

Master valve single unit/manifold (metal base)  
Body piping

# (M)3GA1/2/3 / (M)4GA1/2/3 Series

● Cylinder bore size:  $\phi 20$  to  $\phi 100$



4GA/B  
M4GA/B  
MN4GA/B  
4GA/B (mastr)  
4GD/E  
M4GD/E  
MN4GD/E  
4GA4/B4  
MN3E  
MN4E  
W4GA/B2  
W4GB4  
4TB  
4L2-4/  
LMF0  
MN3S0  
MN4S0  
4SA/B0  
4KA/B  
4KA/B (mastr)  
4F  
4F (mastr)  
PV5G  
GMF  
PV5  
GMF  
PV5S-0  
3QR  
3QB  
MV3QR  
3MA/B0  
3PA/B  
P/M/B  
NP/NAP/  
NVP  
4F\*0EX  
4F\*0E  
HNV  
HSV  
2QV  
3QV  
SKH  
PCD  
Silencer  
TotAirSys  
(Total Air)  
TotAirSys  
(Gamma)  
Ending

## Common specifications

Descriptions	Content
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	0.7 ( $\approx 100$ psi, 7 bar)
Min. working pressure *1 MPa	Refer to main pressure section in the table below
Proof pressure MPa	1.05 ( $\approx 150$ psi, 10.5 bar)
Ambient temperature $^{\circ}\text{C}$	-5 (23 $^{\circ}\text{F}$ ) to 55 (131 $^{\circ}\text{F}$ ) (no freezing)
Fluid temperature $^{\circ}\text{C}$	5 (41 $^{\circ}\text{F}$ ) to 55 (131 $^{\circ}\text{F}$ )
Manual override	Non-locking/locking common
Pilot exhaust method (manual operation)	Main valve/pilot valve common exhaust
Lubrication *2	Not required
Degree of protection *3	Dust-proof
Vibration resistance $\text{m/s}^2$	50 or less
Shock resistance $\text{m/s}^2$	300 or less
Atmosphere	Cannot be used in corrosive gas environments

\*1: When operating manually, supply pressure to the P-port as shown in the table below is required.

2-position 0.1 MPa and over  
3-position 0.2 MPa and over

\*2: Use turbine oil Class 1 ISO VG32 for lubrication.

Excessive or intermittent lubrication results in unstable operation.

\*3: Avoid water drops or oil, etc., during use.

## Individual specifications

Body piping (discrete/manifold)

1 MPa  $\approx$  145.0 psi, 1 MPa = 10 bar

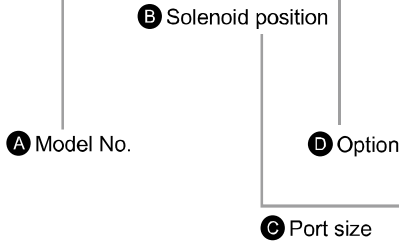
No. of ports	Model No.		Solenoid position	Pilot port PA/PB	Main pressure	Pilot signal pressure MPa	Other specification pages Note
	Single unit	Manifold					
3-port	3GA1**1R	M3GA1**1R	2-position single NC/NO	M5	0.2 to 0.7	(0.6 $\times$ main pressure + 0.06) to 0.7	Single unit: Page 12 Manifold: Page 96
	3GA2**1R	M3GA2**1R					
	3GA3**1R	M3GA3**1R					
5-port	4GA111R	M4GA111R	2-position single	M5	0.2 to 0.7	(0.6 $\times$ main pressure + 0.06) to 0.7	
	4GA121R	M4GA121R	2-position double				
	4GA1 $\frac{2}{5}$ 1R	M4GA1 $\frac{2}{5}$ 1R	3-position	M5	0.2 to 0.7	(0.6 $\times$ main pressure + 0.06) to 0.7	
	4GA211R	M4GA211R	2-position single				
	4GA221R	M4GA221R	2-position double	M5	0.2 to 0.7	(0.6 $\times$ main pressure + 0.06) to 0.7	
	4GA2 $\frac{2}{5}$ 1R	M4GA2 $\frac{2}{5}$ 1R	3-position				
	4GA311R	M4GA311R	2-position single				
4GA321R	M4GA321R	2-position double					
4GA3 $\frac{2}{5}$ 1R	M4GA3 $\frac{2}{5}$ 1R	3-position					

Note Other specifications are the same as those of 4G series. Refer to pages for each specification.

