P/PA through |



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

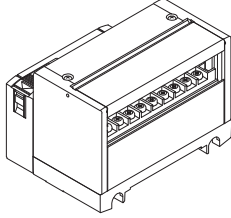
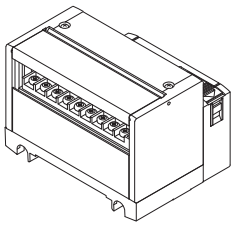
(Electrical block) * Orders cannot be placed for only an electrical block.

H. Common terminal block

M3 thread specifications

N4G1R-T10

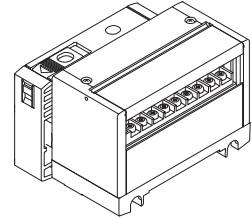
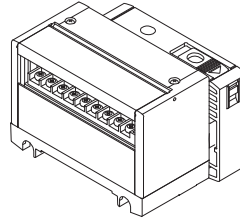
N4G1R-T10R



M3 thread specifications

N4G2R-T10

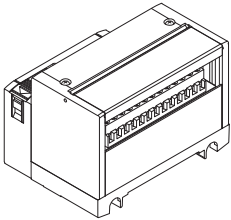
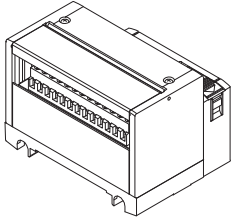
N4G2R-T10R



Push tightening specifications

N4G1R-T11

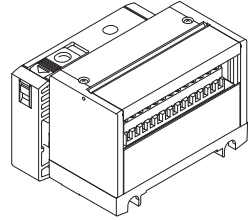
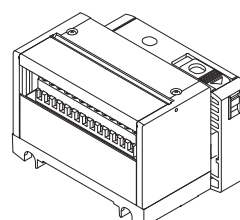
N4G1R-T11R



Push tightening specifications

N4G2R-T11

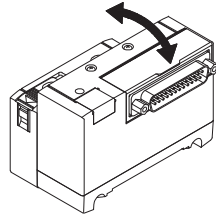
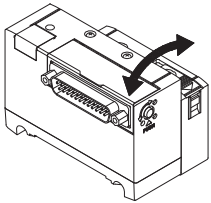
N4G2R-T11R



I. D sub-connector block

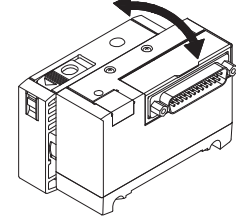
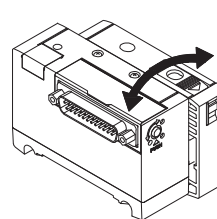
N4G1R-T30

N4G1R-T30R



N4G2R-T30

N4G2R-T30R



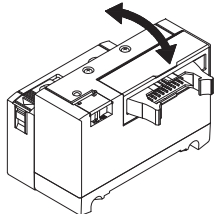
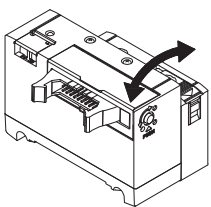
*Refer to page 597 for cable model no. with D-sub connector.

J. Flat cable connector block

● With power supply terminal

N4G1R-T50

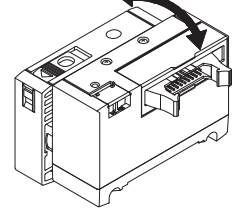
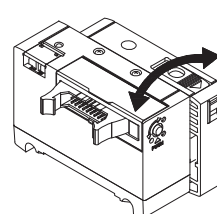
N4G1R-T50R



● With power supply terminal

N4G2R-T50

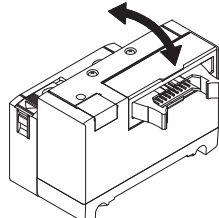
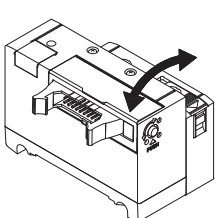
N4G2R-T50R



● Without power supply terminal

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

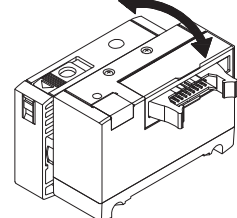
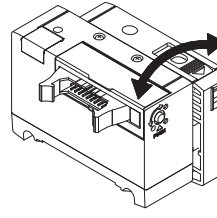
N4G1R-T51R (N4G1R-T52R)
(N4G1R-T53R)



● 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

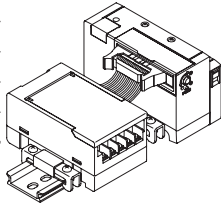
Model no.

A Type

| A Type | | |
|--------|-----------------|--------------------|
| T6A0/1 | UNIWIRESYSTEM | 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 | UNIWIRESYSTEM H | 8 points/16 points |

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

N4G1R-T6*



N4G2 R - T6G1

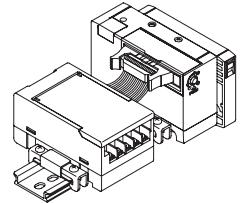
Model no.

