



Individual wiring manifold  
Body piping  
Direct mount

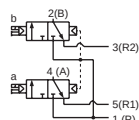
# M3GD1, 2EX/M4GD1, 2, 3, 4EX Series

● Applicable cylinder bore size: ø20 to ø140

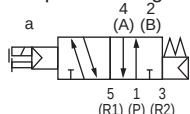


## JIS symbol

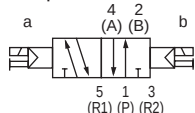
- Two 3-port valves integrated  
(A side valve: NC, B side valve: NC)



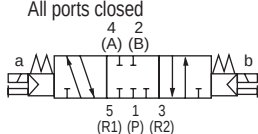
- 5-port valve  
2 position single



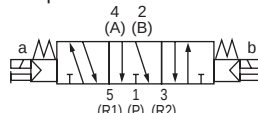
2-position double



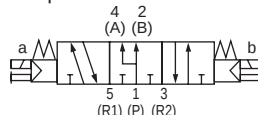
3-position  
All ports closed



3-position A/B/R connection



3-position P/A/B connection



## Manifold common specifications

| Item                                 | Description                                                      |
|--------------------------------------|------------------------------------------------------------------|
| Manifold                             | Integrated base                                                  |
| Mounting method                      | Direct mount/DIN rail mount                                      |
| Air supply and exhaust method        | Common supply/common exhaust (With internal exhaust check valve) |
| Pilot exhaust method                 | Internal pilot                                                   |
| Piping direction                     | Valve top direction                                              |
| Valve and operation                  | Pilot operated soft spool valve                                  |
| Working fluid                        | Compressed air                                                   |
| Max. working pressure MPa            | 0.7                                                              |
| Min. working pressure MPa            | 0.2                                                              |
| Proof pressure MPa                   | 1.05                                                             |
| Ambient temperature °C               | -5 to 55 (no freezing)                                           |
| Fluid temperature °C                 | 5 to 55                                                          |
| Manual override                      | Non-locking/locking common                                       |
| Lubrication *1                       | Not required                                                     |
| Degree of protection *2              | IP67                                                             |
| ResistanceVibration m/s <sup>2</sup> | 50 or less                                                       |
| ResistanceImpact m/s <sup>2</sup>    | 300 or less                                                      |
| Atmosphere                           | Cannot be used in corrosive gas environments                     |

- \*1 Use turbine oil Class 1 ISO VG32 for lubrication. Excessive or intermittent lubrication results in unstable operation.
- \*2 Tested according to the test method for IP67 (IEC60529) standards. Note that while the unit is protected from dust and water, it cannot be used immersed in water. Countermeasures such as covering the unit should also be taken if using in environments where it will be constantly exposed to dust or water.

## Solenoid specifications

| Item                      | Description  |
|---------------------------|--------------|
| Rated voltage V           | 12 DC        |
| Voltage fluctuation range | +10%<br>-20% |
| Rated current A           | 0.05         |
| Power consumption W       | 0.6          |
| Thermal class             | B            |

## Individual specifications

| Port size                                                   | M3GD1/M4GD1                    | M3GD2/M4GD2                          | M4GD3                                 | M4GD4                                  |
|-------------------------------------------------------------|--------------------------------|--------------------------------------|---------------------------------------|----------------------------------------|
| Max. station No.                                            | 20 stations                    | 20 stations                          | 20 stations                           | 15 stations                            |
| 2, 4-port (port A/B)                                        | Push-in fitting<br>ø4,ø6<br>M5 | Push-in fitting<br>ø4,ø6,ø8<br>Rc1/8 | Push-in fitting<br>ø6,ø8,ø10<br>Rc1/4 | Push-in fitting<br>ø8,ø10,ø12<br>Rc3/8 |
| 1, 3, 5-port (Port P/R1/R2)                                 | Rc1/8                          | Rc1/4                                | Rc3/8                                 | Rc1/2                                  |
| Manifold base Weight calculation formula (n: station No.) g | 23n+52                         | 47n+64                               | 74n+88                                | 150n+199                               |

For 10 or more manifold station No. (5 stations for 4G3 and 4G4), use ports on both sides for air supply and exhaust. The manifold base weight is the value for screw specifications.

3GD\*0EX  
4GD\*0EX

3GE\*0EX  
4GE\*0EX

M3GD\*0EX  
M4GD\*0EX

M3GE\*0EX  
M4GE\*0EX

Related products

Manifold  
Specifications sheet

Precautions for use

# M3GD1, 2\*EX/M4GD1, 2, 3, 4\*EX Series

Individual wiring manifold; Body piping

## Flow characteristics

| Model No.      | Solenoid position            |                  | P → A/B                     |      | A/B → R1/R2                 |             |
|----------------|------------------------------|------------------|-----------------------------|------|-----------------------------|-------------|
|                |                              |                  | C[dm <sup>3</sup> /(s·bar)] | b    | C[dm <sup>3</sup> /(s·bar)] | b           |
| M3GD1<br>M4GD1 | Two 3-port valves integrated |                  | 0.86                        | 0.31 | 1.1 (0.66)                  | 0.19 (0.22) |
|                | 2-position                   |                  | 0.99                        | 0.20 | 1.2 (0.70)                  | 0.20 (0.12) |
|                | 3-position                   | All ports closed | 0.94                        | 0.23 | 1.1 —                       | 0.20 —      |
|                |                              | A/B/R connection | 0.93                        | 0.18 | 1.3 (0.70)                  | 0.23 (0.02) |
|                |                              | P/A/B connection | 1.1                         | 0.28 | 1.1 —                       | 0.23 —      |
| M3GD2<br>M4GD2 | Two 3-port valves integrated |                  | 1.7                         | 0.40 | 2.3 (1.7)                   | 0.29 (0.32) |
|                | 2-position                   |                  | 2.3                         | 0.36 | 2.9 (1.7)                   | 0.24 (0.33) |
|                | 3-position                   | All ports closed | 2.1                         | 0.35 | 2.5 —                       | 0.32 —      |
|                |                              | A/B/R connection | 2.2                         | 0.37 | 2.9 (1.8)                   | 0.32 (0.29) |
|                |                              | P/A/B connection | 2.4                         | 0.34 | 2.5 —                       | 0.33 —      |
| M4GD3          | 2-position                   |                  | 3.2                         | 0.37 | 3.8 (2.5)                   | 0.13 (0.28) |
|                | 3-position                   | All ports closed | 2.9                         | 0.35 | 3.3 —                       | 0.35 —      |
|                |                              | A/B/R connection | 3.0                         | 0.34 | 3.8 (2.6)                   | 0.12 (0.27) |
|                |                              | P/A/B connection | 3.3                         | 0.30 | 3.3 —                       | 0.32 —      |
| M4GD4          | 2-position                   |                  | 7.3                         | 0.12 | 9.0 —                       | 0.17 —      |
|                | 3-position                   | All ports closed | 6.4                         | 0.15 | 8.2 —                       | 0.22 —      |
|                |                              | A/B/R connection | 6.3                         | 0.33 | 8.9 —                       | 0.26 —      |
|                |                              | P/A/B connection | 8.0                         | 0.08 | 8.3 —                       | 0.22 —      |

\*1: Effective cross-sectional area S and sonic conductance C use the conversion formula  $S \approx 5.0 \times C$ .

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

3GD\*0EX  
4GD\*0EX

3GE\*0EX  
4GE\*0EX

M3GD\*0EX  
M4GD\*0EX

M3GE\*0EX  
M4GE\*0EX

Related products

Manifold  
Specifications sheet

Precautions for use

# M3GD1, 2\*EX/M4GD1, 2, 3, 4\*EX Series

Individual wiring manifold; Body piping

## How to order

Manifold model No.

M 4GD1 1 0 EX - C4 - RN H - 6 - 4

3-port manifold model No.

M 3GD1 66 0 EX - M5 - RN H - 2 - 4

Discrete valve for integrated base

4GD1 1 9 EX - C6 - RN H - 4

3-port discrete valve for integrated base

3GD1 66 9 EX - M5 - RN H - 4

A Model No.

B Solenoid position

C Explosion-proof Series

D Port size

E Electrical connections

F Option

G Mount type

H Station No.

I Voltage

A Model No.

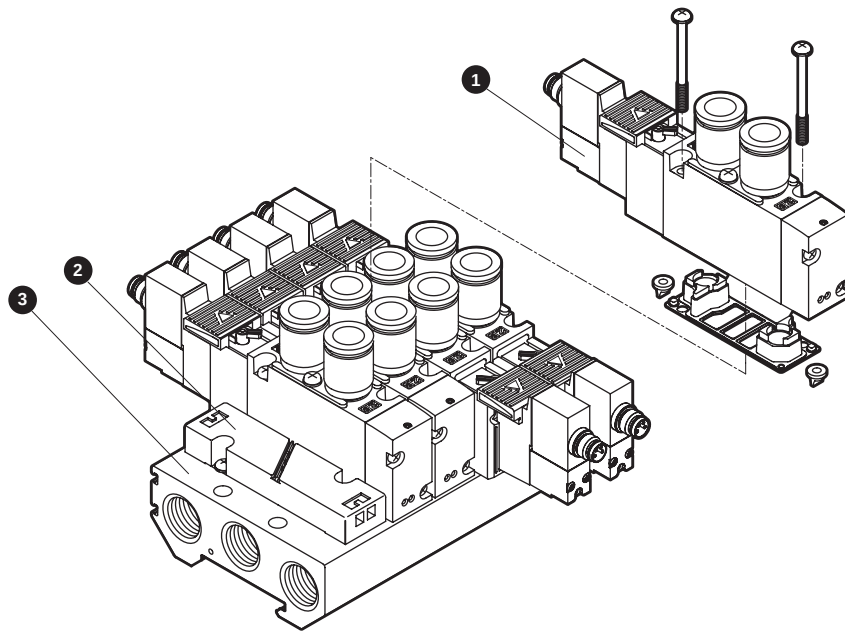
3GD1 3GD2 4GD1 4GD2 4GD3 4GD4

| Code                                 | Description                                                                                                                | 3GD1                                                                   | 3GD2 | 4GD1 | 4GD2 | 4GD3 | 4GD4 |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------|------|------|------|------|
| <b>B Solenoid position</b>           |                                                                                                                            |                                                                        |      |      |      |      |      |
| 1                                    | 2 position single                                                                                                          |                                                                        |      | ●    | ●    | ●    | ●    |
| 2                                    | 2-position double                                                                                                          |                                                                        |      | ●    | ●    | ●    | ●    |
| 3                                    | 3-position all ports closed                                                                                                |                                                                        |      | ●    | ●    | ●    | ●    |
| 4                                    | 3-position ABR connection                                                                                                  |                                                                        |      | ●    | ●    | ●    | ●    |
| 5                                    | 3-position PAB connection                                                                                                  |                                                                        |      | ●    | ●    | ●    | ●    |
| 66                                   | Two 3-port valves *1/2 integrated<br>A side valve: Normally Closed<br>B side valve: Normally Closed                        | ●                                                                      | ●    |      |      |      |      |
| 8                                    | Mix manifold (when there are multiple solenoid positions)                                                                  | ●                                                                      | ●    | ●    | ●    | ●    | ●    |
| <b>C Explosion-proof Series</b>      |                                                                                                                            |                                                                        |      |      |      |      |      |
| EX                                   | CCC and NEPSI certification (China)<br>IECEX certified (international)<br>KCs (South Korea), TS (Taiwan) compliant product | ●                                                                      | ●    | ●    | ●    | ●    | ●    |
| <b>D Port size [2(B), 4(A) port]</b> |                                                                                                                            |                                                                        |      |      |      |      |      |
| Port                                 | 4(A)/2(B) port                                                                                                             | Port P/R1/R2<br>(2) = Rc1/8<br>(3) = Rc1/4<br>(4) = Rc3/8<br>(5)=Rc1/2 |      |      |      |      |      |
| C4                                   | ø4 push-in fitting                                                                                                         | (2)                                                                    | (3)  | (2)  | (3)  |      |      |
| C6                                   | ø6 push-in fitting                                                                                                         | (2)                                                                    | (3)  | (2)  | (3)  | (4)  |      |
| C8                                   | ø8 push-in fitting                                                                                                         |                                                                        | (3)  |      | (3)  | (4)  | (5)  |
| C10                                  | ø10 push-in fitting                                                                                                        |                                                                        |      |      |      | (4)  | (5)  |
| C12                                  | ø12 push-in fitting                                                                                                        |                                                                        |      |      |      |      | (5)  |
| CX                                   | Push-in fitting mix *3                                                                                                     | (2)                                                                    | (3)  | (2)  | (3)  | (4)  | (5)  |
| M5                                   | M5                                                                                                                         | (2)                                                                    |      | (2)  |      |      |      |
| 06                                   | Rc1/8                                                                                                                      |                                                                        | (3)  |      | (3)  |      |      |
| 08                                   | Rc1/4                                                                                                                      |                                                                        |      |      |      | (4)  |      |
| 10                                   | Rc3/8                                                                                                                      |                                                                        |      |      |      |      | (5)  |
| <b>E Electrical connections</b>      |                                                                                                                            |                                                                        |      |      |      |      |      |
| RN                                   | M8 connector without cable                                                                                                 | ●                                                                      | ●    | ●    | ●    | ●    | ●    |
| R1                                   | M8 connector straight cable *4                                                                                             | ●                                                                      | ●    | ●    | ●    | ●    | ●    |
| R2                                   | M8 connector L-type cable *4                                                                                               | ●                                                                      | ●    | ●    | ●    | ●    | ●    |
| <b>F Option</b>                      |                                                                                                                            |                                                                        |      |      |      |      |      |
| Blank                                | Manual override of non-locking/locking common (standard)                                                                   | ●                                                                      | ●    | ●    | ●    | ●    | ●    |
| H                                    | With exhaust check valve *5, *7                                                                                            | ●                                                                      | ●    | ●    | ●    | ●    |      |
| F                                    | Port A/B filter *6                                                                                                         | ●                                                                      | ●    | ●    | ●    | ●    | ●    |
| Z1                                   | Air supply spacer *7, *8                                                                                                   | ●                                                                      | ●    | ●    | ●    | ●    |      |
| Z3                                   | Exhaust spacer *7, *8                                                                                                      | ●                                                                      | ●    | ●    | ●    | ●    |      |
| <b>G Mount type</b>                  |                                                                                                                            |                                                                        |      |      |      |      |      |
| Blank                                | Direct mount                                                                                                               | ●                                                                      | ●    | ●    | ●    | ●    | ●    |
| <b>H Station No.</b>                 |                                                                                                                            |                                                                        |      |      |      |      |      |
| 2                                    | 2 stations                                                                                                                 |                                                                        |      |      |      |      | 2    |
| to                                   | to                                                                                                                         | ●                                                                      | ●    | ●    | ●    | ●    | to   |
| 20                                   | 20 stations (Refer to page 41 for the max. station number)                                                                 |                                                                        |      |      |      |      | 15   |
| <b>I Voltage</b>                     |                                                                                                                            |                                                                        |      |      |      |      |      |
| 4                                    | 12 VDC                                                                                                                     | ●                                                                      | ●    | ●    | ●    | ●    | ●    |

### ⚠ Precautions for model No. selection

- \*1 M4GD\*80EX when using a mixture of 3, 5-port valves. M3GD\*80EX when used with a masking plate.
- \*2 Dimensions are the same as the respective 2-position double solenoid.
- \*3 The push-in fitting cannot be mixed with the single valve's 4(A) or 2(B) port.
- \*4 M8 connector length is 300mm. Select other lengths from page 64 as needed.
- \*5 3-position all ports closed and PAB connection are not provided with exhaust check specifications (H). Refer to page 79 for details on the exhaust check valve.
- \*6 A filter is built into port P as standard.
- \*7 4G4 cannot be selected for exhaust check valves (H), air supply spacers (Z1), or exhaust spacers (Z3).
- \*8 Specify the spacer mounting position/quantity in the manifold specifications sheet. Stacking of spacers is not possible. Combination with the masking plate is not supported. Refer to pages 59 to 62 for details.
- \*9 Explosion-proof barrier sold separately. Select from page 69.

## Manifold configuration explanation and parts list



### Main configuration parts list

| Part No. | Configuration parts name           | Model No.                                                                                                                                                                                                                                                   | Item                                                                | Remarks                                          |
|----------|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------------|
| 1        | Discrete valve for integrated base | 4GD <input type="checkbox"/> 9EX- <input type="text"/> <div>             Port size - Electrical connections Option - Voltage           </div> <div>             Solenoid position           </div> <div>             Series flow rate size           </div> | Discrete valve<br>Gasket<br>Mounting screws 2<br>(PR check valve 2) | Details on page 43                               |
| 2        | Masking plate                      | 3G1/4G1 4G1R-MP<br>3G2/4G2 4G2R-MP<br>4G3 4G3R-MP<br>4G4 4GA4-MP                                                                                                                                                                                            | Masking plate<br>Gasket<br>Mounting screws 2                        | * Two PR check valves are included with 4G3/4G4. |
| 3        | Manifold base assembly             | M4GD <input type="checkbox"/> R-00 <input type="text"/> <div>             Option - Station No.           </div> <div>             Series flow rate size           </div>                                                                                    | Manifold base                                                       |                                                  |

### Parts list

| Part No. | Part name               | Model No.                                                                                      | Part No. | Part name                                   | Model No.                                                                                                                                                                                                                                                                                                                                      |
|----------|-------------------------|------------------------------------------------------------------------------------------------|----------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -        | M8 connector cable      | 4GEX-M8CC- <input type="text"/> Direction - <input type="text"/> Length<br>*Details on page 64 | -        | Cartridge push-in fitting and related parts | 4G1 ø4 straight 4G1R-JOINT-C4<br>ø6 straight 4G1R-JOINT-C6<br>4G2 ø4 straight 4G2R-JOINT-C4<br>ø6 straight 4G2R-JOINT-C6<br>ø8 straight 4G2R-JOINT-C8<br>ø6 straight 4G3R-JOINT-C6<br>4G3 ø8 straight 4G3R-JOINT-C8<br>ø10 straight 4G3R-JOINT-C10<br>ø8 straight 4G4-JOINT-C8<br>4G4 ø10 straight 4G4-JOINT-C10<br>ø12 straight 4G4-JOINT-C12 |
| -        | Explosion-proof barrier | Details on pages 69 to 73                                                                      |          |                                             |                                                                                                                                                                                                                                                                                                                                                |

3GD\*0EX  
4GD\*0EX

3GE\*0EX  
4GE\*0EX

M3GD\*0EX  
M4GD\*0EX

M3GE\*0EX  
M4GE\*0EX

Related products

Manifold specifications sheet

Precautions for use

# M4GD1\*0EX Series

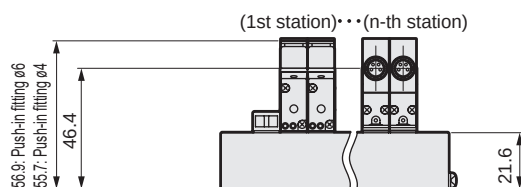
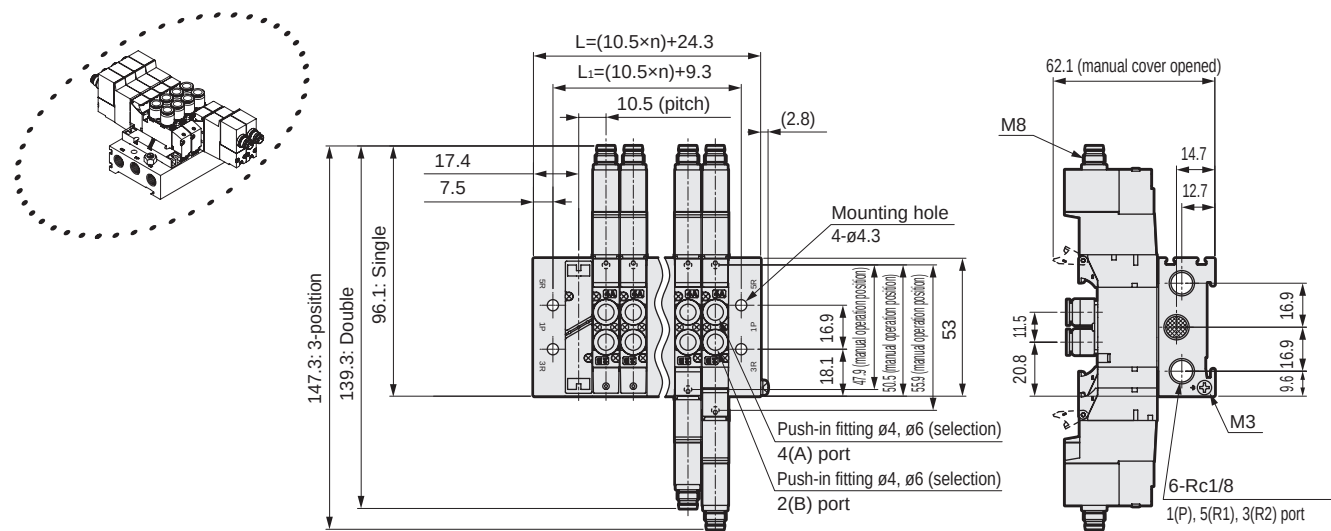
Individual wiring manifold; Body piping

## Dimensions

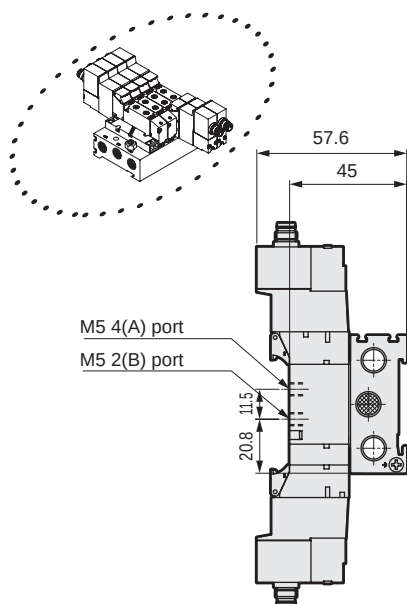
### M4GD1\*0EX

● Without connector (RN)

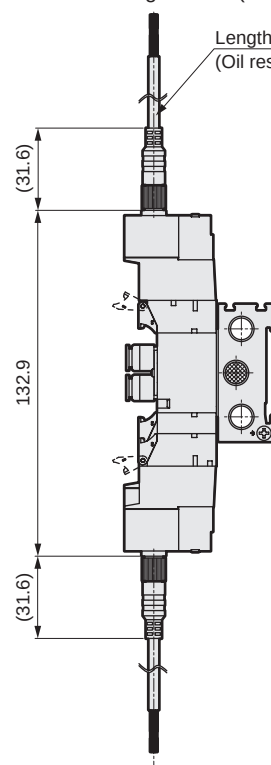
\* The two 3-port valve built-in type has the same dimensions as the double model.



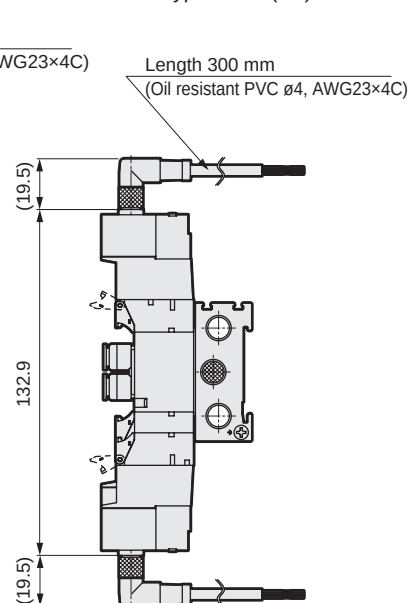
● M5 female thread (M5)



● M8 connector/straight cable (R1)



● M8 connector/L-type cable (R2)



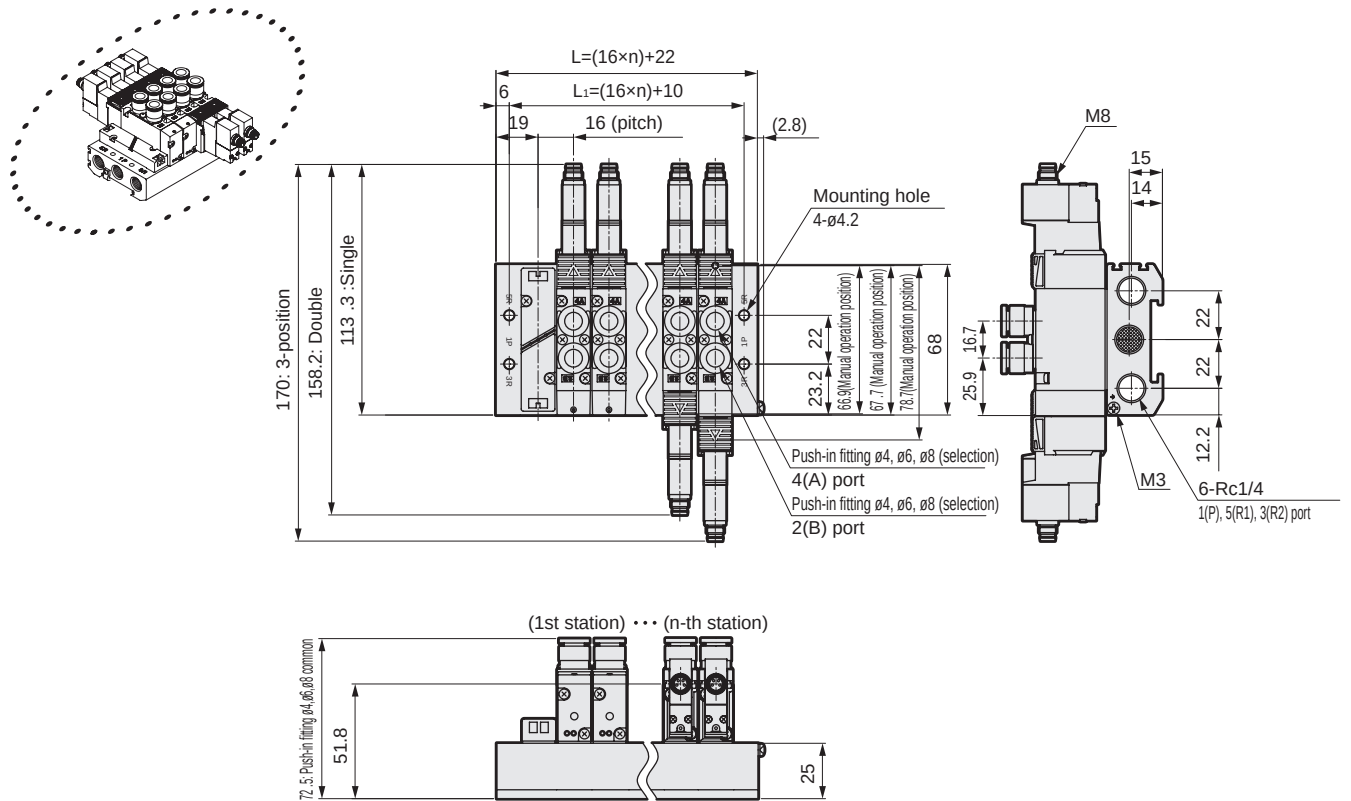
| Station No.    | 2    | 3    | 4    | 5    | 6    | 7    | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    |
|----------------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L              | 45.3 | 55.8 | 66.3 | 76.8 | 87.3 | 97.8 | 108.3 | 118.8 | 129.3 | 139.8 | 150.3 | 160.8 | 171.3 | 181.8 | 192.3 | 202.8 | 213.3 | 223.8 | 234.3 |
| L <sub>1</sub> | 30.3 | 40.8 | 51.3 | 61.8 | 72.3 | 82.8 | 93.3  | 103.8 | 114.3 | 124.8 | 135.3 | 145.8 | 156.3 | 166.8 | 177.3 | 187.8 | 198.3 | 208.8 | 219.3 |

## Dimensions

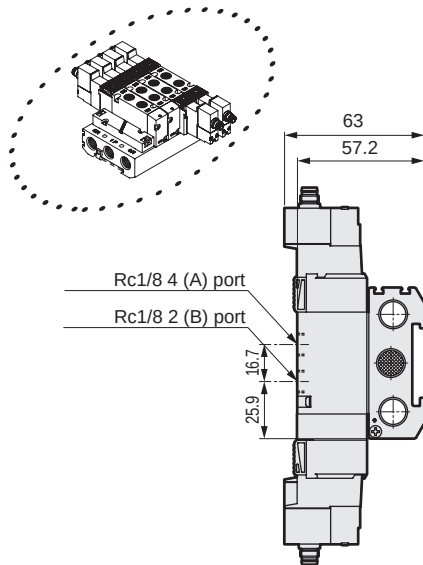
### M4GD2\*0EX

- Without connector (RN)

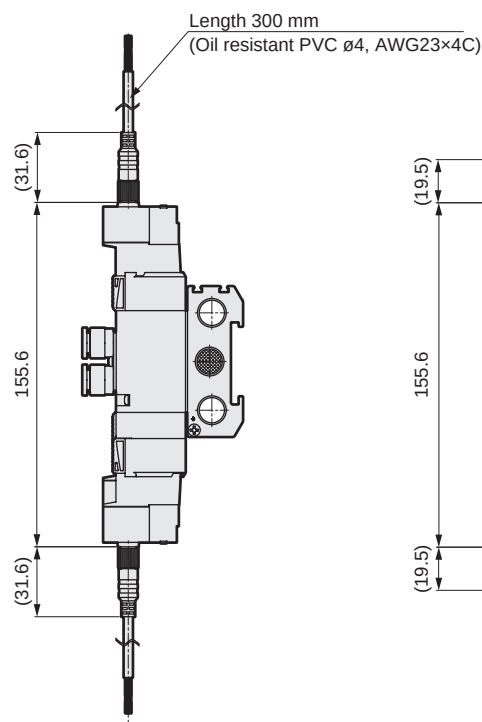
\* The two 3-port valve built-in type has the same dimensions as the double model.



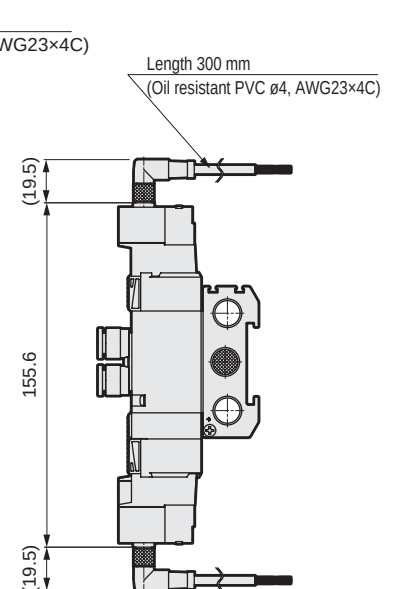
- Rc1/8 female thread (06)



- M8 connector/straight cable (R1)



- M8 connector/L-type cable (R2)



| Station No.    | 2    | 3    | 4    | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    |
|----------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L              | 54.0 | 70.0 | 86.0 | 102.0 | 118.0 | 134.0 | 150.0 | 166.0 | 182.0 | 198.0 | 214.0 | 230.0 | 246.0 | 262.0 | 278.0 | 294.0 | 310.0 | 326.0 | 342.0 |
| L <sub>1</sub> | 42.0 | 58.0 | 74.0 | 90.0  | 106.0 | 122.0 | 138.0 | 154.0 | 170.0 | 186.0 | 202.0 | 218.0 | 234.0 | 250.0 | 266.0 | 282.0 | 298.0 | 314.0 | 330.0 |

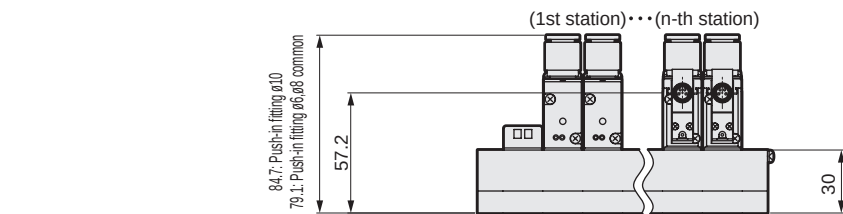
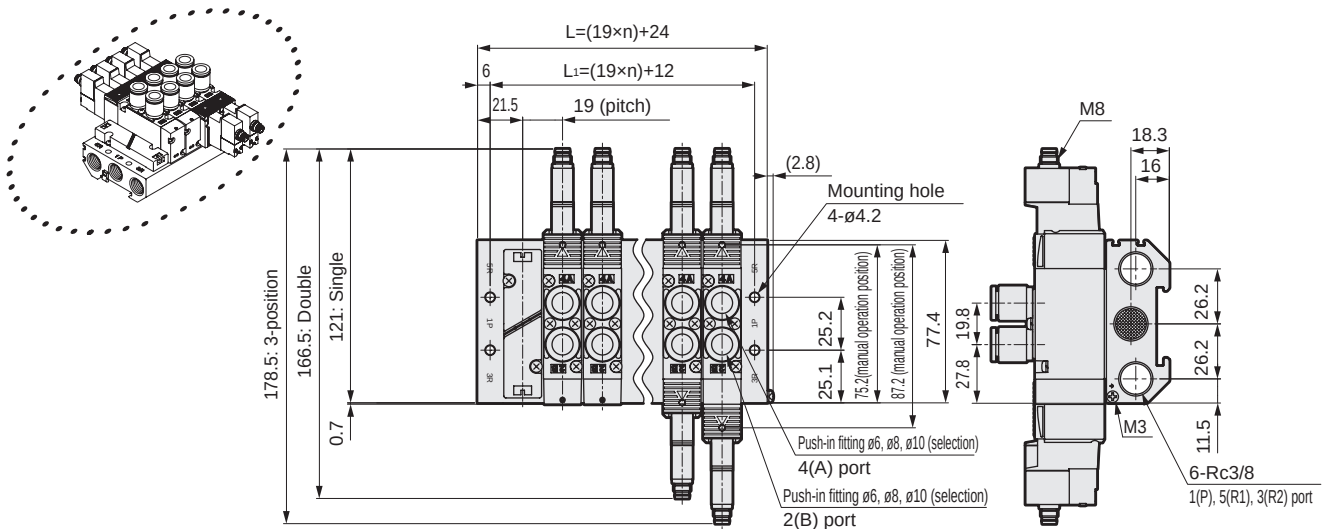
# M4GD3\*0EX Series

Individual wiring manifold; Body piping

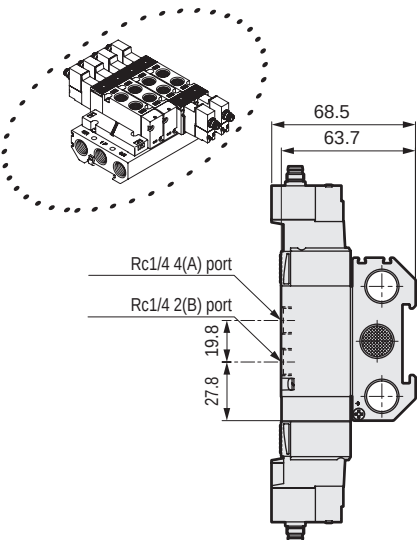
## Dimensions

### M4GD3\*0EX

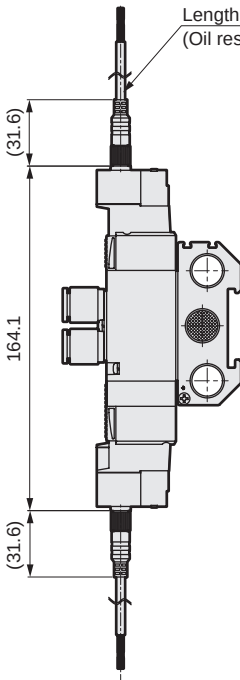
● Without connector (RN)



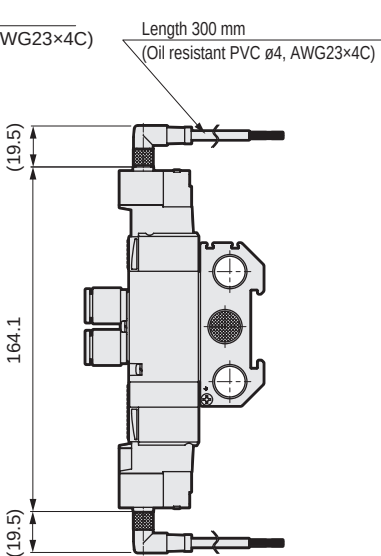
● Rc1/4 female thread (08)



● M8 connector/straight cable (R1)



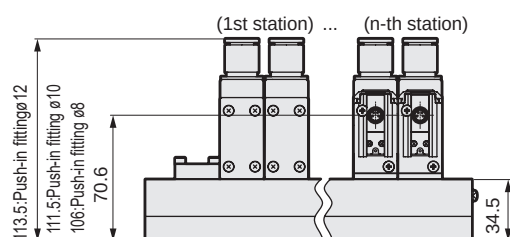
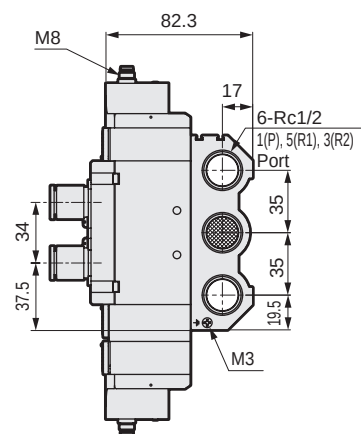
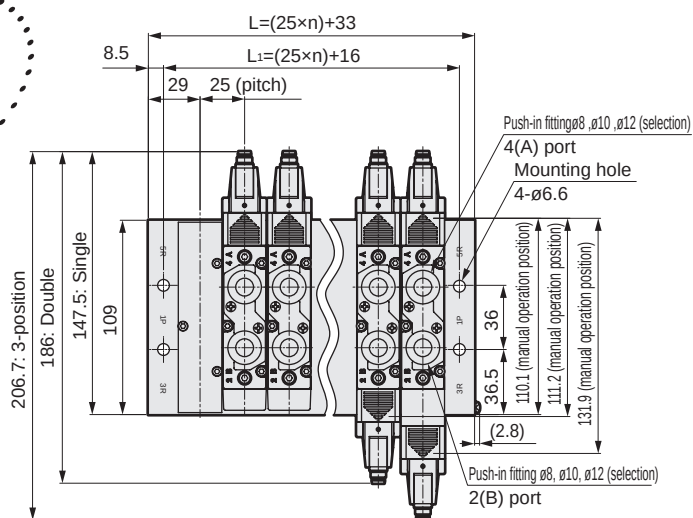
● M8 connector/L-type cable (R2)



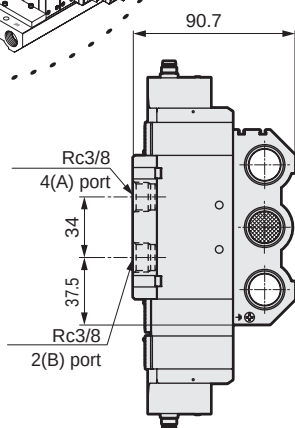
| Station No.    | 2    | 3    | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    |
|----------------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L              | 62.0 | 81.0 | 100.0 | 119.0 | 138.0 | 157.0 | 176.0 | 195.0 | 214.0 | 233.0 | 252.0 | 271.0 | 290.0 | 309.0 | 328.0 | 347.0 | 366.0 | 385.0 | 404.0 |
| L <sub>1</sub> | 50.0 | 69.0 | 88.0  | 107.0 | 126.0 | 145.0 | 164.0 | 183.0 | 202.0 | 221.0 | 240.0 | 259.0 | 278.0 | 297.0 | 316.0 | 335.0 | 354.0 | 373.0 | 392.0 |



- Without connector (RN)



A technical drawing of a 4-way valve assembly. A dashed circle highlights the top section of the valve, which contains four solenoid coils and four ports. An arrow points from the text '4-Way Valve' to this top section.



Length 300 mm  
(Oil resistant PVC ø4, AWG23×4C)

(31.6)

192.7

(31.6)

Technical drawing of the 3x4C valve assembly. The drawing shows a side view of the valve with two horizontal ports at the top and two vertical ports at the bottom. The main body is rectangular with a textured surface. The top and bottom ports are labeled with dimensions: (19.5) for the port height and 192.7 for the main body height. A callout indicates the material is (Oil resistant PVC ø4, AWG23x4C) and the length is 300 mm.

## CKD





Individual wiring manifold  
Base piping  
Direct mount

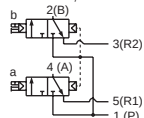
# M3GE1, 2EX/M4GE1, 2, 3, 4EX Series

● Applicable cylinder bore size: ø20 to ø140

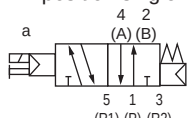


## JIS symbol

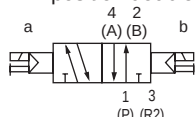
- Two 3-port valves integrated  
(A side valve: NC, B side valve: NC)



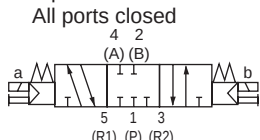
- 5-port valve  
2 position single



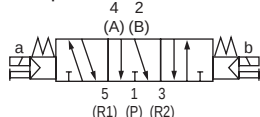
2-position double



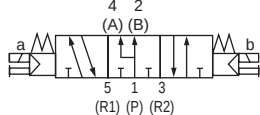
3-position  
All ports closed



3-position A/B/R connection



3-position P/A/B connection



## Manifold common specifications

| Item                                  |                | Description                                                                              |
|---------------------------------------|----------------|------------------------------------------------------------------------------------------|
| Manifold                              |                | Integrated base                                                                          |
| Mounting method                       |                | Direct mount/DIN rail mount                                                              |
| Air supply and exhaust method         |                | Common supply/common exhaust<br>(With internal exhaust check valve)                      |
| Pilot exhaust method                  | Internal pilot | Main valve/pilot valve common exhaust (Standard)<br>(Pilot exhaust check valve built-in) |
| Piping direction                      |                | Side direction of base                                                                   |
| Valve and operation                   |                | Pilot operated soft spool valve                                                          |
| Working fluid                         |                | Compressed air                                                                           |
| Max. working pressure MPa             |                | 0.7                                                                                      |
| Min. working pressure MPa             |                | 0.2                                                                                      |
| Proof pressure MPa                    |                | 1.05                                                                                     |
| Ambient temperature °C                |                | -5 to 55 (no freezing)                                                                   |
| Fluid temperature °C                  |                | 5 to 55                                                                                  |
| Manual override                       |                | Non-locking/locking common                                                               |
| Lubrication *1                        |                | Not required                                                                             |
| Degree of protection *2               |                | IP67                                                                                     |
| Vibration resistance m/s <sup>2</sup> |                | 50 or less                                                                               |
| Shock resistance m/s <sup>2</sup>     |                | 300 or less                                                                              |
| Atmosphere                            |                | Cannot be used in corrosive gas environments                                             |

\*1 Use turbine oil Class 1 ISO VG32 for lubrication. Excessive or intermittent lubrication results in unstable operation.  
\*2 Tested according to the test method for IP67 (IEC60529) standards. Note that while the unit is protected from dust and water, it cannot be used immersed in water. Countermeasures such as covering the unit should also be taken if using in environments where it will be constantly exposed to dust or water.

## Solenoid Specifications

| Item                      | Description |              |
|---------------------------|-------------|--------------|
| Rated voltage             | V           | 12 DC        |
| Voltage fluctuation range |             | +10%<br>-20% |
| Holding current           | A           | 0.05         |
| Power consumption         | W           | 0.6          |
| Thermal class             |             | B            |

## Individual specifications

| Port size                                                         | M3GE1/M4GE1                     | M3GE2/M4GE2                            | M4GE3                                   | M4GE4                                           |             |
|-------------------------------------------------------------------|---------------------------------|----------------------------------------|-----------------------------------------|-------------------------------------------------|-------------|
|                                                                   |                                 |                                        |                                         | Rc1/4 Rc3/8                                     | Rc1/2       |
| Max. station No.                                                  | 20 stations                     | 20 stations                            | 20 stations                             | 15 stations                                     | 12 stations |
| 2, 4-port<br>(port A/B)                                           | Push-in fitting<br>ø4, ø6<br>M5 | Push-in fitting<br>ø4, ø6, ø8<br>Rc1/8 | Push-in fitting<br>ø6, ø8, ø10<br>Rc1/4 | Push-in fitting<br>ø8, ø10, ø12<br>Rc1/4, Rc3/8 | Rc1/2       |
| 1, 3, 5-port<br>(Port P/R1/R2)                                    | Rc1/8                           | Rc1/4                                  | Rc3/8                                   | Rc3/8                                           | Rc1/2       |
| Manifold base<br>Weight calculation formula<br>(n: station No.) g | 35n+61                          | 71n+106                                | 113n+170                                | 273n+329                                        | 391n+560    |

For 10 or more manifold station No. (5 stations for 4G3 and 4G4), use ports on both sides for air supply and exhaust. The manifold base weight is the value for screw specifications.

3GD\*0EX  
4GD\*0EX

3GE\*0EX  
4GE\*0EX

M3GD\*0EX  
M4GD\*0EX

M3GE\*0EX  
M4GE\*0EX

Related products

Manifold  
specifications sheet

Precautions for use

# M3GE1, 2/M4GE1, 2, 3, 4\*EX Series

Individual wiring manifold; BasePiping

## Flow characteristics

| Model No.                     | Solenoid position            |                  | P → A/B                     |      | A/B → R1/R2                 |             |
|-------------------------------|------------------------------|------------------|-----------------------------|------|-----------------------------|-------------|
|                               |                              |                  | C[dm <sup>3</sup> /(s·bar)] | b    | C[dm <sup>3</sup> /(s·bar)] | b           |
| M3GE1<br>M4GE1                | Two 3-port valves integrated |                  | 0.86                        | 0.35 | 1.1 (0.67)                  | 0.22 (0.23) |
|                               | 2-position                   |                  | 1.1                         | 0.22 | 1.2 (0.70)                  | 0.20 (0.10) |
|                               | 3-position                   | All ports closed | 0.98                        | 0.22 | 1.1 —                       | 0.24 —      |
|                               |                              | A/B/R connection | 0.97                        | 0.35 | 1.3 (0.68)                  | 0.22 (0.24) |
|                               |                              | P/A/B connection | 1.1                         | 0.38 | 1.1 —                       | 0.21 —      |
| M3GE2<br>M4GE2                | Two 3-port valves integrated |                  | 1.7                         | 0.44 | 2.1 (1.6)                   | 0.32 (0.30) |
|                               | 2-position                   |                  | 2.4                         | 0.34 | 2.7 (1.7)                   | 0.24 (0.31) |
|                               | 3-position                   | All ports closed | 2.2                         | 0.34 | 2.4 —                       | 0.29 —      |
|                               |                              | A/B/R connection | 2.2                         | 0.34 | 2.8 (1.8)                   | 0.24 (0.27) |
|                               |                              | P/A/B connection | 2.4                         | 0.29 | 2.4 —                       | 0.29 —      |
| M4GE3                         | 2-position                   |                  | 3.5                         | 0.34 | 3.8 (2.6)                   | 0.11 (0.27) |
|                               | 3-position                   | All ports closed | 3.1                         | 0.33 | 3.3 —                       | 0.22 —      |
|                               |                              | A/B/R connection | 3.0                         | 0.30 | 3.8 (2.7)                   | 0.11 (0.22) |
|                               |                              | P/A/B connection | 3.6                         | 0.36 | 3.3 —                       | 0.28 —      |
| M4GE4<br>1-port size<br>Rc3/8 | 2-position                   |                  | 6.4                         | 0.42 | 6.9 —                       | 0.12 —      |
|                               | 3-position                   | All ports closed | 6.0                         | 0.37 | 6.8 —                       | 0.12 —      |
|                               |                              | A/B/R connection | 6.0                         | 0.31 | 7.1 —                       | 0.11 —      |
|                               |                              | P/A/B connection | 6.0                         | 0.37 | 6.8 —                       | 0.13 —      |
| M4GE4<br>1-port size<br>Rc1/2 | 2-position                   |                  | 8.3                         | 0.23 | 9.0 —                       | 0.21 —      |
|                               | 3-position                   | All ports closed | 7.4                         | 0.15 | 8.8 —                       | 0.19 —      |
|                               |                              | A/B/R connection | 7.5                         | 0.28 | 9.4 —                       | 0.17 —      |
|                               |                              | P/A/B connection | 7.7                         | 0.21 | 8.7 —                       | 0.18 —      |

\*1: Effective cross-sectional area S and sonic conductance C use the conversion formula  $S \approx 5.0 \times C$ .

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

3GD\*0EX  
4GD\*0EX

3GE\*0EX  
4GE\*0EX

M3GD\*0EX  
M4GD\*0EX

M3GE\*0EX  
M4GE\*0EX

Related products

Manifold  
specifications sheet

Precautions for use

# M3GE1, 2/M4GE1, 2, 3, 4\*0EX Series

Individual wiring manifold;BasePiping

## How to order

Manifold model No.

M 4GE1 1 0 EX - C4 - RN H - 6 - 4

3-port manifold model No.

M 3GE1 66 0 EX - M5 - RN H - 2 - 4

Discrete valve for integrated base

4GE1 1 9 EX - 00 - RN H - 4

3-port discrete valve for integrated base

3GE1 66 9 EX - 00 - RN H - 4

A Model No.

B Solenoid position

C Explosion-proof Series

D Port size

E Electrical connections

F Option

G Mount type

H Station No.

I Voltage

A Model No.

3GE1 3GE2 4GE1 4GE2 4GE3 4GE4

| Code                                 | Description                                                                                                                | 3GE1                                                                   | 3GE2 | 4GE1 | 4GE2 | 4GE3 | 4GE4 |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------|------|------|------|------|
| <b>B Solenoid position</b>           |                                                                                                                            |                                                                        |      |      |      |      |      |
| 1                                    | 2 position single                                                                                                          |                                                                        |      | ●    | ●    | ●    | ●    |
| 2                                    | 2-position double                                                                                                          |                                                                        |      | ●    | ●    | ●    | ●    |
| 3                                    | 3-position all ports closed                                                                                                |                                                                        |      | ●    | ●    | ●    | ●    |
| 4                                    | 3-position ABR connection                                                                                                  |                                                                        |      | ●    | ●    | ●    | ●    |
| 5                                    | 3-position PAB connection                                                                                                  |                                                                        |      | ●    | ●    | ●    | ●    |
| 66                                   | Two 3-port valves *1/2<br>integrated<br>A side valve: Normally Closed<br>B side valve: Normally Closed                     | ●                                                                      | ●    |      |      |      |      |
| 8                                    | Mix manifold (when there are multiple solenoid positions)                                                                  | ●                                                                      | ●    | ●    | ●    | ●    | ●    |
| <b>C Explosion-proof Series</b>      |                                                                                                                            |                                                                        |      |      |      |      |      |
| EX                                   | CCC and NEPSI certification (China)<br>IECEX certified (international)<br>KCs (South Korea), TS (Taiwan) compliant product | ●                                                                      | ●    | ●    | ●    | ●    | ●    |
| <b>D Port size [2(B), 4(A) port]</b> |                                                                                                                            |                                                                        |      |      |      |      |      |
| Port                                 | 4(A)/2(B) port                                                                                                             | Port P/R1/R2<br>(2) = Rc1/8<br>(3) = Rc1/4<br>(4) = Rc3/8<br>(5)=Rc1/2 |      |      |      |      |      |
| C4                                   | ø4 push-in fitting                                                                                                         | (2)                                                                    | (3)  | (2)  | (3)  |      |      |
| C6                                   | ø6 push-in fitting                                                                                                         | (2)                                                                    | (3)  | (2)  | (3)  | (4)  |      |
| C8                                   | ø8 push-in fitting                                                                                                         |                                                                        | (3)  |      | (3)  | (4)  | (4)  |
| C10                                  | ø10 push-in fitting                                                                                                        |                                                                        |      |      |      | (4)  | (4)  |
| C12                                  | ø12 push-in fitting                                                                                                        |                                                                        |      |      |      |      | (4)  |
| CX                                   | Push-in fitting mix                                                                                                        | (2)                                                                    | (3)  | (2)  | (3)  | (4)  | (4)  |
| M5                                   | M5                                                                                                                         | (2)                                                                    |      | (2)  |      |      |      |
| 06                                   | Rc1/8                                                                                                                      |                                                                        | (3)  |      | (3)  |      |      |
| 08                                   | Rc1/4                                                                                                                      |                                                                        |      |      |      | (4)  | (4)  |
| 10                                   | Rc3/8                                                                                                                      |                                                                        |      |      |      |      | (4)  |
| 15                                   | Rc1/2                                                                                                                      |                                                                        |      |      |      |      | (5)  |
| 00                                   | Valve for base mounting                                                                                                    | ●                                                                      | ●    | ●    | ●    | ●    | ●    |
| <b>E Electrical connections</b>      |                                                                                                                            |                                                                        |      |      |      |      |      |
| RN                                   | M8 connector without cable                                                                                                 | ●                                                                      | ●    | ●    | ●    | ●    | ●    |
| R1                                   | M8 connector straight cable *3                                                                                             | ●                                                                      | ●    | ●    | ●    | ●    | ●    |
| R2                                   | M8 connector L-type cable *3                                                                                               | ●                                                                      | ●    | ●    | ●    | ●    | ●    |
| <b>F Option</b>                      |                                                                                                                            |                                                                        |      |      |      |      |      |
| Blank                                | Manual override of non-locking/locking common (standard)                                                                   | ●                                                                      | ●    | ●    | ●    | ●    | ●    |
| H                                    | With exhaust check valve *4, *6                                                                                            | ●                                                                      | ●    | ●    | ●    | ●    |      |
| F                                    | Port A/B filter *5                                                                                                         | ●                                                                      | ●    | ●    | ●    | ●    | ●    |
| Z1                                   | Air supply spacer *6, *7                                                                                                   | ●                                                                      | ●    | ●    | ●    | ●    |      |
| Z3                                   | Exhaust spacer *6, *7                                                                                                      | ●                                                                      | ●    | ●    | ●    | ●    |      |
| <b>G Mount type</b>                  |                                                                                                                            |                                                                        |      |      |      |      |      |
| Blank                                | Direct mount *8                                                                                                            | ●                                                                      | ●    | ●    | ●    | ●    | ●    |
| <b>H Station No.</b>                 |                                                                                                                            |                                                                        |      |      |      |      |      |
| 2                                    | 2 stations                                                                                                                 |                                                                        |      |      |      |      | 2    |
| to                                   | to                                                                                                                         | ●                                                                      | ●    | ●    | ●    | ●    | to   |
| 20                                   | 20 stations (Refer to page 49 for the max. station number)                                                                 |                                                                        |      |      |      |      | 15   |
| <b>I Voltage</b>                     |                                                                                                                            |                                                                        |      |      |      |      |      |
| 4                                    | 12 VDC                                                                                                                     | ●                                                                      | ●    | ●    | ●    | ●    | ●    |

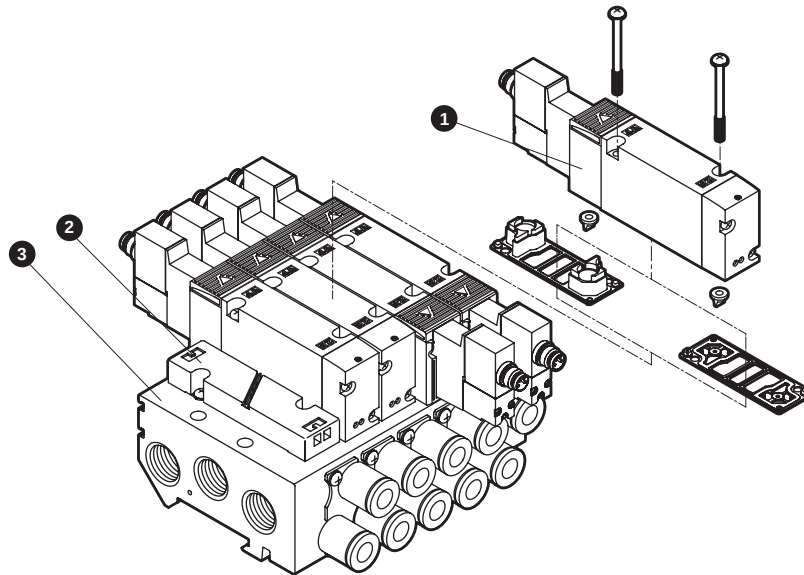
### ⚠ Precautions for model No. selection

- \*1 M4GE\*80EX when using a mixture of 3, 5-port valves. When used with a masking plate, M3GE\*80EX.
- \*2 Dimensions are the same as the respective 2-position double solenoid.
- \*3 M8 connector length is 300mm. Select other lengths from page 64 as needed.
- \*4 3-position all ports closed and PAB connection are not provided with exhaust check valve specifications (H). Refer to page 79 for details on the exhaust check valve.
- \*5 A filter is built into port P as standard.
- \*6 4G4 cannot be selected for exhaust check valves (H), air supply spacers (Z1), or exhaust spacers (Z3).
- \*7 Specify the spacer mounting position/quantity in the manifold specifications sheet. Stacking of spacers is not possible. Combination with the masking plate is not supported. Refer to pages 59 to 62 for details.
- \*8 The manifold max. station No. for port size 12 M4GE4 is 12.
- \*9 Explosion-proof barrier sold separately. Select from page 69.

# M4GE1/2/3/4\*0EX Series

Individual wiring manifold; Base piping

## Manifold configuration explanation and parts list



### Main configuration parts list

| Part No.                                               | Configuration parts name           |                                                         | Model No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Item                                         | Remarks                                         |                                              |             |                                            |                                                         |                                         |                                         |                                              |                                          |                                                        |                                                    |                   |  |               |                                                        |                       |  |  |                                                                      |                    |
|--------------------------------------------------------|------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-------------------------------------------------|----------------------------------------------|-------------|--------------------------------------------|---------------------------------------------------------|-----------------------------------------|-----------------------------------------|----------------------------------------------|------------------------------------------|--------------------------------------------------------|----------------------------------------------------|-------------------|--|---------------|--------------------------------------------------------|-----------------------|--|--|----------------------------------------------------------------------|--------------------|
| 1                                                      | Discrete valve for integrated base |                                                         | 4GE <table><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>9EX -00</td></tr><tr><td colspan="2" rowspan="3"><div></div></td><td><table><tr><td>Electrical connections</td></tr></table></td><td><table><tr><td>Option</td></tr></table></td><td><table><tr><td>Voltage</td></tr></table></td></tr><tr><td><table><tr><td>Solenoid position</td></tr></table></td><td colspan="2"></td></tr><tr><td><table><tr><td>Series flow rate size</td></tr></table></td><td colspan="2"></td></tr></table> | <input type="checkbox"/>                     | <input type="checkbox"/>                        | 9EX -00                                      | <div></div> |                                            | <table><tr><td>Electrical connections</td></tr></table> | Electrical connections                  | <table><tr><td>Option</td></tr></table> | Option                                       | <table><tr><td>Voltage</td></tr></table> | Voltage                                                | <table><tr><td>Solenoid position</td></tr></table> | Solenoid position |  |               | <table><tr><td>Series flow rate size</td></tr></table> | Series flow rate size |  |  | Discrete valve<br>Gasket<br>Mounting screws 2<br>(2 PR check valves) | Details on page 51 |
| <input type="checkbox"/>                               | <input type="checkbox"/>           | 9EX -00                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |                                                 |                                              |             |                                            |                                                         |                                         |                                         |                                              |                                          |                                                        |                                                    |                   |  |               |                                                        |                       |  |  |                                                                      |                    |
| <div></div>                                            |                                    | <table><tr><td>Electrical connections</td></tr></table> | Electrical connections                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <table><tr><td>Option</td></tr></table>      | Option                                          | <table><tr><td>Voltage</td></tr></table>     |             |                                            | Voltage                                                 |                                         |                                         |                                              |                                          |                                                        |                                                    |                   |  |               |                                                        |                       |  |  |                                                                      |                    |
|                                                        |                                    | Electrical connections                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |                                                 |                                              |             |                                            |                                                         |                                         |                                         |                                              |                                          |                                                        |                                                    |                   |  |               |                                                        |                       |  |  |                                                                      |                    |
|                                                        |                                    | Option                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |                                                 |                                              |             |                                            |                                                         |                                         |                                         |                                              |                                          |                                                        |                                                    |                   |  |               |                                                        |                       |  |  |                                                                      |                    |
| Voltage                                                |                                    |                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |                                                 |                                              |             |                                            |                                                         |                                         |                                         |                                              |                                          |                                                        |                                                    |                   |  |               |                                                        |                       |  |  |                                                                      |                    |
| <table><tr><td>Solenoid position</td></tr></table>     | Solenoid position                  |                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |                                                 |                                              |             |                                            |                                                         |                                         |                                         |                                              |                                          |                                                        |                                                    |                   |  |               |                                                        |                       |  |  |                                                                      |                    |
| Solenoid position                                      |                                    |                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |                                                 |                                              |             |                                            |                                                         |                                         |                                         |                                              |                                          |                                                        |                                                    |                   |  |               |                                                        |                       |  |  |                                                                      |                    |
| <table><tr><td>Series flow rate size</td></tr></table> | Series flow rate size              |                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |                                                 |                                              |             |                                            |                                                         |                                         |                                         |                                              |                                          |                                                        |                                                    |                   |  |               |                                                        |                       |  |  |                                                                      |                    |
| Series flow rate size                                  |                                    |                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |                                                 |                                              |             |                                            |                                                         |                                         |                                         |                                              |                                          |                                                        |                                                    |                   |  |               |                                                        |                       |  |  |                                                                      |                    |
| 2                                                      | Masking plate                      | 3G1/4G1                                                 | 4G1R-MP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Masking plate<br>Gasket<br>Mounting screws 2 | *Two PR check valves are included with 4G3/4G4. |                                              |             |                                            |                                                         |                                         |                                         |                                              |                                          |                                                        |                                                    |                   |  |               |                                                        |                       |  |  |                                                                      |                    |
| 3G2/4G2                                                |                                    | 4G2R-MP                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |                                                 |                                              |             |                                            |                                                         |                                         |                                         |                                              |                                          |                                                        |                                                    |                   |  |               |                                                        |                       |  |  |                                                                      |                    |
| 4G3                                                    |                                    | 4G3R-MP                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |                                                 |                                              |             |                                            |                                                         |                                         |                                         |                                              |                                          |                                                        |                                                    |                   |  |               |                                                        |                       |  |  |                                                                      |                    |
| 4G4                                                    |                                    | 4GB4-MP                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |                                                 |                                              |             |                                            |                                                         |                                         |                                         |                                              |                                          |                                                        |                                                    |                   |  |               |                                                        |                       |  |  |                                                                      |                    |
| 3                                                      | Manifold base assembly             |                                                         | M4GE <table><tr><td><input type="checkbox"/></td><td>R</td></tr><tr><td colspan="2" rowspan="2"><div></div></td><td><table><tr><td>Bore size</td></tr></table></td><td><table><tr><td>Option</td></tr></table></td><td><table><tr><td>Station No.</td></tr></table></td></tr><tr><td><table><tr><td>Series flow rate size</td></tr></table></td><td colspan="2"></td></tr></table>                                                                                                                                         | <input type="checkbox"/>                     | R                                               | <div></div>                                  |             | <table><tr><td>Bore size</td></tr></table> | Bore size                                               | <table><tr><td>Option</td></tr></table> | Option                                  | <table><tr><td>Station No.</td></tr></table> | Station No.                              | <table><tr><td>Series flow rate size</td></tr></table> | Series flow rate size                              |                   |  | Manifold base |                                                        |                       |  |  |                                                                      |                    |
| <input type="checkbox"/>                               | R                                  |                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |                                                 |                                              |             |                                            |                                                         |                                         |                                         |                                              |                                          |                                                        |                                                    |                   |  |               |                                                        |                       |  |  |                                                                      |                    |
| <div></div>                                            |                                    | <table><tr><td>Bore size</td></tr></table>              | Bore size                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <table><tr><td>Option</td></tr></table>      | Option                                          | <table><tr><td>Station No.</td></tr></table> | Station No. |                                            |                                                         |                                         |                                         |                                              |                                          |                                                        |                                                    |                   |  |               |                                                        |                       |  |  |                                                                      |                    |
|                                                        |                                    | Bore size                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |                                                 |                                              |             |                                            |                                                         |                                         |                                         |                                              |                                          |                                                        |                                                    |                   |  |               |                                                        |                       |  |  |                                                                      |                    |
| Option                                                 |                                    |                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |                                                 |                                              |             |                                            |                                                         |                                         |                                         |                                              |                                          |                                                        |                                                    |                   |  |               |                                                        |                       |  |  |                                                                      |                    |
| Station No.                                            |                                    |                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |                                                 |                                              |             |                                            |                                                         |                                         |                                         |                                              |                                          |                                                        |                                                    |                   |  |               |                                                        |                       |  |  |                                                                      |                    |
| <table><tr><td>Series flow rate size</td></tr></table> | Series flow rate size              |                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |                                                 |                                              |             |                                            |                                                         |                                         |                                         |                                              |                                          |                                                        |                                                    |                   |  |               |                                                        |                       |  |  |                                                                      |                    |
| Series flow rate size                                  |                                    |                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |                                                 |                                              |             |                                            |                                                         |                                         |                                         |                                              |                                          |                                                        |                                                    |                   |  |               |                                                        |                       |  |  |                                                                      |                    |

### Parts list

| Part No. | Part name               | Model No.                                                                                            | Part No. | Part name                                   | Model No.                                                  |
|----------|-------------------------|------------------------------------------------------------------------------------------------------|----------|---------------------------------------------|------------------------------------------------------------|
| -        | M8 connector cable      | 4GEX-M8CC- <input type="checkbox"/> Direction <input type="checkbox"/> Length<br>*Details on page 64 | -        | Cartridge push-in fitting and related parts | 4G1 <input type="checkbox"/> 4 straight 4G1R-JOINT-C4      |
| -        | Explosion-proof barrier | Details on pages 69 to 73                                                                            |          |                                             | 4G1 <input type="checkbox"/> 6 straight 4G1R-JOINT-C6      |
|          |                         |                                                                                                      |          |                                             | 4G1 <input type="checkbox"/> Plug cartridge 4G1R-JOINT-CPG |
|          |                         |                                                                                                      |          |                                             | 4G2 <input type="checkbox"/> 4 straight 4G2R-JOINT-C4      |
|          |                         |                                                                                                      |          |                                             | 4G2 <input type="checkbox"/> 6 straight 4G2R-JOINT-C6      |
|          |                         |                                                                                                      |          |                                             | 4G2 <input type="checkbox"/> 8 straight 4G2R-JOINT-C8      |
|          |                         |                                                                                                      |          |                                             | 4G2 <input type="checkbox"/> Plug cartridge 4G2R-JOINT-CPG |
|          |                         |                                                                                                      |          |                                             | 4G3 <input type="checkbox"/> 6 straight 4G3R-JOINT-C6      |
|          |                         |                                                                                                      |          |                                             | 4G3 <input type="checkbox"/> 8 straight 4G3R-JOINT-C8      |
|          |                         |                                                                                                      |          |                                             | 4G3 <input type="checkbox"/> 10 straight 4G3R-JOINT-C10    |
|          |                         |                                                                                                      |          |                                             | 4G3 <input type="checkbox"/> Plug cartridge 4G3R-JOINT-CPG |
|          |                         |                                                                                                      |          |                                             | 4G4 <input type="checkbox"/> 8 straight 4G4-JOINT-C8       |
|          |                         |                                                                                                      |          |                                             | 4G4 <input type="checkbox"/> 10 straight 4G4-JOINT-C10     |
|          |                         |                                                                                                      |          |                                             | 4G4 <input type="checkbox"/> 12 straight 4G4-JOINT-C12     |

3GD\*0EX  
4GD\*0EX

3GE\*0EX  
4GE\*0EX

M3GD\*0EX  
M4GD\*0EX

M3GE\*0EX  
M4GE\*0EX

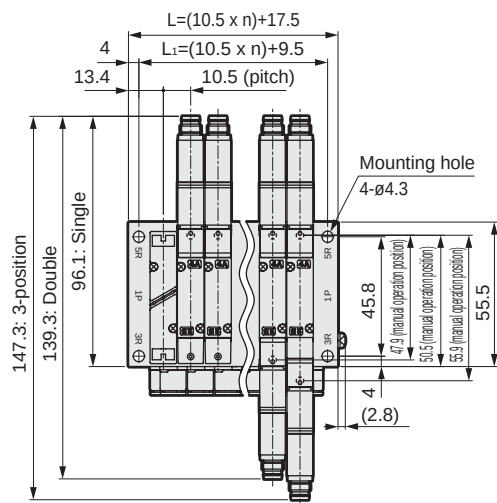
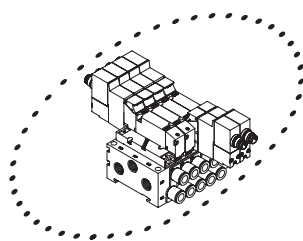
Related products

Manifold  
specifications sheet

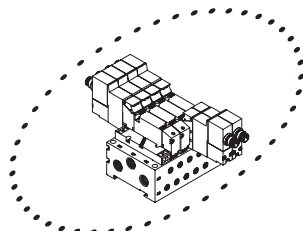
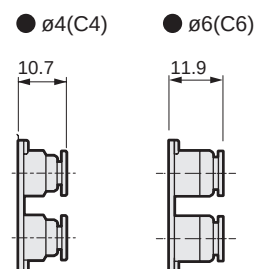
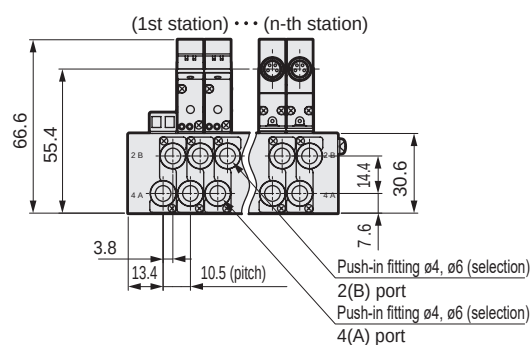
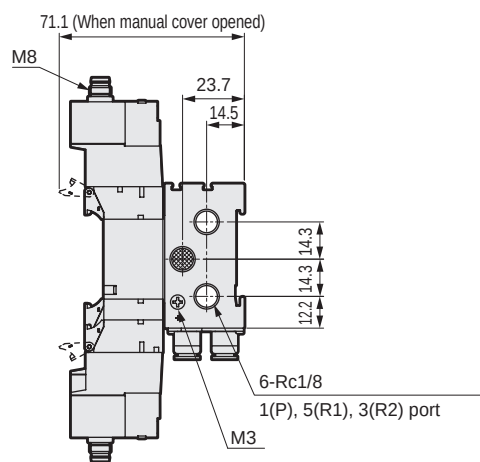
Precautions for use

## Dimensions

- Direct mount installation  
Without connector (RN)



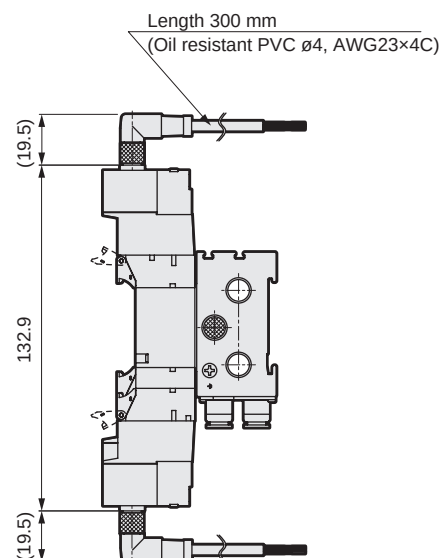
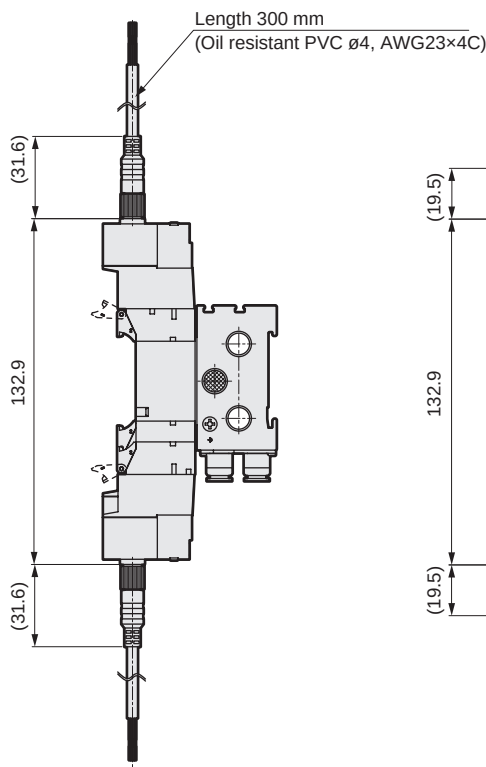
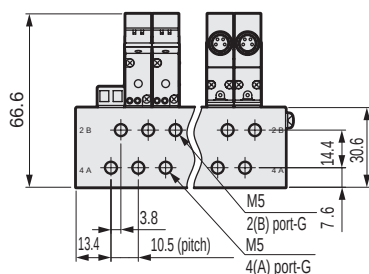
Note: The two 3-port valve built-in type has the same dimensions as the double model.



● M5 female thread (M5)

- M8 connector/straight cable (R1)

- M8 connector/L-type cable (R2)



| Station No.    | 2    | 3    | 4    | 5    | 6    | 7    | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    |
|----------------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L              | 38.5 | 49.0 | 59.5 | 70.0 | 80.5 | 91.0 | 101.5 | 112.0 | 122.5 | 133.0 | 143.5 | 154.0 | 164.5 | 175.0 | 185.5 | 196.0 | 206.5 | 217.0 | 227.5 |
| L <sub>1</sub> | 30.5 | 41.0 | 51.5 | 62.0 | 72.5 | 83.0 | 93.5  | 104.0 | 114.5 | 125.0 | 135.5 | 146.0 | 156.5 | 167.0 | 177.5 | 188.0 | 198.5 | 209.0 | 219.5 |

## **M4GE2\*0EX** Series

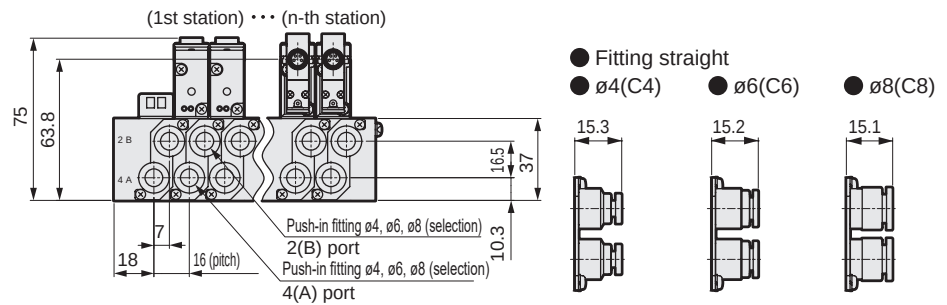
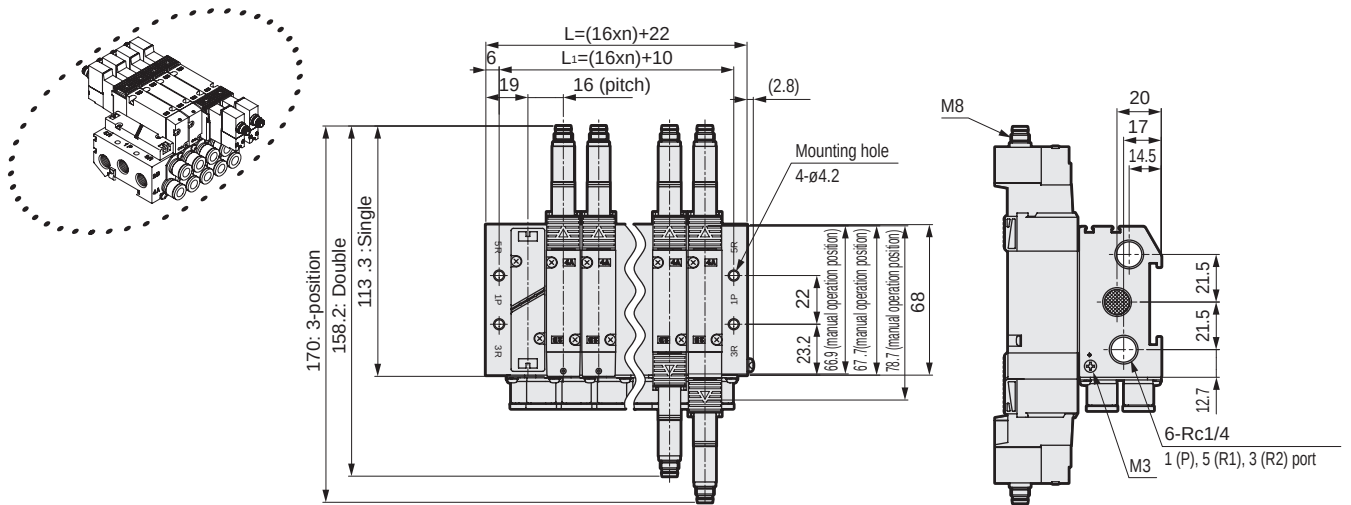
Individual wiring manifold; Base piping

## Dimensions

## M4GE2\*0EX

- Without connector (RN)

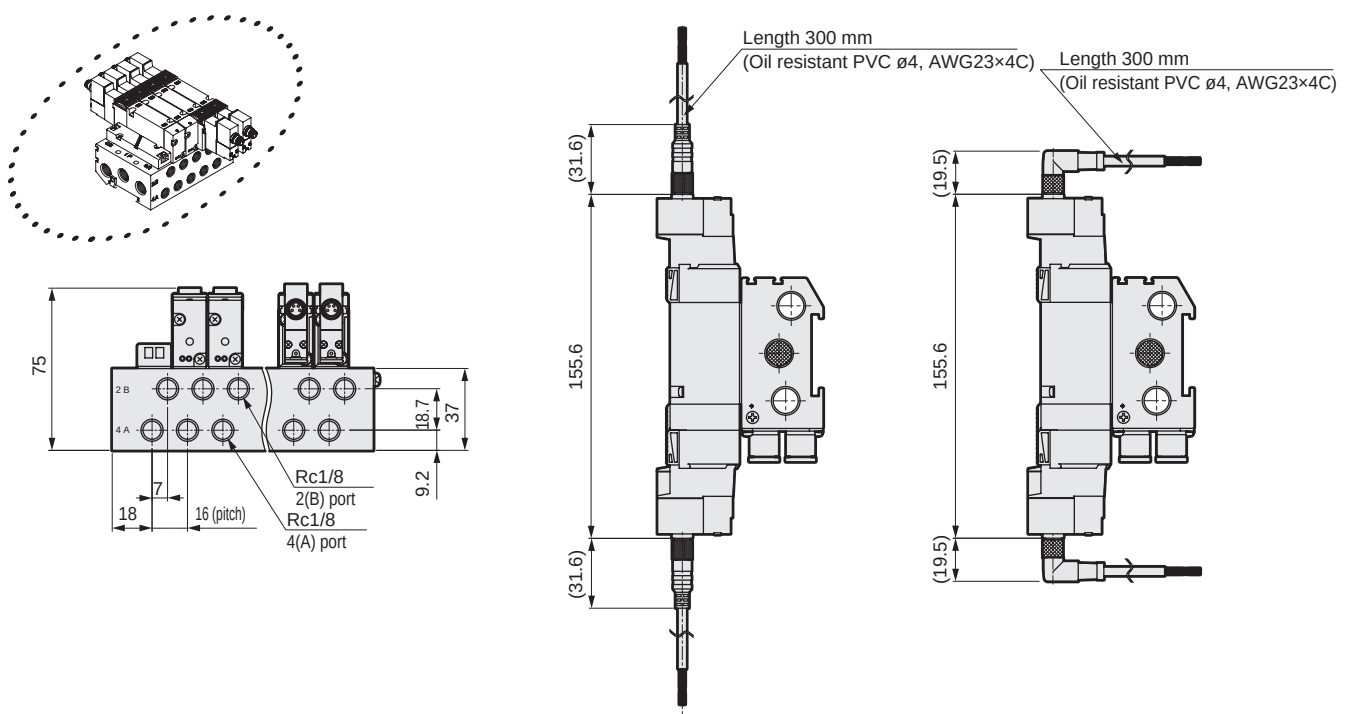
Note: The two 3-port valve built-in type has the same dimensions as the double model.



- Rc1/8 female thread (06)

- M8 connector/straight cable (R1)

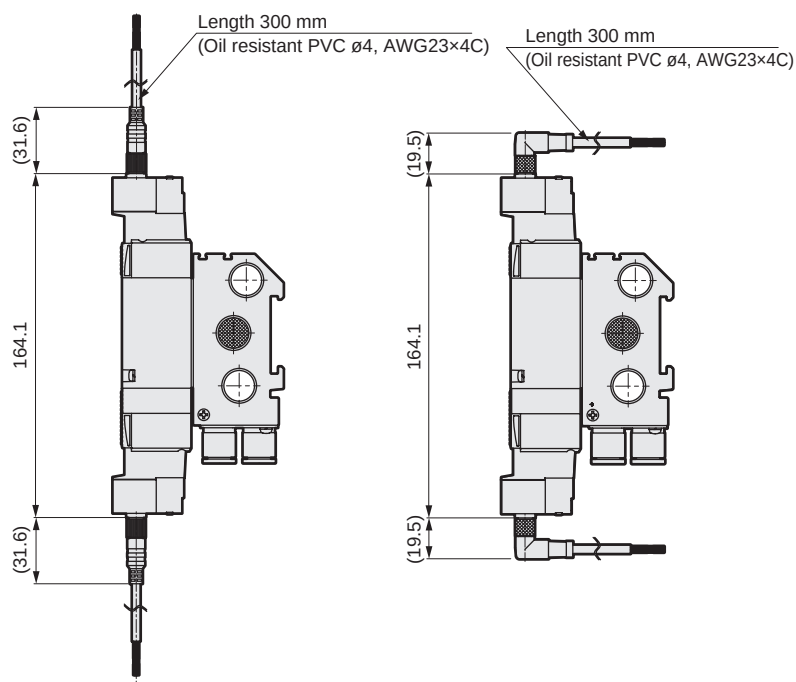
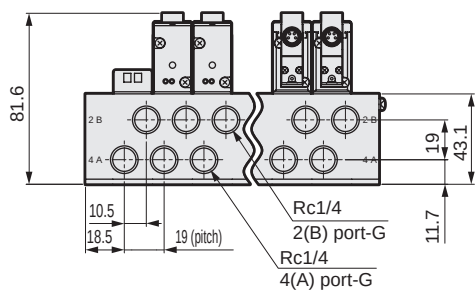
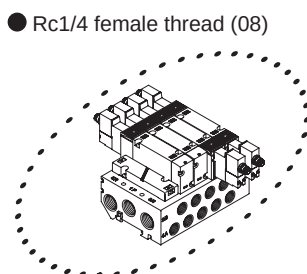
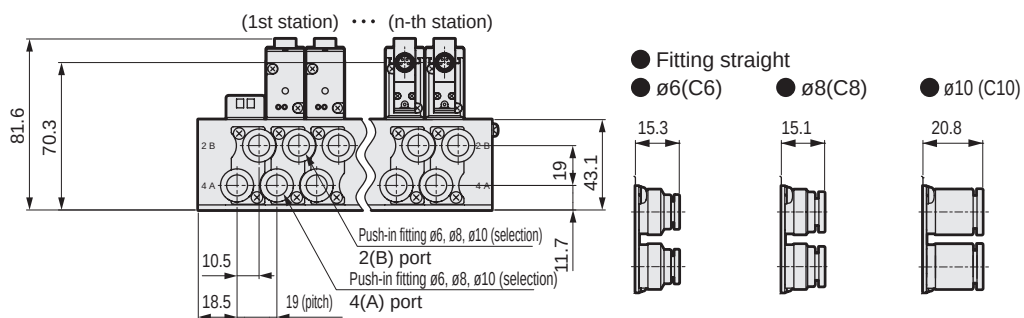
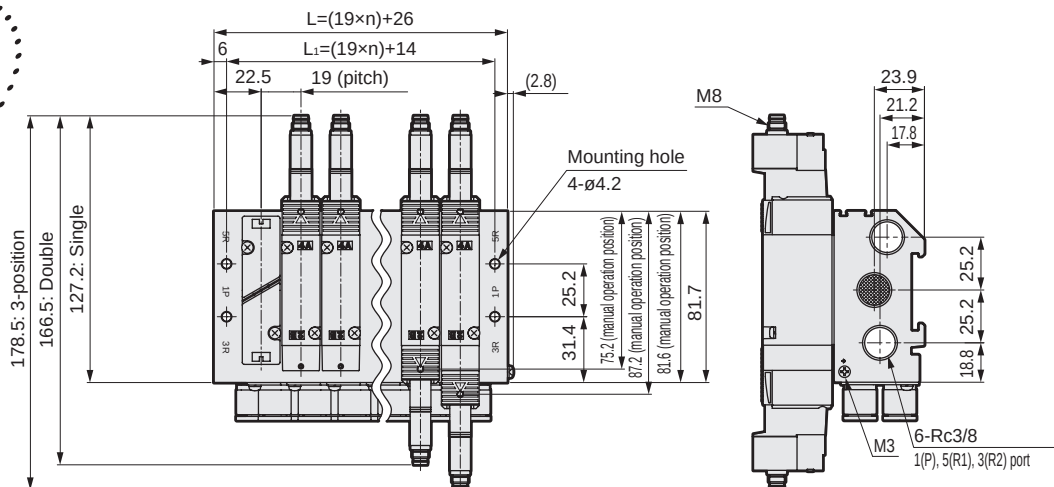
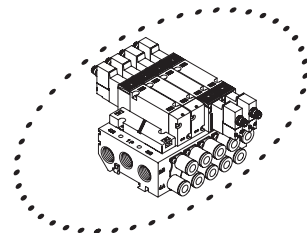
- M8 connector/L-type cable (R2)



| Station No.    | 2    | 3    | 4    | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    |
|----------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L              | 54.0 | 70.0 | 86.0 | 102.0 | 118.0 | 134.0 | 150.0 | 166.0 | 182.0 | 198.0 | 214.0 | 230.0 | 246.0 | 262.0 | 278.0 | 294.0 | 310.0 | 326.0 | 342.0 |
| L <sub>1</sub> | 42.0 | 58.0 | 74.0 | 90.0  | 106.0 | 122.0 | 138.0 | 154.0 | 170.0 | 186.0 | 202.0 | 218.0 | 234.0 | 250.0 | 266.0 | 282.0 | 298.0 | 314.0 | 330.0 |

## Dimensions

- Without connector (RN)



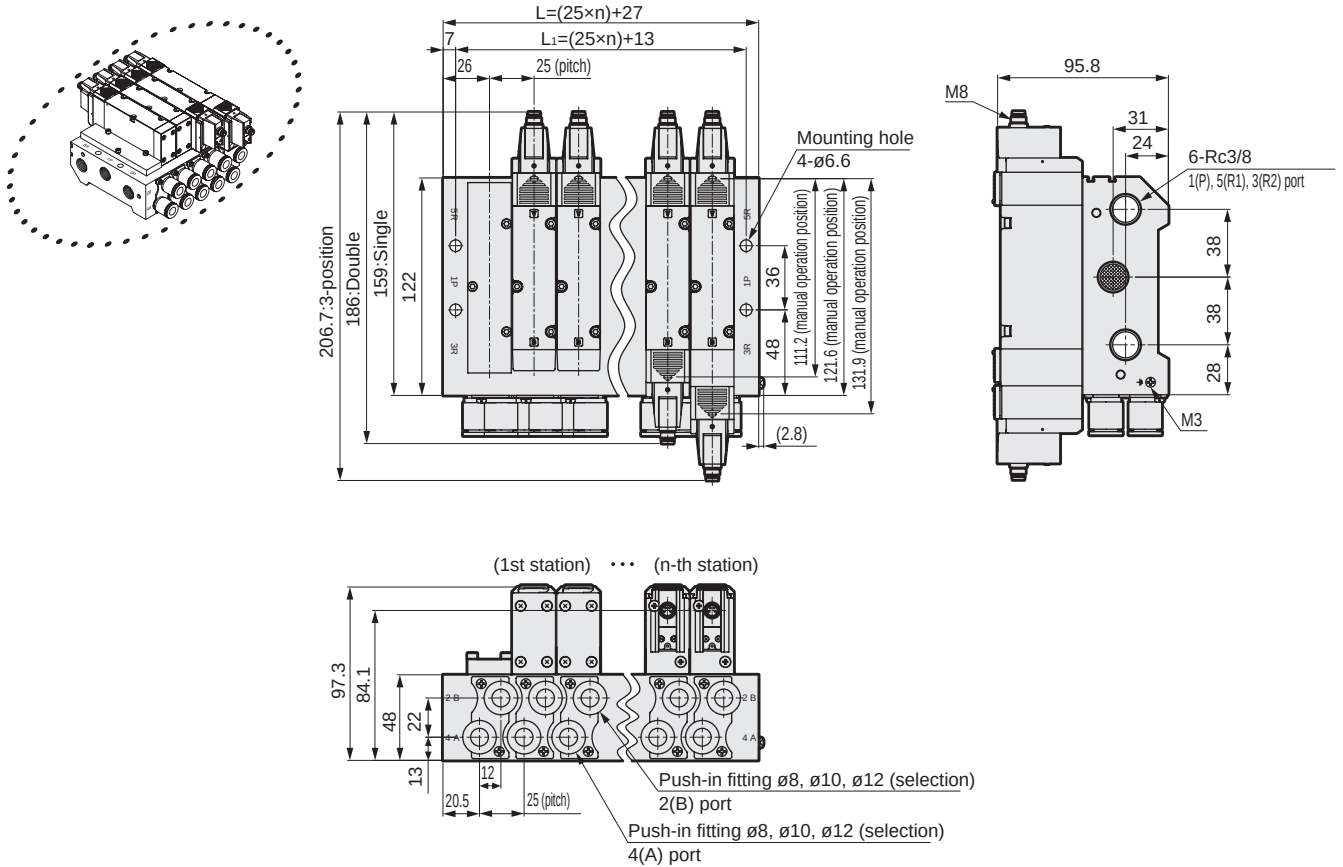
| Station No.    | 2    | 3    | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    |
|----------------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L              | 64.0 | 83.0 | 102.0 | 121.0 | 140.0 | 159.0 | 178.0 | 197.0 | 216.0 | 235.0 | 254.0 | 273.0 | 292.0 | 311.0 | 330.0 | 349.0 | 368.0 | 387.0 | 406.0 |
| L <sub>1</sub> | 52.0 | 71.0 | 90.0  | 109.0 | 128.0 | 147.0 | 166.0 | 185.0 | 204.0 | 223.0 | 242.0 | 261.0 | 280.0 | 299.0 | 318.0 | 337.0 | 356.0 | 375.0 | 394.0 |



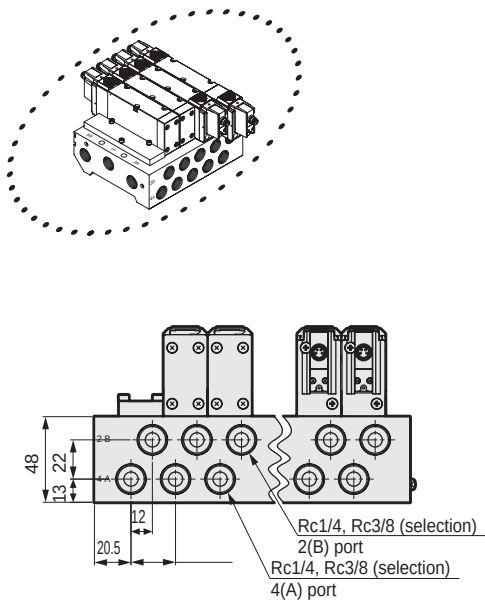
## Dimensions

### M4GE4\*0EX

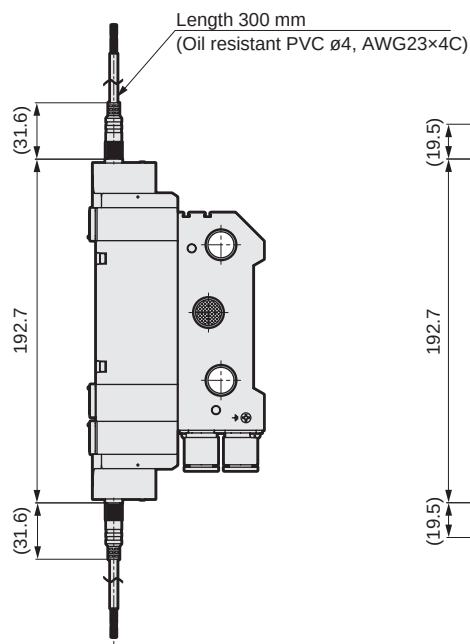
● Without connector (RN)



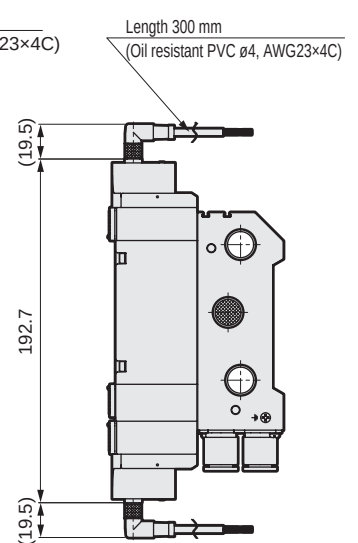
● Rc1/4, Rc3/8 female thread (08, 10)



● M8 connector/straight cable (R1)



● M8 connector/L-type cable (R2)



| Station No. | 2  | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  |
|-------------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| L           | 77 | 102 | 127 | 152 | 177 | 202 | 227 | 252 | 277 | 302 | 327 | 352 | 377 | 402 |
| L1          | 63 | 88  | 113 | 138 | 163 | 188 | 213 | 238 | 263 | 288 | 313 | 338 | 363 | 388 |

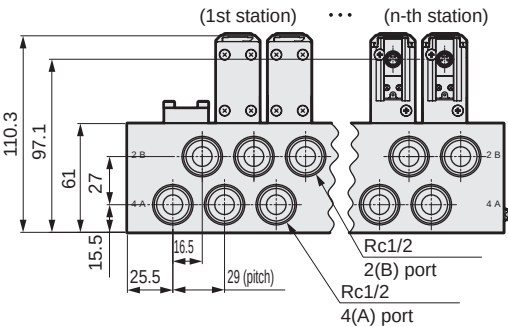
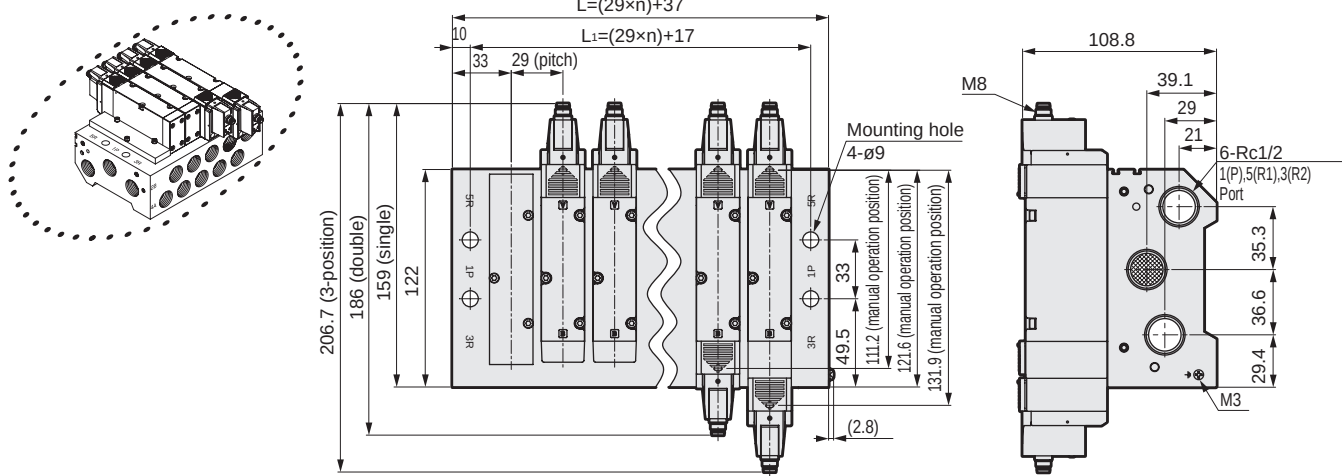
# M4GE4\*0EX Series

Individual wiring manifold; Base piping

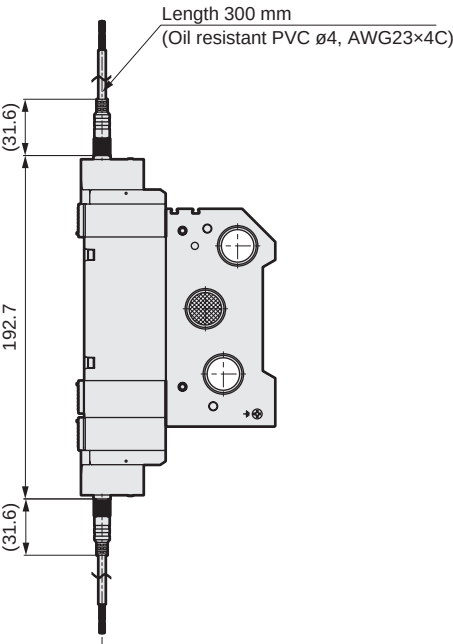
## Dimensions

### M4GE4\*0EX

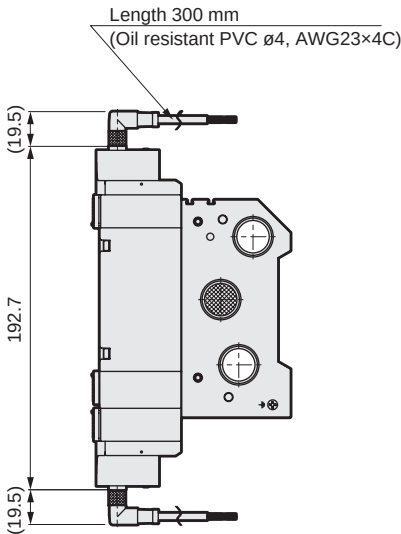
- Rc1/2 female thread  
Without connector (RN)



- M8 connector/straight cable (R1)



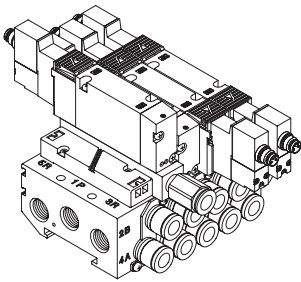
- M8 connector/L-type cable (R2)



| Station No. | 2  | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  |
|-------------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| L           | 95 | 124 | 153 | 182 | 211 | 240 | 269 | 298 | 327 | 356 | 385 |
| L1          | 75 | 104 | 133 | 162 | 191 | 220 | 249 | 278 | 307 | 336 | 365 |

|                    |                    |                      |                      |                  |                                  |                     |
|--------------------|--------------------|----------------------|----------------------|------------------|----------------------------------|---------------------|
| 3GD*0EX<br>4GD*0EX | 3GE*0EX<br>4GE*0EX | M3GD*0EX<br>M4GD*0EX | M3GE*0EX<br>M4GE*0EX | Related products | Manifold<br>specifications sheet | Precautions for use |
|--------------------|--------------------|----------------------|----------------------|------------------|----------------------------------|---------------------|

MEMO



Specifications

| Model No. | P → A/B                     |      | A/B → R                     |      | Weight g |
|-----------|-----------------------------|------|-----------------------------|------|----------|
|           | C(dm <sup>3</sup> /(s·bar)) | b    | C(dm <sup>3</sup> /(s·bar)) | b    |          |
| 4G1       | 0.70                        | 0.23 | 0.93                        | 0.16 | 8        |
| 4G2       | 1.6                         | 0.17 | 1.8                         | 0.16 | 35       |
| 4G3       | 2.6                         | 0.22 | 3.1                         | 0.14 | 56       |

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

How to order discrete units

Air supply spacer model No.

4G 3 R - P - GWS10

A Air supply spacer model No.

B Port size  
\*1

| Valve model No.               |                                      |     |     |
|-------------------------------|--------------------------------------|-----|-----|
| 4G1                           | 4G2                                  | 4G3 |     |
| A Air supply spacer model No. |                                      |     |     |
| 1                             | For 4G1                              | ●   |     |
| 2                             | For 4G2                              |     | ●   |
| 3                             | For 4G3                              |     | ●   |
| B Port size                   |                                      |     |     |
| Blank                         | M5 thread (4G1), Rc thread (4G2/4G3) | ①   | ② ③ |
| GWS4                          | ø4 fitting                           | ●   |     |
| GWS6                          | ø6 fitting                           | ●   | ●   |
| GWS8                          | ø8 fitting                           |     | ●   |
| GWS10                         | ø10 fitting                          |     | ●   |

is not available.

Accessories: 2 mounting screws, 2 PR check valves, 1 body gasket

⚠ Precautions for model No. selection

\*1: Blank, ① M5 ② Rc1/8 ③ Rc1/4.  
\*2: Specify the air supply spacer mounting position and quantity on the manifold specifications sheet of each catalog.  
\*3: Combination with the masking plate is not supported.  
\*4: 4G4 air supply spacers are made to order products. Contact CKD for details.

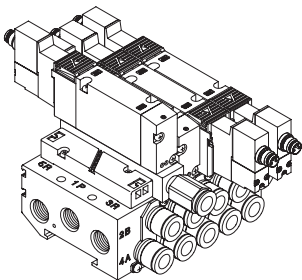


# M4GD1to3/M4GE1to3 \*0EX Series

Related products

Related products

● Exhaust spacer



## Specifications

| Model No. | P → A/B                     |      | A/B → R                     |      | Weight g |
|-----------|-----------------------------|------|-----------------------------|------|----------|
|           | C(dm <sup>3</sup> /(s·bar)) | b    | C(dm <sup>3</sup> /(s·bar)) | b    |          |
| 4G1       | 0.94                        | 0.28 | 0.68                        | 0.33 | 7        |
| 4G2       | 1.5                         | 0.24 | 1.9                         | 0.24 | 34       |
| 4G3       | 3.4                         | 0.21 | 2.9                         | 0.27 | 58       |

\*1: Values are when a valve is mounted.

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

How to order discrete units

● Exhaust spacer

Exhaust spacer model No.

4G 3 R - R - GWS10

A Exhaust spacer model No.

B Port size  
\*1

| Code                       |                                      | Valve model No. |     |     |
|----------------------------|--------------------------------------|-----------------|-----|-----|
|                            |                                      | 4G1             | 4G2 | 4G3 |
| A Exhaust spacer model No. |                                      |                 |     |     |
| 1                          | For 4G1                              | ●               |     |     |
| 2                          | For 4G2                              |                 | ●   |     |
| 3                          | For 4G3                              |                 |     | ●   |
| B Port size                |                                      |                 |     |     |
| Blank                      | M5 thread (4G1), Rc thread (4G2/4G3) | ①               | ②   | ③   |
| GWS4                       | ø4 fitting                           | ●               |     |     |
| GWS6                       | ø6 fitting                           | ●               | ●   |     |
| GWS8                       | ø8 fitting                           |                 | ●   | ●   |
| GWS10                      | ø10 fitting                          |                 |     | ●   |

is not available.

Accessories: 2 mounting screws (\*2), 2 PR check valves, 1 body gasket

## ⚠ Precautions for model No. selection

\*1: Blank, ① M5 ② Rc1/8 ③ Rc1/4.

\*2: Specify the exhaust spacer mounting position and quantity on the manifold specifications sheet of each catalog.

\*3: Combination with the masking plate is not supported.

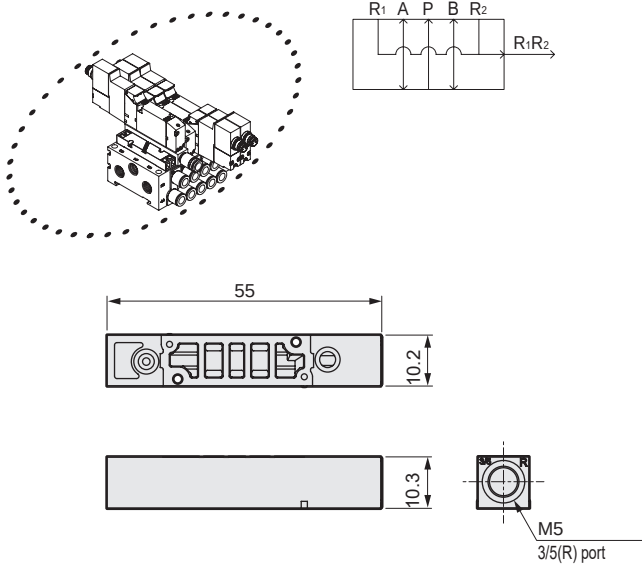
\*4: 4G4 exhaust spacers are made to order products. Contact CKD for details.

## Related products

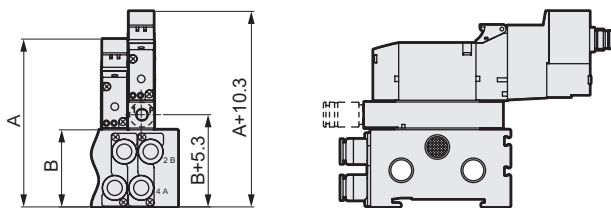
- Exhaust spacer

### Dimensions

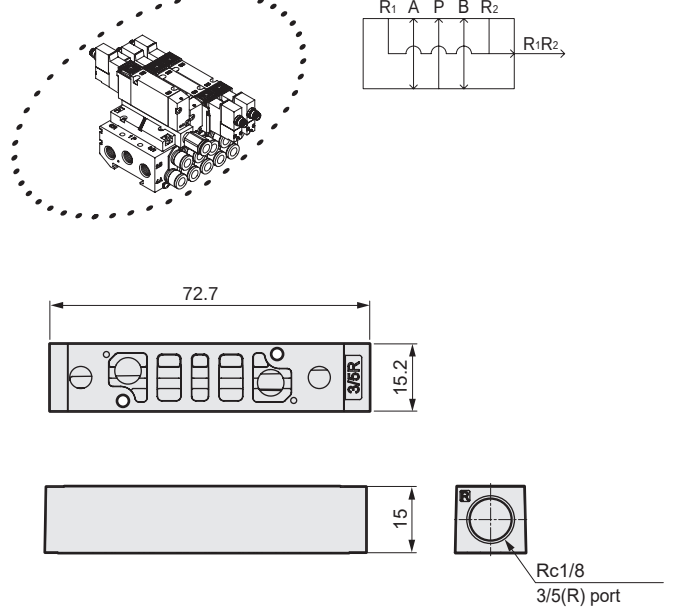
#### ● 4G1



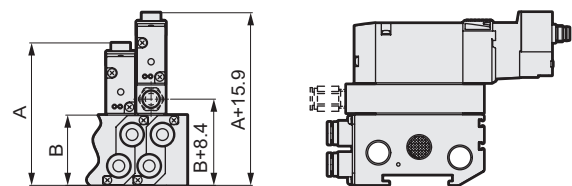
#### Dimensions when mounted



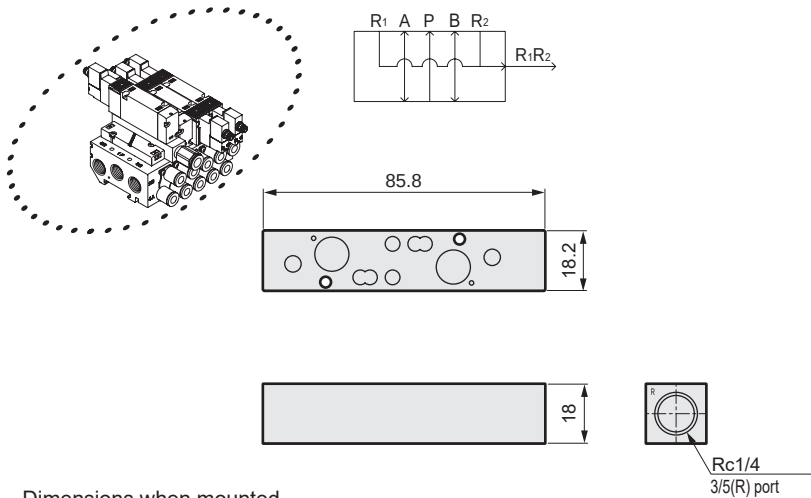
#### ● 4G2



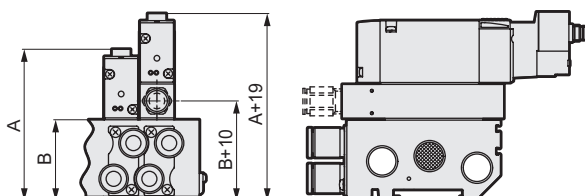
#### Dimensions when mounted



#### ● 4G3



#### Dimensions when mounted



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

3GD\*0EX  
4GD\*0EX

3GE\*0EX  
4GE\*0EX

M3GD\*0EX  
M4GD\*0EX

M3GE\*0EX  
M4GE\*0EX

Related products

Manifold specifications sheet

Precautions for use



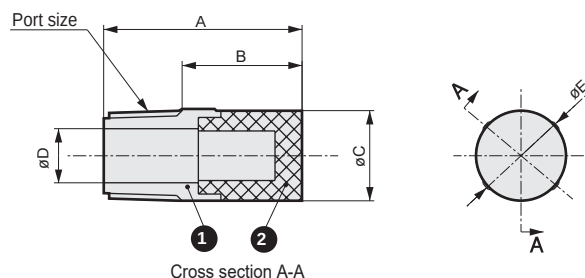
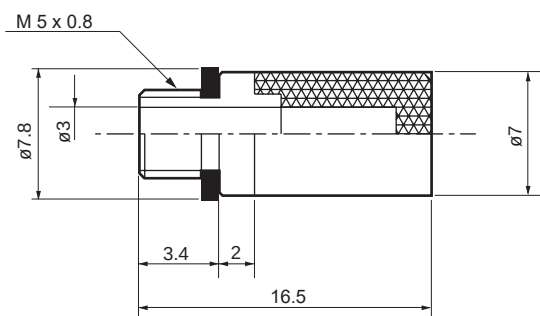
# M4GD1to4/M4GE1to4\*0EX Series

Related products

Related products

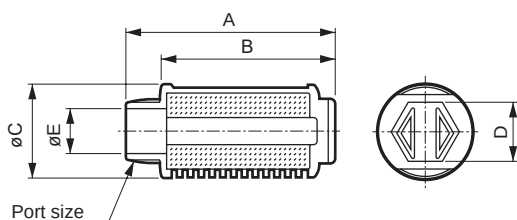
## ● Silencer

### ● SLM-M5



| Model No. | Port size | A  | B    | C    | D | E    |
|-----------|-----------|----|------|------|---|------|
| SLW-6S    | R 1/8     | 22 | 13.3 | 10.5 | 6 | 10.5 |
| SLW-8S    | R 1/4     | 28 | 19   | 14.8 | 9 | 15.4 |

### ● SLW-6A, 8A, 10A, 10L, 15A



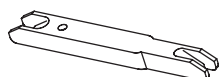
\*1: Select the silencer mounting after confirming the dimensions.

| Code<br>Model No. | Noise<br>reduction<br>effect dB (A) | Effective<br>cross-sectional<br>area mm <sup>2</sup> | A    | B    | C    | D  | E   | Port<br>size |
|-------------------|-------------------------------------|------------------------------------------------------|------|------|------|----|-----|--------------|
| SLW-6A            | 30 or more                          | 10                                                   | 34.5 | 28   | 16.5 | 10 | 7   | R 1/8        |
| SLW-8A            | 30 or more                          | 20                                                   | 44.5 | 36   | 20   | 13 | 8.5 | R 1/4        |
| SLW-10A           | 30 or more                          | 30                                                   | 58.5 | 48.5 | 25.5 | 17 | 12  | R 3/8        |
| SLW-10L           | 30 or more                          | 60                                                   | 68.2 | 58.4 | 28   | 19 | 12  | R 3/8        |
| SLW-15A           | 30 or more                          | 75                                                   | 71.4 | 58.4 | 28   | 19 | 15  | R 1/2        |

## ● Plug type

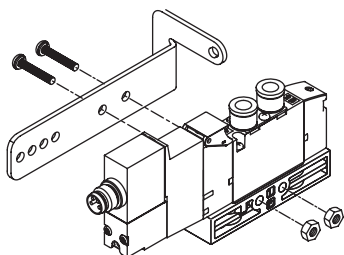
| Part name        | Model No. | Compatible bore size | Appearance |
|------------------|-----------|----------------------|------------|
| Blanking<br>plug | GWP4-B    | ø4                   |            |
|                  | GWP6-B    | ø6                   |            |
|                  | GWP8-B    | ø8                   |            |
|                  | GWP10-B   | ø10                  |            |
|                  | GWP12-B   | ø12                  |            |
| Threaded<br>plug | 4G1R-M5P  | M5                   |            |
|                  | 4G2R-06P  | Rc1/8                |            |
|                  | 4G3R-08P  | Rc1/4                |            |
|                  | 4G3R-10P  | Rc3/8                |            |
|                  | 4G4-15P   | Rc1/2                |            |

● Push-in fitting tube remover  
For ø4/ø6 push-in fittings  
4GR-EOT4-6



## Related parts

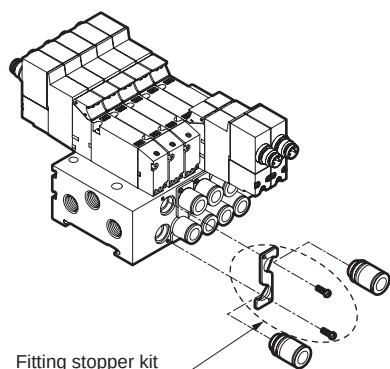
### (1) Mounting plate (P) kit



Mounting (P) kit

| Model | Kit model No.        | Set parts                                 |
|-------|----------------------|-------------------------------------------|
| 4GD1  | 4G1R-MOUNT-PLATE-KIT | Mounting plate, 2 mounting screws, 2 nuts |
| 4GD2  | 4G2R-MOUNT-PLATE-KIT | Mounting plate, 2 mounting screws         |
| 4GD3  | 4G3R-MOUNT-PLATE-KIT | Mounting plate, 2 mounting screws         |

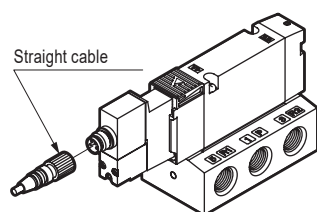
### (2) Cartridge push-in fitting related parts Discrete



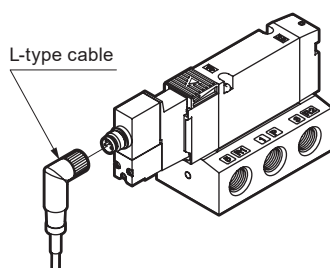
Fitting stopper plate kit

| Model | Kit model No.          |
|-------|------------------------|
| M4G1  | 4G1R-JNT-STP-PLATE-KIT |
| M4G2  | 4G2R-JNT-STP-PLATE-KIT |
| M4G3  | 4G3R-JNT-STP-PLATE-KIT |
| M4G4  | 4GB4-JNT-STP-PLATE-KIT |

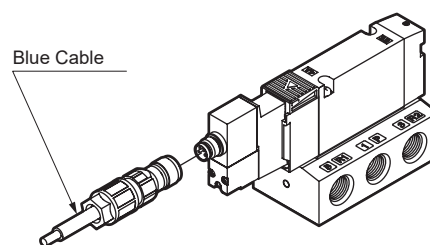
### (3) M8 connector cable



Straight cable (R1)



L-type cable (R2)



Straight cable (R3)

### ◆ Cable Capacitance and Inductance

| Type          | Capacitance<br>[nF/m]<br>at 1kHz | Inductance<br>[mH/m]<br>at 1kHz |
|---------------|----------------------------------|---------------------------------|
| Straight (R1) | 0.058                            | 0.003                           |
| L type (R2)   | 0.125                            | 0.003                           |
| Straight (R3) | 0.065                            | 0.002                           |

### ◆ Minimum bending radius of cable

| Type          | No load<br>[mm] | With load<br>[mm] |
|---------------|-----------------|-------------------|
| Straight (R1) | 20.0            | 36.0              |
| L type (R2)   | 23.5            | 42.3              |
| Straight (R3) | 20.0            | -                 |

4GEX - M8CC - R1 - 300

A Direction B Length

| A Direction |                              | 4G1 | 4G2 | 4G3 | 4G4 |
|-------------|------------------------------|-----|-----|-----|-----|
| R1 *1       | Straight cable (color: gray) | ●   | ●   | ●   | ●   |
| R2 *1       | L type cable (color: black)  | ●   | ●   | ●   | ●   |
| R3 *2       | Straight cable (color: blue) |     | ●   | ●   | ●   |

| B Length |                      |
|----------|----------------------|
| 300      | Cable length 300 mm  |
| 500      | Cable length 500 mm  |
| 1000     | Cable length 1000 mm |
| 3000     | Cable length 3000mm  |

\*1: R1 and R2 types come with a blue marker for identification.

\*2: Available as made to order.

3GD\*0EX  
4GD\*0EX

3GE\*0EX  
4GE\*0EX

M3GD\*0EX  
M4GD\*0EX

M3GE\*0EX  
M4GE\*0EX

Related products

Manifold  
specifications sheet

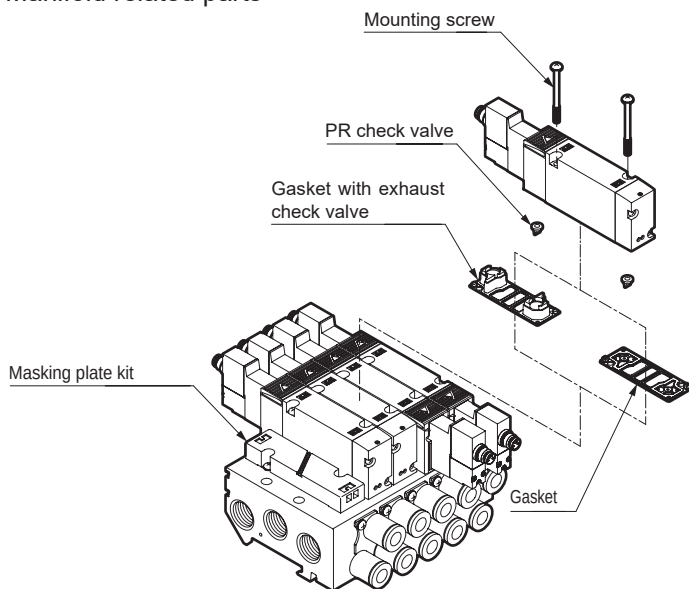
Precautions for use

# M4GD1 to 4/M4GE1 to 4\*0EX Series

Related parts

Related parts

(4) Manifold related parts



Masking plate kit

| Model     | Model No. | Item                                        | Remarks                                    |
|-----------|-----------|---------------------------------------------|--------------------------------------------|
| M3G1/M4G1 | 4G1R-MP   | Masking plate<br>Gasket<br>Mounting screw 2 | 4G3/4G4 have two PR check valves included. |
| M3G2/M4G2 | 4G2R-MP   |                                             |                                            |
| M4G3      | 4G3R-MP   |                                             |                                            |
| M4GD4     | 4GA4-MP   |                                             |                                            |
| M4GE4     | 4GB4-MP   |                                             |                                            |

Gasket

| Model                          | Part model No. |
|--------------------------------|----------------|
| 3G1/4G1                        | 4G1R-GASKET    |
| 3G1/4G1<br>(For masking plate) | 4G1R-MP-GASKET |
| 3G2/4G2                        | 4G2R-GASKET    |
| 3G2/4G2<br>(For masking plate) | 4G2R-MP-GASKET |
| 4G3                            | 4G3R-GASKET    |
| 4GD4                           | 4GA4-GASKET    |
| 4GE4                           | 4GB4-GASKET    |

Gasket with exhaust check valve

| Model   | Part model No.   |
|---------|------------------|
| 3G1/4G1 | 4G1R-CHECK-VALVE |
| 3G2/4G2 | 4G2R-CHECK-VALVE |
| 4G3     | 4G3R-CHECK-VALVE |

Note: 4G4 does not have a gasket with check valve.

PR check valve kit (2 per set)

| Model   | Kit model No. |
|---------|---------------|
| 3G1/4G1 | 4G1R-PR       |
| 3G2/4G2 | 4G2R-PR       |
| 4G3     | 4G3R-PR       |
| 4G4     | 4G4-PR        |

Mounting screw (10 per set)

| Model   | Part model No. |
|---------|----------------|
| 3G1/4G1 | 4G1R-SET-SCREW |
| 3G2/4G2 | 4G2R-SET-SCREW |
| 4G3     | 4G3R-SET-SCREW |
| 4G4     | 4G4-SET-SCREW  |

3GD\*0EX  
4GD\*0EX

3GE\*0EX  
4GE\*0EX

M3GD\*0EX  
M4GD\*0EX

M3GE\*0EX  
M4GE\*0EX

Related products

Manifold  
specifications sheet

Precautions for use

## Related parts

### (5) Sub-plate

#### How to order

- 4GD piping adapter

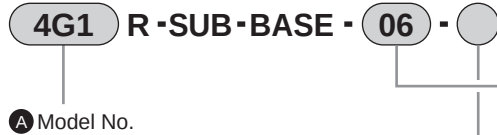


|                            |                                | A Model No. |     |     |     |     |
|----------------------------|--------------------------------|-------------|-----|-----|-----|-----|
|                            |                                | 3G1         | 3G2 | 4G1 | 4G2 | 4G3 |
| Code                       | Description                    |             |     |     |     |     |
| B Port size (Port P/R1/R2) |                                |             |     |     |     |     |
| M5                         | M5                             | ●           |     | ●   |     |     |
| 06                         | Rc1/8                          |             | ●   |     | ●   |     |
| 08                         | Rc1/4                          |             |     |     |     | ●   |
| C Option                   |                                |             |     |     |     |     |
| P                          | With mounting plate (included) | ●           | ●   | ●   | ●   | ●   |

● is not available.

Note: For 4G4, there is no piping adapter.

- 4GE discrete sub-plate



|                                |                               | A Model No. |     |     |     |     |     |
|--------------------------------|-------------------------------|-------------|-----|-----|-----|-----|-----|
|                                |                               | 3G1         | 3G2 | 4G1 | 4G2 | 4G3 | 4G4 |
| Code                           | Description                   |             |     |     |     |     |     |
| B Port size (Port A/B/P/R1/R2) |                               |             |     |     |     |     |     |
| 06                             | Rc1/8                         | ●           |     | ●   |     |     |     |
| 08                             | Rc1/4                         |             | ●   |     | ●   | ●   |     |
| 10                             | Rc3/8                         |             |     |     |     | ●   | ●   |
| 15                             | Rc1/2                         |             |     |     |     |     | ●   |
| C Option                       |                               |             |     |     |     |     |     |
| F                              | A/B port filter integrated *1 | ●           | ●   | ●   | ●   | ●   | ●   |

\*1: A filter is built into port P as standard.

● is not available.

Note: For 4G4, there is no piping adapter.

3GD\*0EX  
4GD\*0EX

3GE\*0EX  
4GE\*0EX

M3GD\*0EX  
M4GD\*0EX

M3GE\*0EX  
M4GE\*0EX

Related products

Manifold  
specifications sheet

Precautions for use

# M4GD1 to 4/M4GE1 to 4\*0EX Series

Related parts

Related parts

(6) Manifold sub-plate kit individual wiring

● M4GD sub-plate

**M4GD1 R-00-2**

A Model No.

| Code                 | Description                                                   |
|----------------------|---------------------------------------------------------------|
| <b>A Model No.</b>   |                                                               |
| M4GD1                | Metal base, 4G1 size, body piping                             |
| M4GD2                | Metal base, 4G2 size, body piping                             |
| M4GD3                | Metal base, 4G3 size, body piping                             |
| M4GD4                | Metal base, 4G4 size, body piping                             |
| <b>D Station No.</b> |                                                               |
| 2                    | 2 stations                                                    |
| to                   | to                                                            |
| 20                   | Refer to the specifications page for the max. station number. |

● M4GE1 sub-plate

**M4GE1R-C4-2**

A Port size

B Option

C Mount type

D Station No.

| Code          |                                                               | Description |              |
|---------------|---------------------------------------------------------------|-------------|--------------|
| A Port size   |                                                               |             |              |
| Port          | 4(A), 2(B) port                                               |             | Port P/R1/R2 |
| C4            | ø4 push-in fitting                                            |             | Rc1/8        |
| C6            | ø6 push-in fitting                                            |             |              |
| M5            | M5                                                            |             |              |
| B Option      |                                                               |             |              |
| Blank         |                                                               |             |              |
| F             | Port A/B filter built in *1                                   |             |              |
| C Mount type  |                                                               |             |              |
| Blank         | Direct mount                                                  |             |              |
| D Station No. |                                                               |             |              |
| 2             | 2 stations                                                    |             |              |
| to            | to                                                            |             |              |
| 20            | Refer to the specifications page for the max. station number. |             |              |

\*1: A filter is built into port P as standard.

● M4GE2/3 sub-plate

**M4GE2 R-C4-2**

A Model No.

B Port size

C Option

D Station No.

| Code          |                                                               | Description                             |     | M4GE2 | M4GE3 |
|---------------|---------------------------------------------------------------|-----------------------------------------|-----|-------|-------|
| B Port size   |                                                               |                                         |     |       |       |
| Port          | 4(A), 2(B) port                                               | Port P/R1/R2<br>(1) = Rc1/4 (2) = Rc3/8 |     |       |       |
| C4            | ø4 push-in fitting                                            | (1)                                     |     |       |       |
| C6            | ø6 push-in fitting                                            | (1)                                     | (2) |       |       |
| C8            | ø8 push-in fitting                                            | (1)                                     | (2) |       |       |
| C10           | ø10 push-in fitting                                           |                                         | (2) |       |       |
| 06            | Rc1/8                                                         | (1)                                     |     |       |       |
| 08            | Rc1/4                                                         |                                         | (3) |       |       |
| C Option      |                                                               |                                         |     |       |       |
| Blank         |                                                               |                                         |     |       |       |
| F             | Port A/B filter built in                                      |                                         | *1  |       |       |
| D Station No. |                                                               |                                         |     |       |       |
| 2             | 2 stations                                                    |                                         |     |       |       |
| to            | to                                                            |                                         |     |       |       |
| 20            | Refer to the specifications page for the max. station number. |                                         |     |       |       |

\*1: A filter is built into port P as standard.

|                    |                    |                      |                      |                  |                                  |                     |
|--------------------|--------------------|----------------------|----------------------|------------------|----------------------------------|---------------------|
| 3GD*0EX<br>4GD*0EX | 3GE*0EX<br>4GE*0EX | M3GD*0EX<br>M4GD*0EX | M3GE*0EX<br>M4GE*0EX | Related products | Manifold<br>specifications sheet | Precautions for use |
|--------------------|--------------------|----------------------|----------------------|------------------|----------------------------------|---------------------|

MEMO

INSULATED EXPLOSION PROOF BARRIER Dimensions

Model No.: **D5048S**



Explosion-proof certification state

| CCC, NEPSI (China) | IECEEx (International) | KCs (South Korea) | TS (Taiwan) |
|--------------------|------------------------|-------------------|-------------|
| Compatible         | Compatible             | Compatible        | Compatible  |

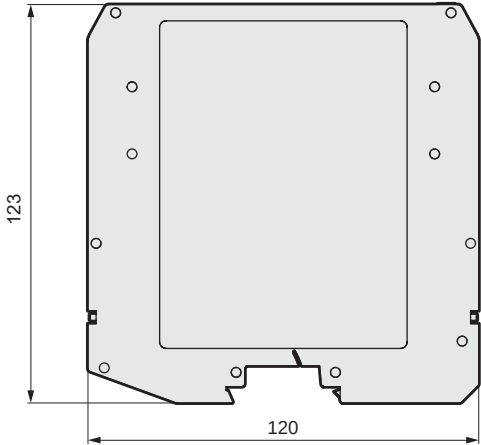


Terminal No. display (non-dangerous zone side)

Terminal: No. 1: +  
Terminal: No. 2: -  
Barrier: 24 VDC  $\pm 10\%$

(Terminal: No. 3 and 4 are for malfunction output.)

(Terminal: No. 5 and 6 are for prioritized input.)



Terminal No. display (dangerous zone side)

Terminal: No. 8: +  
Terminal: No. 10: -

\*Do not use terminals No.7 and 9, as the working voltage and intrinsic safety parameters will not be satisfied when combined with CKD solenoids.



Barrier intrinsic safety parameters

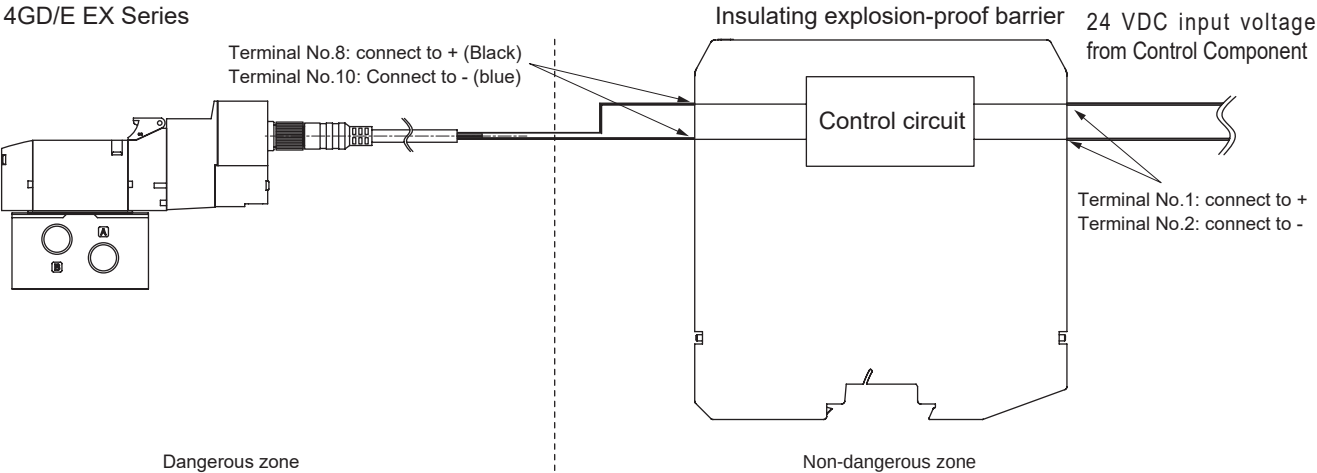
| Item                                                 | Between terminals No. 8-10 |
|------------------------------------------------------|----------------------------|
| Intrinsic safety circuit max. voltage $U_0$          | 24.8V                      |
| Intrinsic safety circuit max. current $I_0$          | 108mA                      |
| Intrinsic safety circuit max. power $P_0$            | 667mW                      |
| Intrinsic safety circuit allowable capacitance $C_0$ | 0.113 $\mu$ F              |
| Intrinsic safety circuit allowable inductance $L_0$  | 1.42mH                     |
| Operating ambient temperature range                  | -40 to 70°C                |

- \*1: Always use valves in combination with a barrier.
- \*2: Connection terminals are polarized. Take care to prevent incorrect wiring.
- \*3: Applicable wire is 0.25 to 2.5mm<sup>2</sup>.
- \*4: Recommended terminal tightening torque is 0.5 to 0.6N·m.
- \*5: Barrier degree of protection is IP20.

Supply source: IDEC Co., Ltd. (G.M.I.)  
Refer to the IDEC or G.M.I catalog or website for detailed specifications or a non-judgment document.

About Valve and Barrier Connections

4GD/E EX Series



\* Voltage equivalent to 12 VDC is supplied to the valve via an insulating barrier.

Insulating explosion-proof barrier (1CH) Dimensions

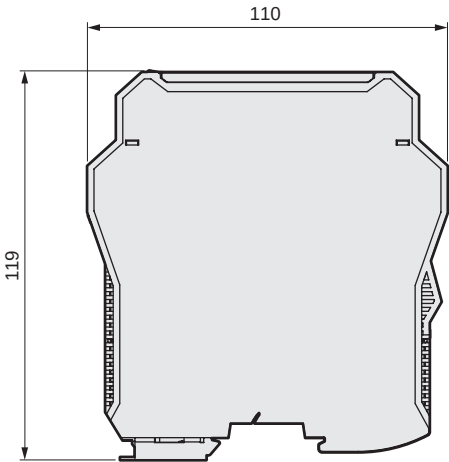
Model No.: **EXDO-11**



Explosion-proof certification state

| CCC, NEPSI (China) | IECEX (International) | KCs (South Korea) | TS (Taiwan) |
|--------------------|-----------------------|-------------------|-------------|
| Compatible         | Unsupported           | Unsupported       | Unsupported |

Terminal No. display (dangerous zone)  
Terminal: No.2: +  
Terminal: No.1: -



Terminal No. display (non-dangerous zone)  
Terminal No.5-6 has control signals  
No.5  
No.6  
Terminal No. display (non-dangerous zone)  
Power supply voltage 24VDC  
Terminal: No.9: +  
Terminal: No. 10: -



Barrier intrinsic safety parameters

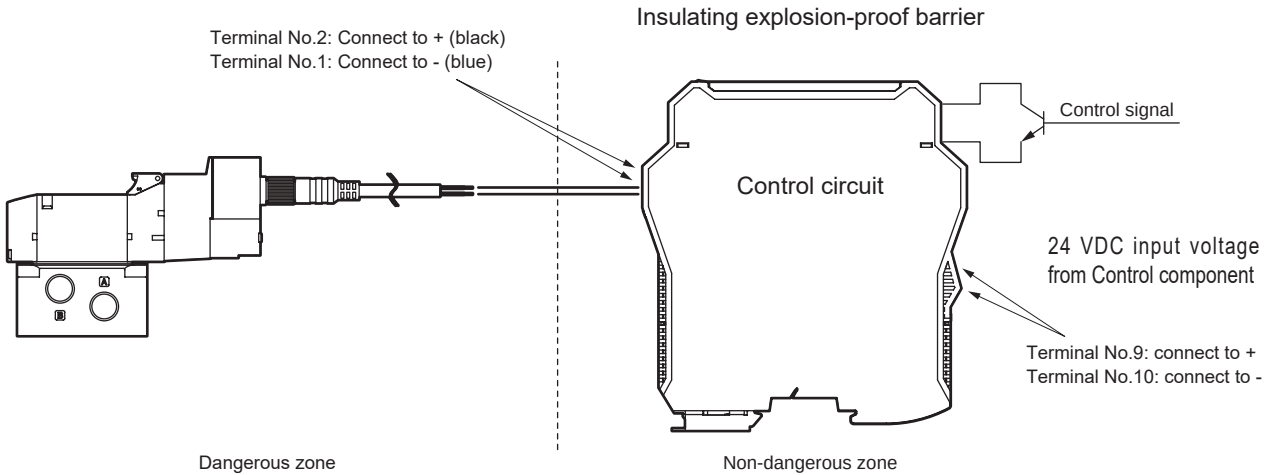
| Item                                              | Item    |
|---------------------------------------------------|---------|
| Intrinsic safety circuit max. voltage Uo          | 28V     |
| Intrinsic safety circuit max. current Io          | 93mA    |
| Intrinsic safety circuit max. power Po            | 0.65 W  |
| Intrinsic safety circuit allowable capacitance Co | 0.05 μF |
| Intrinsic safety circuit allowable inductance Lo  | 2.4mH   |

- \* Always use valves in combination with a barrier.
- \* Connection terminals are polarized. Incorrect wiring leads to breakdown of the barrier.
- \* Barrier degree of protection is IP20.

Supply sources:Bei ji an  
Refer to the Bei ji an catalog  
for detailed specifications.

About Valve and Barrier Connections

4GD/E EX Series



|                    |                    |                      |                      |                  |                                  |                     |
|--------------------|--------------------|----------------------|----------------------|------------------|----------------------------------|---------------------|
| 3GD*0EX<br>4GD*0EX | 3GE*0EX<br>4GE*0EX | M3GD*0EX<br>M4GD*0EX | M3GE*0EX<br>M4GE*0EX | Related products | Manifold<br>specifications sheet | Precautions for use |
|--------------------|--------------------|----------------------|----------------------|------------------|----------------------------------|---------------------|



Insulating explosion-proof barrier (2CH) Dimensions

Model No.: **EXDO-22**

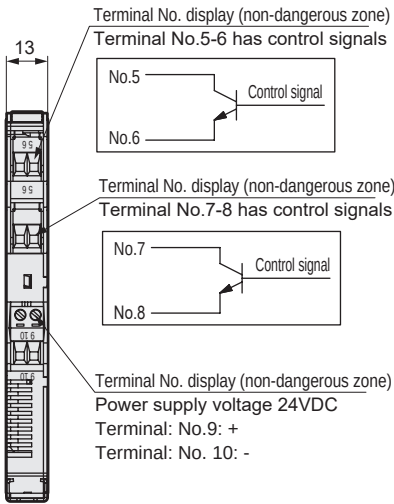
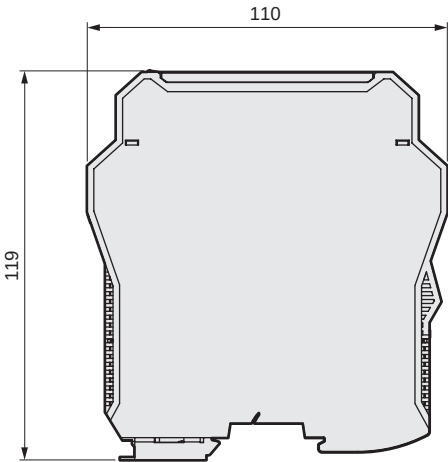


Explosion-proof certification state

| CCC, NEPSI (China) | IECEX (International) | KCs (South Korea) | TS (Taiwan) |
|--------------------|-----------------------|-------------------|-------------|
| Compatible         | Unsupported           | Unsupported       | Unsupported |

Terminal No. display (dangerous zone)  
Terminal: No.2: +  
Terminal: No.1: -

Terminal No. display (dangerous zone)  
Terminal: No.4: +  
Terminal: No.3: -



Barrier intrinsic safety parameters

| Item                                              | Item    |         |
|---------------------------------------------------|---------|---------|
|                                                   | 1CH     | 2CH     |
| Intrinsic safety circuit max. voltage Uo          | 28V     | 28V     |
| Intrinsic safety circuit max. current Io          | 93mA    | 93mA    |
| Intrinsic safety circuit max. power Po            | 0.65 W  | 0.65 W  |
| Intrinsic safety circuit allowable capacitance Co | 0.05 μF | 0.05 μF |
| Intrinsic safety circuit allowable inductance Lo  | 2.4mH   | 2.4mH   |

\* Always use valves in combination with a barrier.  
\* Connection terminals are polarized. Incorrect wiring leads to breakdown of the barrier.  
\* Barrier degree of protection is IP20.

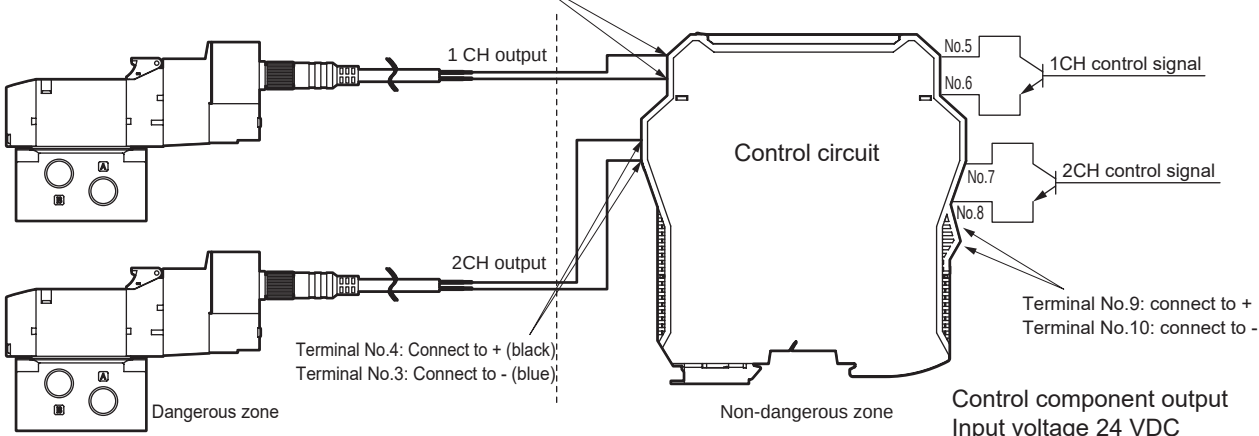
Supply sources:Bei ji an  
Refer to the Bei ji an catalog  
for detailed specifications.

About Valve and Barrier Connections

4GD/E EX Series

Terminal No.2: Connect to + (black)  
Terminal No.1: Connect to - (blue)

Insulating explosion-proof barrier



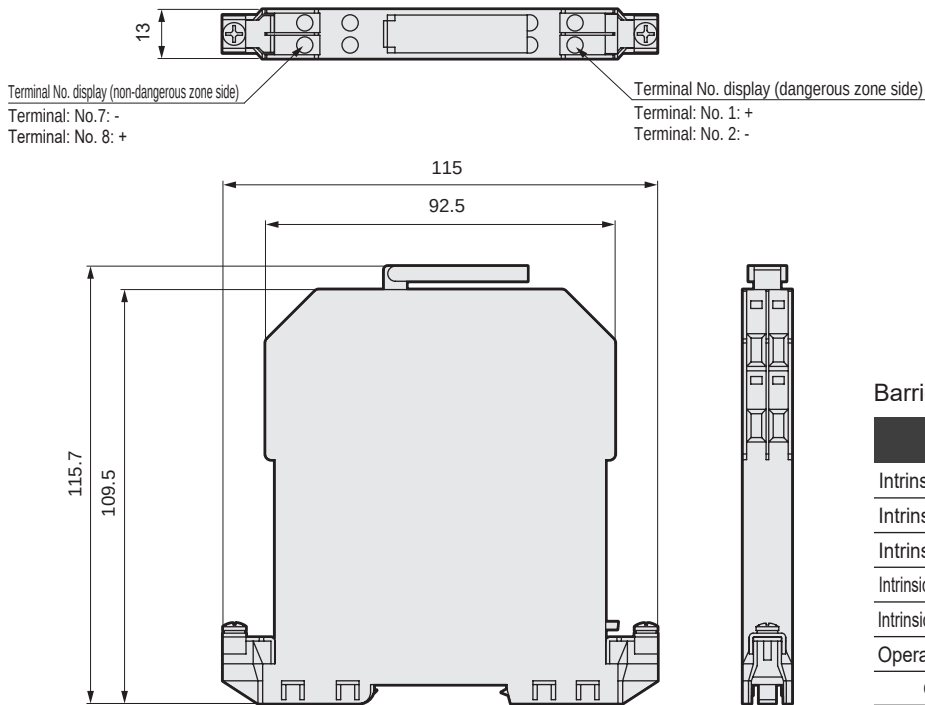
## Zener barrier (1CH) Dimensions

Model No.: **Z728**



### Explosion-proof certification state

| CCC, NEPSI (China) | IECEX (International) | KCs (South Korea) | TS (Taiwan) |
|--------------------|-----------------------|-------------------|-------------|
| Compatible         | Compatible            | Compatible        | Compatible  |



Supply sources: Pepperl+Fuchs Inc.  
Refer to the Pepperl+Fuchs Inc. catalogs or the WEB for detailed specifications or a report of the non-judgment.

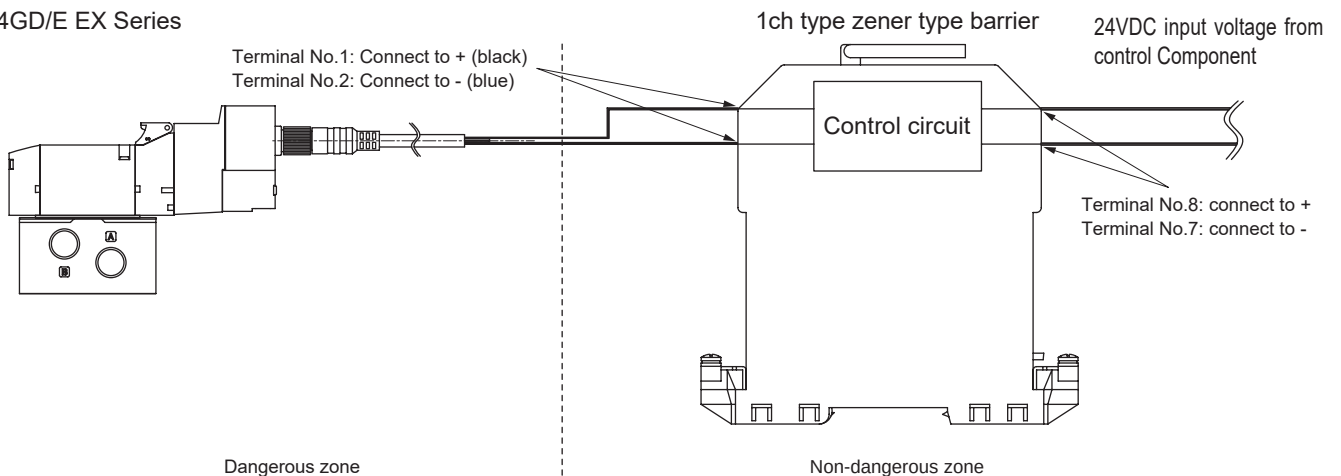
### Barrier intrinsic safety parameters

| Item                                                 | Item          |
|------------------------------------------------------|---------------|
| Intrinsic safety circuit max. voltage $U_0$          | 28V           |
| Intrinsic safety circuit max. current $I_0$          | 93mA          |
| Intrinsic safety circuit max. power $P_0$            | 0.65 W        |
| Intrinsic safety circuit allowable capacitance $C_0$ | 0.083 $\mu$ F |
| Intrinsic safety circuit allowable inductance $L_0$  | 3.05mH        |
| Operating ambient temperature range                  | -20 to 60°C   |
| Current limiting resistor                            | 300 $\Omega$  |

- \* Always use valves in combination with a barrier.
- \* Connection terminals are polarized. Incorrect wiring leads to breakdown of the barrier.
- \* Compatible wires have a allowable area of 2.5mm<sup>2</sup>.
- \* Barrier degree of protection is IP20.
- \* Type A grounding is required for barrier installation.

## About Valve and Barrier Connections

### 4GD/E EX Series



3GD\*0EX  
4GD\*0EX

3GE\*0EX  
4GE\*0EX

M3GD\*0EX  
M4GD\*0EX

M3GE\*0EX  
M4GE\*0EX

Related products

Manifold  
specifications sheet

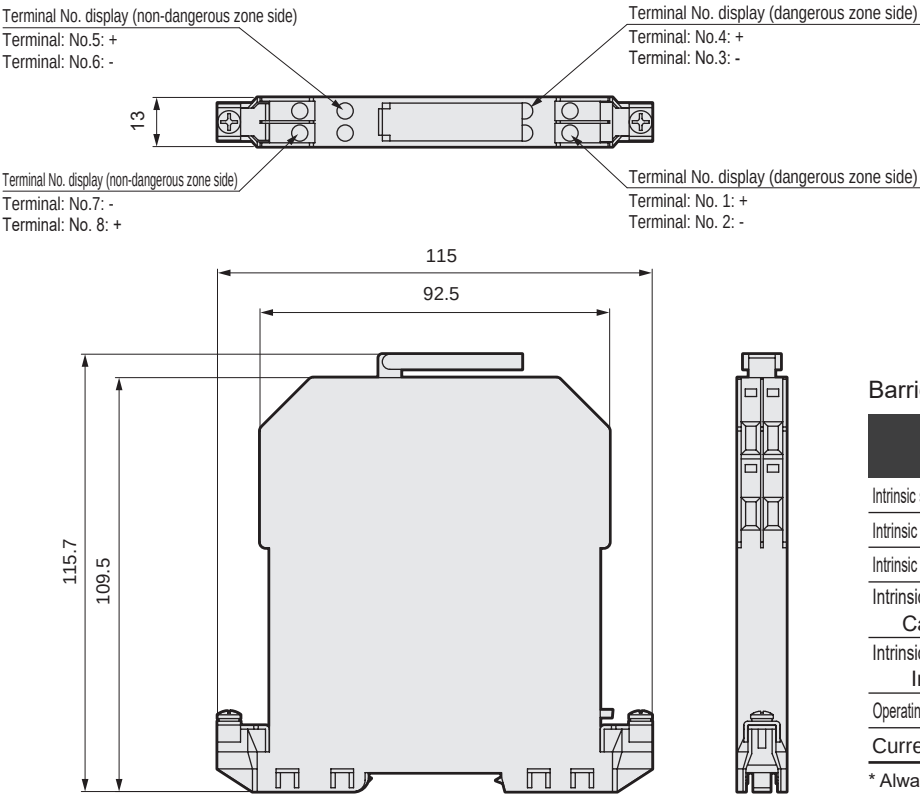
Precautions for use

Zener barrier (2CH) Dimensions

Model No.: **Z779**

Explosion-proof certification state

| CCC, NEPSI (China) | IECEX (International) | KCs (South Korea) | TS (Taiwan) |
|--------------------|-----------------------|-------------------|-------------|
| Compatible         | Compatible            | Compatible        | Compatible  |



Supply sources: Pepperl+Fuchs Inc.  
Refer to the Pepperl+Fuchs Inc. catalogs or  
the WEB for detailed specifications or a  
report of the non-judgment.

Barrier intrinsic safety parameters

| Item                                                          | Item        |             |
|---------------------------------------------------------------|-------------|-------------|
|                                                               | CH1         | CH2         |
| Intrinsic safety circuit max. voltage U <sub>0</sub>          | 28V         | 28V         |
| Intrinsic safety circuit max. current I <sub>0</sub>          | 93mA        | 93mA        |
| Intrinsic safety circuit max. power P <sub>0</sub>            | 0.65 W      | 0.65 W      |
| Intrinsic safety circuit allowable Capacitance C <sub>0</sub> | 0.083 μF    | 0.083 μF    |
| Intrinsic safety circuit allowable Inductance L <sub>0</sub>  | 3.05mH      | 3.05mH      |
| Operating ambient temperature range                           | -20 to 60°C | -20 to 60°C |
| Current limiting resistor                                     | 301 Ω       | 301 Ω       |

- \* Always use valves in combination with a barrier.
- \* Connection terminals are polarized. Incorrect wiring leads to breakdown of the barrier.
- \* Compatible wires have a allowable area of 2.5mm<sup>2</sup>.
- \* Barrier degree of protection is IP20.
- \* Type A grounding is required for barrier installation.

About Valve and Barrier Connections

