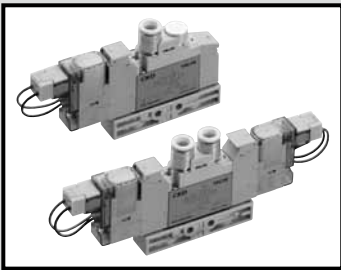


4GA/B  
M4GA/B  
MN4GA/B  
4GA/B (mastr)  
4GD/E  
M4GD/E  
MN4GD/E  
4GA4/B4  
MN3E  
MN4E  
W4GA/B2  
W4GB4  
4TB  
4L2-4/  
LMF0  
MN3S0  
MN4S0  
4SA/B0  
4KA/B  
4KA/B (mastr)  
4F  
4F (mastr)  
PV5G  
GMF  
PV5  
GMF  
PV5S-0  
3QR  
3QB  
MV3QR  
3MA/B0  
3PA/B  
P/M/B  
NP/NAP/  
NVP  
4F\*0EX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



Single valve  
Body piping

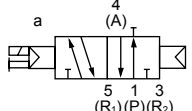
# 3GA1/2/3 / 4GA1/2/3 Series

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

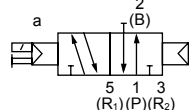


## JIS symbol

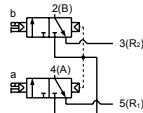
● 3-port valve  
2-position single NC



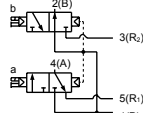
2-position single NO



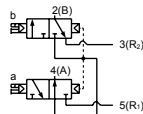
● Two 3-port valves integrated  
(A side valve: NC, B side valve: NC)



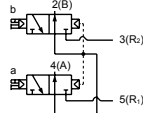
(A side valve: NC, B side valve: NO)



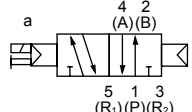
(A side valve: NO, B side valve: NC)



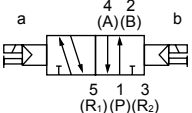
(A side valve: NO, B side valve: NO)



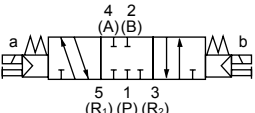
● 5-port valve  
2-position single



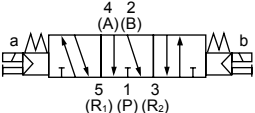
2-position double



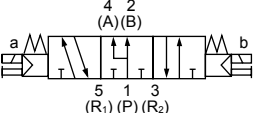
3-position all ports closed



3-position A/B/R connection



3-position P/A/B connection



## 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 MPa	0.2 ( $\approx 29$ psi, 2 bar)
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	Lock/no lock common (standard)
Pilot exhaust method	Main valve/pilot valve common exhaust
Lubrication *1	Not required
Degree of protection *2	Dust-proof
Vibration resistance $\text{m/s}^2$	50 or less
Shock resistance $\text{m/s}^2$	300 or less
Atmosphere	Corrosive gas environment prohibited

\*1: Use turbine oil Class 1 ISO VG32 for lubrication.  
Excessive or intermittent lubrication results in unstable operation.

\*2: Avoid water drops or oil, etc., during use.  
IP65 (jet-proof) applies for DIN terminal box specifications. However, the specified outer diameter of the applicable cord and tightening torque must be used for fixing in place.

## Electrical specifications

Descriptions	Content	Rated voltage V					
		DC24	DC12	DC5	DC3	AC100	AC200
Rated voltage	V	DC24	DC12	DC5	DC3	AC100	AC200
Voltage fluctuation range		$\pm 10\%$					
Holding current A (*3)	Standard	0.015 (0.017)	0.030 (0.034)	0.072 (0.082)	0.120 (0.136)	0.009 (0.009)	0.006 (0.006)
	Low exoergic/energy circuit	0.005	0.010	-	-	-	-
Power consumption W (*3)	Standard	0.35(0.40)	0.35(0.40)	-	-	-	-
	Low exoergic/energy circuit	0.1	-	-	-	-	-
Apparent power VA (*3, 4)	Standard	-	-	-	-	0.93 (0.98)	1.40
	Low exoergic/energy circuit	-	-	-	-	-	-
Thermal class		B					
Surge suppressor		Option					
Indicator		Lamp (option)					

\*3: Values in ( ) apply when lamp is included. In addition, the type with low exoergic/energy-saving circuit is only available with lamp.

\*4: 200 VAC is the value of DIN terminal box (with lamp).

## Individual specifications

Port size		3GA1, 4GA1	3GA2, 4GA2	3GA3, 4GA3
Rc thread, M5	A/B port	Barbed fitting $\phi 1.8$ push-in fitting $\phi 1.8, \phi 4, \phi 6$ M5	Push-in fitting $\phi 4, \phi 6, \phi 8$ Rc1/8	Push-in fitting $\phi 6, \phi 8, \phi 10$ Rc1/4
	P/R1/R2 port	M5	Rc1/8	Rc1/4
NPT thread, M5	A/B Port	Push-in fitting $\phi 1/8"$ , $\phi 5/32"$	Push-in fitting $\phi 1/4"$ , $\phi 5/16"$ 1/8NPT	Push-in fitting $\phi 5/16"$ , $\phi 3/8"$ 1/4NPT (*5)
	P/R1/R2 port	M5	1/8NPT	1/4NPT (*5)
G thread	A/B Port	-	Push-in fitting $\phi 4, \phi 6, \phi 8$ G1/8	-
	P/R1/R2 port	-	G1/8	-

\*5: Available as custom-order.

Descriptions	3GA1		3GA2		3GA3		4GA1		4GA2		4GA3			
	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF		
Response time ms	Two 3-port valves integrated		9	12	12	29	-	-	-	-	-	-	-	
	2-position	Single	12	12	19	19	25	28	12	12	19	19	25	28
		Double	-	-	-	-	-	-	9	-	18	-	24	-
3-position	ABR connection	-	-	-	-	-	-	8	15	17	30	23	45	

Values with lamp/surge suppressor are shown. The response times are the values with supply pressure of 0.5 MPa at  $20^{\circ}\text{C}$  without lubrication. They depend on the pressure and the lubricant quality.

Descriptions	3GA1		3GA2		3GA3		4GA1		4GA2		4GA3		
	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	
Weight g	2-position	Single	Grommet lead wire	48(41)	104(74)	142(100)	48(41)	109(79)	151(109)				
			E type connector	50(43)	106(76)	144(102)	50(43)	111(81)	153(111)				
			DIN terminal box	-	141(111)	177(135)	-	146(116)	186(144)				
	3-position	All ports closed	Grommet lead wire	-	-	-	67(60)	139(109)	183(141)				
				E type connector	-	-	-	71(64)	143(113)	187(145)			
				DIN terminal box	-	-	-	-	181(151)	223(181)			

· Values in ( ) do not include the pipe adaptor. Values for the E type connector include the socket assembly (with 300 mm lead wire). For the EJ type connector, add 16 g/connector to the E type connector weight.

· The weight of the two 3-port valves integrated is the same as that of 2-position double.

## 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	
3GA1 4GA1	Two 3-port valves integrated	0.98	0.45	0.71	0.34	
	2-position	1.2	0.47	0.72	0.37	
	3-position	All ports closed	1.1	0.39	0.70	0.34
		PAB connection	1.1	0.33	0.72	0.34
	PAB connection	1.3	0.61	0.72	0.36	
3GA2 4GA2	Two 3-port valves integrated	1.8	0.29	2.3	0.32	
	2-position	2.4	0.33	2.8	0.30	
	3-position	All ports closed	2.2	0.28	2.5	0.28
		ABR connection	2.3	0.26	2.8	0.27
	PAB connection	2.5	0.38	2.4	0.30	
3GA3 4GA3	2-position	3.4	0.29	4.0	0.24	
	3-position	All ports closed	3.1	0.27	3.4	0.28
		ABR connection	3.1	0.33	4.1	0.20
		PAB connection	3.5	0.43	3.4	0.32

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

Ozone-proof specifications

Coolant proof specifications

Can be selected with "How to order" Item ⑤ option "A" on page 14.

Clean-room specifications

- Anti-dust generation structure for use in cleanrooms

\*\* - Voltage - **P7\***

Specifications for rechargeable battery (Catalog No. CC-1226A)

- For use in the rechargeable battery manufacturing process, materials used for air path and sliding section are limited

\*\* - Voltage - **P4**

CE marking specifications

\*\* - Voltage - **ST**

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

# 3GA1/2/3 / 4GA1/2/3 Series

Single valve; body piping

- 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

## How to order

4GA1 1 0 R - C6 - E2 - 1

3GA1 1 0 R - C6 - E2 - 1

Discrete valve for mounting base

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

Discrete 3 port valve for mounting base

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

**B** Solenoid position

**A** Model No.

**C** Port size

**D** Electrical connections

Refer to page 11 for the circuit diagram with surge suppressor/lamp.

## ⚠ Precautions for model No. selection

**E** Option

- \*1 : For the 3GA normally closed, the piping connection 2 (B) and 3 (R2) ports are plugged.  
For 3GA normally open type, avoid plugging the 5 (R1) port.  
Otherwise, malfunctions may result.
- \*2 : Dimensions are the same as the respective 2-position double solenoid.
- \*3 : 4G3 is a custom order product.
- \*4 : 3-position all ports closed and PAB connection are not provided with the exhaust check valve.  
Refer to page 751 for details on the exhaust check valve.
- \*5 : E2\* type and E2\*J type connectors support 12/24 VDC only.  
In addition, surgeless "S" and low exoergic/energy-saving circuit "E" cannot be selected together.
- \*6 : Surgeless specifications.
- \*7 : A filter is built into the P-port as standard.
- \*8 : Only the DIN terminal box is supported.

**F** Voltage

A Model No.					
3GA1	3GA2	3GA3	4GA1	4GA2	4GA3

Code	Content	3GA1	3GA2	3GA3	4GA1	4GA2	4GA3
<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				●	●	●
1	2-position single normally closed *1	●	●	●			
11	2-position single normally open *1	●	●	●			
66	Two 3-port valves integrated *2	●	●				
67	Two 3-port valves integrated *2	A side valve: Normally closed					
		B side valve: Normally open		●	●		
76	Two 3-port valves integrated *2	A side valve: Normally open		●	●		
		B side valve: Normally closed					
77	Two 3-port valves integrated *2	A side valve: Normally open		●	●		
		B side valve: Normally open					

<b>C Port size</b>							
Port	4(A)/2(B) port	P/R1/R2 port (1) = M5, (2) = Rc1/8, (3) = Rc1/4					
CF	φ1.8 barbed fitting (compatible tube UP-9102-**) (1)			(1)			
C18	φ1.8 push-in fitting (compatible tube UP-9402-**) (1)			(1)			
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)	
Port	4(A)/2(B) port	P/R1/R2 port (1) = M5, (5) = 1/8NPT, (6) = 1/4NPT					
C3N	φ1/8" push-in fitting (1)			(1)			
C4N	φ5/32" push-in fitting (1)			(1)			
C6N	φ1/4" push-in fitting (5)				(5)		
C8N	φ5/16" push-in fitting (*3) (5) (6)				(5)	(6)	
C10N	φ3/8" push-in fitting (*3) (6)					(6)	
06N	1/8NPT (5)					(5)	
08N	1/4 NPT (*3) (6)						(6)
Port	4(A)/2(B) port	P/R1/R2 port (8) = G1/8					
C4G	φ4 push-in fitting (8)				(8)		
C6G	φ6 push-in fitting (8)				(8)		
C8G	φ8 push-in fitting (8)				(8)		
06G	G1/8 (8)				(8)		

<b>D Electrical connections</b>							
Refer to the electrical connection list on next page.							

<b>E Option</b>							
Blank	Non-locking/locking common manual override	●	●	●	●	●	●
M	Non-locking manual override	●	●	●	●	●	●
H	With exhaust check valve (*4)	●	●	●	●	●	●
P	With mounting plate	●	●	●	●	●	●
A	Ozone/coolant proof	●	●	●	●	●	●
S	Surgeless (*5)	●	●	●	●	●	●
E	Low exoergic/energy saving circuit (*5), (*6)	●	●	●	●	●	●
F	A/B port filter integrated (*7)	●	●	●	●	●	●

<b>F Voltage</b>							
1	100 VAC (rectifier integrated)	●	●	●	●	●	●
2	200 VAC (rectifier integrated) (*8)	●	●	●	●	●	●
3	24 VDC	●	●	●	●	●	●
4	12 VDC	●	●	●	●	●	●
7	3 VDC	○	○	○	○	○	○
8	5 VDC	○	○	○	○	○	○

is not available.

○ indicates a custom order.

# 3GA1/2/3 / 4GA1/2/3 Series

Single valve; body piping

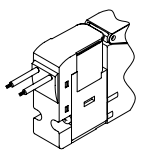
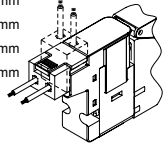
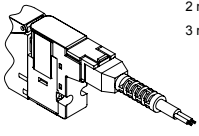
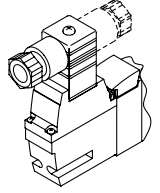
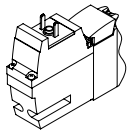
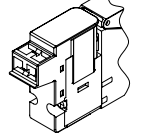
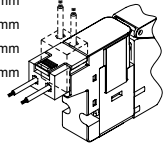
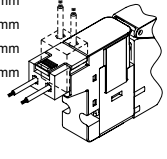
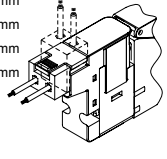
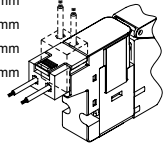
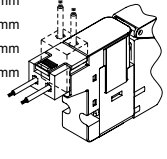
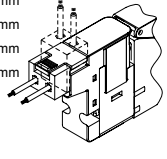
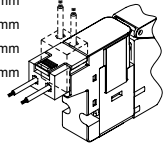
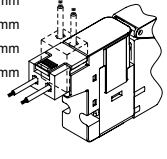
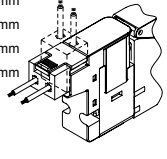
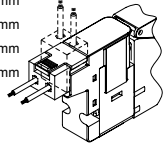
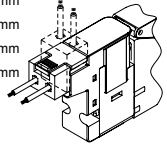
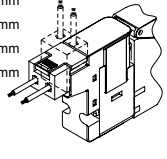
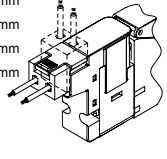
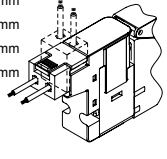
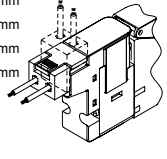
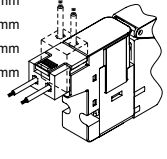
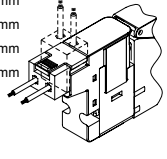
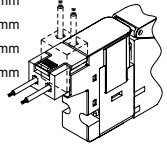
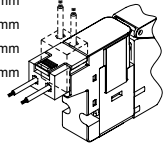
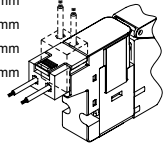
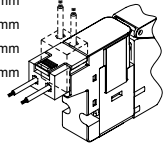
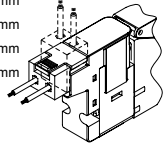
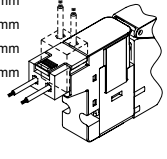
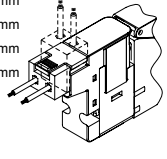
## [Electrical connections list]

		A Model No.					
		3GA1	3GA2	3GA3	4GA1	4GA2	4GA3
<b>D Electrical connections</b>							
Blank	Grommet lead wire (300 mm) (*9)	●	●	●	●	●	●
B	DIN terminal box (Pg7) With surge suppressor/lamp (*10)		●	●		●	●
BN	DIN term. box (Pg7) (no terminal box) + surge suppressor *10		●	●		●	●
<b>E type connector (upward/lateral common)</b>							
E0	Lead wire (300 mm) (*11)	●	●	●	●	●	●
E00	Lead wire (500 mm) (*11)	●	●	●	●	●	●
E01	Lead wire (1000 mm) (*11)	●	●	●	●	●	●
E02	Lead wire (2000 mm) (*11)	●	●	●	●	●	●
E03	Lead wire (3000 mm) (*11)	●	●	●	●	●	●
E0N	Without lead wire (without socket)	●	●	●	●	●	●
E1	Without lead wire (socket/terminal attached) (*11)	●	●	●	●	●	●
E2	Lead wire (300 mm), surge suppressor/indicator lamp	●	●	●	●	●	●
E20	Lead wire (500 mm), surge suppressor/indicator lamp	●	●	●	●	●	●
E21	Lead wire (1000 mm), surge suppressor/indicator lamp	●	●	●	●	●	●
E22	Lead wire (2000 mm), surge suppressor/indicator lamp	●	●	●	●	●	●
E23	Lead wire (3000 mm), surge suppressor/indicator lamp	●	●	●	●	●	●
E2N	No lead wire (without socket), surge suppressor/indicator lamp	●	●	●	●	●	●
E3	No lead wire (with socket/terminal), surge suppressor/indicator lamp	●	●	●	●	●	●
<b>EJ type connector (socket with cover, upward/lateral common)</b>							
E01J	Lead wire (1000 mm) (*11)	●	●	●	●	●	●
E02J	Lead wire (2000 mm) (*11)	●	●	●	●	●	●
E03J	Lead wire (3000 mm) (*11)	●	●	●	●	●	●
E21J	Lead wire (1000 mm), surge suppressor, indicator lamp	●	●	●	●	●	●
E22J	Lead wire (2000 mm), surge suppressor, indicator lamp	●	●	●	●	●	●
E23J	Lead wire (3000 mm), surge suppressor, indicator lamp	●	●	●	●	●	●

\*9 : Grommet lead wire specifications are compatible with DC voltage only.

\*10: AC voltages and 12/24 VDC are supported. In addition, a lamp comes with the terminal box.

\*11: AC voltage is with a rectifier circuit.

Electrical connections		4GA/B
Blank	Grommet lead wire	M4GA/B
E1 E3	E type connector with socket/terminal	MN4GA/B
● Lead wire length 300 mm		4GA/B (mastr)
E0 E2	E type connector	4GD/E
B	DIN terminal box	M4GD/E
● Lead wire length 300 mm 500 mm 1000 mm 2000 mm 3000 mm		MN4GD/E
E0N E2N	E type connector without socket	4GA4/B4
BN	DIN terminal box without terminal box	MN3E MN4E
E0J E2J	EJ type connector	W4GA/B2
● Lead wire length 1 m 2 m 3 m		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

# 3GA1 Series

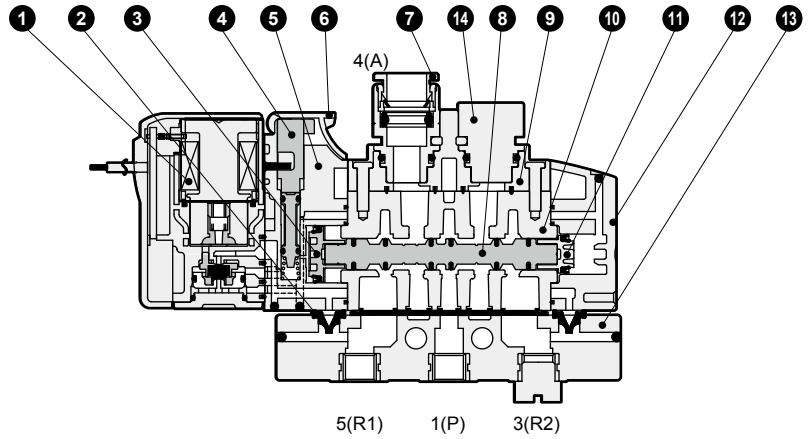
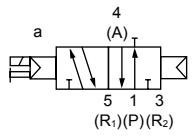
Single valve; body piping

## Internal structure and parts list

- 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

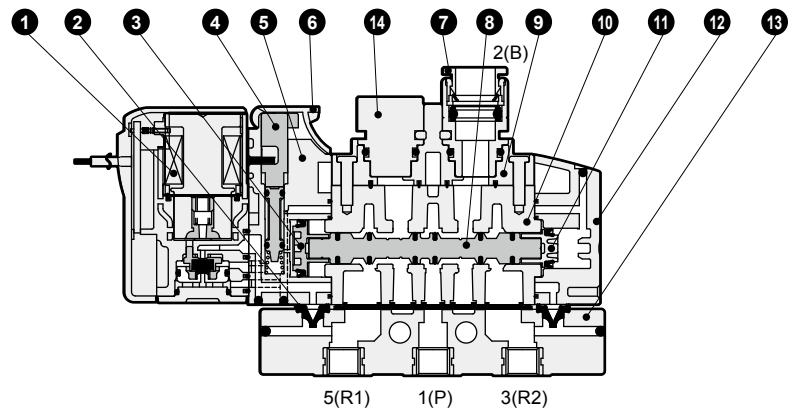
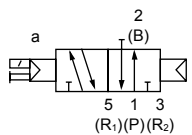
### 3GA110R

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



### 3GA1110R

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

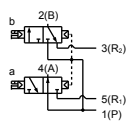
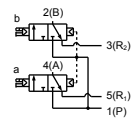


### 3GA10R

- Two 3-port valves integrated
- Grommet lead wire (blank)

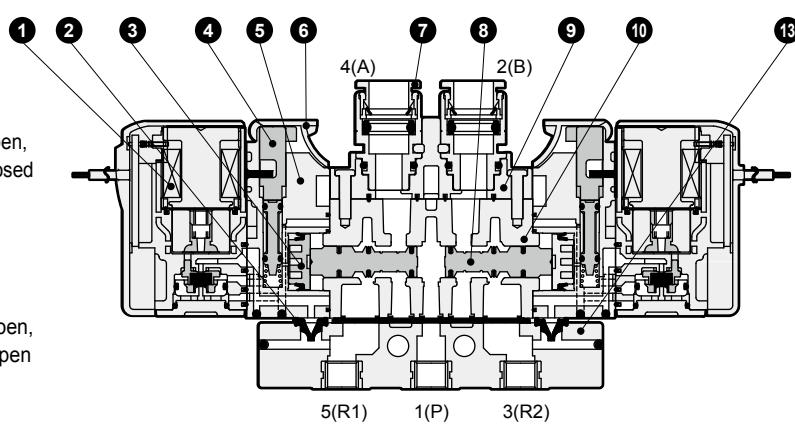
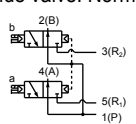
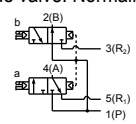
A side valve: Normally closed,  
B side valve: Normally closed

A side valve: Normally open,  
B side valve: Normally closed



A side valve: Normally closed,  
B side valve: Normally open

A side valve: Normally open,  
B side valve: Normally open



## Main parts list

No.	Part name	Material
1	Coil assembly	-
2	Pilot exhaust check valve	Hydrogenated nitrile rubber
3	Piston D assembly	-
4	Manual override	Resin
5	Piston chamber	Resin
6	Manual protection cover	Resin
7	Cartridge push-in fitting or barbed fitting	-
8	Spool assembly	-
9	Fitting adaptor	Resin
10	Body	Aluminum alloy die-casting
11	Piston S assembly	-
12	Cap	Resin
13	Pipe adaptor	Resin
14	Plug cartridge	Aluminum

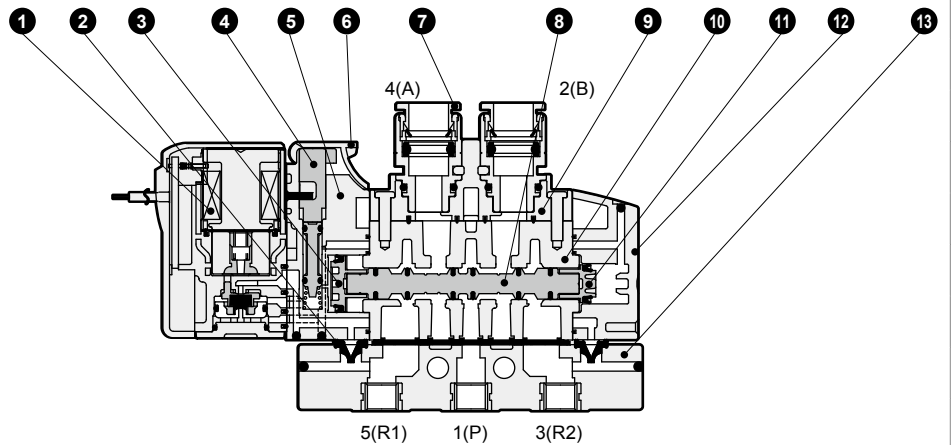
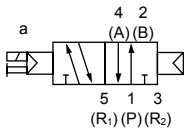
## Parts list

No.	Part name	Model No.
1	Coil assembly	4GR - [electrical connections] - [ ] - COIL - [voltage]
		Blank: Standard A: Ozone specifications S: Surgeless E: Low exoergic/energy saving circuit Blank: Grommet lead wire
7	Cartridge push-in fitting and related parts	φ1.8 barbed 4G1R-JOINT-CF
		φ1.8 axial 4G1R-JOINT-C18
		φ4 straight 4G1R-JOINT-C4
		φ6 straight 4G1R-JOINT-C6
		Plug cartridge 4G1R-JOINT-CPG
		φ1/8" straight 4G1R-JOINT-C3N
	φ5/32" straight 4G1R-JOINT-C4N	

## Internal structure and parts list

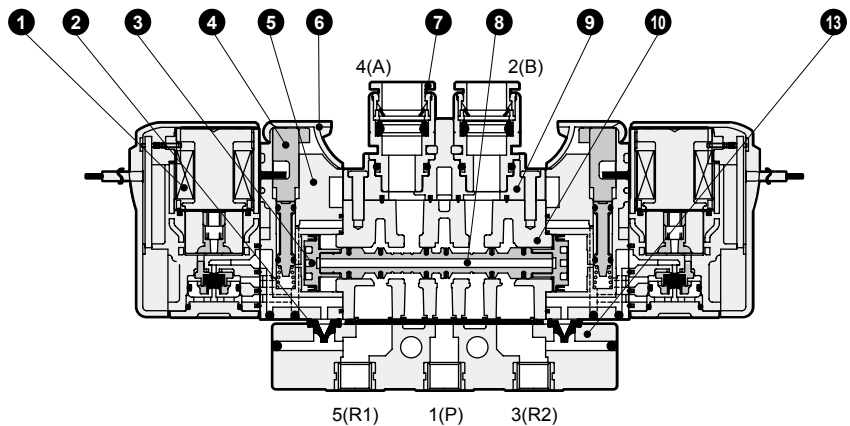
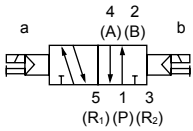
### 4GA110R

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



### 4GA120R

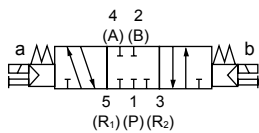
- 2-position double
- Grommet lead wire (blank)



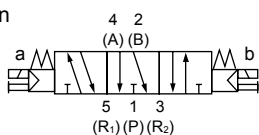
### 4GA1<sup>3</sup>/<sub>5</sub>0R

- 3-position
- Grommet lead wire (blank)

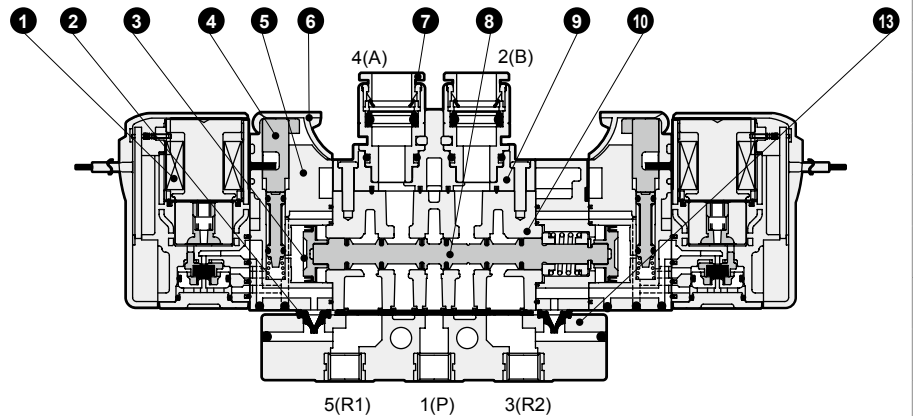
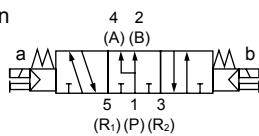
All ports closed



A/B/R connection



P/A/B connection



## Main parts list

No.	Part name	Material
1	Coil assembly	-
2	Pilot exhaust check valve	Hydrogenated nitrile rubber
3	Piston D assembly	-
4	Manual override	Resin
5	Piston chamber	Resin
6	Manual protection cover	Resin
7	Cartridge push-in fitting or barbed fitting	-
8	Spool assembly	-
9	Fitting adaptor	Resin
10	Body	Aluminum alloy die-casting
11	Piston S assembly	-
12	Cap	Resin
13	Pipe adaptor	Resin
14	Plug cartridge	Aluminum

## Parts list

No.	Part name	Model No.
1	Coil assembly	4GR -electrical connections- □ - COIL - [voltage]
7	Cartridge push-in fitting and related parts	φ1.8 barbed 4G1R-JOINT-CF
		φ1.8 axial 4G1R-JOINT-C18
		φ4 straight 4G1R-JOINT-C4
		φ6 straight 4G1R-JOINT-C6
		Plug cartridge 4G1R-JOINT-CPG
		φ1/8" straight 4G1R-JOINT-C3N
	φ5/32" straight 4G1R-JOINT-C4N	

Blank: Standard  
 A: Ozonite specifications  
 S: Surgeless  
 E: Low exoergic/energy saving circuit  
 Blank: Grommet lead wire

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

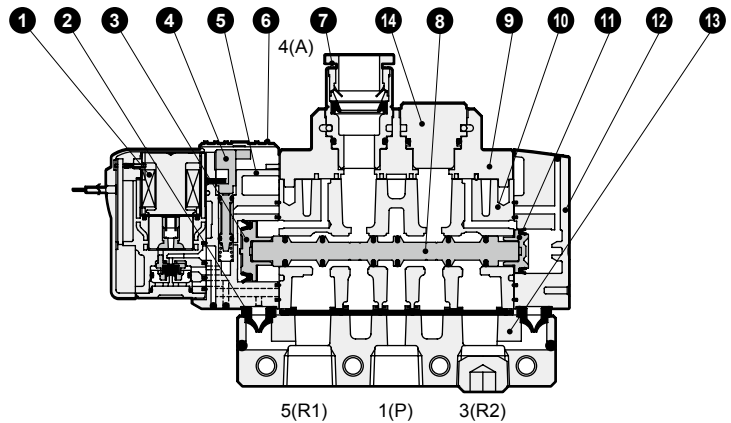
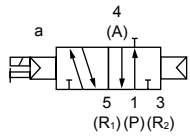
# 3GA2/3 Series

Single valve; body piping

## 4GA/B Internal structure and parts list

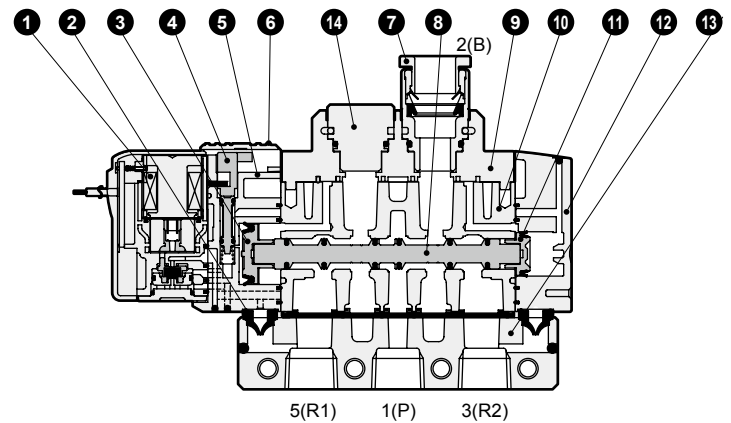
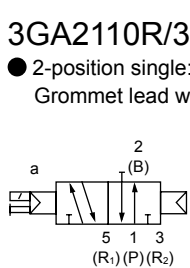
### M4GA/B 3GA210R/3GA310R

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



### W4GA/B4 3GA2110R/3GA3110R

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



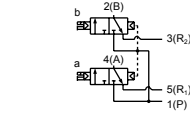
### 4KA/B 3GA2 0R

- Two 3-port valves integrated
- Grommet lead wire (blank)

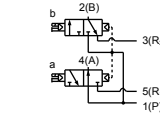
### 66 67 76 77

- Two 3-port valves integrated
- Grommet lead wire (blank)

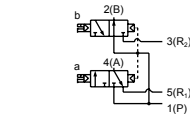
A side valve: Normally closed,  
B side valve: Normally closed



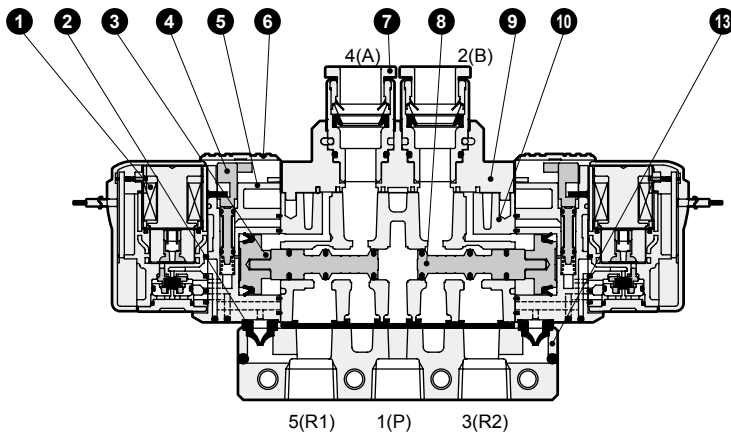
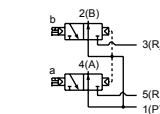
A side valve: Normally open,  
B side valve: Normally closed



A side valve: Normally closed,  
B side valve: Normally open



A side valve: Normally open,  
B side valve: Normally open



## Main parts list

No.	Part name	Material
1	Coil assembly	-
2	Pilot exhaust check valve	Hydrogenated nitrile rubber
3	Piston assembly	-
4	Manual override	Resin
5	Piston chamber	Resin
6	Manual protection cover	Resin
7	Cartridge push-in fitting	-
8	Spool assembly	-
9	Fitting adaptor	Resin
10	Body	Aluminum alloy die-casting
11	Piston S assembly	-
12	Cap	Resin
13	Pipe adaptor	Aluminum alloy die-casting
14	Plug cartridge	Aluminum

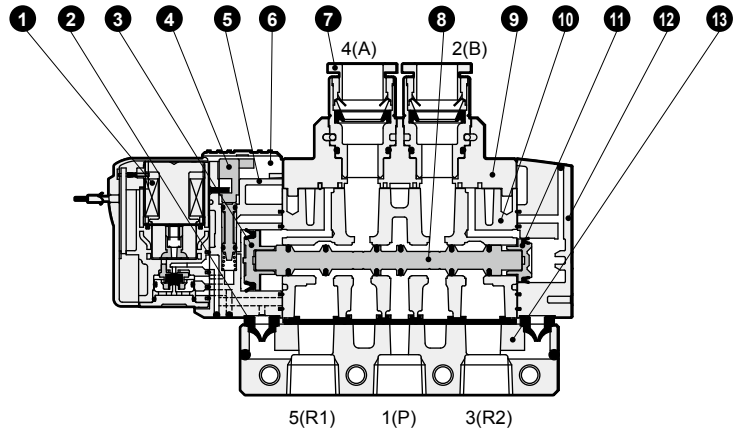
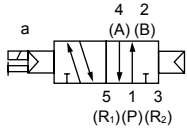
## Parts list

No.	Part name	Model No.	
1	Coil assembly	4GR - [electrical connections] - [ ] - COIL - [voltage]	
7	Cartridge push-in fitting and related parts	Blank: Standard	
		A: Ozone specifications	
		S: Surgeless	
		E: Low exergic/energy saving circuit	
		Blank: Grommet lead wire	
		3G2	
		φ4 straight	4G2R-JOINT-C4
		φ6 straight	4G2R-JOINT-C6
		φ8 straight	4G2R-JOINT-C8
		Plug cartridge	4G2R-JOINT-CPG
	3G3		
	φ1/4" straight	4G2R-JOINT-C6N	
	φ5/16" straight	4G2R-JOINT-C8N	
	φ6 straight	4G3R-JOINT-C6	
	φ8 straight	4G3R-JOINT-C8	
	φ10 straight	4G3R-JOINT-C10	
	Plug cartridge	4G3R-JOINT-CPG	
	φ5/16" straight	4G3R-JOINT-C8N	
	φ3/8" straight	4G3R-JOINT-C10N	

## Internal structure and parts list

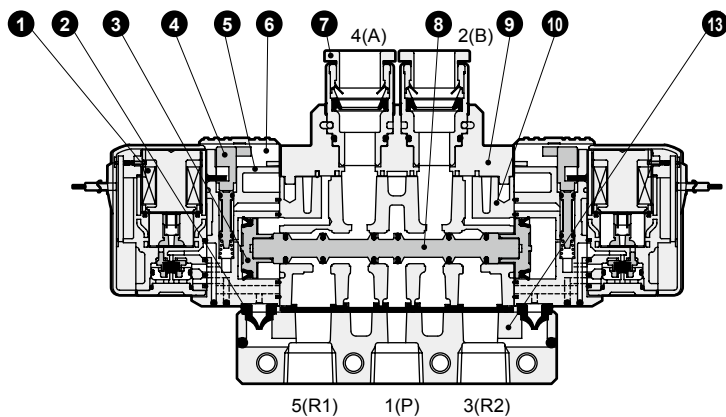
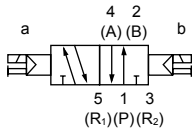
### 4GA210R/4GA310R

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



### 4GA220R/4GA320R

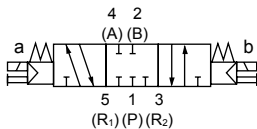
- 2-position double
- Grommet lead wire (blank)



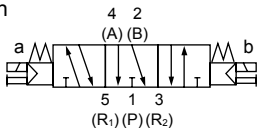
### 4GA2<sup>3</sup>/<sub>5</sub>0R/4GA3<sup>3</sup>/<sub>5</sub>0R

- 3-position
- Grommet lead wire (blank)

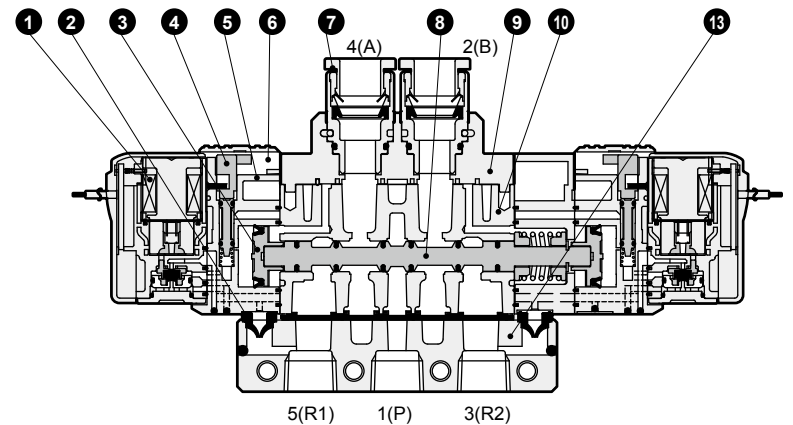
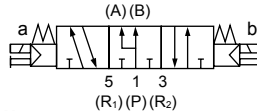
All ports closed



A/B/R connection



P/A/B connection



## Main parts list

No.	Part name	Material
1	Coil assembly	-
2	Pilot exhaust check valve	Hydrogenated nitrile rubber
3	Piston D assembly	-
4	Manual override	Resin
5	Piston chamber	Resin
6	Manual protection cover	Resin
7	Cartridge push-in fitting	-
8	Spool assembly	-
9	Fitting adaptor	Resin
10	Body	Aluminum alloy die-casting
11	Piston S assembly	-
12	Cap	Resin
13	Pipe adaptor	Aluminum alloy die-casting

## Parts list

No.	Part name	Model No.	
1	Coil assembly	4GR - [electrical connections] - <input type="checkbox"/> - COIL - [voltage]	
		Blank: Standard A: Ozone specifications S: Surgeless E: Low exicergenergy saving circuit Blank: Grommet lead wire	
7	Cartridge push-in fitting and related parts	4G2	
		φ4 straight	4G2R-JOINT-C4
		φ6 straight	4G2R-JOINT-C6
		φ8 straight	4G2R-JOINT-C8
		Plug cartridge	4G2R-JOINT-CPG
		φ1/4" straight	4G2R-JOINT-C6N
	4G3	φ5/16" straight	4G2R-JOINT-C8N
		φ6 straight	4G3R-JOINT-C6
		φ8 straight	4G3R-JOINT-C8
		φ10 straight	4G3R-JOINT-C10
		Plug cartridge	4G3R-JOINT-CPG
		φ5/16" straight	4G3R-JOINT-C8N
	φ3/8" straight	4G3R-JOINT-C10N	

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



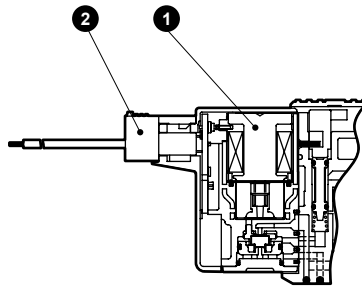
# 3GA1/2/3 / 4GA1/2/3 Series

Single valve; body piping

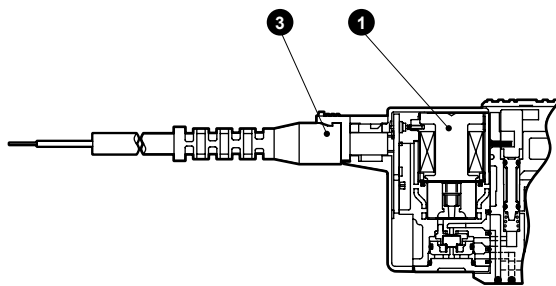
## Internal structure and parts list (electrical connections section)

- 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

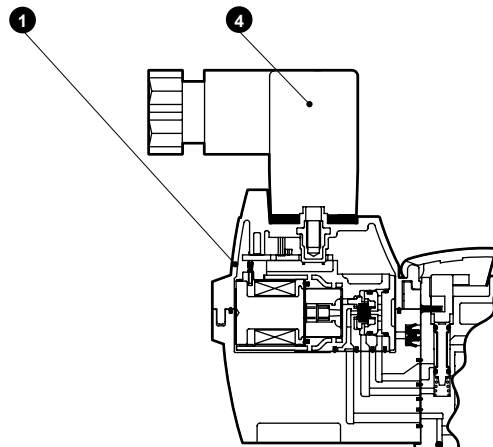
● E type connector E□□



● EJ type connector E□□J



● DIN terminal box B



### Main parts list

No.	Part name	Material
1	Coil assembly	
2	E type connector socket assembly	-
3	Socket assembly with cover	-
4	DIN terminal box assembly	-

### Parts list

No.	Part name	Model No.
1	Coil assembly	4GR - [electrical connections] - □ - COIL - [voltage]
2	E type connector socket assembly	4GR-SOCKET-ASSY-E*- [Voltage]
3	Socket assembly with cover	4GR-SOCKET-ASSY-E**J
4	DIN terminal box assembly	4GR-TERMINAL-BOX- [Voltage]

Blank: Standard  
 A: Ozone specifications  
 S: Surgeless  
 E: Low exothermic energy saving circuit  
 E\* : E type connector  
 E\*\*J : Socket with cover  
 B\* : DIN terminal box  
 B includes the DIN terminal box  
 BN does not include the DIN terminal box

# MEMO

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

# 3GA1 Series

Single valve; body piping

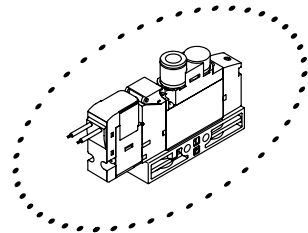
## Dimensions



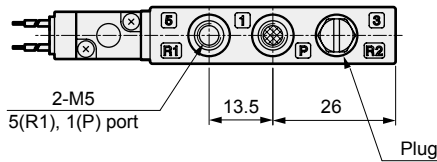
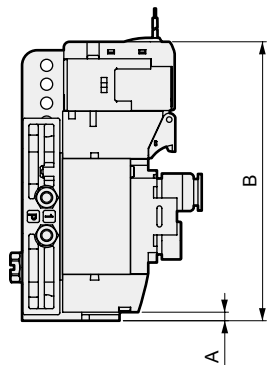
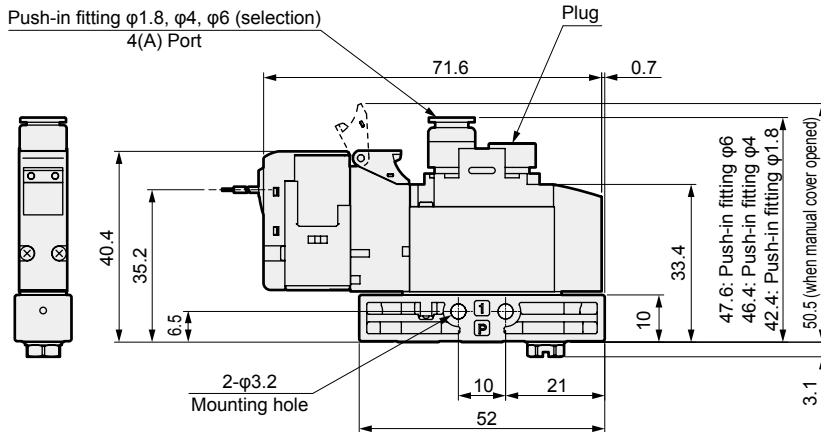
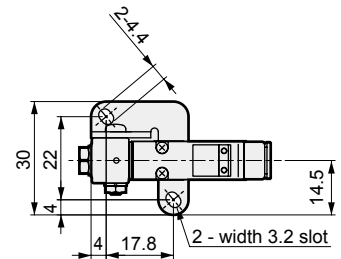
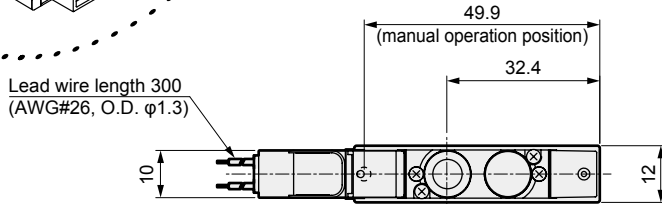
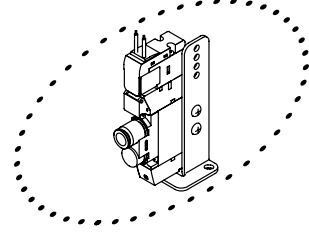
- 4GA/B
- M4GA/B
- MN4GA/B
- 4GA/B (mastr)
- 4GD/E
- M4GD/E
- MN4GD/E
- 4GA4/B4
- MN3E
- MN4E
- W4GA/B2
- W4GB4
- 4TB
- 4L2-4/ LMF0
- MN3S0
- MN4S0
- 4SA/B0
- 4KA/B
- 4KA/B (mastr)
- 4F
- 4F (mastr)
- PV5G
- GMF
- PV5
- GMF
- PV5S-0
- 3QR
- 3QB
- MV3QR
- 3MA/B0
- 3PA/B
- P/M/B
- NP/NAP/ NVP
- 4F\*0EX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

3GA110R \* NPT thread and G thread specifications are listed on pages 52 to 59.