A Type

| A Type | | |
|--------|-----------------|--------------------|
| T6A0/1 | UNIWIRESYSTEM | 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 | UNIWIRESYSTEM H | 8 points/16 points |

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

N4G2R-T6*



● Thin slot type

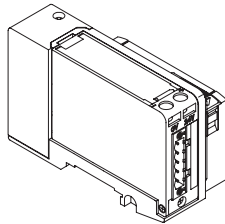
N4G1 R - T7D1

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 16 points |

N4G1R-T7*



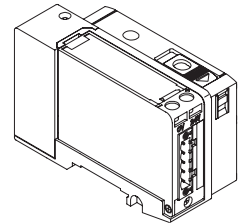
N4G2 R - T7G1

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 16 points |

N4G2R-T7*



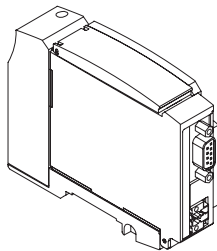
● Discrete serial transmission slave unit (Thin slot-insertion type)

N4G1 R - T8G1

A Wiring method

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

N4G1R-T8*

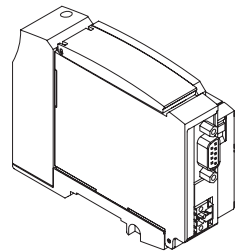


N4G2 R - T8G1

A Wiring method

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

N4G2R-T8*



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: wiring section

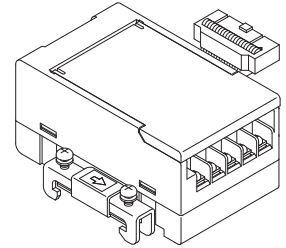
L. Serial transmission slave unit * It is possible to place an order for only the serial transmission slave unit.

● Discrete serial transmission slave unit (Connector connection type)

4GR - OPP3 - 0A

A Wiring method

| Symbol | Descriptions | | |
|------------------------|--------------|------------------|-----------|
| A Wiring method | | | |
| 0A | T6A0 | UNIWIRE SYSTEM | 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 | UNIWIRE H SYSTEM | 8 points |
| 1J | T6J1 | | 16 points |

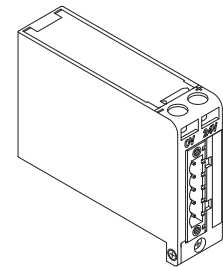


● Discrete serial transmission slave unit (Thin slot-insertion type)

4GR - OPP4 - 0CA

A Wiring method

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

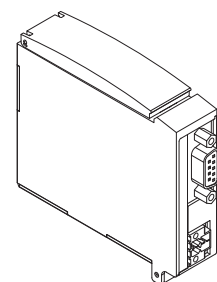


● Discrete serial transmission slave unit (Thin slot-insertion type)

4GR - OPP7 - 2G

A Wiring method

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



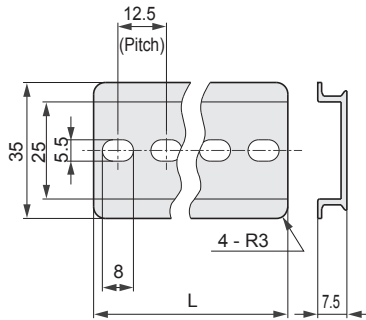
4GAB
M4GAB
MN4GAB
4GAB Master valve
4GD/E
M4GD/E
MN4GD/E
Technical data
Safety precautions
Manifold Specifications

Related products

Mounting rail, silencer, blank plug, tag plate

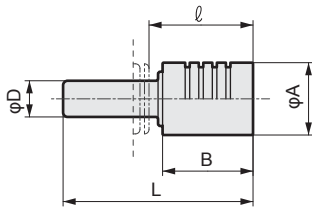
● Mounting rail

N4GR-BAA <length>



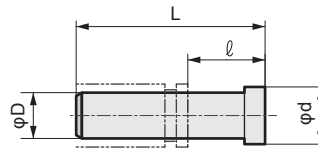
- The min. length is 87.5 mm.
- Select the length in pitches of 12.5 mm.
- Refer to page 297 for details.

● 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

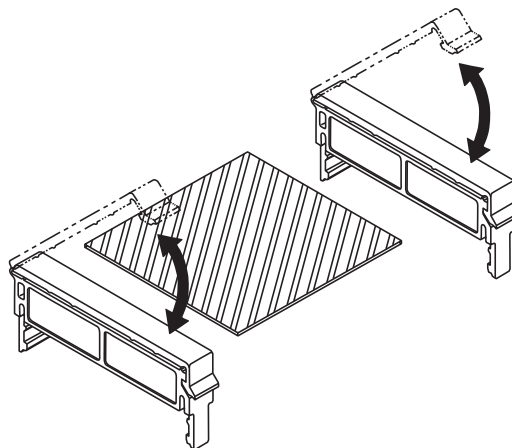
N4G2

(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.