### How to order

Discrete master valve

**A** Model No. **4GA2** **1** **1R** - **C4** - **H**



### ⚠ Precautions for model No. selection

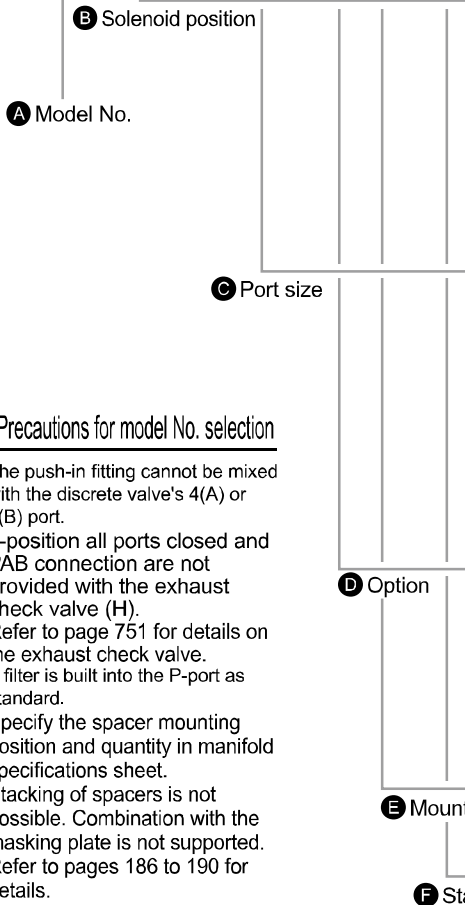
- \*1 : For the 3GA normally closed, the piping connection 2 (B) and 3 (R2) ports are plugged.  
For 3GA normally open, avoid plugging the 5 (R1) port. Otherwise, malfunctions may result.
- \*2 : 3-position all ports closed and PAB connection are not provided with the exhaust check valve (H). Refer to page 751 for details on the exhaust check valve.
- \*3 : For option code P, products other than single cannot be normally mounted because of the pilot port direction.
- \*4 : A filter is built into the P-port as standard.

Manifold

**M** **4GA2** **1** **1R** - **C4** - **H** **D** - **8**

Discrete master valve for manifold (gasket, set screw, PR check valve attached)

**A** Model No. **4GA2** **1** **8R** - **C4** - **H**



### ⚠ Precautions for model No. selection

- \*1 : The push-in fitting cannot be mixed with the discrete valve's 4(A) or 2(B) port.
- \*2 : 3-position all ports closed and PAB connection are not provided with the exhaust check valve (H). Refer to page 751 for details on the exhaust check valve.
- \*3 : A filter is built into the P-port as standard.
- \*4 : Specify the spacer mounting position and quantity in manifold specifications sheet. Stacking of spacers is not possible. Combination with the masking plate is not supported. Refer to pages 186 to 190 for details.
- \*5 : The master valve for manifold cannot be selected as a discrete valve.

		A Model No.					
		3GA1	3GA2	3GA3	4GA1	4GA2	4GA3
Code	Content						
B Solenoid position							
1	2-position single				●	●	●
2	2-position double				●	●	●
3	3-position all ports closed				●	●	●
4	3-position ABR connection				●	●	●
5	3-position PAB connection				●	●	●
1	2-position single normally closed *1	●	●	●			
11	2-position single normally open *1	●	●	●			
C Port size							
Port	A/B Port	P/R1/R2 port ①=M5 ②=Rc1/8 ③=Rc1/4					
C4	φ4 Push-in fitting	①	②		①	②	
C6	φ6 Push-in fitting	①	②	③	①	②	③
C8	φ8 Push-in fitting		②	③		②	③
C10	φ10 Push-in fitting			③			③
M5	M5	①			①		
06	Rc1/8		②			②	
08	Rc1/4			③			③
D Option							
Blank	None	●	●	●	●	●	●
H	With exhaust check valve *2	●	●	●	●	●	●
P	With mounting plate *3	●	●	●	●	●	●
A	Ozone/coolant proof product	●	●	●	●	●	●
F	A/B-port filter built in *4	●	●	●	●	●	●