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

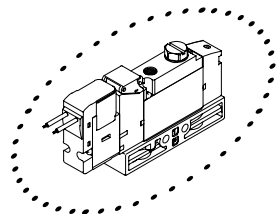


● Mounting plate (P)

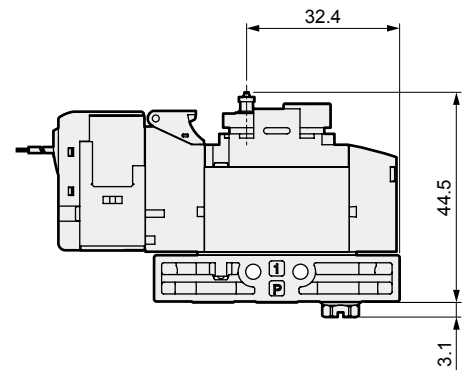
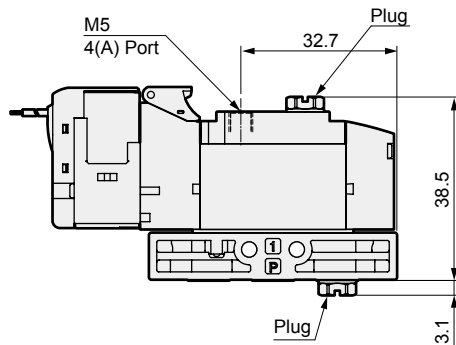


Electrical connections	A	B
Grommet lead wire		73.8
E, EJ type connector (upward direction), DC voltage	2.2	82
E, EJ type connector (upward direction), AC voltage		85.5

● M5 female thread (M5)

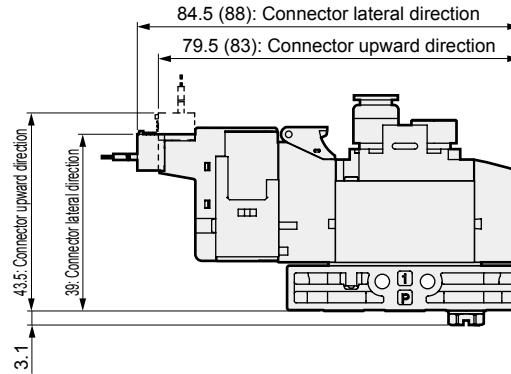
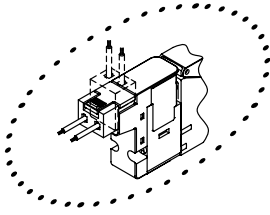


● φ1.8 barbed fitting (CF)



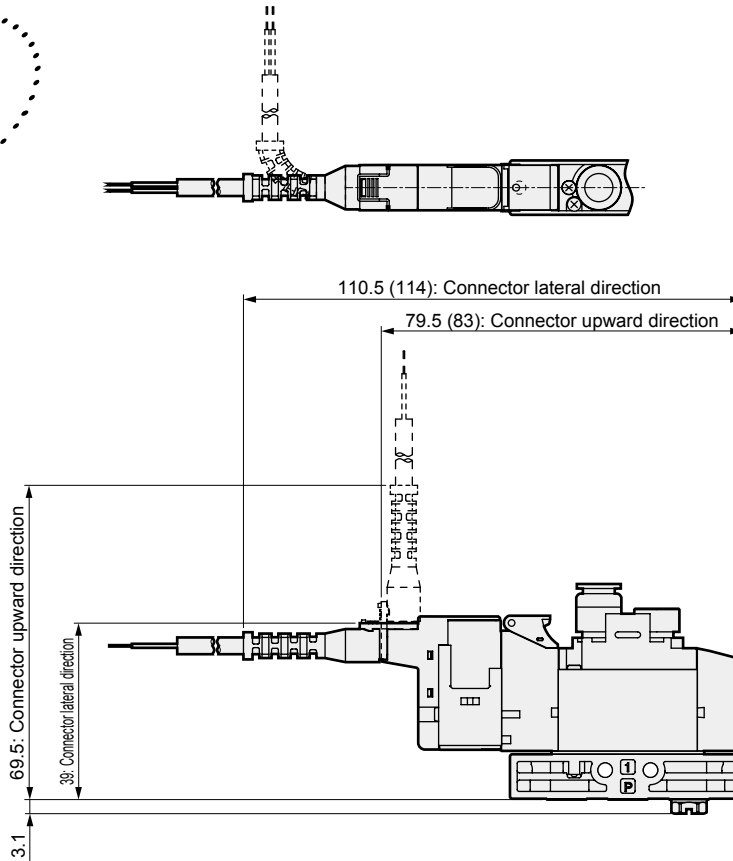
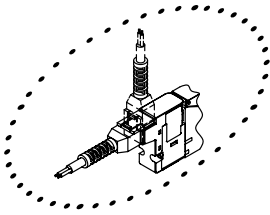
## Dimensions

● E type connector (E)



Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

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

# 3GA1 Series

Single 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

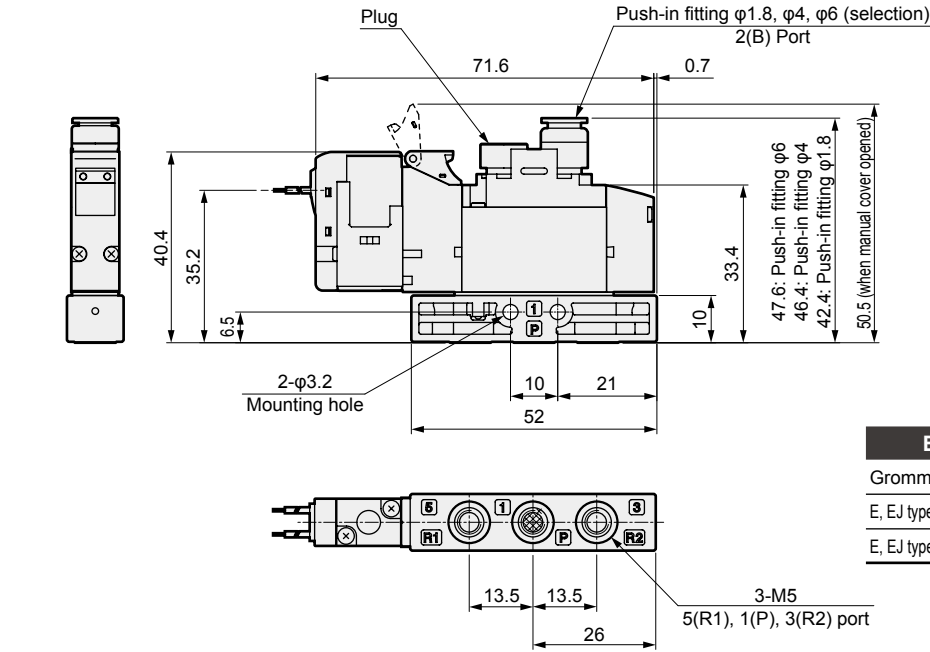
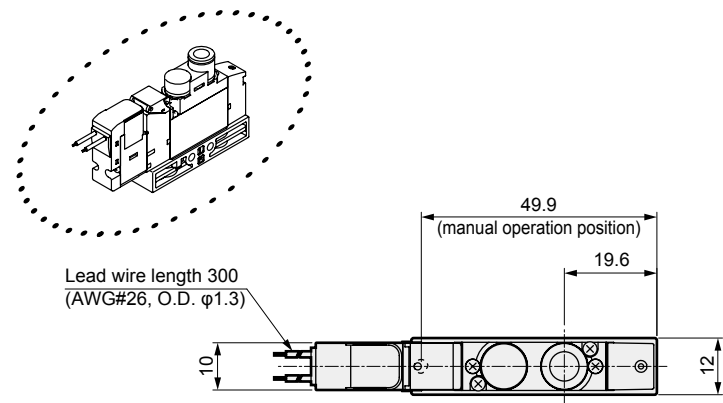
TotAirSys  
(Total Air)

TotAirSys  
(Gamma)

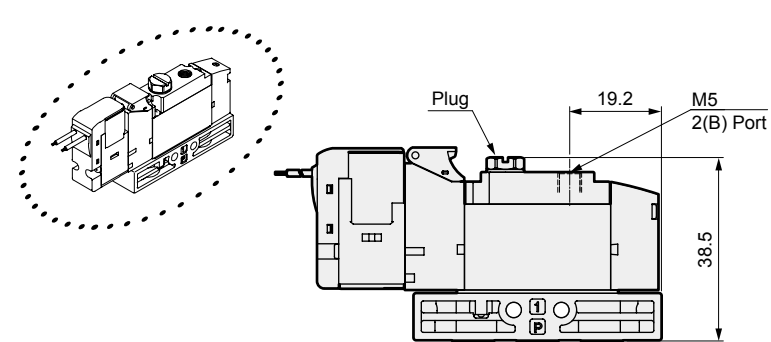
Ending

3GA1110R \* NPT thread and G thread specifications are listed on pages 52 to 59.

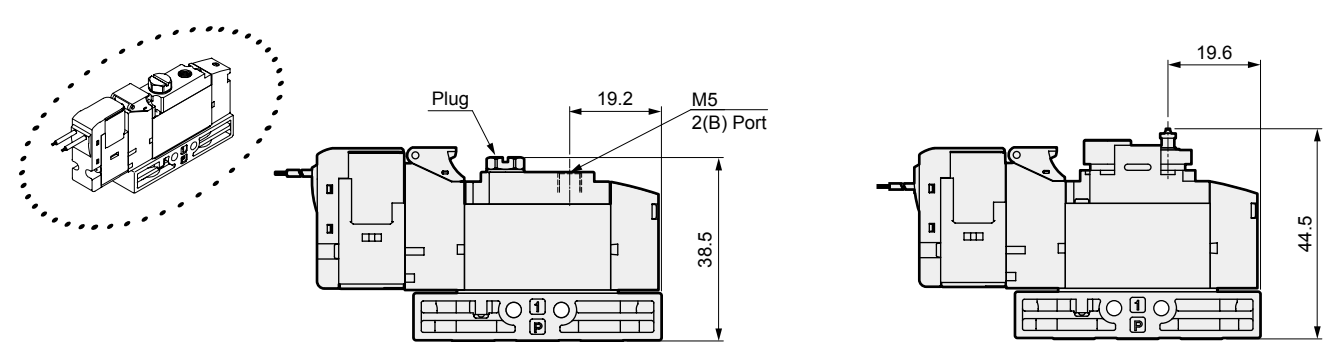
● 2-position single normally open grommet lead wire (blank)



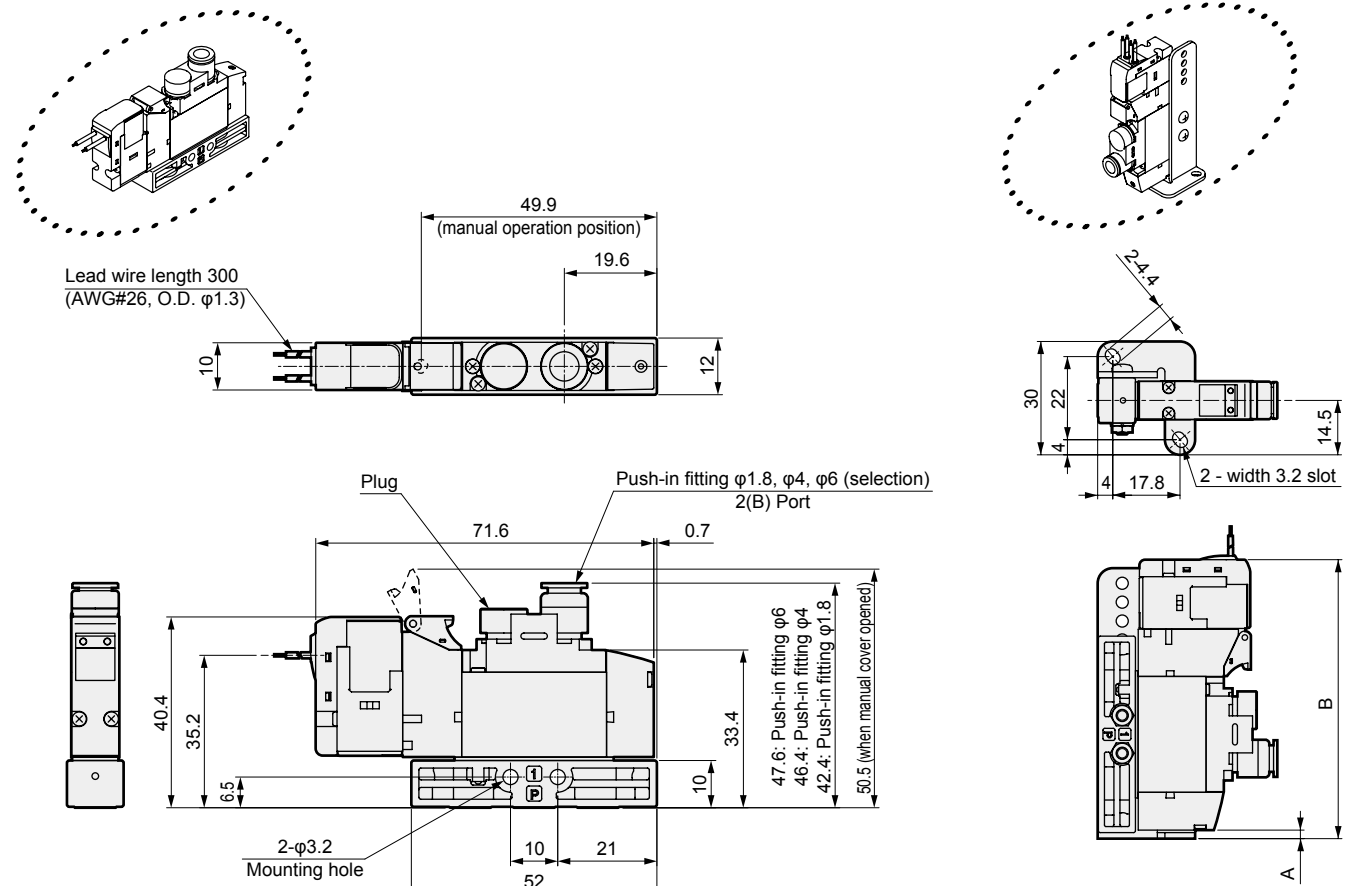
● M5 female thread (M5)



● φ1.8 barbed fitting (CF)



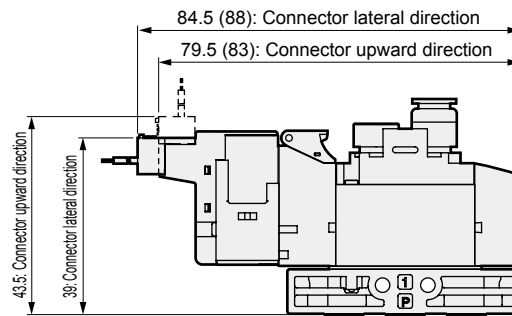
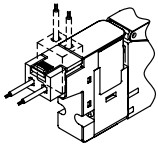
● Mounting plate (P)



Electrical connections	A	B
Grommet lead wire		73.8
E, EJ type connector (upward direction), DC voltage	2.2	82
E, EJ type connector (upward direction), AC voltage		85.5

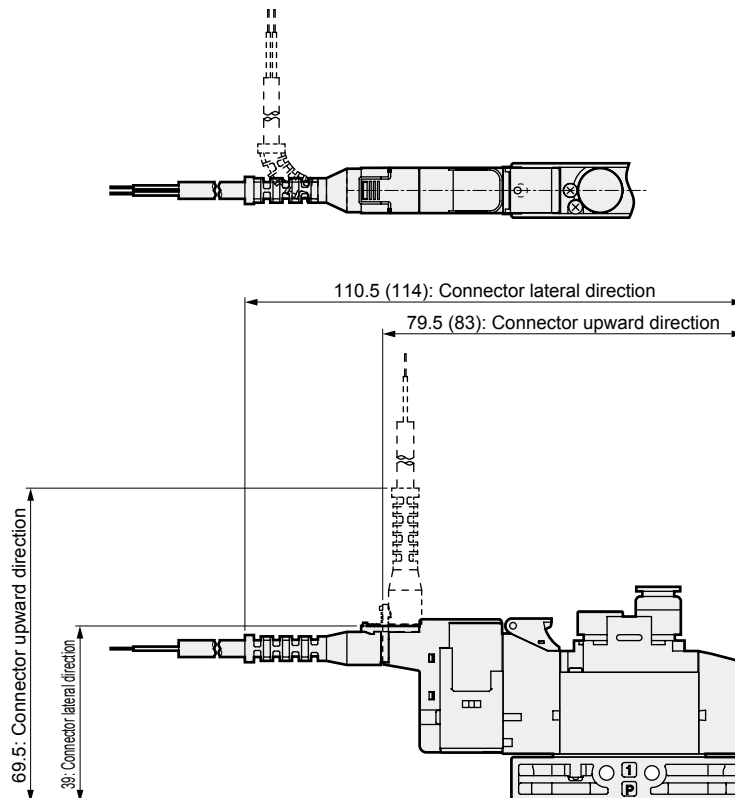
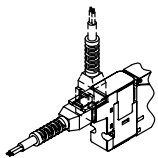
## Dimensions

● E type connector (E)



Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

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

# 3GA2 Series

Single valve; body piping

## Dimensions

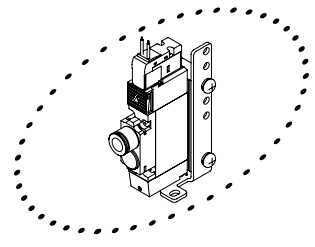
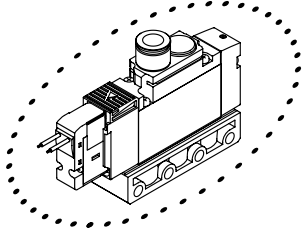


- 4GA/B
- M4GA/B
- MN4GA/B
- 4GA/B (mastr)
- 4GD/E
- M4GD/E
- MN4GD/E
- 4GA4/B4
- MN3E
- MN4E
- W4GA/B2
- W4GB4
- 4TB
- 4L2-4/LMF0
- MN3S0
- MN4S0
- 4SA/B0
- 4KA/B
- 4KA/B (mastr)
- 4F
- 4F (mastr)
- PV5G
- GMF
- PV5
- GMF
- PV5S-0
- 3QR
- 3QB
- MV3QR
- 3MA/B0
- 3PA/B
- P/M/B
- NP/NAP/NVP
- 4F\*0EX
-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

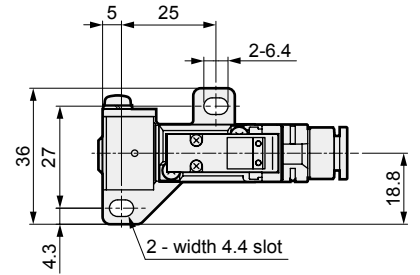
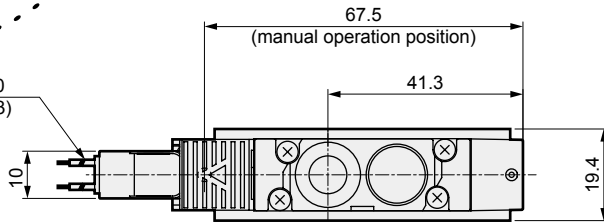
3GA210R \* NPT thread and G thread specifications are listed on pages 52 to 59.

● 2-position single normally closed grommet lead wire (blank)

● Mounting plate (P)

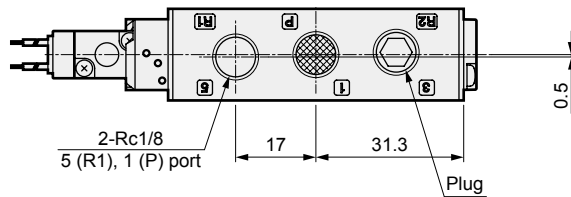
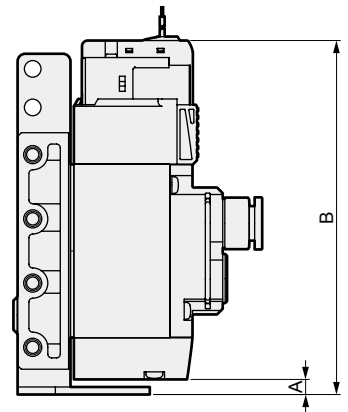
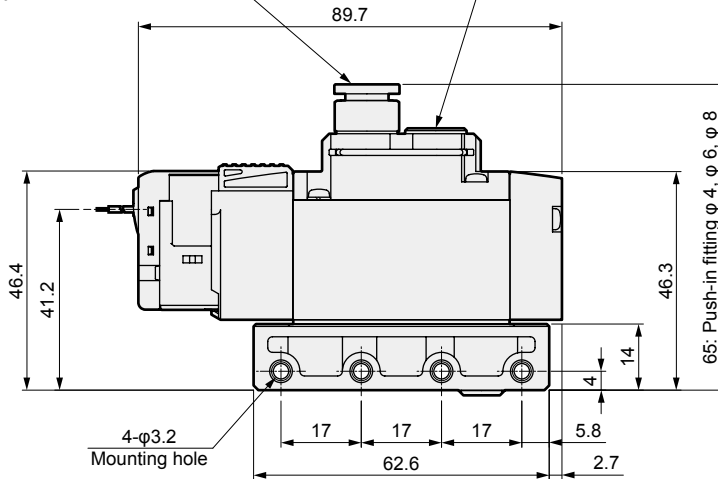
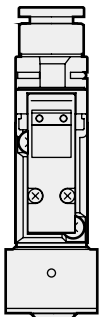


Lead wire length 300  
(AWG#26, O.D.  $\phi$ 1.3)



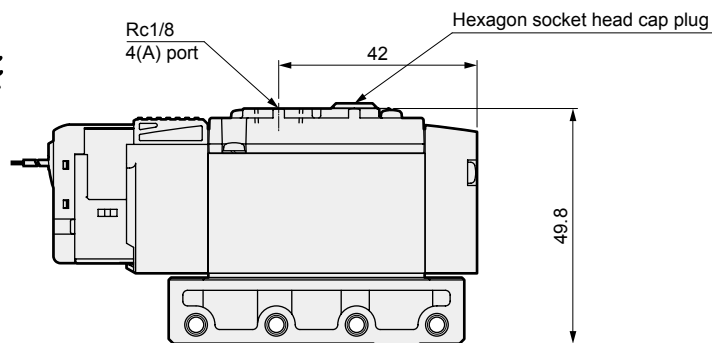
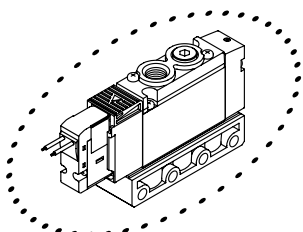
Push-in fitting  $\phi$ 4,  $\phi$ 6,  $\phi$ 8 (selection)  
4(A) port

Plug



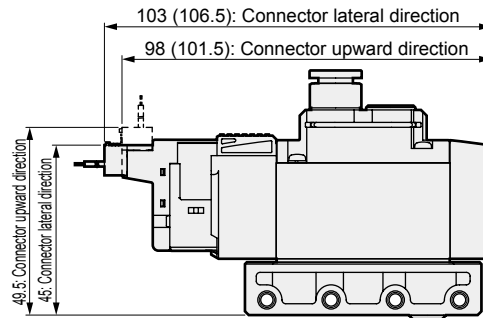
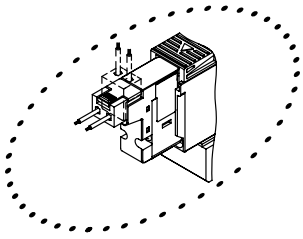
Electrical connections	A	B
Grommet lead wire	4	93.7
E, EJ type connector (upward direction), DC voltage		102
E, EJ type connector (upward direction), AC voltage		105.5
DIN terminal box (inner direction)		112.7

● Rc1/8 female thread (06)



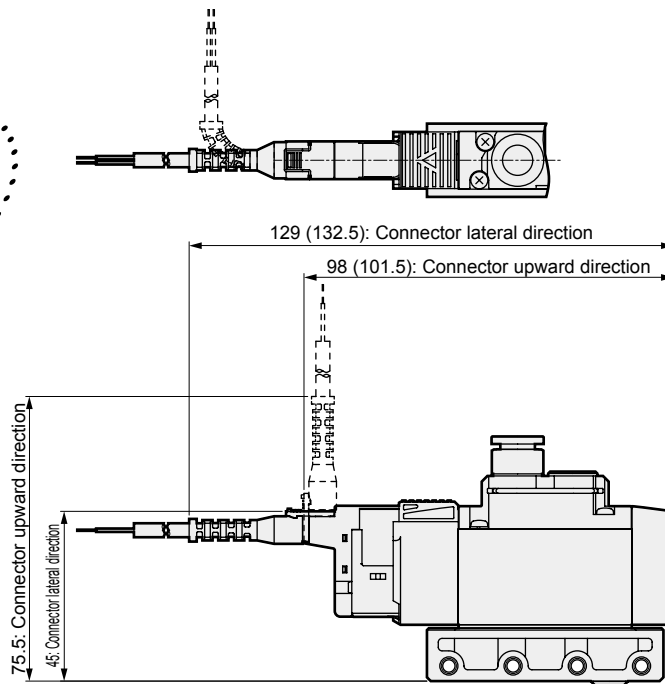
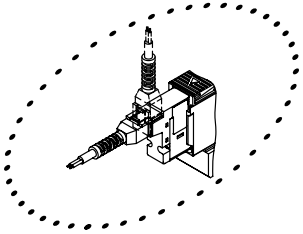
## Dimensions

● E type connector (E)



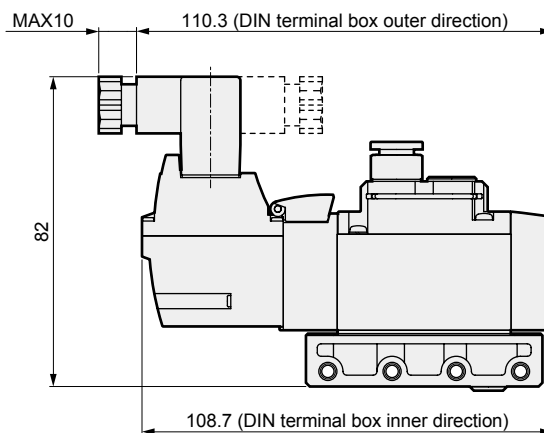
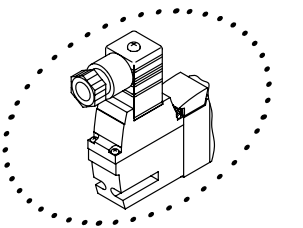
Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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



# 3GA2 Series

Single valve; body piping

## Dimensions

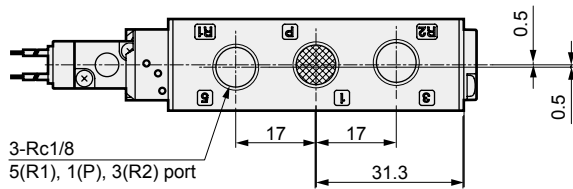
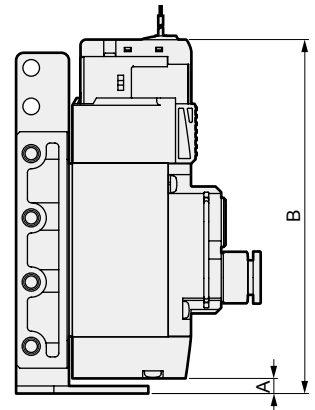
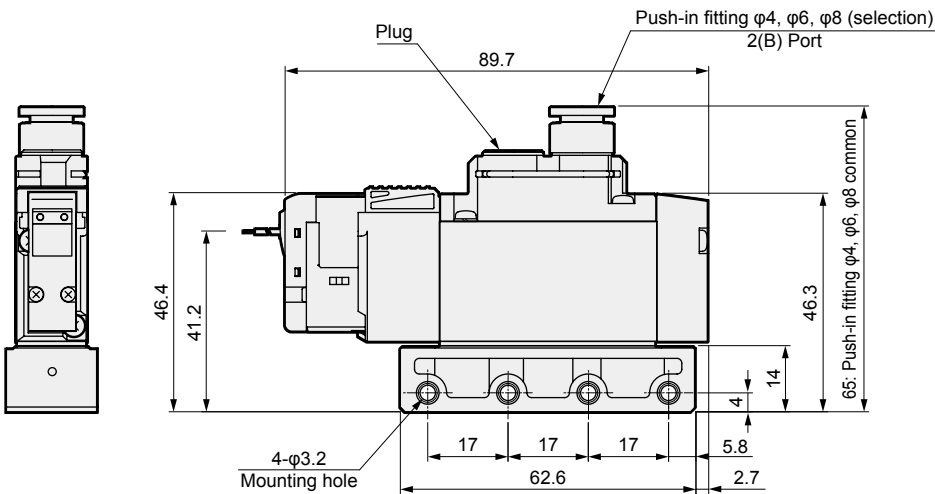
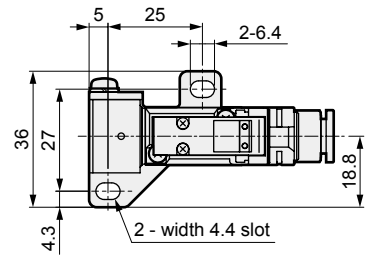
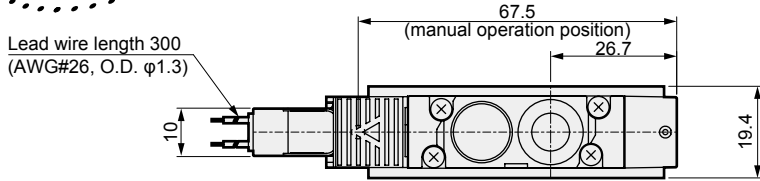
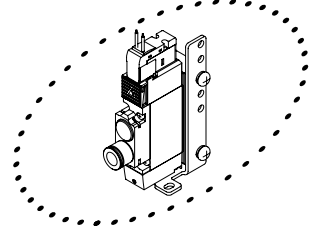
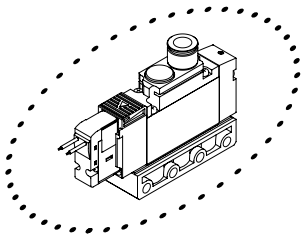


- 4GA/B
- M4GA/B
- MN4GA/B
- 4GA/B (mastr)
- 4GD/E
- M4GD/E
- MN4GD/E
- 4GA4/B4
- MN3E
- MN4E
- W4GA/B2
- W4GB4
- 4TB
- 4L2-4/LMF0
- MN3S0
- MN4S0
- 4SA/B0
- 4KA/B
- 4KA/B (mastr)
- 4F
- 4F (mastr)
- PV5G
- GMF
- PV5
- GMF
- PV5S-0
- 3QR
- 3QB
- MV3QR
- 3MA/B0
- 3PA/B
- P/M/B
- NP/NAP/NVP
- 4F\*0EX
-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

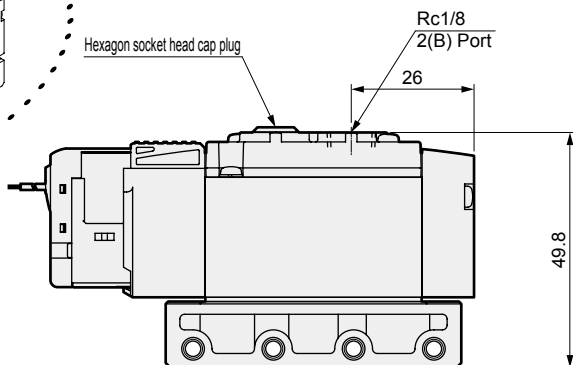
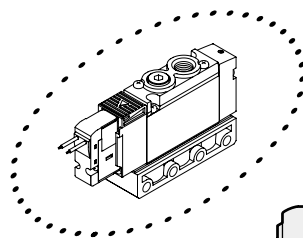
3GA2110R \* NPT thread and G thread specifications are listed on pages 52 to 59.

● 2-position single normally open grommet lead wire (blank)

● Mounting plate (P)



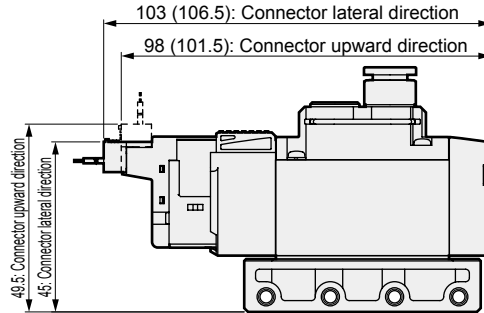
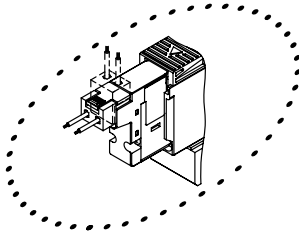
● Rc1/8 female thread (06)



Electrical connections	A	B
Grommet lead wire	4	93.7
E, EJ type connector (upward direction), DC voltage		102
E, EJ type connector (upward direction), AC voltage		105.5
DIN terminal box (inner direction)		112.7

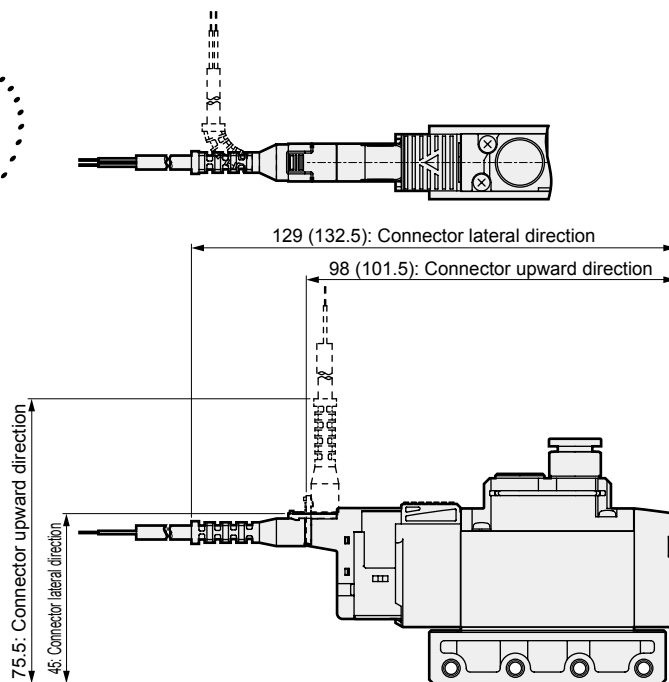
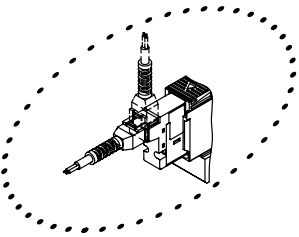
## Dimensions

● E type connector (E)



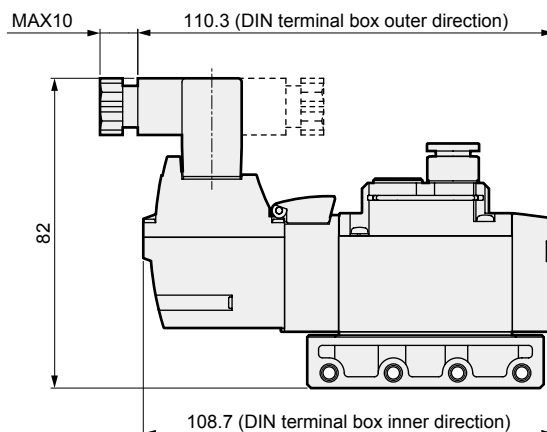
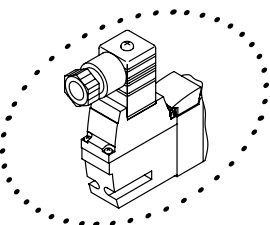
Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

# 3GA3 Series

Single valve; body piping

## Dimensions

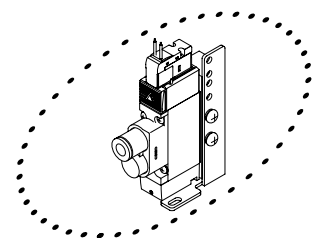
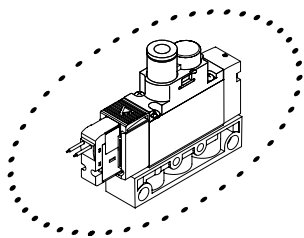


- 4GA/B
- M4GA/B
- MN4GA/B
- 4GA/B (mastr)
- 4GD/E
- M4GD/E
- MN4GD/E
- 4GA4/B4
- MN3E
- MN4E
- W4GA/B2
- W4GB4
- 4TB
- 4L2-4/ LMF0
- MN3S0
- MN4S0
- 4SA/B0
- 4KA/B
- 4KA/B (mastr)
- 4F
- 4F (mastr)
- PV5G
- GMF
- PV5
- GMF
- PV5S-0
- 3QR
- 3QB
- MV3QR
- 3MA/B0
- 3PA/B
- P/M/B
- NP/NAP/ NVP
- 4F\*0EX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

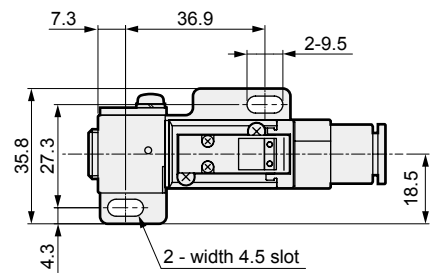
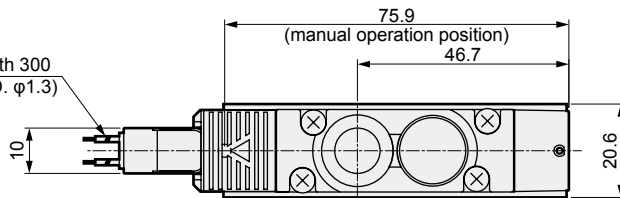
3GA310R \* NPT thread and G thread specifications are listed on pages 52 to 59.