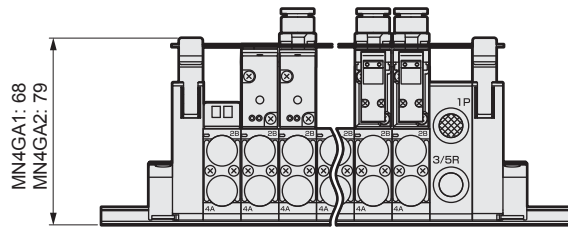
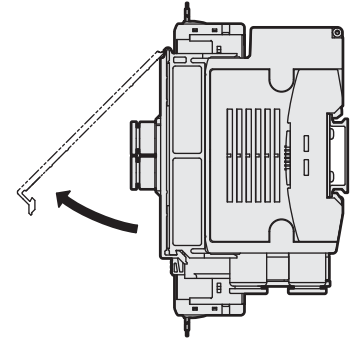
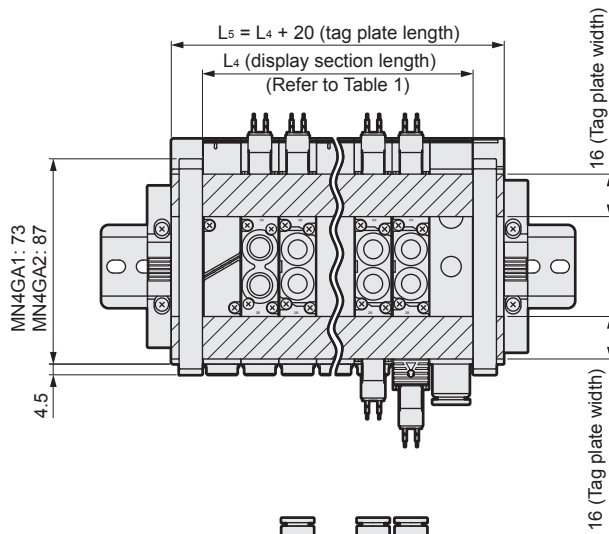
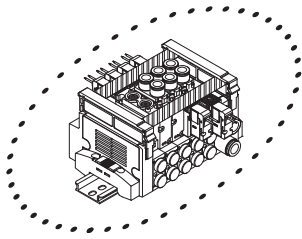
MN4GA & 4GB Series

Block manifold; related products

Dimensions: tag plate

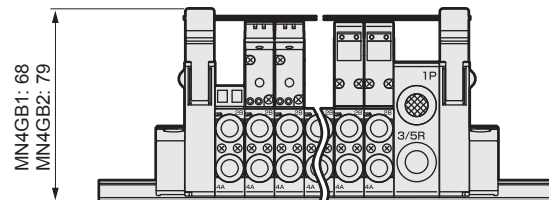
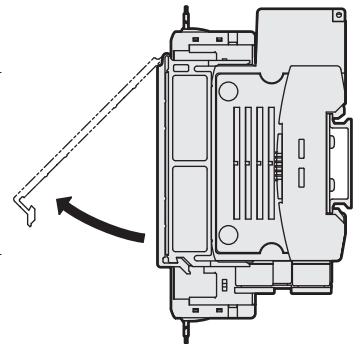
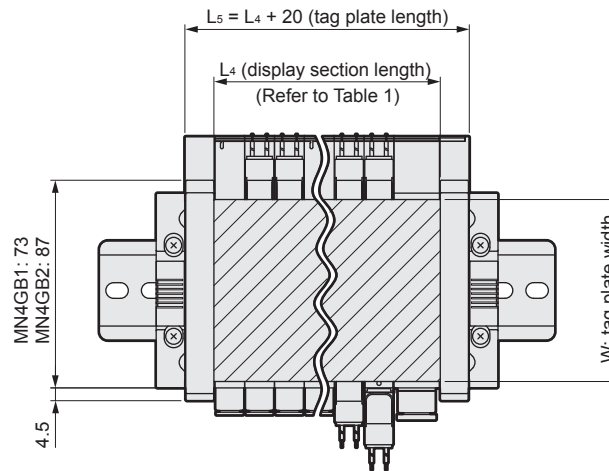
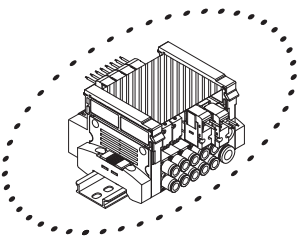
MN4GA1/2

● 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

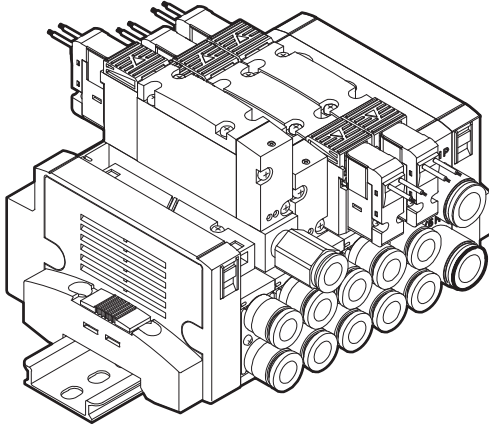
m: number of supply and exhaust blocks

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 | Descriptions | 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.

4GAB

M4GA/B

MN4GA/B

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

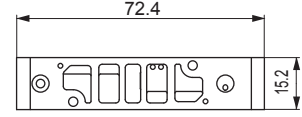
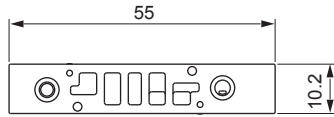
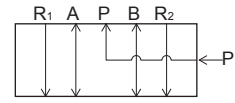
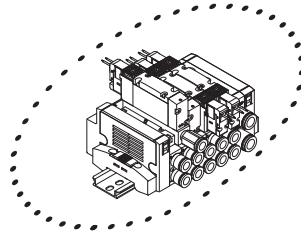
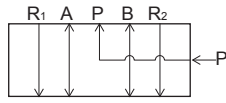
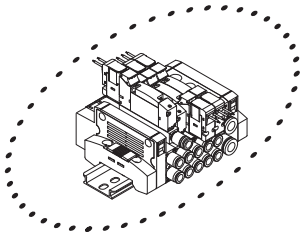
MN4GA & 4GB Series