		A Model No.					
		M3GA1	M3GA2	M3GA3	M4GA1	M4GA2	M4GA3
Code	Content						
B Solenoid position							
1	2-position single				●	●	●
2	2-position double				●	●	●
3	3-position all ports closed				●	●	●
4	3-position ABR connection				●	●	●
5	3-position PAB connection				●	●	●
1	2-position single normally closed	●	●	●			
11	2-position single normally open	●	●	●			
8	Mix manifold (when there are multiple solenoid positions)	●	●	●	●	●	●
C Port size							
Port	A/B Port	P/R1/R2 port ②=Rc1/8 ③=Rc1/4 ④=Rc3/8					
C4	φ4 Push-in fitting	②	③		②	③	
C6	φ6 Push-in fitting	②	③	④	②	③	④
C8	φ8 Push-in fitting		③	④		③	④
C10	φ10 Push-in fitting			④			④
CX	Push-in fitting mix *1	②	③	④	②	③	④
M5	M5	②			②		
06	Rc1/8		③			③	
08	Rc1/4			④			④
D Option							
Blank	None	●	●	●	●	●	●
H	With exhaust check valve *2	●	●	●	●	●	●
A	Ozone/coolant proof product	●	●	●	●	●	●
F	A/B-port filter built in *3	●	●	●	●	●	●
Z1	Air supply spacer *4/*5	●	●	●	●	●	●
Z2	In-stop valve spacer *4/*5	●	●	●	●	●	●
Z3	Exhaust spacer *4/*5	●	●	●	●	●	●
E Mount							
Blank	Direct mount	●	●	●	●	●	●
D	DIN rail mount	●	●	●	●	●	●
F Station No.							
2	2 stations						
to	to						
20	Refer to page 96 for the max. station number per model.	●	●	●	●	●	●

- 4GA/B
- M4GA/B
- MN4GA/B
- 4GA/B (mastr)
- 4GD/E
- M4GD/E
- MN4GD/E
- 4GA4/B4
- MN3E
- MN4E
- W4GA/B2
- W4GB4
- 4TB
- 4L2-4/LMF0
- MN3S0
- MN4S0
- 4SA/B0
- 4KA/B
- 4KA/B (mastr)
- 4F
- 4F (mastr)
- PV5G
- GMF
- PV5
- GMF
- PV5S-0
- 3QR
- 3QB
- MV3QR
- 3MA/B0
- 3PA/B
- P/M/B
- NP/NAP/NVP
- 4F\*0EX
- 4F\*0E
- HMV
- HSV
- 2QV
- 3QV
- SKH
- PCD
- Silencer
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- Ending

# 3GA Series

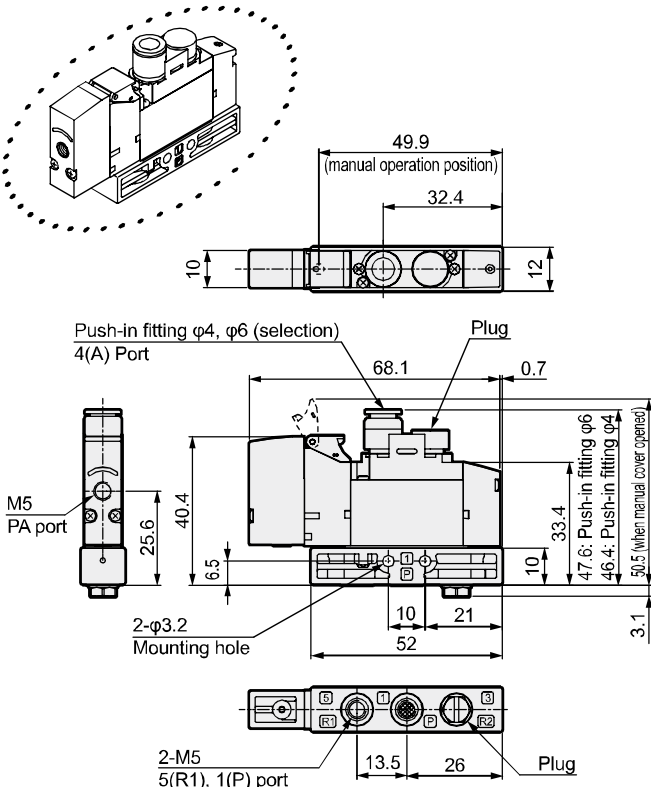
Single master valve; body piping

## Dimensions

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G
GMF
PV5
GMF
PV5S-0
3QR
3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