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

● Mounting plate (P)

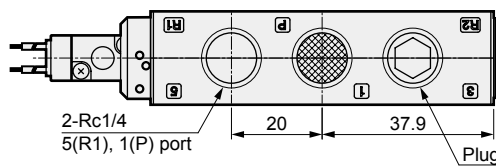
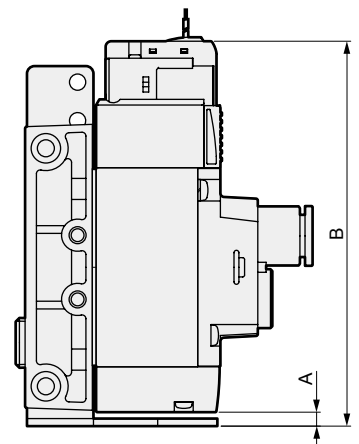
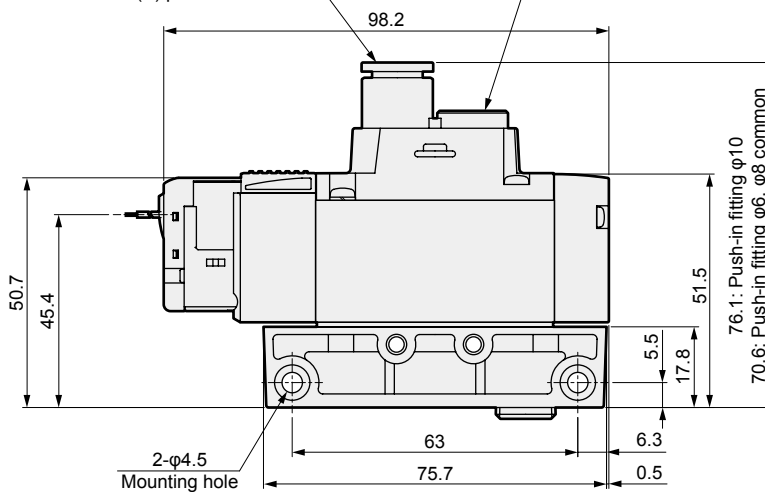
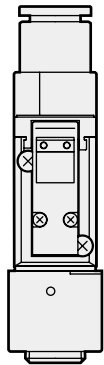


Lead wire length 300  
(AWG#26, O.D.  $\phi$ 1.3)



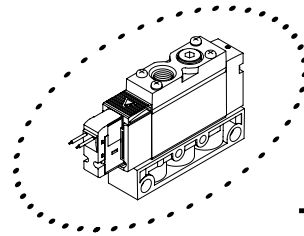
Push-in fitting  $\phi$ 6,  $\phi$ 8,  $\phi$ 10 (selection)  
4(A) port

Plug



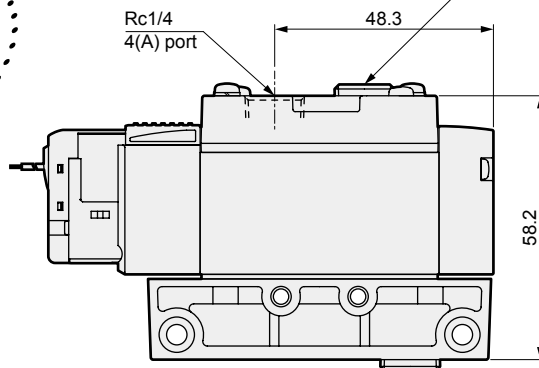
Electrical connections	A	B
Grommet lead wire		101.8
E, EJ type connector (upward direction), DC voltage	3.7	110
E, EJ type connector (upward direction), AC voltage		113.5
DIN terminal box (inner direction)		120.9

● Rc1/4 female thread (08)



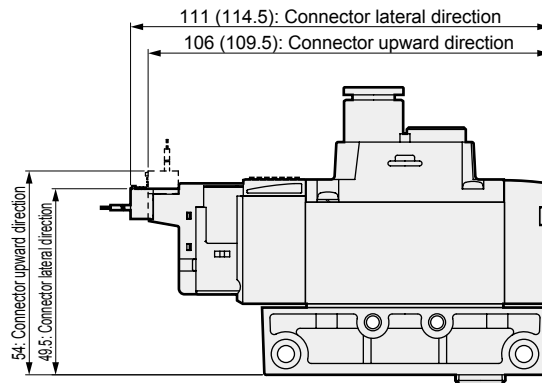
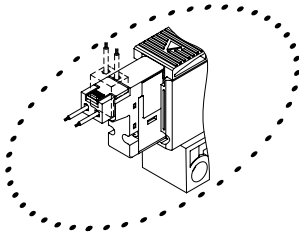
Hexagon socket head cap plug

Rc1/4  
4(A) port



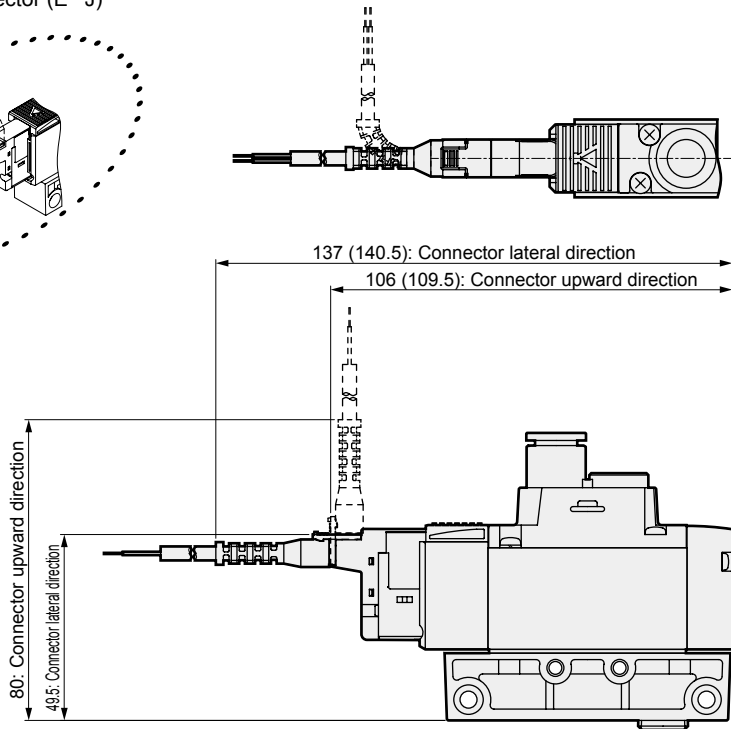
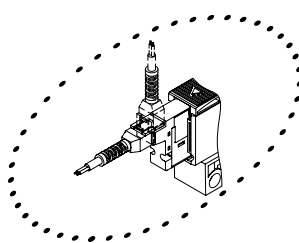
## Dimensions

● E type connector (E)



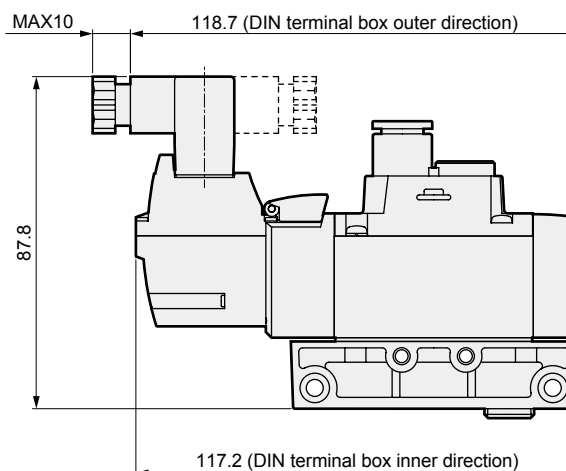
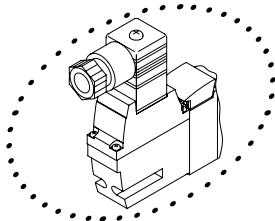
Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

# 3GA3 Series

Single valve; body piping

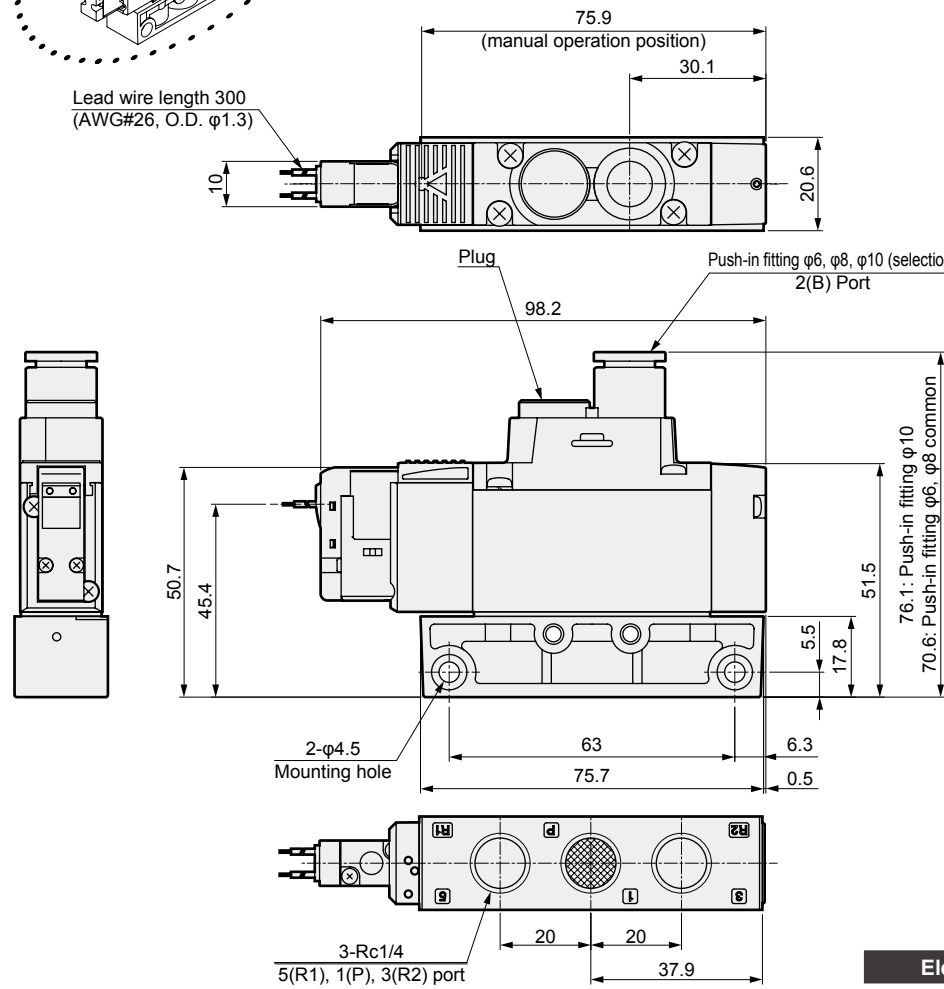
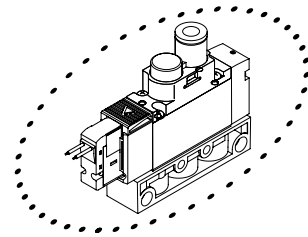
## Dimensions



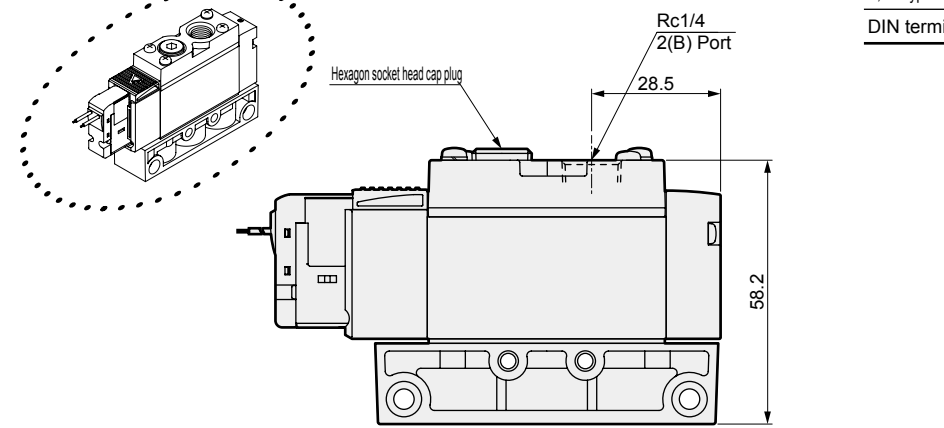
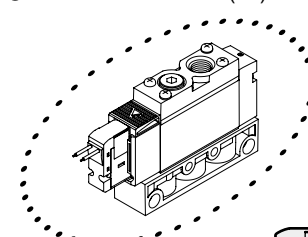
- 4GA/B
- M4GA/B
- MN4GA/B
- 4GA/B (mastr)
- 4GD/E
- M4GD/E
- MN4GD/E
- 4GA4/B4
- MN3E
- MN4E
- W4GA/B2
- W4GB4
- 4TB
- 4L2-4/ LMF0
- MN3S0
- MN4S0
- 4SA/B0
- 4KA/B
- 4KA/B (mastr)
- 4F
- 4F (mastr)
- PV5G
- GMF
- PV5
- GMF
- PV5S-0
- 3QR
- 3QB
- MV3QR
- 3MA/B0
- 3PA/B
- P/M/B
- NP/NAP/ NVP
- 4F\*0EX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

3GA3110R \* NPT thread and G thread specifications are listed on pages 52 to 59.

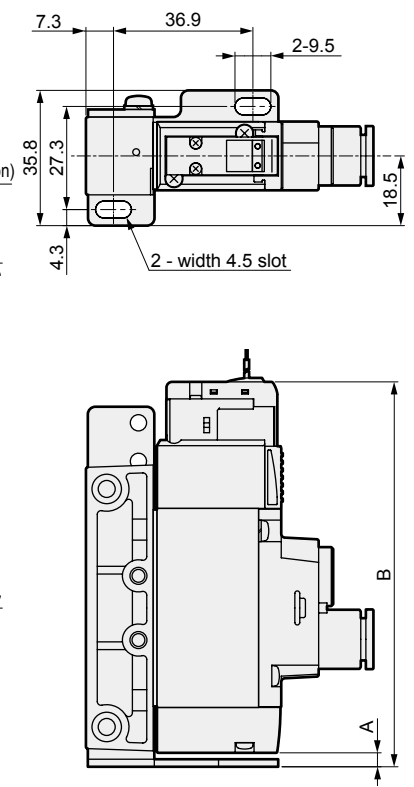
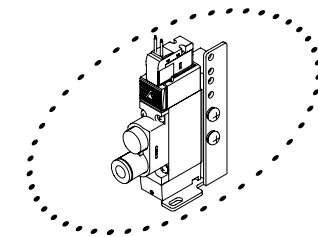
● 2-position single: Normally open grommet lead wire (blank)



● Rc1/4 female thread (08)



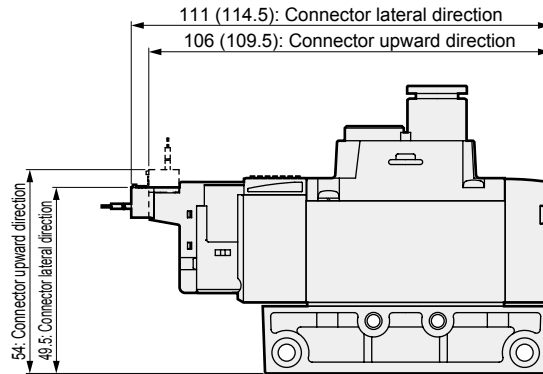
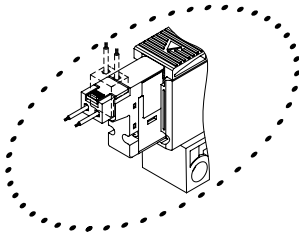
● Mounting plate (P)



Electrical connections	A	B
Grommet lead wire	3.7	101.8
E, EJ type connector (upward direction), DC voltage		110
E, EJ type connector (upward direction), AC voltage		113.5
DIN terminal box (inner direction)		120.9

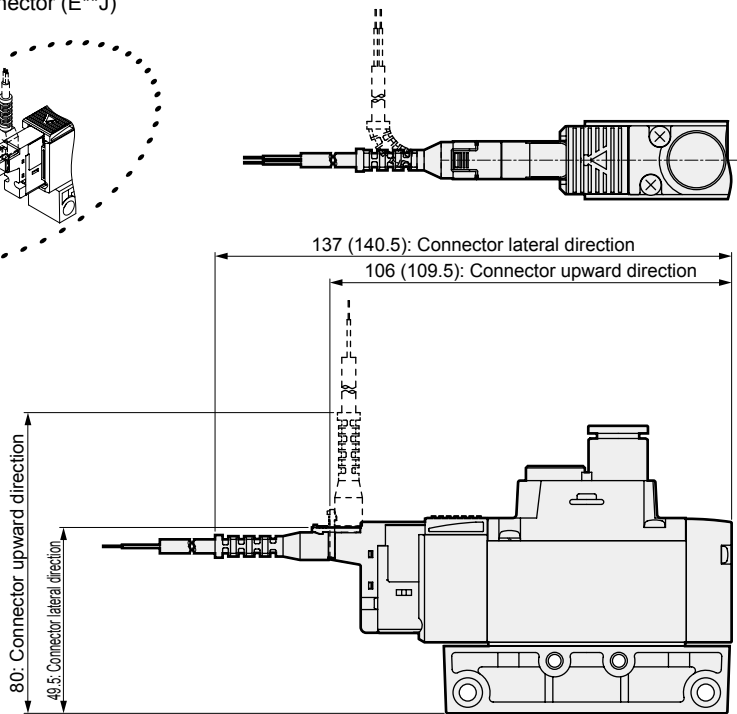
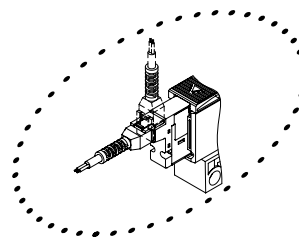
## Dimensions

### ● E type connector (E)



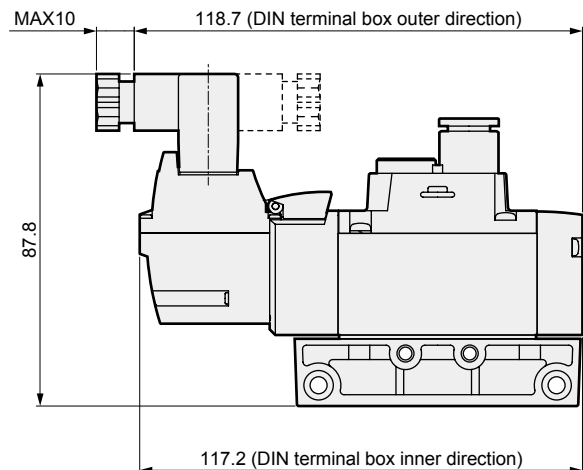
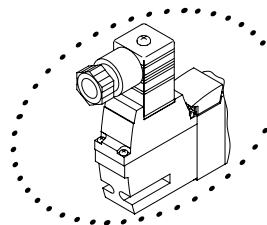
Note: Values in ( ) are for AC voltage.

### ● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

### ● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

# 4GA1 Series

Single valve; body piping



## Dimension diagram 00

4GA/B

M4GA/B 4GA110R \* NPT thread and G thread specifications are listed on pages 52 to 59.

MN4GA/B

● 2-position single grommet lead wire (blank)

● Mounting plate (P)

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

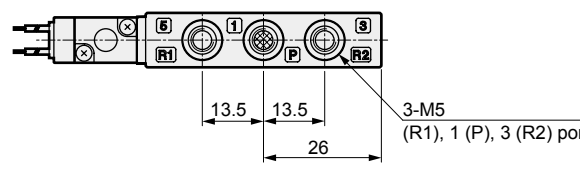
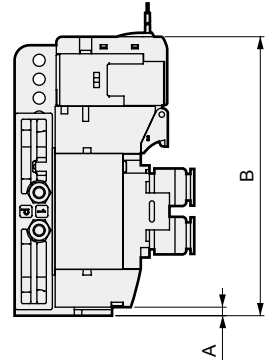
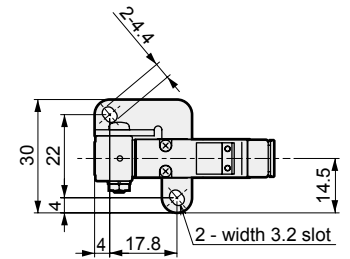
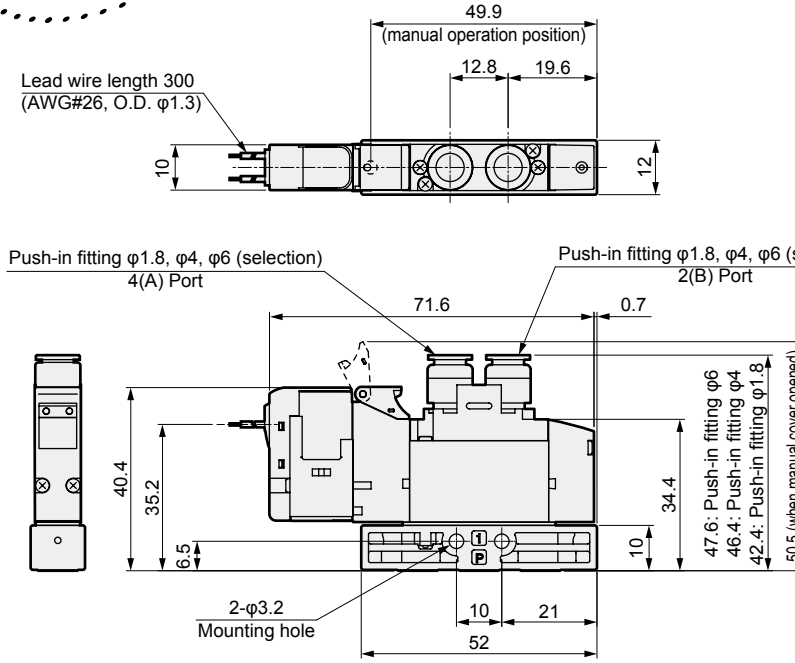
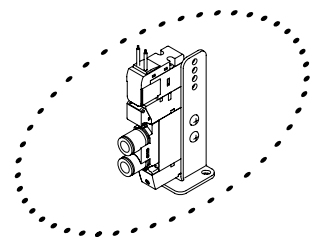
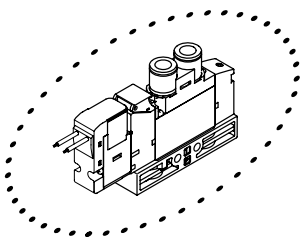
PCD

Silencer

TotAirSys  
(Total Air)

TotAirSys  
(Gamma)

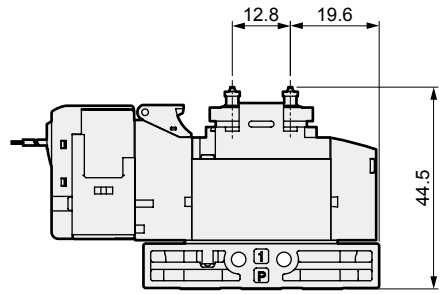
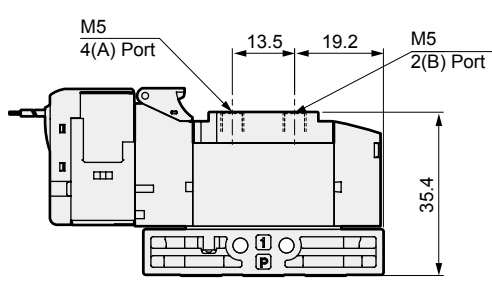
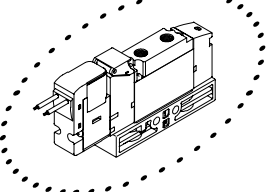
Ending



Electrical connections	A	B
Grommet lead wire		73.8
E, EJ type connector (upward direction), DC voltage	2.2	82
E, EJ type connector (upward direction), AC voltage		85.5

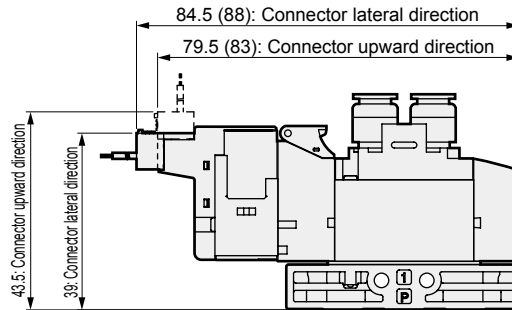
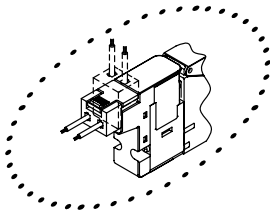
● M5 female thread (M5)

●  $\phi$ 1.8 barbed fitting (CF)



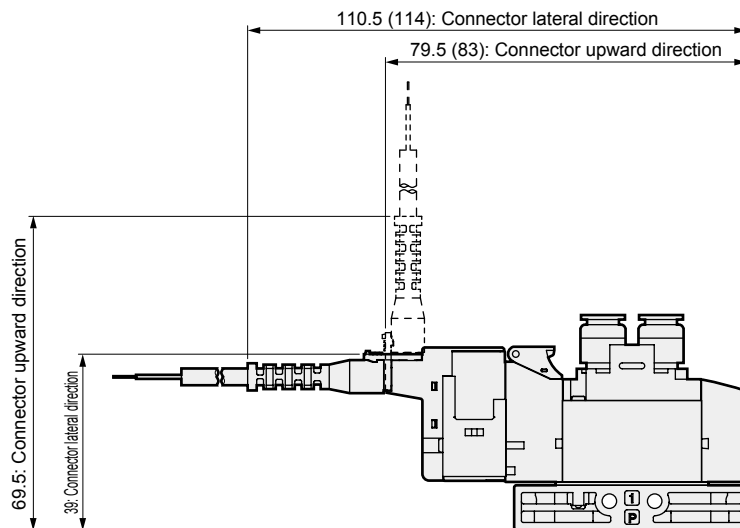
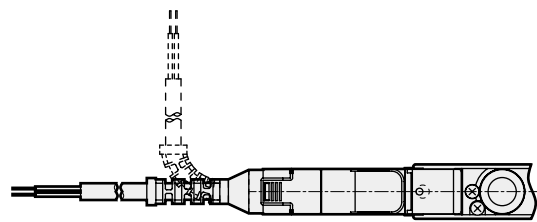
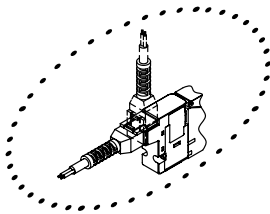
## Dimensions

● E type connector (E)



Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

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



# 4GA1 Series

Single valve; body piping

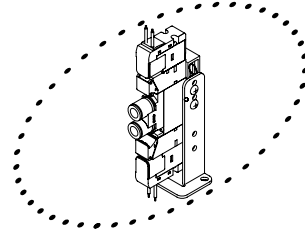
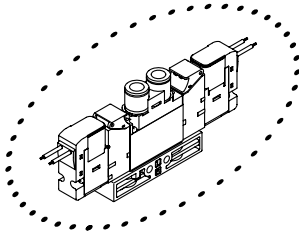


## 4GA/B Dimensions

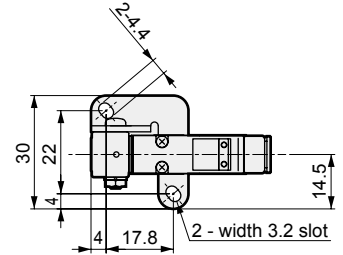
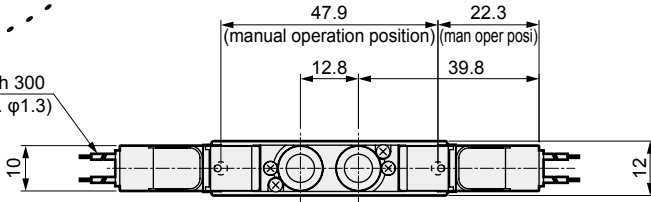
M4GA/B 4GA120R \* NPT thread and G thread specifications are listed on pages 52 to 59.  
 ● 2-position double grommet lead wire (blank)

MN4GA/B 4GA/B (mastr) 3GA1660R, 3GA1670R, 3GA1760R, 3GA1770R  
 4GD/E ● Two 3-port valves integrated grommet lead wire (blank)

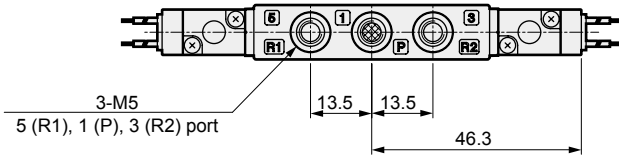
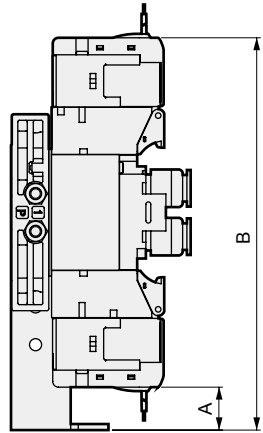
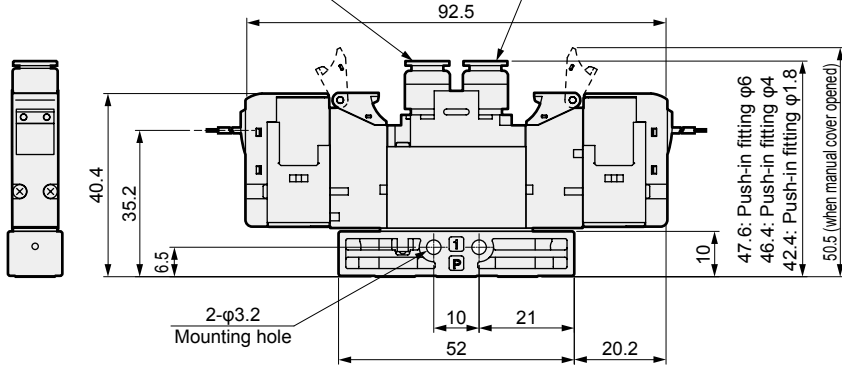
● Mounting plate (P)



Lead wire length 300  
(AWG#26, O.D.  $\phi$ 1.3)



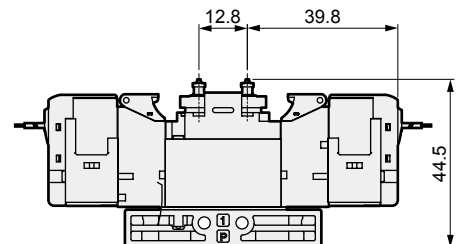
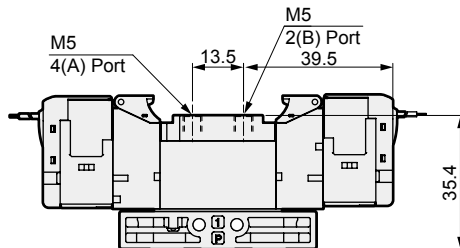
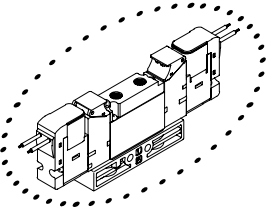
Push-in fitting  $\phi$ 1.8,  $\phi$ 4,  $\phi$ 6 (selection) 4(A) port  
 Push-in fitting  $\phi$ 1.8,  $\phi$ 4,  $\phi$ 6 (selection) 2(B) port



Electrical connections	A	B
Grommet lead wire	11.3	103.8
E, EJ type connector (upward direction), DC voltage	3	112
E, EJ type connector (upward direction), AC voltage	5	124

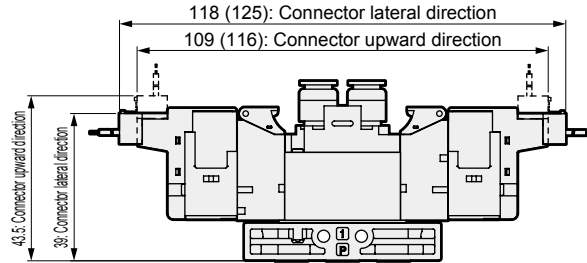
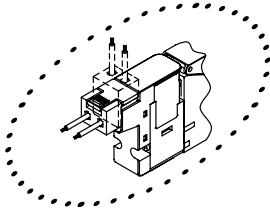
4F\*0EX ● M5 female thread (M5)

●  $\phi$ 1.8 barbed fitting (CF)



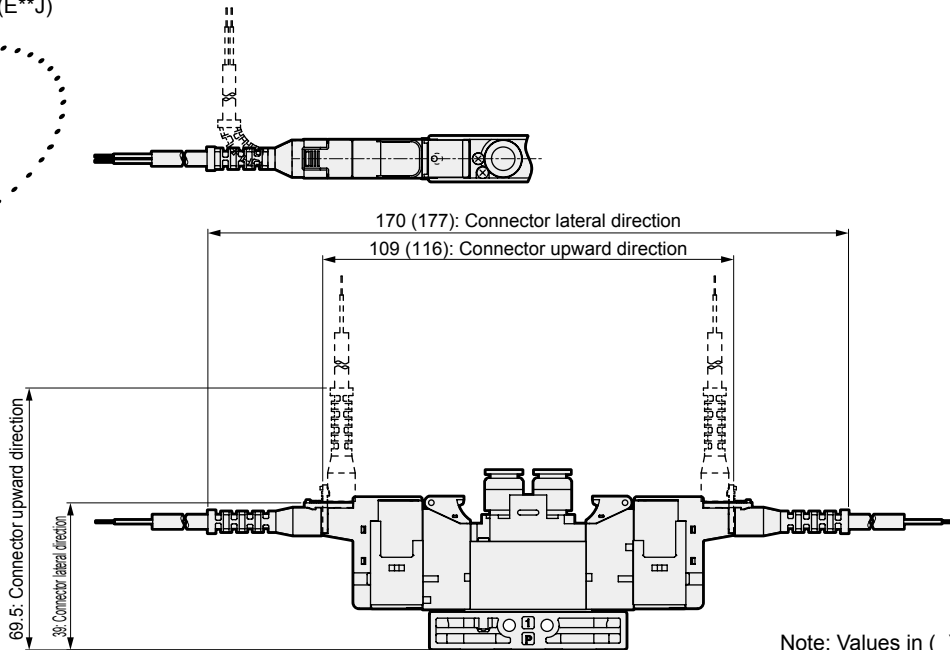
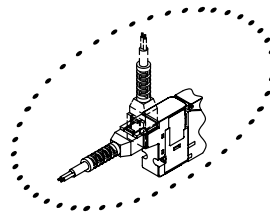
## Dimensions

● E type connector (E)



Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

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

# 4GA1 Series

Single valve; body piping

## Dimensions



4GA/B

M4GA/B 4GA1<sub>3/8</sub>OR \* NPT thread and G thread specifications are listed on pages 52 to 59.

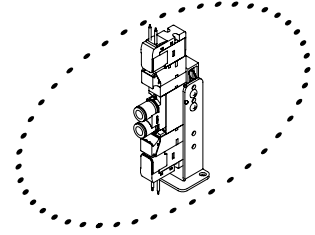
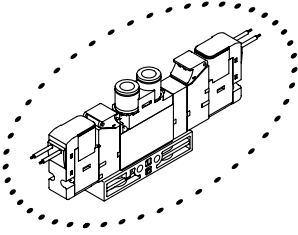
MN4GA/B

● 3-position grommet lead wire (blank)

4GA/B (mastr)

● Mounting plate (P)

4GD/E

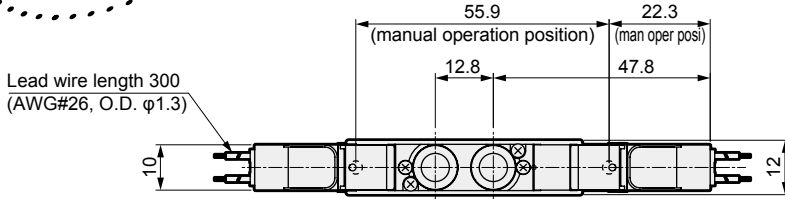


M4GD/E

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

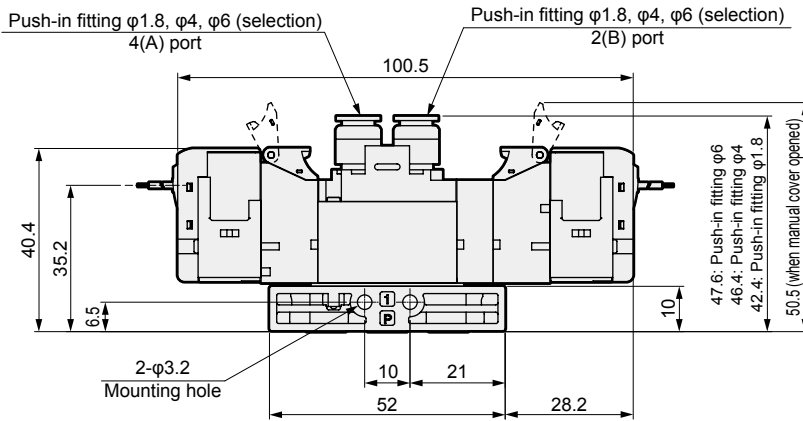
PCD

Silencer

TotAirSys  
(Total Air)

TotAirSys  
(Gamma)

Ending



3QR  
3QB

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP/  
NVP

4F\*0EX

4F\*0E

HMV  
HSV

2QV  
3QV

SKH

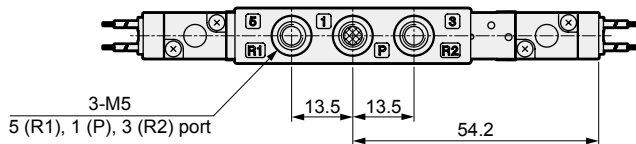
PCD

Silencer

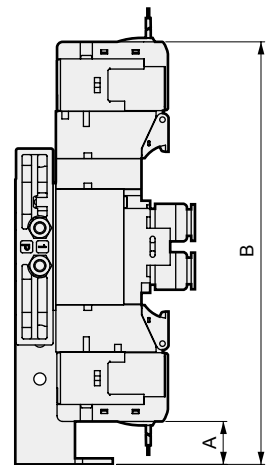
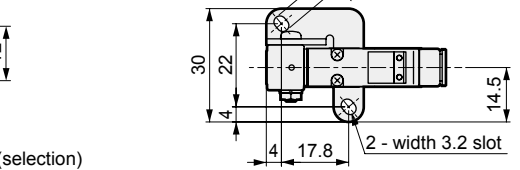
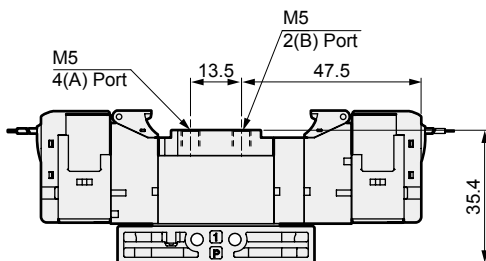
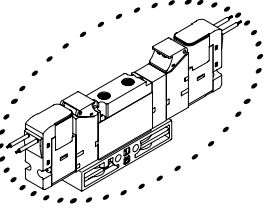
TotAirSys  
(Total Air)

TotAirSys  
(Gamma)

Ending

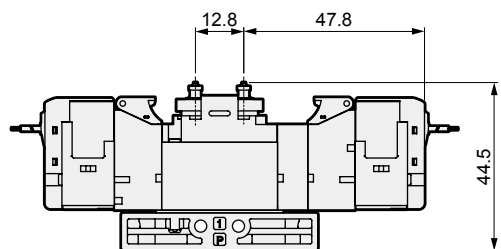


● M5 female thread (M5)



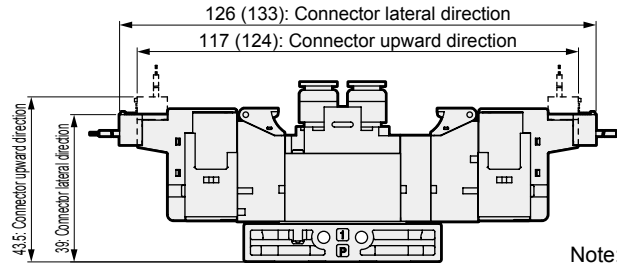
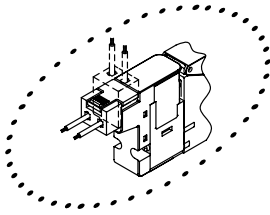
Electrical connections	A	B
Grommet lead wire	11.3	111.8
E, EJ type connector (upward direction), DC voltage	3	120
E, EJ type connector (upward direction), AC voltage	5	132

● φ1.8 barbed fitting (CF)



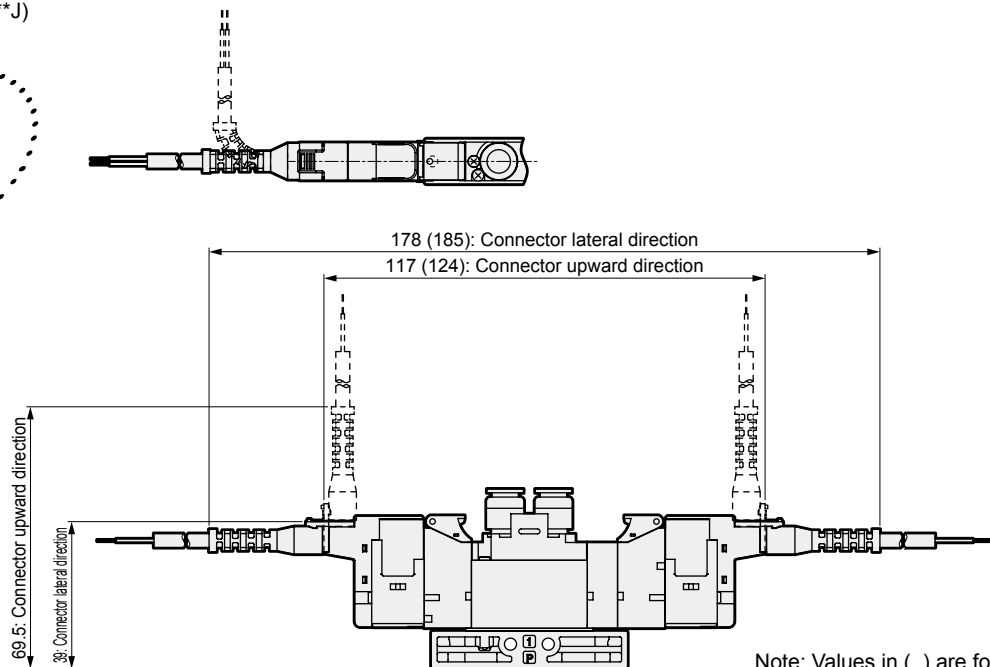
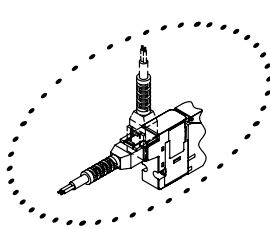
## Dimensions

● E type connector (E)



Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

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

# 4GA2 Series

Single valve; body piping

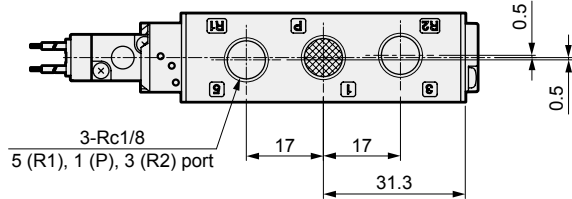
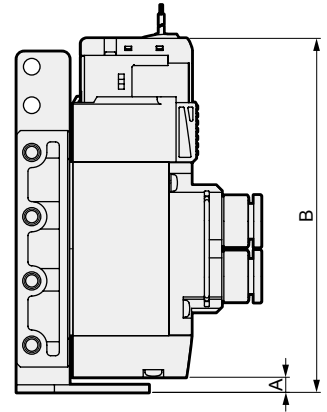
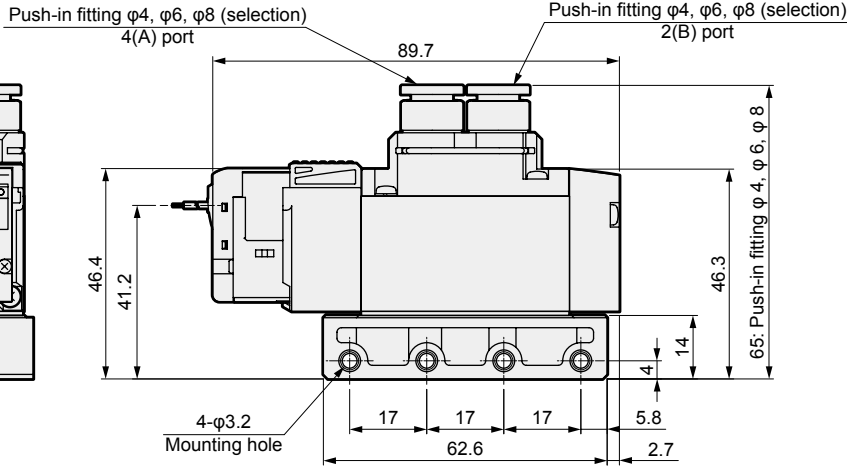
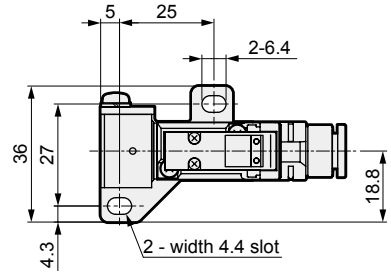
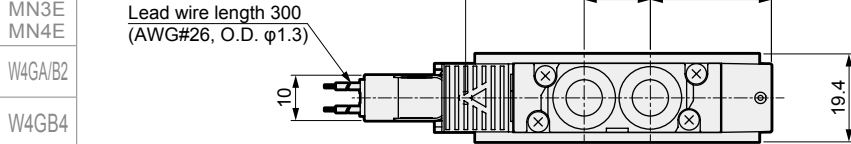
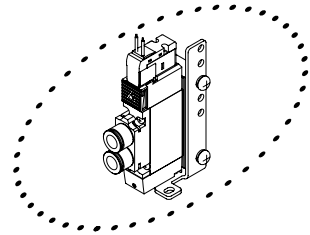
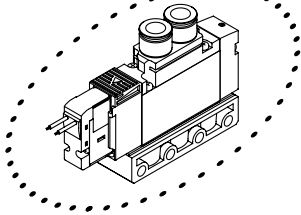


## 4GA/B Dimensions

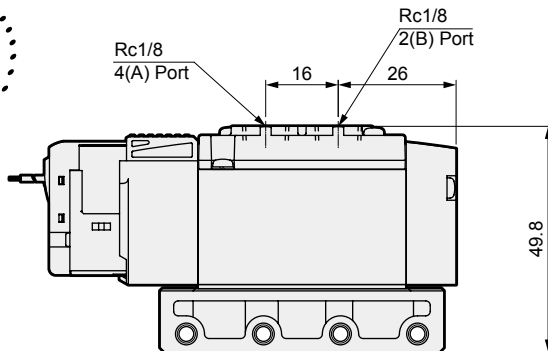
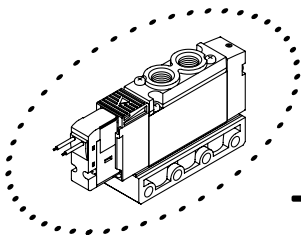
4GA210R \* NPT thread and G thread specifications are listed on pages 52 to 59.

● 2-position single grommet lead wire (blank)

● Mounting plate (P)



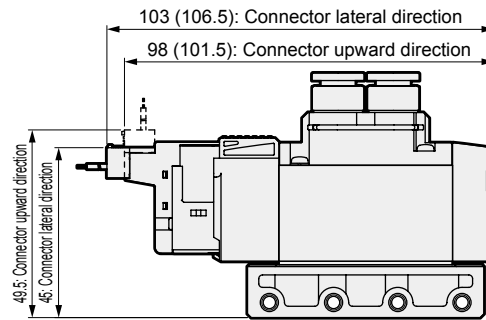
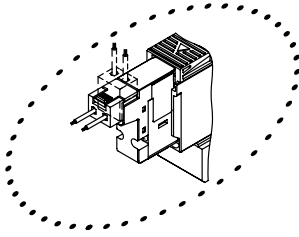
● Rc1/8 female thread (06)



Electrical connections	A	B
Grommet lead wire	4	93.7
E, EJ type connector (upward direction), DC voltage		102
E, EJ type connector (upward direction), AC voltage		105.5
DIN terminal box (inner direction)		112.7

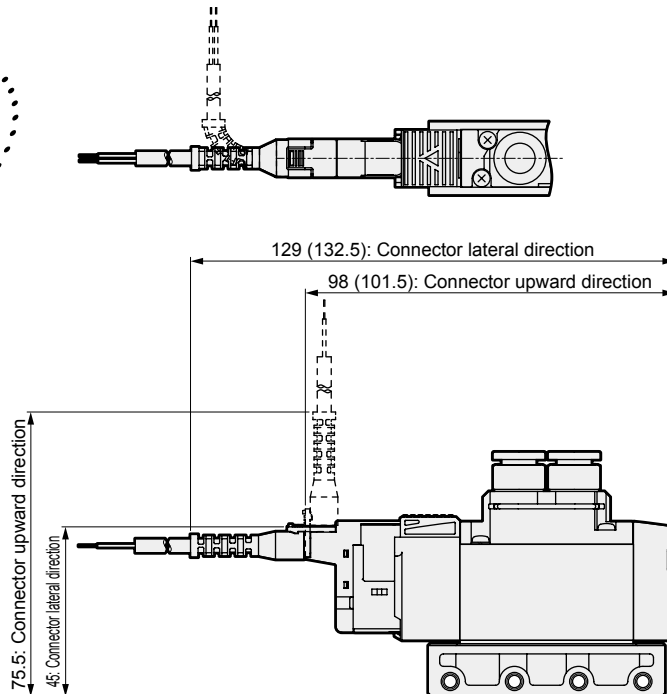
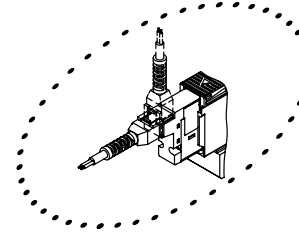
## Dimensions

● E type connector (E)



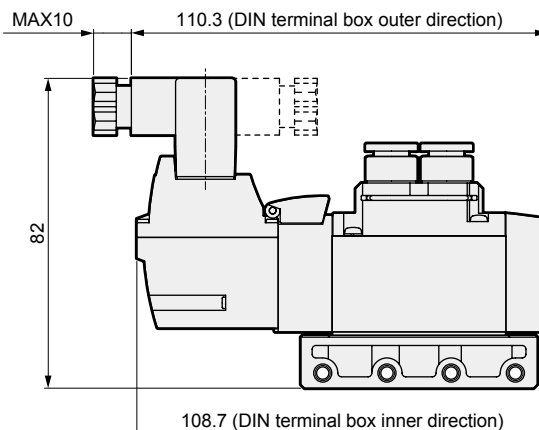
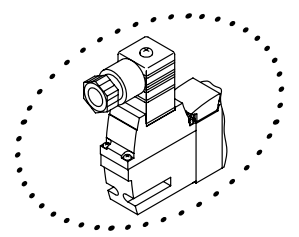
Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

# 4GA2 Series

Single valve; body piping



## 4GA/B Dimensions

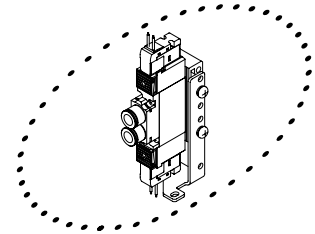
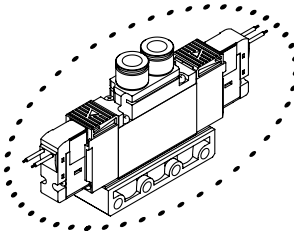
M4GA/B 4GA220R \* NPT thread and G thread specifications are listed on pages 52 to 59.

- 2-position double grommet lead wire (blank)

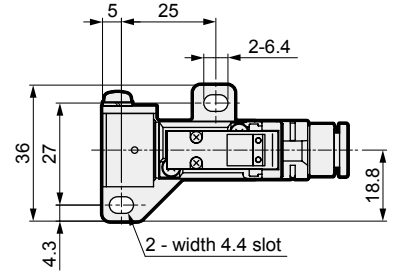
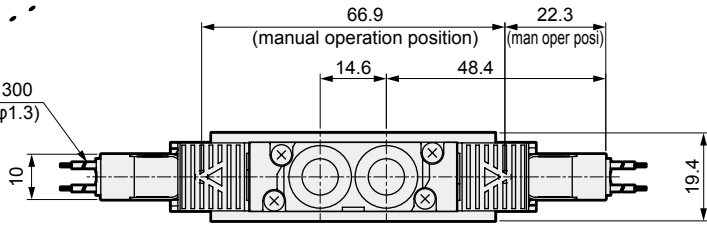
MN4GA/B 3GA2660R, 3GA2670R, 3GA2760R, 3GA2770R

- Two 3-port valves integrated grommet lead wire (blank)

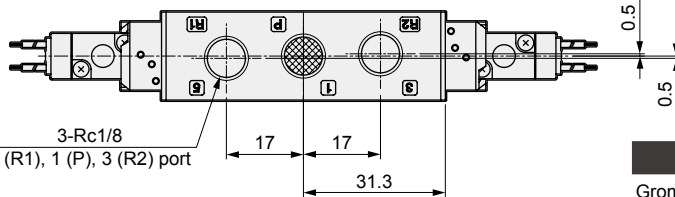
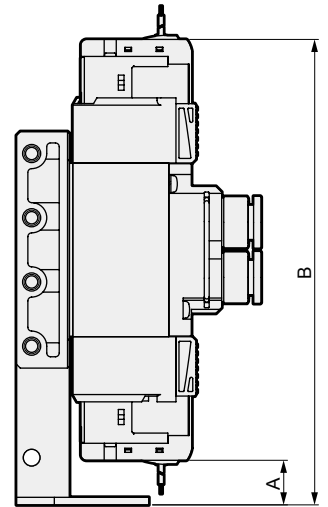
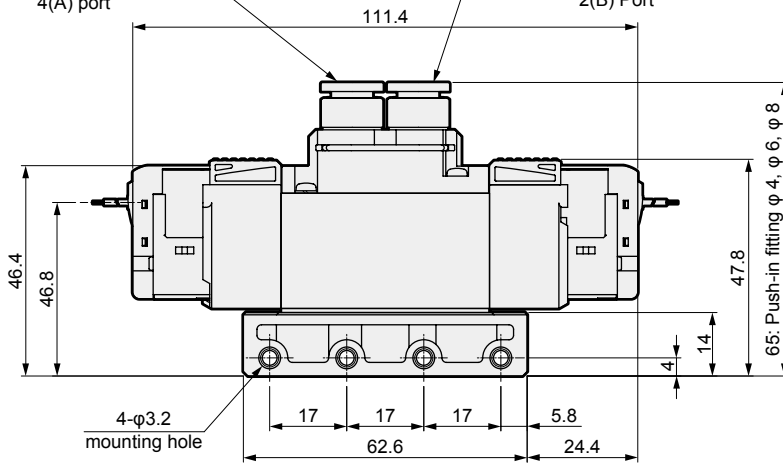
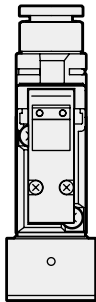
- Mounting plate (P)



Lead wire length 300  
(AWG#26, O.D. φ1.3)

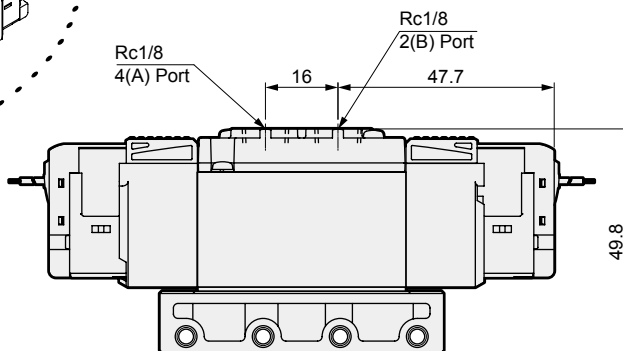
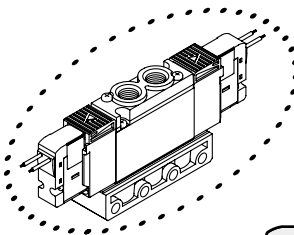


Push-in fitting φ4, φ6, φ8 (selection) 4(A) port      Push-in fitting φ4, φ6, φ8 (selection) 2(B) Port



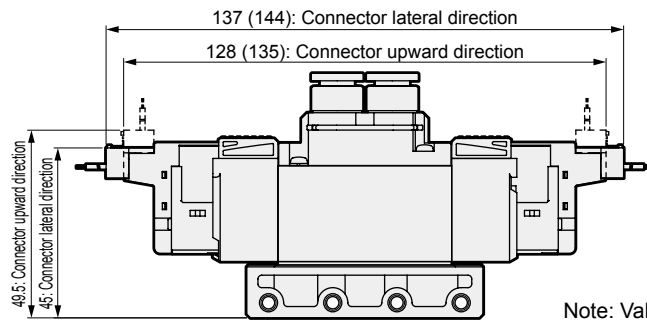
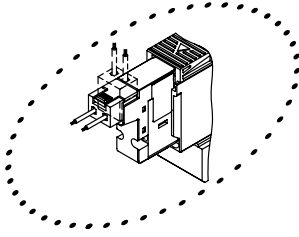
Electrical connections	A	B
Grommet lead wire	11.8	123.2
E, EJ type connector (upward direction), DC voltage	3.5	131.5
E, EJ type connector (upward direction), AC voltage	10.5	148.5
DIN terminal box (inner direction)	3	152.4

- Rc1/8 female thread (06)



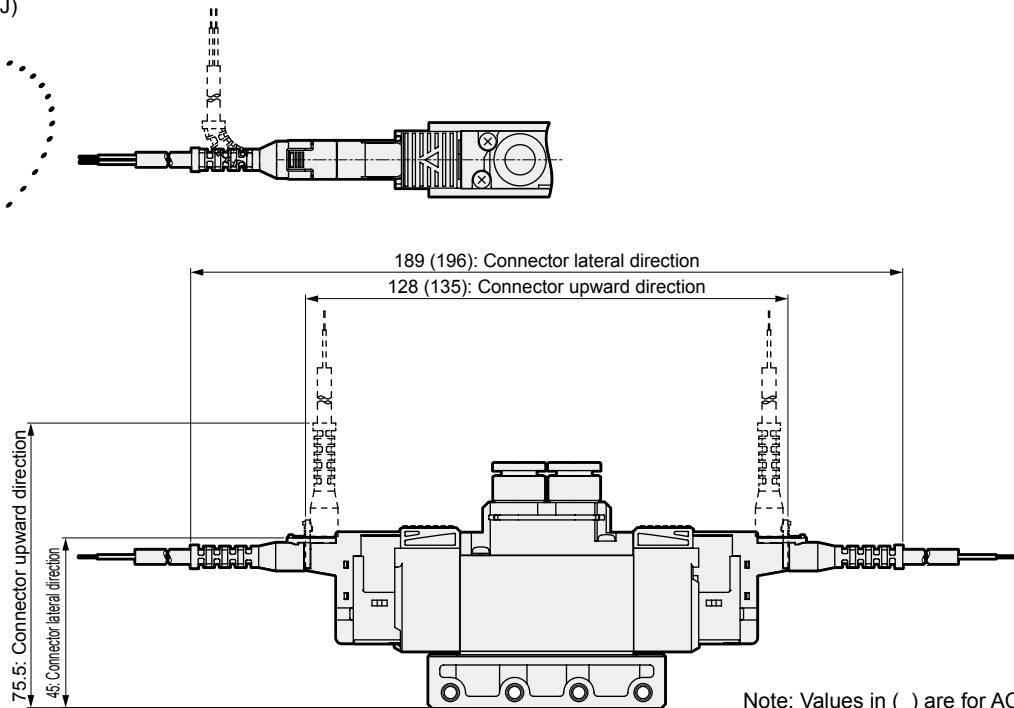
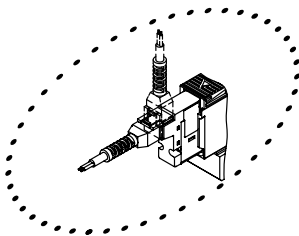
## Dimensions

● E type connector (E)



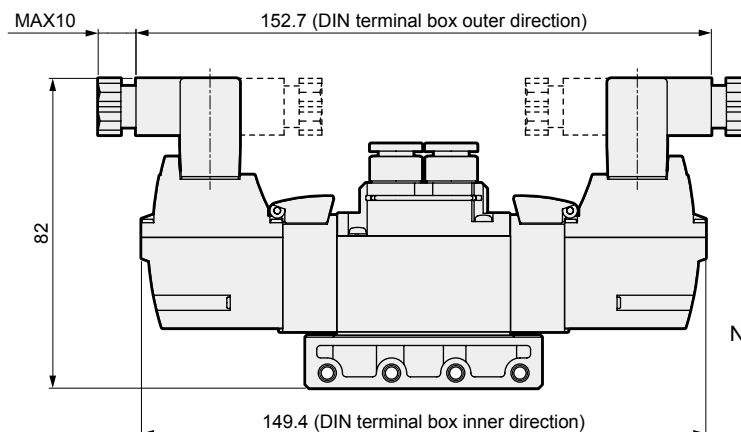
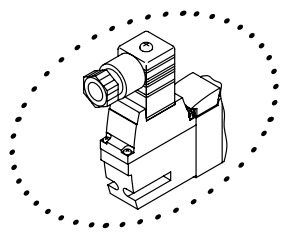
Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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



# 4GA2 Series

Single 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)

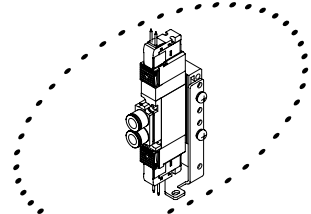
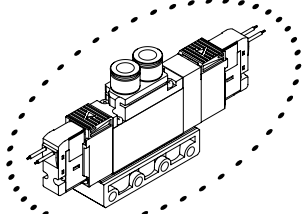
TotAirSys  
(Gamma)

Ending

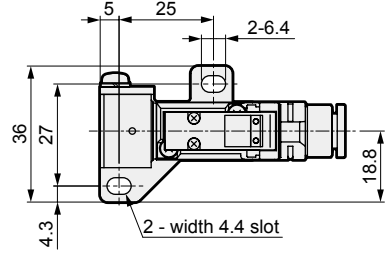
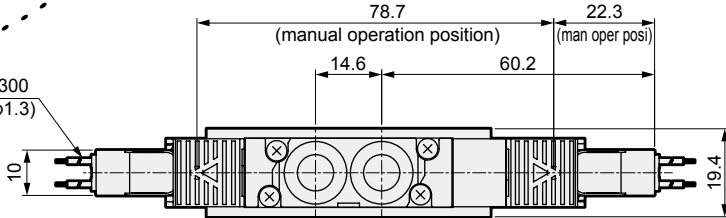
4GA2<sup>3</sup>0R \* NPT thread and G thread specifications are listed on pages 52 to 59.

● 3-position grommet lead wire (blank)

● Mounting plate (P)

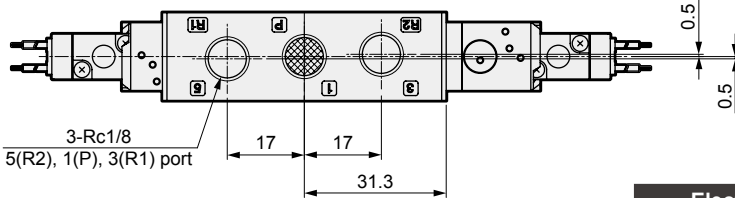
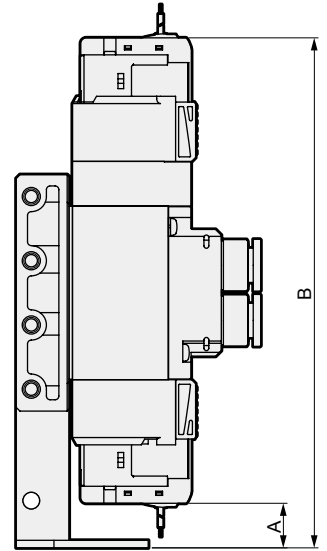
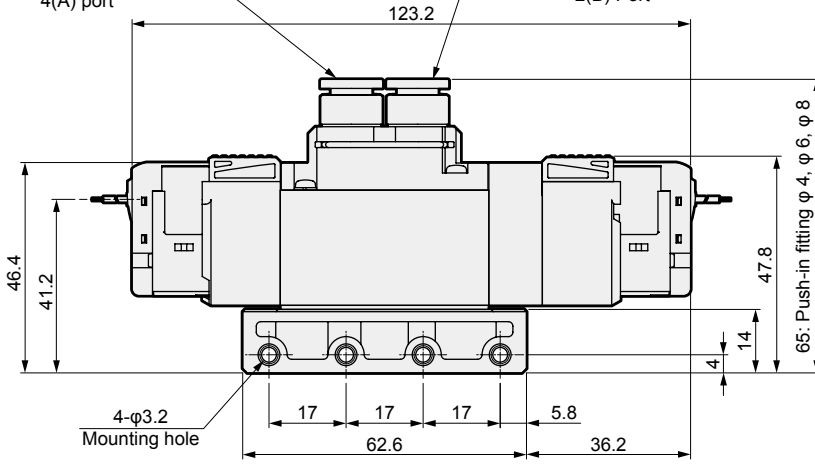
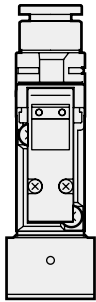


Lead wire length 300  
(AWG#26, O.D. φ1.3)

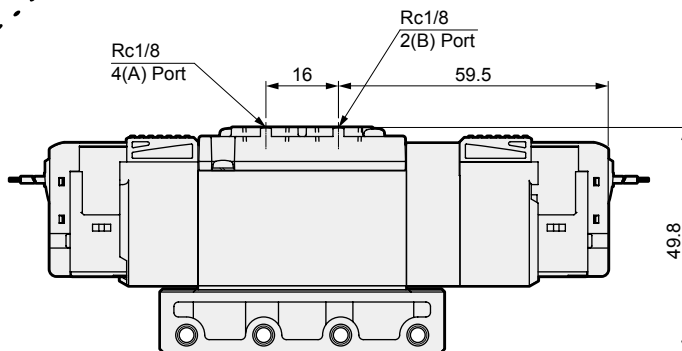
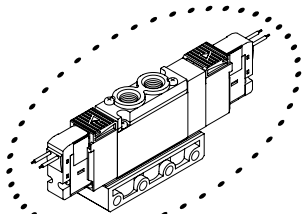


Push-in fitting φ4, φ6, φ8 (selection)  
4(A) port

Push-in fitting φ4, φ6, φ8 (selection)  
2(B) Port



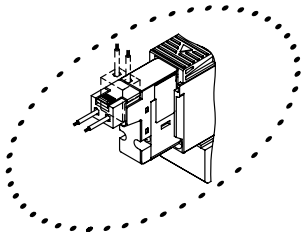
● Rc1/8 female thread (06)



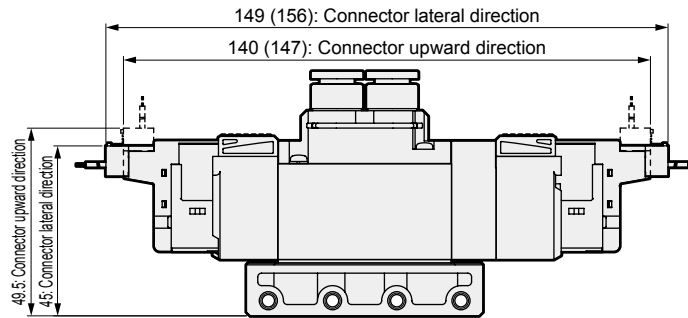
Electrical connections	A	B
Grommet lead wire	11.8	135
E, EJ type connector (upward direction), DC voltage	3.5	143
E, EJ type connector (upward direction), AC voltage	10.5	160.5
DIN terminal box (inner direction)	3	164.2

## Dimensions

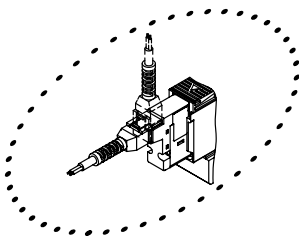
● E type connector (E)



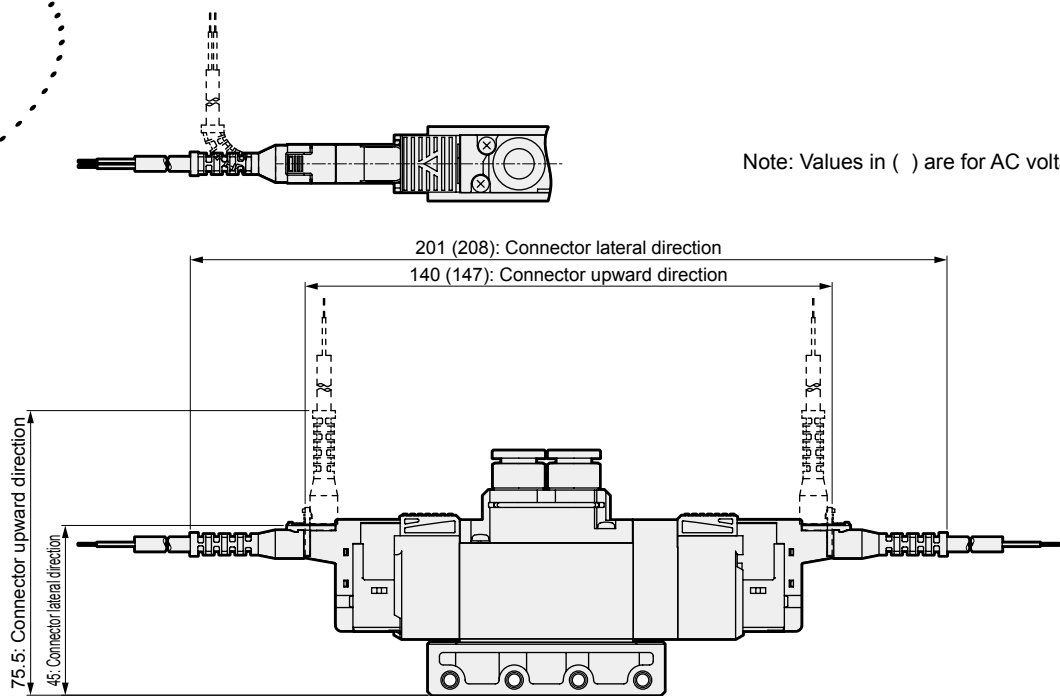
Note: Values in ( ) are for AC voltage.



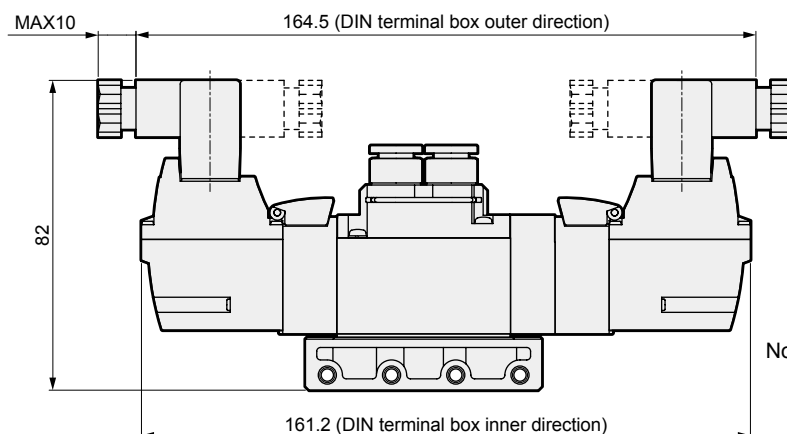
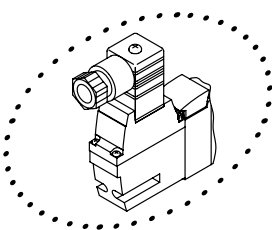
● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.



● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

# 4GA3 Series

Single 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

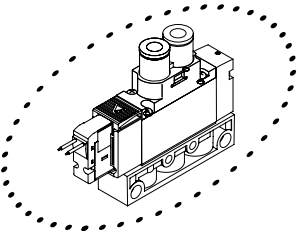
TotAirSys  
(Total Air)

TotAirSys  
(Gamma)

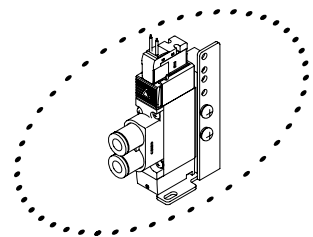
Ending

4GA310R \* NPT thread and G thread specifications are listed on pages 52 to 59.

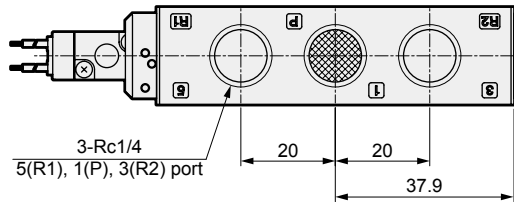
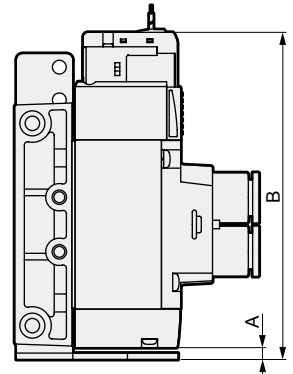
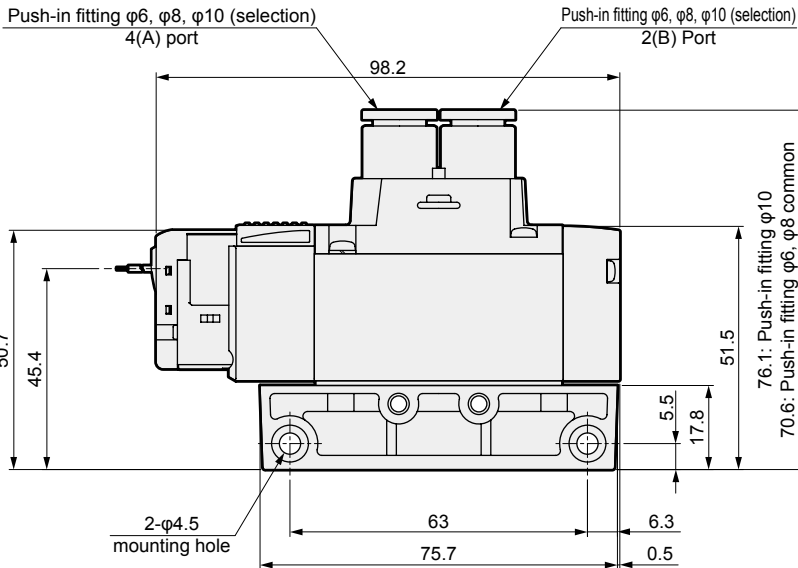
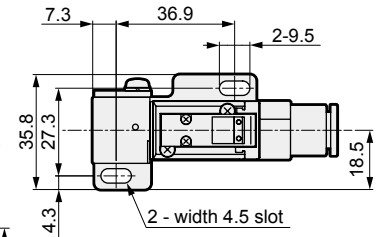
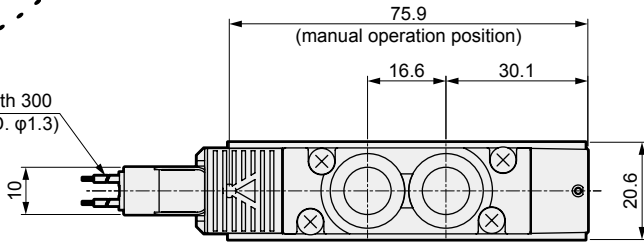
● 2-position single grommet lead wire (blank)



● Mounting plate (P)

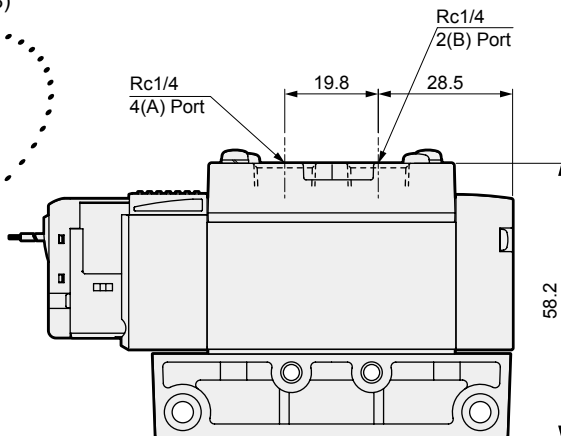
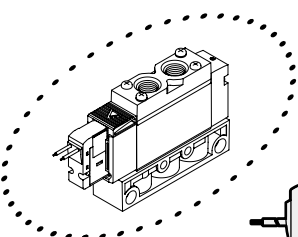


Lead wire length 300  
(AWG#26, O.D.  $\phi$ 1.3)



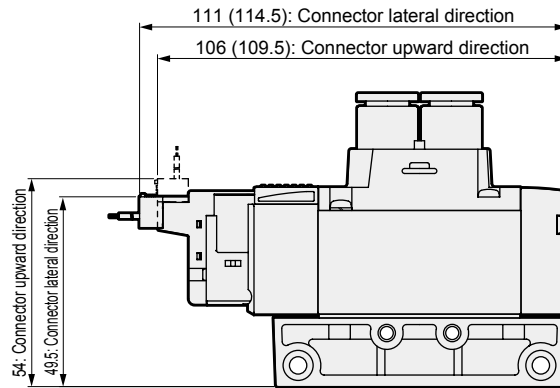
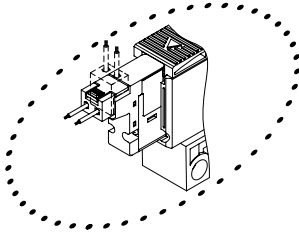
Electrical connections	A	B
Grommet lead wire	3.7	101.8
E, EJ type connector (upward direction), DC voltage		110
E, EJ type connector (upward direction), AC voltage		113.5
DIN terminal box (inner direction)		120.9

● Rc1/4 female thread (08)



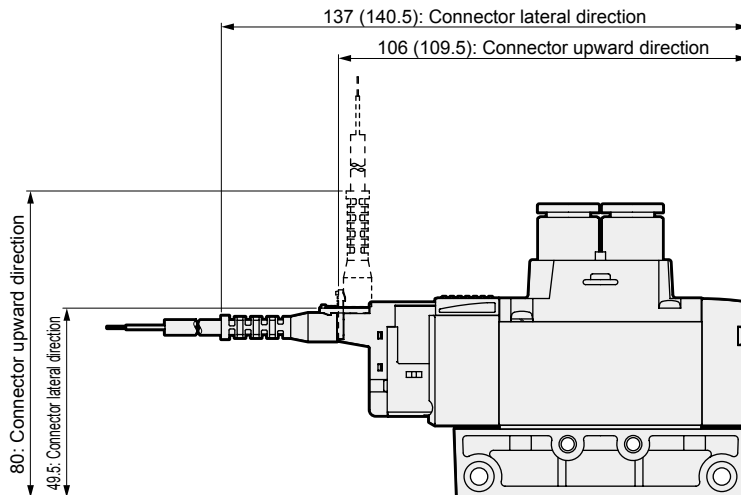
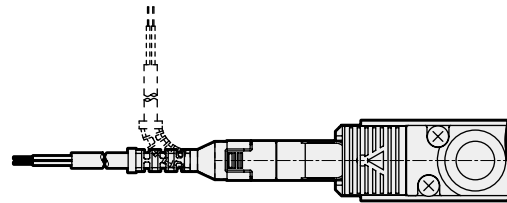
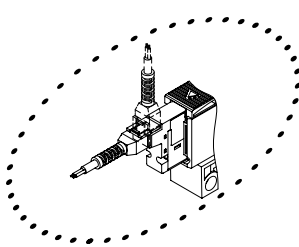
## Dimensions

● E type connector (E)



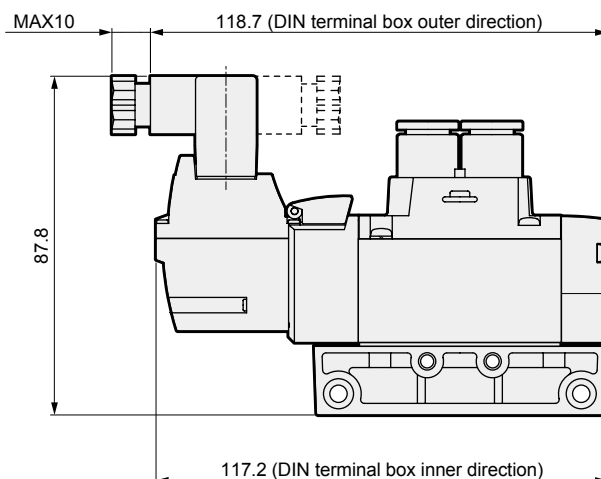
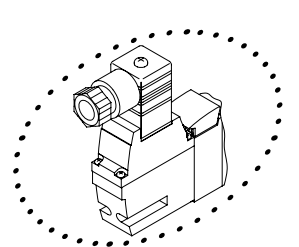
Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

# 4GA3 Series

Single valve; body piping



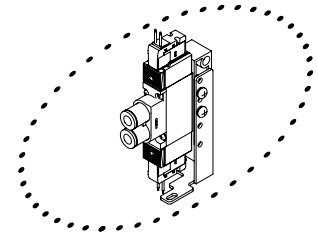
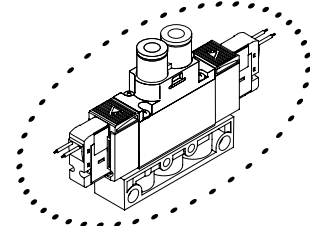
## Dimensions

- 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

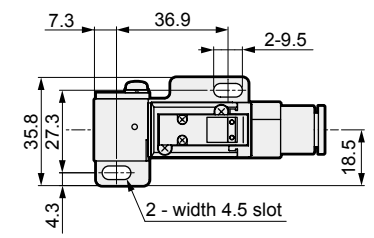
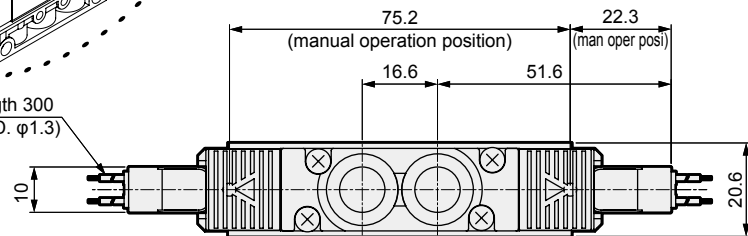
4GA320R \* NPT thread and G thread specifications are listed on pages 52 to 59.

● 2-position double grommet lead wire (blank)

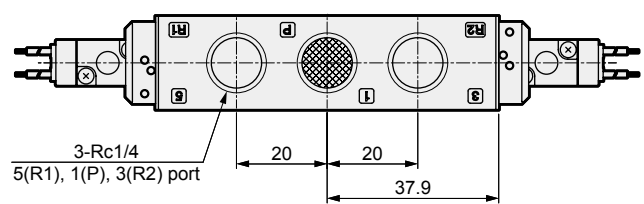
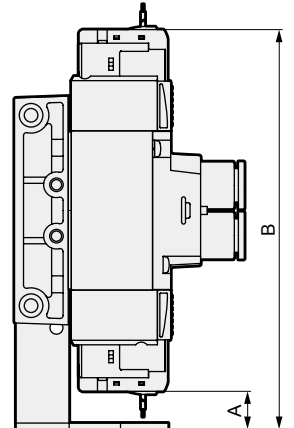
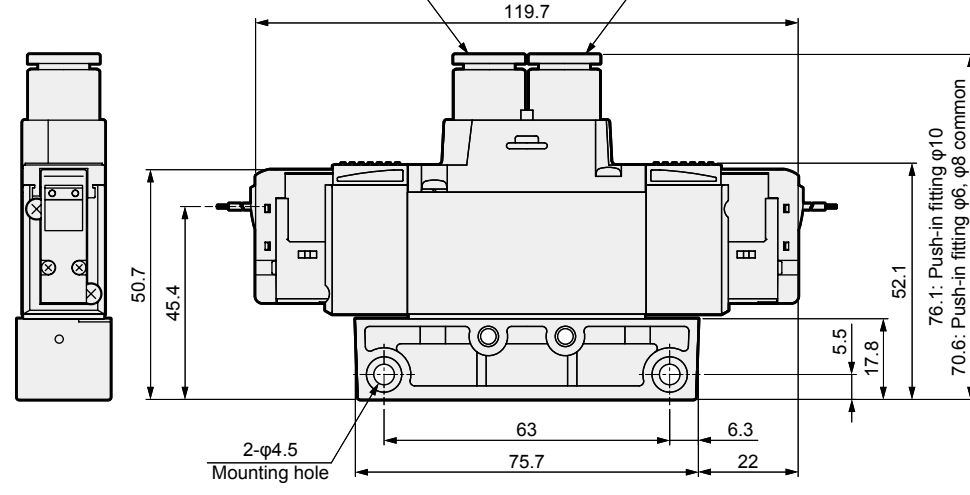
● Mounting plate (P)



Lead wire length 300 (AWG#26, O.D. φ1.3)

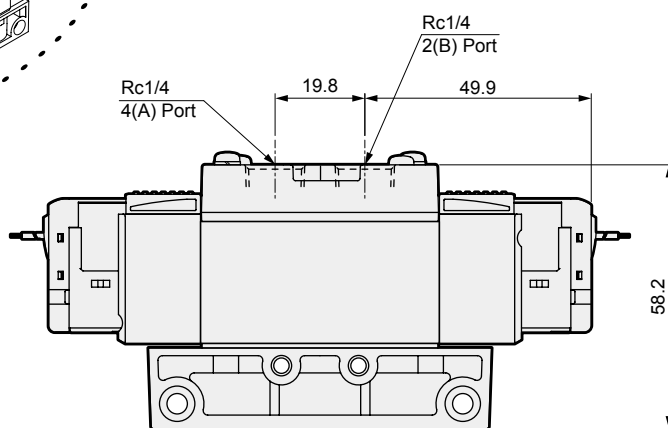
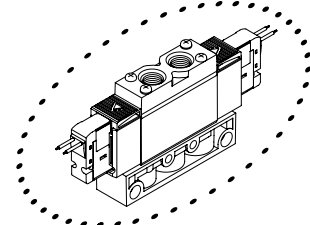


Push-in fitting φ6, φ8, φ10 (selection) 4(A) port      Push-in fitting φ6, φ8, φ10 (selection) 2(B) port



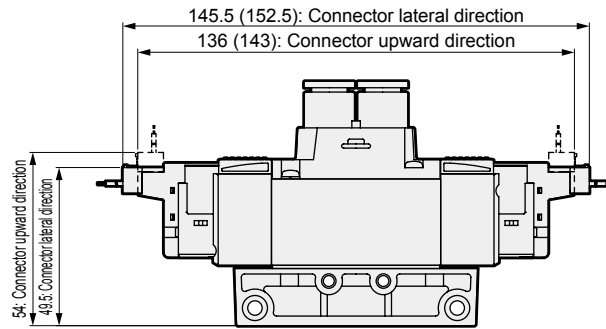
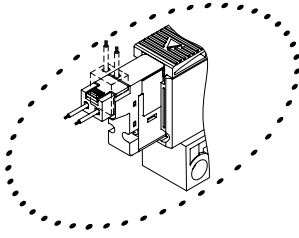
Electrical connections	A	B
Grommet lead wire	12.6	132.2
E, EJ type connector (upward direction), DC voltage	4.5	140.5
E, EJ type connector (upward direction), AC voltage	11	157.5
DIN terminal box (inner direction)	3.7	161.4

● Rc1/4 female thread (08)



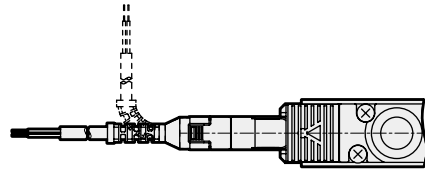
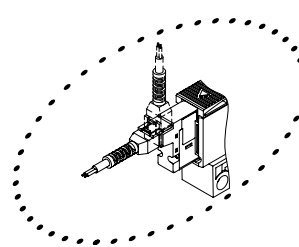
## Dimensions

### ● E type connector (E)



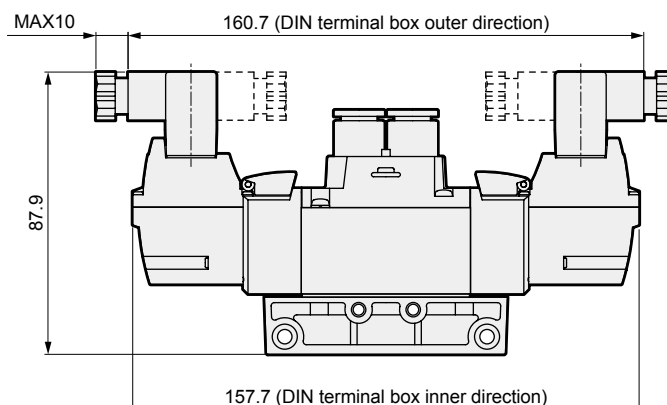
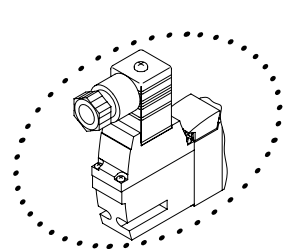
Note: Values in ( ) are for AC voltage.

### ● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

### ● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

# 4GA3 Series

Single 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)

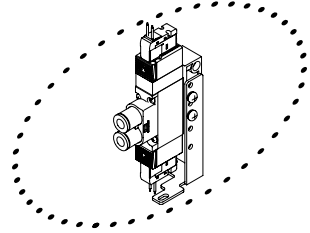
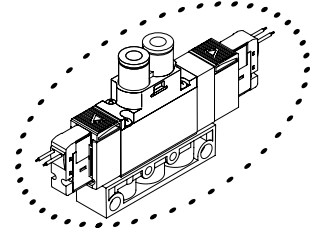
TotAirSys  
(Gamma)

Ending

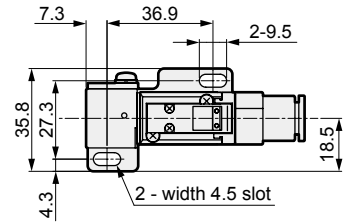
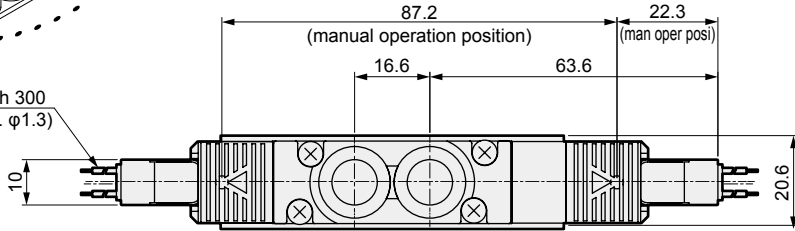
4GA3<sub>3</sub>0R \* NPT thread and G thread specifications are listed on pages 52 to 59.

● 3-position grommet lead wire (blank)

● Mounting plate (P)

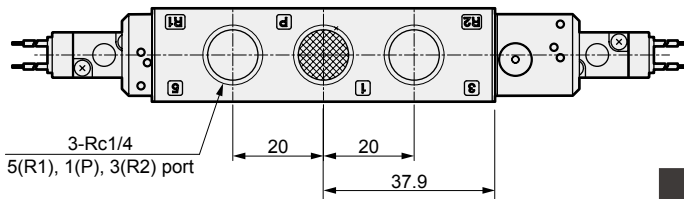
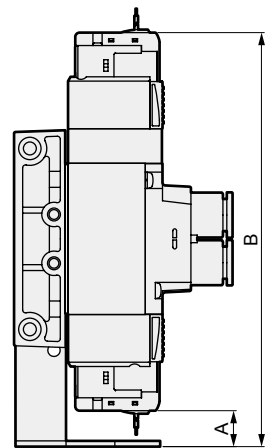
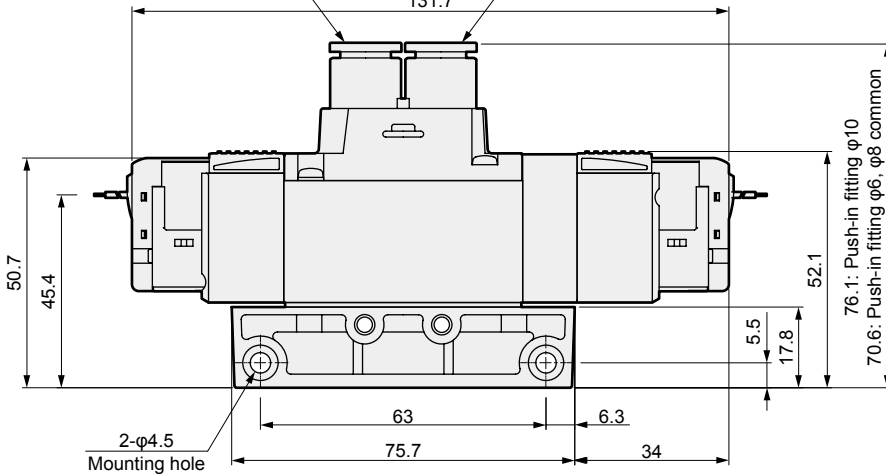
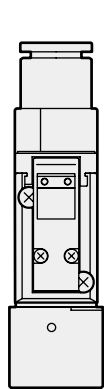


Lead wire length 300  
(AWG#26, O.D. φ1.3)

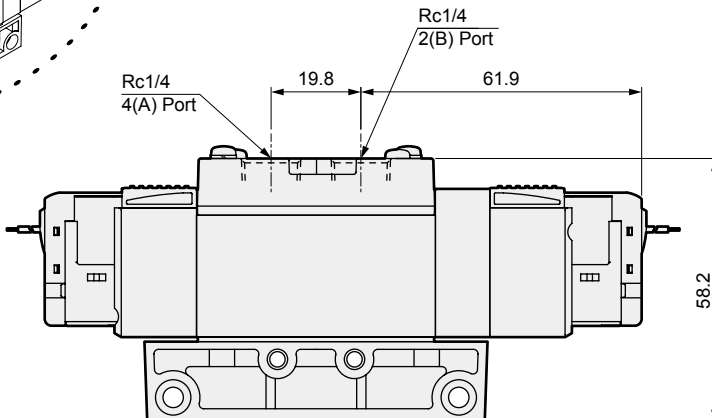
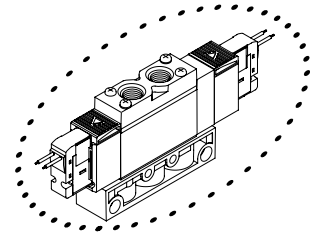


Push-in fitting φ6, φ8, φ10 (selection)  
4(A) Port

Push-in fitting φ6, φ8, φ10 (selection)  
2(B) Port



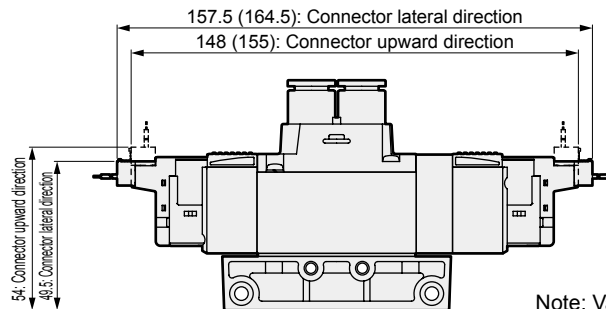
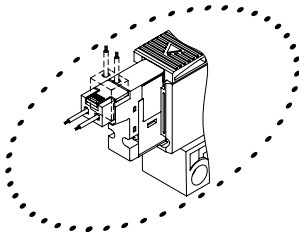
● Rc1/4 female thread (08)



Electrical connections	A	B
Grommet lead wire	12.6	144.3
E, EJ type connector (upward direction), DC voltage	4.5	152.5
E, EJ type connector (upward direction), AC voltage	11	169.5
DIN terminal box (inner direction)	3.7	173.4

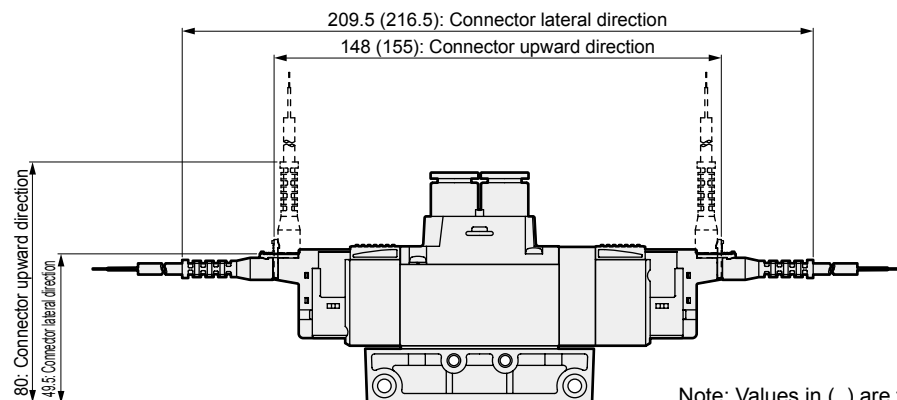
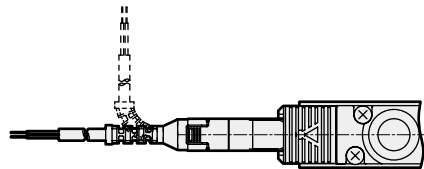
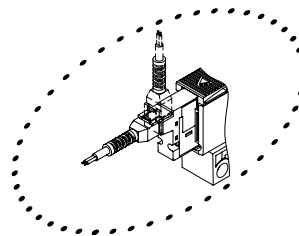
## Dimensions

● E type connector (E)



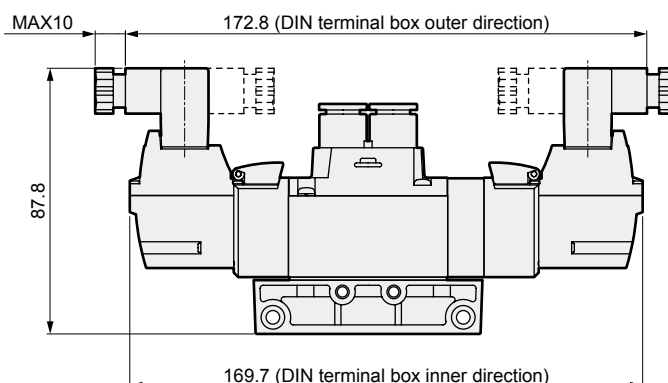
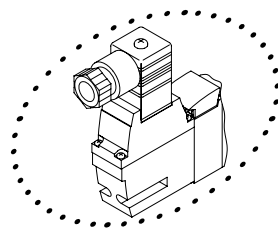
Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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



# 3GA1/4GA1 Series

Single valve; body piping

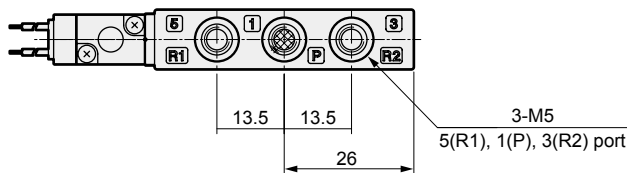
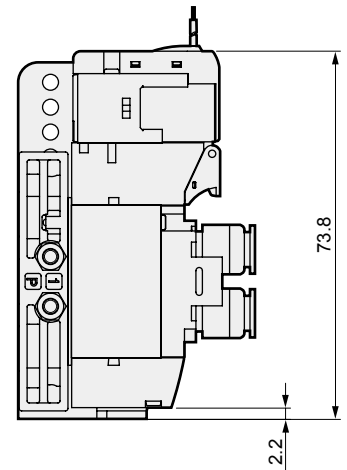
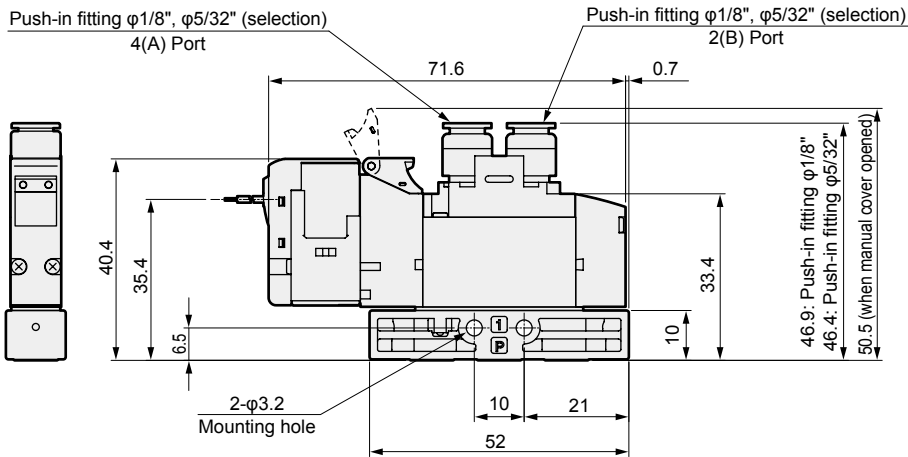
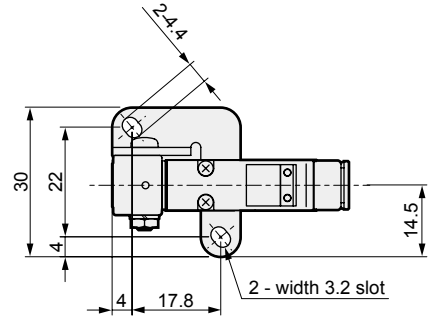
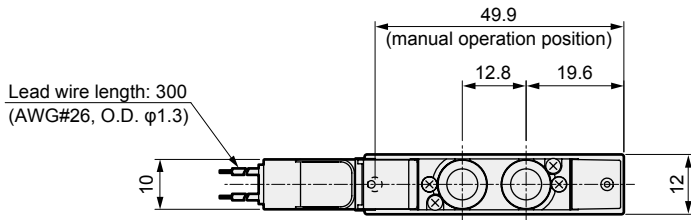
Dimensions Port size; NPT thread

- 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

3GA1 1/8" OR, 4GA1 1/8" OR

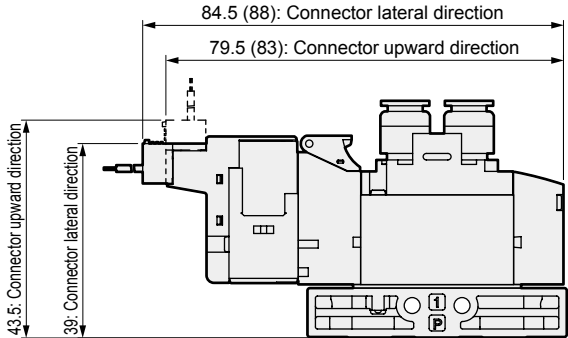
● 2-position single grommet lead wire (blank)

● Mounting plate (P)



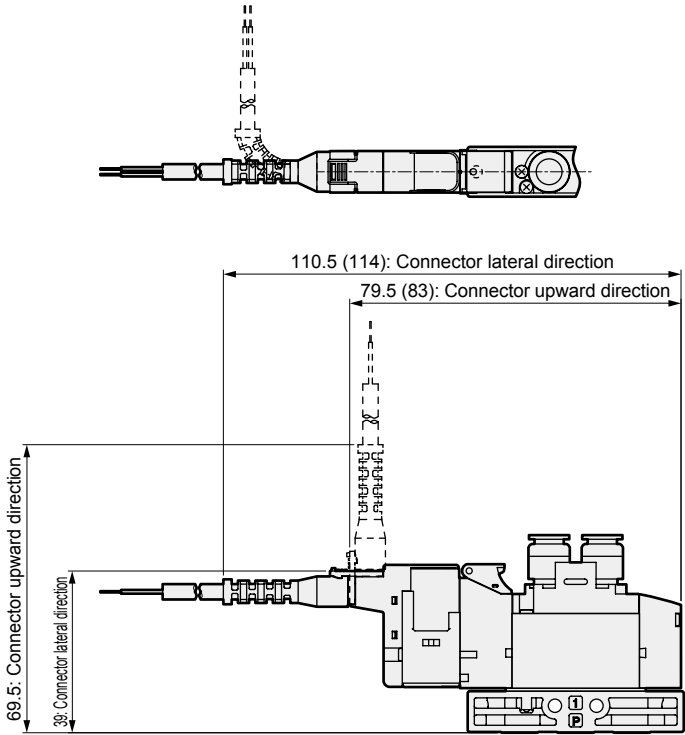
## Dimensions Port size; NPT thread

● E type connector (E)



Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

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

# 3GA2/4GA2 Series

Single valve; body piping

Dimensions Port size; NPT thread

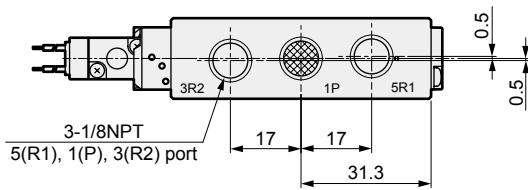
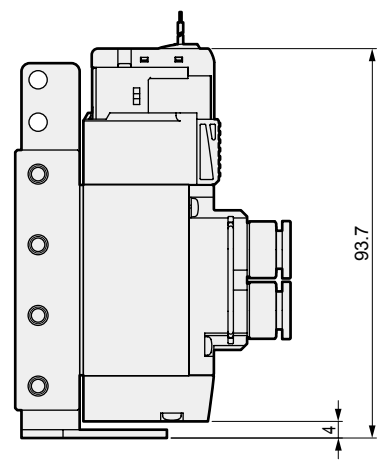
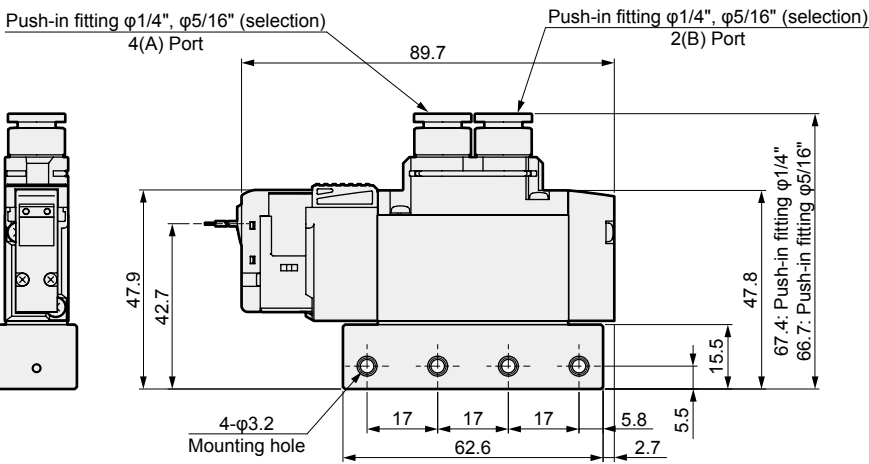
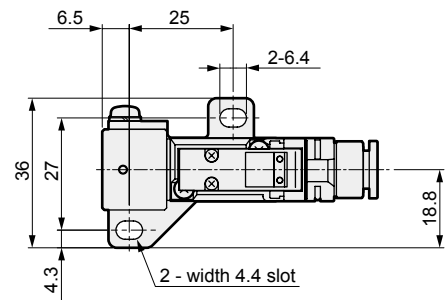
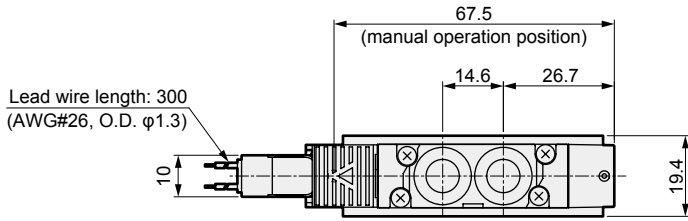
4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G GMF
PV5 GMF
PV5S-0
3QR 3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys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

3GA2<sup>1</sup>0R, 4GA2<sup>1</sup>OR

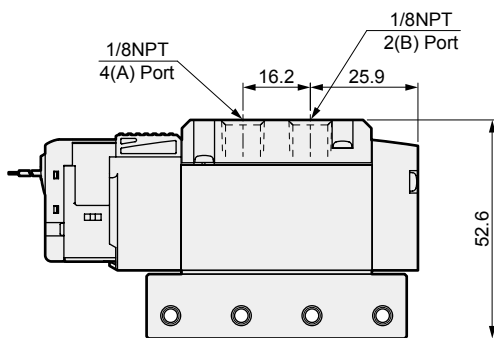
<sup>1</sup><sub>11</sub>  
<sup>2</sup><sub>66</sub>  
<sup>3</sup><sub>67</sub>  
<sup>4</sup><sub>76</sub>  
<sup>5</sup><sub>77</sub>

● 2-position single grommet lead wire (blank)

● Mounting plate (P)

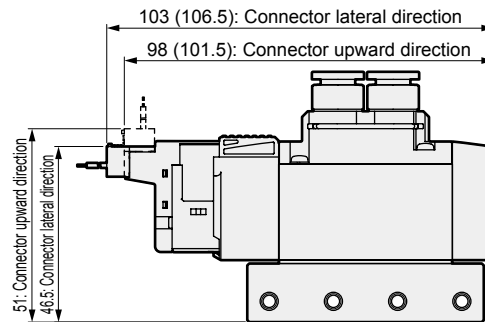


● 1/8NPT female thread (06N)



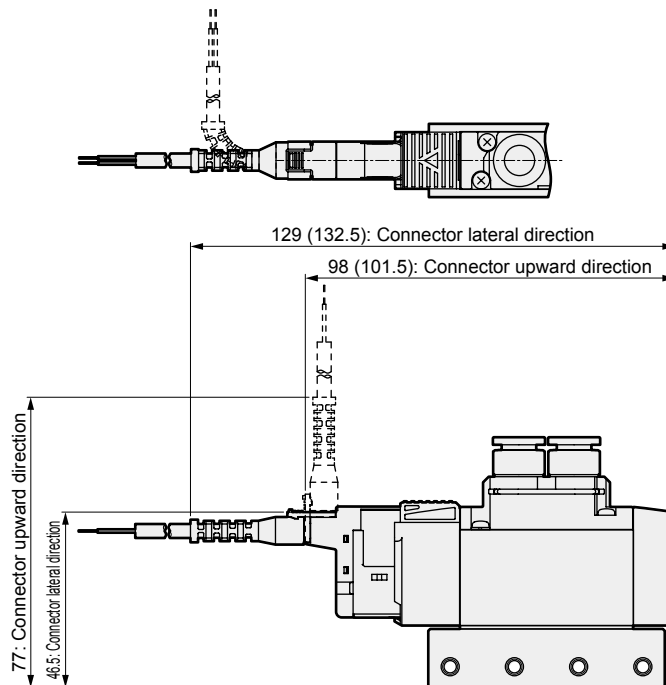
## Dimensions Port size; NPT thread

● E type connector (E)



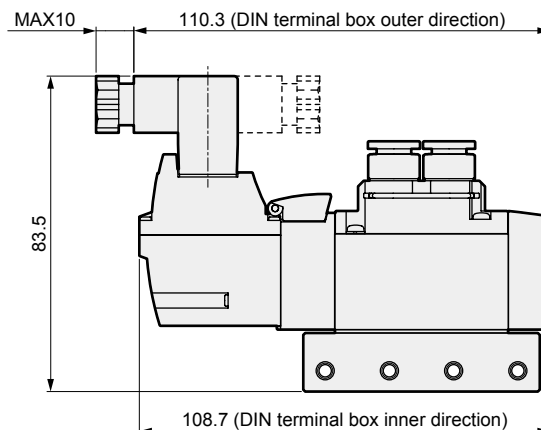
Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

# 3GA3/4GA3 Series

Single valve; body piping

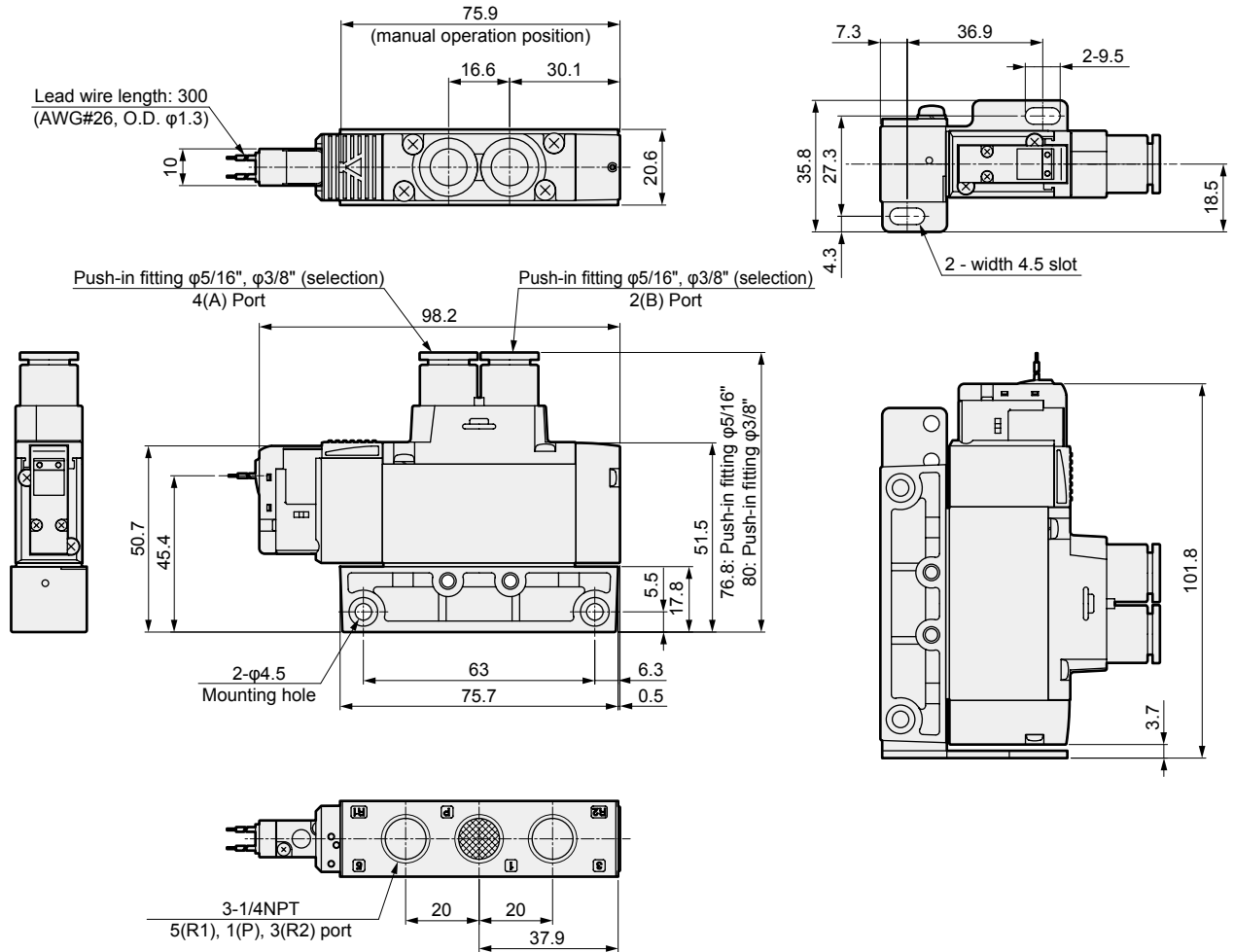
Dimensions Port size; NPT thread

- 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

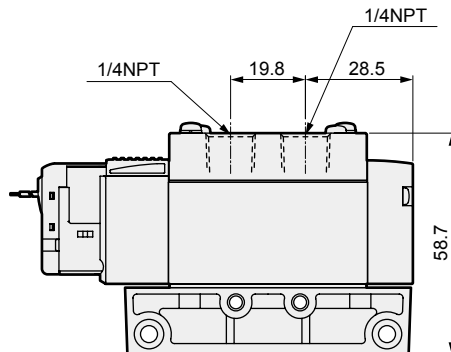
3GA3<sup>1</sup>/<sub>1</sub>OR, 4GA3<sup>1</sup>/<sub>1</sub>OR

● 2-position single grommet lead wire (blank)

● Mounting plate (P)

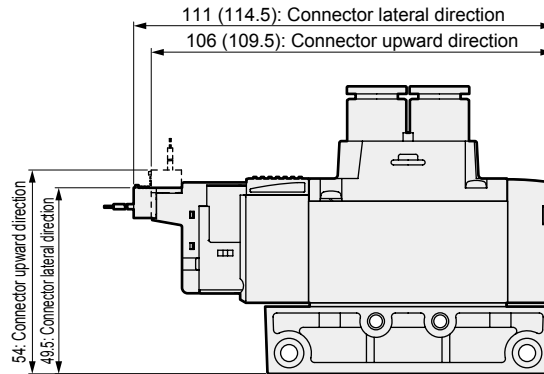


● 1/4NPT female thread (08N)



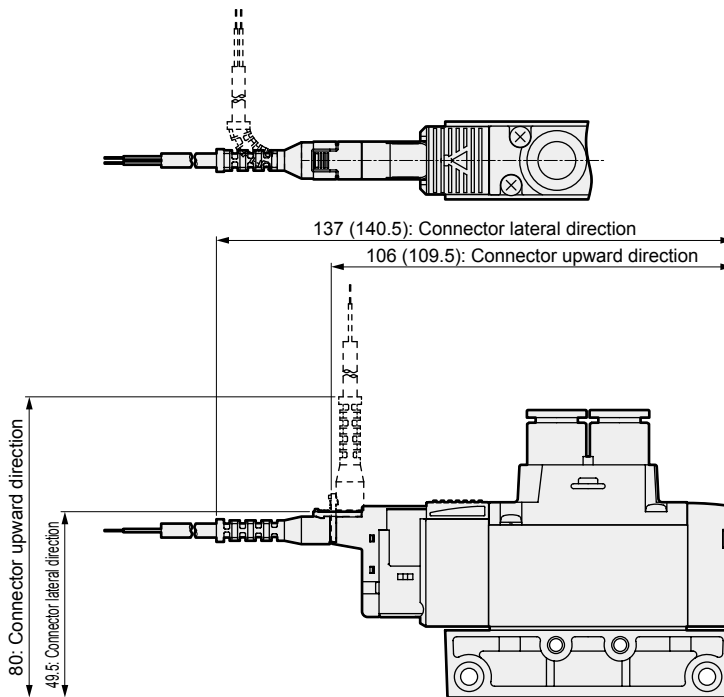
## Dimensions Port size; NPT thread

● E type connector (E)



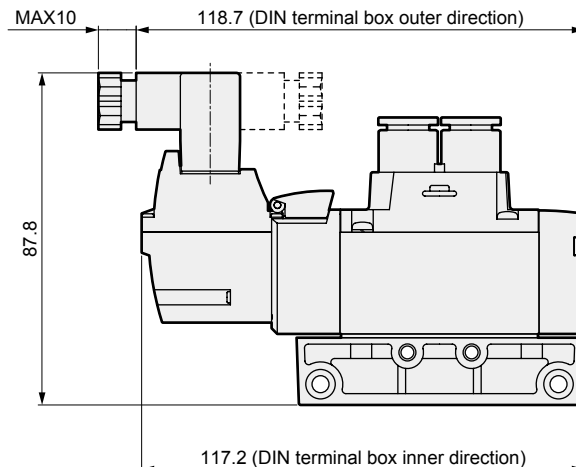
Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

# 3GA2/4GA2 Series

Single valve; body piping

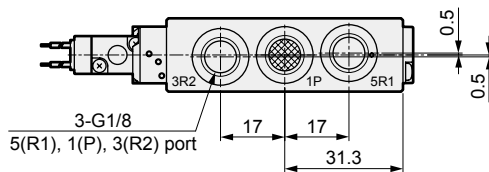
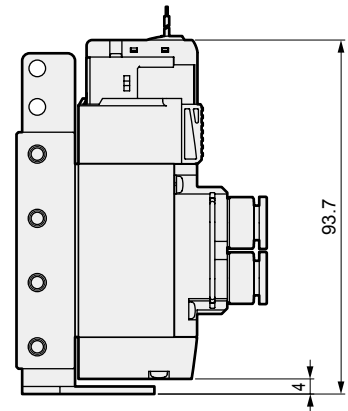
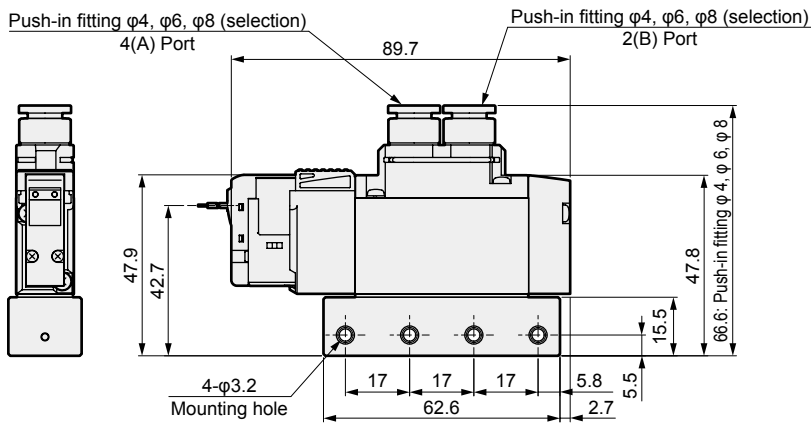
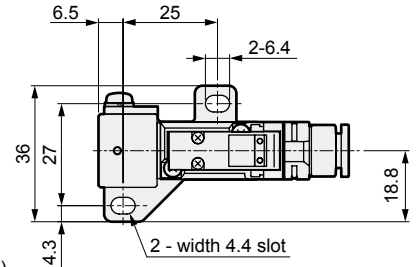
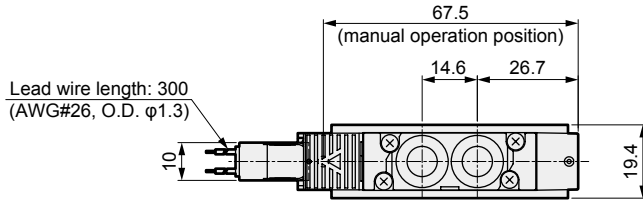
Dimensions Port size; G thread

- 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

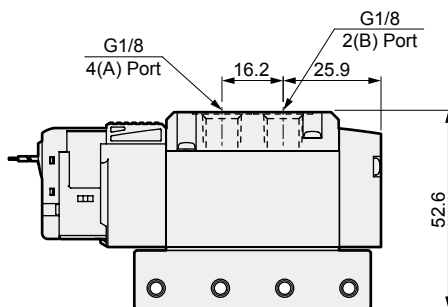
3GA2<sup>1</sup><sub>11</sub>0R, 4GA2<sup>1</sup><sub>4,3</sub>0R

● 2-position single grommet lead wire (blank)

● Mounting plate (P)

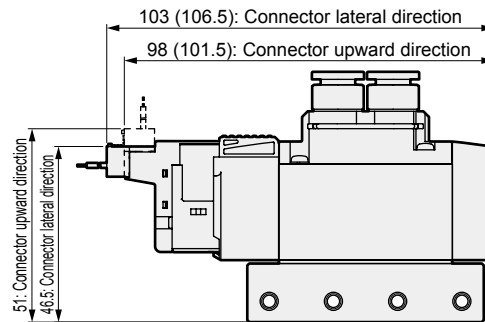


● G1/8 female thread (06G)



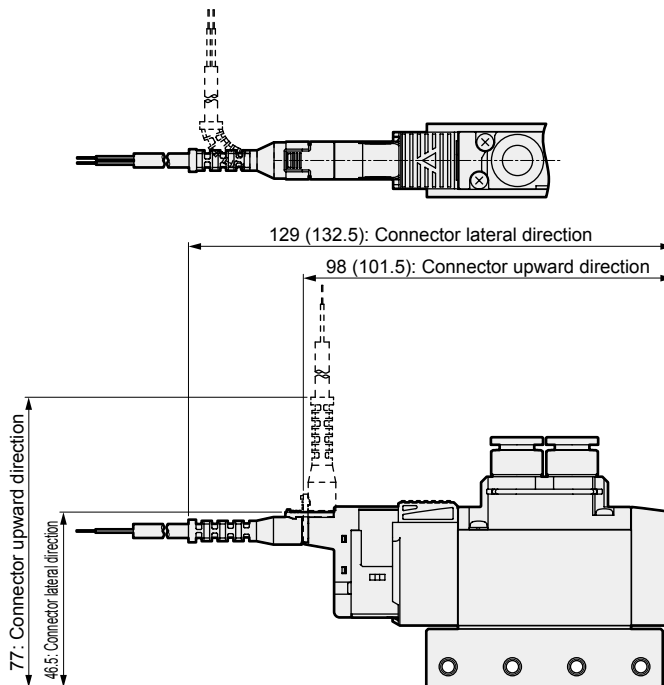
## Dimensions Port size; G thread

● E type connector (E)



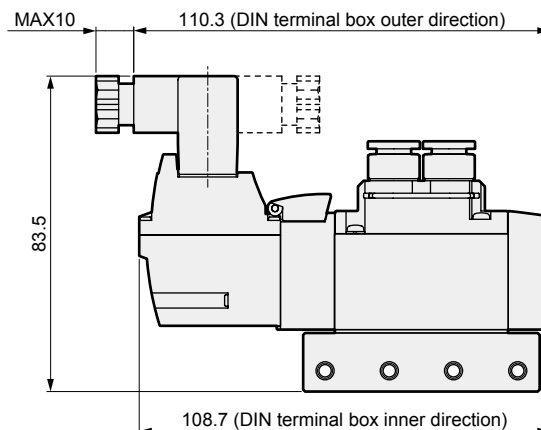
Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

● DIN terminal box (B)

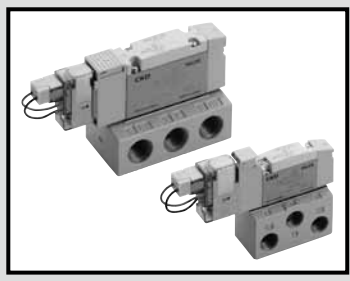


Note: DIN terminal box assembly is shipped facing inward.

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



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



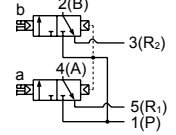
# Single valve Base piping 3GB1/2 / 4GB1/2/3 Series

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

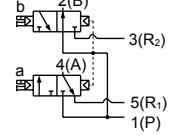


## JIS symbol

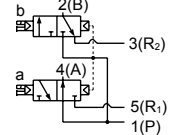
● Two 3-port valves integrated  
(A side valve: NC, B side valve: NC)



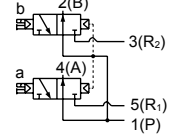
(A side valve: NC, B side valve: NO)



(A side valve: NO, B side valve: NC)

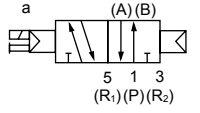


(A side valve: NO, B side valve: NO)

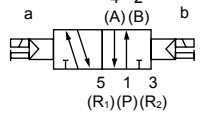


● 5-port valve

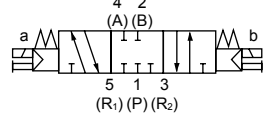
2-position single



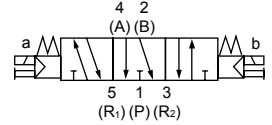
2-position double



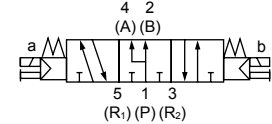
3-position all ports closed



3-position A/B/R connection



3-position P/A/B connection



## 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 MPa	0.2 ( $\approx 29$ psi, 2 bar) (*3)
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 (standard)
Pilot exhaust method	Internal pilot Main valve/pilot valve common exhaust External pilot Main valve/pilot valve individual exhaust
Lubrication *1	Not required
Degree of protection *2	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 Use turbine oil Class 1 ISO VG32 for lubrication. Excessive or intermittent lubrication results in unstable operation.
- \*2 Avoid dripping water or oil, etc., during use. IP65 (jet-proof) applies for DIN terminal box specifications. However, the specified outer diameter of the applicable cord and tightening torque must be used for fixing in place.
- \*3 The working pressure range is 0 to 0.7 MPa when the external pilot (option code: K) is selected. Set the external pilot pressure between 0.2 and 0.7 MPa.

## Electrical specifications

Descriptions	Content	Rated voltage V					
		DC24	DC12	DC5	DC3	AC100	AC200
Voltage fluctuation range		$\pm 10\%$					
Holding current A	Standard	0.015 (0.017)	0.030 (0.034)	0.072 (0.082)	0.120 (0.136)	0.009 (0.009)	0.006 (0.006)
	Low energy/energy circuit (*4)	0.005	0.010	-	-	-	-
Power consumption W (*4)	Standard	0.35(0.40)		0.35(0.40)		-	-
	Low energy/energy circuit	0.1		-		-	-
Apparent power VA (*4, 5)	Standard	-	-	-	-	0.93 (0.98)	1.40
	Low energy/energy circuit	-	-	-	-	-	-
Thermal class	B						
Surge suppressor	Option						
Indicator	Lamp (option)						

\*4: Values in ( ) apply when lamp is included. In addition, the type with low exoergic/energy-saving circuit is only available with lamp.  
\*5: 200 VAC is the value of DIN terminal box with lamp.

## Individual specifications

Port size		3GB1, 4GB1	3GB2, 4GB2	4GB3
Rc thread	A/B port	Rc1/8	Rc1/4	Rc1/4, Rc3/8
	P/R1/R2 port	Rc1/8	Rc1/4	Rc1/4, Rc3/8
NPT thread (*5)	A/B port	1/8NPT	1/4NPT	1/4NPT, 3/8NPT
	P/R1/R2 port	1/8NPT	1/4NPT	1/4NPT, 3/8NPT
G thread (*5)	A/B port	G1/8	G1/4	-
	P/R1/R2 port	G1/8	G1/4	-

\*5: Available as custom-order.

Descriptions	3GB1/4GB1		3GB2/4GB2		4GB3		
	ON	OFF	ON	OFF	ON	OFF	
Response time ms	Two 3-port valves integrated		9	12	12	29	-
	2-position	Single	12	12	19	19	25
		Double	9	-	18	-	24
	3-position	ABR connection	8	15	17	30	23

Values with a lamp/surge suppressor are shown. The response times are the values with supply pressure of 0.5 MPa at 20 $^{\circ}\text{C}$  without lubrication. They depend on the pressure and the lubricant quality.

Descriptions		3GB1/4GB1	3GB2/4GB2	4GB3		
Weight g	2-position	Single	Grommet lead wire	80 (38)	156 (74)	215 (96)
			E type connector	82 (40)	158 (76)	217 (98)
			DIN terminal box	-	193 (111)	249 (130)
		Double	Grommet lead wire	97 (55)	173 (91)	233 (114)
			E type connector	101 (59)	177 (95)	237 (118)
			DIN terminal box	-	216 (134)	273 (154)
	3-position	All ports closed	Grommet lead wire	98 (56)	184 (102)	242 (123)
			E type connector	102 (60)	188 (106)	246 (127)
			DIN terminal box	-	227 (145)	282 (163)

- Values in parenthesis ( ) do not include the single sub-plate. Values for the E type connector include the socket assembly (with 300 mm lead wire). For the EJ type connector, add 16 g/connector to the E type connector weight.
- The weight of the two 3-port valves integrated is the same as that of 2-position double.

## 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	
<b>3GB1</b> <b>4GB1</b>	Two 3-port valves integrated	0.92	0.08	1.1	0.26	
	2-position	1.3	0.27	1.2	0.22	
	3-position	All ports closed	1.1	0.31	1.1	0.27
		ABR connection	1.1	0.31	1.3	0.29
		PAB connection	1.4	0.30	1.1	0.26
<b>3GB2</b> <b>4GB2</b>	Two 3-port valves integrated	1.7	0.42	2.1	0.26	
	2-position	2.6	0.20	2.6	0.19	
	3-position	All ports closed	2.3	0.32	2.2	0.22
		ABR connection	2.2	0.23	2.6	0.16
		PAB connection	2.4	0.10	2.4	0.22
<b>4GB3</b>	2-position	4.3	0.24	4.2	0.24	
	3-position	All ports closed	3.3	0.40	3.4	0.27
		ABR connection	3.3	0.36	4.2	0.18
		PAB connection	4.5	0.28	3.4	0.30

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

Ozone-proof specifications · Coolant proof specifications

Can be selected with "How to order" Item (E) option "A" on page 62.

Clean-room specifications

- Anti-dust generation structure for use in cleanrooms

\*\* - Voltage - **P7\***

Specifications for rechargeable battery (Catalog No. CC-1226A)

- For use in the rechargeable battery manufacturing process, materials used for air path and sliding section are limited

\*\* - Voltage - **P4**

CE marking specifications

\*\* - Voltage - **ST**

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

# 3GB1/2 / 4GB1/2/3 Series

Single valve; base piping

## How to order

4GB1 1 0 R - 06 - E2 - 3

3GB1 66 0 R - 06 - E2 - 3

Discrete valve for mounting base

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

3 port discrete valve for mounting base

3GB1 66 9 R - 00 - E2 H - 3

**B** Solenoid position

**A** Model No.

**C** Port size

**D** Electrical connections  
Refer to page 11 for the circuit diagram with surge suppressor/lamp.

**E** Option

**F** Voltage

## ⚠ Precautions for model No. selection

\*1 : Not compatible with combination with external pilot (K). Dimensions are the same as those of the respective 2-position double solenoid.

\*2 : Custom order.

\*3 : 3-position all ports closed and PAB connection are not provided with the exhaust check valve. Refer to page 751 for details on the exhaust check valve.

\*4 : E2\* type and E2\*J type connectors support 12/24 VDC only.

In addition, surgeless "S" and low exoergic/energy-saving circuit "E" cannot be selected together.

\*5 : Surgeless specifications.

\*6 : A filter is built into the P-port as standard.

\*7 : DIN terminal box only is supported.

\*8 : Grommet lead wire specifications are compatible with DC voltage only.

\*9 : AC voltages and 12/24 VDC are supported.

In addition, a lamp comes with the terminal box.

\*10: AC voltage is with a rectifier circuit.

**A** Model No.

3GB1 3GB2 4GB1 4GB2 4GB3

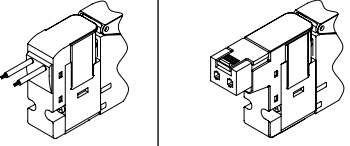
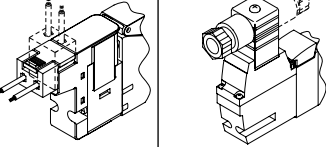
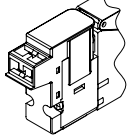
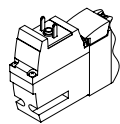
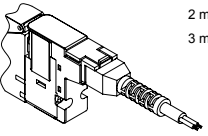
Code		Content		3GB1	3GB2	4GB1	4GB2	4GB3
<b>B Solenoid position</b>								
1	2-position single					●	●	●
2	2-position double					●	●	●
3	3-position all ports closed					●	●	●
4	3-position ABR connection					●	●	●
5	3-position PAB connection					●	●	●
66	Two 3-port valves integrated *1	A side valve: Normally closed			●	●		
		B side valve: Normally closed						
67	Two 3-port valves integrated *1	A side valve: Normally closed			●	●		
		B side valve: Normally open						
76	Two 3-port valves integrated *1	A side valve: Normally open			●	●		
		B side valve: Normally closed						
77	Two 3-port valves integrated *1	A side valve: Normally open			●	●		
		B side valve: Normally open						
<b>C Port size</b>								
Port	4(A)/2(B) port	P/R1/R2 port						
		(2) = Rc1/8 (3) = Rc1/4 (4) = Rc3/8						
06	Rc1/8		(2)					
08	Rc1/4		(3)		(3)	(3)		
10	Rc3/8						(4)	
Port	4(A)/2(B) port	P/R1/R2 port						
		(5) = 1/8NPT, (6) = 1/4NPT, (7) = 3/8NPT						
06N	1/8NPT (*2)		(5)		(5)			
08N	1/4 NPT (*2)			(6)		(6)	(6)	
10N	3/8NPT (*2)							(7)
Port	4(A)/2(B) port	P/R1/R2 port						
		(8) = G1/8, (9) = G1/4						
06G	G1/8 (*2)		(8)		(8)			
08G	G1/4 (*2)			(9)		(9)		
00	Discrete valve for mounting base	●	●	●	●	●	●	●
<b>D Electrical connections</b>								
Blank	Grommet lead wire (300 mm) (*8)	●	●	●	●	●	●	●
B	DIN terminal box (Pg7) with surge suppressor/lamp (*9)		●			●	●	●
BN	DIN term. box (Pg7) (no terminal box) + surge suppressor *9			●		●	●	●
<b>E type connector (upward/lateral common)</b>								
E0	Lead wire (300 mm) (*10)	●	●	●	●	●	●	●
E00	Lead wire (500 mm) (*10)	●	●	●	●	●	●	●
E01	Lead wire (1000 mm) (*10)	●	●	●	●	●	●	●
E02	Lead wire (2000 mm) (*10)	●	●	●	●	●	●	●
E03	Lead wire (3000 mm) (*10)	●	●	●	●	●	●	●
E0N	Without lead wire (without socket) (*10)	●	●	●	●	●	●	●
E1	Without lead wire (socket/terminal attached) (*10)	●	●	●	●	●	●	●
E2	Lead wire (300 mm), surge suppressor/indicator lamp	●	●	●	●	●	●	●
E20	Lead wire (500 mm), surge suppressor/indicator lamp	●	●	●	●	●	●	●
E21	Lead wire (1000 mm), surge suppressor/indicator lamp	●	●	●	●	●	●	●
E22	Lead wire (2000 mm), surge suppressor/indicator lamp	●	●	●	●	●	●	●
E23	Lead wire (3000 mm), surge suppressor/indicator lamp	●	●	●	●	●	●	●
E2N	No lead wire (without socket), surge suppressor/indicator lamp	●	●	●	●	●	●	●
E3	No lead wire (with socket/terminal), surge suppressor/indicator lamp	●	●	●	●	●	●	●
<b>EJ type connector (socket with cover, upward/lateral common)</b>								
E01J	Lead wire (1000 mm) (*10)	●	●	●	●	●	●	●
E02J	Lead wire (2000 mm) (*10)	●	●	●	●	●	●	●
E03J	Lead wire (3000 mm) (*10)	●	●	●	●	●	●	●
E21J	Lead wire (1000 mm), surge suppressor/indicator lamp	●	●	●	●	●	●	●
E22J	Lead wire (2000 mm), surge suppressor/indicator lamp	●	●	●	●	●	●	●
E23J	Lead wire (3000 mm), surge suppressor/indicator lamp	●	●	●	●	●	●	●
<b>E Option</b>								
Blank	Non-locking/locking common manual override	●	●	●	●	●	●	●
M	Non-locking manual override	●	●	●	●	●	●	●
H	With exhaust check valve (*3)	●	●	●	●	●	●	●
K	External pilot			●	●	●	●	●
A	Ozone/coolant proof	●	●	●	●	●	●	●
S	Surgeless (*4)	●	●	●	●	●	●	●
E	Low exoergic/energy saving circuit (*4), (*5)	●	●	●	●	●	●	●
F	A/B-port filter built in (*6)	●	●	●	●	●	●	●
<b>F Voltage</b>								
1	100 VAC (rectifier integrated)	●	●	●	●	●	●	●
2	200 VAC (rectifier integrated) (*7)		●		●		●	●
3	24 VDC	●	●	●	●	●	●	●
4	12 VDC	●	●	●	●	●	●	●
7	3 VDC	○	○	○	○	○	○	○
8	5 VDC	○	○	○	○	○	○	○

is not available.

○ indicates a custom order.

# 3GB1/2 / 4GB1/2/3 Series

Single valve; base piping

Electrical connections	
Discrete valve/individual wiring manifold	
<b>Blank</b> Grommet lead wire	<b>E1</b> <b>E3</b> E type connector with socket/terminal
<p>● Lead wire length 300 mm</p> 	
<b>E0</b> <b>E2</b> E type connector	<b>B</b> DIN terminal box
<p>● Lead wire length 300 mm 500 mm 1000 mm 2000 mm 3000 mm</p> 	
<b>E0N</b> <b>E2N</b> E type connector without socket	<b>BN</b> DIN terminal box without terminal box
	
<b>E0*J</b> <b>E2*J</b> EJ type connector	
<p>● Lead wire length 1 m 2 m 3 m</p> 	

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

# 3GB1/4GB1 Series

Single valve; base piping

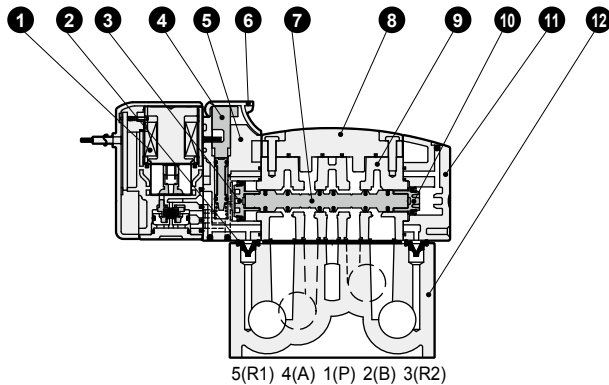
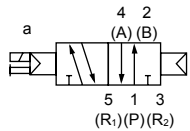
## 4GA/B Internal structure and parts list

### M4GA/B 3GB1660R, 1670R, 1760R, 1770R

- Two 3-port valves integrated
- Refer to page 66.

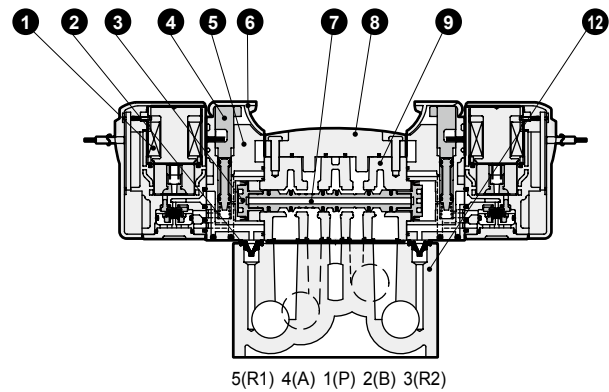
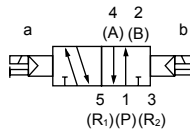
### 4GD/E 4GB110R

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



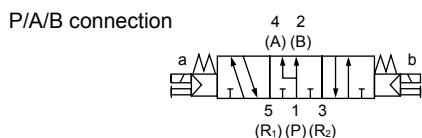
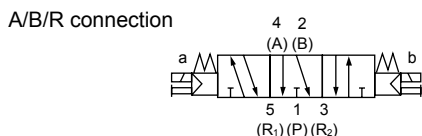
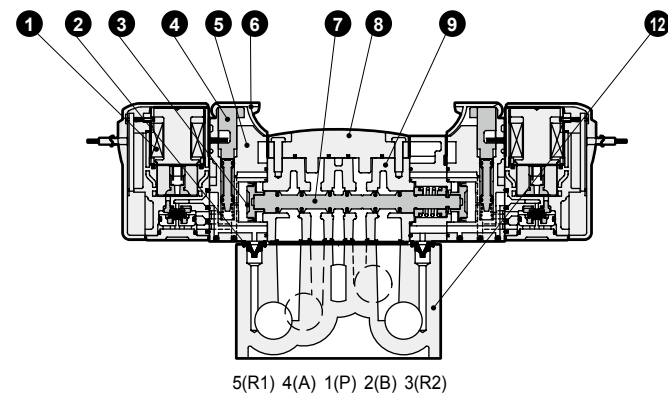
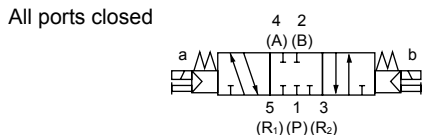
### 4TB 4GB120R

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



### 4F 4GB1<sup>3</sup>/<sub>4</sub>0R

- 3-position
- Grommet lead wire (blank)



## Main parts list

## Parts list

No.	Part name	Material	No.	Part name	Model No.
1	Coil assembly	-	1	Coil assembly	4GR - [electrical connections] - [ ] - COIL - [voltage] Blank: Standard A: Ozone specification S: Surgeless E: Low exergic/energy saving circuit Blank: Grommet lead wire
2	Pilot exhaust check valve	Hydrogenated nitrile rubber			
3	Piston D assembly	-			
4	Manual override	Resin			
5	Piston chamber	Resin			
6	Manual protection cover	Resin			
7	Spool assembly	-			
8	Plate	Resin			
9	Body	Aluminum alloy die-casting			
10	Piston S assembly	-			
11	Cap	Resin			
12	Discrete sub-plate	Aluminum alloy die-casting			

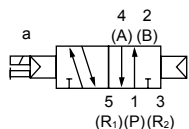
## Internal structure and parts list

### 3GB2660R, 2670R, 2760R, 2770R

- Two 3-port valves integrated Refer to page 66.
- Grommet lead wire (blank)

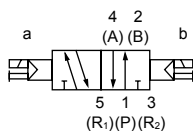
### 4GB210R/4GB310R

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



### 4GB220R/4GB320R

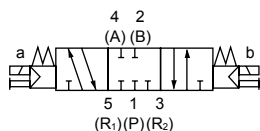
- 2-position double
- Grommet lead wire (blank)



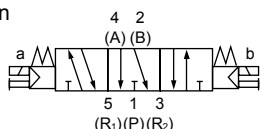
### 4GB2<sup>3</sup>/<sub>5</sub>0R/4GB3<sup>3</sup>/<sub>5</sub>0R

- 3-position
- Grommet lead wire (blank)

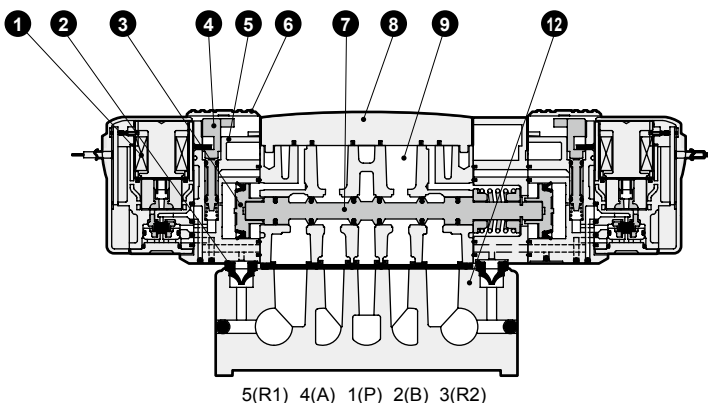
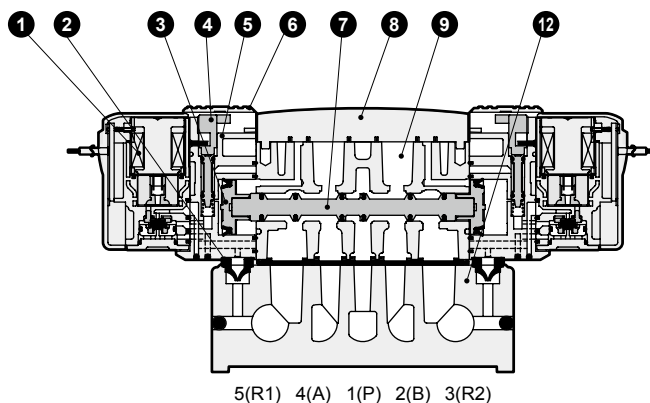
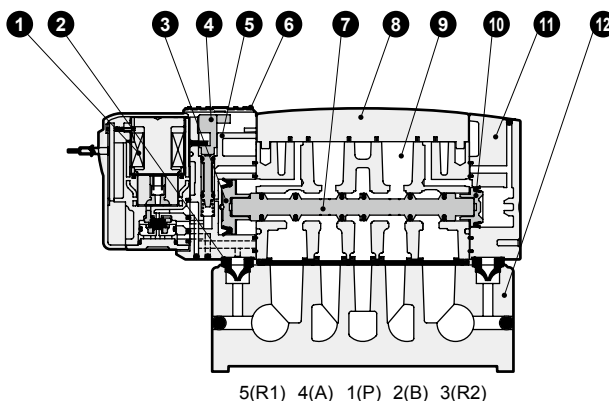
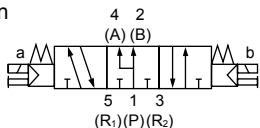
All ports closed



A/B/R connection



P/A/B connection



## Main parts list

No.	Part name	Material
1	Coil assembly	-
2	Pilot exhaust check valve	Hydrogenated nitrile rubber
3	Piston D assembly	-
4	Manual override	Resin
5	Piston chamber	Resin
6	Manual protection cover	Resin
7	Spool assembly	-
8	Plate	Resin
9	Body	Aluminum alloy die-casting
10	Piston S assembly	-
11	Cap	Resin
12	Discrete sub-plate	Aluminum alloy die-casting

## Parts list

No.	Part name	Model No.
1	Coil assembly	4GR - [electrical connections] - [voltage] Blank: Standard A: Ozon specifications S: Surgeless E: Low exoergetic energy saving circuit Blank: Grommet lead wire

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/ LMFO
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

# 3GB1/2 Series

Single valve; base piping

## 4GA/B Internal structure and parts list

### M4GA/B 3GB1<sup>66</sup><sub>67</sub><sup>76</sup><sub>77</sub> 0R

● Two 3-port valves integrated  
Grommet lead wire (blank)

A side valve: Normally closed,  
B side valve: Normally closed  
NC/NC

M4GD/E A side valve: Normally closed,  
B side valve: Normally open  
NC/NO

MN3E  
MN4E A side valve: Normally open,  
B side valve: Normally closed  
NO/NC

W4GA/B2  
W4GB4 A side valve: Normally open,  
B side valve: Normally open  
NO/NO

4L2-4/  
LMF0  
MN3S0  
MN4S0 A side valve: Normally open,  
B side valve: Normally open  
NO/NO

4SA/B0  
4KA/B  
4KA/B (mastr)  
4F ● Two 3-port valves integrated  
Grommet lead wire (blank)

4F (mastr) A side valve: Normally closed,  
B side valve: Normally closed  
NC/NC

PV5G  
GMF  
PV5  
GMF A side valve: Normally closed,  
B side valve: Normally open  
NC/NO

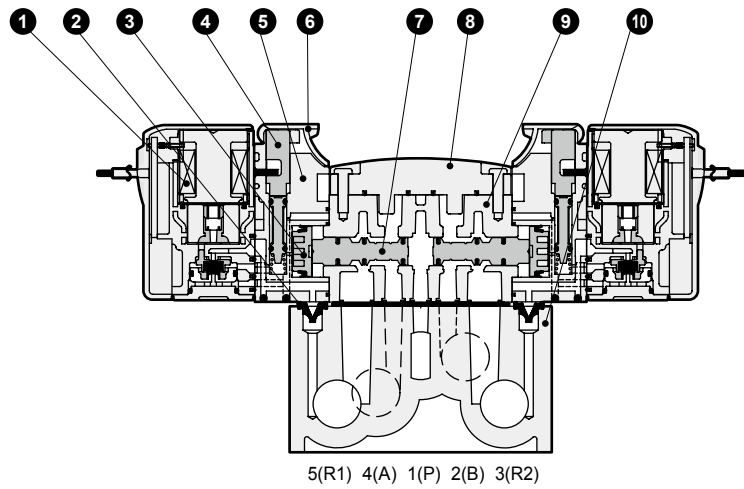
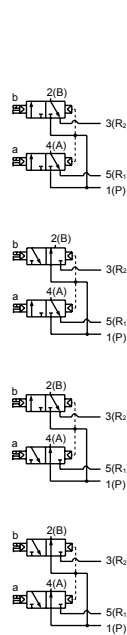
PV5S-0  
3QR  
3QB  
MV3QR A side valve: Normally open,  
B side valve: Normally closed  
NO/NC

3MA/B0  
3PA/B  
P/M/B A side valve: Normally open,  
B side valve: Normally open  
NO/NO

NP/NAP/  
NVP  
4F\*0EX  
4F\*0E

HMV  
HSV

2QV  
3QV  
SKH  
PCD  
Silencer  
TotAirSys  
(Total Air)  
TotAirSys  
(Gamma)  
Ending



### 4KA/B 3GB2<sup>66</sup><sub>67</sub><sup>76</sup><sub>77</sub> 0R

● Two 3-port valves integrated  
Grommet lead wire (blank)

A side valve: Normally closed,  
B side valve: Normally closed  
NC/NC

4F (mastr) A side valve: Normally closed,  
B side valve: Normally open  
NC/NO

PV5G  
GMF  
PV5  
GMF A side valve: Normally open,  
B side valve: Normally closed  
NO/NC

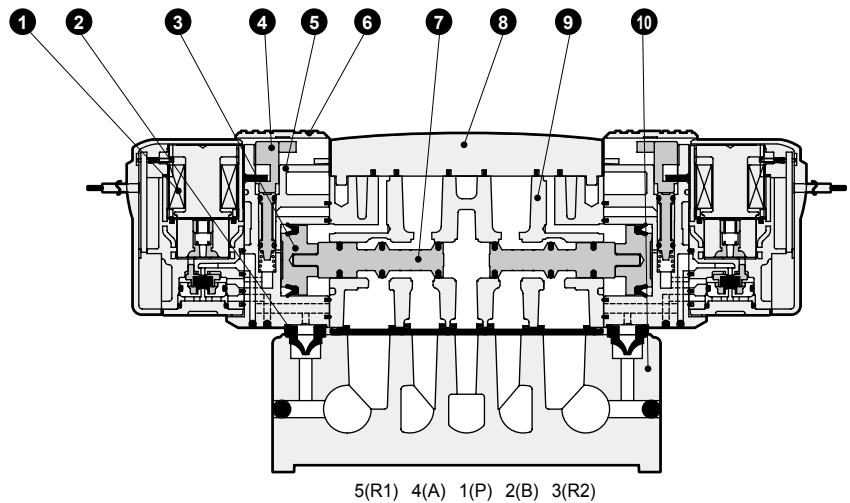
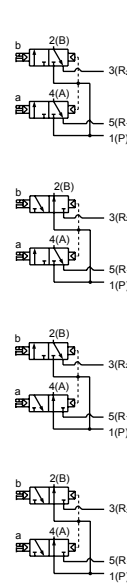
PV5S-0  
3QR  
3QB  
MV3QR A side valve: Normally open,  
B side valve: Normally open  
NO/NO

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



## Main parts list

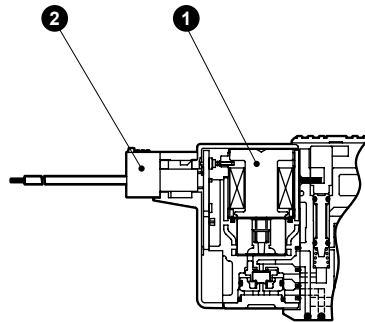
No.	Part name	Material
1	Coil assembly	-
2	Pilot exhaust check valve	Hydrogenated nitrile rubber
3	Piston assembly	-
4	Manual override	Resin
5	Piston chamber	Resin
6	Manual protection cover	Resin
7	Spool assembly	-
8	Plate	Resin
9	Body	Aluminum alloy die-casting
10	Discrete sub-plate	Aluminum alloy die-casting

## Parts list

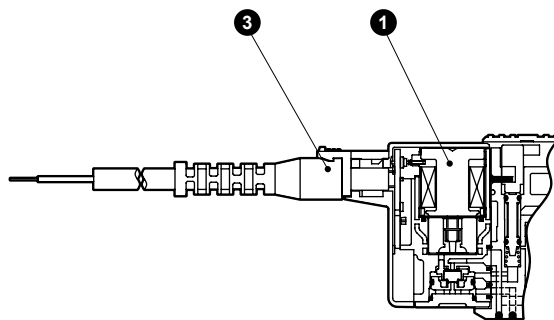
No.	Part name	Model No.
1	Coil assembly	4GR -[electrical connections]- □ - COIL -[voltage] Blank: Standard A: Ozone specification S: Surgeless E: Low exothermic energy saving circuit Blank: Grommet lead wire

## Electrical connections internal structure and parts list

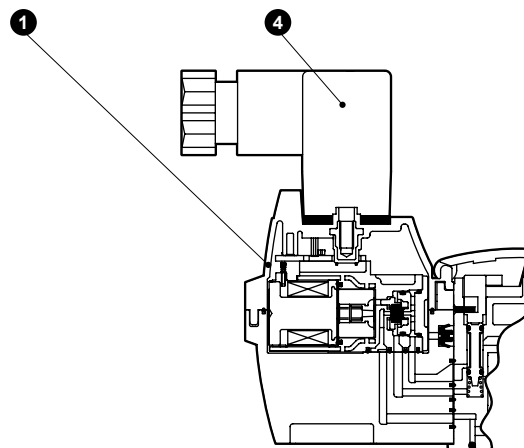
● E type connector E□□



● EJ type connector E□□J



● DIN terminal box B



### Main parts list

No.	Part name	Material
1	Coil assembly	
2	E type connector socket assembly	-
3	Socket assembly with cover	-
4	DIN terminal box assembly	-

### Parts list

No.	Part name	Model No.
1	Coil assembly	4GR - [electrical connections] - □ - COIL - [voltage]
2	E type connector socket assembly	4GR-SOCKET-ASSY-E**-[Voltage]
3	Socket assembly with cover	4GR-SOCKET-ASSY-E**J
4	DIN terminal box assembly	4GR-TERMINAL-BOX-[Voltage]

Blank: Standard  
A: Ozone specification  
S: Surgeless  
E: Low exoergic/energy saving circuit

E\*: E type connector  
E\*J: Socket with cover type  
B: DIN terminal box  
B includes the DIN terminal box  
BN does not include the DIN terminal box

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



# 4GB1 Series

Single valve; base piping



4GA/B

## Dimensions

M4GA/B

4GB110R \* NPT thread and G thread specifications are listed on pages 86 to 95.

MN4GA/B

● 2-position single grommet lead wire (blank)

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

● External pilot (K)

P/M/B

NP/NAP/

NVP

4F\*0EX

4F\*0E

HMV

HSV

2QV

3QV

SKH

PCD

Silencer

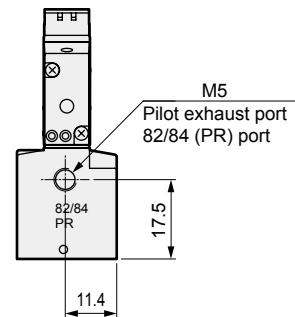
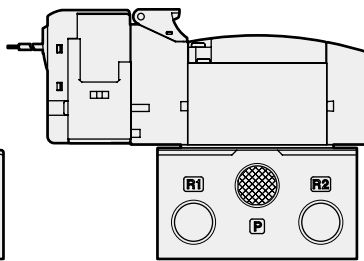
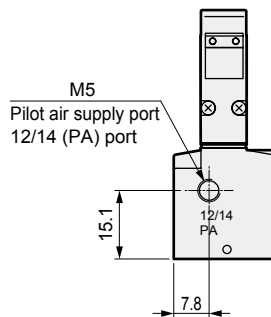
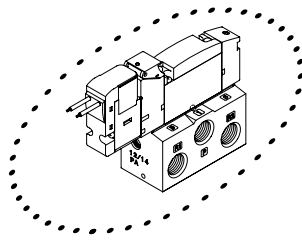
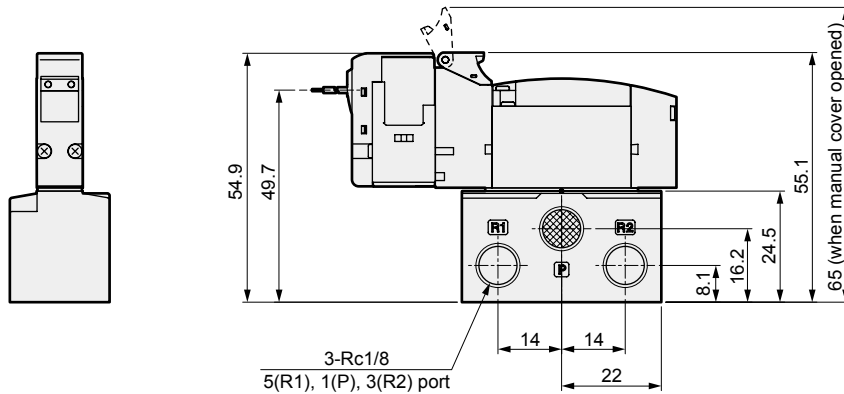
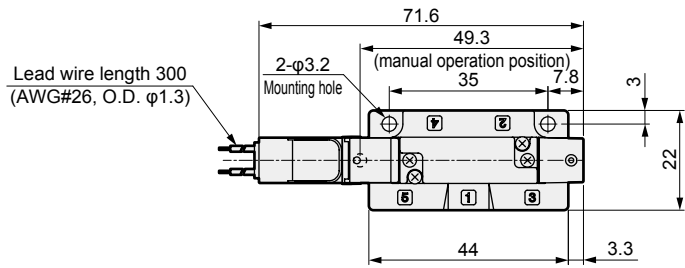
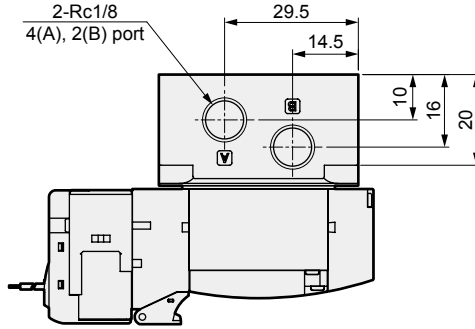
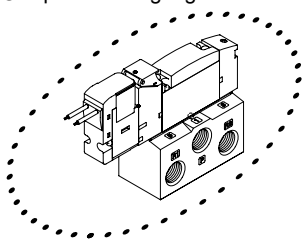
TotAirSys

(Total Air)

TotAirSys

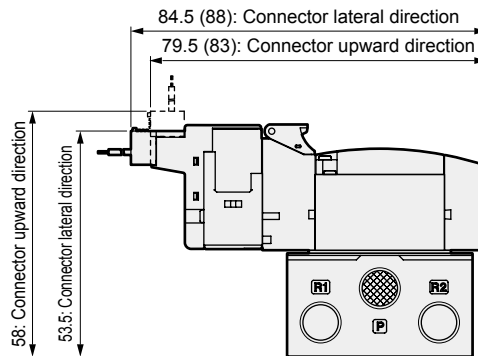
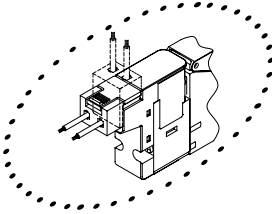
(Gamma)

Ending



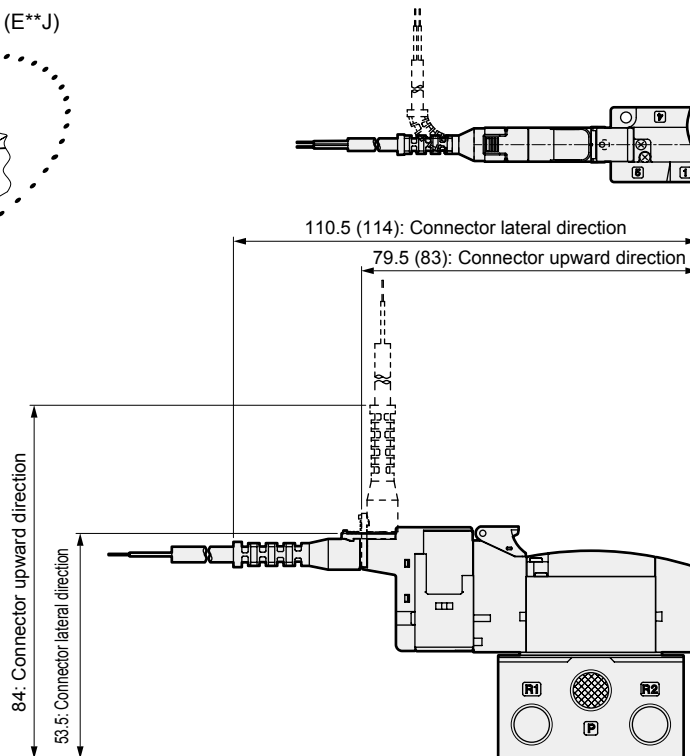
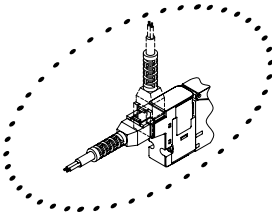
## Dimensions

● E type connector (E)



Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

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

# 4GB1 Series

Single valve; base 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)

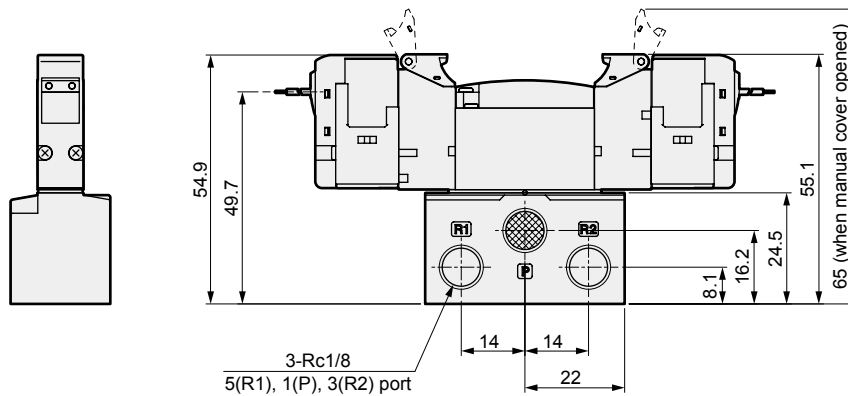
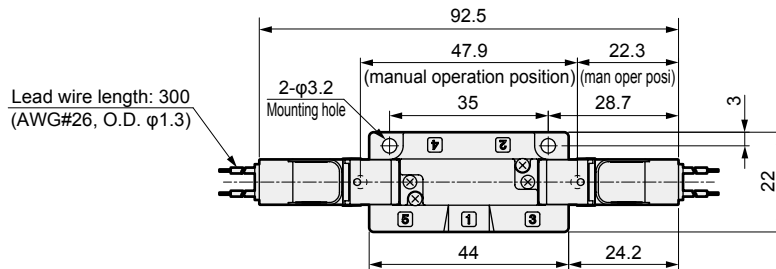
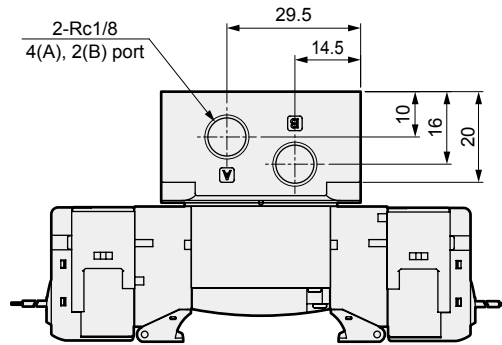
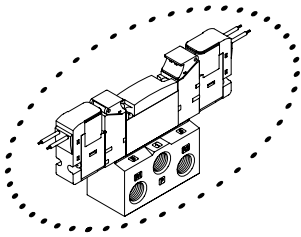
Ending

4GB120R \* NPT thread and G thread specifications are listed on pages 86 to 95.

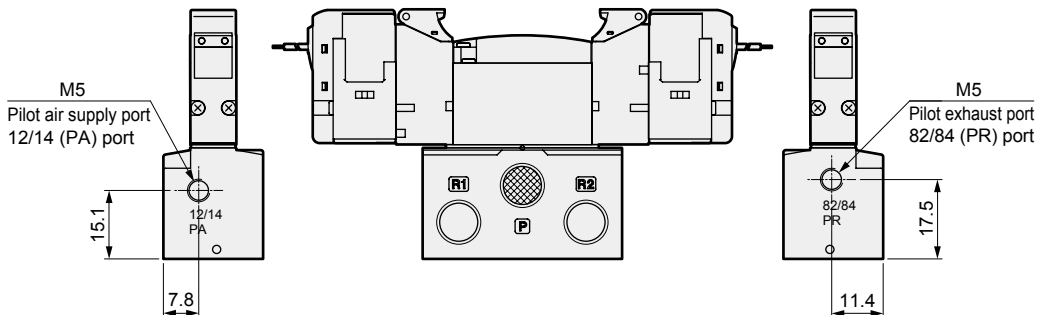
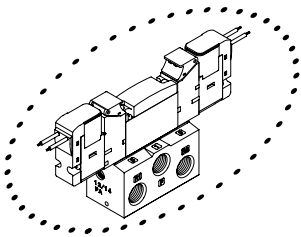
- 2-position double grommet lead wire (blank)

3GB1660R/3GB1670R/3GB1760R/3GB1770R

- Two 3-port valves integrated grommet lead wire (blank)



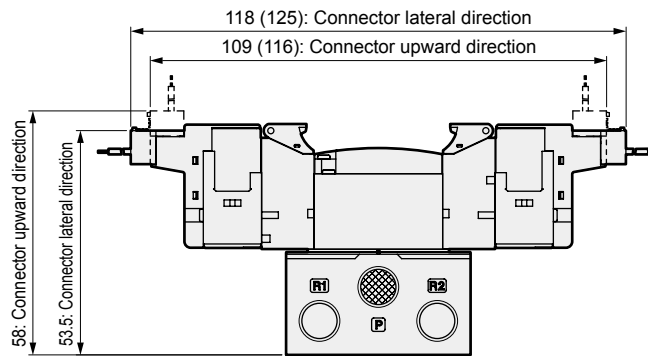
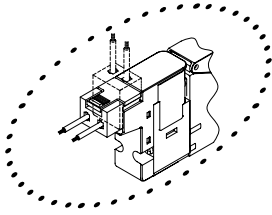
- External pilot (K)



Note: Combination of the two 3-port valves integrated and external pilot is not available.

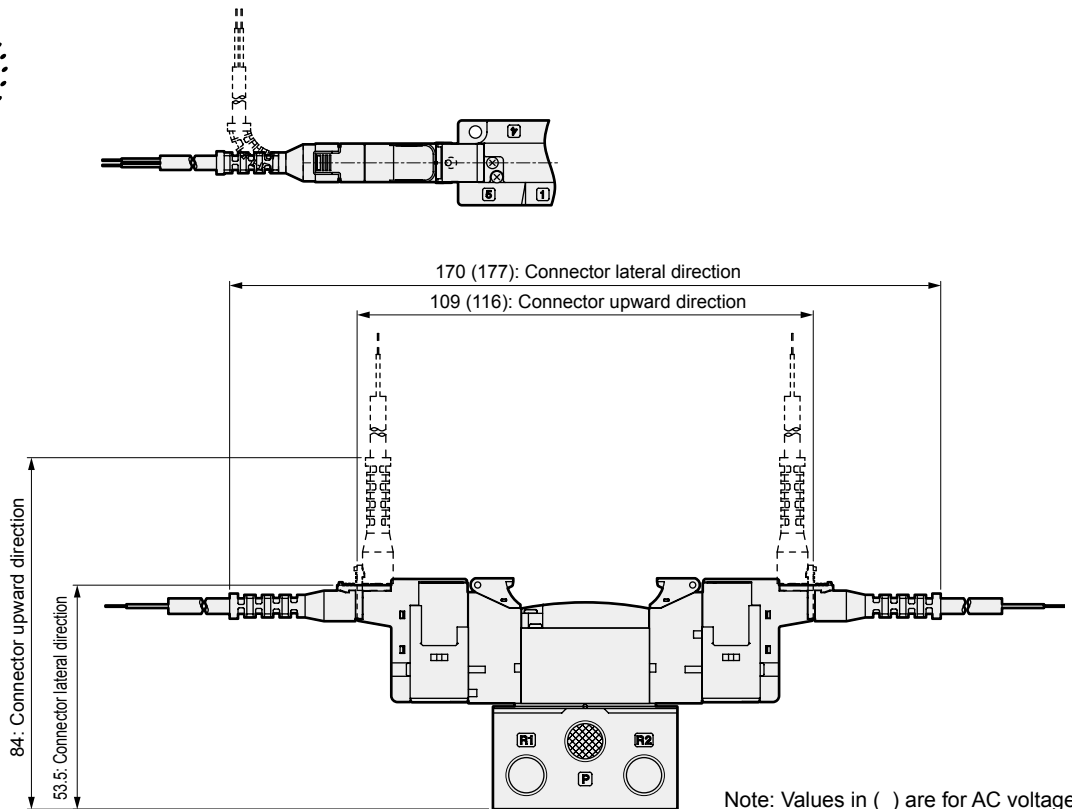
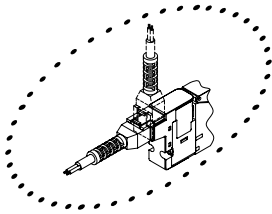
## Dimensions

● E type connector (E)



Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

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

# 4GB1 Series

Single valve; base 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)

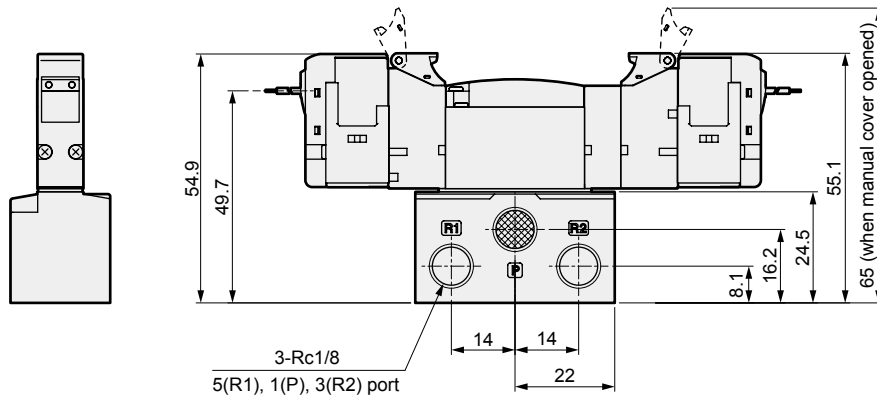
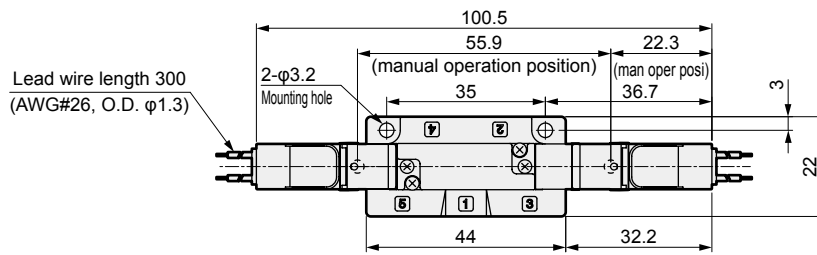
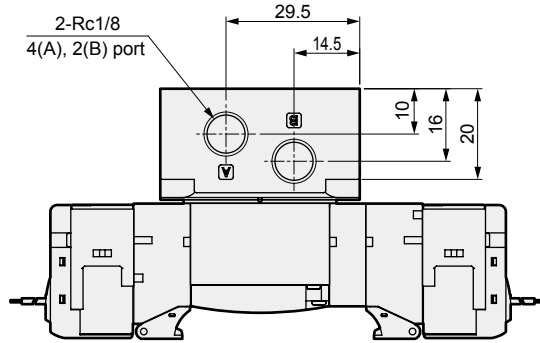
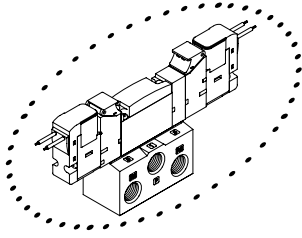
TotAirSys

(Gamma)

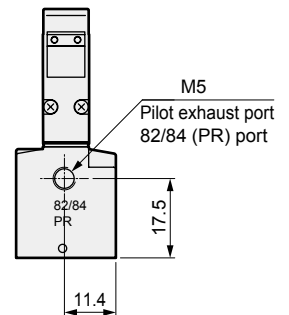
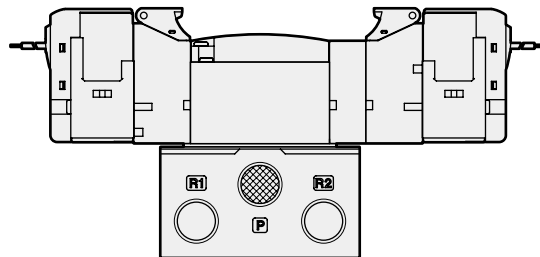
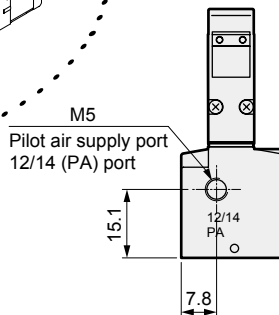
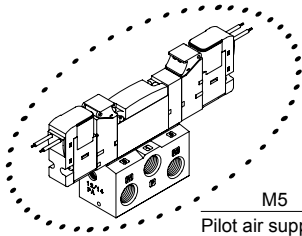
Ending

4GB1  $\frac{3}{4}$  0R \* NPT thread and G thread specifications are listed on pages 86 to 95.

● 3-position grommet lead wire (blank)

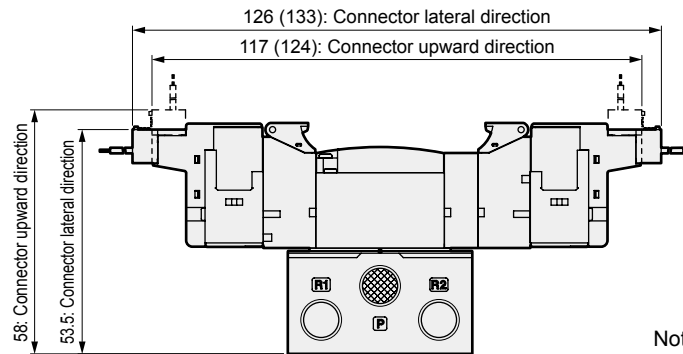
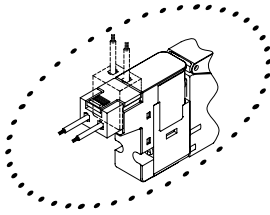


● External pilot (K)



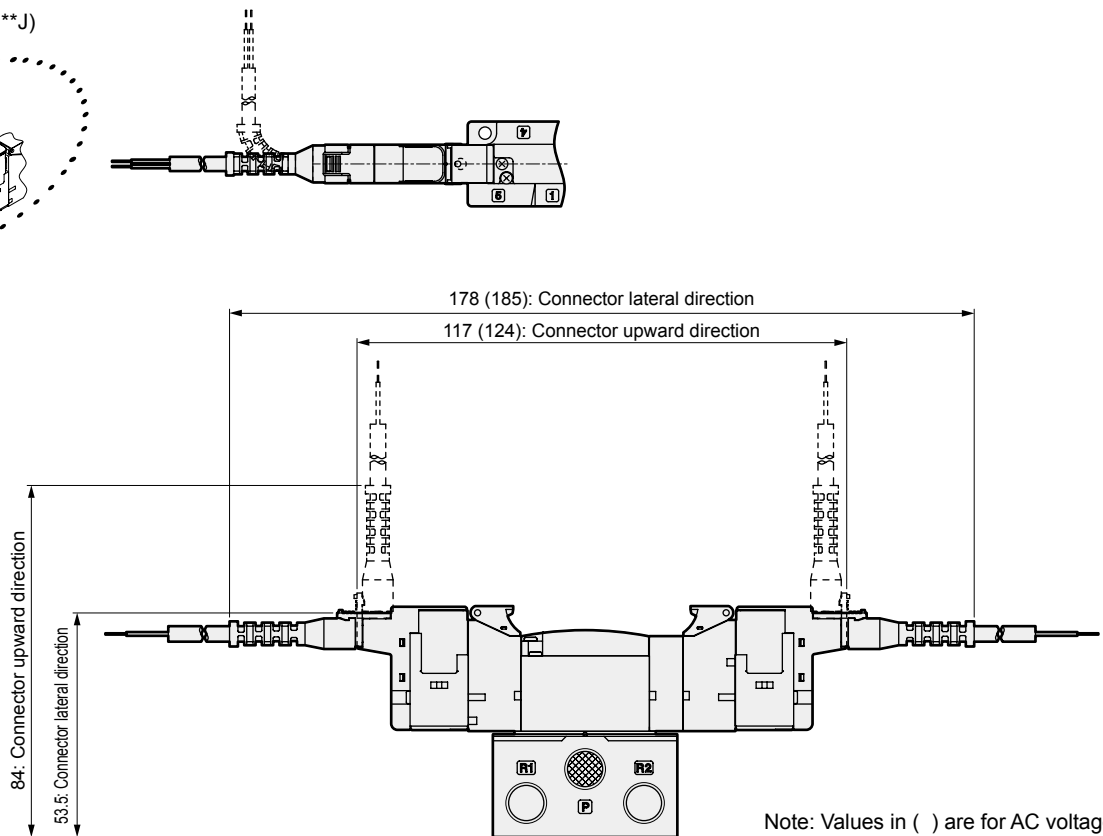
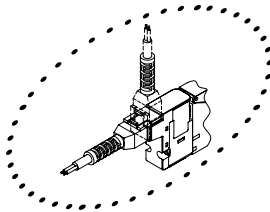
## Dimensions

● E type connector (E)



Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

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

# 4GB2 Series

Single valve; base 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

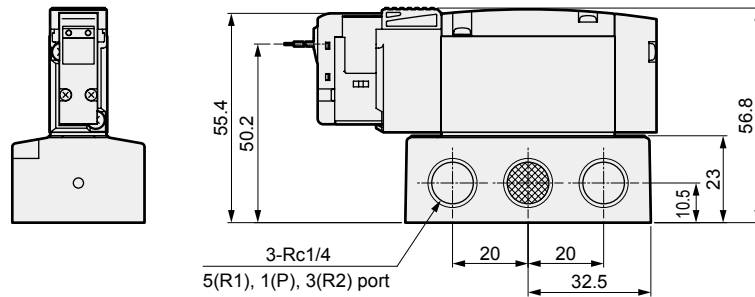
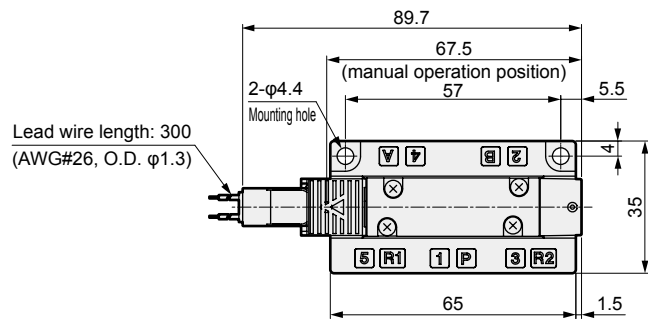
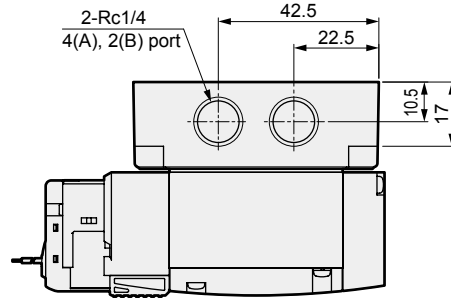
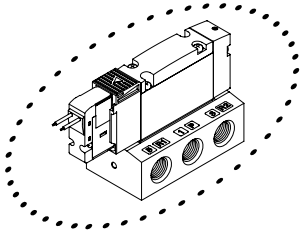
TotAirSys  
(Total Air)

TotAirSys  
(Gamma)

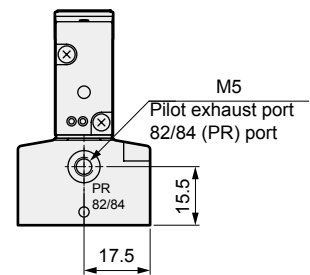
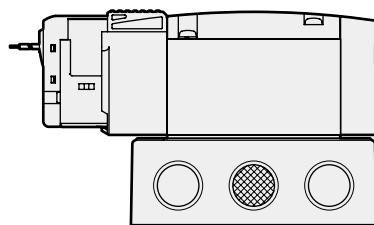
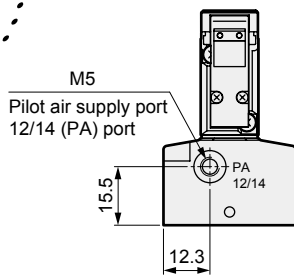
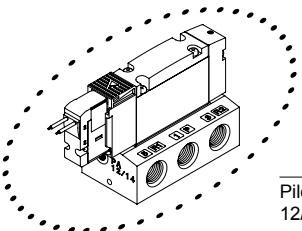
Ending

4GB210R \* NPT thread and G thread specifications are listed on pages 86 to 95.

● 2-position single grommet lead wire (blank)

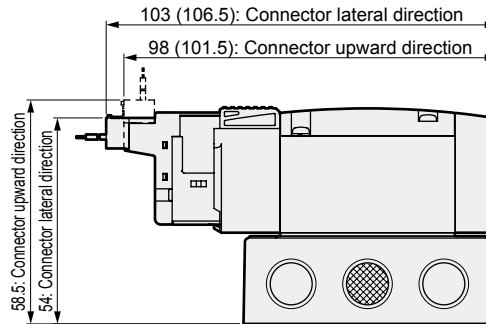
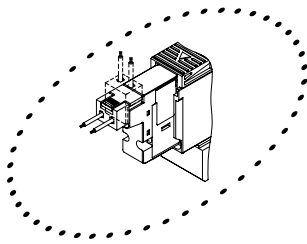


● External pilot (K)



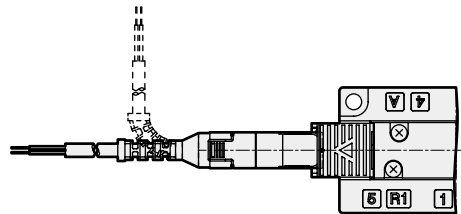
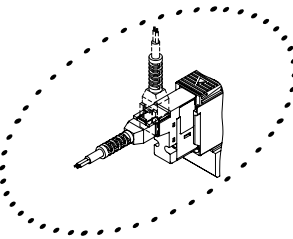
## Dimensions

### ● E type connector (E)

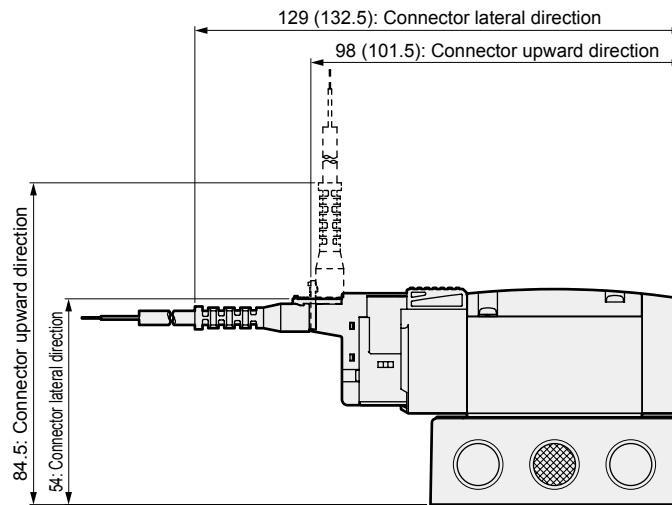


Note: Values in ( ) are for AC voltage.

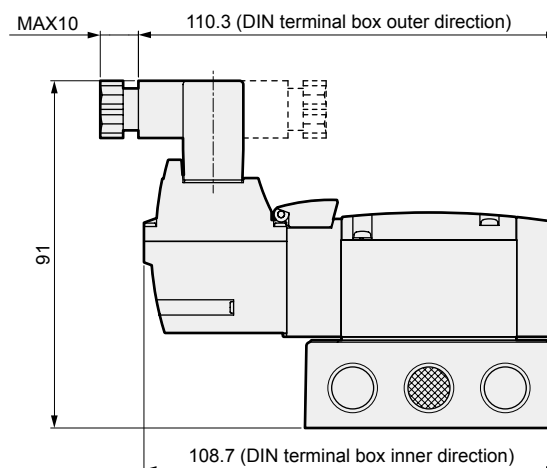
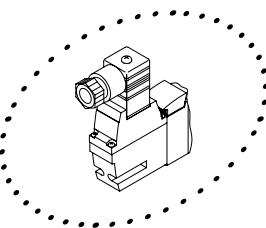
### ● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.



### ● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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



# 4GB2 Series

Single valve; base 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)

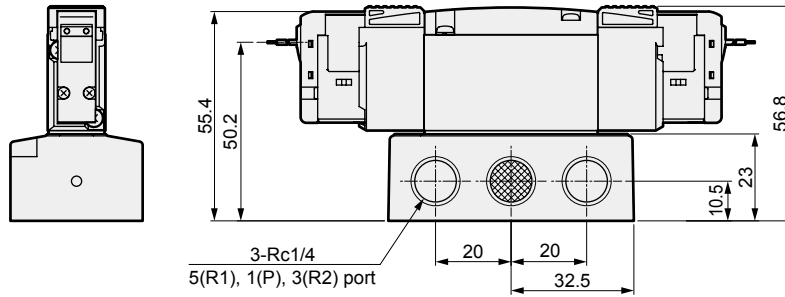
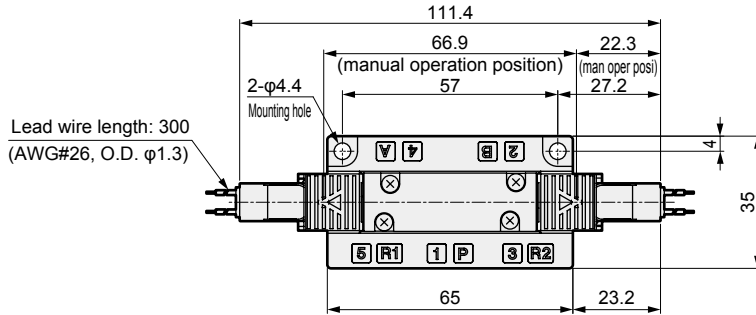
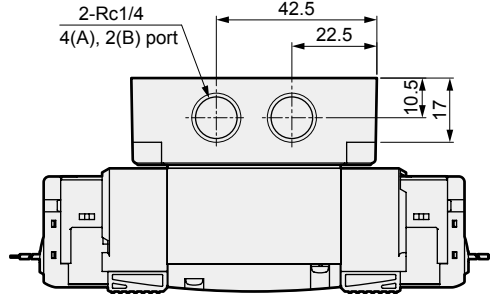
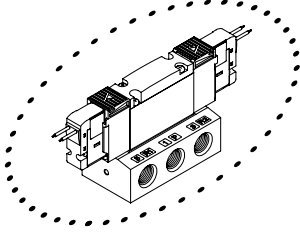
Ending

4GB220R \* NPT thread and G thread specifications are listed on pages 86 to 95.

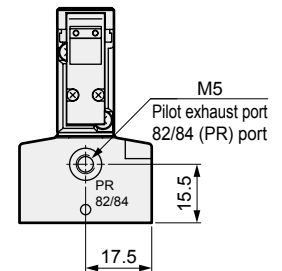
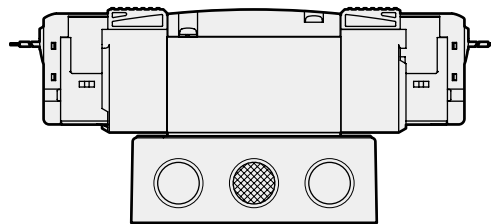
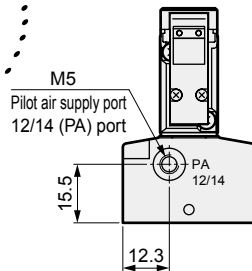
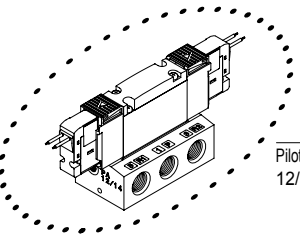
- 2-position double grommet lead wire (blank)

3GB2660R/3GB2670R/3GB2760R/3GB2770R

- Two 3-port valves integrated grommet lead wire (blank)



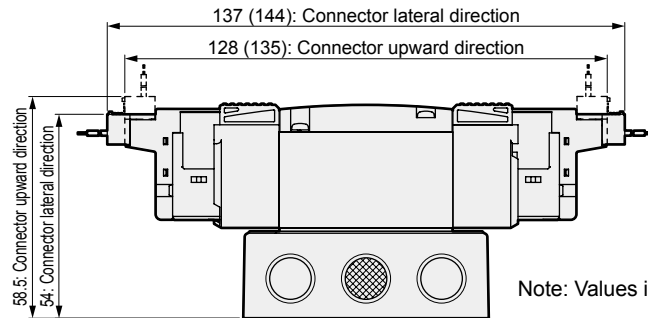
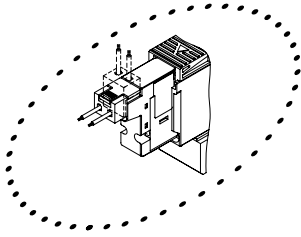
- External pilot (K)



Note: Combination of the two 3-port valves integrated and external pilot is not available.

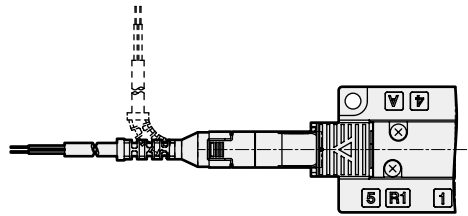
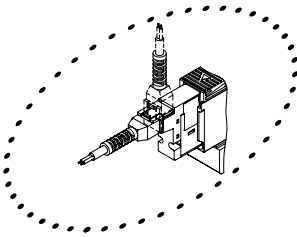
## Dimensions

### ● E type connector (E)

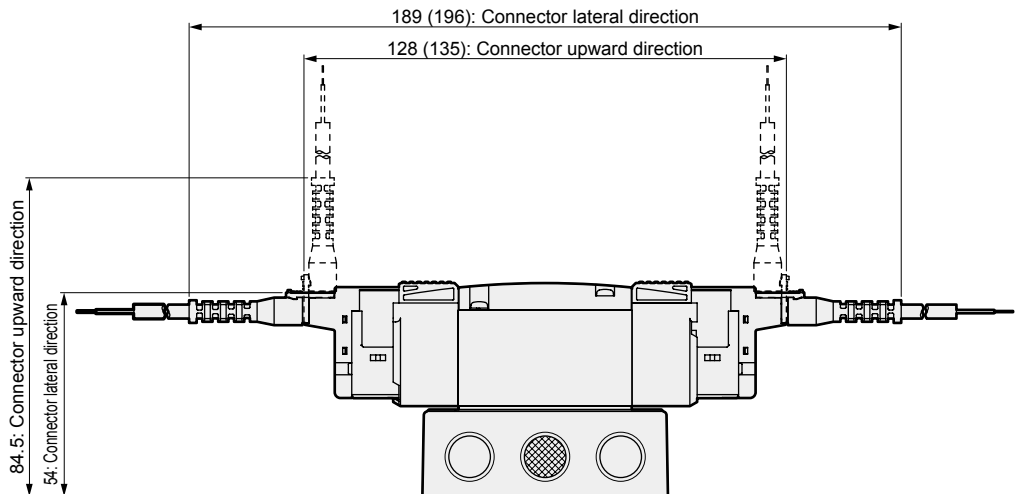


Note: Values in ( ) are for AC voltage.

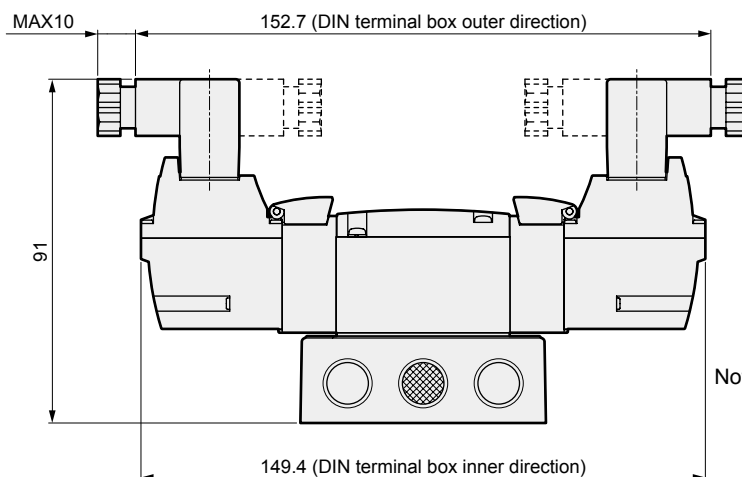
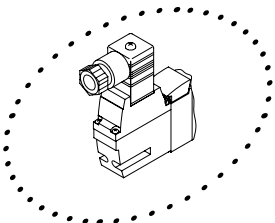
### ● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.



### ● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

# 4GB2 Series

Single valve; base piping

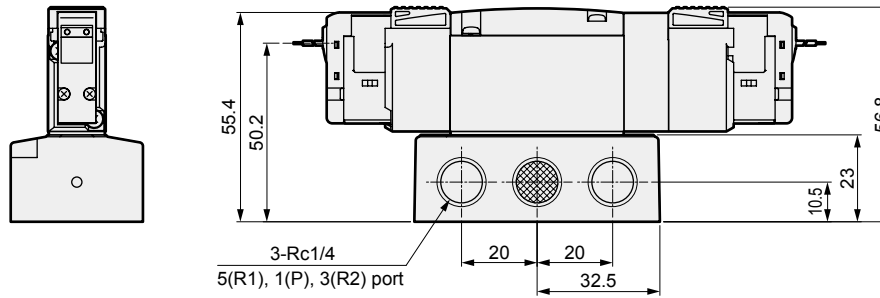
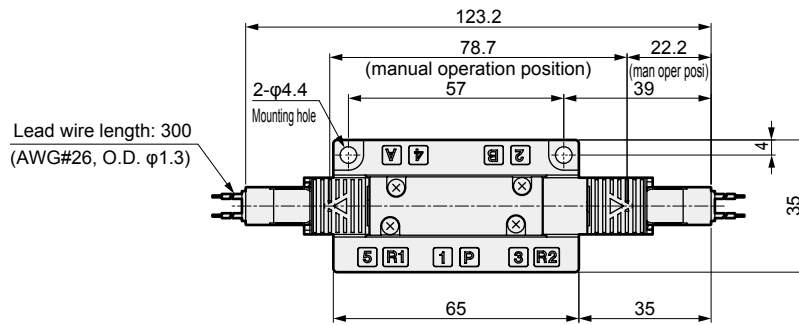
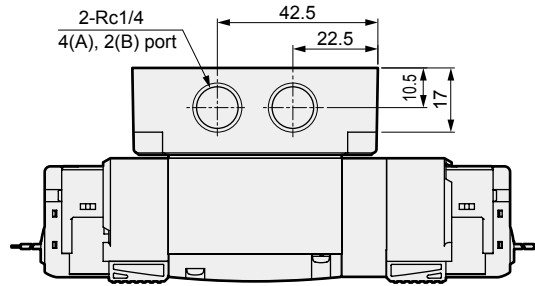
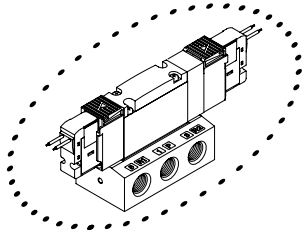
## Dimensions



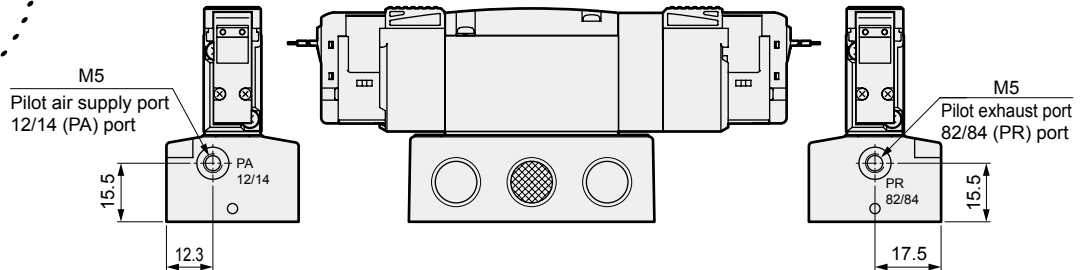
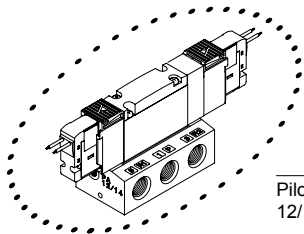
- 4GA/B
- M4GA/B
- MN4GA/B
- 4GA/B (mastr)
- 4GD/E
- M4GD/E
- MN4GD/E
- 4GA4/B4
- MN3E
- MN4E
- W4GA/B2
- W4GB4
- 4TB
- 4L2-4/ LMF0
- MN3S0
- MN4S0
- 4SA/B0
- 4KA/B
- 4KA/B (mastr)
- 4F
- 4F (mastr)
- PV5G
- GMF
- PV5
- GMF
- PV5S-0
- 3QR
- 3QB
- MV3QR
- 3MA/B0
- 3PA/B
- P/M/B
- NP/NAP/ NVP
- 4F\*0EX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

4GB2<sup>3</sup><sub>5,4,3</sub> 0R \* NPT thread and G thread specifications are listed on pages 86 to 95.

● 3-position grommet lead wire (blank)

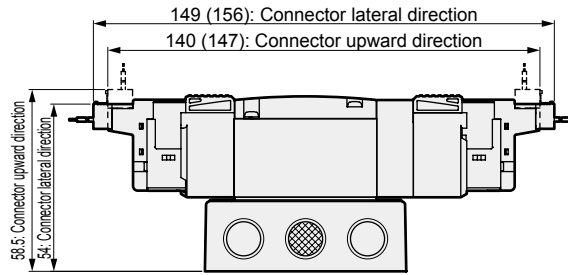
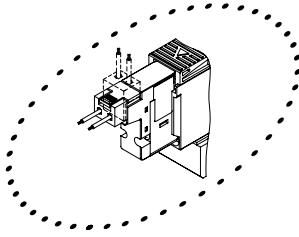


● External pilot (K)



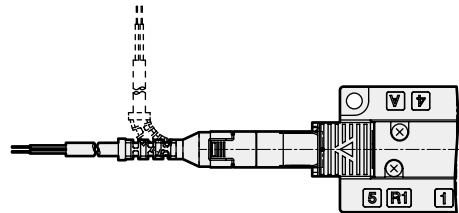
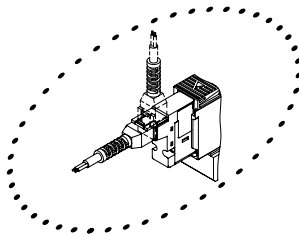
## Dimensions

### ● E type connector (E)



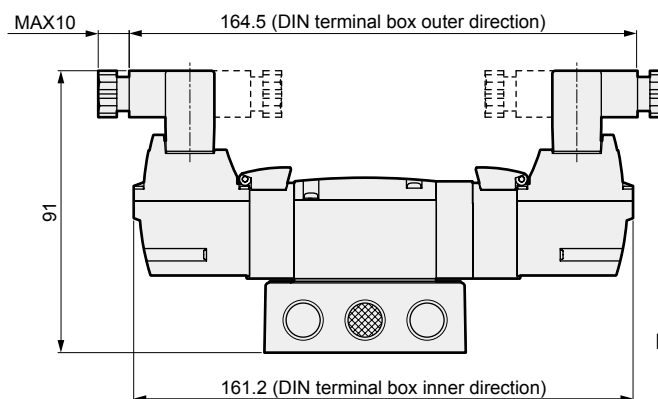
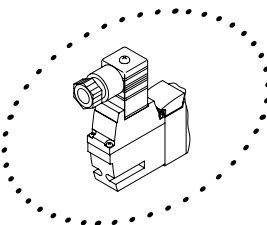
Note: Values in ( ) are for AC voltage.

### ● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

### ● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

# 4GB3 Series

Single valve; base piping

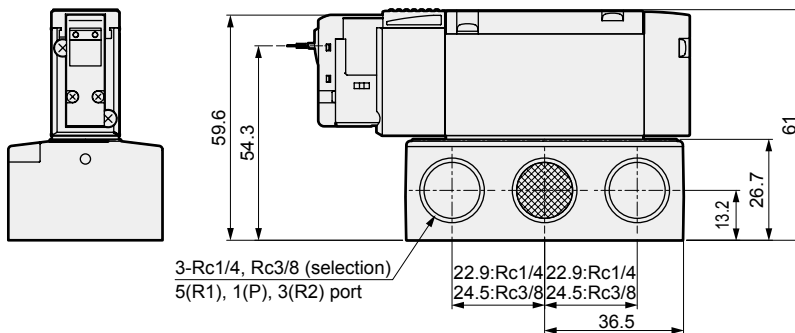
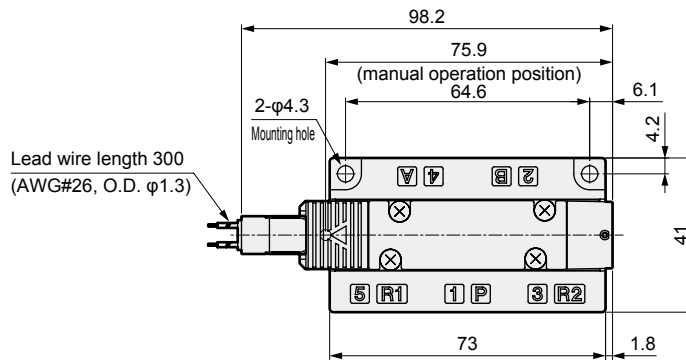
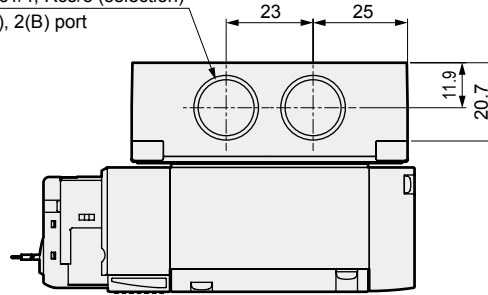
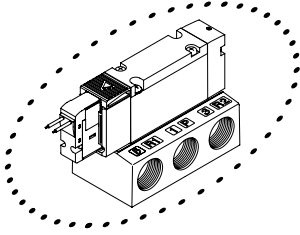
## Dimensions



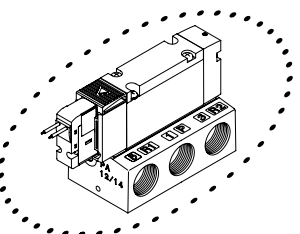
4GB310R \* NPT thread and G thread specifications are listed on pages 86 to 95.

● 2-position single grommet lead wire (blank)

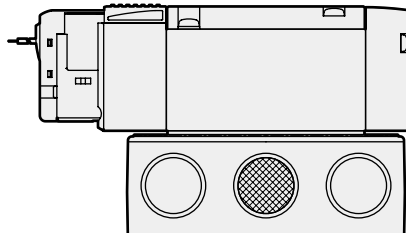
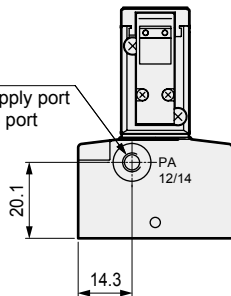
2-Rc1/4, Rc3/8 (selection)  
4(A), 2(B) port



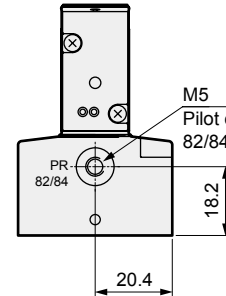
● External pilot (K)



M5  
Pilot air supply port  
12/14 (PA) port

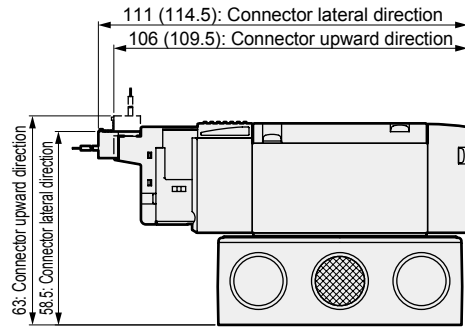
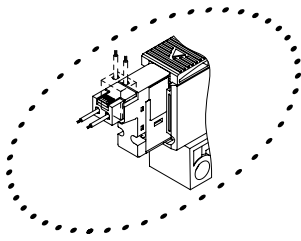


M5  
Pilot exhaust port  
82/84 (PR) port



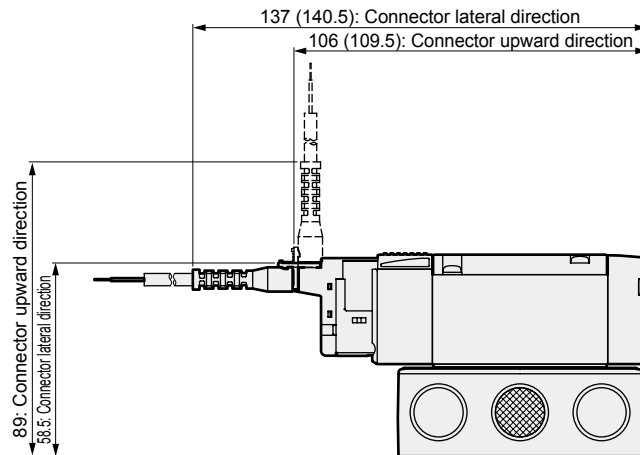
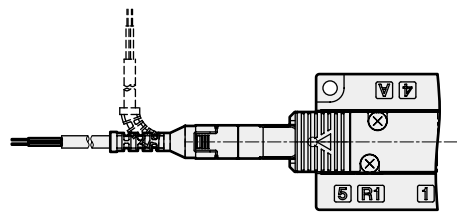
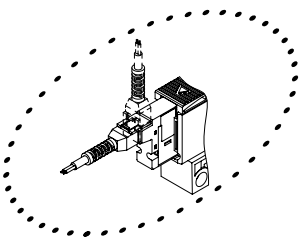
## Dimensions

● E type connector (E)



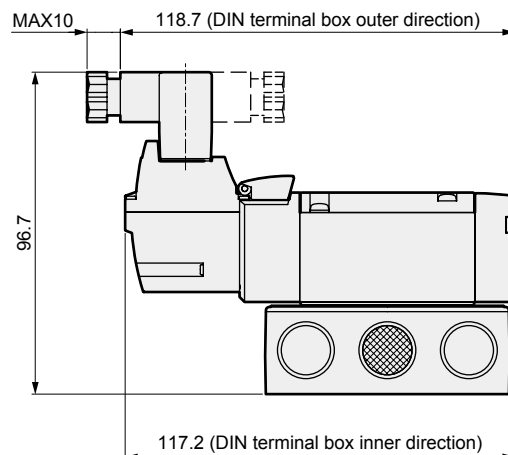
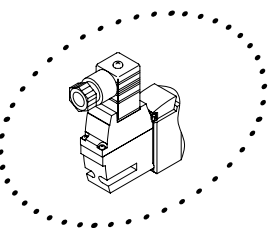
Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

# 4GB3 Series

Single valve; base piping

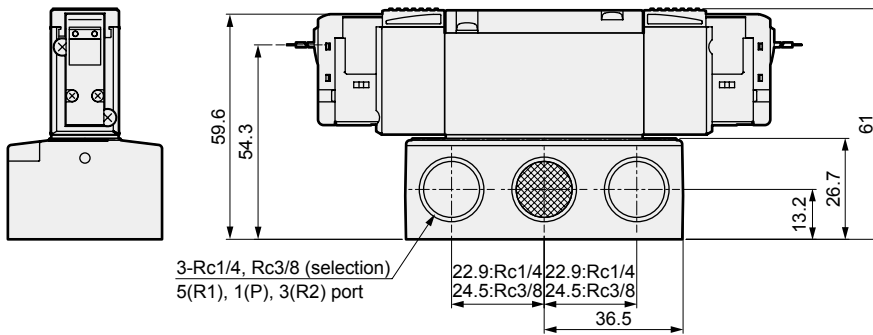
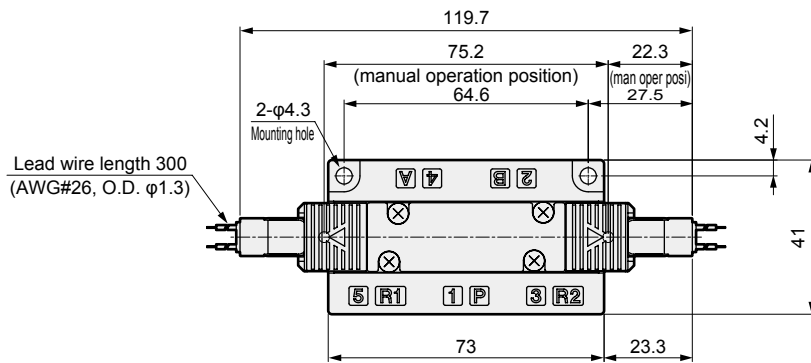
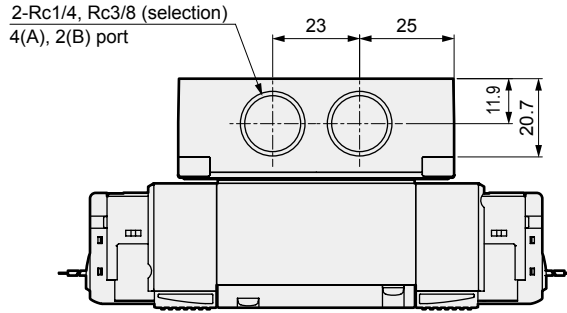
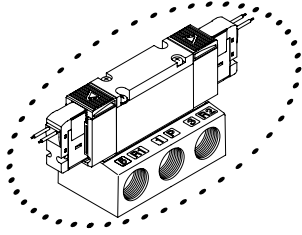
## Dimensions



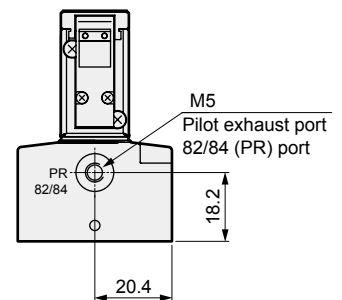
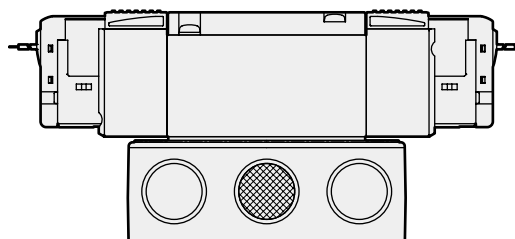
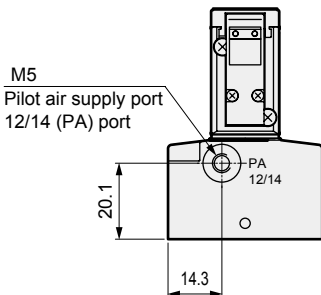
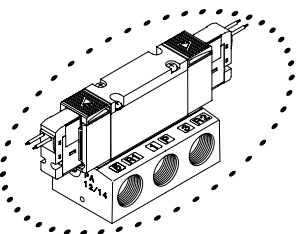
- 4GA/B
- M4GA/B
- MN4GA/B
- 4GA/B (mastr)
- 4GD/E
- M4GD/E
- MN4GD/E
- 4GA4/B4
- MN3E
- MN4E
- W4GA/B2
- W4GB4
- 4TB
- 4L2-4/ LMF0
- MN3S0
- MN4S0
- 4SA/B0
- 4KA/B
- 4KA/B (mastr)
- 4F
- 4F (mastr)
- PV5G
- GMF
- PV5
- GMF
- PV5S-0
- 3QR
- 3QB
- MV3QR
- 3MA/B0
- 3PA/B
- P/M/B
- NP/NAP/ NVP
- 4F\*0EX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

4GB320R \* NPT thread and G thread specifications are listed on pages 86 to 95.

● 2-position double grommet lead wire (blank)

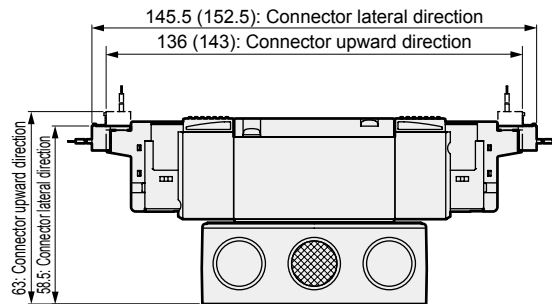
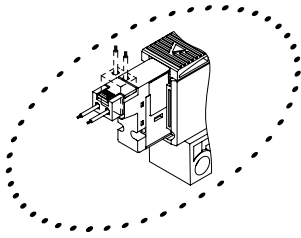


● External pilot (K)



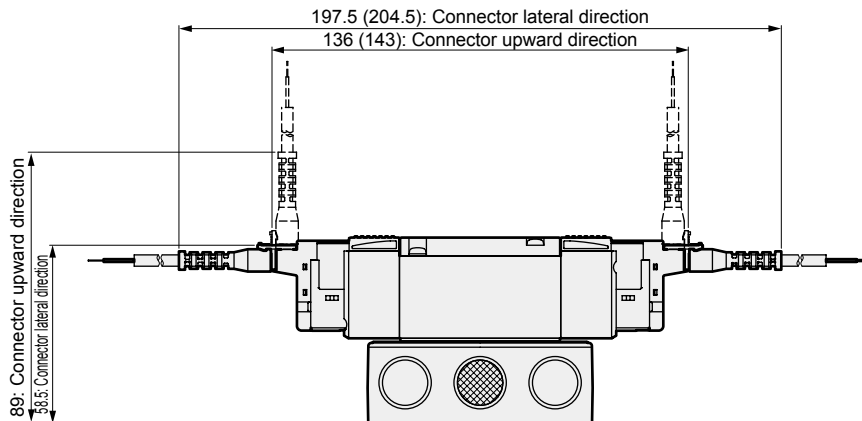
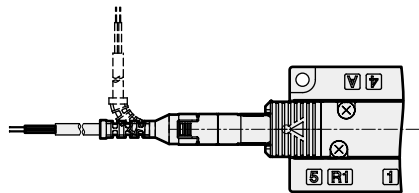
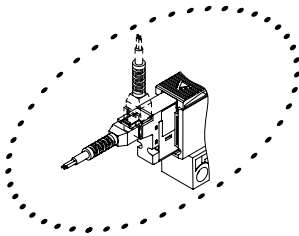
## Dimensions

● E type connector (E)



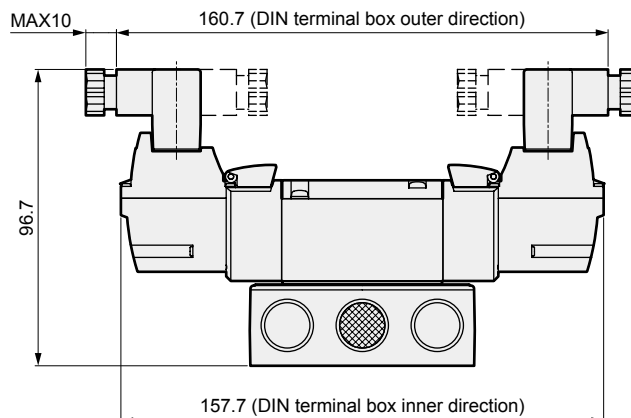
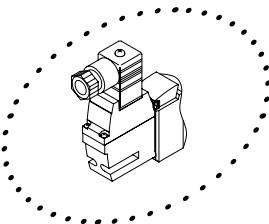
Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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



# 4GB3 Series

Single valve; base 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)

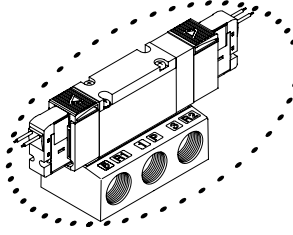
TotAirSys

(Gamma)

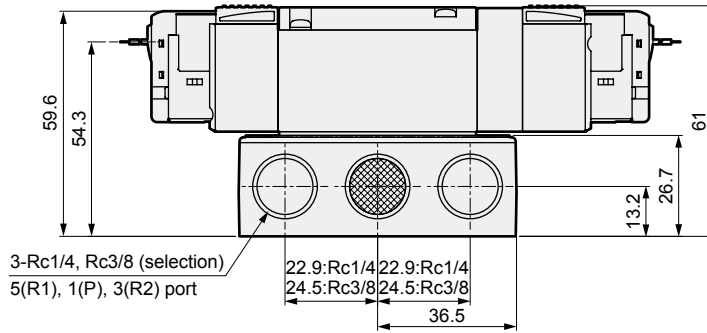
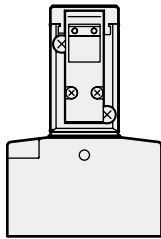
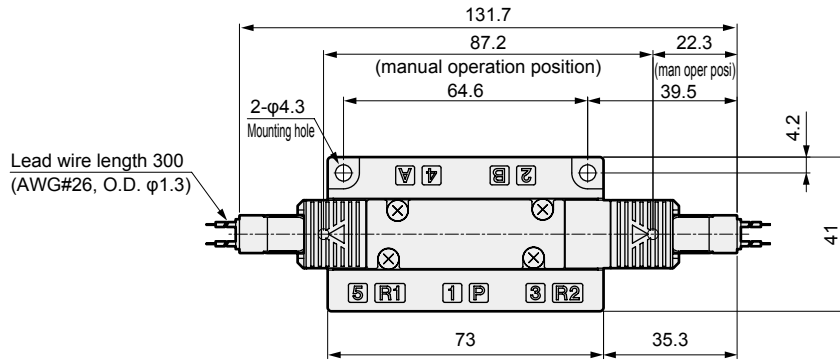
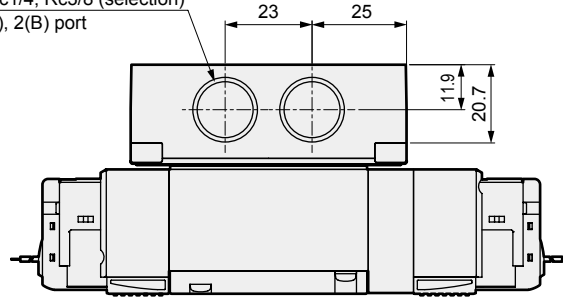
Ending

4GB3<sup>3</sup>/<sub>4</sub>0R \* NPT thread and G thread specifications are listed on pages 86 to 95.

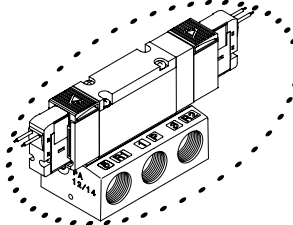
● 3-position grommet lead wire (blank)



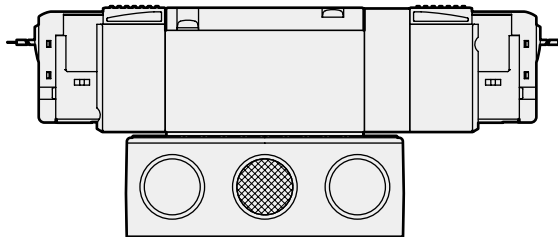
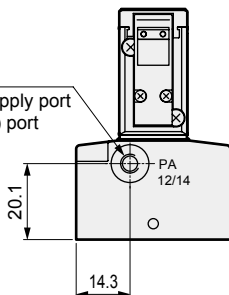
2-Rc1/4, Rc3/8 (selection)  
4(A), 2(B) port



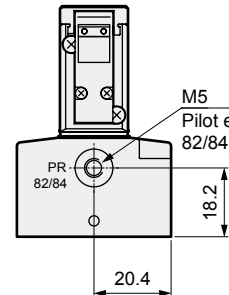
● External pilot (K)



M5  
Pilot air supply port  
12/14 (PA) port

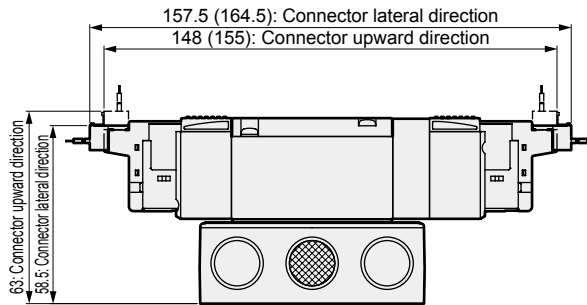
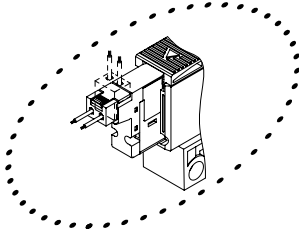


M5  
Pilot exhaust port  
82/84 (PR) port



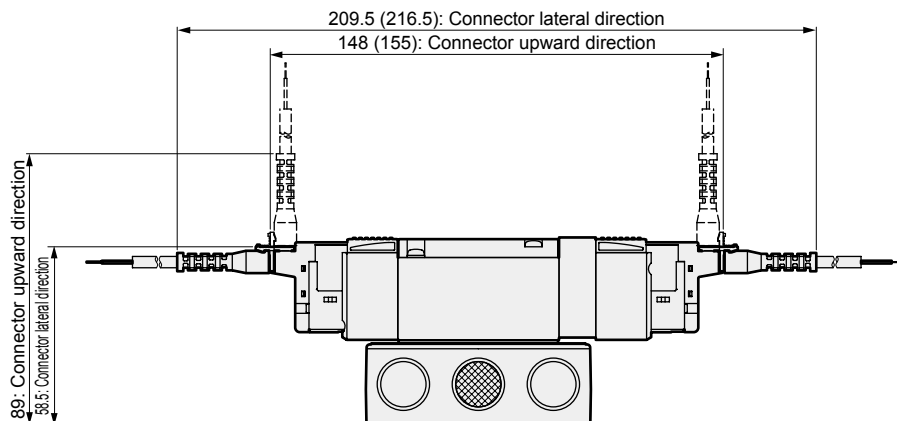
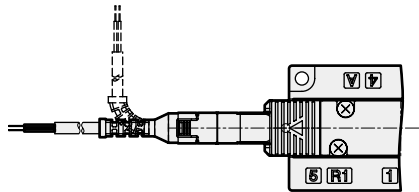
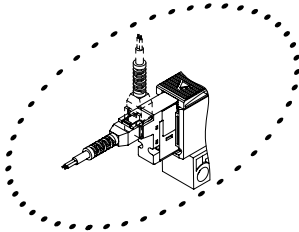
## Dimensions

● E type connector (E)



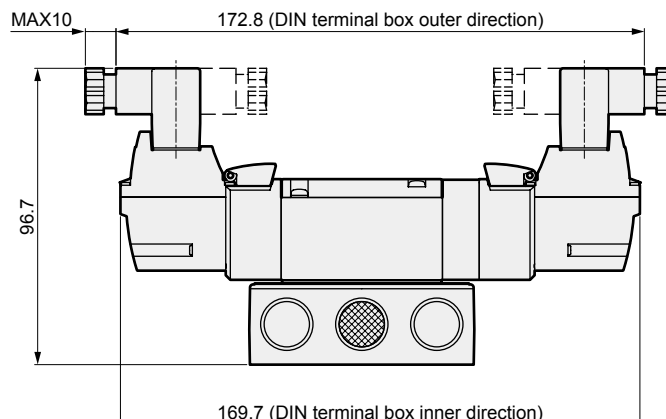
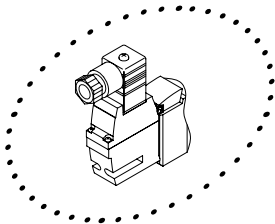
Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

# 3GB1/4GB1 Series

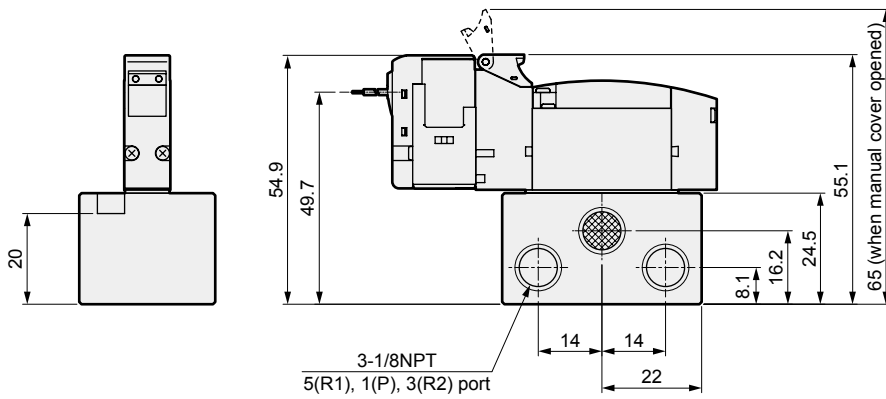
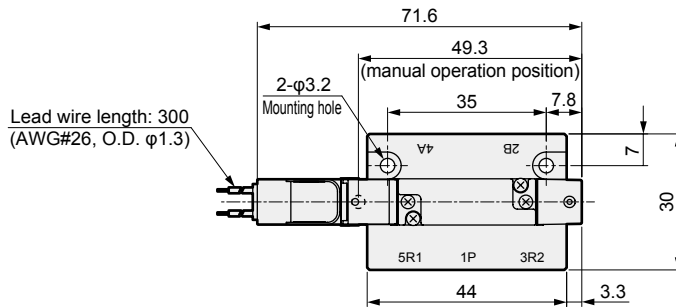
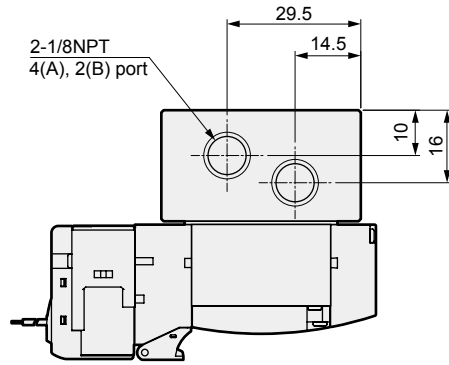
Single valve; base piping

Dimensions Port size; NPT thread

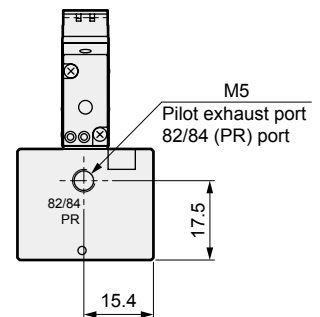
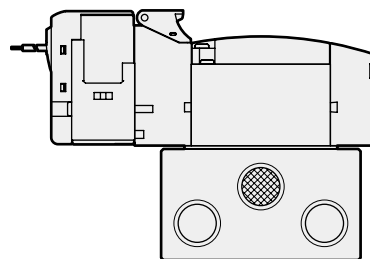
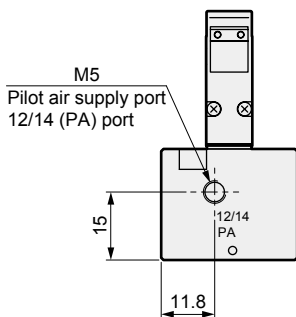
4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G
GMF
PV5
GMF
PV5S-0
3QR
3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys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

3GB1<sup>66</sup><sub>67</sub><sup>68</sup><sub>76</sub> 0R, 4GB1<sup>68</sup><sub>77</sub> 0R

● 2-position single grommet lead wire (blank)

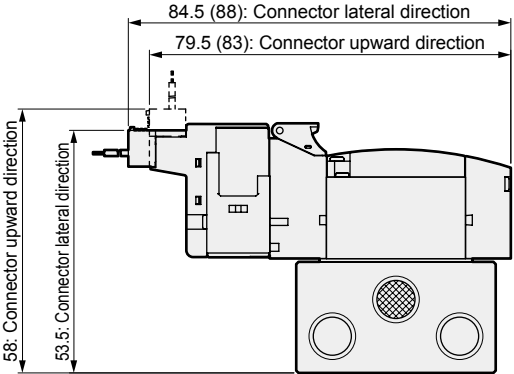


● External pilot (K)



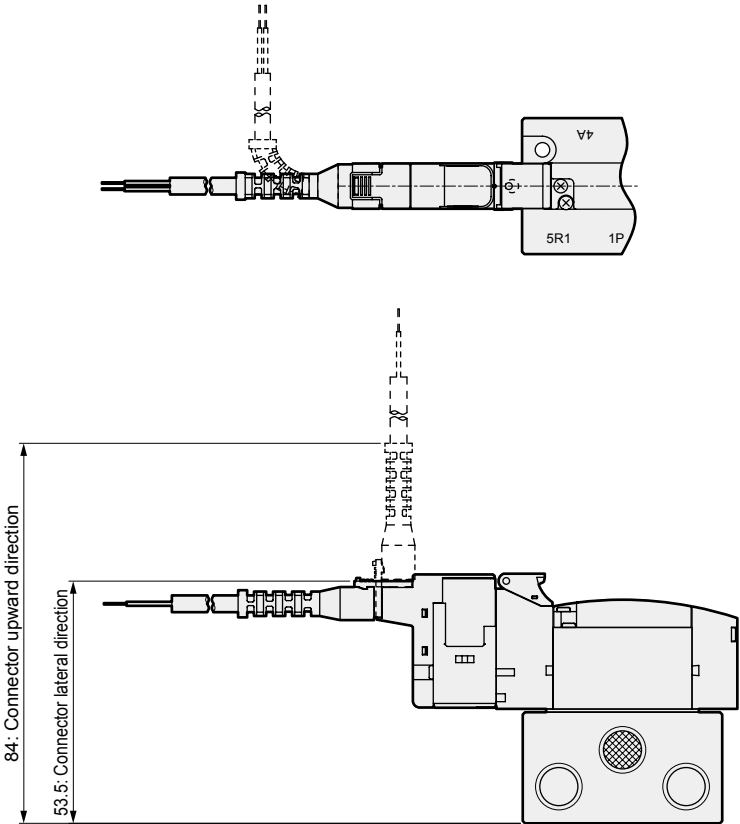
## Dimensions Port size; NPT thread

● E type connector (E)



Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



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

# 3GB2/4GB2 Series

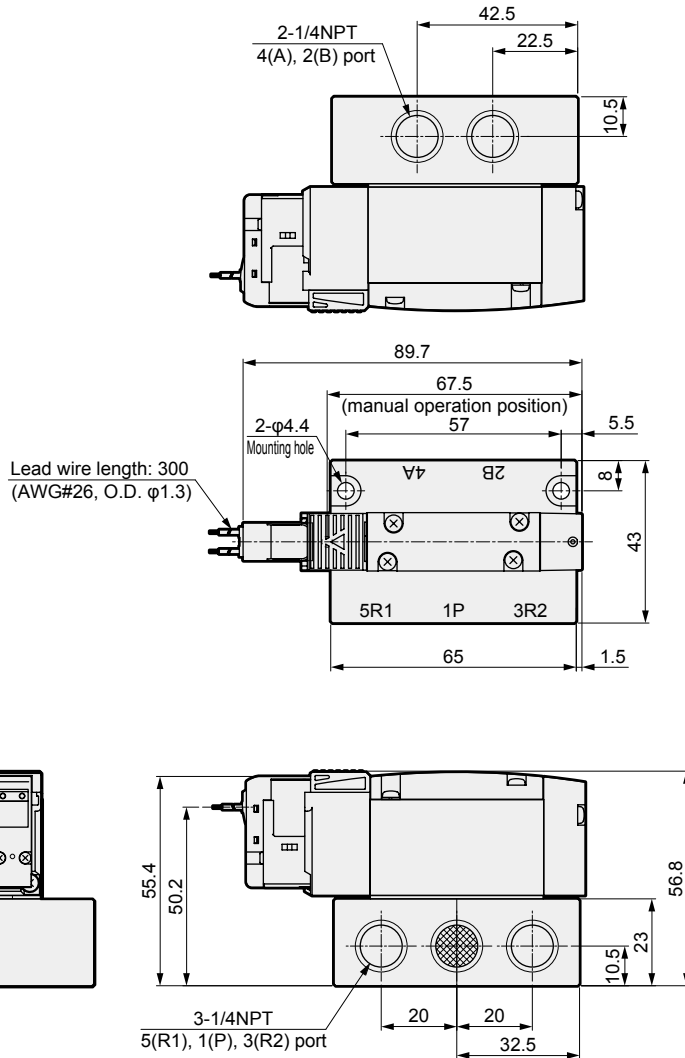
Single valve; base piping

Dimensions Port size; NPT thread

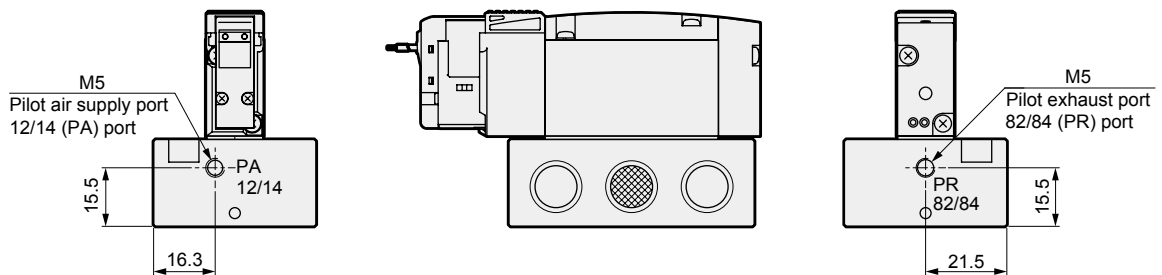
- 4GA/B
- M4GA/B
- MN4GA/B
- 4GA/B (mastr)
- 4GD/E
- M4GD/E
- MN4GD/E
- 4GA4/B4
- MN3E  
MN4E
- W4GA/B2
- W4GB4
- 4TB
- 4L2-4/  
LMF0
- MN3S0  
MN4S0
- 4SA/B0
- 4KA/B
- 4KA/B (mastr)
- 4F
- 4F (mastr)
- PV5G  
GMF
- PV5  
GMF
- PV5S-0
- 3QR  
3QB
- MV3QR
- 3MA/B0
- 3PA/B
- P/M/B
- NP/NAP/  
NVP
- 4F\*0EX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

3GB2<sup>86</sup><sub>87</sub><sup>86</sup><sub>76</sub><sup>86</sup><sub>77</sub> 0R, 4GB2<sup>1</sup><sub>4.0</sub><sup>1</sup><sub>2.1 0R</sub>

● 2-position single grommet lead wire (blank)

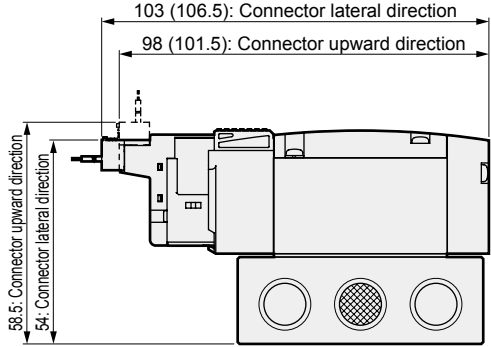


● External pilot (K)



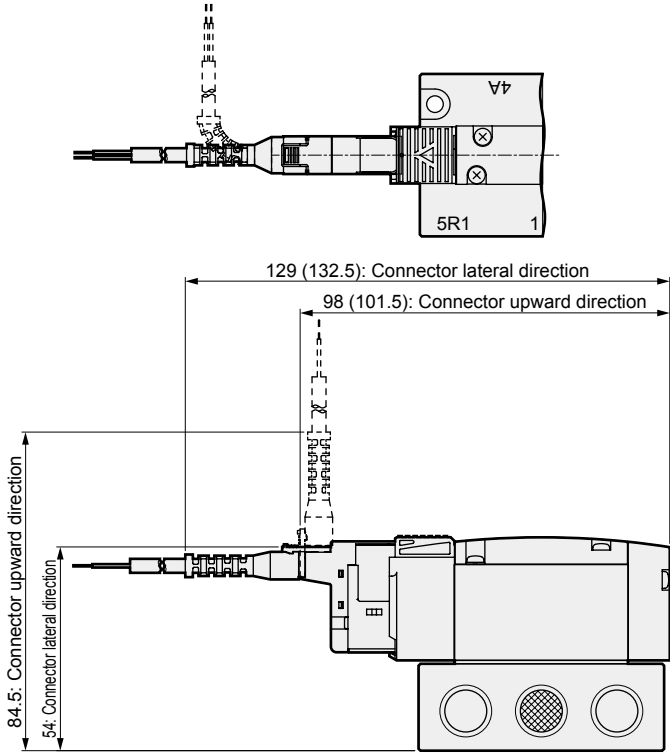
## Dimensions Port size; NPT thread

● E type connector (E)



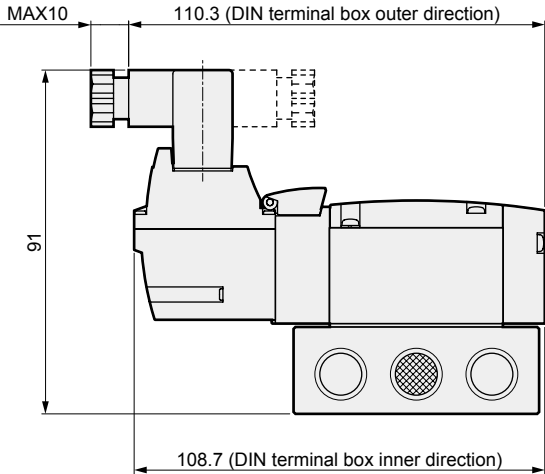
Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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

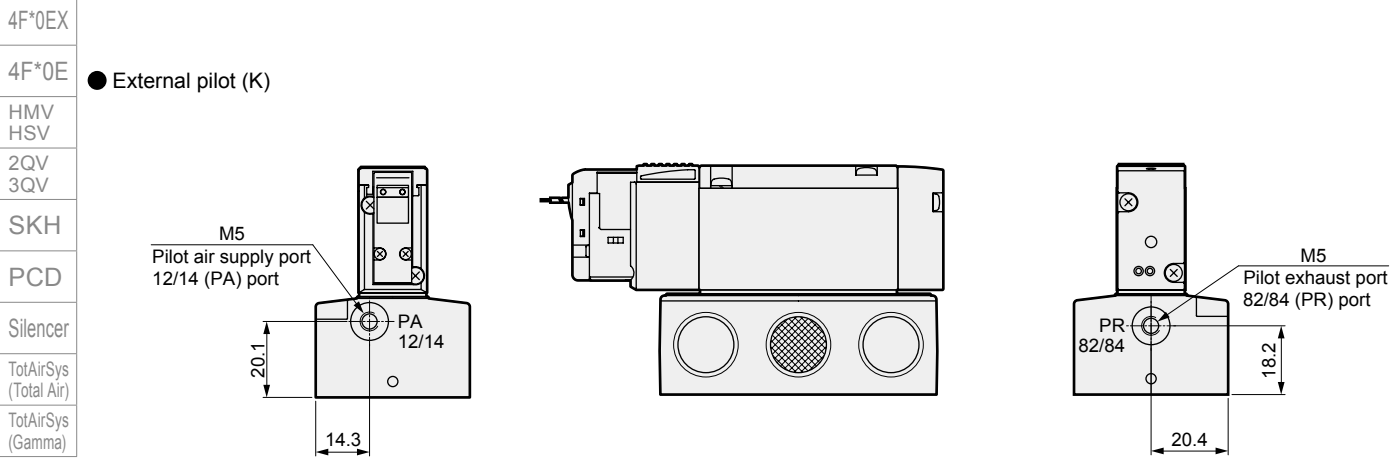
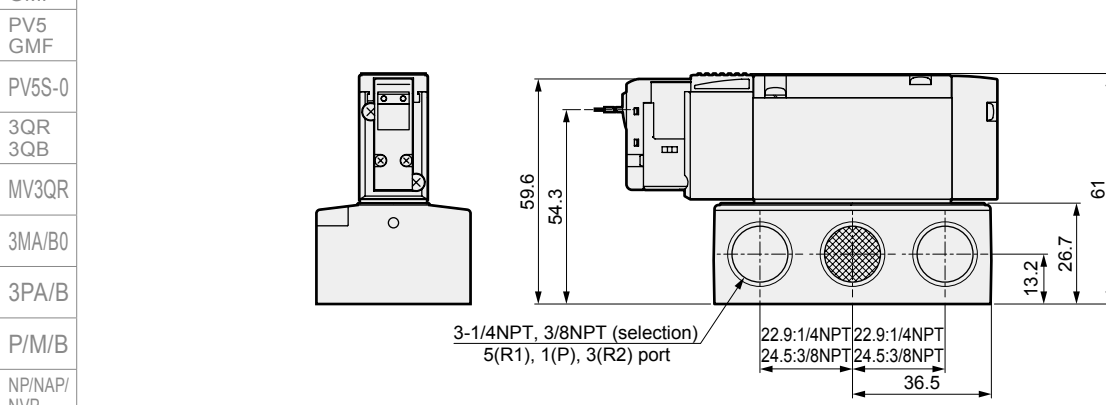
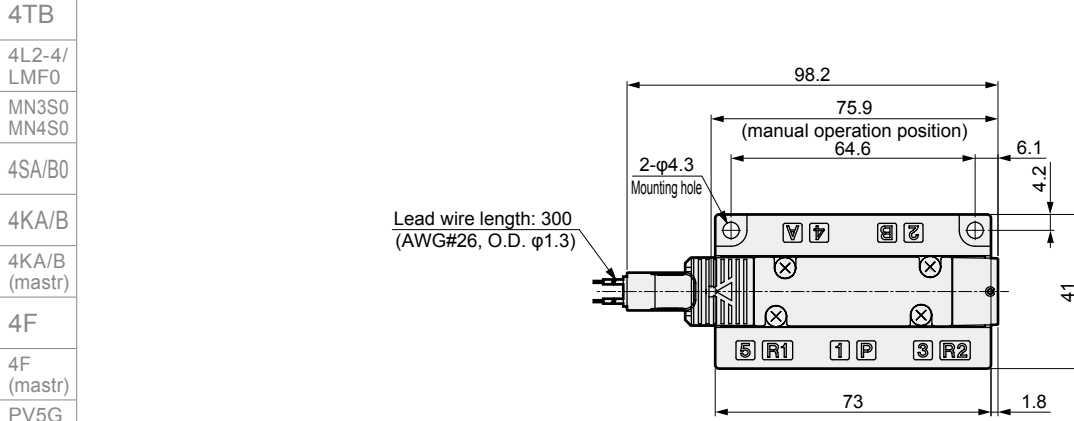
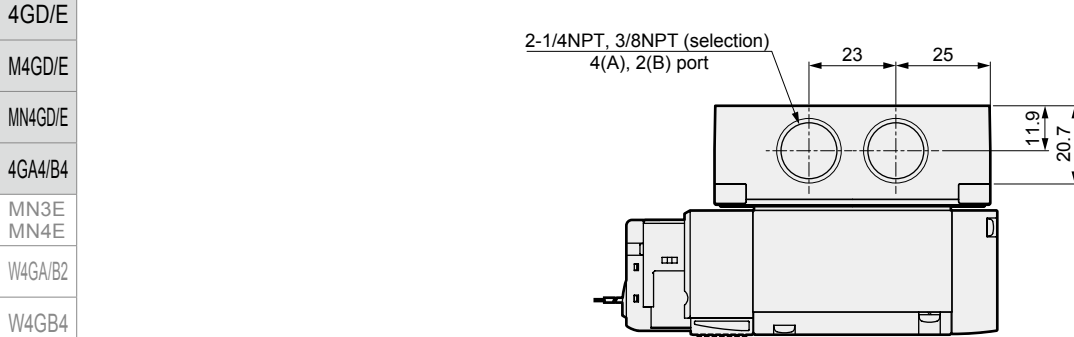
# 4GB3 Series

Single valve; base piping

4GA/B Dimensions Port size; NPT thread

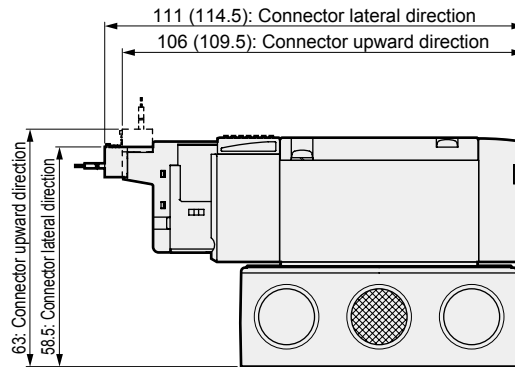
M4GA/B 4GB3 0R

MN4GA/B  
4GA/B (mastr) ● 2-position single grommet lead wire (blank)



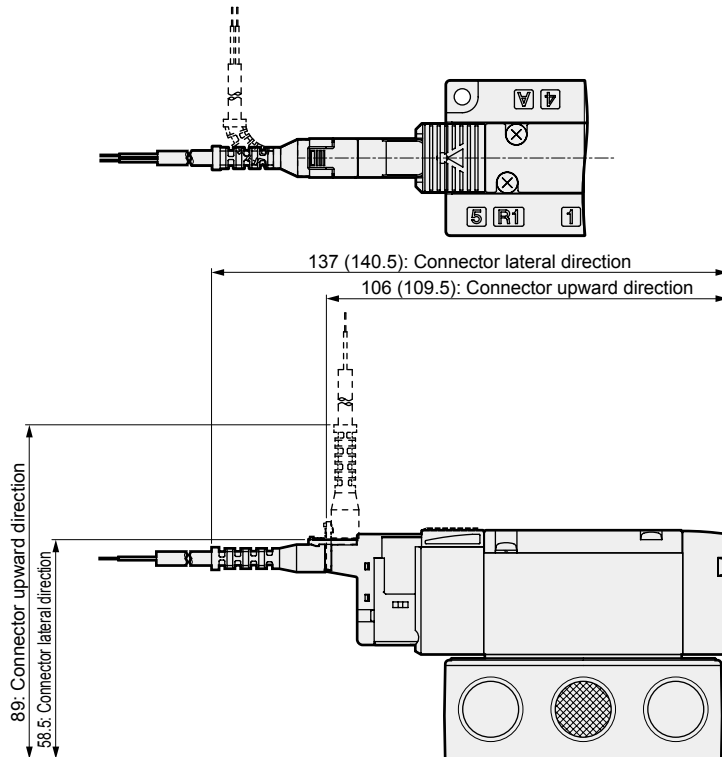
## Dimensions Port size; NPT thread

● E type connector (E)



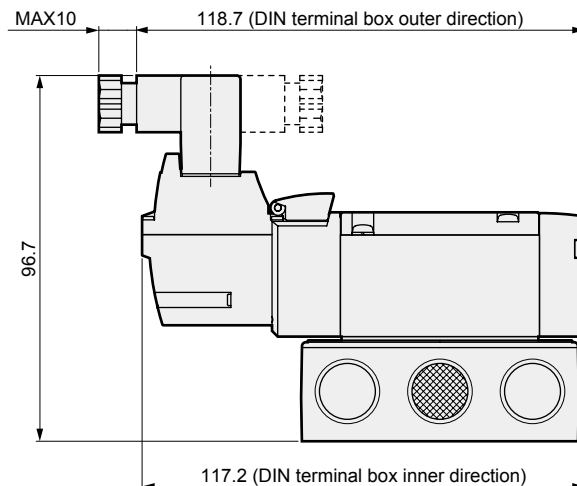
Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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



# 3GB1/4GB1 Series

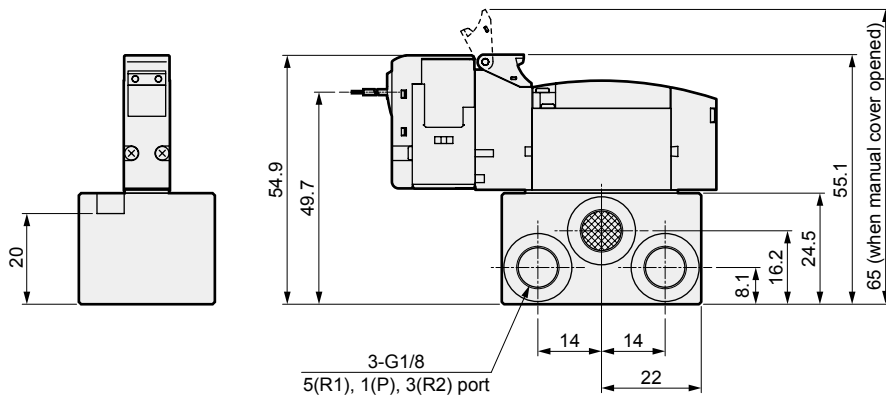
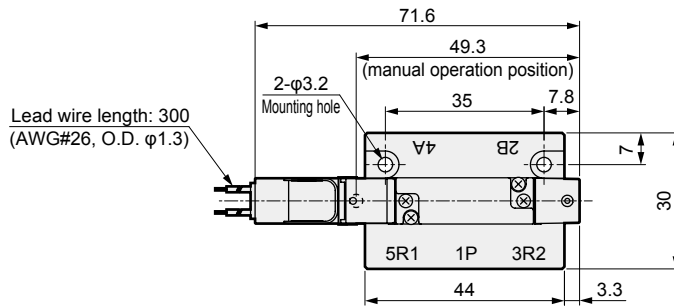
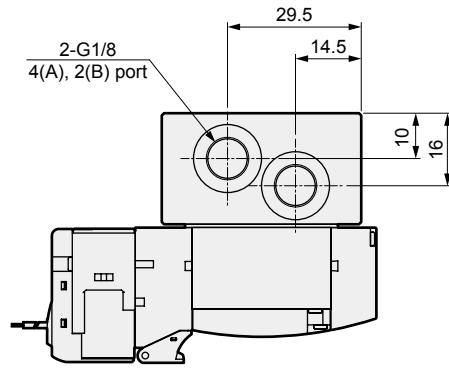
Single valve; base piping

Dimensions Port size; G thread

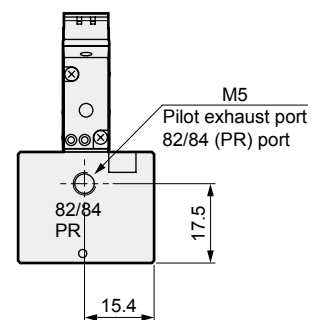
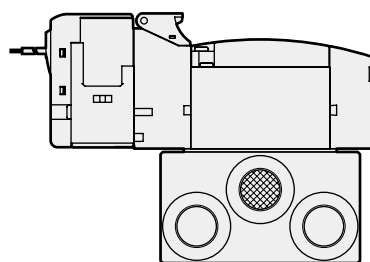
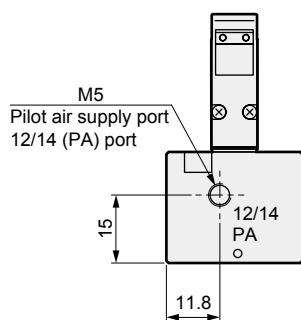
4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G
GMF
PV5
GMF
PV5S-0
3QR
3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys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

3GB1<sup>66</sup><sub>67</sub><sup>76</sup><sub>77</sub> OR, 4GB1<sup>66</sup><sub>67</sub><sup>76</sup><sub>77</sub> OR

● 2-position single grommet lead wire (blank)

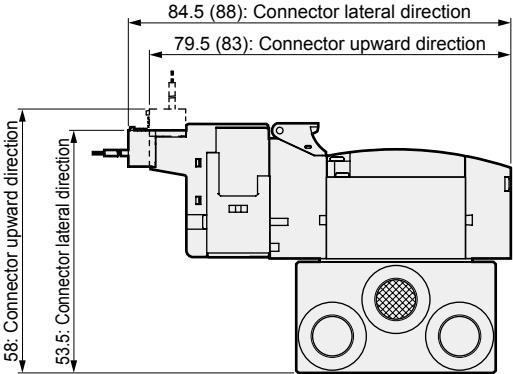


● External pilot (K)



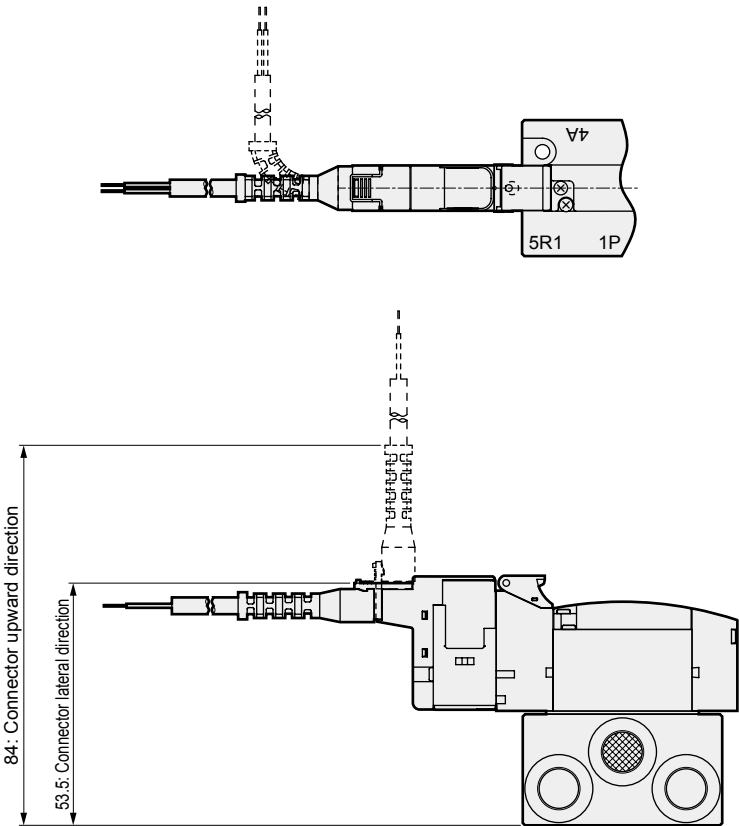
## Dimensions Port size; G thread

● E type connector (E)



Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



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

# 3GB2/4GB2 Series

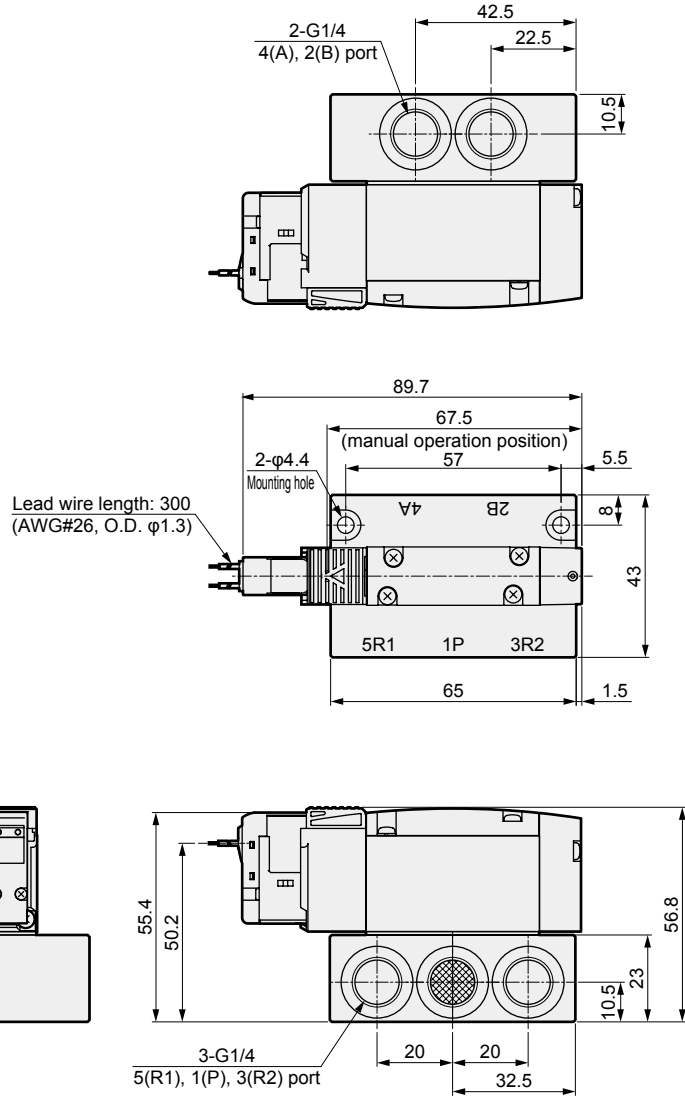
Single valve; base piping

Dimensions Port size; G thread

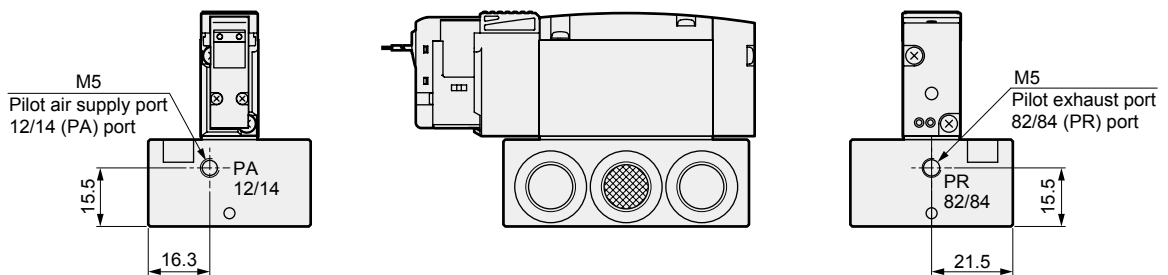
- 4GA/B
- M4GA/B
- MN4GA/B
- 4GA/B (mastr)
- 4GD/E
- M4GD/E
- MN4GD/E
- 4GA4/B4
- MN3E
- MN4E
- W4GA/B2
- W4GB4
- 4TB
- 4L2-4/ LMF0
- MN3S0
- MN4S0
- 4SA/B0
- 4KA/B
- 4KA/B (mastr)
- 4F
- 4F (mastr)
- PV5G
- GMF
- PV5
- GMF
- PV5S-0
- 3QR
- 3QB
- MV3QR
- 3MA/B0
- 3PA/B
- P/M/B
- NP/NAP/ NVP
- 4F\*0EX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

3GB2<sup>86</sup><sub>67</sub><sup>76</sup><sub>77</sub>0R, 4GB2<sup>1</sup><sub>2</sub><sup>3</sup><sub>4</sub><sup>5</sup>OR

● 2-position single grommet lead wire (blank)

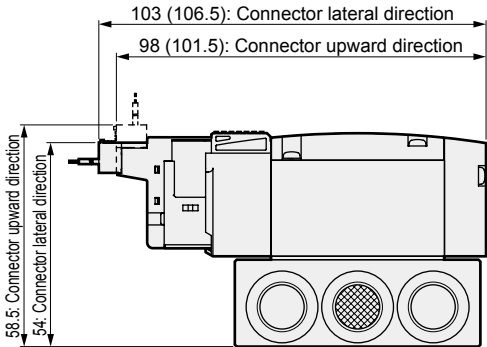


● External pilot (K)



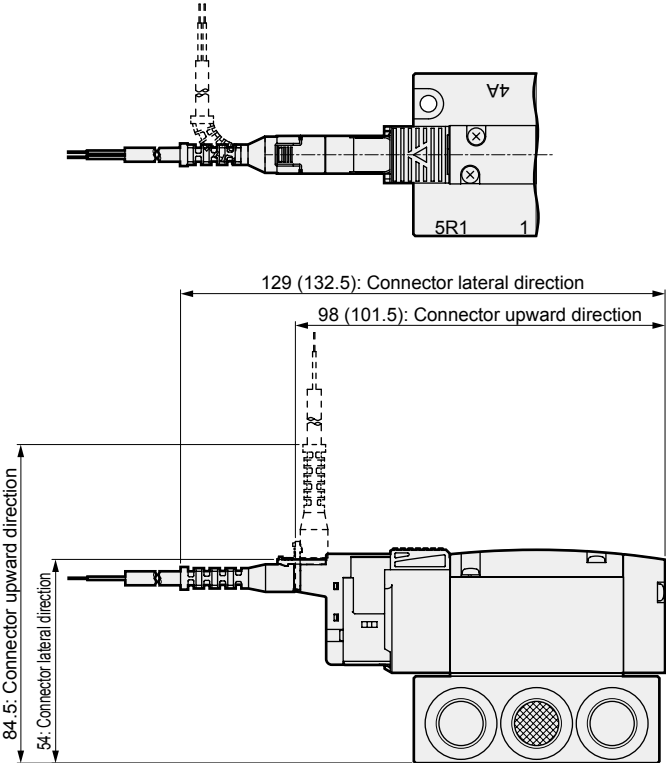
## Dimensions Port size; G thread

● E type connector (E)



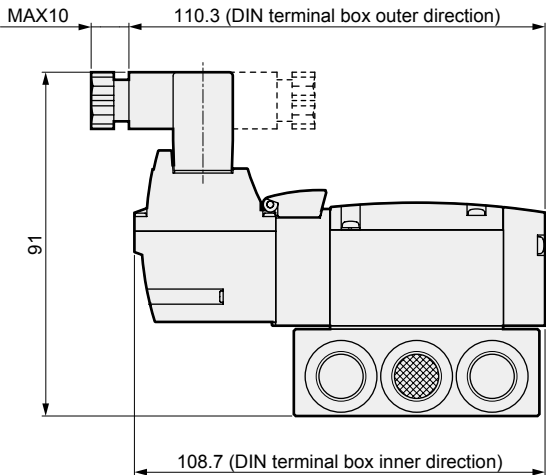
Note: Values in ( ) are for AC voltage.

● EJ type connector (E\*\*J)



Note: Values in ( ) are for AC voltage.

● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

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