Block manifold; related products

Dimensions

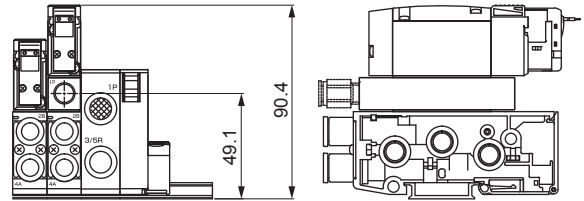
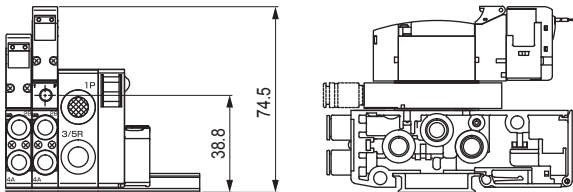
● 4G1

● 4G2



Dimensions when mounted

Dimensions when mounted

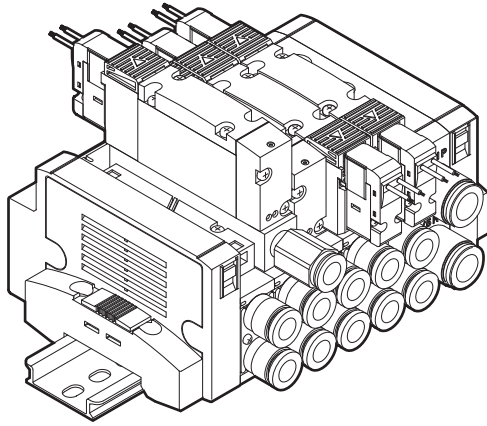


4GAB
M4GAB
MN4GAB
4GAB Master valve
4GD/E
M4GD/E
MN4GD/E
Technical data
Safety precautions
Manifold Specifications

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

| Symbol | Descriptions | Model no. | | | |
|-----------------------------------|----------------------------------|-----------|------|------|------|
| | | 4GA1 | 4GB1 | 4GA2 | 4GB2 |
| 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.

4GAB

M4GA/B

MN4GA/B

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

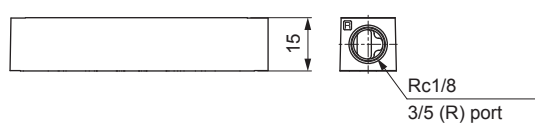
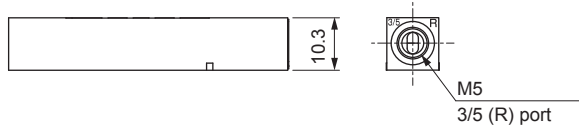
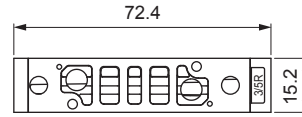
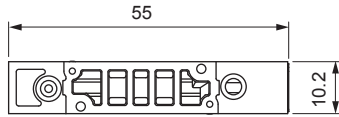
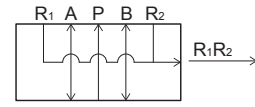
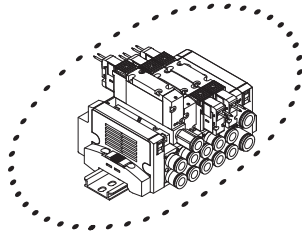
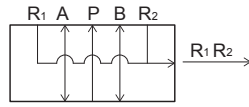
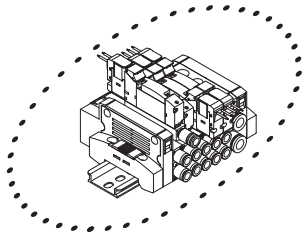
MN4GA & 4GB Series

Block manifold; related products

Dimensions

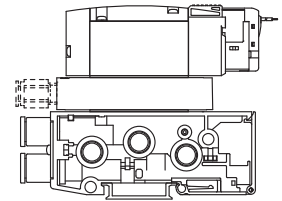
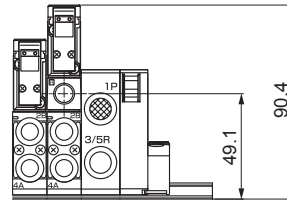
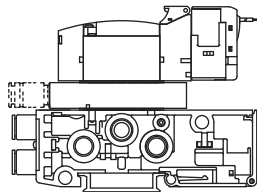
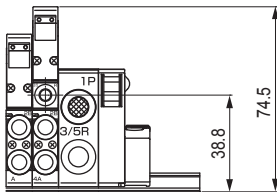
● 4G1

● 4G2



Dimensions when mounted

Dimensions when mounted

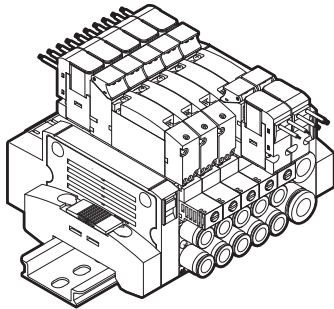


4GAB
M4GAB
MN4GA/B
4GAB Master valve
4GD/E
M4GD/E
MN4GD/E
Technical data
Safety precautions
Manifold Specifications

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

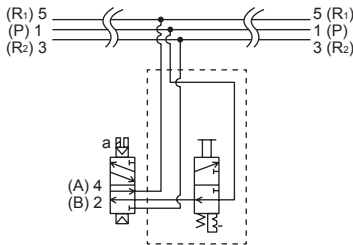
How to order discrete part

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).

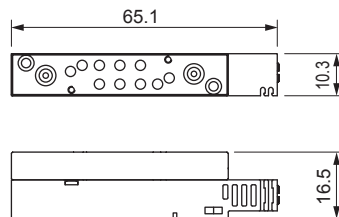
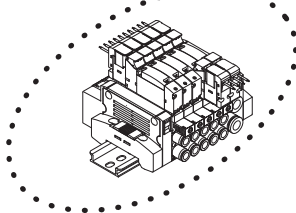
Note 3: If the elbow type (upward) A/B port fitting is used for the reduced wiring manifold, the in stop valve spacer cannot be selected.

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

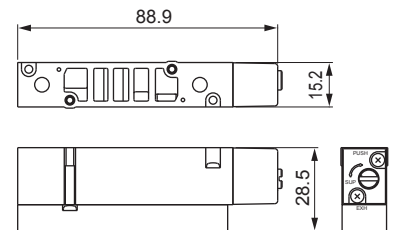
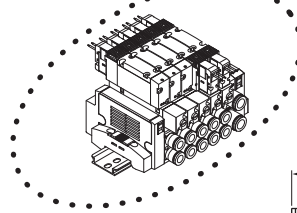
Note 5: When adding to the reduced wiring manifold, the existing electric wire may be too short. Contact CKD for details.

Dimensions

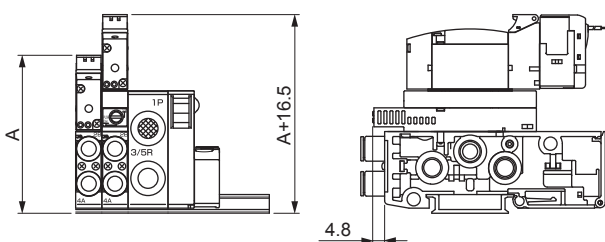
● 4G1



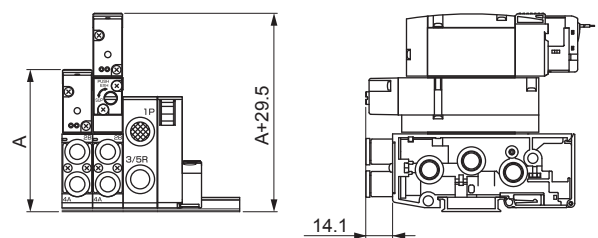
● 4G2



Dimensions when mounted



Dimensions when mounted



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

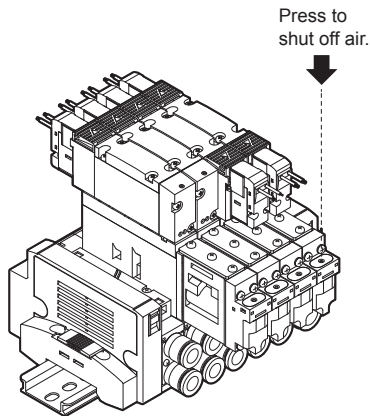
MN4GA & 4GB Series

Block manifold; related products

Related products

Spacer type pilot check valve

● Spacer type pilot check valve

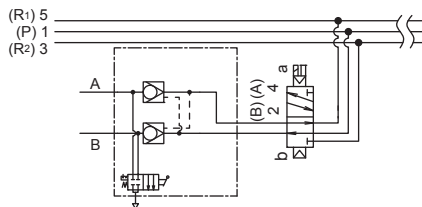


Specifications

| 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



Discrete model no.



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.

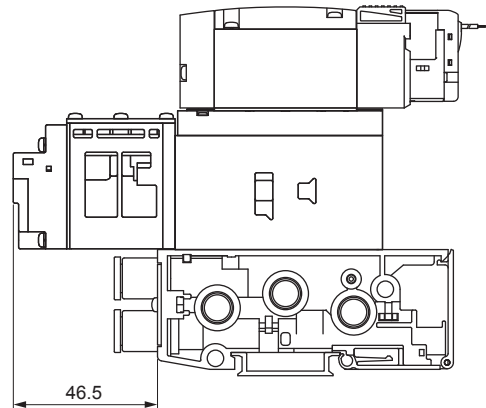
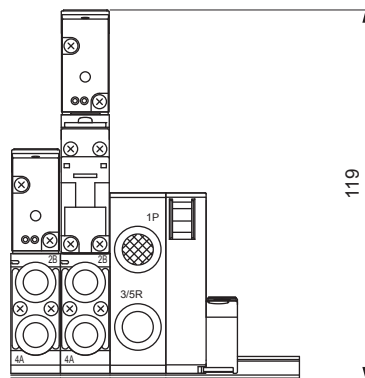
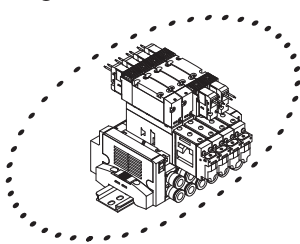
Note 3: Stacking multiple spacers is not supported.

Note 4: The spacer and masking plate can not be combined.

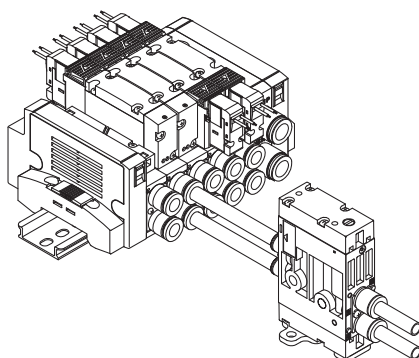
Note 5: The spacer type pilot check valve that can be installed in the piping system is only the base piping type.

Dimensions

● MN4GB2



● Pilot check valve



Refer to page 186 for details.

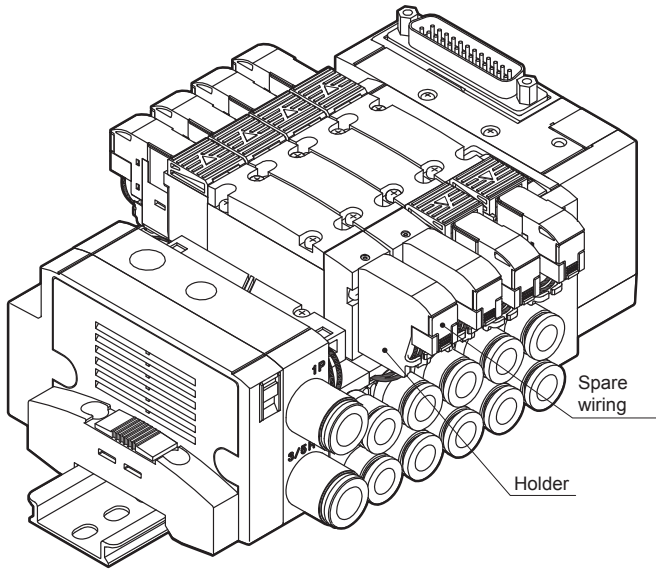
4GAB
M4GAB
MN4GAB
4GAB Master valve
4GD/E
M4GD/E
MN4GD/E
Technical data
Safety precautions
Manifold Specifications

Related products

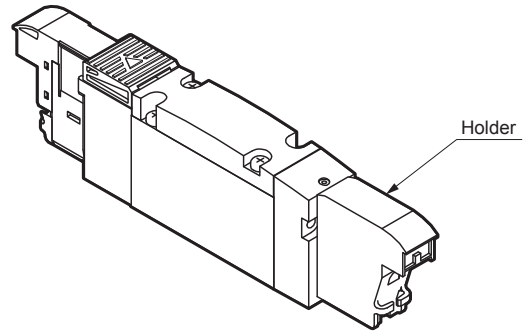
Double wiring (With single spare wiring)

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

Manifold



Discrete valve (A2N)

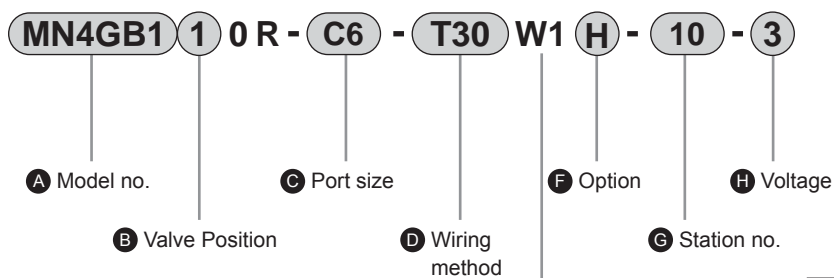


This comes with a holder for holding the socket assembly. (The A type socket assembly is not attached.)
If you want to change the valve from a double solenoid to a single solenoid, the unnecessary socket assembly is assembled and held.

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.

4GAB

M4GA/B

MN4GA/B

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

MN4GA & 4GB Series

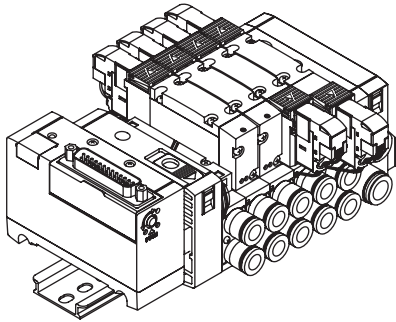
Block manifold; related products

Related products Reduced wiring mall

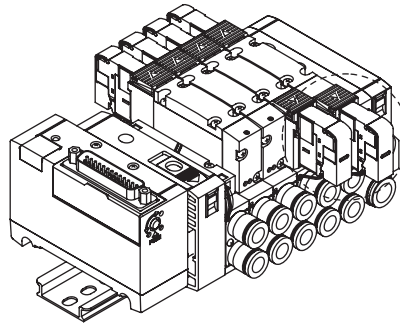
● Reduced wiring mall (Q)

This will protect the A-connector lead wire portion.

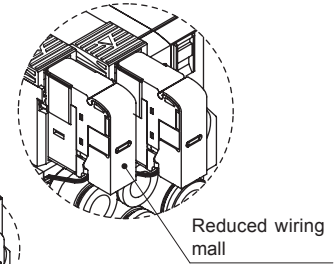
- Selection is possible in the case of the reduced wiring type manifold (T*, T*R) and reduced wiring single valve (A2N).



Standard



When Q (Reduced wiring mall) is selected



Reduced wiring mall

Example of model no.

● Manifold model no. (example)

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

A Model no.

B Valve Position

C Port size

D Wiring method

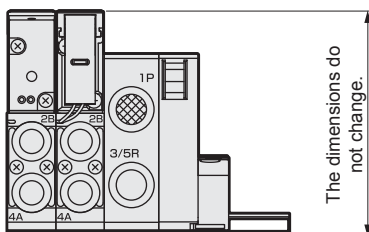
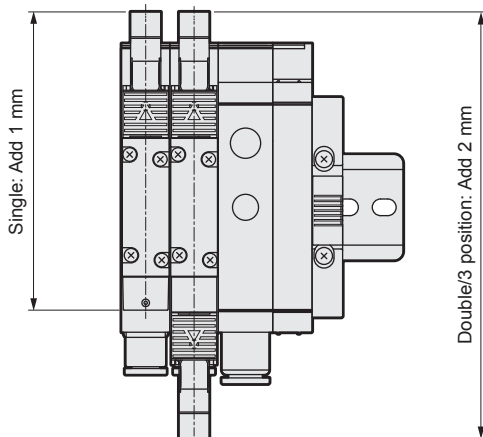
E Terminal and connector pin array

G Station no.

H Voltage

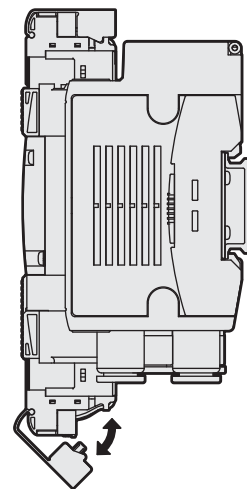
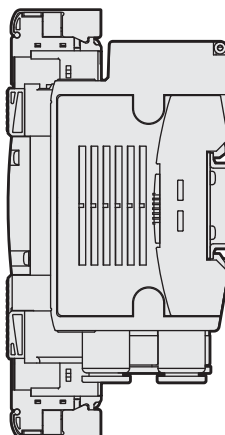
| Symbol | Descriptions |
|----------|---------------------|
| F | Option |
| Q | Reduced wiring mall |

● Dimensions



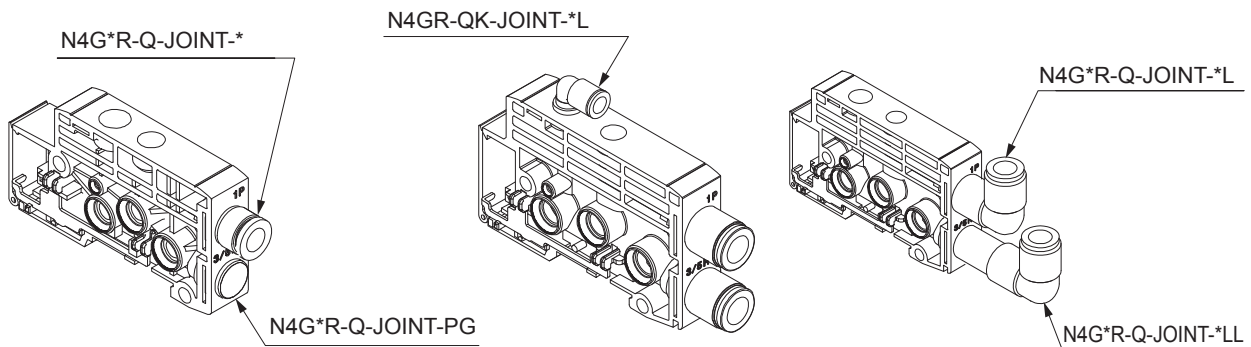
Reduced wiring mall closed

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 |

4GAB

M4GA/B

MN4GA/B

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautionsManifold
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 | <input type="radio"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Valve block with solenoid valve (page 278) | N4GA1 1 0R- C4 | <input type="radio"/> | <input type="radio"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| | N4GA1 2 0R- C6 | | | | | <input type="radio"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| | N4GA1 3 0R- C4 | | | | <input type="radio"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| | N4GA1 0R- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N4GA1 0R- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N4GA1 0R- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N3GA1 1 0R- C4 | | | | | | | | | | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Valve block with masking plate (page 278) | N4GA1R-MP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N4GA1R-MPS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N4GA1R-MPD | | | | | | | <input type="radio"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Supply and exhaust blocks (page 280) | N4G1R-Q - 8L | | | | | | | | <input type="radio"/> | | | | | <input type="radio"/> | | | | | | | | | | | | | | | | | | | | | 2 | |
| | N4G1R-Q - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N4G1R-Q - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Partition blocks (page 281) | N4G1R-S A | | | | | | | | | <input type="radio"/> | | | | | | | | | | | | | | | | | | | | | | | | | 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 | <input type="radio"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Cable with D-sub connector | | | 4GR-CABLE-D0*~ | | | Push-in fitting tube remover (standard) <input type="checkbox"/> 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

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

MN4GA & 4GB Series

Mounting rail length (L2)

- Determine the rail length using the calculation method shown below. The obtained length is standard.
- 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

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

Valve Block Quantity Supply and exhaust Block Quantity Partition Block Quantity Electrical Mix block

Mounting rail length (L2) = L2' × 12.5 A, B, C, D, and E each indicate the length (width) of each block.

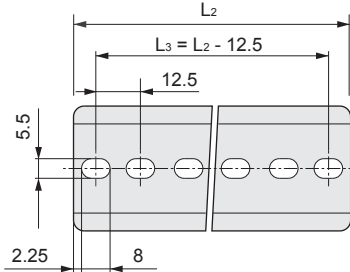
$$L2': \frac{L1 + 40}{12.5} \rightarrow \text{rounded up to integer}$$

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

● 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 | | |
|-----|-------------------------------------|-----------|----------|------------|---------|--|
| | | | | MN4GAB1 | MN4GAB2 | |
| 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.

4GAB

M4GAB

MN4GA/B

4GAB Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety precautions

Manifold 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.

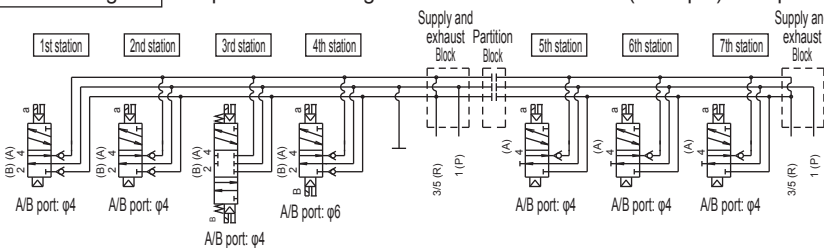
| Connector pin no. | | | | Valve No. | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|----------|----------|----------|-----------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| T50/T50R | T51/T51R | T52/T52R | 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

- 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.
- 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.
- 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.
- 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".
- 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.
- 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.

MN4GB1 Block manifold specifications

● Contact ● Quantity set ● Request date month day

Slip No. Order No.

Issue / /

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
(Reduced wiring connection) Array (Note: Indicate for reduced wiring.) **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) | N4G1R-T <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Valve block with solenoid valve (page 278) | N4GB1 <input type="text"/> 0R- <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N4GB1 <input type="text"/> 0R- <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N4GB1 <input type="text"/> 0R- <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N4GB1 <input type="text"/> 0R- <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N4GB1 <input type="text"/> 0R- <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N4GB1 <input type="text"/> 0R- <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N3GB1 <input type="text"/> 0R- <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N3GB1 <input type="text"/> 0R- <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Valve block with masking plate (page 278) | N4GB1R-MP- <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N4GB1R-MPS- <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N4GB1R-MPD- <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Air supply spacer (page 287) | 4G1R-P- <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4G1R-P- <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Exhaust spacer (page 289) | 4G1R-R- <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| In stop valve Spacer (page 291) | 4G1R-IS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Supply and exhaust block (page 280) | N4G1R-Q <input type="text"/> <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N4G1R-Q <input type="text"/> <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N4G1R-Q <input type="text"/> <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Partition block (page 281) | N4G1R-S <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N4G1R-S <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N4G1R-S <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| End block (page 281) | N4G1R-E <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N4G1R-E <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mounting rail | L ₂ = <input type="text"/> * 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 | GWP6-B | GWP8-B | SLW-H6 | SLW-H8 | B1 | B2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Cable with D-sub connector | | 4GR-CABLE-D0* [*] | | Push-in fitting tube remover (standard) <input type="checkbox"/> Not required (check) | | | | | | | | | | | | | | | | | | | | | | | | | | |

MN4GB1/2 Mix manifold specifications

● Contact ● Quantity set ● Request date month day

Slip No. _____ Order No. _____

Issue / /

Your company name _____

● Manifold model no.

MN4GBX12R- - - -

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 = <input type="text"/> * Fill in the integral multiple of 12.5. (How to determine the length refer to page 297) | Blanking plug | | | | | | | | | | | | | | Silencer | | | | | | | | | | Attached Part | | | | | | |
| | | GWP <input type="text"/> -B | GWP <input type="text"/> -B | GWP <input type="text"/> -B | GWP <input type="text"/> -B | SLW-H <input type="text"/> | SLW-H <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Cable with D-sub connector | | | | 4GR-CABLE-D0* [*] | | | | Push-in fitting tube remover (standard) <input type="checkbox"/> Not required (check) | | | | | | | | | | | | | | | | | | | | | | |

Common terminal block type (T10/T11) 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. | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|-----|-----------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| T10 | T11 | 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 | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 5 | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 6 | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 7 | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | 8 | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 9 | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 10 | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | 11 | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | 12 | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | 13 | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | 14 | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | 15 | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | 16 | | | | | | | | | | | | | | | | | | | | | | | | |
| COM | 17 | | | | | | | | | | | | | | | | | | | | | | | | |
| COM | 18 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 19 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 20 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 21 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 22 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 23 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 24 | | | | | | | | | | | | | | | | | | | | | | | | |
| | COM | | | | | | | | | | | | | | | | | | | | | | | | |
| | COM | | | | | | | | | | | | | | | | | | | | | | | | |

D sub-connector type (T30) 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. | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|----------|-----------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| T30 | | 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 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 14 | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 15 | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 16 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 17 | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 18 | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 19 | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 20 | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 21 | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 22 | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 23 | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 24 | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 25 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 13 (COM) | | | | | | | | | | | | | | | | | | | | | | | | |

4GAB

M4GA/B

MN4GA/B

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautionsManifold
Specifications

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 | Valve No. | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|-------------|-----|-----------|-----------|-----------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | | | | pin 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

M4GAB

MN4GAB

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 |
|------|-------|---------------|----------------------|-------|--------|---------|----------------|-----------------------|----------------------------|