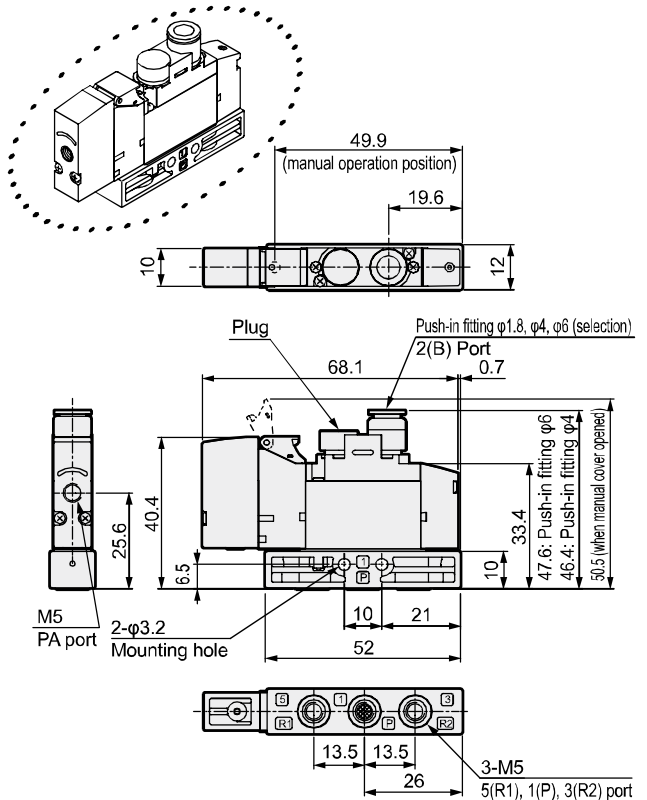
### 3GA111R

● 2-position single NC



### 3GA111R

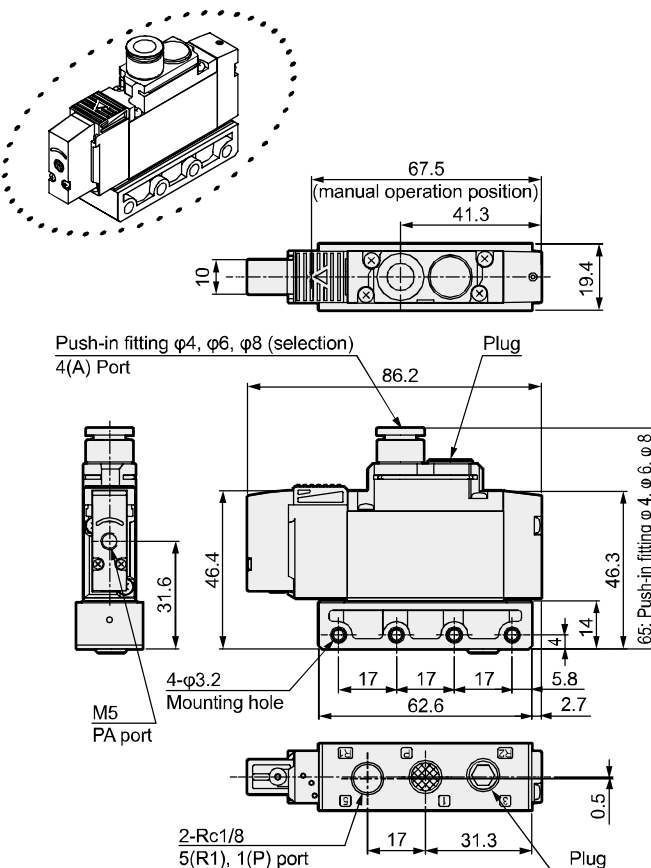
● 2-position single NO



\* The mounting plate (P) is the same as that of the solenoid valve. Refer to pages 22 and 24 for dimensions.

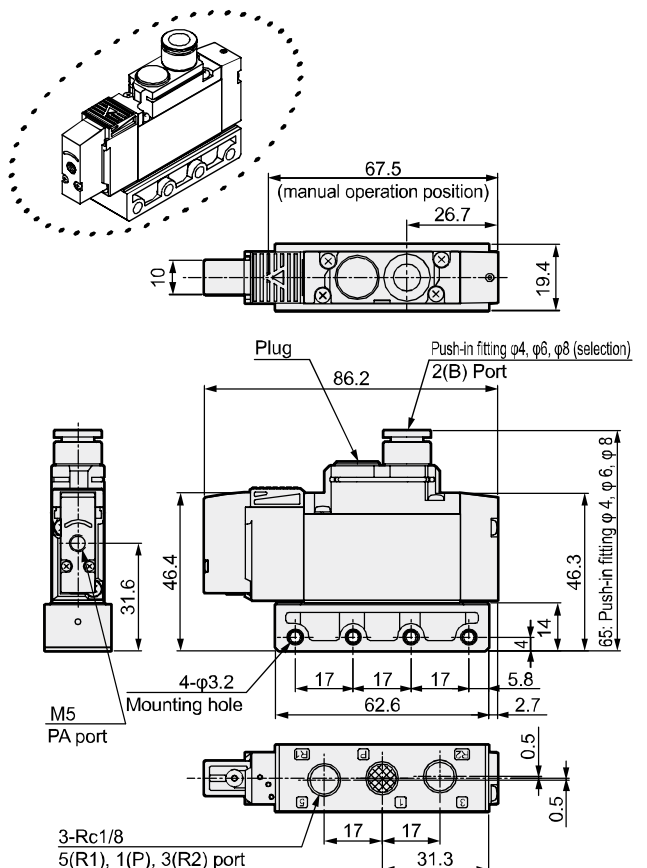
### 3GA211R

● 2-position single NC



### 3GA211R

● 2-position single NO

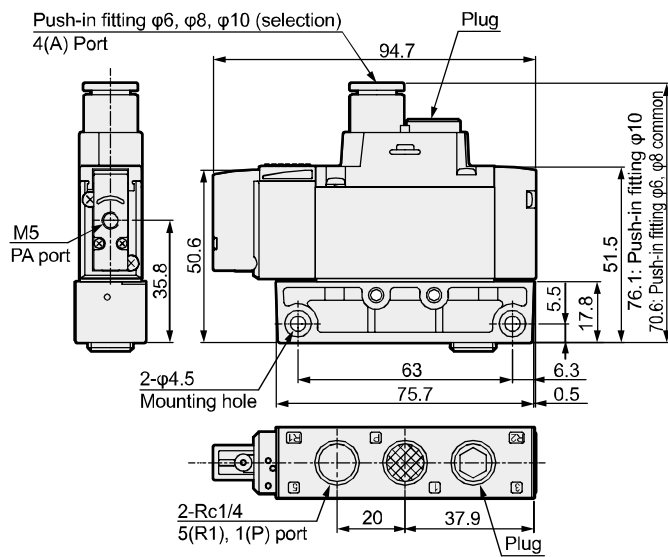
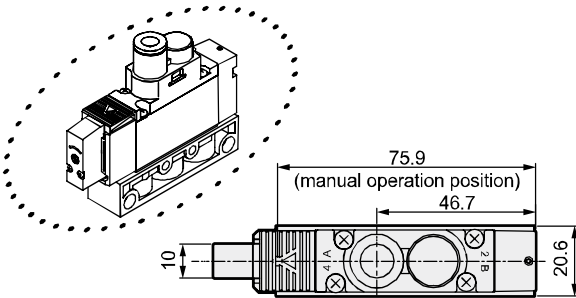


\* The mounting plate (P) is the same as that of the solenoid valve. Refer to pages 26 and 28 for dimensions.

### Dimensions

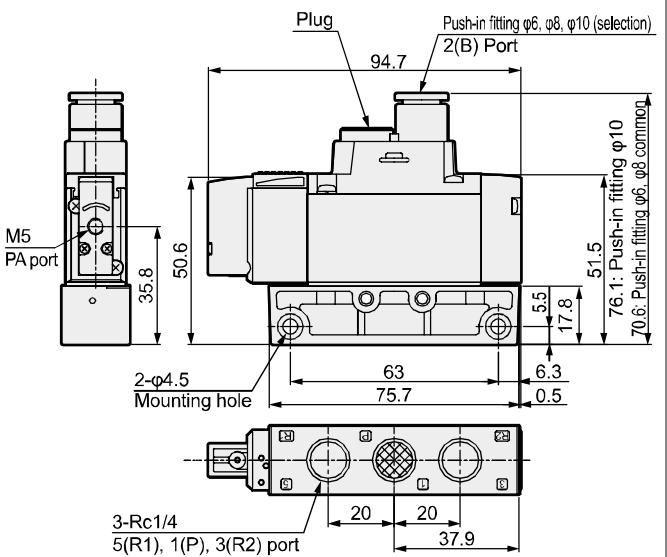
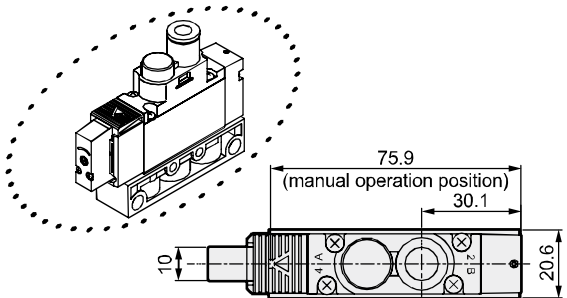
#### 3GA311R

● 2-position single NC



#### 3GA3111R

● 2-position single NO



\* The mounting plate (P) is the same as that of the solenoid valve. Refer to pages 30 and 32 for dimensions.

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
4TB
4L2-4/LMF0
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G
GMF
PV5
GMF
PV5S-0
3QR
3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending