

4GA/B

M4GA/B

MN4GA/B

4GA/B
(master)4GB
With sensor

4GD/E

M4GD/E

MN4GD/E

4GA/B4

MN3E
MN4E

W4GA/B2

W4GB4

MN3S0
MN4S0

4SA/B0

4KA/B

4KA/B
(master)

4F

4F
(master)PV5G
GMFPV5
GMF

PV5S-0

3Q

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP
NVP

4G*0EJ

4F*0EX

4F*0E

HMV
HSV2QV
3QV

SKH

Silencer

TotAirSys
(Total Air)TotAirSys
(Gamma)

Ending

Discrete valve
Body piping

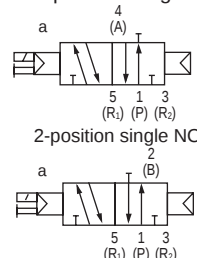
3GA1/2/3, 4GA1/2/3 Series

● Cylinder bore size: ø20 to ø100

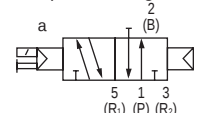


JIS symbol

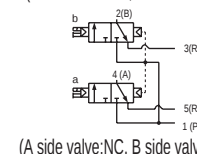
- 3-port valve
2-position single NC



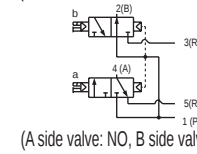
- 2-position single NO



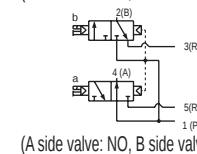
- Two 3-port valves integrated
(A side valve: NC, B side valve: NC)



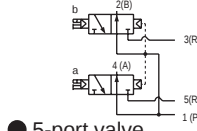
- (A side valve: NC, B side valve: NO)



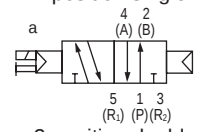
- (A side valve: NO, B side valve: NC)



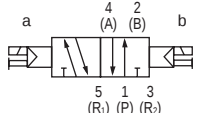
- (A side valve: NO, B side valve: NO)



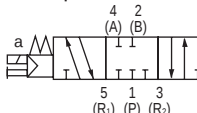
- 5-port valve
2 position single



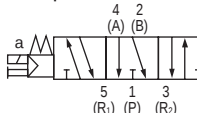
- 2-position double



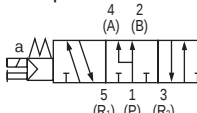
- 3-position
All ports closed



- 3-position A/B/R connection



- 3-position P/A/B connection



Common specifications

Item	Description
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	0.7
Min. working pressure MPa	0.2
Proof pressure MPa	1.05
Ambient temperature °C	-5 to 55 (no freezing)
Fluid temperature °C	5 to 55
Manual override	Non-locking/locking common (standard)
Pilot exhaust method	Main valve/pilot valve common exhaust
Lubrication *1	Not required
Degree of protection*2	Dust-proof
Vibration resistance m/s ²	50 or less
Shock resistance 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 (water jet proof) applies for DIN terminal box specifications.
However, the specified outer diameter of the cord and tightening torque must be used for fixing in place.

Electrical specifications

Item	Description
Rated voltage V	24 DC 12 DC 5 DC 3 DC 100 AC 200 AC
Voltage fluctuation range	±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)
(*)3 With low exoergic/energy circuit	0.005 0.010 - -
Power consumption W	Standard 0.35 (0.40) 0.35 (0.40) -
(*)3 With low exoergic/energy circuit	0.1 - -
Apparent power VA (*)3	Standard - - 0.93 (0.98) 1.20 (1.40)
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 circuit is only available with lamp.

Individual specifications

Port size	3GA1/4GA1	3GA2/4GA2	3GA3/4GA3
Rc thread,	Barbed fitting ø1.8 Push-in fitting ø1.8, ø4, ø6 M5	Push-in fitting ø4, ø6, ø8 Rc1/8	Push-in fitting ø6, ø8, ø10 Rc1/4
M5	M5	Rc1/8	Rc1/4
NPT thread,	Push-in fitting ø1/8", ø5/32"	Push-in fitting ø1/4", ø5/16" NPT1/8	Push-in fitting ø5/16", ø3/8" NPT1/4 (*)4
M5	M5	NPT1/8	NPT1/4 (*)4
G thread	-	Push-in fitting ø4, ø6, ø8 G1/8	Push-in fitting ø8, ø10 G1/4
	Port P/R1/R2	G1/8	G1/4

*4: Available as made to order.

Performance / Characteristics by model

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

Values with lamp/surge suppressor are shown. The response times are values with working pressure of 0.5 MPa at 20°C, without lubrication. They depend on the pressure and the lubricant quality.

Weight

Item			3GA1	3GA2	3GA3	4GA1	4GA2	4GA3
Weight g	Single	Grommet lead wire	48 (41)	104 (74)	142 (100)	48 (41)	109 (79)	151 (109)
		E-connector	50 (43)	106 (76)	144 (102)	50 (43)	111 (81)	153 (111)
		DIN terminal box	-	141 (111)	177 (135)	-	146 (116)	186 (144)
	Double	Grommet lead wire	-	-	-	65 (58)	127 (97)	174 (128)
		E-connector	-	-	-	69 (62)	131 (101)	178 (132)
		DIN terminal box	-	-	-	-	169 (139)	214 (168)
	3-position All ports closed	Grommet lead wire	-	-	-	67 (60)	139 (109)	183 (141)
		E-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-connector include the socket assembly (with 300 mm lead wire). For the EJ-connector, add 16 g/connector to the E-connector weight.
- The weight of the two 3-port valves integrated type is the same as that of 2-position double.

Flow characteristics

Model No.	Solenoid position		P→A/B		A/B→R1/R2	
			C[dm³/(s·bar)]	b	C[dm³/(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
		ABR 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**

- Standard 24 VDC below voltage is CE marking-compliant even if “ST” is not indicated in the model No.

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HNV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

3GA1/2/3, 4GA1/2/3 Series

Discrete valve; body piping

How to order

4GA1 1 0 R - C6 - E2 - 1

3GA1 1 0 R - C6 - E2 - 1

Discrete valve for integrated base

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

Discrete 3-port valve for base mounting

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

A Model No.

B Solenoid position

C Port size
*3

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

Precautions for model No. selection

*1 : For the 3GA normally closed, the piping connection 2 (B) and 3 (R2) ports are plugged. For 3GA normally open type, avoid plugging the 5 (R1) port. Otherwise, malfunctions may result.

*2 : Dimensions are the same as the respective 2-position double solenoid.

*3 : Refer to page 98 for the available port sizes of single valves for integrated base

*4 : 4G3 is a custom order product.

*5 : 3-position all ports closed and PAB connection are not provided with the exhaust check valve. Refer to page 851 for details on the exhaust check valve.

6 : 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.

*7 : Surgeless specifications.

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

E Option

F Voltage

A Model No.

3GA1 3GA2 3GA3 4GA1 4GA2 4GA3

Code Description

B Solenoid position

1	2 position single				●	●	●
2	2-position double				●	●	●
3	3-position all ports closed				●	●	●
4	3-position ABR connection				●	●	●
5	3-position PAB connection				●	●	●
1	2-position single normally closed (*1)	●	●	●			
11	2-position single normally open (*1)	●	●	●			
66	Two 3-port valves integrated (*2)	A side valve: Normally closed B side valve: Normally closed	●	●			
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	●	●			

C Port size

Port	4(A)/2(B)Port	Port P/R1/R2 (5) = M5, (1/8) = Rc1/8, (1/4) = Rc1/4					
CF	ø1.8 barbed fitting (Compatible tube UP-9102-**)	(1)		(1)			
C18	ø1.8MPush-in fitting (Compatible tube UP-9402-**)	(1)		(1)			
C4	ø4 push-in fitting	(1)	(2)	(1)	(2)		
C6	ø6 push-in fitting	(1)	(2)	(3)	(1)	(2)	(3)
C8	ø8 push-in fitting		(2)	(3)	(2)	(2)	(3)
C10	ø10 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	Port P/R1/R2 (5) = M5, (1/8) = 1/8NPT, (1/4) = 1/4NPT					
C3N	ø1/8" push-in fitting	(1)		(1)			
C4N	ø5/32" push-in fitting	(1)		(1)			
C6N	ø1/4" push-in fitting		(5)		(5)		
C8N	ø5/16" push-in fitting (*4)		(5)	(6)	(5)	(6)	
C10N	ø3/8" push-in fitting (*4)			(6)			(6)
06 N	NPT1/8		(5)			(5)	
08 N	NPT1/4 (*4)			(6)			(6)
Port	4(A)/2(B)Port	Port P/R1/R2 (1/8) = G1/8 (9)=G1/4					
C4G	ø4 push-in fitting		(8)		(8)		
C6G	ø6 push-in fitting		(8)		(8)		
C8G	ø8 push-in fitting		(8)	(9)	(8)	(9)	
C10G	ø10 push-in fitting			(9)			(9)
06G	G1/8		(8)		(8)		
08G	G1/4			(9)			(9)

D Electrical connections

Refer to the electrical connection list on next page.

E Option

Blank	Non-locking/Locking common manual override	●	●	●	●	●	●
M	Manual override of non-locking	●	●	●	●	●	●
H	With exhaust check valve (*5)	●	●	●	●	●	●
P	With mounting plate	●	●	●	●	●	●
A	Ozone/coolant proof	●	●	●	●	●	●
S	Surgeless (*6)	●	●	●	●	●	●
E	Low exoergic/energy saving circuit (*6), (*7)	●	●	●	●	●	●
F	Port A/B filter integrated (8)	●	●	●	●	●	●

F Voltage

1	100 VAC (rectifier integrated)	●	●	●	●	●	●
2	200 VAC (rectifier integrated)	●	●	●	●	●	●
3	24 VDC	●	●	●	●	●	●
4	12 VDC	●	●	●	●	●	●
7	3 VDC	○	○	○	○	○	○
8	5 VDC	○	○	○	○	○	○

indicates manufacturing is not possible.

○ indicates made to order.

3GA1/2/3, 4GA1/2/3 Series

Discrete valve; body piping

[Electrical connections list]

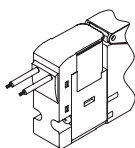
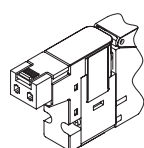
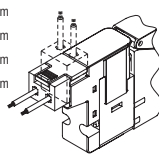
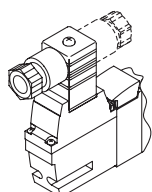
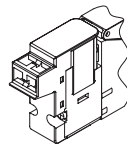
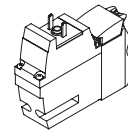
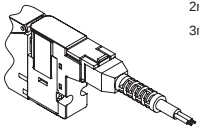
		A Model No.					
		3GA1	3GA2	3GA3	4GA1	4GA2	4GA3
D Electrical connections							
Blank	Grommet lead wire (300 mm) (*9)	●	●	●	●	●	●
B	DIN terminal box (Pg7) With surge suppressor/indicator lamp (*10) (*12)		●	●		●	●
BN	DIN term. box (Pg7) (without terminal box) With surge suppressor(*10)(*12)		●	●		●	●
E-connector (upward/lateral common)							
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	●	●	●	●	●	●
EJ type connector (Socket with cover, upward/lateral common)							
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.

*12: The terminal box conforms to EN175301-803 Type C (former DIN 43650-C). Refer to pages 856 and 857 for details.

Electrical connections		4GA/B
Blank	Grommet lead wire	E1 E-connector with socket/terminal
● Lead wire length 300 mm		
E0 E2	E-connector	B DIN terminal box
● Lead wire length 300 mm 500 mm 1000 mm 2000 mm 3000 mm		
E0N E2N	E-connector without socket	BN DIN terminal box Without terminal box
		
E0*J E2*J	EJ-connector	
● Lead wire length 1m 2m 3m		

M4GA/B

MN4GA/B

4GA/B (master)

4GB

With sensor

4GD/E

M4GD/E

MN4GD/E

4GA4/B4

MN3E

MN4E

W4GA/B2

W4GB4

MN3S0

MN4S0

4SA/B0

4KA/B

4KA/B (master)

4F

4F (master)

PV5G

GMF

PV5

GMF

PV5S-0

3Q

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP

NVP

4G*0EJ

4F*0EX

4F*0E

HMV

HSV

2QV

3QV

SKH

Silencer

TotAirSys (Total Air)

TotAirSys (Gamma)

Ending

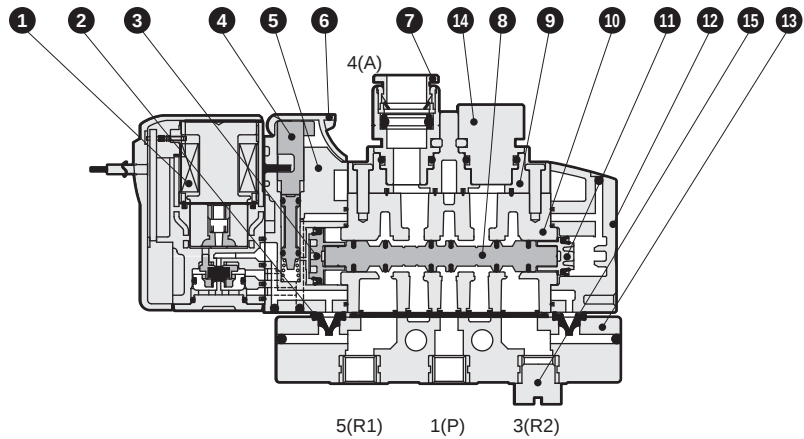
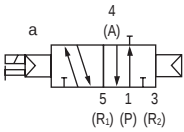
3GA1 Series

Discrete valve; body piping

Internal structure and parts list

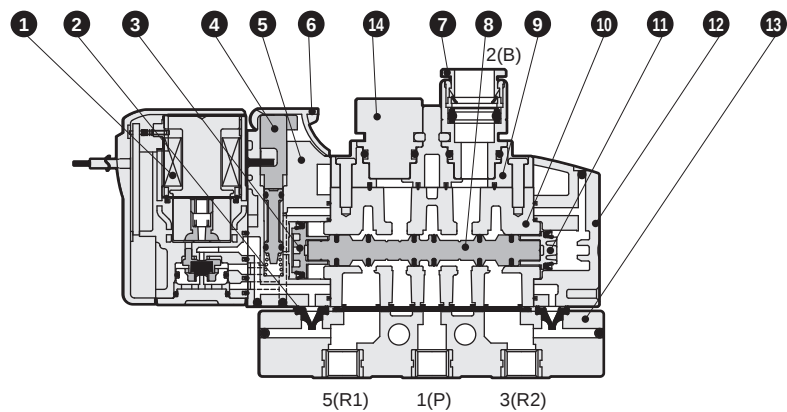
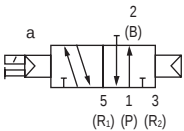
3GA110R

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



3GA1110R

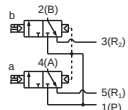
- 2-position single: Normally open
- Grommet lead wire (blank)



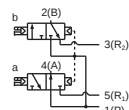
3GA110R

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

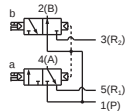
A side valve: Normally closed,
B side valve: Normally closed



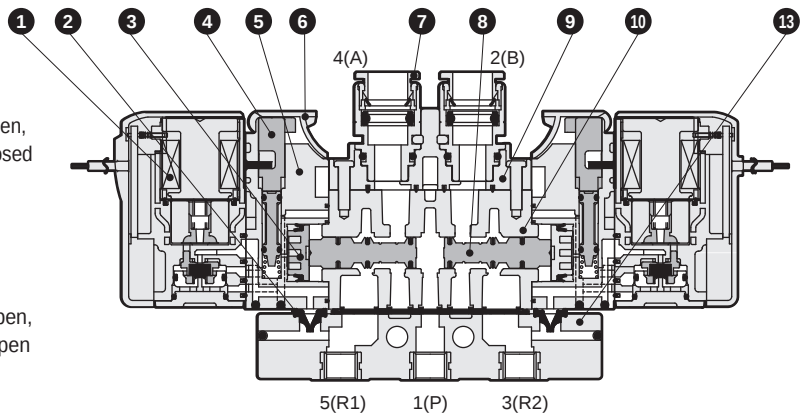
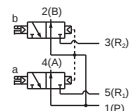
A side valve: Normally open,
B side valve: Normally closed



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	Piping adapter	Resin
14	Plug cartridge	Aluminum
15	M5 plug	Copper alloy + nickel plating

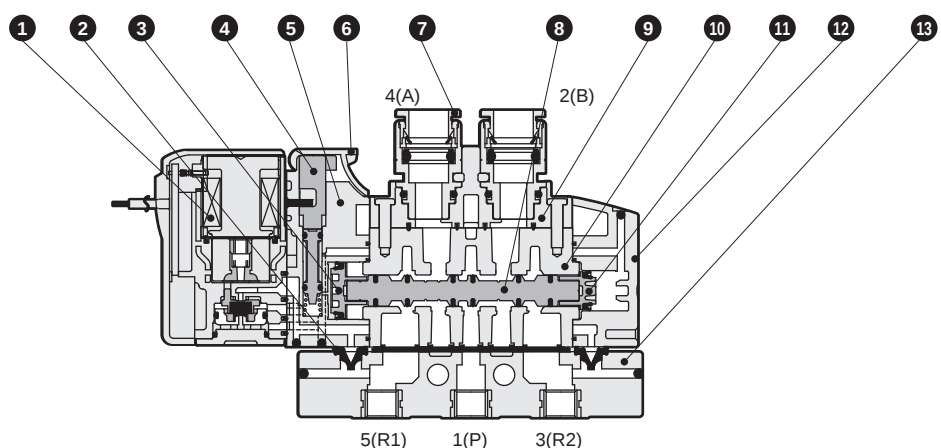
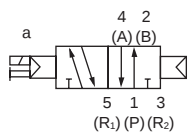
Parts list

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 exothermic energy saving circuit K: External pilot Blank: Grommet lead wire
	ø1.8 barbed	4G1R-JOINT-CF
	ø1.8 axial	4G1R-JOINT-C18
	ø4 straight	4G1R-JOINT-C4
	ø6 straight	4G1R-JOINT-C6
	Plug cartridge	4G1R-JOINT-CPG
	ø1/8" straight	4G1R-JOINT-C3N
	ø5/32" straight	4G1R-JOINT-C4N

Internal structure and parts list

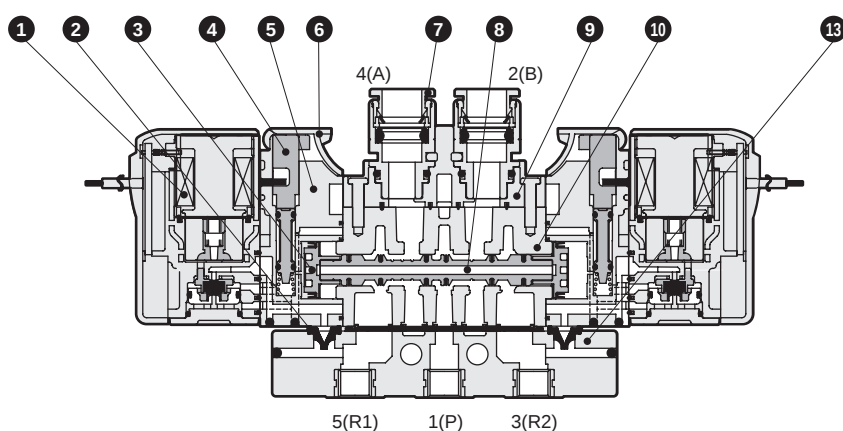
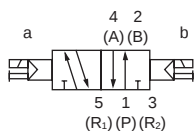
4GA110R

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



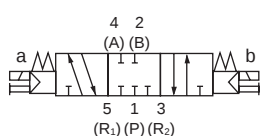
4GA120R

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

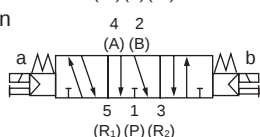


4GA1³/₄0R

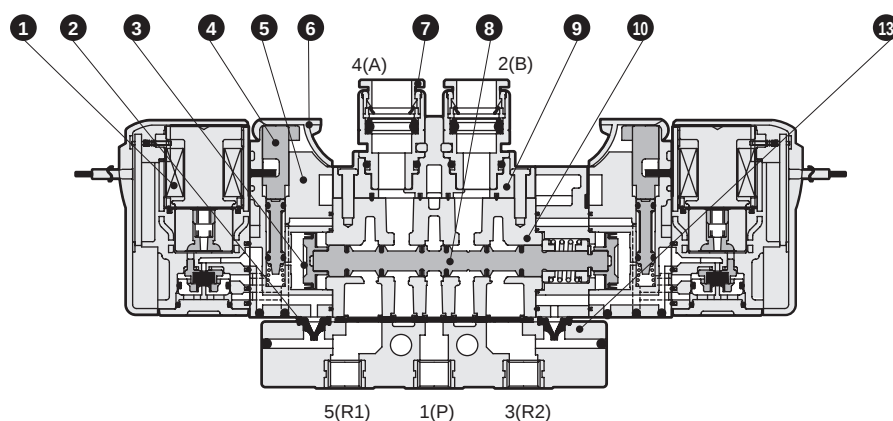
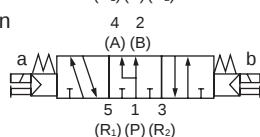
- 3-position
- Grommet lead wire (blank)
- All ports closed



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 adapter	Resin
10	Body	Aluminum alloy die-casting
11	Piston S assembly	-
12	Cap	Resin
13	Piping adapter	Resin

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 K: External pilot Blank: Grommet lead wire
7	Cartridge push-in fitting and related parts	ø1.8 barbed	4G1R-JOINT-CF
ø1.8 axial		4G1R-JOINT-C18	
ø4 straight		4G1R-JOINT-C4	
ø6 straight		4G1R-JOINT-C6	
Plug cartridge		4G1R-JOINT-CPG	
ø1/8" straight		4G1R-JOINT-C3N	
ø5/32" straight		4G1R-JOINT-C4N	

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

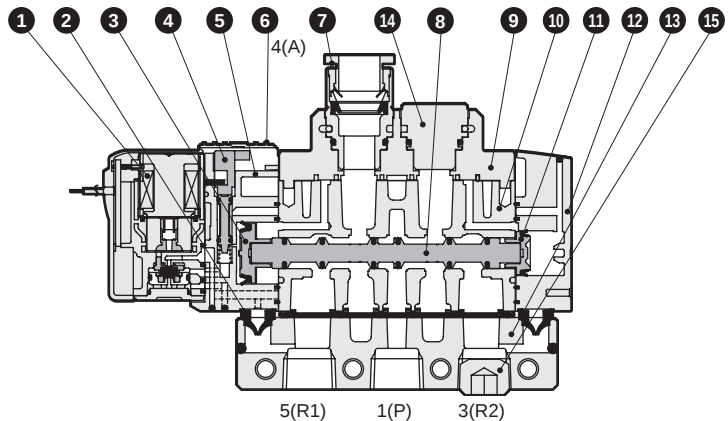
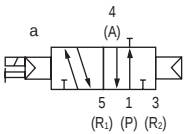
3GA2/3 Series

Discrete valve; body piping

Internal structure and parts list

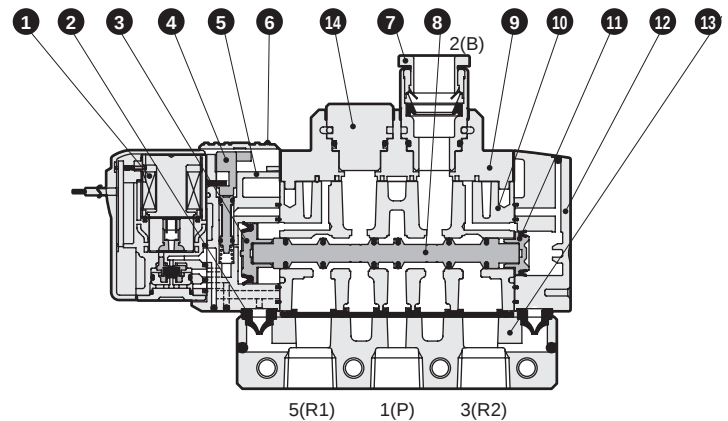
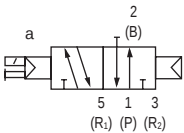
3GA210R/3GA310R

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



3GA2110R/3GA3110R

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

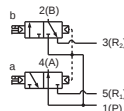
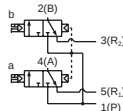


3GA2 66 67 76 77 0R

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

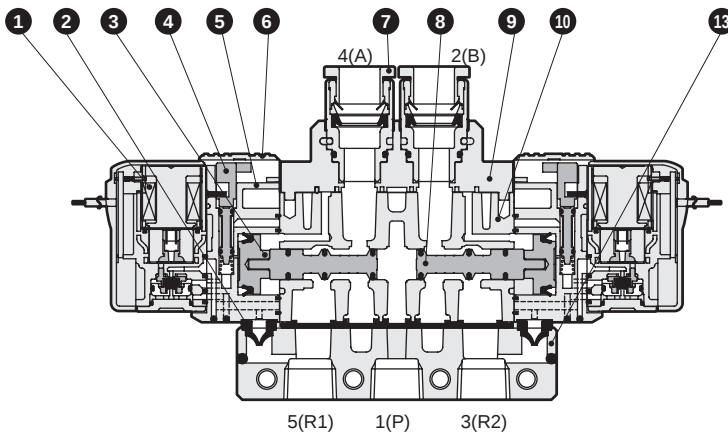
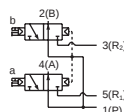
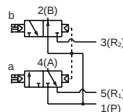
A side valve: Normally closed,
B side valve: Normally closed

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	-
8	Spool assembly	-
9	Fitting adapter	Resin
10	Body	Aluminum alloy die-casting
11	Piston S assembly	-
12	Cap	Resin
13	Piping adapter	Aluminum alloy die-casting
14	Plug cartridge	Aluminum
15	Hexagon socket plug	Steel

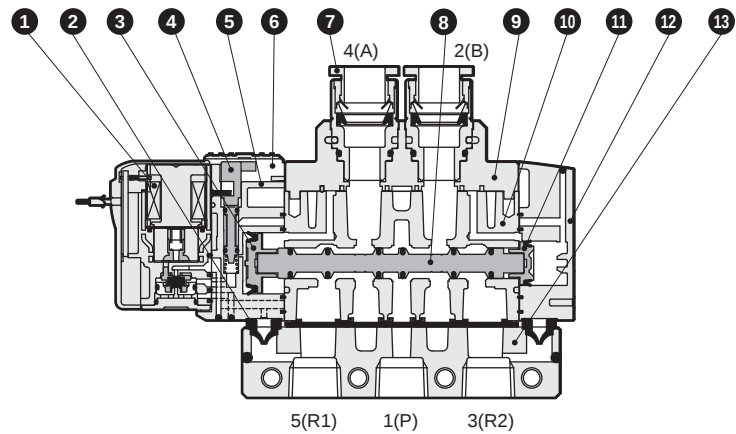
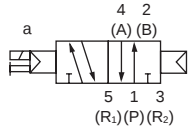
Parts list

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 K: External pilot Blank: Grommet lead wire																																				
7	Cartridge push-in fitting and related parts	<table><tr><td>3G2</td><td>ø4 straight</td><td>4G2R-JOINT-C4</td></tr><tr><td>3G2</td><td>ø6 straight</td><td>4G2R-JOINT-C6</td></tr><tr><td>3G2</td><td>ø8 straight</td><td>4G2R-JOINT-C8</td></tr><tr><td>3G2</td><td>Plug cartridge</td><td>4G2R-JOINT-CPG</td></tr><tr><td>3G2</td><td>ø1/4" straight</td><td>4G2R-JOINT-C6N</td></tr><tr><td>3G2</td><td>ø5/16" straight</td><td>4G2R-JOINT-C8N</td></tr><tr><td>3G3</td><td>ø6 straight</td><td>4G3R-JOINT-C6</td></tr><tr><td>3G3</td><td>ø8 straight</td><td>4G3R-JOINT-C8</td></tr><tr><td>3G3</td><td>ø10 straight</td><td>4G3R-JOINT-C10</td></tr><tr><td>3G3</td><td>Plug cartridge</td><td>4G3R-JOINT-CPG</td></tr><tr><td>3G3</td><td>ø5/16" straight</td><td>4G3R-JOINT-C8N</td></tr><tr><td>3G3</td><td>ø3/8" straight</td><td>4G3R-JOINT-C10N</td></tr></table>	3G2	ø4 straight	4G2R-JOINT-C4	3G2	ø6 straight	4G2R-JOINT-C6	3G2	ø8 straight	4G2R-JOINT-C8	3G2	Plug cartridge	4G2R-JOINT-CPG	3G2	ø1/4" straight	4G2R-JOINT-C6N	3G2	ø5/16" straight	4G2R-JOINT-C8N	3G3	ø6 straight	4G3R-JOINT-C6	3G3	ø8 straight	4G3R-JOINT-C8	3G3	ø10 straight	4G3R-JOINT-C10	3G3	Plug cartridge	4G3R-JOINT-CPG	3G3	ø5/16" straight	4G3R-JOINT-C8N	3G3	ø3/8" straight	4G3R-JOINT-C10N
3G2	ø4 straight	4G2R-JOINT-C4																																				
3G2	ø6 straight	4G2R-JOINT-C6																																				
3G2	ø8 straight	4G2R-JOINT-C8																																				
3G2	Plug cartridge	4G2R-JOINT-CPG																																				
3G2	ø1/4" straight	4G2R-JOINT-C6N																																				
3G2	ø5/16" straight	4G2R-JOINT-C8N																																				
3G3	ø6 straight	4G3R-JOINT-C6																																				
3G3	ø8 straight	4G3R-JOINT-C8																																				
3G3	ø10 straight	4G3R-JOINT-C10																																				
3G3	Plug cartridge	4G3R-JOINT-CPG																																				
3G3	ø5/16" straight	4G3R-JOINT-C8N																																				
3G3	ø3/8" straight	4G3R-JOINT-C10N																																				

Internal structure and parts list

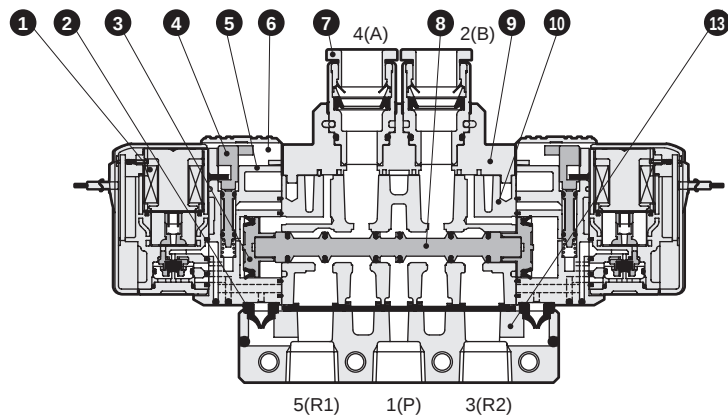
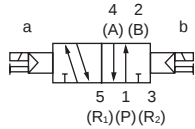
4GA210R/4GA310R

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



4GA220R/4GA320R

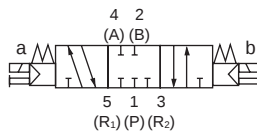
- 2-position double
- Grommet lead wire (blank)



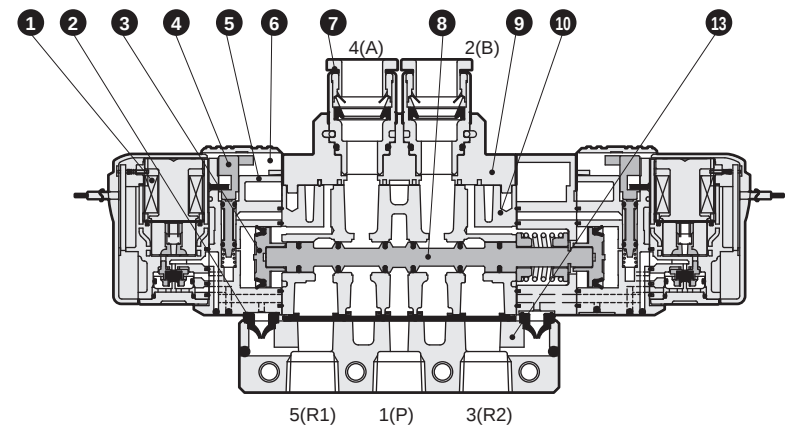
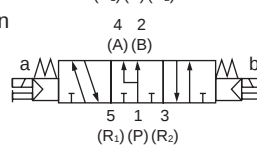
4GA2^{3/4}0R/4GA3^{3/4}0R

- 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 adapter	Resin
10	Body	Aluminum alloy die-casting
11	Piston S assembly	-
12	Cap	Resin
13	Piping adapter	Aluminum alloy die-casting

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 K: External pilot Blank: Grommet lead wire						
7	Cartridge push-in fitting and related parts	<table> <tr> <td>4G2</td> <td> - ø4 straight - ø6 straight - ø8 straight - Plug cartridge - ø1/4" straight - ø5/16" straight </td> <td> 4G2R-JOINT-C4 4G2R-JOINT-C6 4G2R-JOINT-C8 4G2R-JOINT-CPG 4G2R-JOINT-C6N 4G2R-JOINT-C8N </td> </tr> <tr> <td>4G3</td> <td> - ø6 straight - ø8 straight - ø10 straight - Plug cartridge - ø5/16" straight - ø3/8" straight </td> <td> 4G3R-JOINT-C6 4G3R-JOINT-C8 4G3R-JOINT-C10 4G3R-JOINT-CPG 4G3R-JOINT-C8N 4G3R-JOINT-C10N </td> </tr> </table>	4G2	- ø4 straight - ø6 straight - ø8 straight - Plug cartridge - ø1/4" straight - ø5/16" straight	4G2R-JOINT-C4 4G2R-JOINT-C6 4G2R-JOINT-C8 4G2R-JOINT-CPG 4G2R-JOINT-C6N 4G2R-JOINT-C8N	4G3	- ø6 straight - ø8 straight - ø10 straight - Plug cartridge - ø5/16" straight - ø3/8" straight	4G3R-JOINT-C6 4G3R-JOINT-C8 4G3R-JOINT-C10 4G3R-JOINT-CPG 4G3R-JOINT-C8N 4G3R-JOINT-C10N
4G2	- ø4 straight - ø6 straight - ø8 straight - Plug cartridge - ø1/4" straight - ø5/16" straight	4G2R-JOINT-C4 4G2R-JOINT-C6 4G2R-JOINT-C8 4G2R-JOINT-CPG 4G2R-JOINT-C6N 4G2R-JOINT-C8N						
4G3	- ø6 straight - ø8 straight - ø10 straight - Plug cartridge - ø5/16" straight - ø3/8" straight	4G3R-JOINT-C6 4G3R-JOINT-C8 4G3R-JOINT-C10 4G3R-JOINT-CPG 4G3R-JOINT-C8N 4G3R-JOINT-C10N						

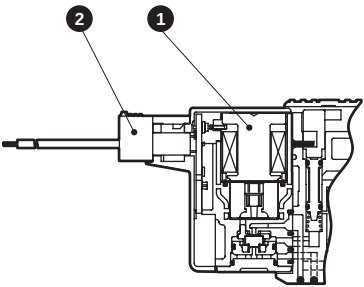
4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

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

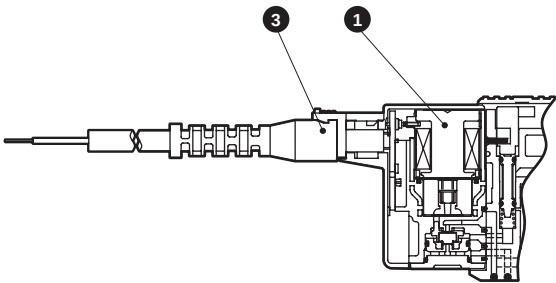
Discrete valve; body piping

Internal structure and parts list (electrical connections section)

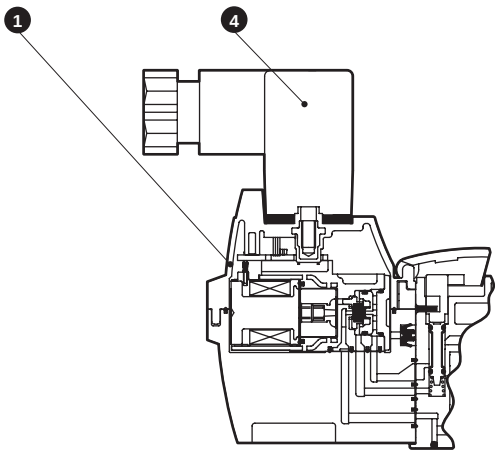
● E-connector E□□



● EJ type connector E□□J



● DIN terminal box B



Main parts list

No.	Part name	Material
1	Coil assembly	
2	E-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] Blank: Standard A: Ozone specifications S: Surgeless E: Low exoenergy saving circuit K: External pilot E* : E-connector E*J : Socket with cover B* : DIN terminal box B includes the DIN terminal box BN does not include the DIN terminal box
2	E-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]

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G GMF
PV5 GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP NVP
4G*0EJ
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

3GA1 Series

Discrete valve; body piping

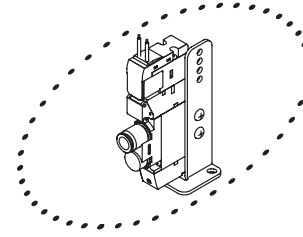
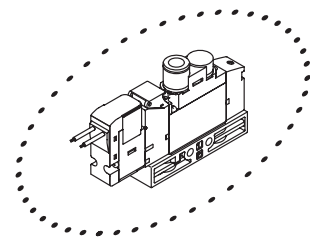
Dimensions



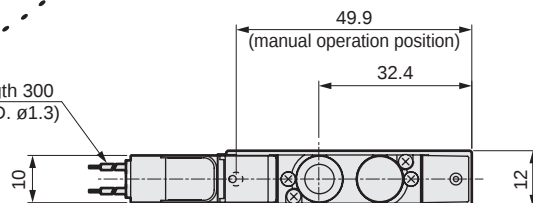
3GA110R * NPT thread and G thread specifications are listed on pages 52 to 59.

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

● Mounting plate (P)

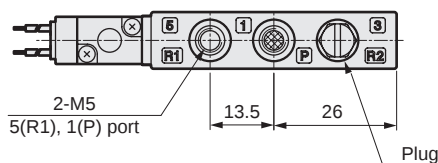
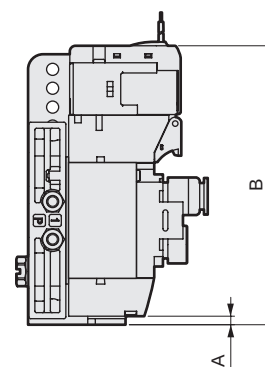
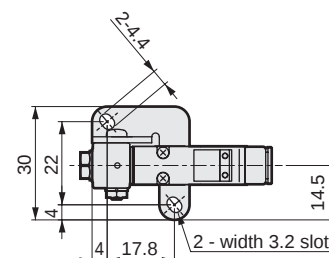
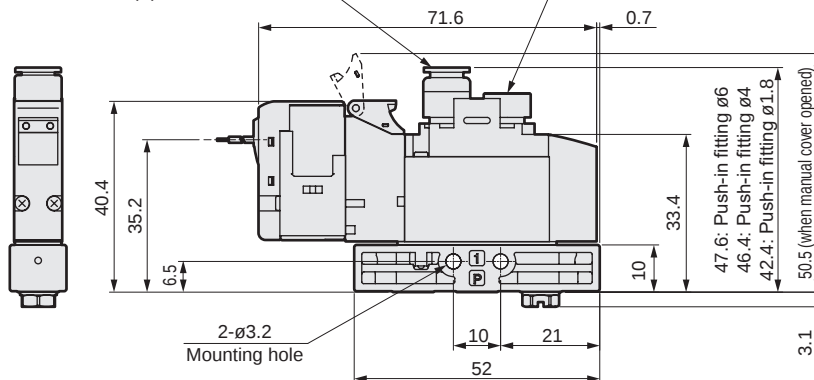


Lead wire length 300
(AWG#26, O.D. ϕ 1.3)



Push-in fitting ϕ 1.8, ϕ 4, ϕ 6 (selection)
4(A) Port

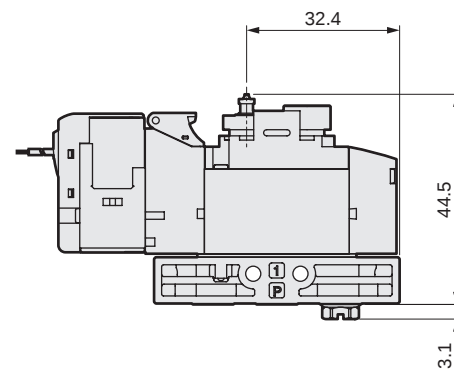
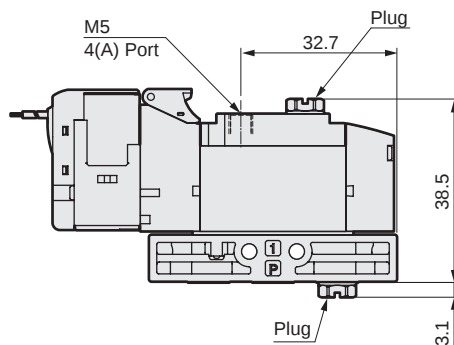
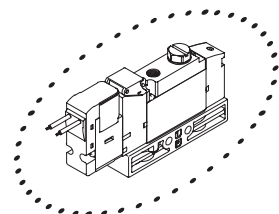
Plug



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

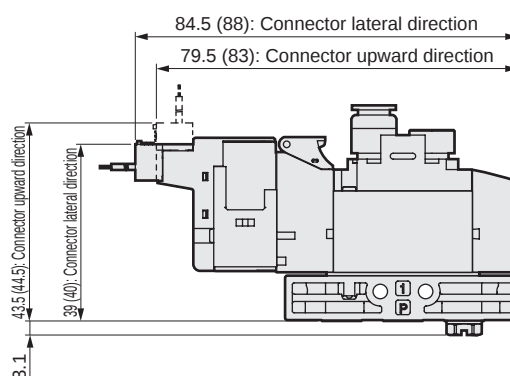
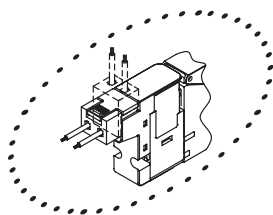
● M5 female thread (M5)

● ϕ 1.8 barbed fitting (CF)



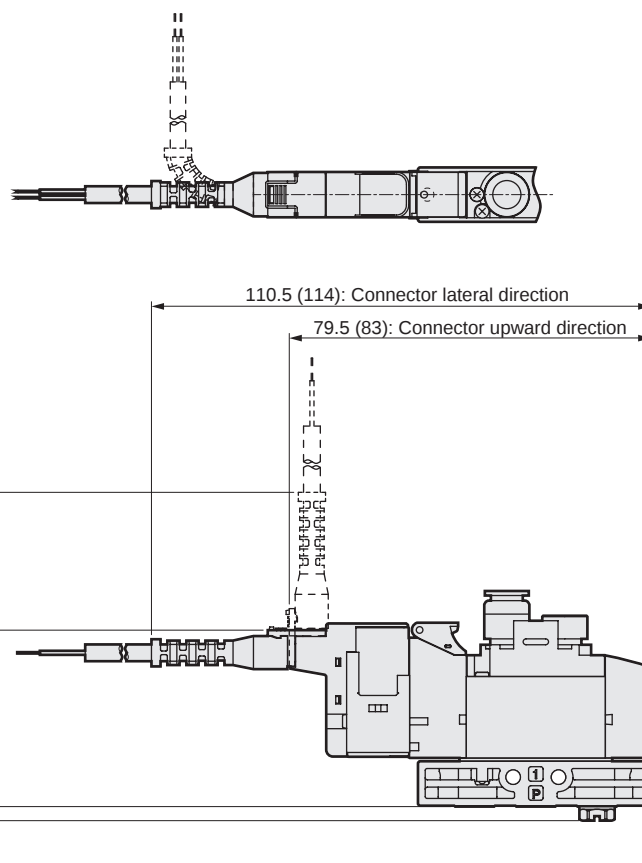
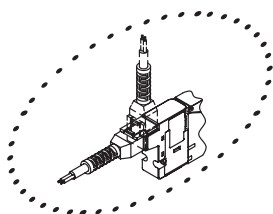
Dimensions

● E-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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

3GA1 Series

Discrete valve; body piping

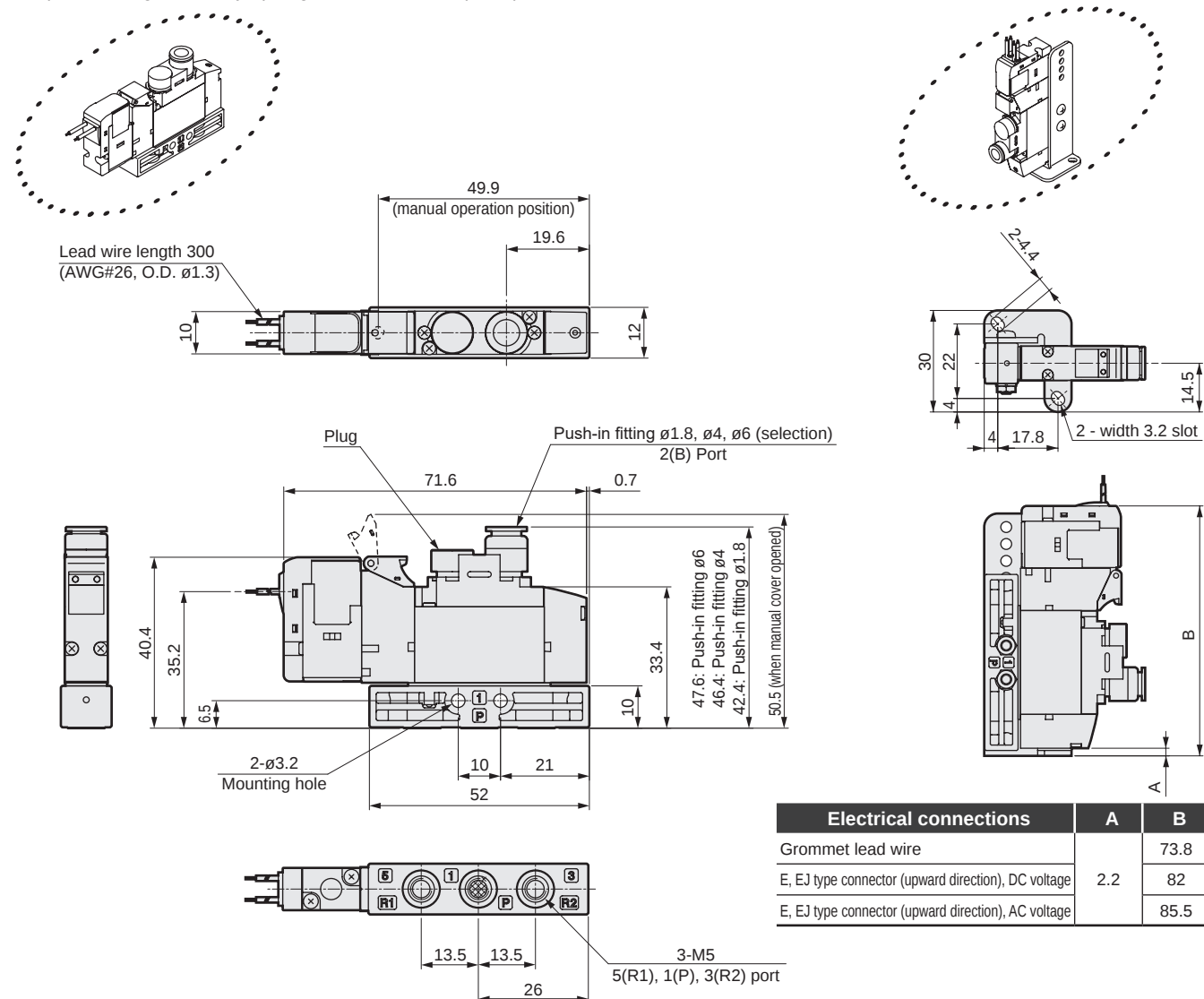
Dimensions



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

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

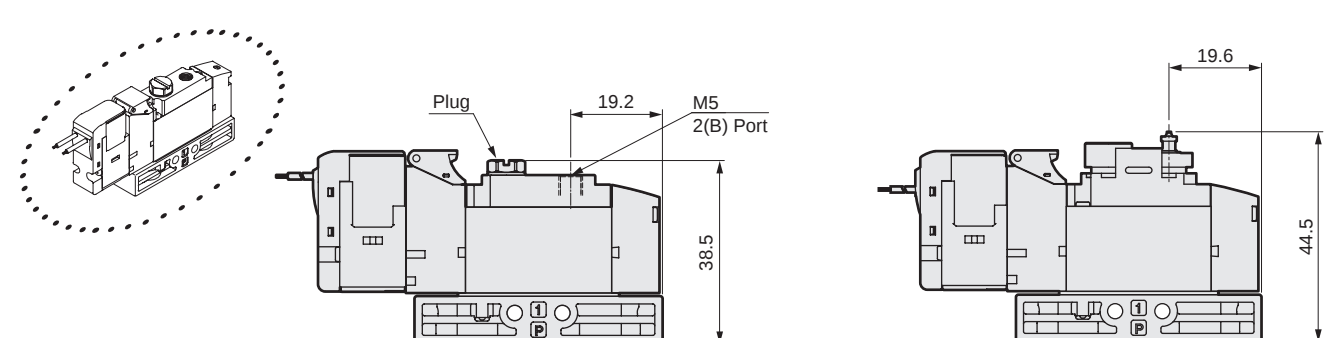
● Mounting plate (P)



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

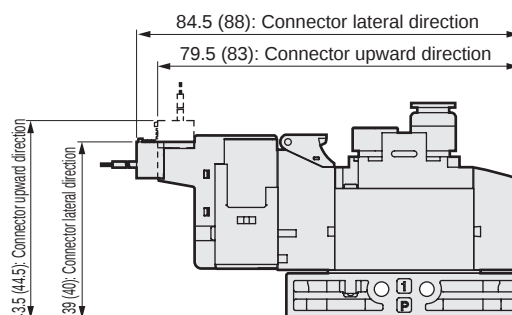
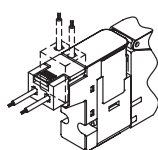
● M5 female thread (M5)

● ø1.8 barbed fitting (CF)



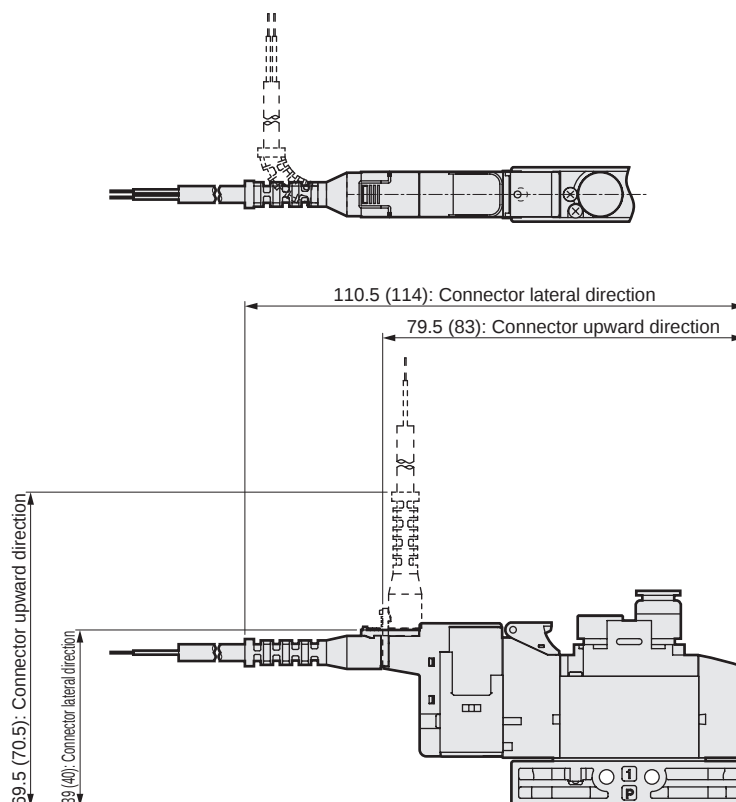
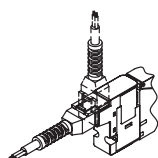
Dimensions

● E-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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

3GA2 Series

Discrete valve; body piping

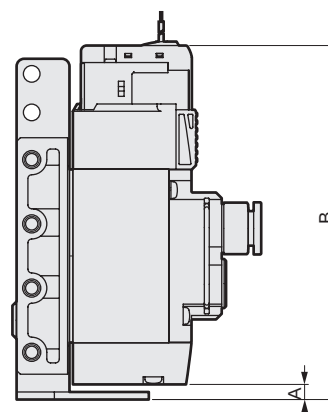
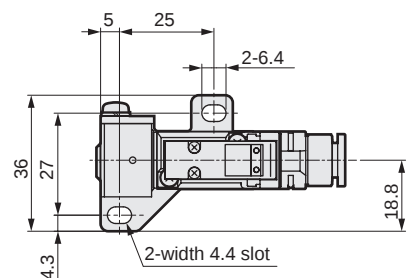
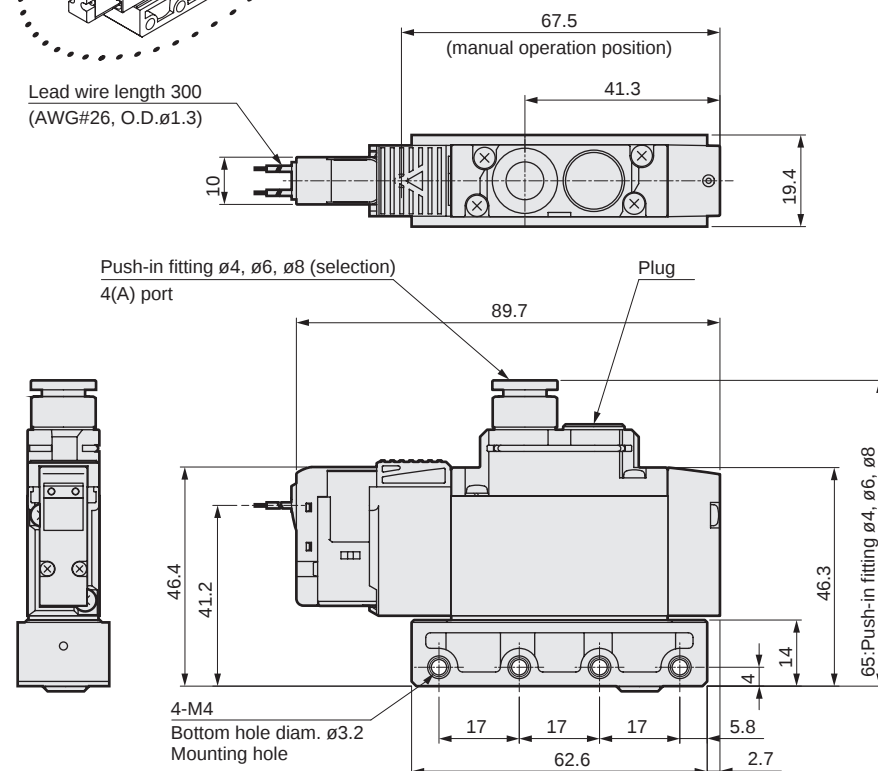
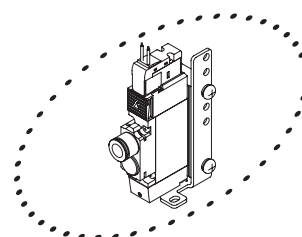
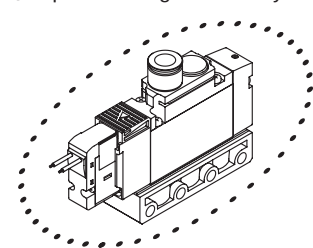
Dimensions



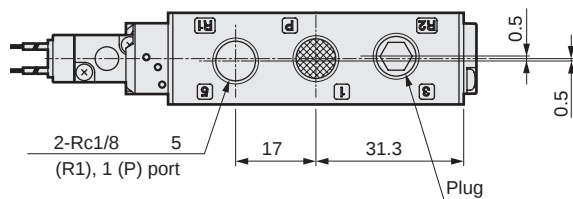
3GA210R * NPT thread and G thread specifications are listed on pages 52 to 59.

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

● Mounting plate (P)

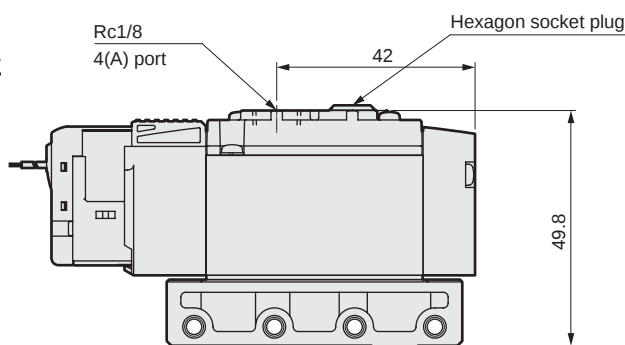
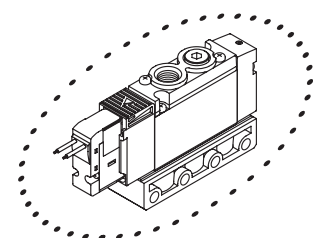


*Refer to page 853 for mounting hole details.



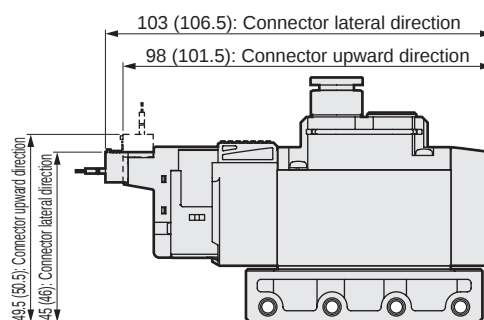
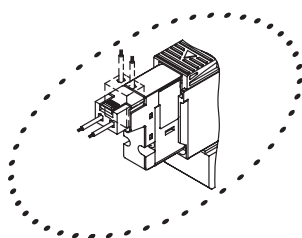
Electrical connections	A	B
Grommet lead wire	4	93.7
E, EJ type connector (upward direction), DC voltage		102
E, EJ type connector (upward direction), AC voltage		105.5
DIN terminal box (inner direction)		112.7

● Rc1/8 female thread (06)



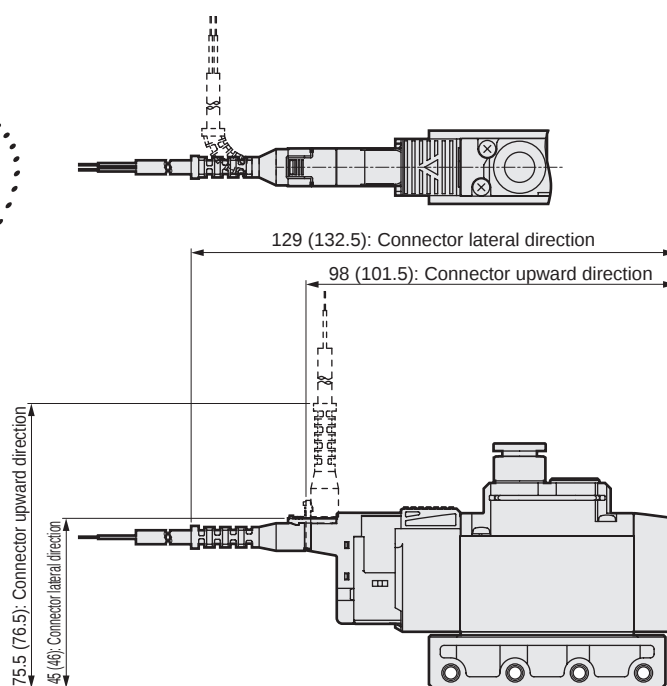
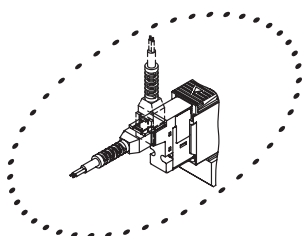
Dimensions

● E-connector (E)



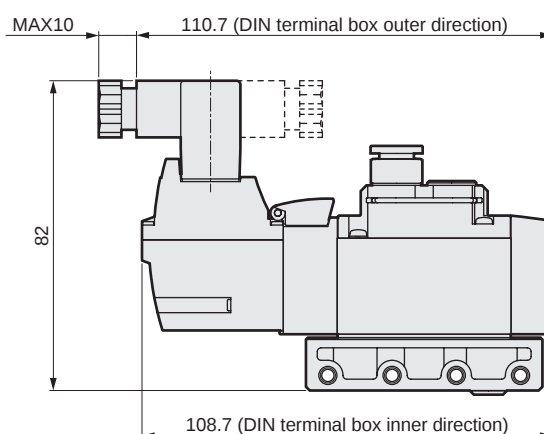
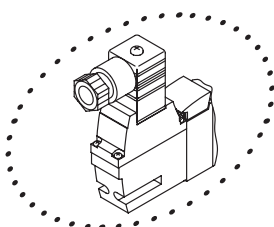
Note: Values in () are for AC voltage.

● 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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

3GA2 Series

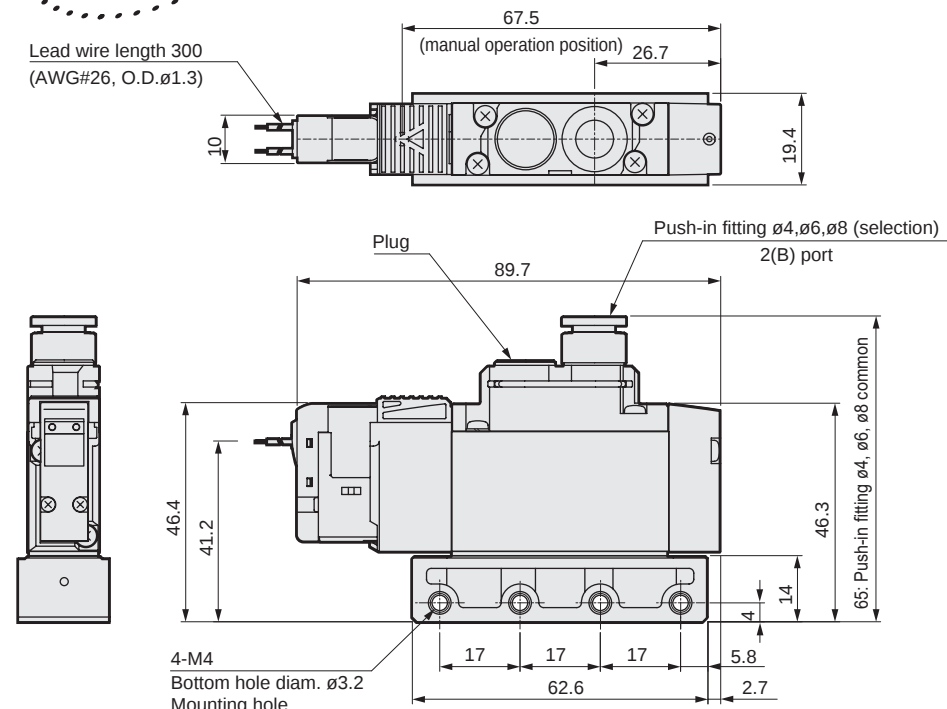
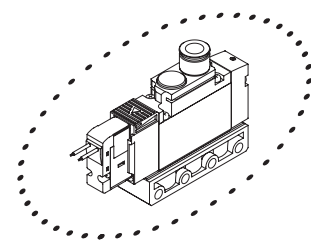
Discrete valve; body piping

Dimensions



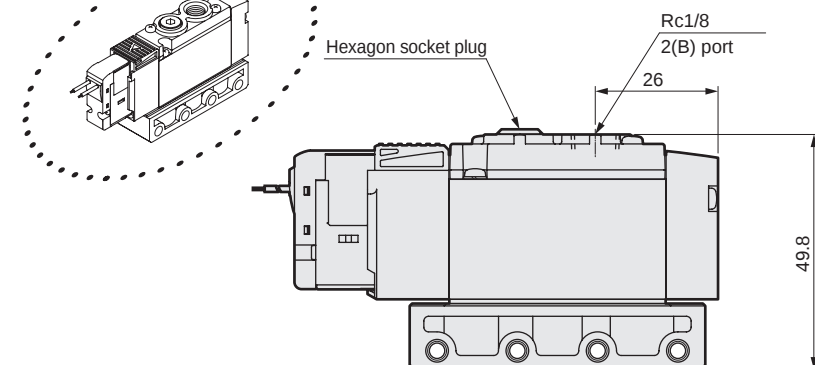
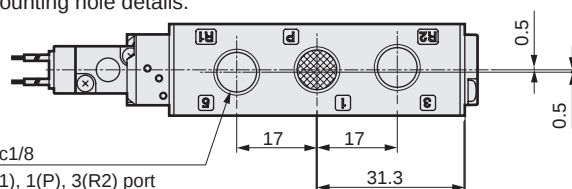
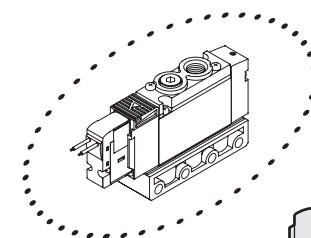
3GA2110R * NPT thread and G thread specifications are listed on pages 52 to 59.

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

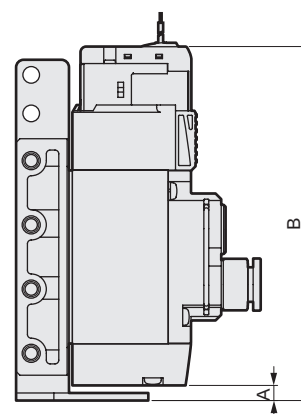
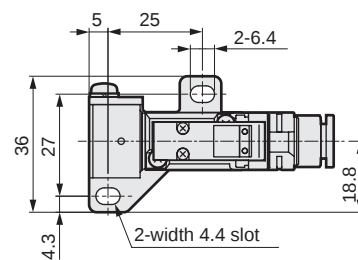
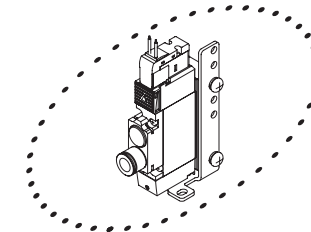


*Refer to page 853 for mounting hole details.

● Rc1/8 female thread (06)



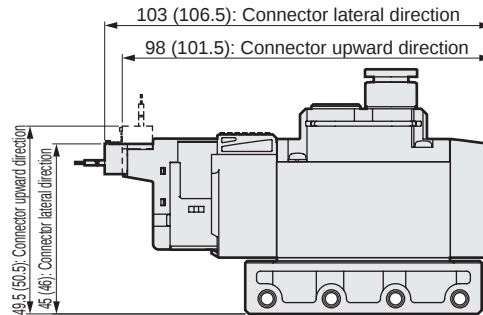
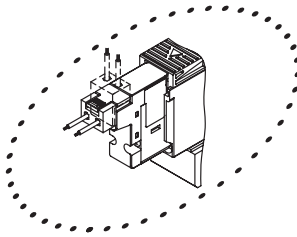
● Mounting plate (P)



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

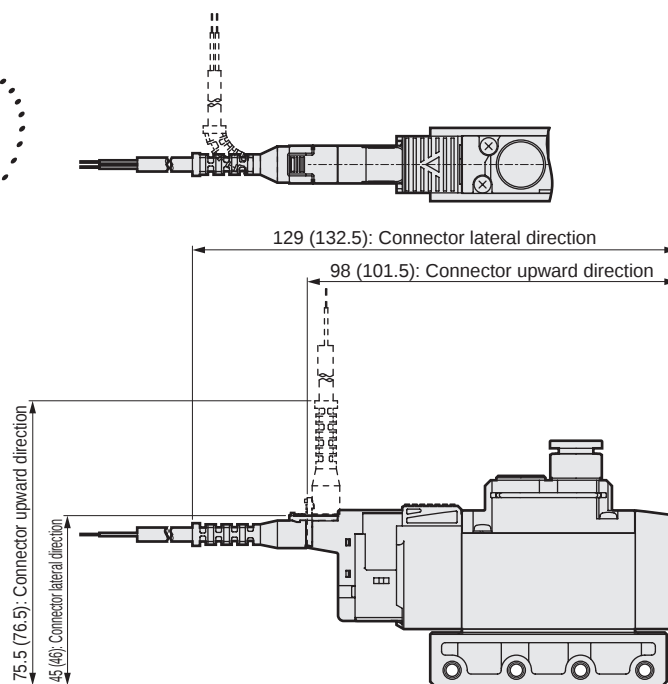
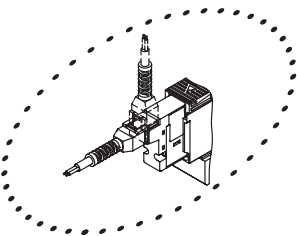
Dimensions

● E-connector (E)



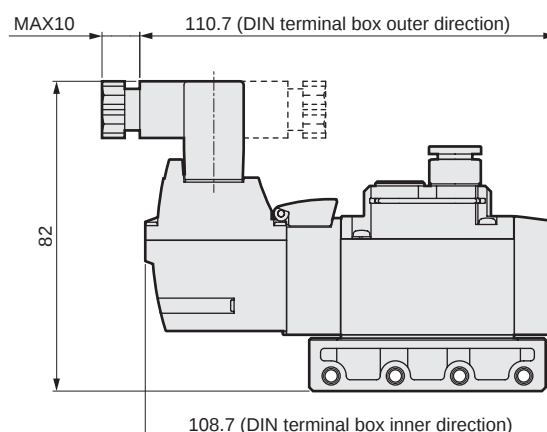
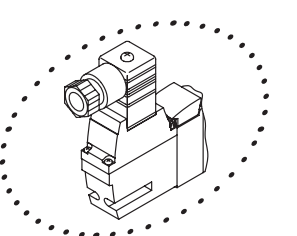
Note: Values in () are for AC voltage.

● 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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

3GA3 Series

Discrete valve; body piping

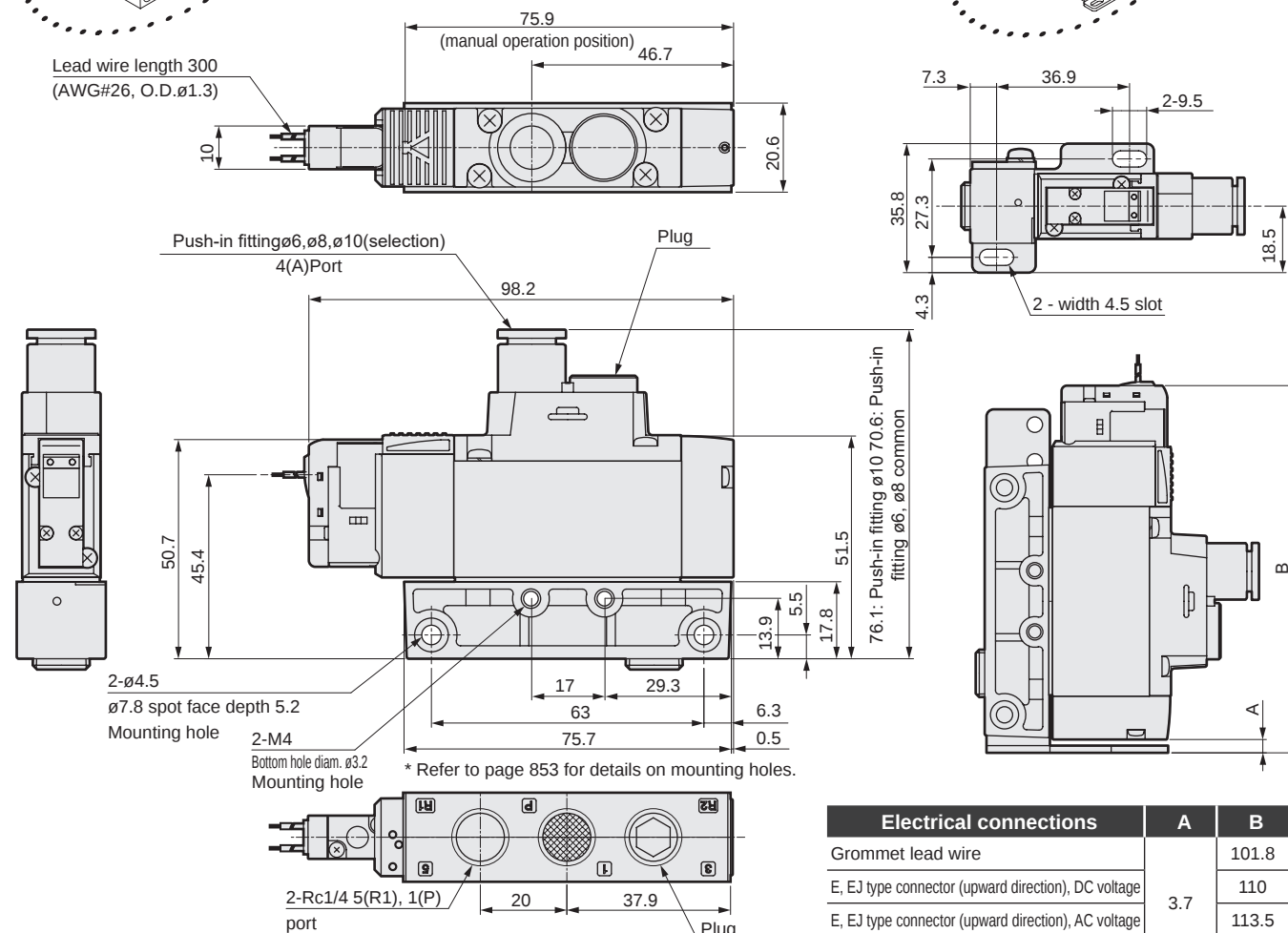
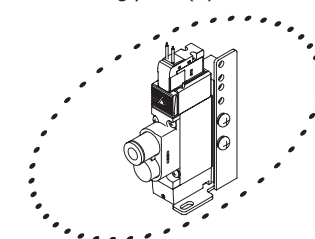
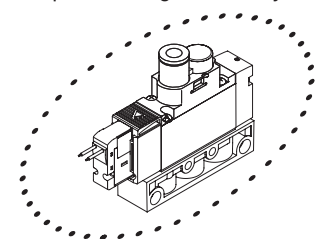
Dimensions



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

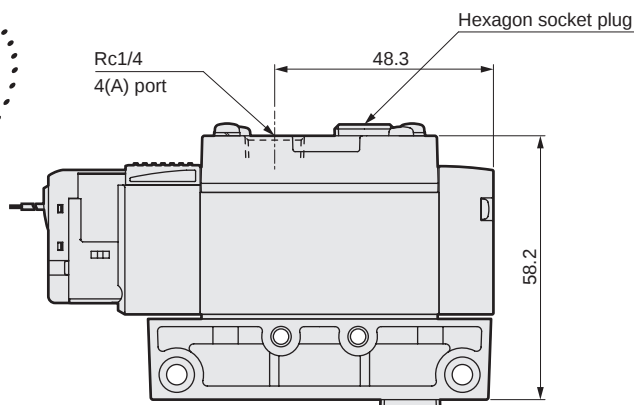
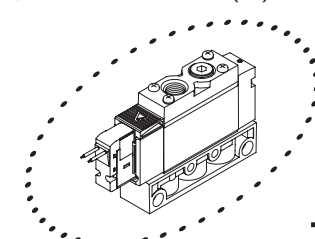
● 2-position single: Normally closed grommet lead wire (blank)

● Mounting plate (P)



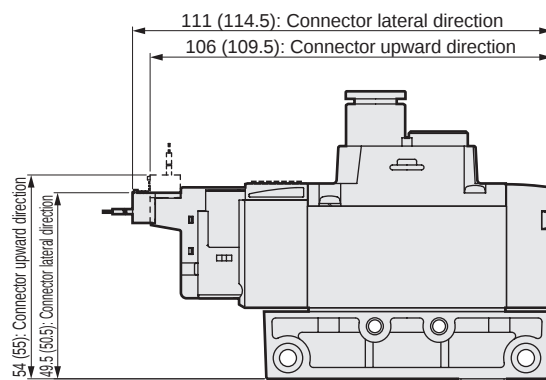
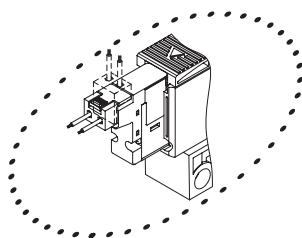
Electrical connections	A	B
Grommet lead wire	3.7	101.8
E, EJ type connector (upward direction), DC voltage		110
E, EJ type connector (upward direction), AC voltage		113.5
DIN terminal box (inner direction)		120.9

● Rc1/4 female thread (08)

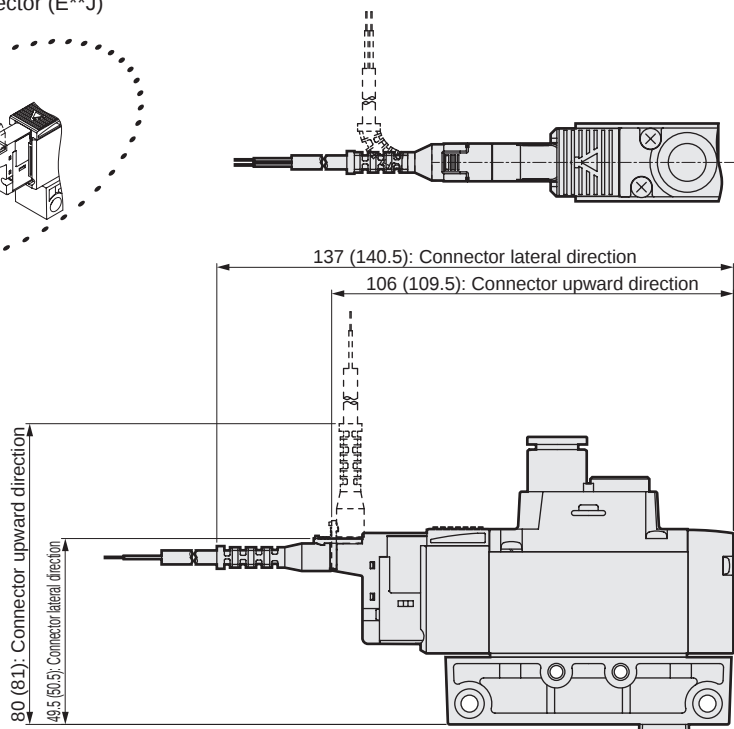
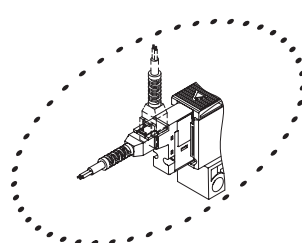


Dimensions

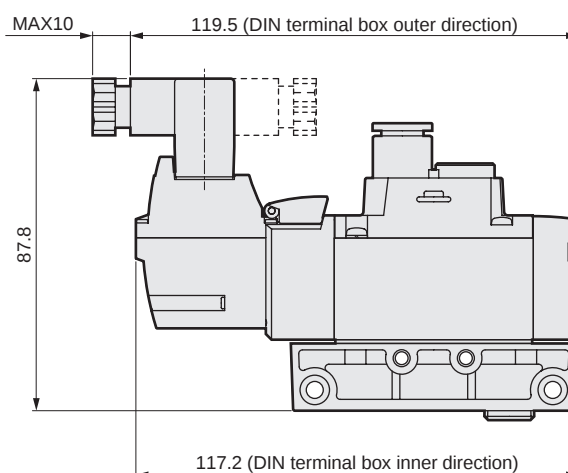
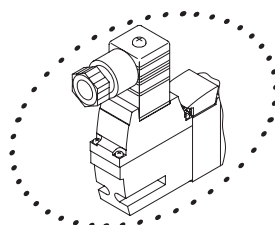
● E-connector (E)



● EJ type connector (E**J)



● DIN terminal box (B)



Note: Values in () are for AC voltage.

Note: Values in () are for AC voltage.

Note: DIN terminal box assembly is shipped facing inward.

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

3GA3 Series

Discrete valve; body piping

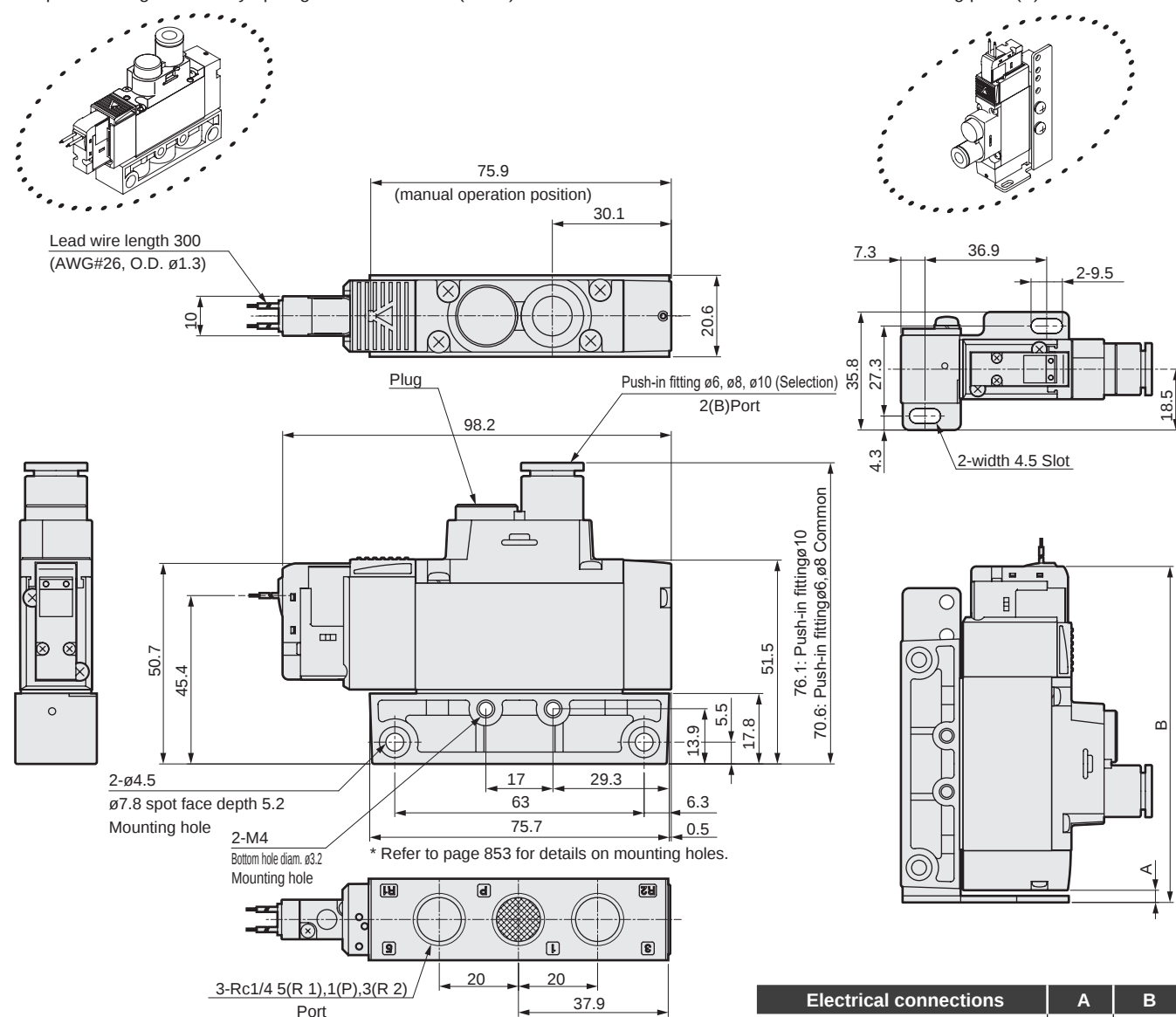
Dimensions



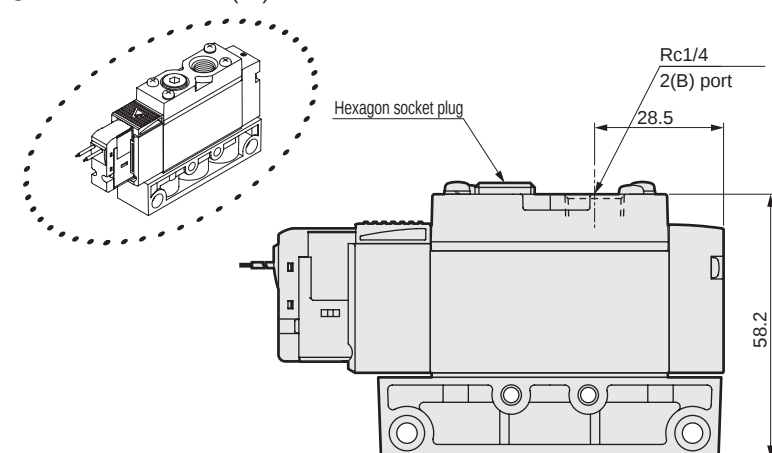
3GA3110R * NPT thread and G thread specifications are listed on pages 52 to 59.

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

● Mounting plate (P)



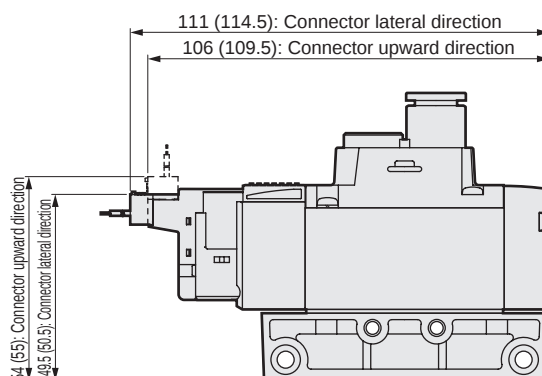
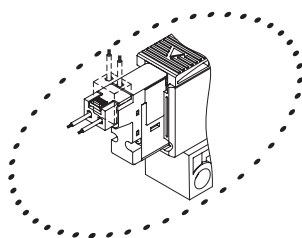
● Rc1/4 female thread (08)



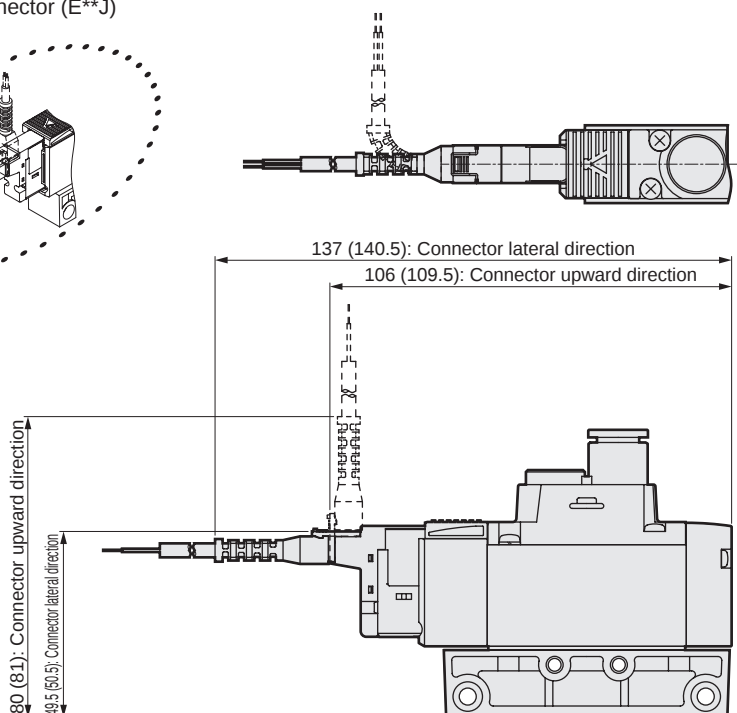
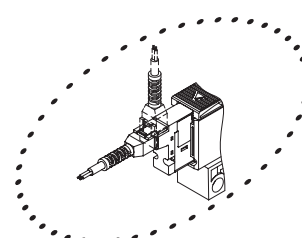
Electrical connections	A	B
Grommet lead wire	3.7	101.8
E, EJ type connector (upward direction), DC voltage		110
E, EJ type connector (upward direction), AC voltage		113.5
DIN terminal box (inner direction)		120.9

Dimensions

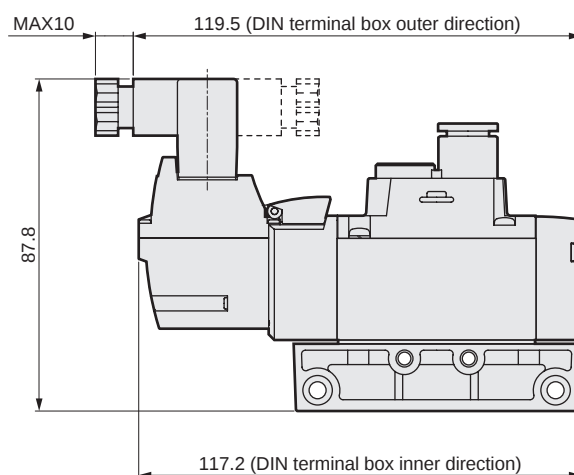
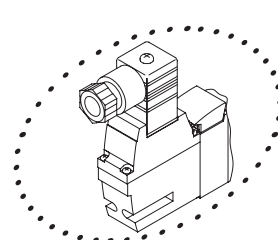
● E-connector (E)



● EJ type connector (E**J)



● DIN terminal box (B)



Note: Values in () are for AC voltage.

Note: Values in () are for AC voltage.

Note: DIN terminal box assembly is shipped facing inward.

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4GA1 Series

Discrete valve; body piping

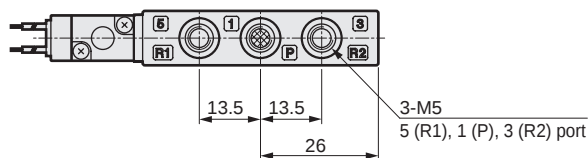
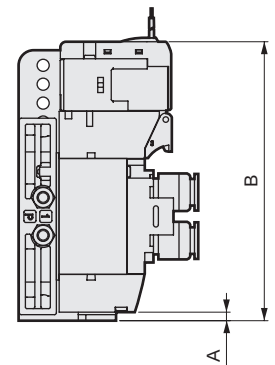
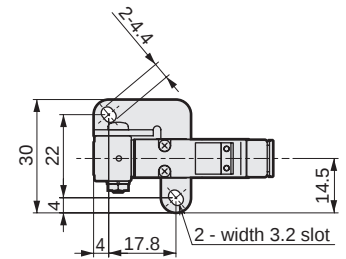
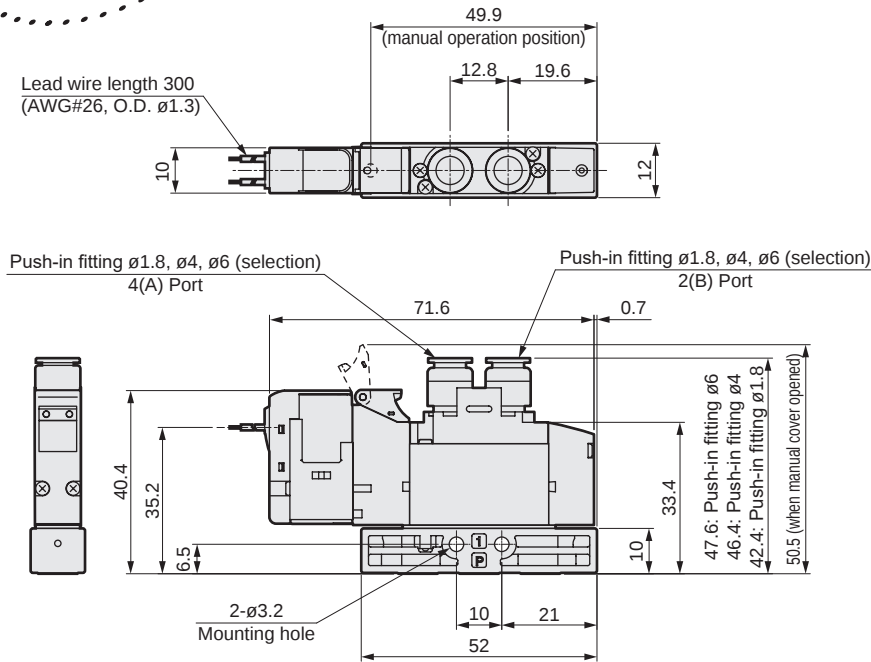
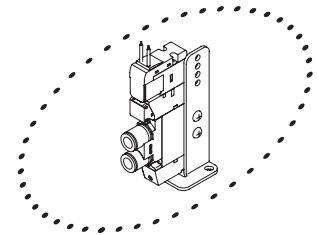
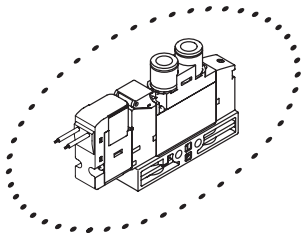
Dimension diagram



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

● 2-position single grommet lead wire (blank)

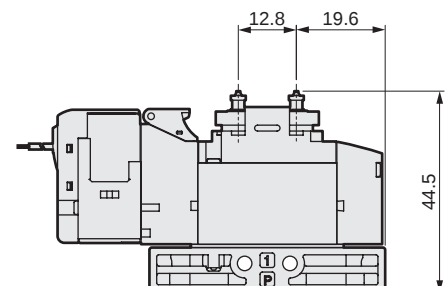
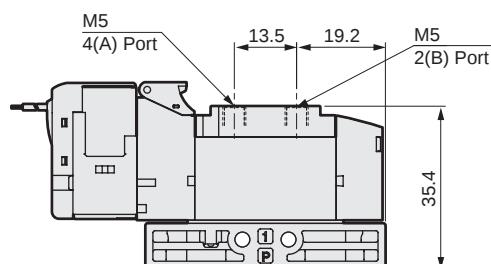
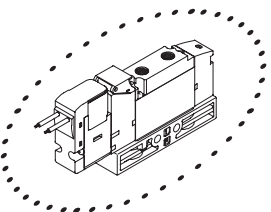
● Mounting plate (P)



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

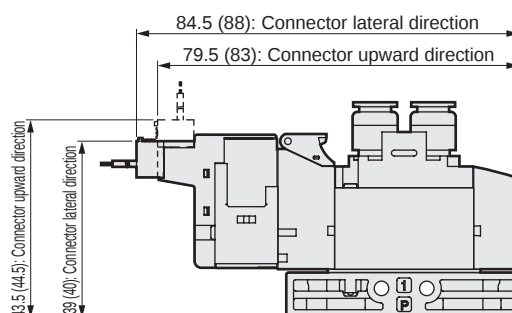
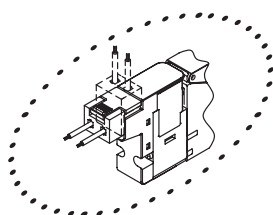
● M5 female thread (M5)

● ø1.8 barbed fitting (CF)



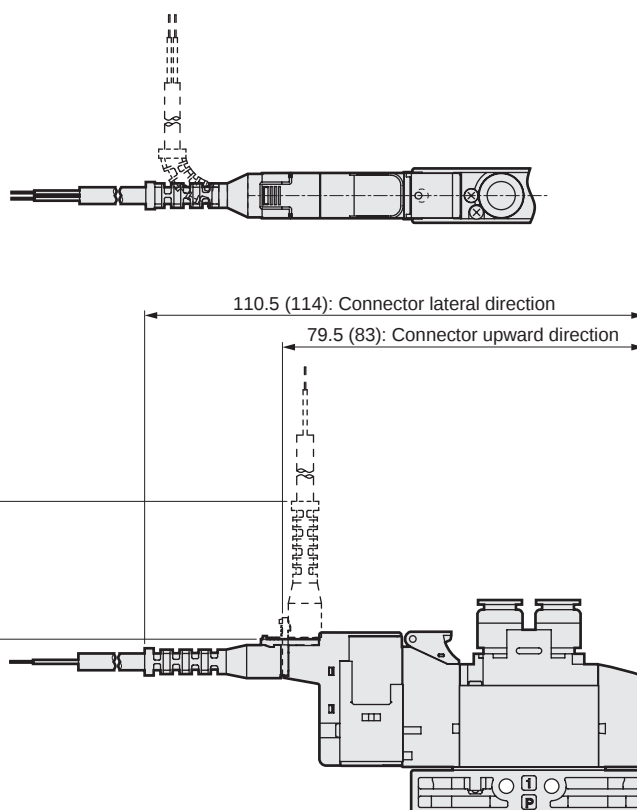
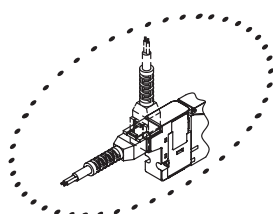
Dimensions

● E-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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4GA1 Series

Discrete valve; body piping

Dimensions



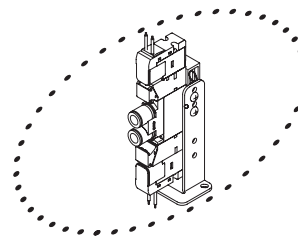
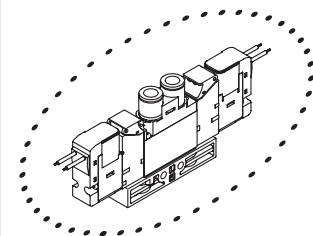
4GA120R * NPT thread and G thread specifications are listed on pages 52 to 59.

● 2-position double grommet lead wire (blank)

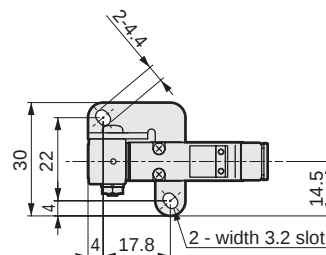
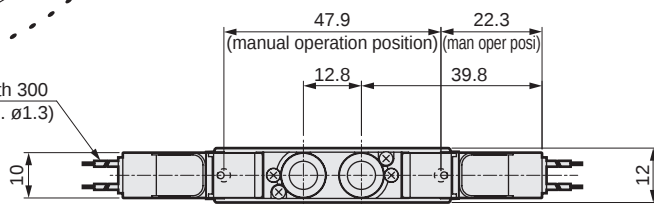
3GA1660R, 3GA1670R, 3GA1760R, 3GA1770R

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

● Mounting plate (P)

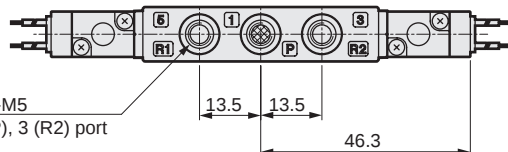
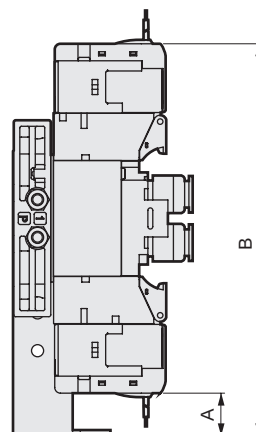
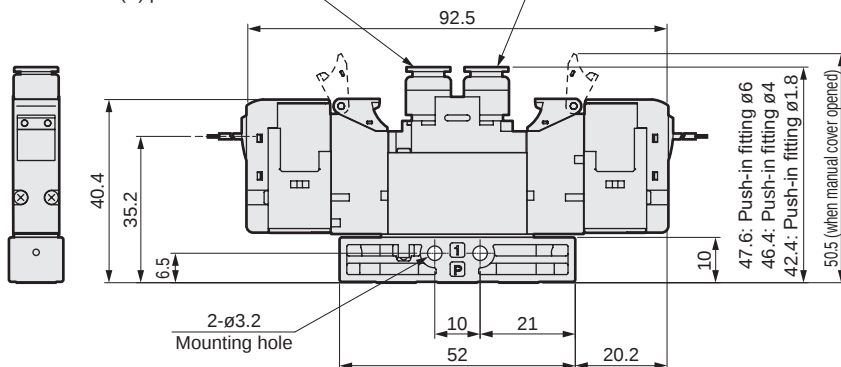


Lead wire length 300
(AWG#26, O.D. ø1.3)



Push-in fitting ø1.8, ø4, ø6 (selection)
4(A) port

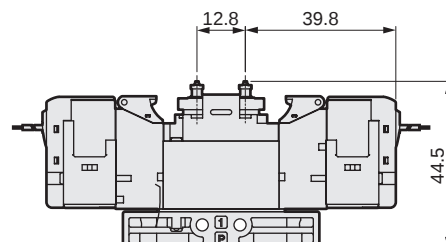
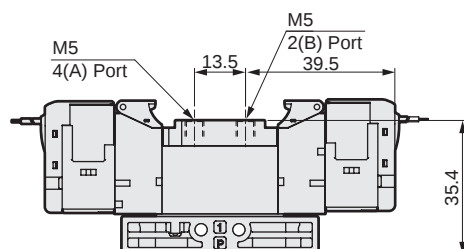
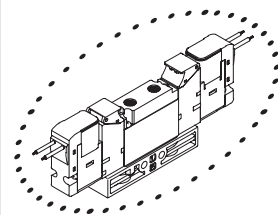
Push-in fitting ø1.8, ø4, ø6 (selection)
2(B) port



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

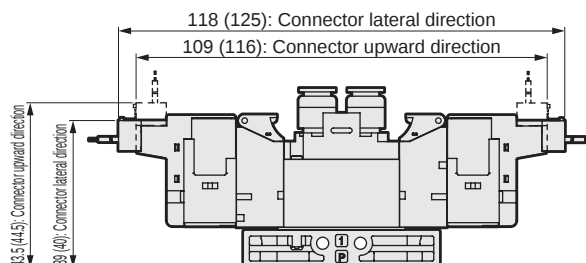
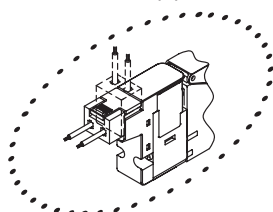
● M5 female thread (M5)

● ø1.8 barbed fitting (CF)



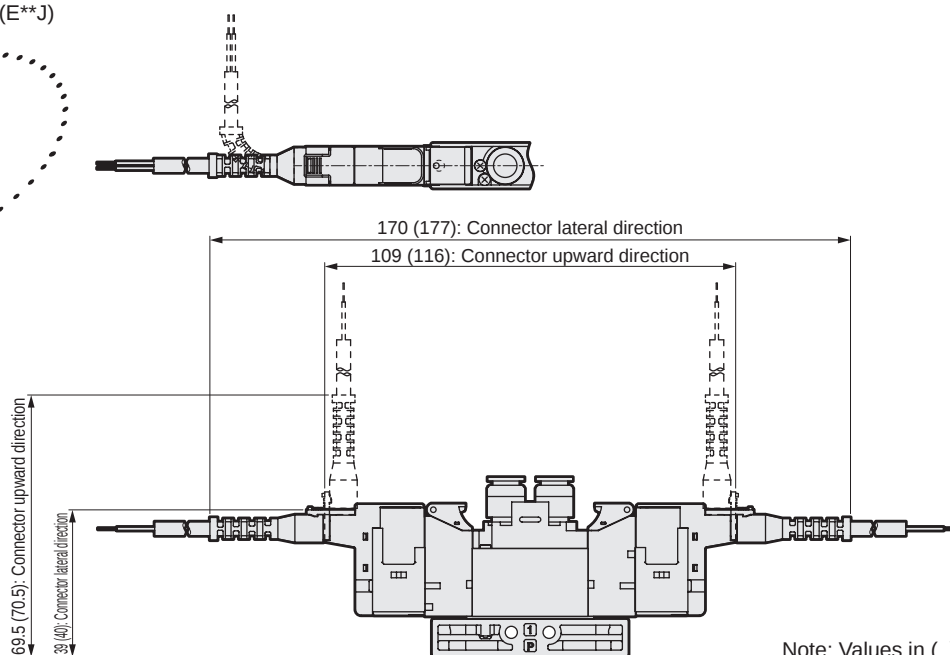
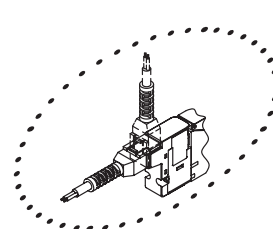
Dimensions

● E-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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4GA1 Series

Discrete valve; body piping

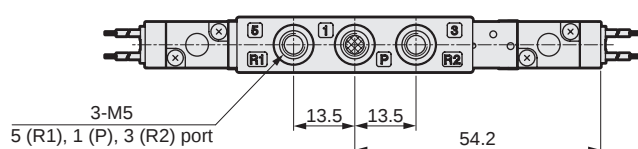
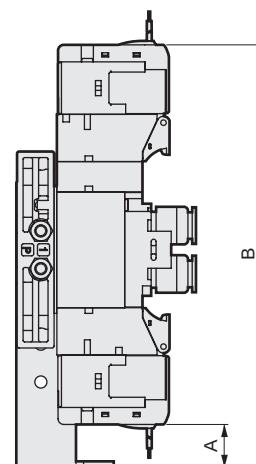
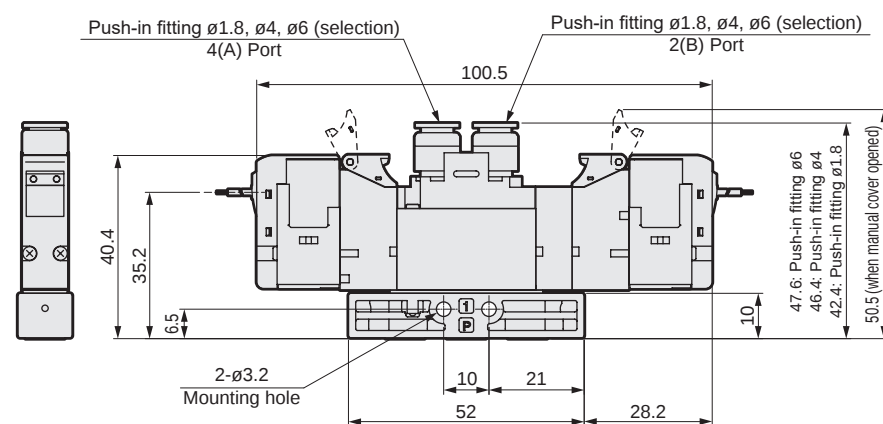
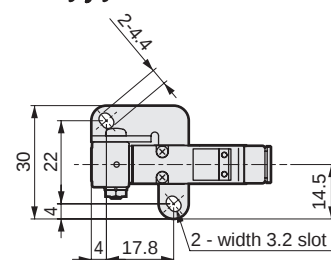
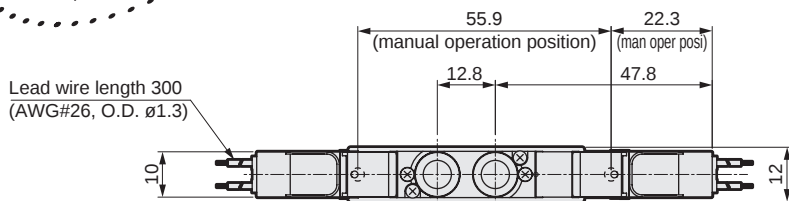
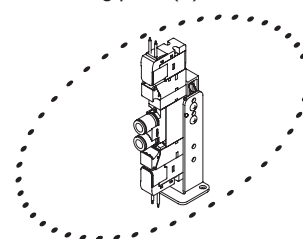
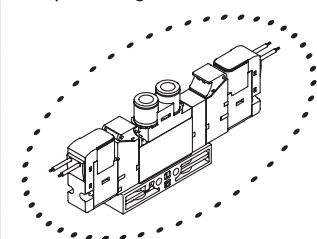
Dimensions



4GA1³/₅OR * NPT thread and G thread specifications are listed on pages 52 to 59.

● 3-position grommet lead wire (blank)

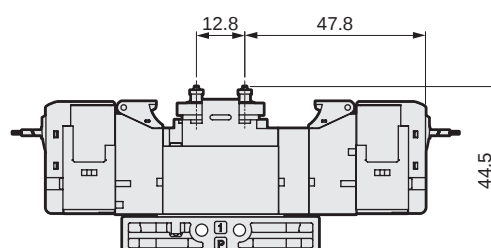
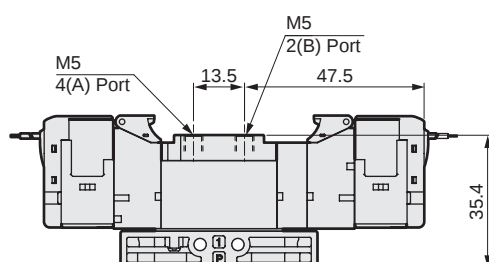
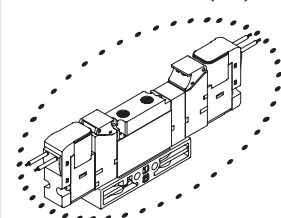
● Mounting plate (P)



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

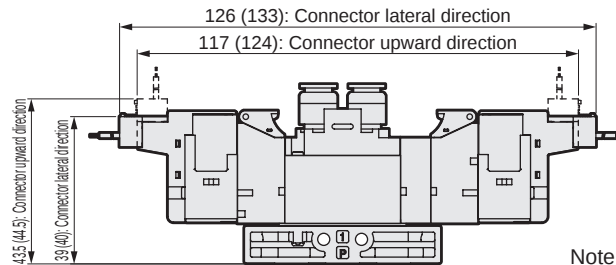
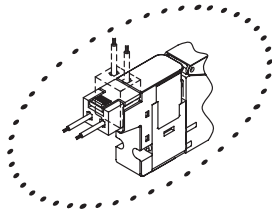
● M5 female thread (M5)

● $\phi 1.8$ barbed fitting (CF)



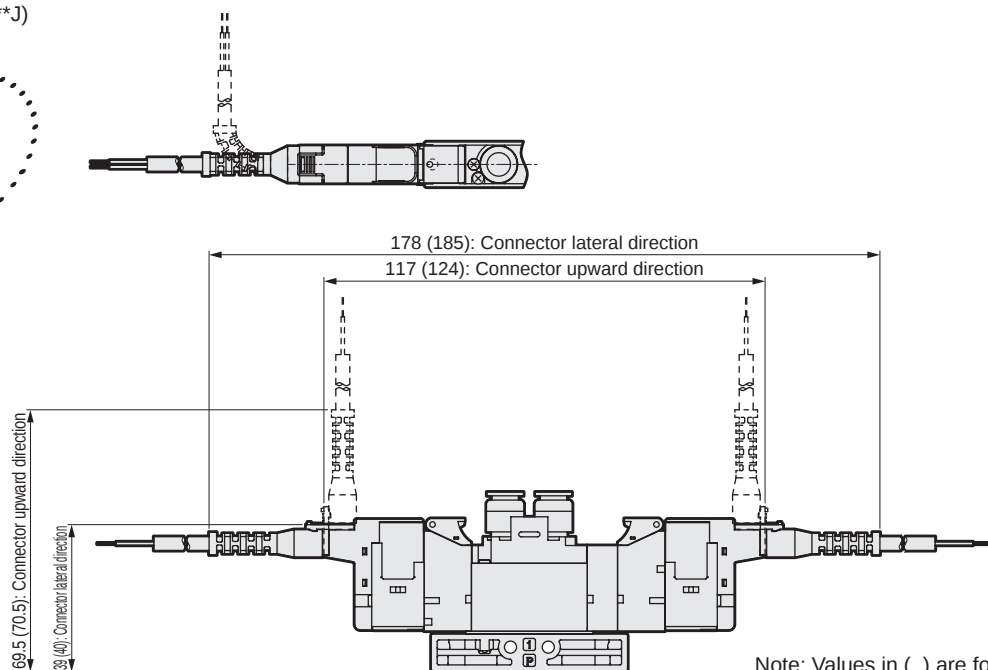
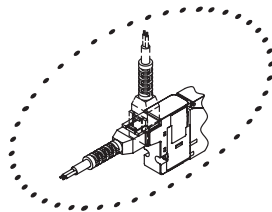
Dimensions

● E-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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4GA2 Series

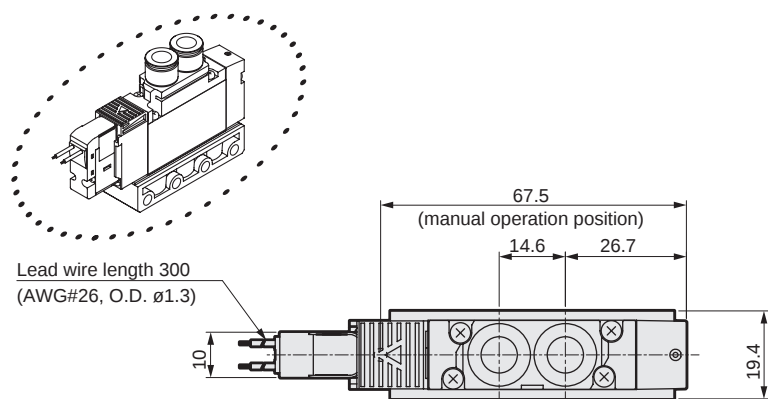
Discrete valve; body piping

Dimensions

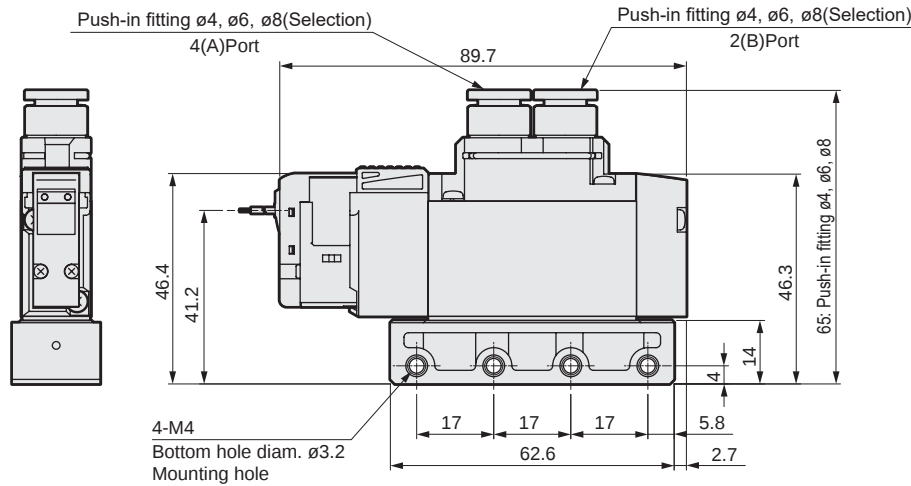
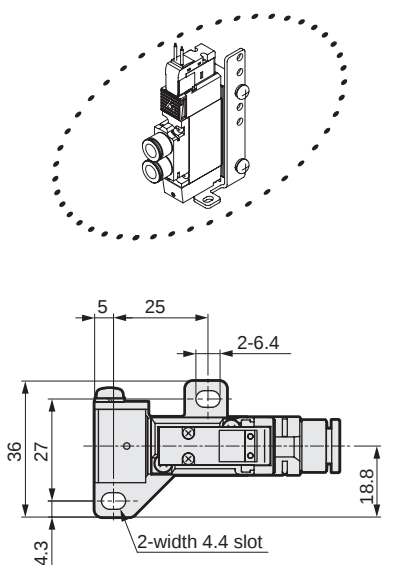


4GA210R * NPT thread and G thread specifications are listed on pages 52 to 59.

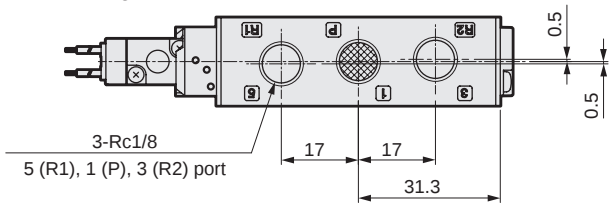
● 2-position single grommet lead wire (blank)



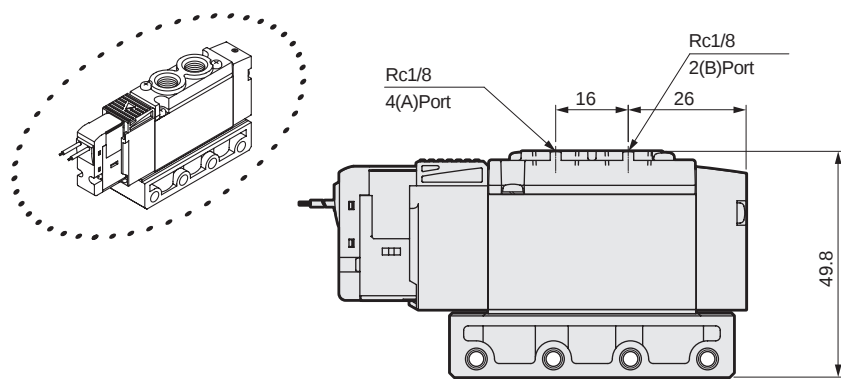
● Mounting plate (P)



*Refer to page 853 for mounting hole details.



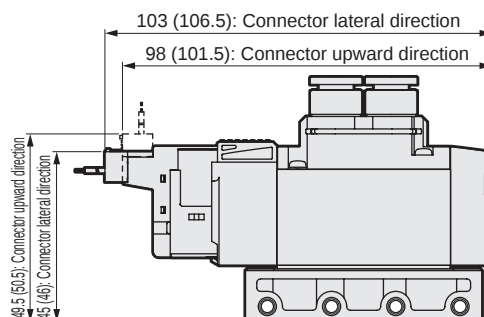
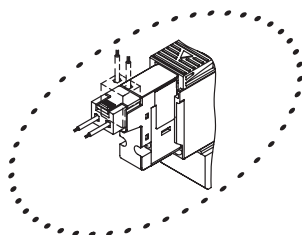
● Rc1/8 female thread (06)



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

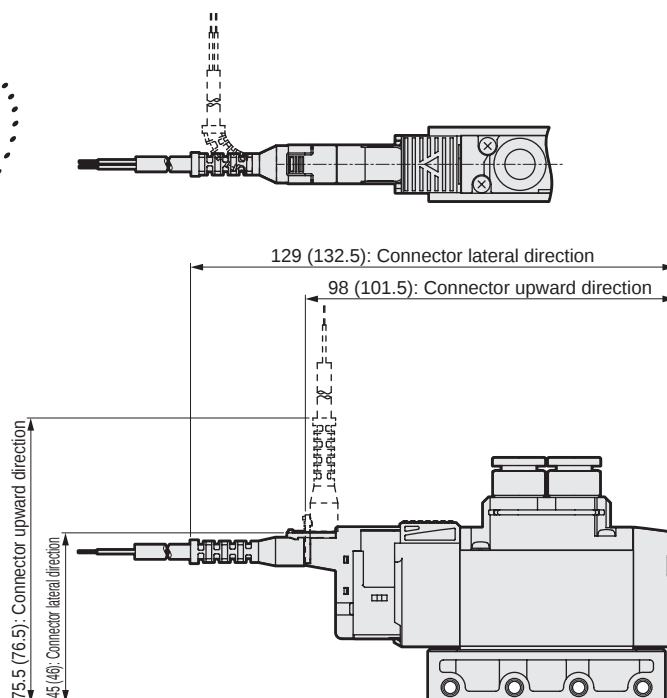
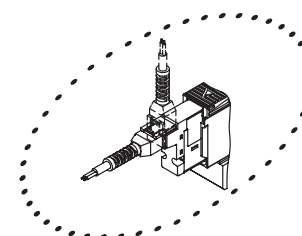
Dimensions

● E-connector (E)



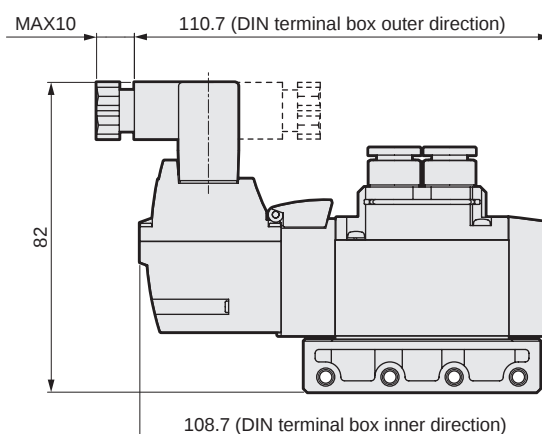
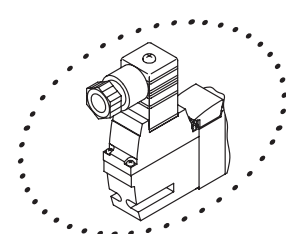
Note: Values in () are for AC voltage.

● 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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4GA2 Series

Discrete valve; body piping

Dimensions



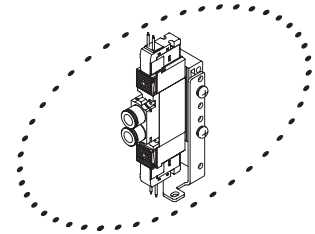
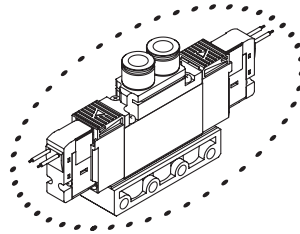
4GA220R * NPT thread and G thread specifications are listed on pages 52 to 59.

- 2-position double grommet lead wire (blank)

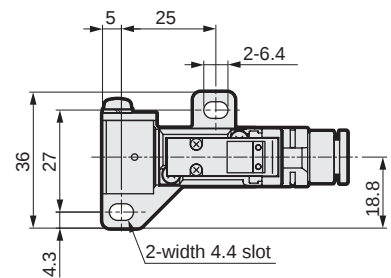
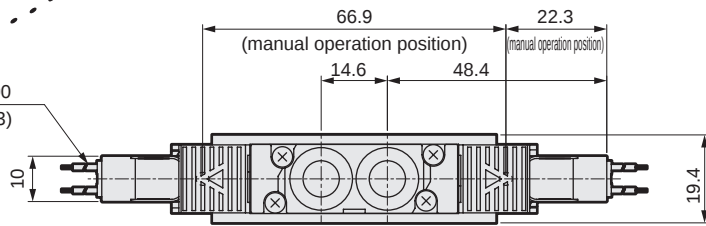
3GA2660R, 3GA2670R, 3GA2760R, 3GA2770R

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

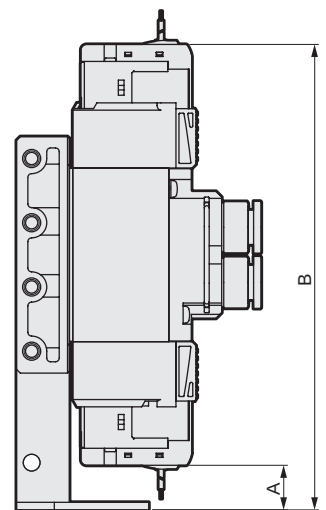
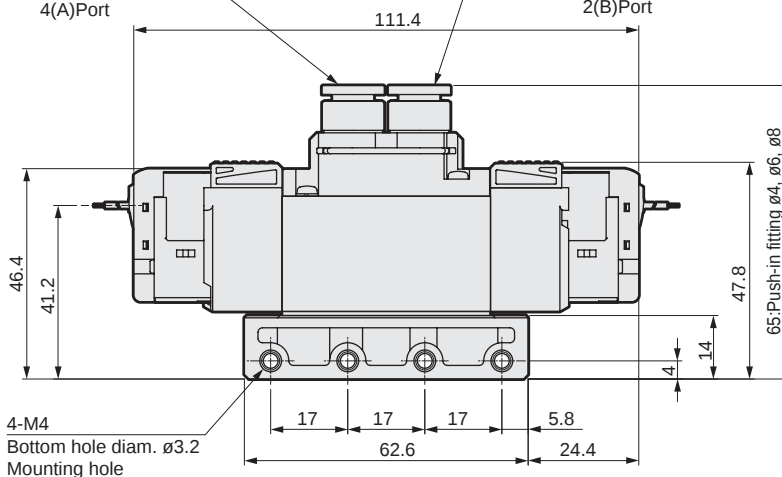
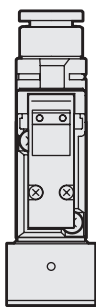
- Mounting plate (P)



Lead wire length 300
(AWG#26, O.D.ø1.3)

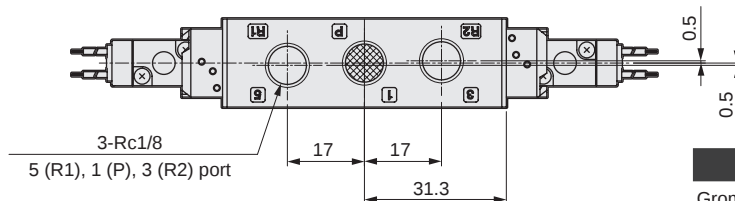


Push-in fitting ø4, ø6, ø8(Selection)
4(A)Port
111.4
Push-in fitting ø4, ø6, ø8(Selection)
2(B)Port

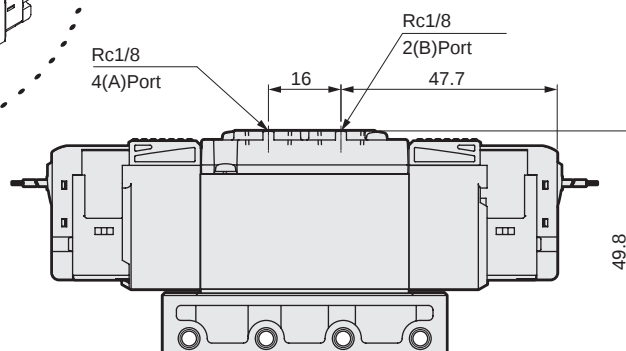
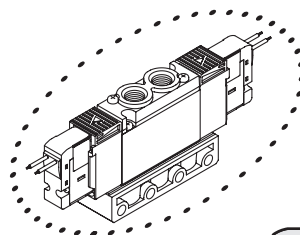


4-M4
Bottom hole diam. ø3.2
Mounting hole

*Refer to page 853 for mounting hole details.



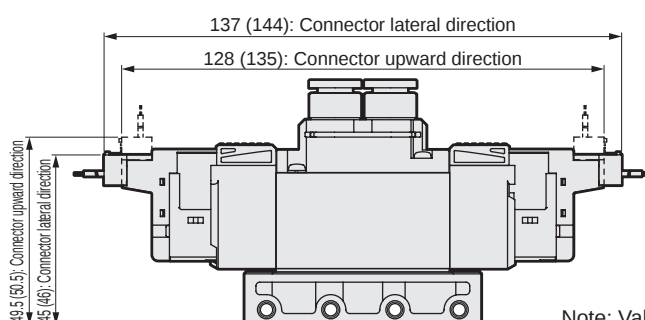
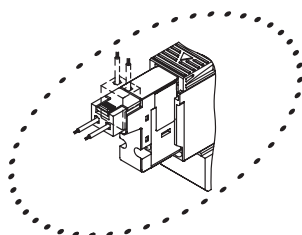
- Rc1/8 female thread (06)



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

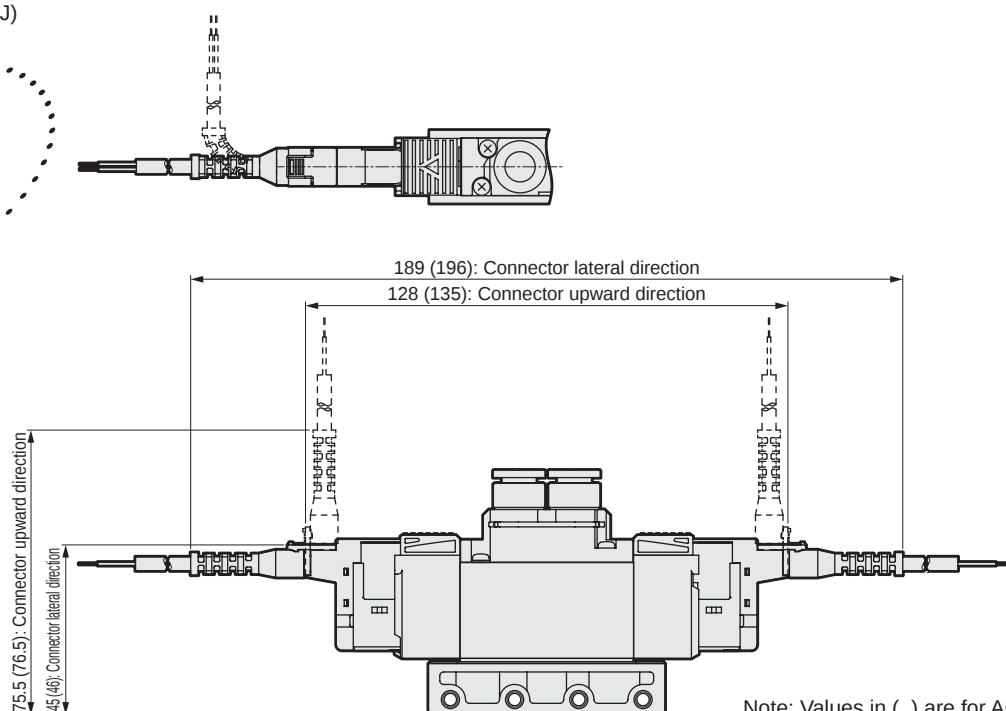
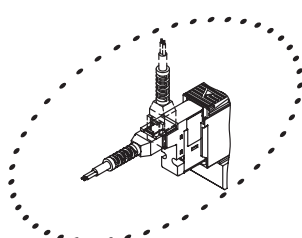
Dimensions

● E-connector (E)



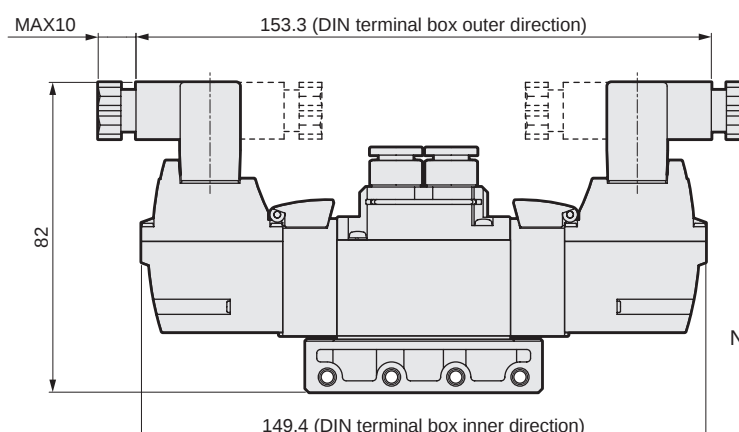
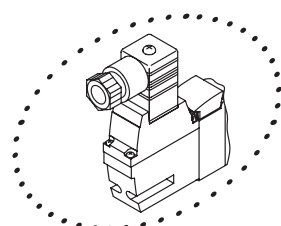
Note: Values in () are for AC voltage.

● 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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4GA2 Series

Discrete valve; body piping

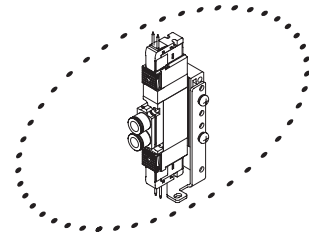
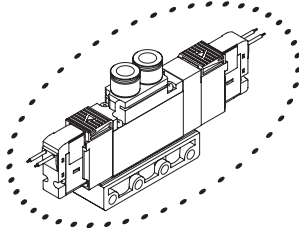
Dimensions



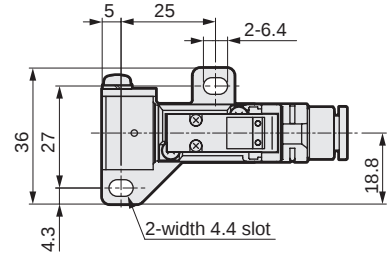
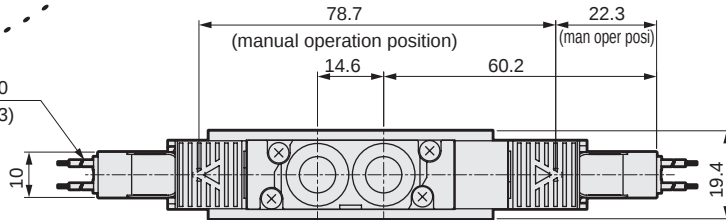
4GA2^{3/8}OR * NPT thread and G thread specifications are listed on pages 52 to 59.

● 3-position grommet lead wire (blank)

● Mounting plate (P)



Lead wire length 300
(AWG#26, O.D. ø1.3)

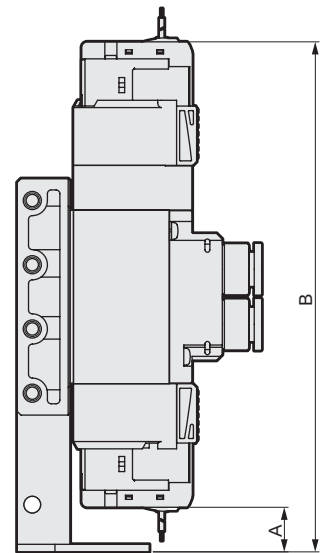
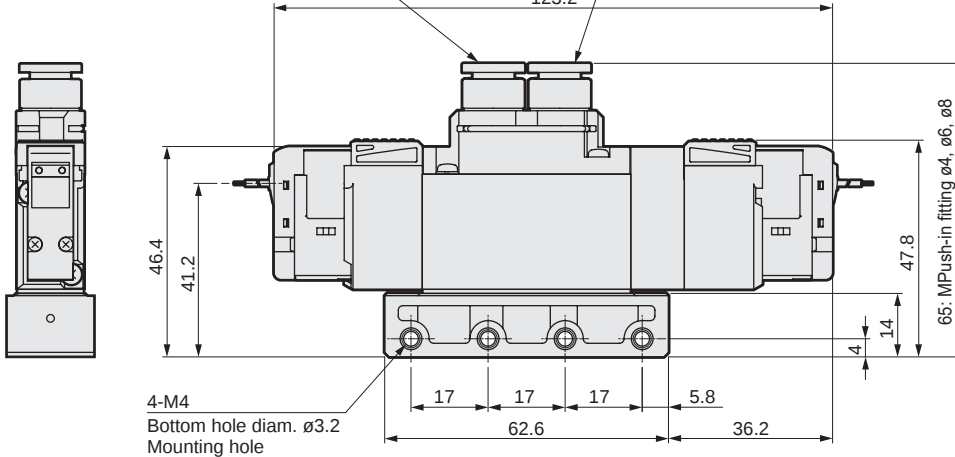


Push-in fitting ø4, ø6, ø8 (selection)

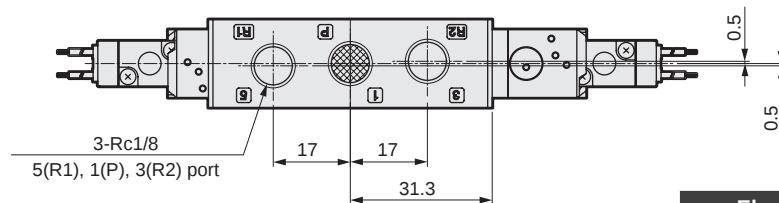
Push-in fitting ø4, ø6, ø8 (selection)

4(A) port

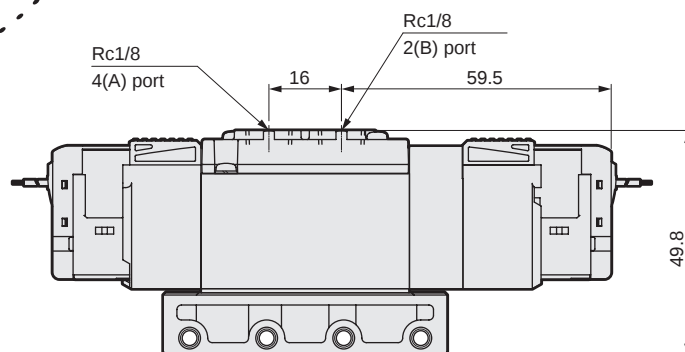
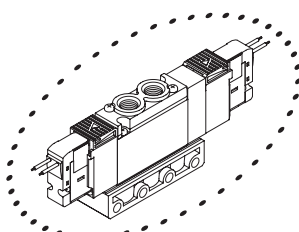
2(B) port



*Refer to page 853 for mounting hole details.



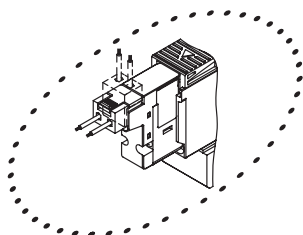
● Rc1/8 female thread (06)



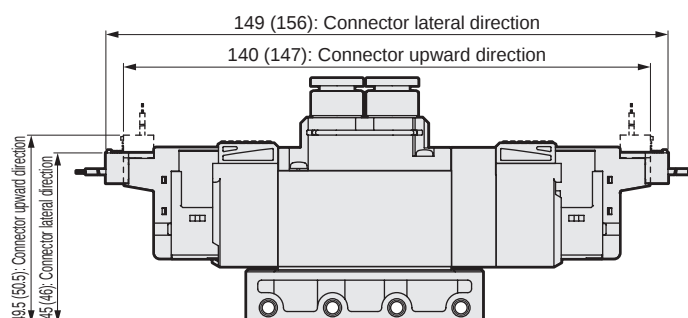
Electrical connections	A	B
Grommet lead wire	11.8	135
E, EJ type connector (upward direction), DC voltage	3.5	143
E, EJ type connector (upward direction), AC voltage	10.5	160.5
DIN terminal box (inner direction)	3	164.2

Dimensions

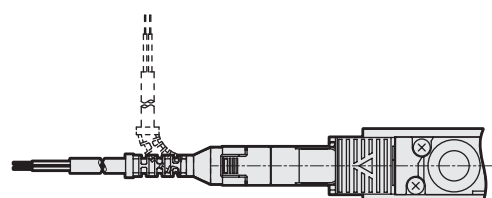
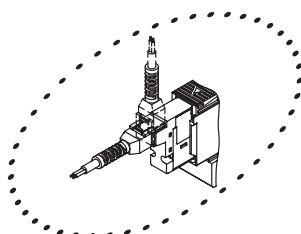
● E-connector (E)



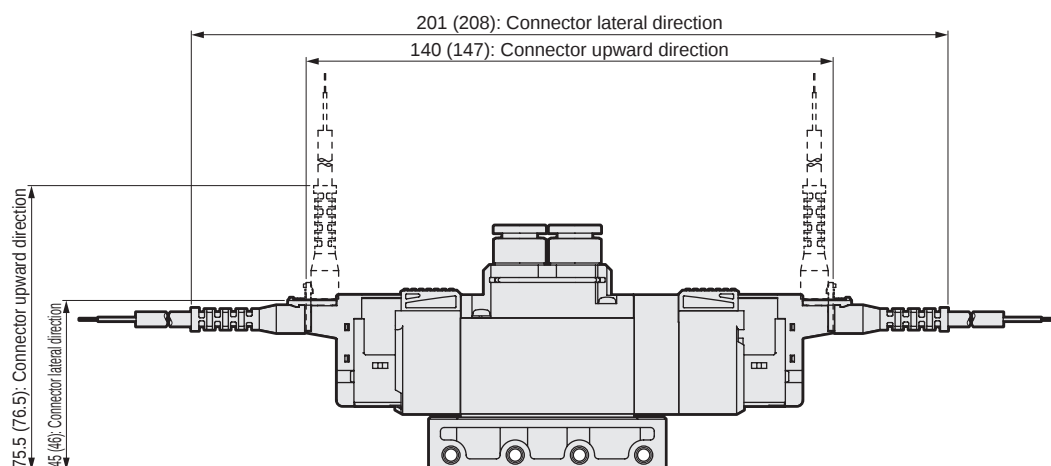
Note: Values in () are for AC voltage.



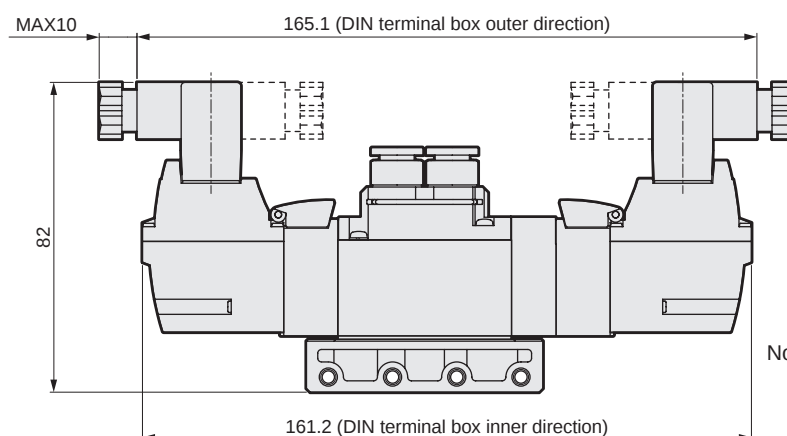
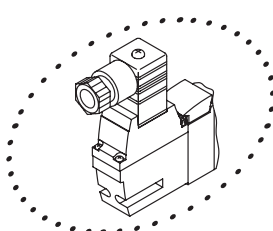
● EJ type connector (E**J)



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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

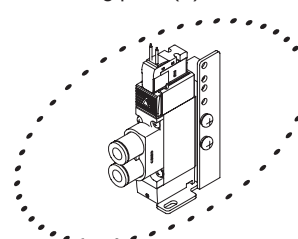
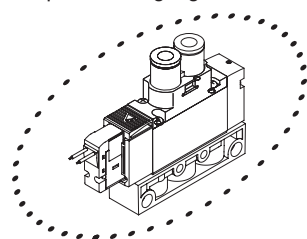
Discrete valve; body piping

Dimensions

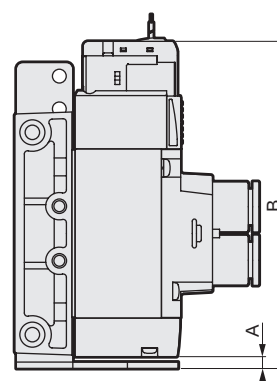
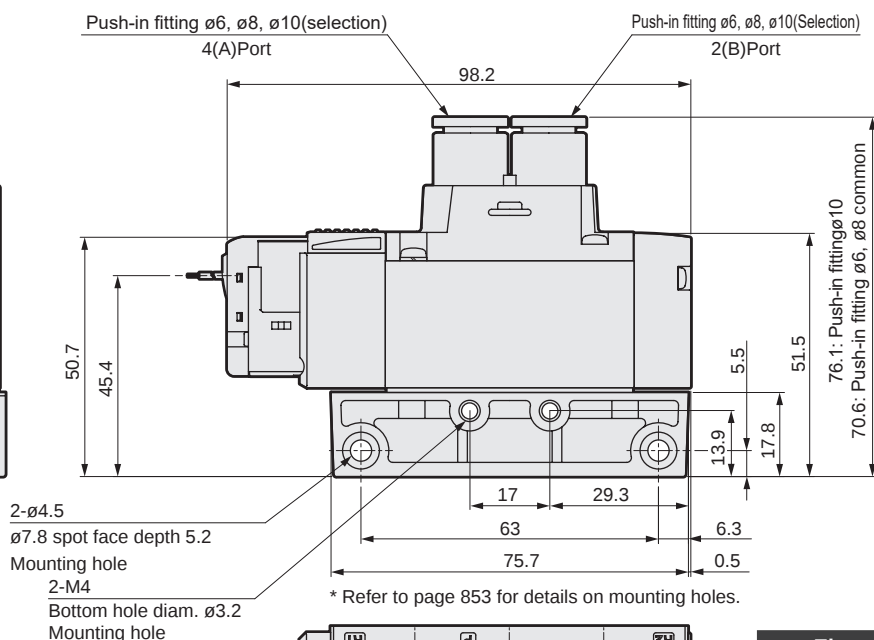
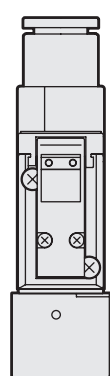
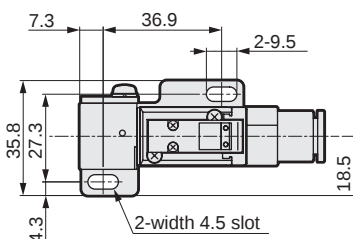
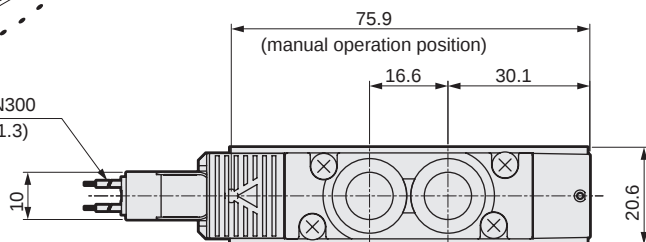


4GA310R * NPT thread and G thread specifications are listed on pages 52 to 59.

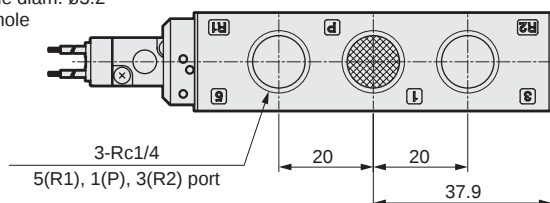
- 2-position single grommet lead wire (blank)



Lead wire lengthN300
(AWG#26, O.D.ø1.3)



* Refer to page 853 for details on mounting holes.



Electrical connections

B

Grommet lead wire

101.8

E, EJ type connector (upward direction), DC voltage

110

E, EJ type connector (upward direction), AC voltage

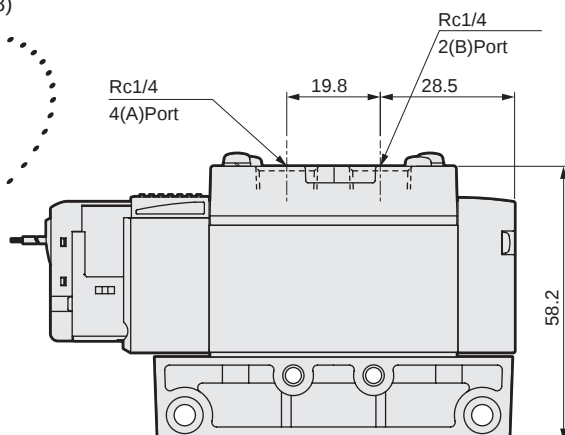
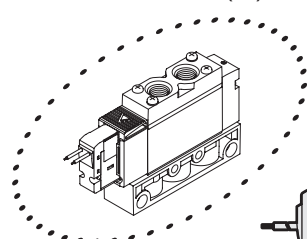
3.7

113.5

DIN terminal box (inner direction)

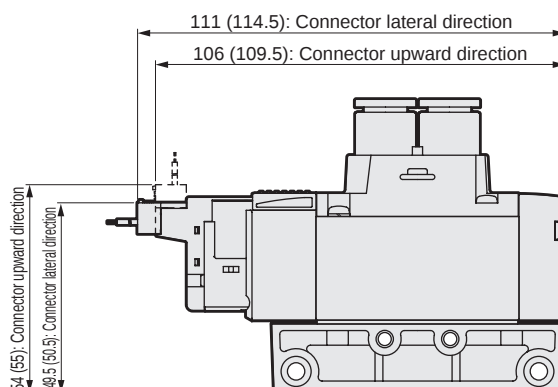
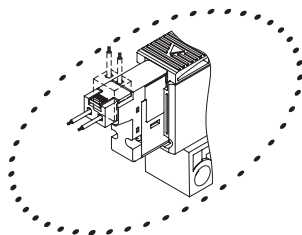
120.9

● Rc1/4 female thread (08)



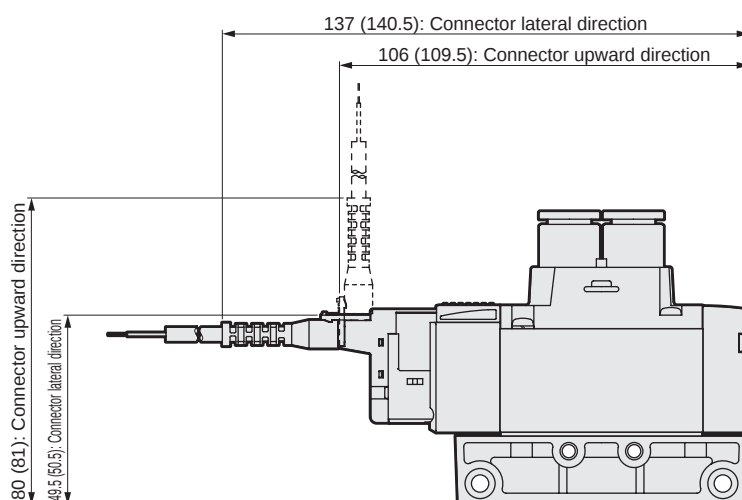
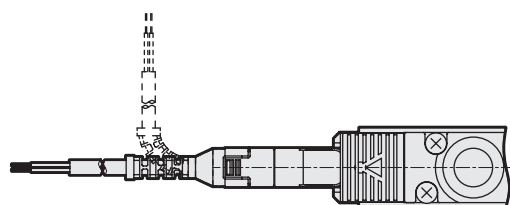
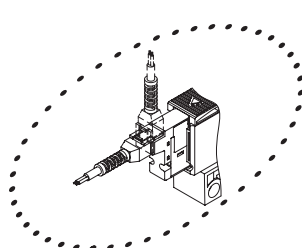
Dimensions

● E-connector (E)



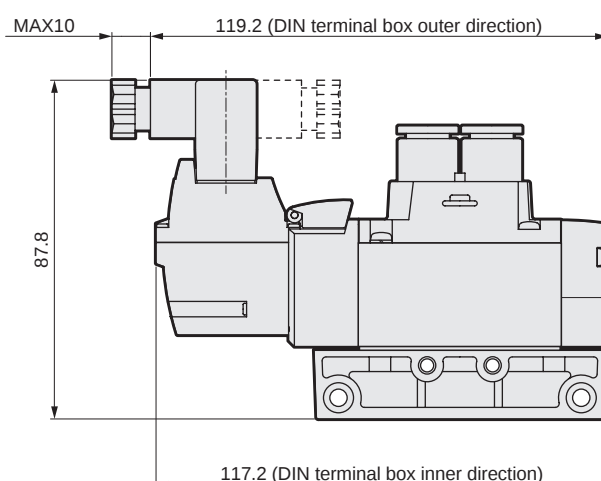
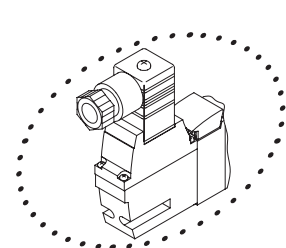
Note: Values in () are for AC voltage.

● 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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4GA3 Series

Discrete valve; body piping

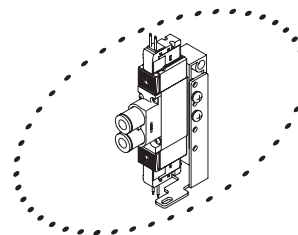
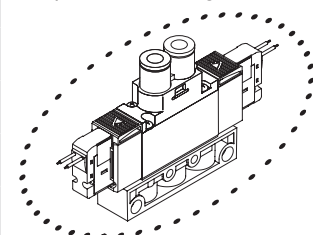
Dimensions



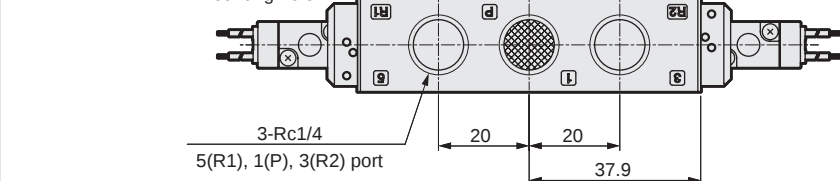
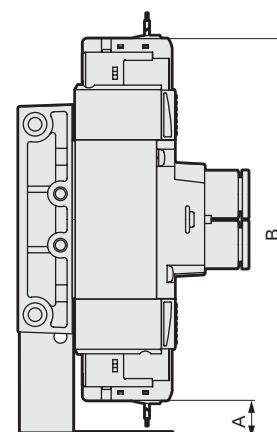
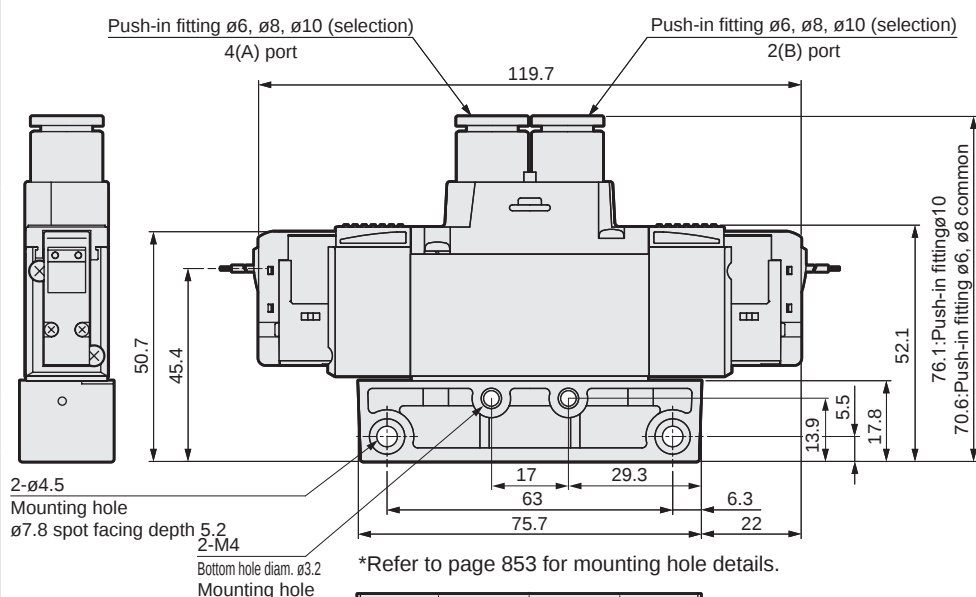
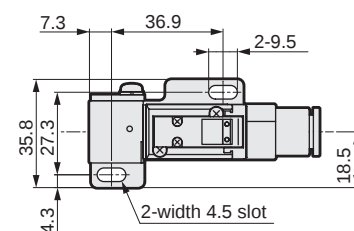
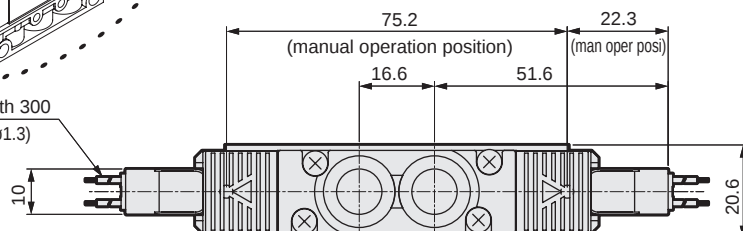
4GA320R * NPT thread and G thread specifications are listed on pages 52 to 59.

● 2-position double grommet lead wire (blank)

● Mounting plate (P)

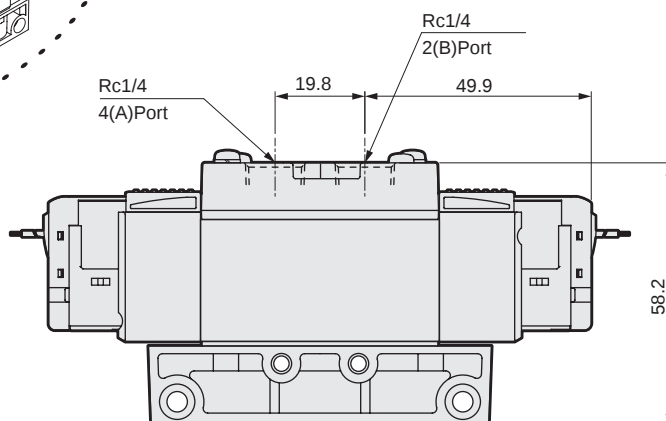
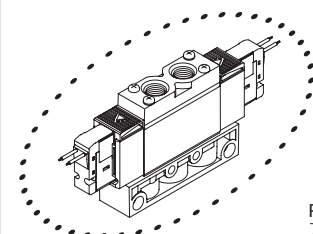


Lead wire length 300
(AWG#26, O.D. $\phi 1.3$)



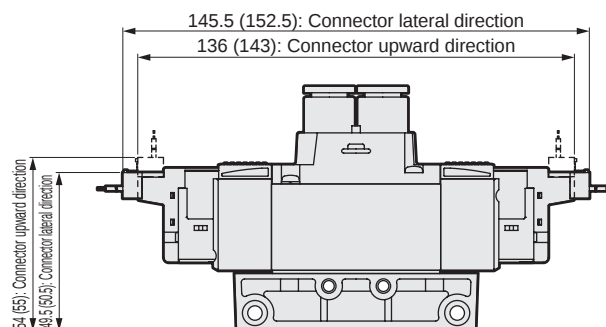
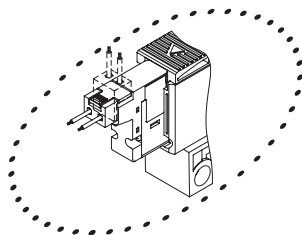
Electrical connections	A	B
Grommet lead wire	12.6	132.2
E, EJ type connector (upward direction), DC voltage	4.5	140.5
E, EJ type connector (upward direction), AC voltage	11	157.5
DIN terminal box (inner direction)	3.7	161.4

● Rc1/4 female thread (08)



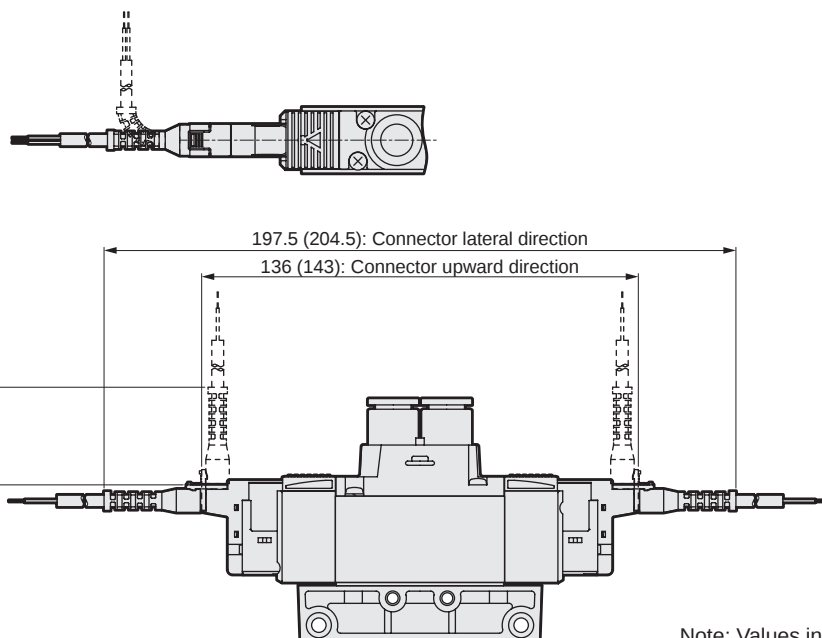
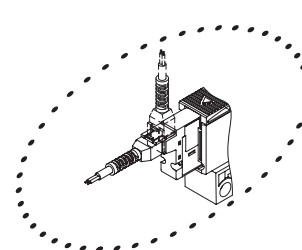
Dimensions

● E-connector (E)



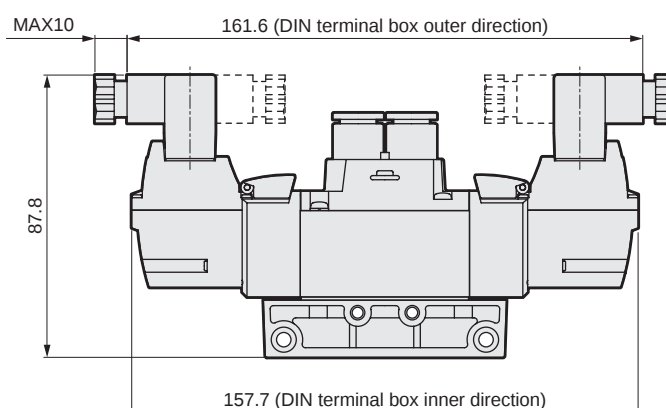
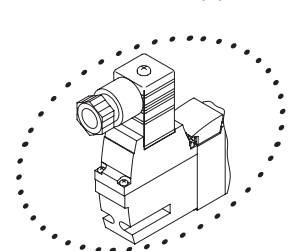
Note: Values in () are for AC voltage.

● 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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4GA3 Series

Discrete valve; body piping

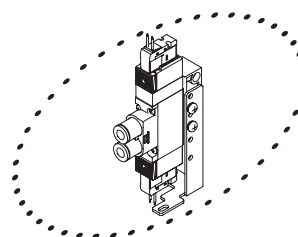
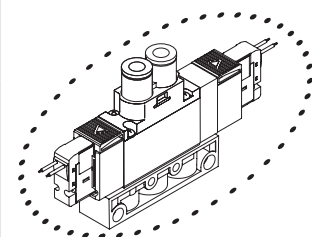
Dimensions



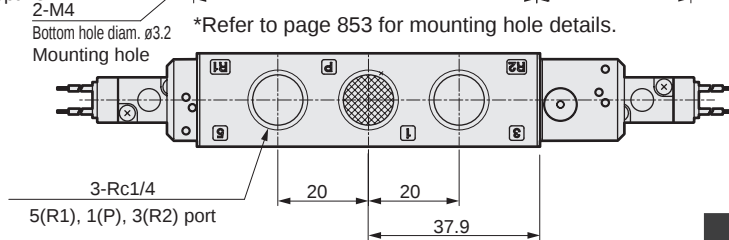
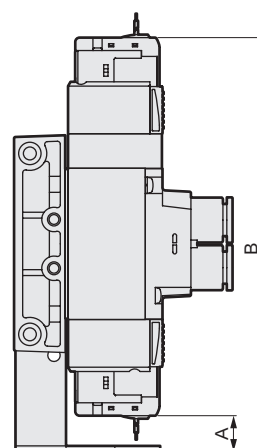
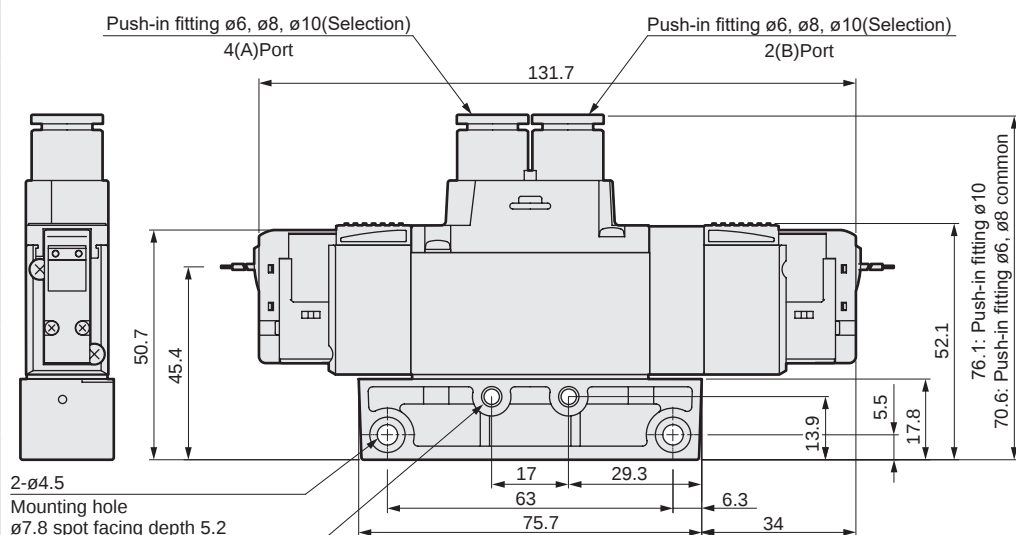
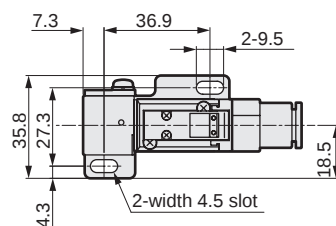
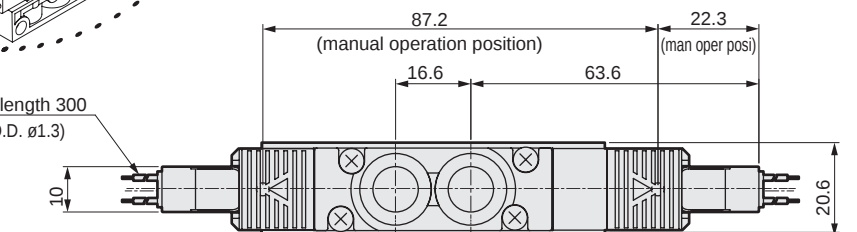
4GA3^{3/8}OR * NPT thread and G thread specifications are listed on pages 52 to 59.

● 3-position grommet lead wire (blank)

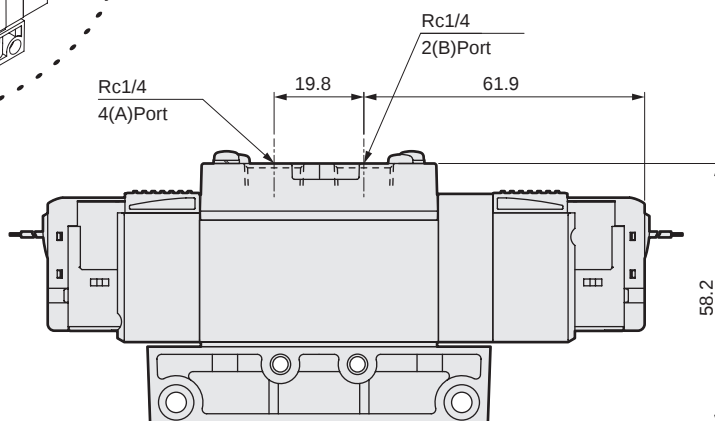
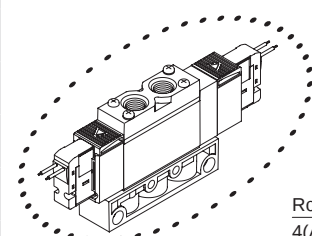
● Mounting plate (P)



Lead wire length 300
(AWG#26, O.D. ø1.3)



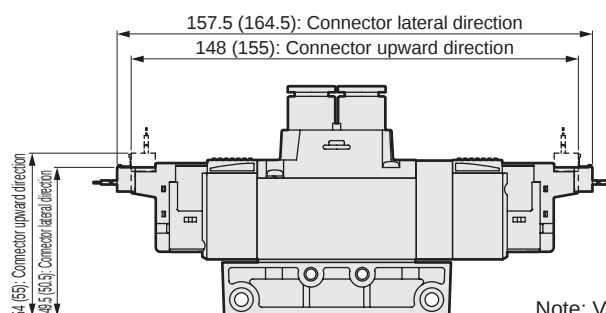
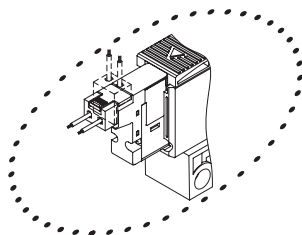
● Rc1/4 female thread (08)



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

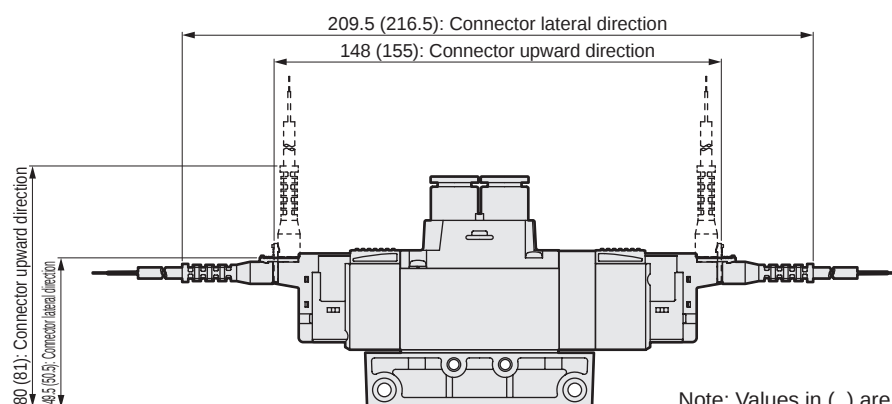
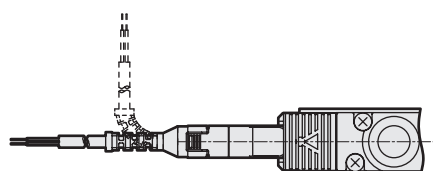
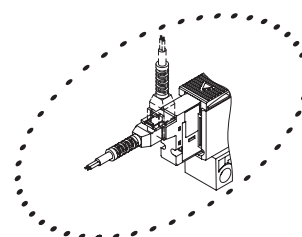
Dimensions

● E-connector (E)



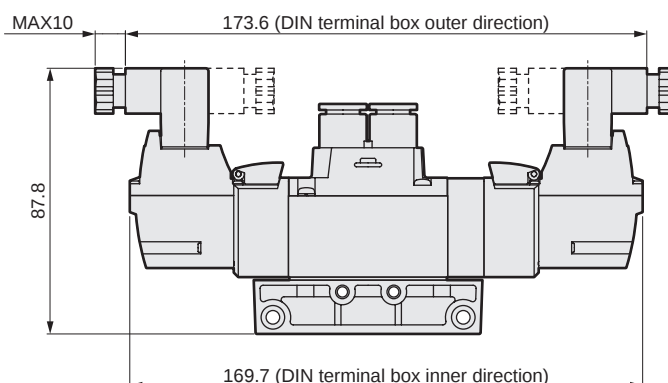
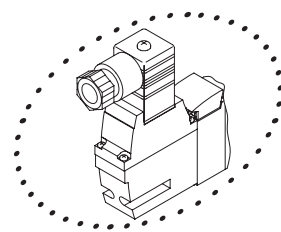
Note: Values in () are for AC voltage.

● 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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

3GA1/4GA1 Series

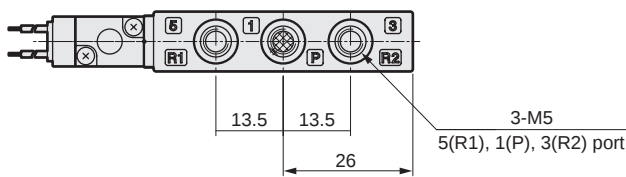
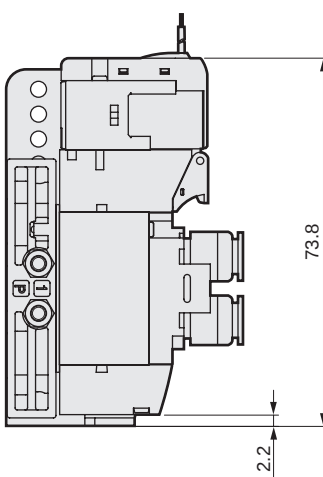
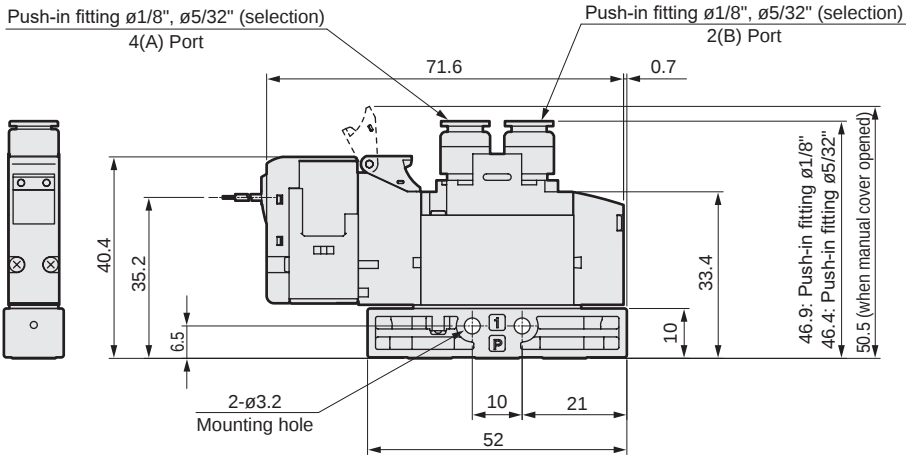
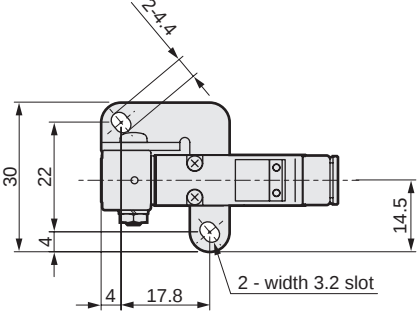
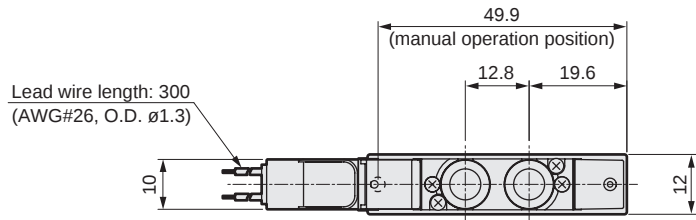
Single valve; body piping

Dimensions Port size; NPT thread

3GA1¹/₁₁OR, 4GA1¹/₆₆OR

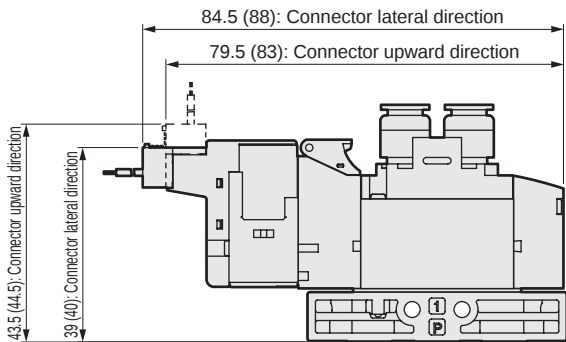
● 2-position single grommet lead wire (blank)

● Mounting plate (P)



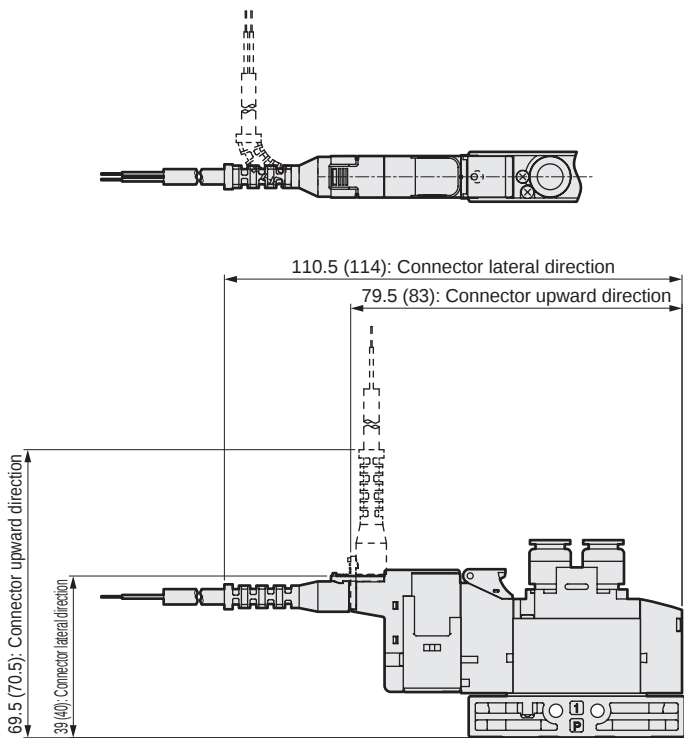
Dimensions Port size; NPT thread

● E-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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G GMF
PV5 GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP NVP
4G*0EJ
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
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
(master)

4GB
With sensor

4GD/E

M4GD/E

MN4GD/E

4GA/B4

MN3E

MN4E

W4GA/B2

W4GB4

MN3S0

MN4S0

4SA/B0

4KA/B

4KA/B
(master)

4F

4F
(master)

PV5G

GMF

PV5

GMF

PV5S-0

3Q

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP

NVP

4G*0EJ

4F*0EX

4F*0E

HMV

HSV

2QV

3QV

SKH

Silencer

TotAirSys
(Total Air)

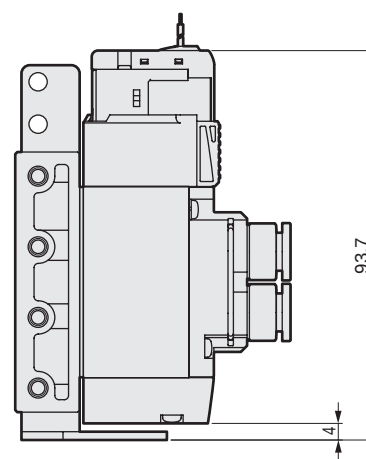
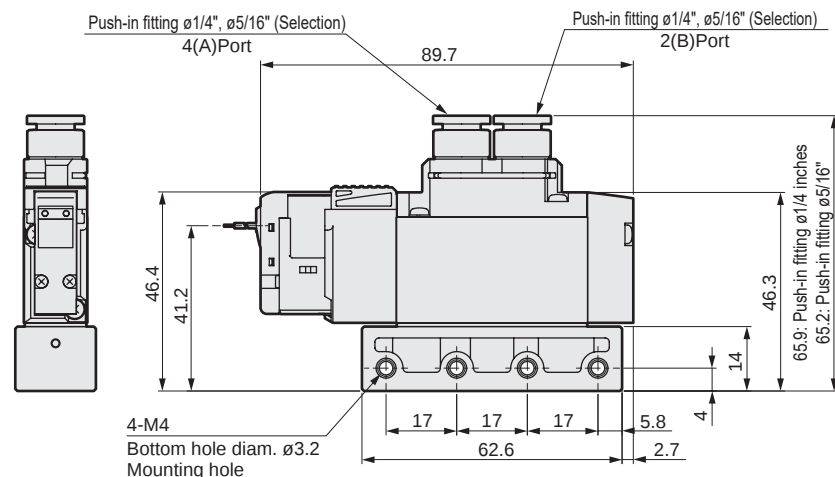
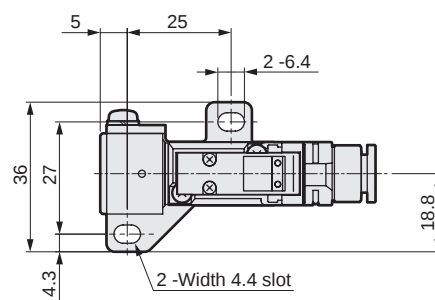
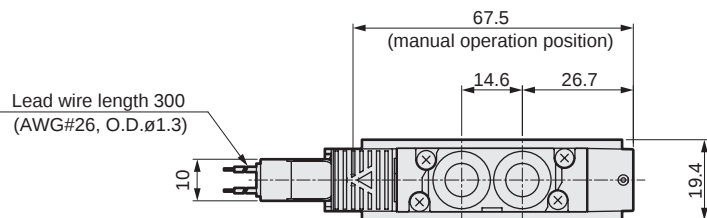
TotAirSys
(Gamma)

Ending

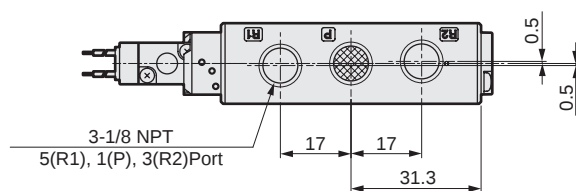
3GA2¹/₁₁0R, 4GA2¹/₆₆OR

● 2-position single grommet lead wire (blank)

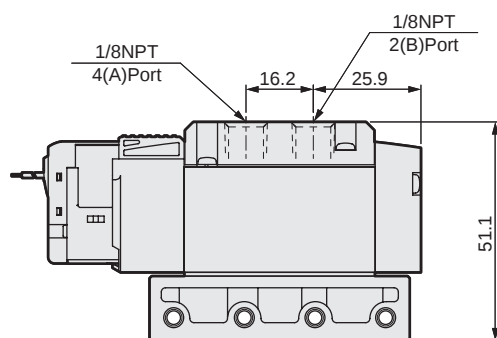
● Mounting plate (P)



*Refer to page 853 for mounting hole details.

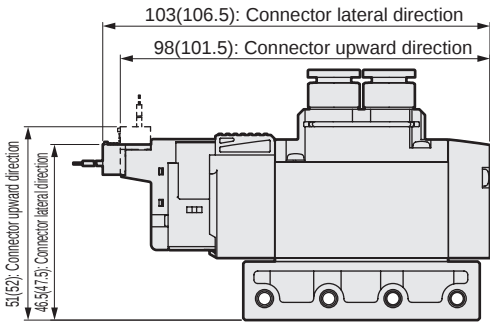


● 1/8NPT female thread (06N)



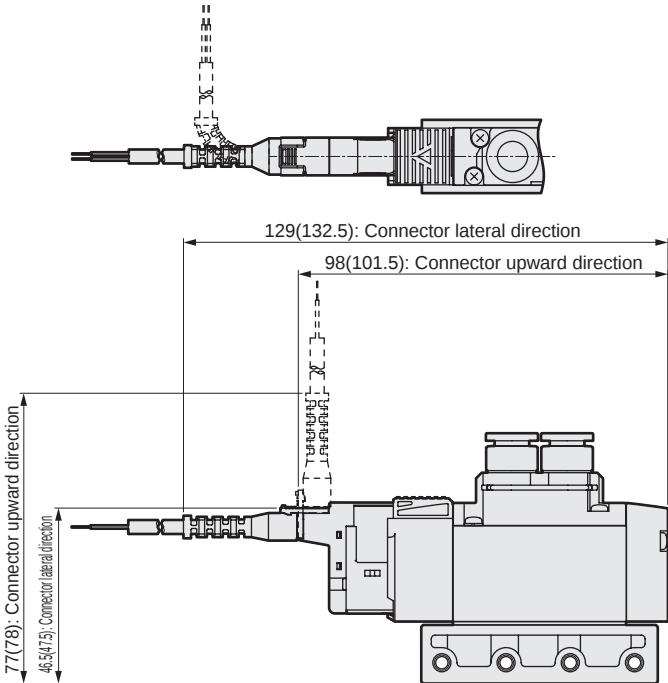
Dimensions port size; NPT thread

● E-connector (E)



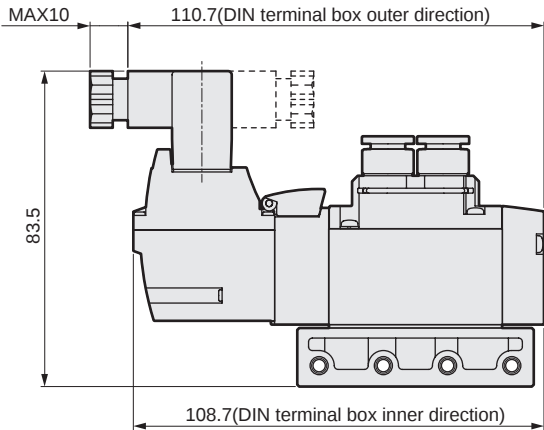
Note:()is for AC voltage

● EJ type connector (E**J)



Note: ()is for AC voltage

● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

3GA3/4GA3 Series

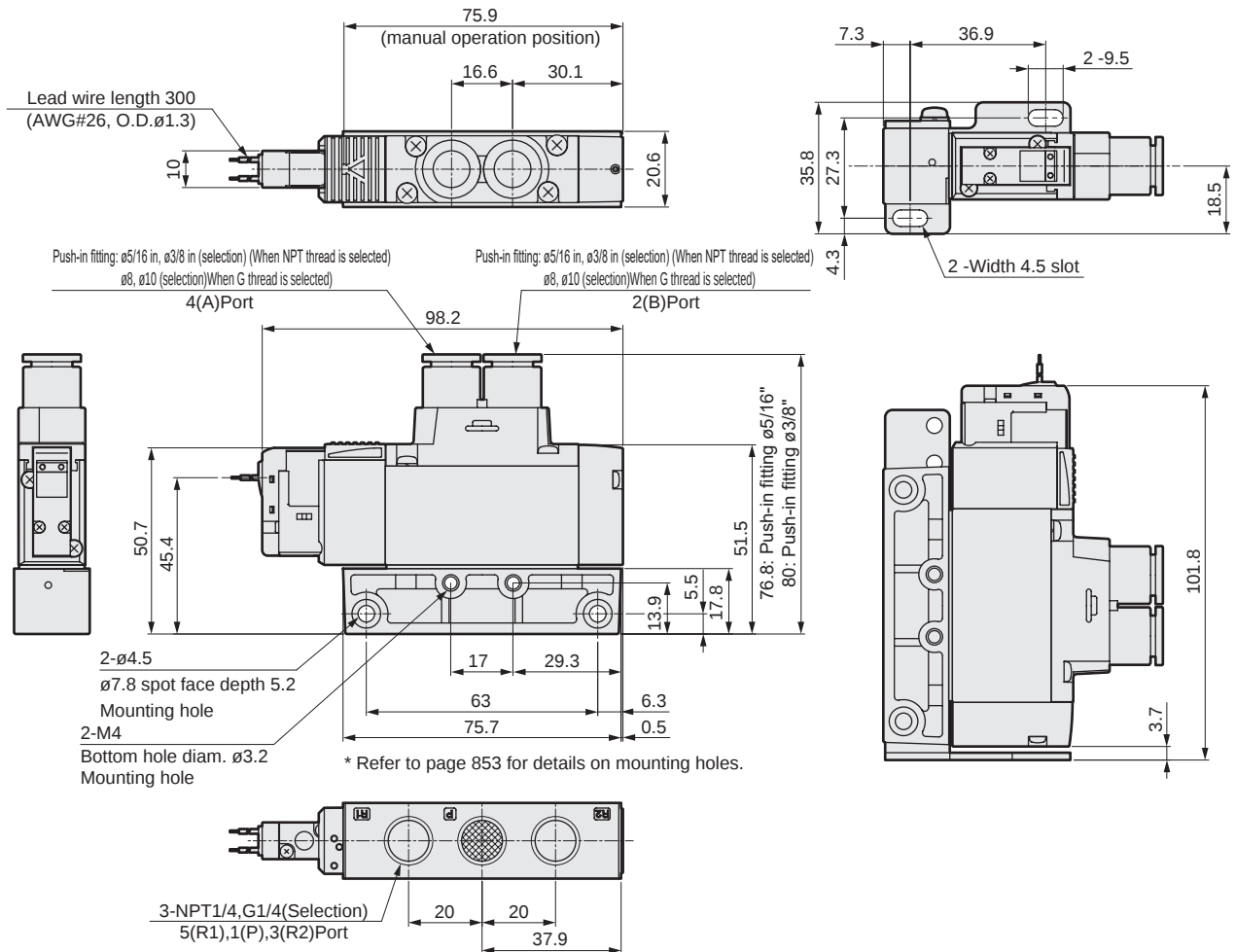
Discrete valve; body piping

Dimensions port size; NPT thread, G1/4 thread

3GA3 $\frac{1}{2}$ OR, 4GA3 $\frac{1}{2}$ OR

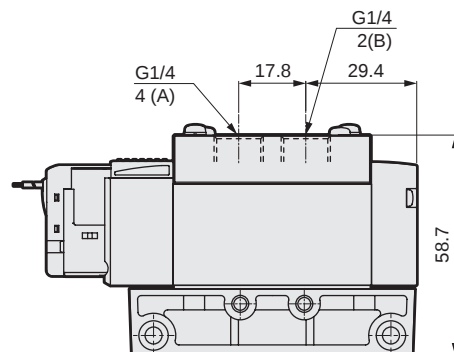
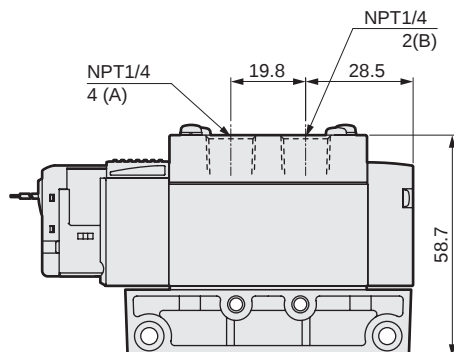
● 2-position single grommet lead wire (blank)

● Mounting plate (P)



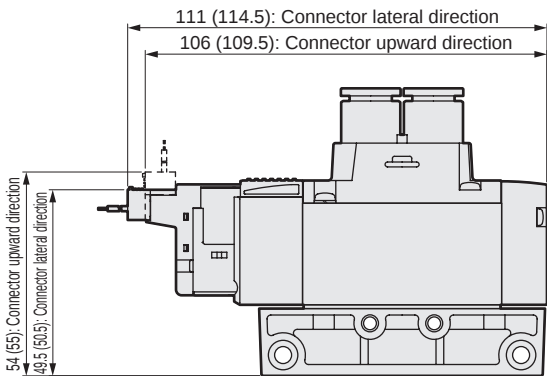
● NPT1/4 female thread (08N)

● G1/4 female thread (08G)



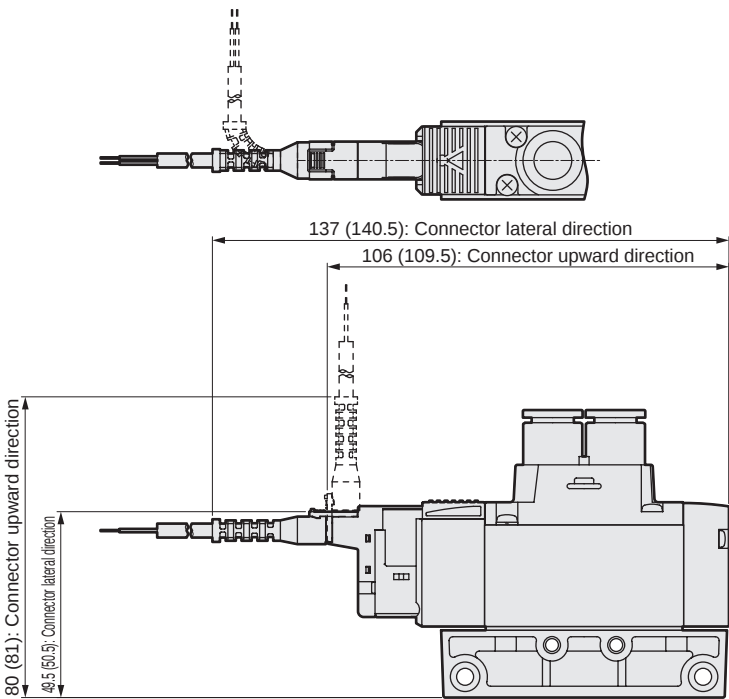
Dimensions
 Port size; NPT thread

● E-connector (E)



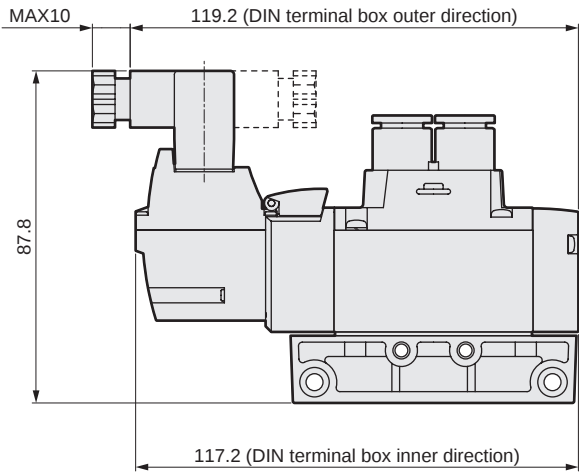
Note: Values in () are for AC voltage.

● EJ type connector (E**J)



Note: Values in () are for AC voltage.

● DIN terminal box (B)

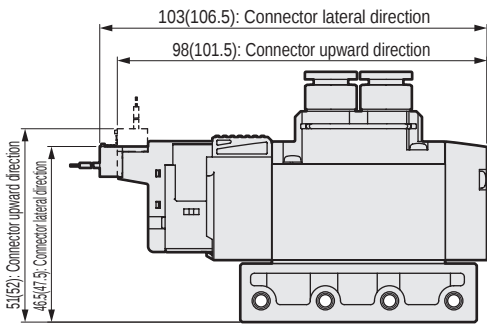


Note: DIN terminal box assembly is shipped facing inward.

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

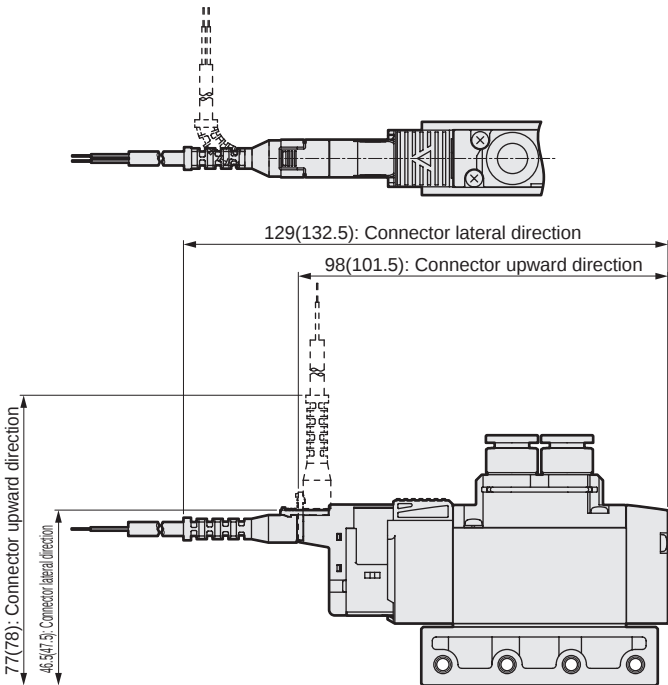
Dimensions port size; G thread

● E-connector (E)



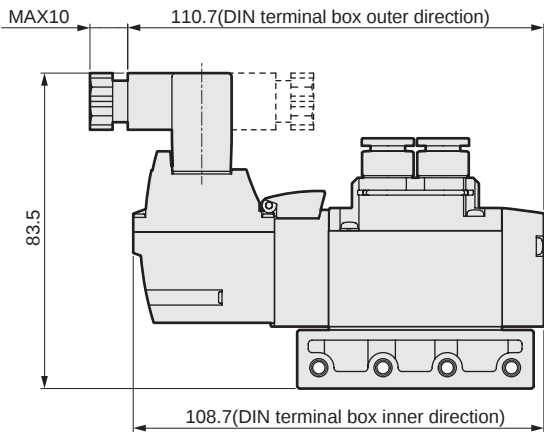
Note: () is for AC voltage

● EJ type connector (E**J)



Note: () is for AC voltage

● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4GA/B

M4GA/B

MN4GA/B

4GA/B
(master)4GB
With sensor

4GD/E

M4GD/E

MN4GD/E

4GA/B4

MN3E
MN4E

W4GA/B2

W4GB4

MN3S0
MN4S0

4SA/B0

4KA/B

4KA/B
(master)

4F

4F
(master)PV5G
GMFPV5
GMF

PV5S-0

3Q

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP
NVP

4G*0EJ

4F*0EX

4F*0E

HMV
HSV2QV
3QV

SKH

Silencer

TotAirSys
(Total Air)TotAirSys
(Gamma)

Ending

Single valve
Base piping

3GB1/2, 4GB1/2/3 Series

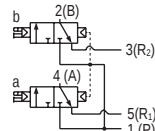
● Cylinder bore size: ø20 to ø100



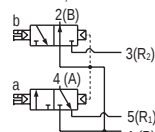
JIS symbol

● Two 3-port valves integrated

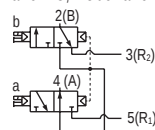
(A side valve: NC, B side valve: NC)



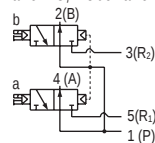
(A side valve: NC, B side valve: NO)



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

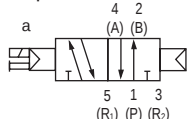


(A side valve: NO, B side valve: NO)

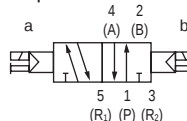


● 5-port valve

2 position single

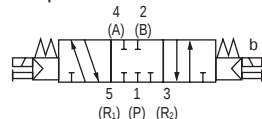


2-position double

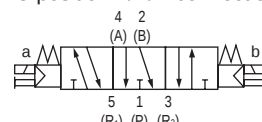


3-position

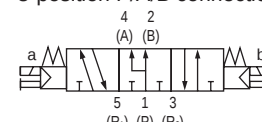
All ports closed



3-position A/B/R connection



3-position P/A/B connection



Common specifications

Item	Description
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressureMPa	0.7
Min. working pressureMPa	0.2 (*3)
Proof pressure MPa	1.05
Ambient temperature °C	-5 to 55 (no freezing)
Fluid temperature °C	5 to 55
Manual override	NNlock/lock 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 m/s ²	50 or less
Shock resistance 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 (water jet proof) applies for DIN terminal box specifications. However, the specified outer diameter of the 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

Item		Description					
Rated voltage V		24 DC	12 DC	5 DC	3 DC	100 AC	200 AC
Voltage fluctuation range		±10%					
Holding current A (*4)	Standard	0.015 (0.017)	0.030 (0.034)	0.072 (0.082)	0.120 (0.136)	0.009 (0.009)	0.006 (0.006)
	Low exoergic/energy circuit	0.005	0.010	-		-	
Power consumption W (*4)	Standard	0.35(0.40)		0.35(0.40)		-	
	Low exoergic/energy circuit	0.1		-		-	
Apparent power VA (*4)	Standard	-		-		0.93 (0.98)	1.20 (1.40)
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 circuit is only available with lamp.

Individual specifications

Port size		3GB1, 4GB1	3GB2, 4GB2	4GB3
Rc thread	Port A/B	Rc1/8	Rc1/4	Rc1/4, Rc3/8
	Port P/R1/R2	Rc1/8	Rc1/4	Rc1/4, Rc3/8
NPT thread (*5)	Port A/B	NPT1/8	NPT1/4	NPT1/4, NPT3/8
	Port P/R1/R2	NPT1/8	NPT1/4	NPT1/4, NPT3/8
G thread (*5)	Port A/B	G1/8	G1/4	G1/4, G3/8
	Port P/R1/R2	G1/8	G1/4	G1/4, G3/8

*5: Available as made to order.

Performance/characteristics by model

Item		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	19	19	25	28
		Double	9	-	-	24	-
	3-position	ABR connection	8	15	17	30	45

Values with a lamp/surge suppressor are shown. The response times are values with working pressure of 0.5 MPa at 20°C, without lubrication. They depend on the pressure and the lubricant quality.

Weight

Item				3GB1/4GB1	3GB2/4GB2	4GB3
Weight g	Single	Grommet lead wire		80 (38)	156 (74)	215 (96)
			E-connector	82 (40)	158 (76)	217 (98)
			DIN terminal box	-	193 (111)	249 (130)
	2-position	Double	Grommet lead wire	97 (55)	173 (91)	233 (114)
			E-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-connector	102 (60)	188 (106)	246 (127)
			DIN terminal box	-	227 (145)	282 (163)

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

Flow characteristics

Model No.	Solenoid position		P → A/B		A/B → R1/R2	
			C[dm ³ /(s·bar)]	b	C[dm ³ /(s·bar)]	b
3GB1 4GB1	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
3GB2 4GB2	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
4GB3	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 ⑤ 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

- Standard voltage of 24 VDC or less is CE marking-compatible even if the model No. is not indicated with "ST".

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

3GB1/2, 4GB1/2/3 Series

Discrete valve; base piping

How to order

4GB1 1 0 R - 06 - E2 - 3

3GB1 66 0 R - 06 - E2 - 3

Discrete valve for integrated base

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

3-port discrete valve for integrated 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 when combined with external pilot (K). Dimensions are the same as those of the respective 2-position double solenoid.

*2: Made to order.

***3 3-position all ports closed and PAB connection are not provided with the exhaust check valve. Refer to page 851 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 port P as standard.

*7: The grommet lead wire specifications are compatible with DC voltage only.

*8: AC voltage and 12, 24 VDC are supported.

In addition, a lamp comes with the terminal box.

*9: AC voltage is with a rectifier circuit.

*10: The terminal box conforms to EN175301-803 Type C (former DIN 43650-C). Refer to pages 856 and 857 for details.

*11: Compatible only with 4GB1 and 4GB2 (R) solenoid positions 3 or 4.

A Model No.

3GB1 3GB2 4GB1 4GB2 4GB3

Code	Description	3GB1	3GB2	4GB1	4GB2	4GB3
B Solenoid position						
1	2 position single			●	●	●
2	2-position double			●	●	●
3	3-position all ports closed			●	●	●
4	3-position ABR connection			●	●	●
5	3-position PAB connection			●	●	●
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	●	●			

C Port size						
Port	4(A)/2(B) port	P/R1/Port R2 (1/8) = Rc1/8 (1/4) = Rc1/4 (3/8) = Rc3/8				
06	Rc1/8	(2)	(2)			
08	Rc1/4		(3)	(3)	(3)	
10	Rc3/8				(4)	
Port	4(A)/2(B) port	P/R1/Port R2 (1/8) = 1/8NPT, (1/4) = 1/4NPT, (3/8) = 3/8NPT				
06 N	NPT1/8 (*2)	(5)	(5)			
08 N	NPT1/4 (*2)		(6)	(6)	(6)	
10 N	NPT3/8 (*2)				(7)	
Port	4(A)/2(B) port	P/R1/Port R2 (1/8) = G1/8, (1/4) = G1/4 (10) = G3/8				
06G	G1/8 (*2)	(8)	(8)			
08G	G1/4 (*2)		(9)	(9)	(9)	
10G	G3/8 (*2)				(10)	
00	Discrete valve for integrated base	●	●	●	●	●

D Electrical connections						
Blank	Grommet lead wire (300 mm) (*7)	●	●	●	●	●
B	DIN terminal box (Pg 7) With surge suppressor/lamp (*8) (*10)		●		●	●
BN	DIN terminal box (Pg7) (without terminal box) With surge suppressor (*8) (*10)		●		●	●
E-connector (upward/lateral common)						
E0	Lead wire (300 mm) (*9)	●	●	●	●	●
E00	Lead wire (500 mm) (*9)	●	●	●	●	●
E01	Lead wire (1000 mm) (*9)	●	●	●	●	●
E02	Lead wire (2000 mm) (*9)	●	●	●	●	●
E03	Lead wire (3000 mm) (*9)	●	●	●	●	●
E0N	Without lead wire (without socket) (*9)	●	●	●	●	●
E1	Without lead wire (socket/terminal attached) (*9)	●	●	●	●	●
E2	Lead wire (300 mm) with surge suppressor and indicator lamp	●	●	●	●	●
E20	Lead wire (500 mm) with surge suppressor and indicator lamp	●	●	●	●	●
E21	Lead wire (1000 mm) with surge suppressor and indicator lamp	●	●	●	●	●
E22	Lead wire (2000 mm) with surge suppressor and indicator lamp	●	●	●	●	●
E23	Lead wire (3000 mm) with surge suppressor and indicator lamp	●	●	●	●	●
E2N	Without lead wire (without socket) with surge suppressor and indicator lamp	●	●	●	●	●
E3	Without lead wire (socket/terminal attached) with surge suppressor and indicator lamp	●	●	●	●	●
EJ-connector (socket with cover, upward/lateral common)						
E01J	Lead wire (1000 mm) (*9)	●	●	●	●	●
E02J	Lead wire (2000 mm) (*9)	●	●	●	●	●
E03J	Lead wire (3000 mm) (*9)	●	●	●	●	●
E21J	Lead wire (1000 mm) with surge suppressor and indicator lamp	●	●	●	●	●
E22J	Lead wire (2000 mm) with surge suppressor and indicator lamp	●	●	●	●	●
E23J	Lead wire (3000 mm) with surge suppressor and indicator lamp	●	●	●	●	●

E Option						
Blank	Manual override of non-locking/locking common	●	●	●	●	●
M	Manual override of non-locking	●	●	●	●	●
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	Port A/B filter built in (*6)	●	●	●	●	●
X	Non-locking residual pressure exhaust structure (*11)			●	●	
X1	Locking residual pressure exhaust structure (*11)			●	●	

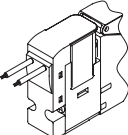
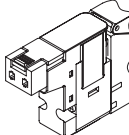
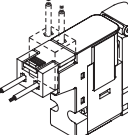
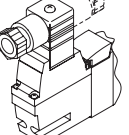
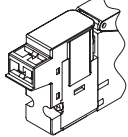
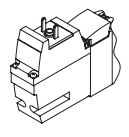
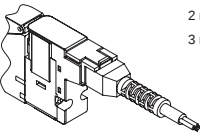
F Voltage						
1	100 VAC (rectifier integrated)	●	●	●	●	●
2	200 VAC (rectifier integrated)	●	●	●	●	●
3	24 VDC	●	●	●	●	●
4	12 VDC	●	●	●	●	●
7	3 VDC	○	○	○	○	○
8	5 VDC	○	○	○	○	○

is not available.

○ indicates made to order.

3GB1/2, 4GB1/2/3 Series

Single valve; base piping

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

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

3GB1/4GB1 Series

Discrete valve; base piping

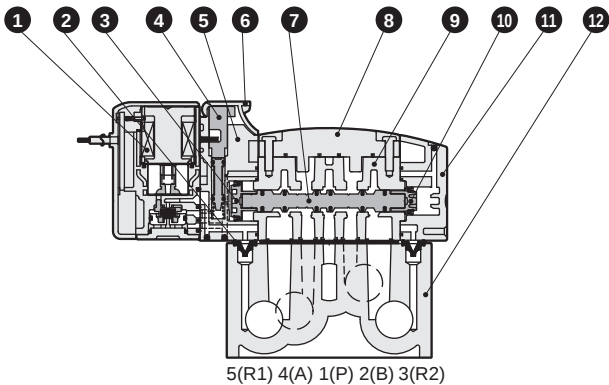
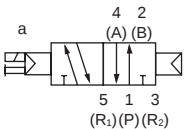
Internal structure and parts list

3GB1660R, 1670R, 1760R, 1770R

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

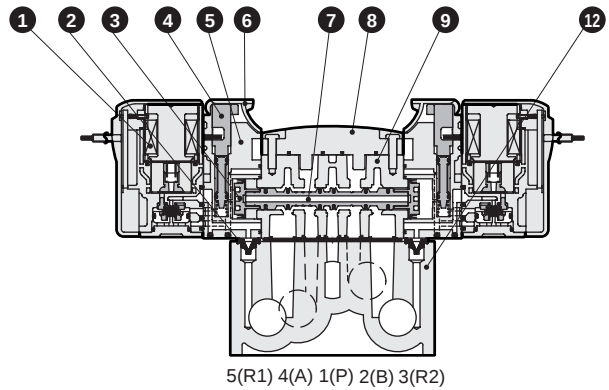
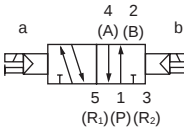
4GB110R

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



4GB120R

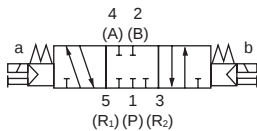
- 2-position double
- Grommet lead wire (blank)



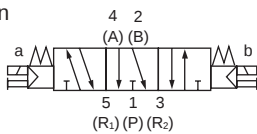
4GB130R

- 3-position
- Grommet lead wire (blank)

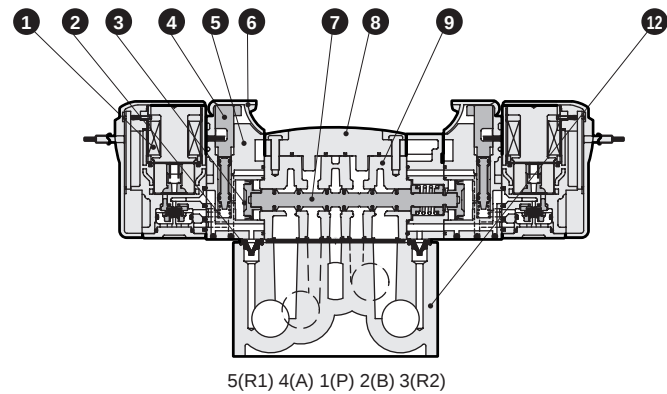
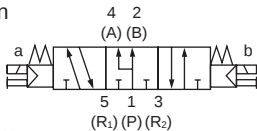
All ports closed



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 - ☐ - COIL - voltage Blank: Standard A: Ozone specification S: Surgeless E: Low exoergic/energy saving circuit K: External pilot Blank: Grommet lead wire

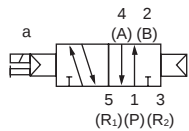
Internal structure and parts list

3GB2660R, 2670R, 2760R, 2770R

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

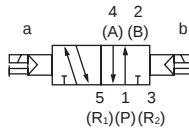
4GB210R/4GB310R

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



4GB220R/4GB320R

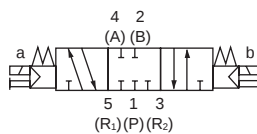
- 2-position double
- Grommet lead wire (blank)



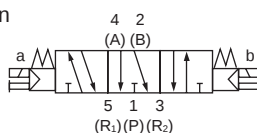
4GB2³_{0R}/4GB3³_{0R}

- 3-position
- Grommet lead wire (blank)

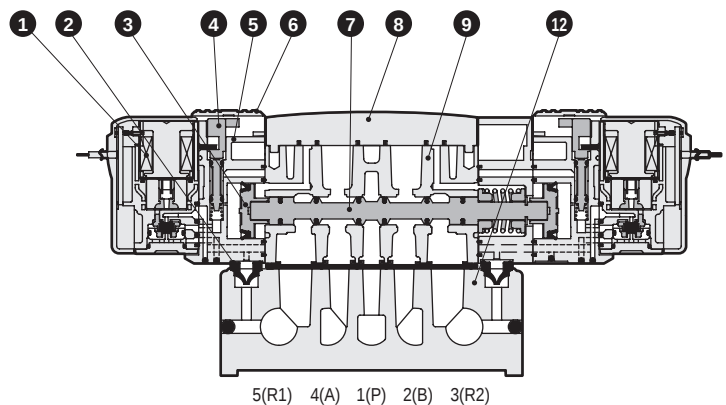
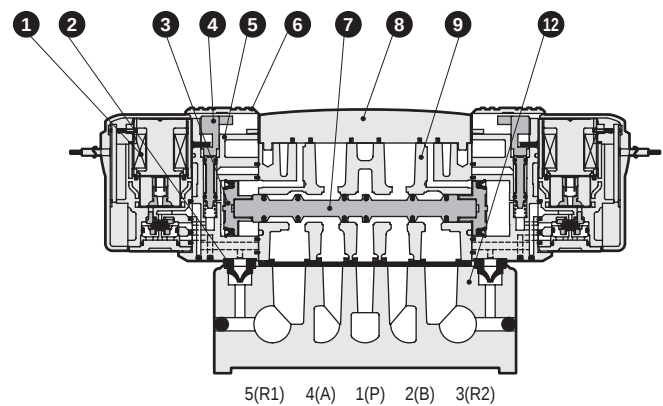
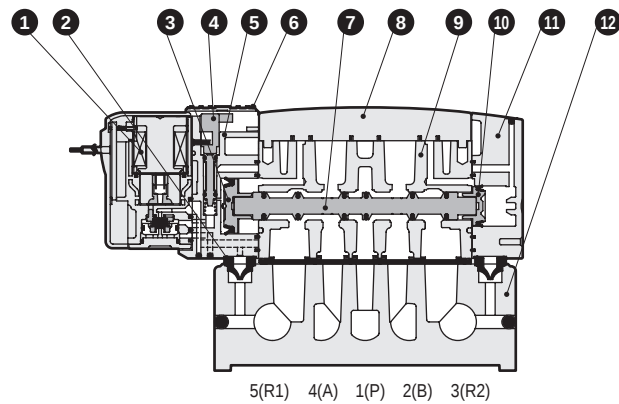
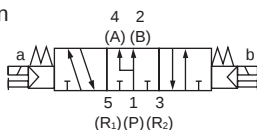
All ports closed



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] - [COIL] - [voltage] Blank: Standard A: Ozone specifications S: Surgeless E: Low exoergic/energy saving circuit K: External pilot Blank: Grommet lead wire

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

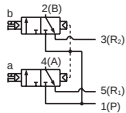
3GB1/2 Series

Discrete valve; base piping

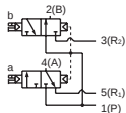
Internal structure and parts list

3GB1⁶⁶₆₇⁷⁶₇₇ 0R

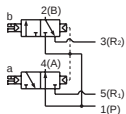
- Two 3-port valves integrated
- Grommet lead wire (blank)
- A side valve: Normally closed,
- B side valve: Normally closed
- NC/NC



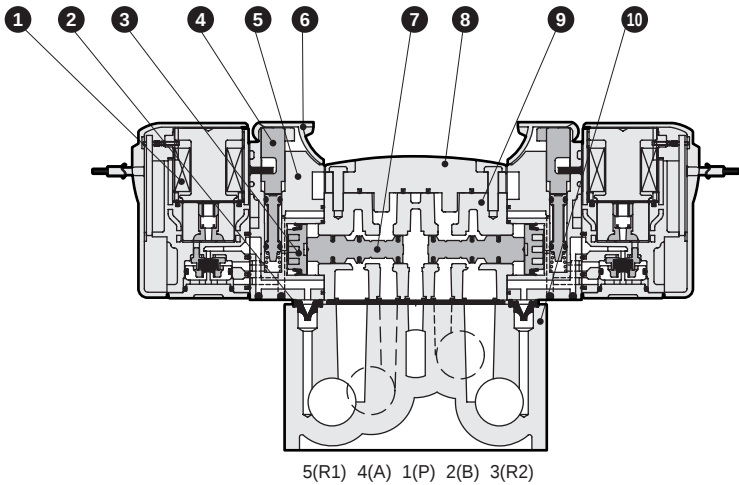
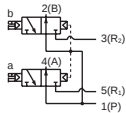
- A side valve: Normally closed,
- B side valve: Normally open
- NC/NO



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

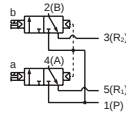


- A side valve: Normally open,
- B side valve: Normally open
- NO/NO

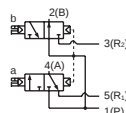


3GB2⁶⁶₆₇⁷⁶₇₇ 0R

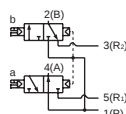
- Two 3-port valves integrated
- Grommet lead wire (blank)
- A side valve: Normally closed,
- B side valve: Normally closed
- NC/NC



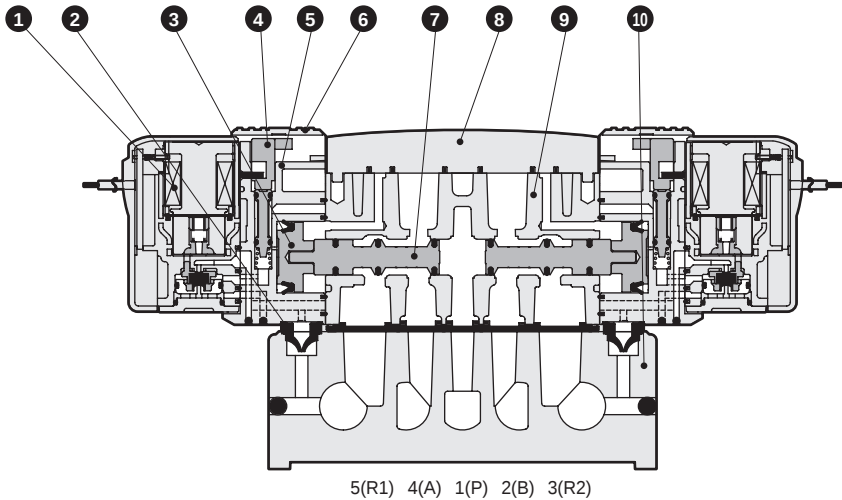
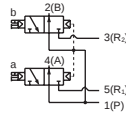
- A side valve: Normally closed,
- B side valve: Normally open
- NC/NO



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



- A side valve: Normally open,
- B side valve: Normally open
- NO/NO



Main parts list

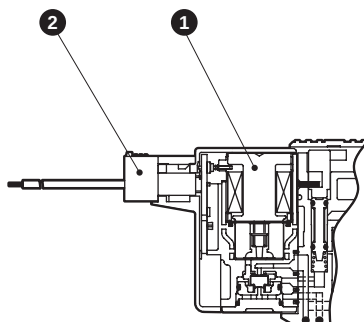
No.	Part name	Material
1	Coil assembly	-
2	Pilot exhaust check valve	Hydrogenated nitrile rubber
3	Piston assembly	-
4	Manual override	Resin
5	Piston chamber	Resin
6	Manual protection cover	Resin
7	Spool assembly	-
8	Plate	Resin
9	Body	Aluminum alloy die-casting
10	Discrete sub-plate	Aluminum alloy die-casting

Parts list

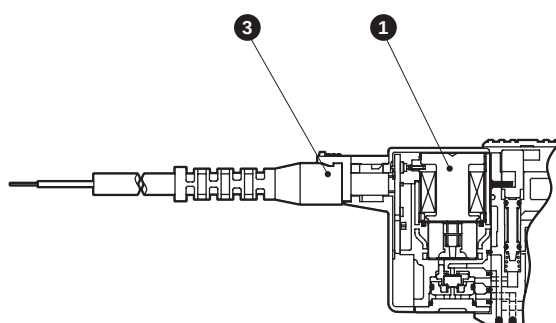
No.	Part name	Model No.
1	Coil assembly	4GR - electrical connections - ☐ - COIL - voltage Blank: Standard A: Ozone specification S: Surgeless E: Low exoergic/energy saving circuit K: External pilot Blank: Grommet lead wire

Electrical connections internal structure and parts list

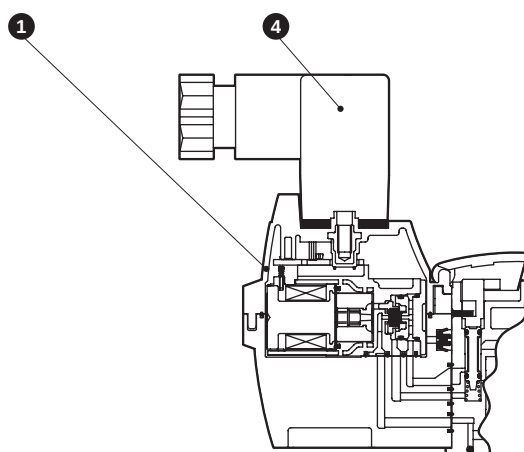
● E-connector E □ □



● EJ type connector E □ □ J



● DIN terminal box B



Main parts list

No.	Part name	Material
1	Coil assembly	
2	E-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] Blank: Standard A: Ozone specification S: Surgeless E: Low exoergic/energy saving circuit K: External pilot E*: E-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
2	E-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]

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4GB1 Series

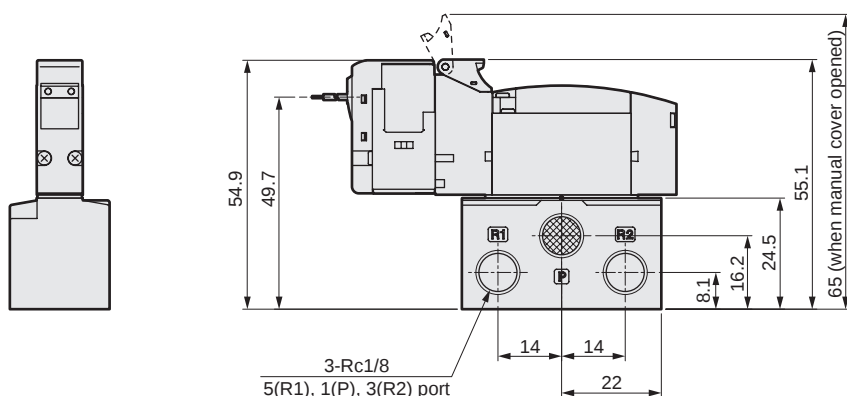
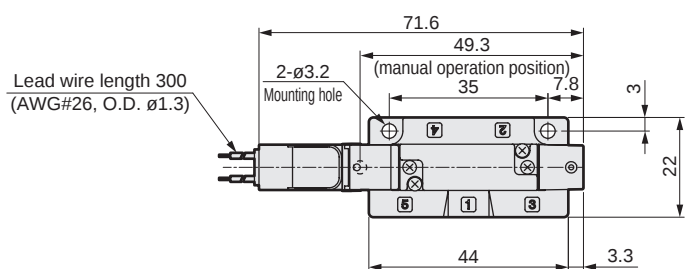
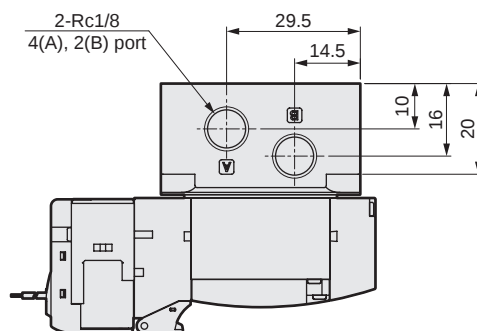
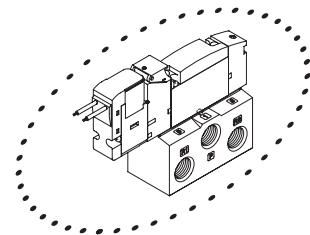
Discrete valve; base piping

Dimensions

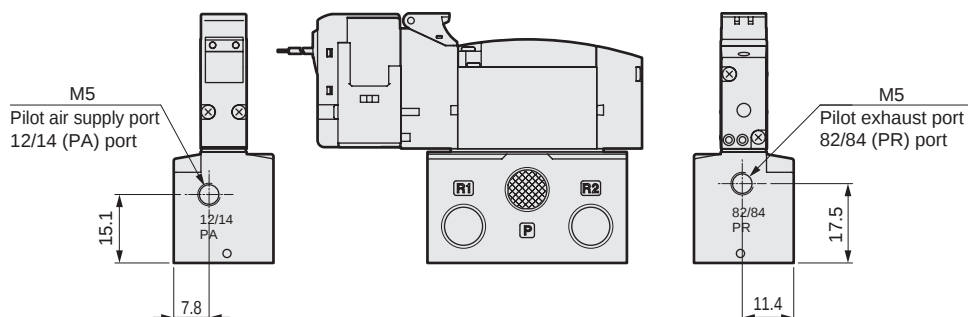
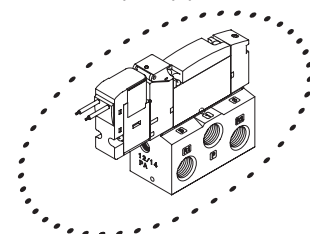


4GB110R * NPT thread and G thread specifications are listed on pages 86 to 95.

● 2-position single grommet lead wire (blank)

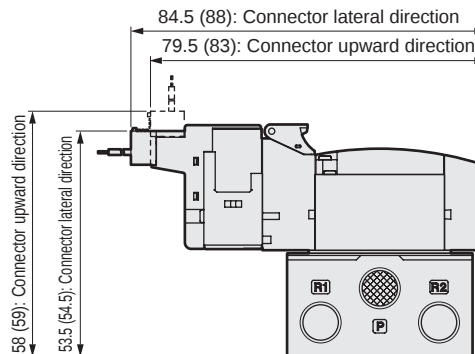
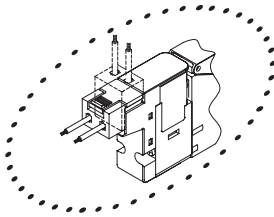


● External pilot (K)

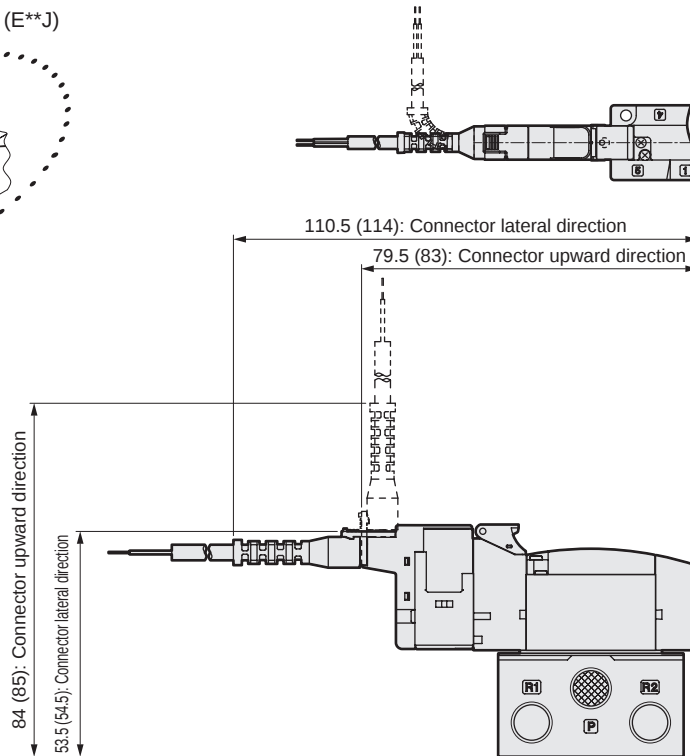
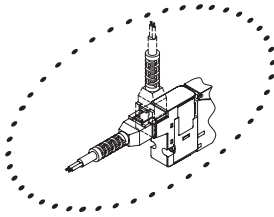


Dimensions

● E-connector (E)



● EJ type connector (E**J)



Note: Values in () are for AC voltage.

Note: Values in () are for AC voltage.

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4GB1 Series

Discrete valve; base piping

Dimensions



4GA/B

M4GA/B

MN4GA/B

4GA/B
(master)

4GB
With sensor

4GD/E

M4GD/E

MN4GD/E

4GA/B4

MN3E

MN4E

W4GA/B2

W4GB4

MN3S0

MN4S0

4SA/B0

4KA/B

4KA/B
(master)

4F

4F
(master)

PV5G

GMF

PV5

GMF

PV5S-0

3Q

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP

NVP

4G*0EJ

4F*0EX

4F*0E

HMV

HSV

2QV

3QV

SKH

Silencer

TotAirSys
(Total Air)

TotAirSys
(Gamma)

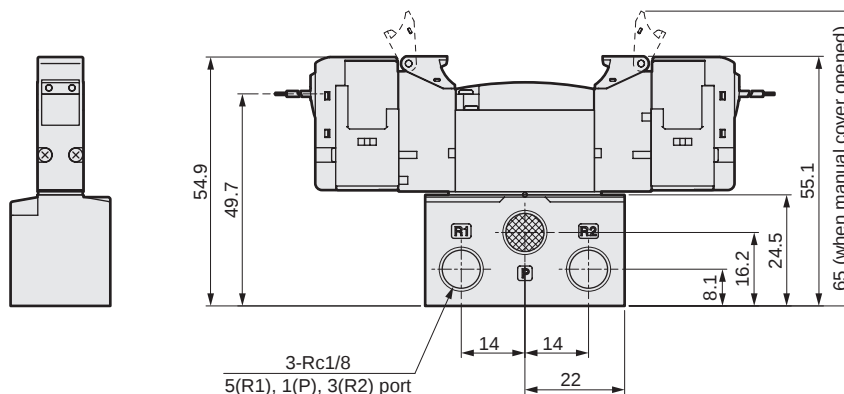
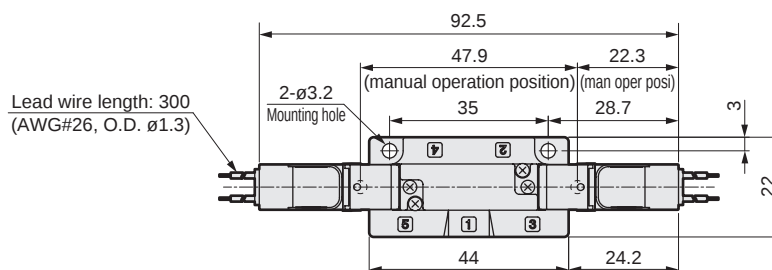
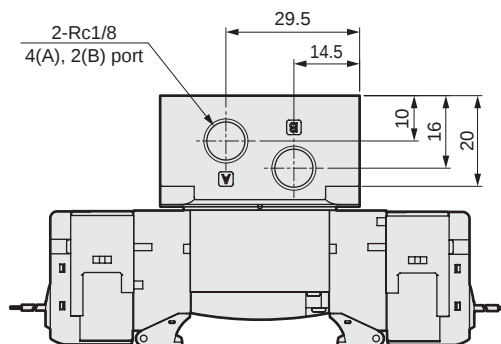
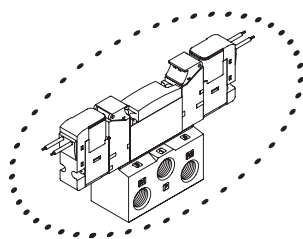
Ending

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

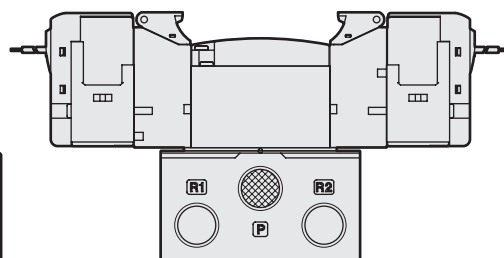
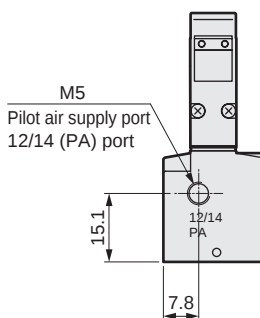
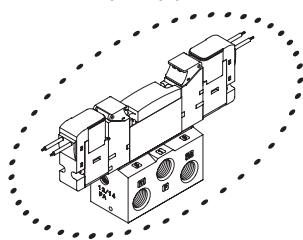
- 2-position double grommet lead wire (blank)

3GB1660R/3GB1670R/3GB1760R/3GB1770R

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



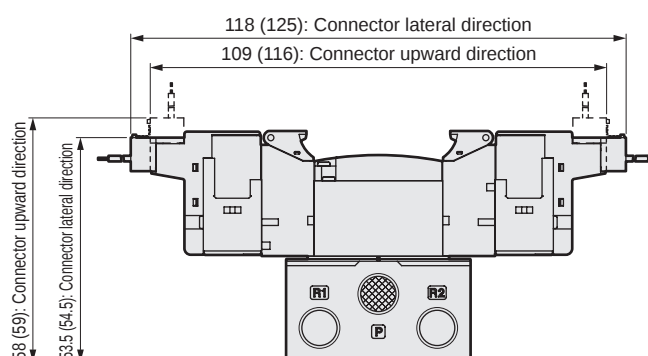
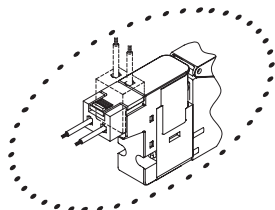
- External pilot (K)



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

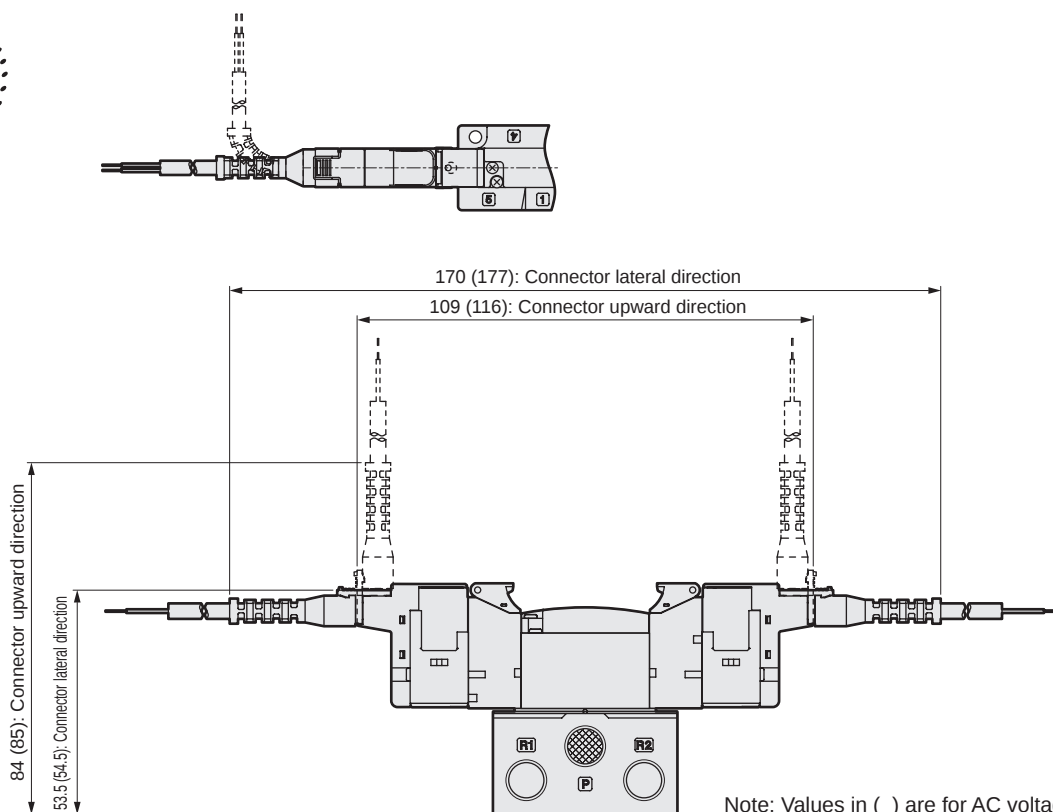
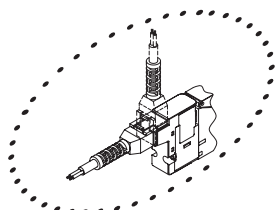
Dimensions

● E-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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4GB1 Series

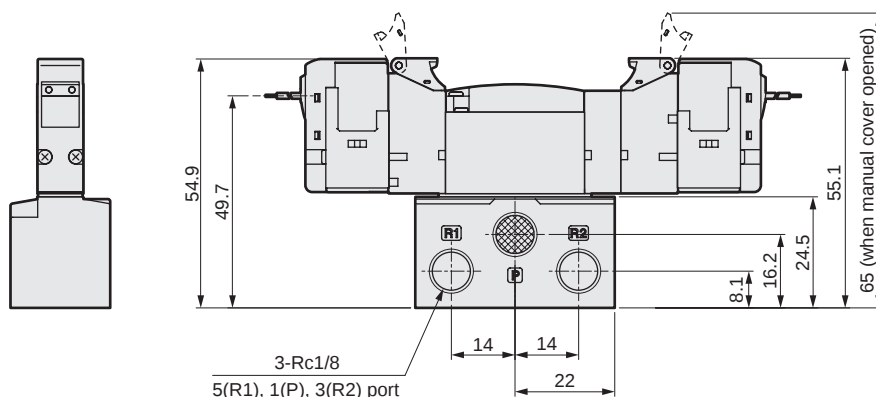
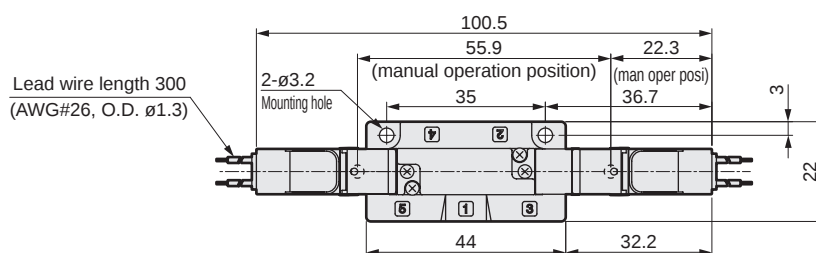
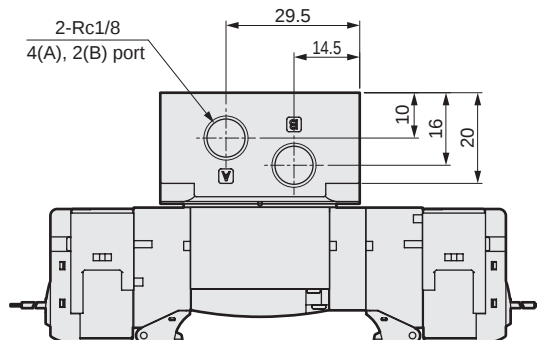
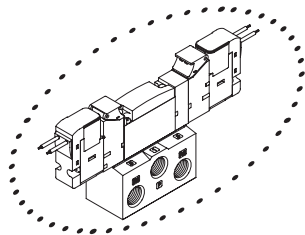
Discrete valve; base piping

Dimensions

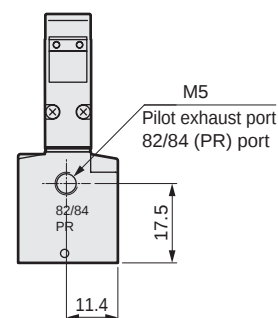
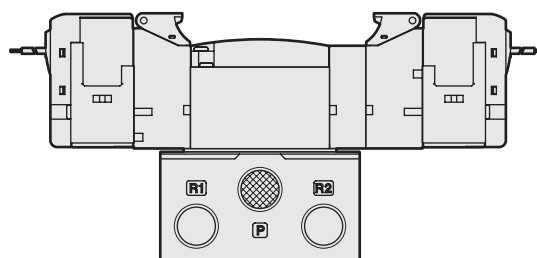
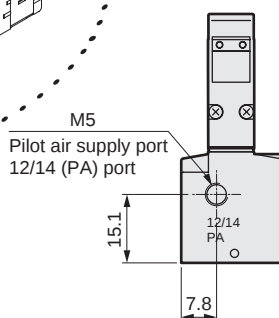
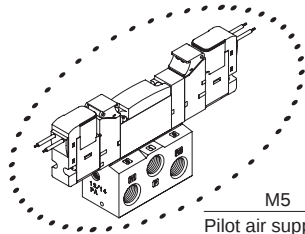


4GB1³/₄ 0R * NPT thread and G thread specifications are listed on pages 86 to 95.

● 3-position grommet lead wire (blank)

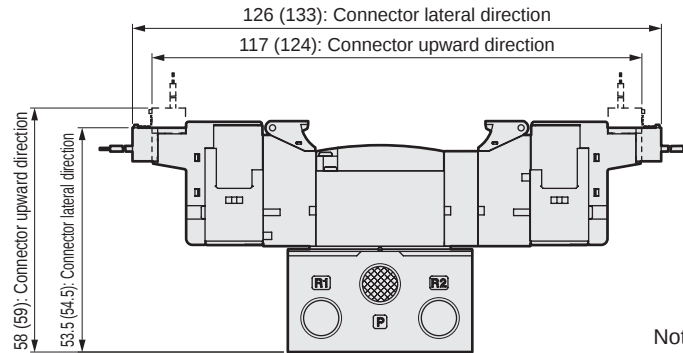
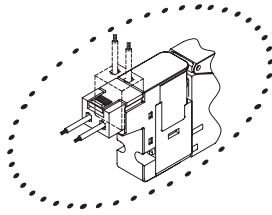


● External pilot (K)



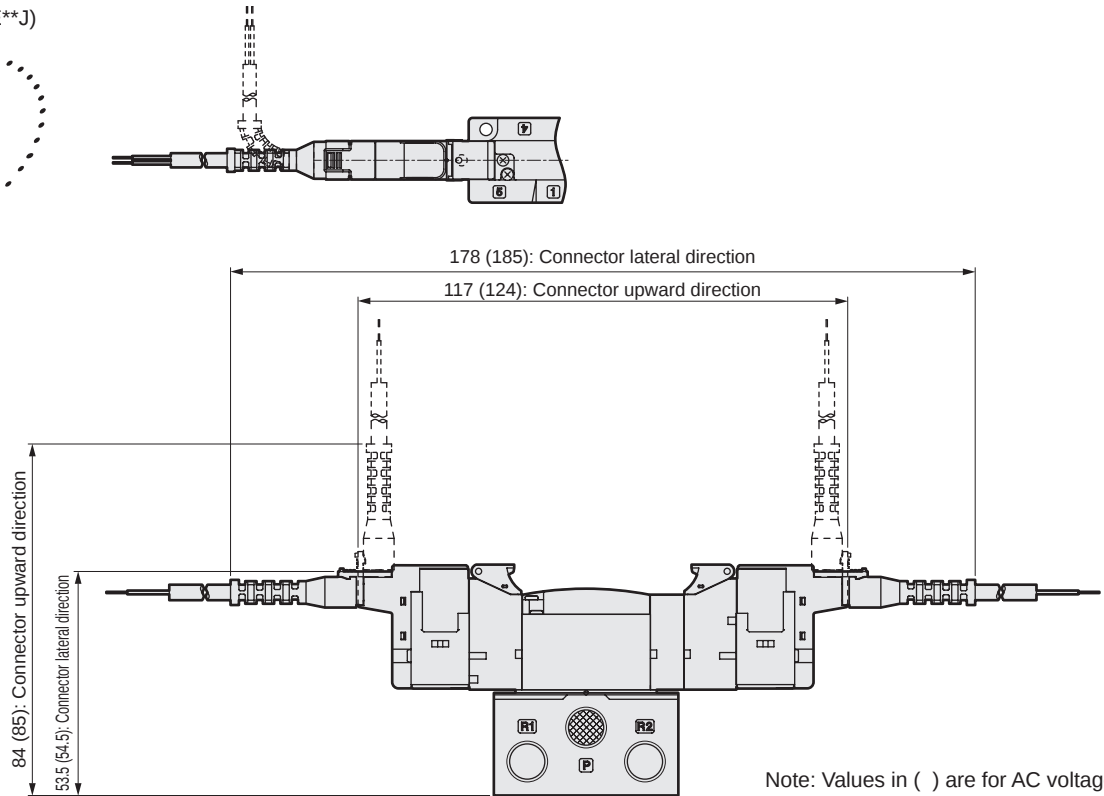
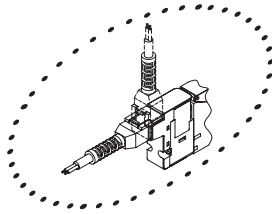
Dimensions

● E-connector (E)



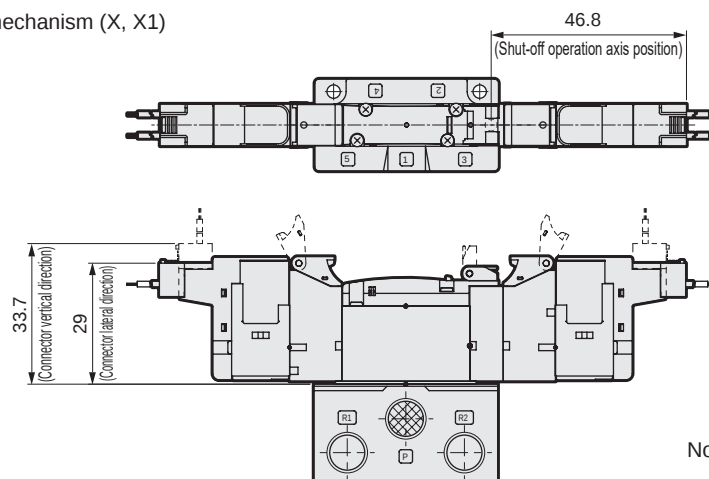
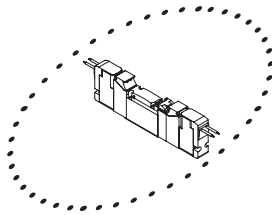
Note: Values in () are for AC voltage.

● EJ type connector (E**J)



Note: Values in () are for AC voltage.

● Residual pressure exhaust mechanism (X, X1)



Note: This option is compatible only with 4GB130R and 4GB140R.

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4GB2 Series

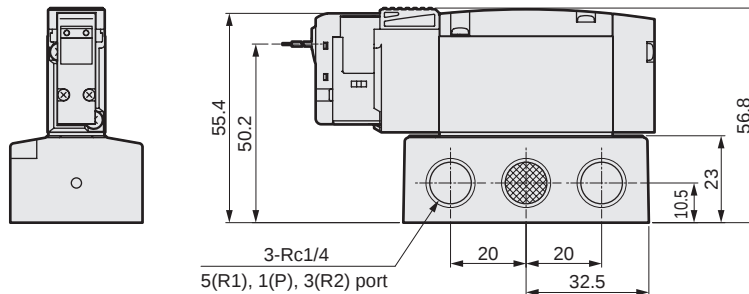
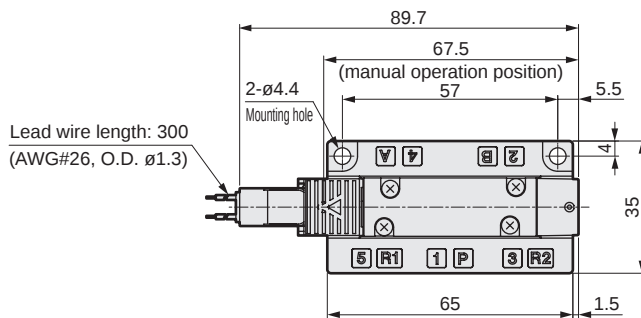
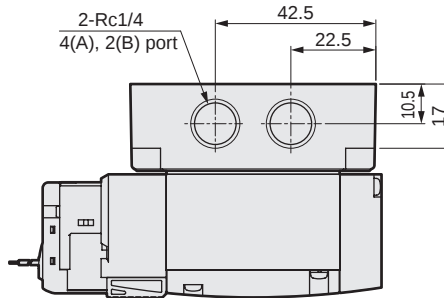
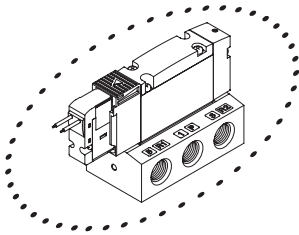
Discrete valve; base piping

Dimensions

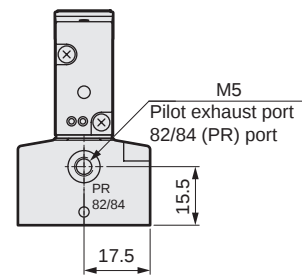
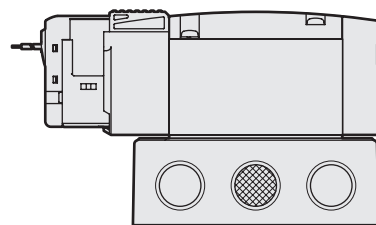
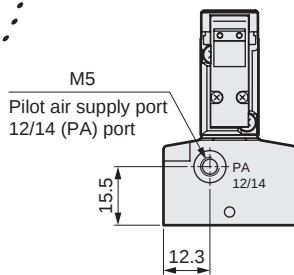
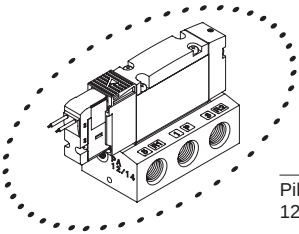


4GB210R * NPT thread and G thread specifications are listed on pages 86 to 95.

- 2-position single grommet lead wire (blank)

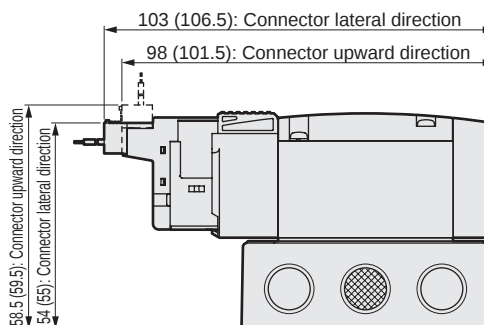
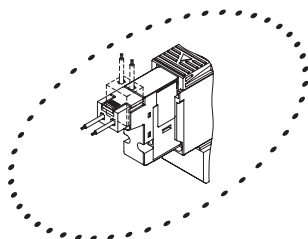


- External pilot (K)



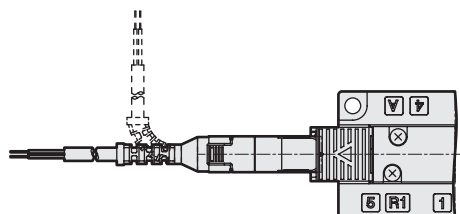
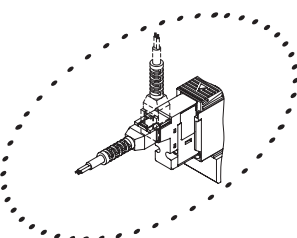
Dimensions

● E-connector (E)



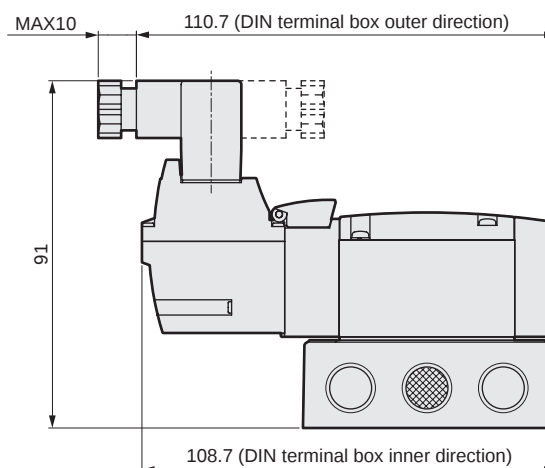
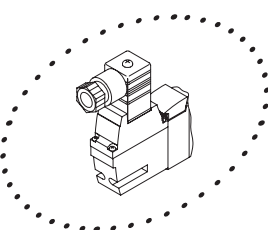
Note: Values in () are for AC voltage.

● 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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4GB2 Series

Discrete valve; base piping

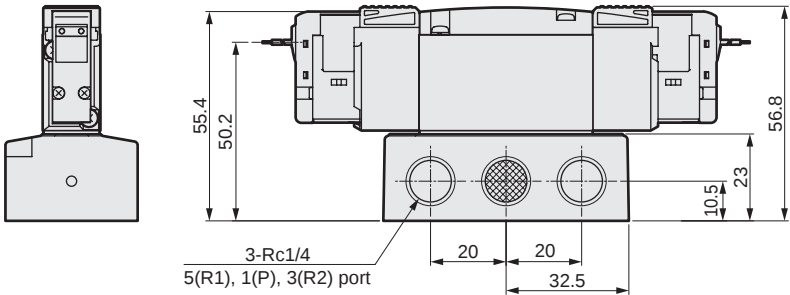
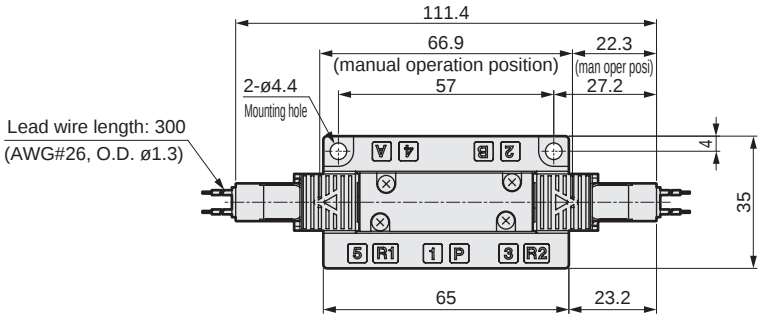
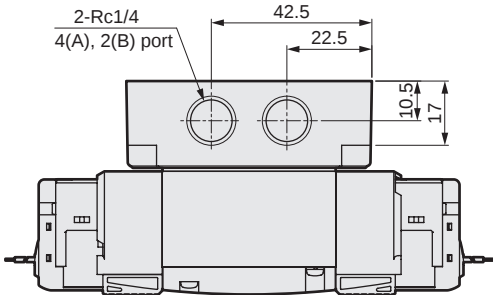
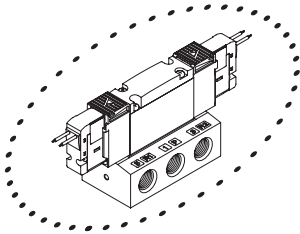
Dimensions

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

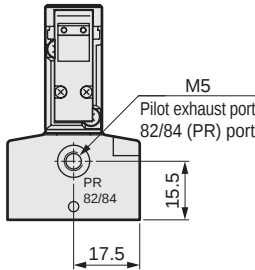
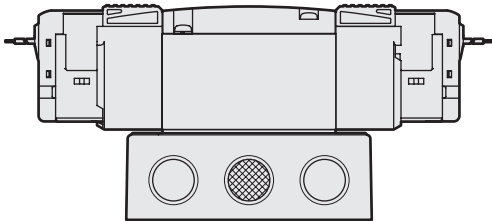
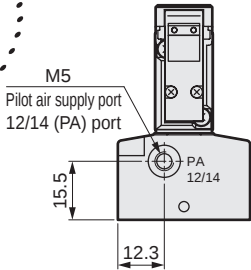
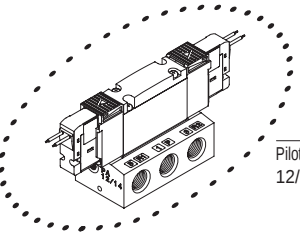
- 2-position double grommet lead wire (blank)

3GB2660R/3GB2670R/3GB2760R/3GB2770R

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



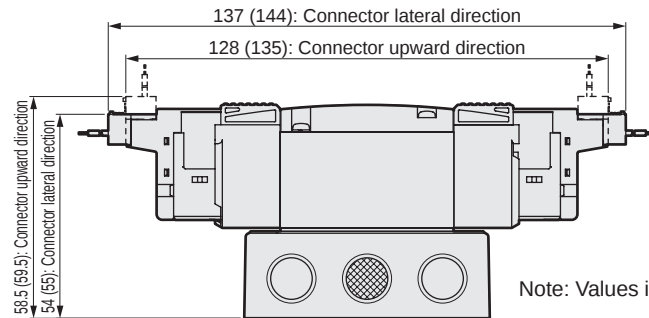
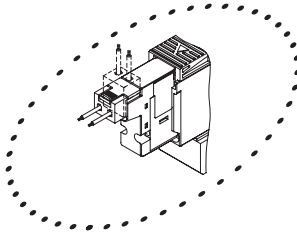
- External pilot (K)



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

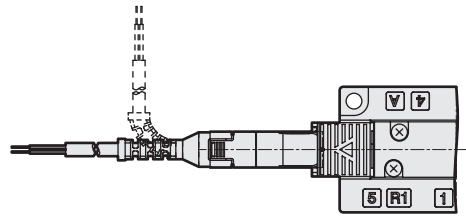
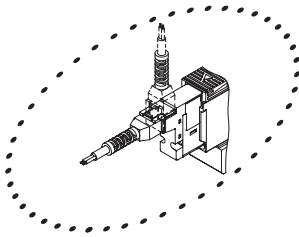
Dimensions

● E-connector (E)



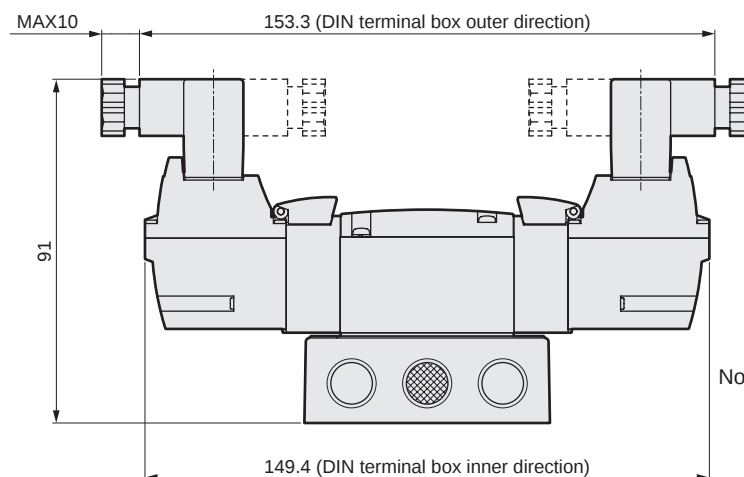
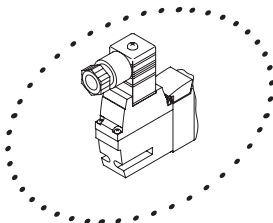
Note: Values in () are for AC voltage.

● 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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G GMF
PV5 GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP NVP
4G*0EJ
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

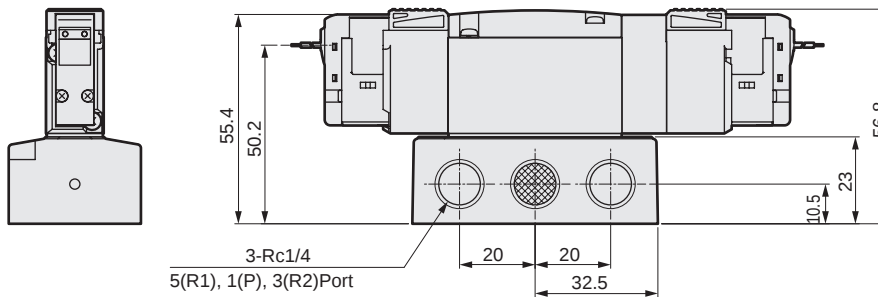
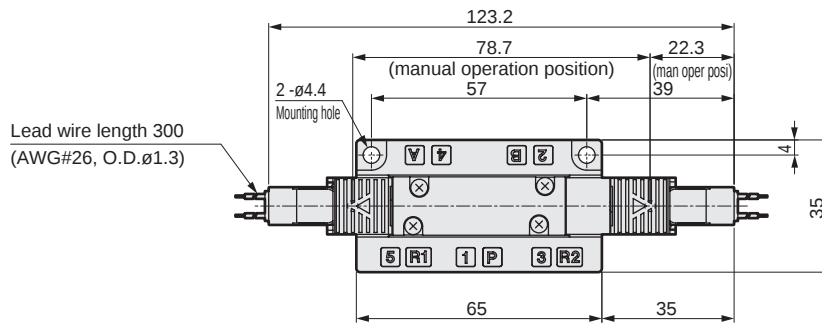
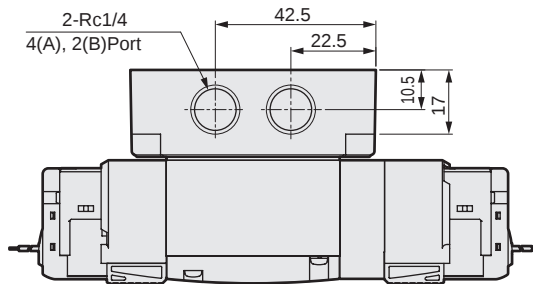
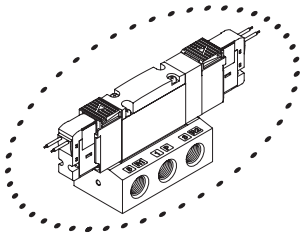
4GB2 Series

Discrete valve; base piping

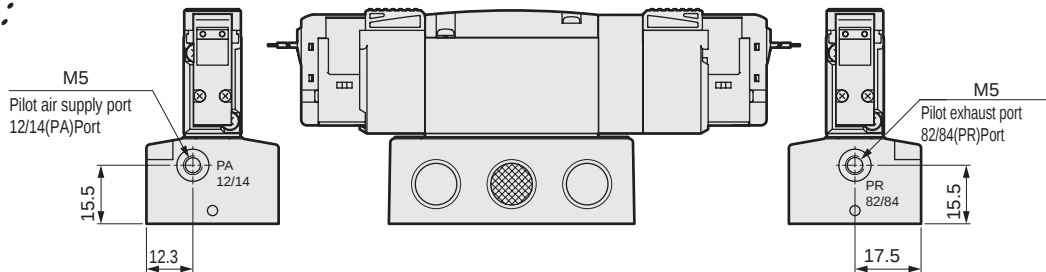
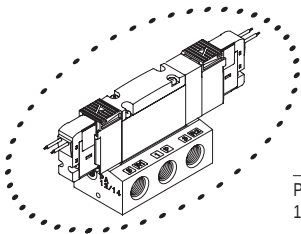
Dimensions

4GB2 0R * NPT thread and G thread specifications are listed on pages 86 to 95.

● 3-position grommet lead wire (blank)

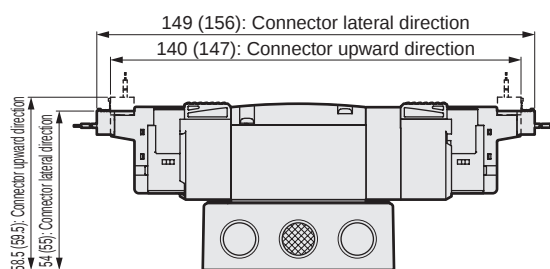
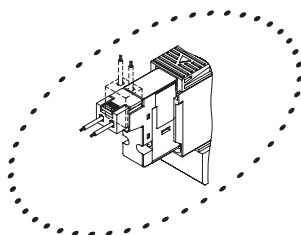


● External pilot (K)



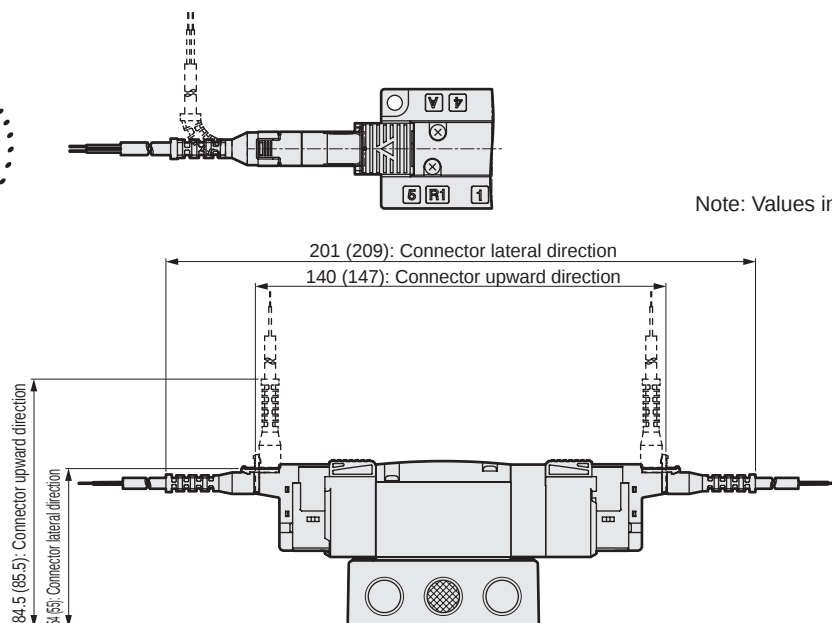
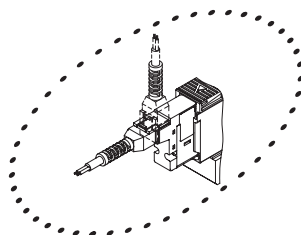
Dimensions

● E-connector (E)



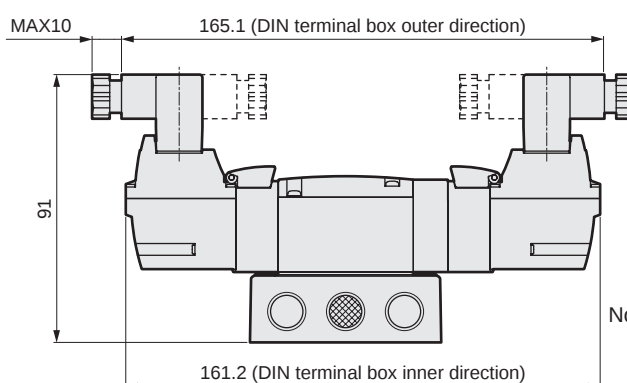
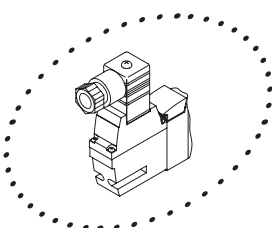
Note: Values in () are for AC voltage.

● EJ type connector (E**J)



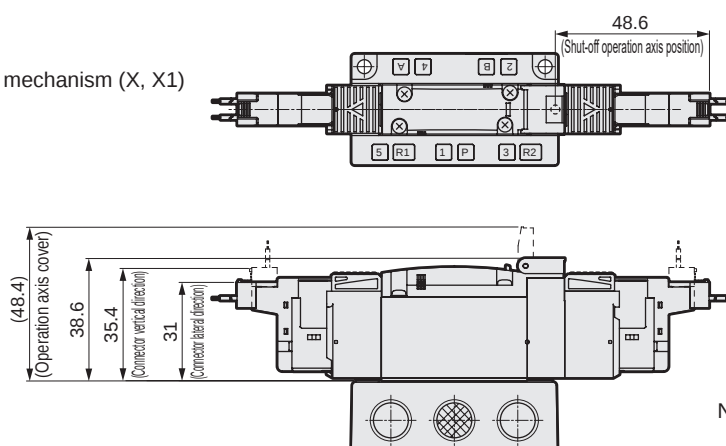
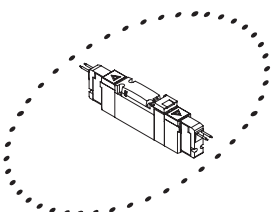
Note: Values in () are for AC voltage.

● DIN terminal box (B)



Note: DIN terminal box assembly is shipped facing inward.

● Residual pressure exhaust mechanism (X, X1)



Note: This option is compatible only with 4GB230R and 4GB240R.

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4GB3 Series

Discrete valve; base piping

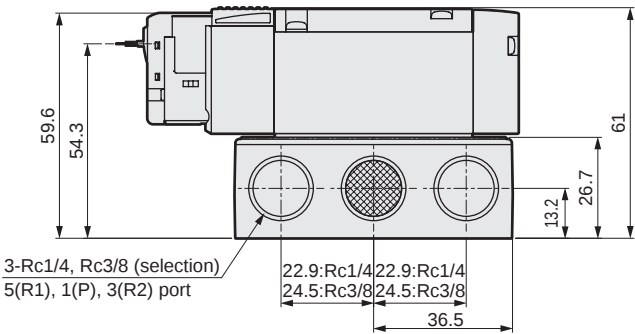
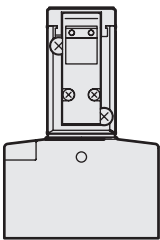
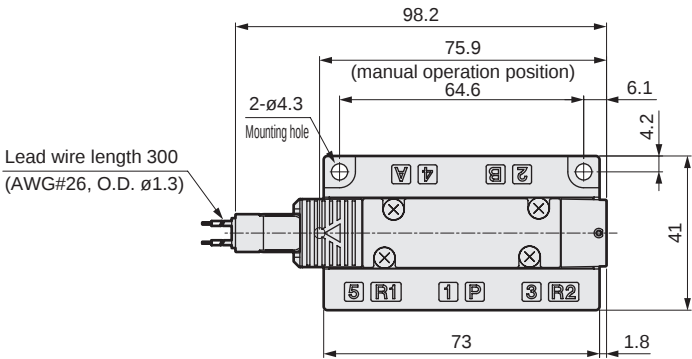
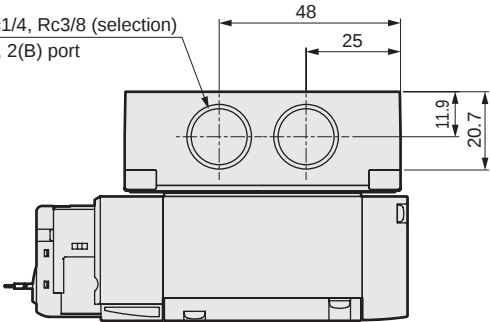
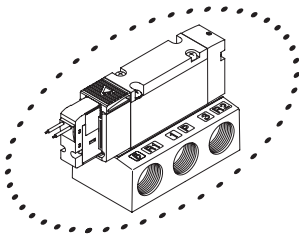
Dimensions



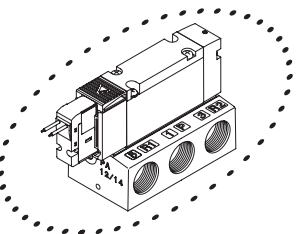
4GB310R * NPT thread and G thread specifications are listed on pages 86 to 95.

● 2-position single grommet lead wire (blank)

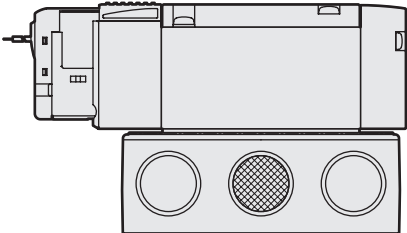
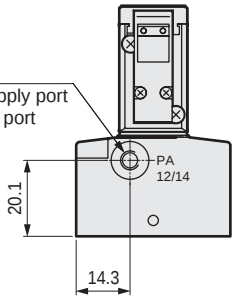
2-Rc1/4, Rc3/8 (selection)
4(A), 2(B) port



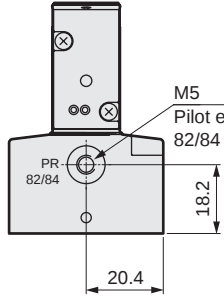
● External pilot (K)



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

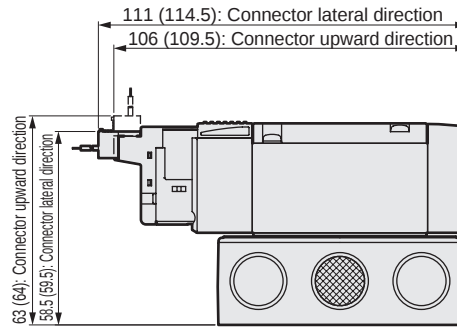
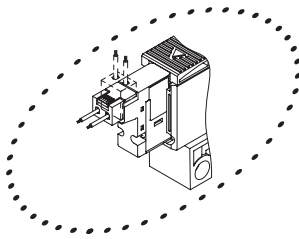


M5
Pilot exhaust port
82/84 (PR) port



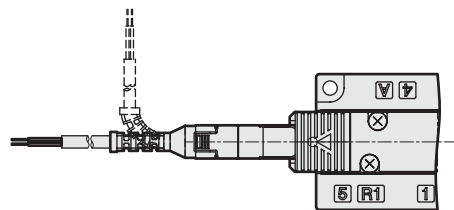
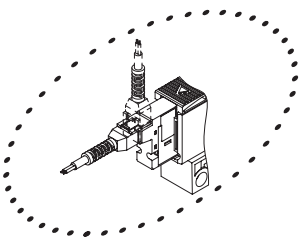
Dimensions

● E-connector (E)



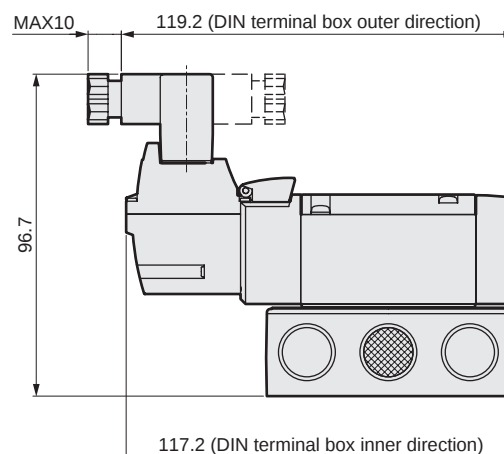
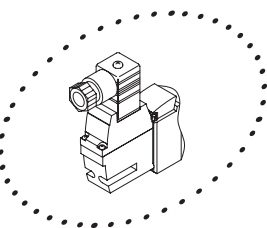
Note: Values in () are for AC voltage.

● 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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4GB3 Series

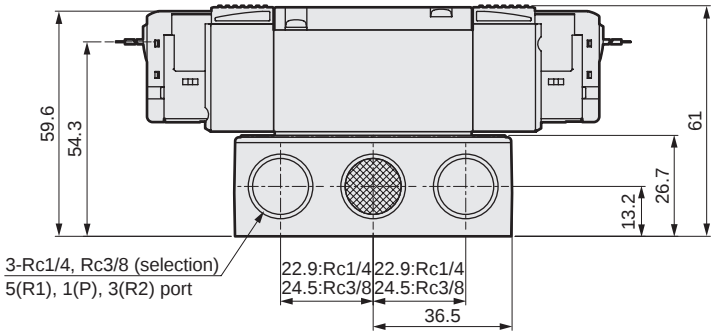
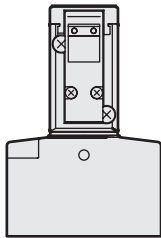
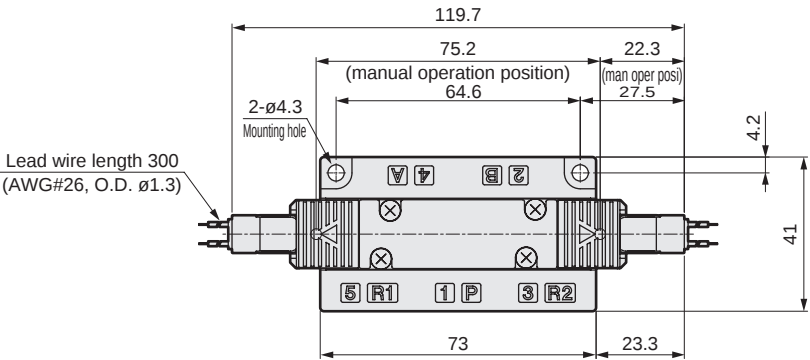
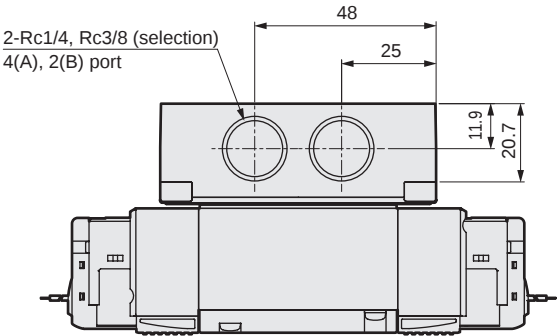
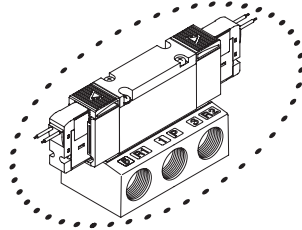
Discrete valve; base piping

Dimensions

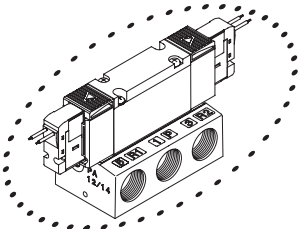


4GB320R * NPT thread and G thread specifications are listed on pages 86 to 95.

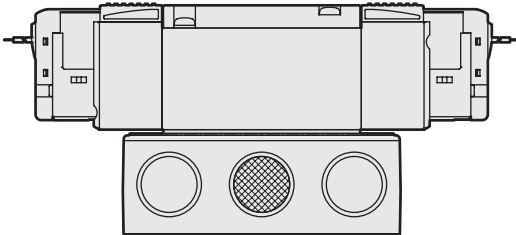
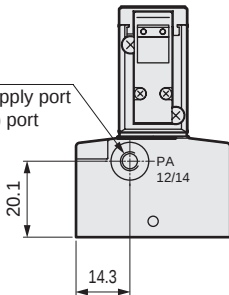
● 2-position double grommet lead wire (blank)



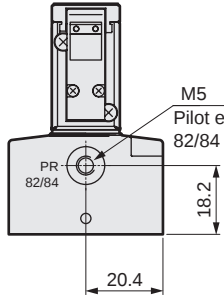
● External pilot (K)



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

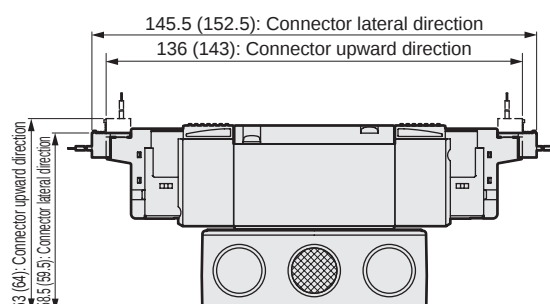
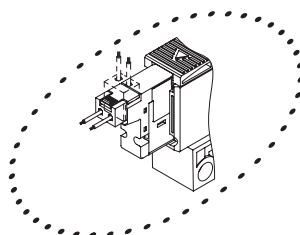


M5
Pilot exhaust port
82/84 (PR) port



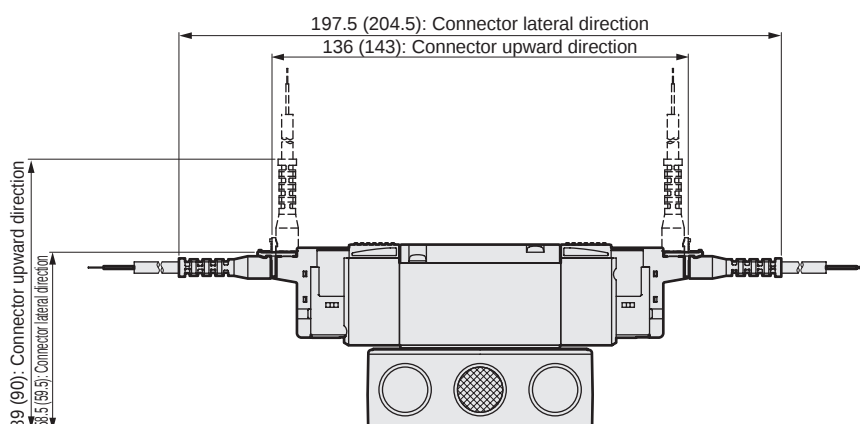
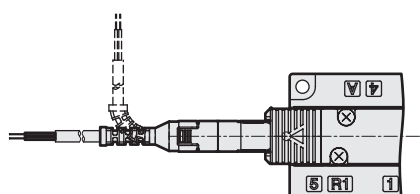
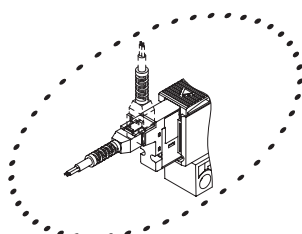
Dimensions

● E-connector (E)



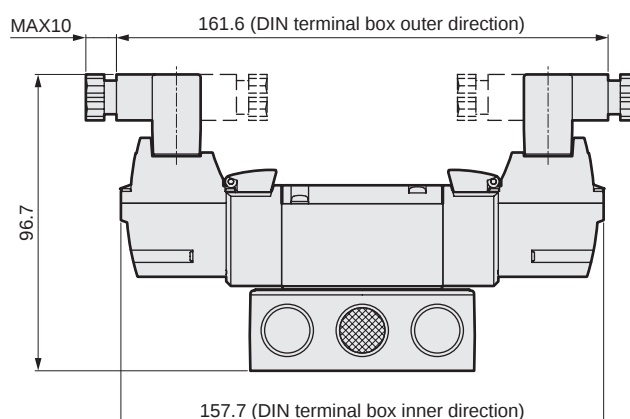
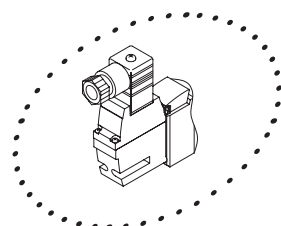
Note: Values in () are for AC voltage.

● 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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4GB3 Series

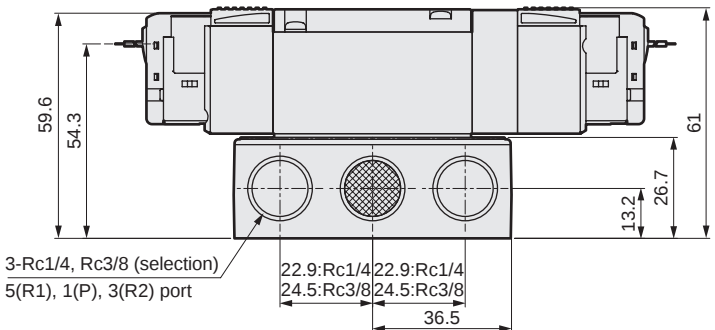
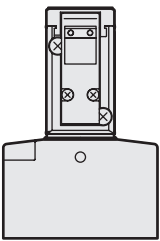
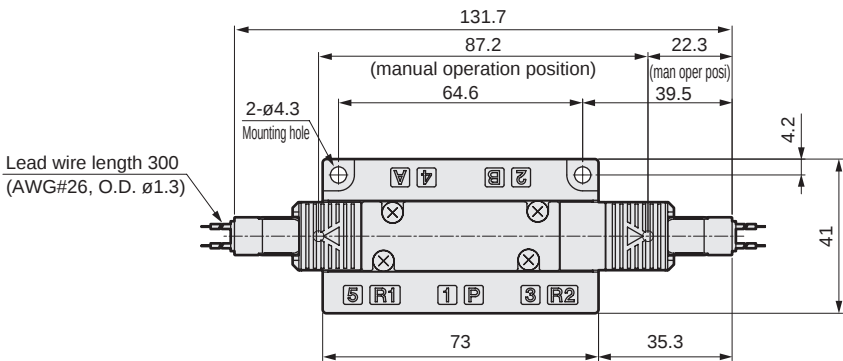
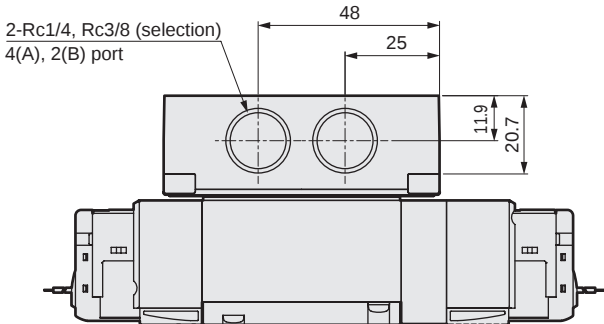
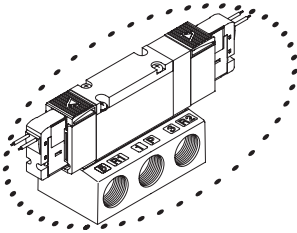
Discrete valve; base piping

Dimensions

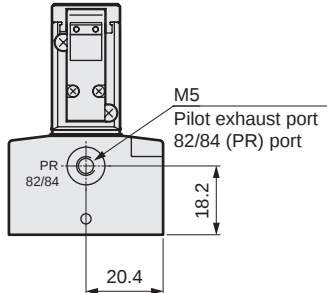
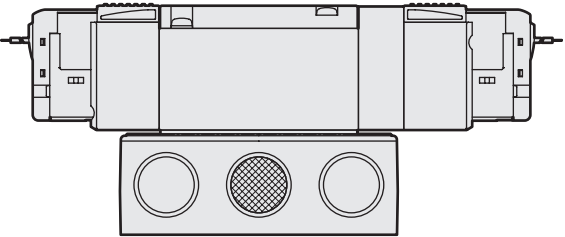
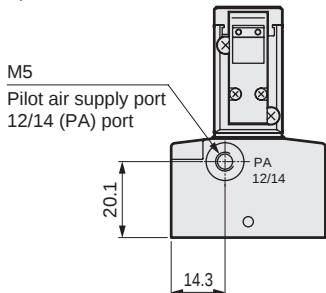
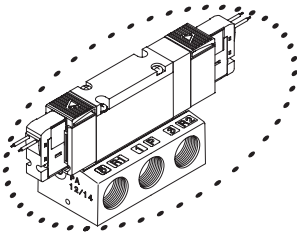


4GB3 ³/₄ 0R * NPT thread and G thread specifications are listed on pages 86 to 95.

● 3-position, grommet lead wire (blank)

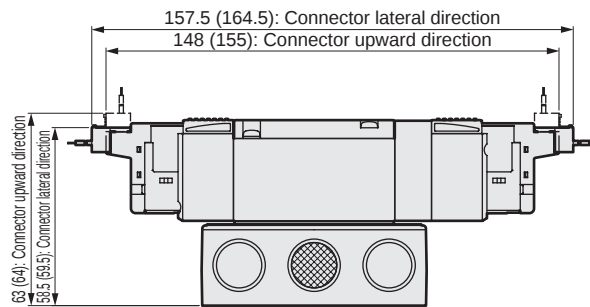
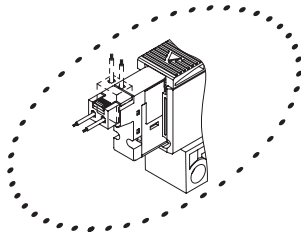


● External pilot (K)



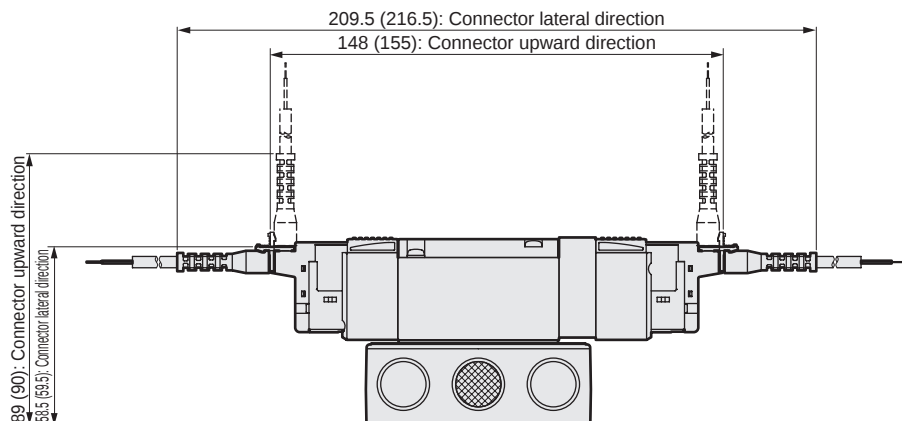
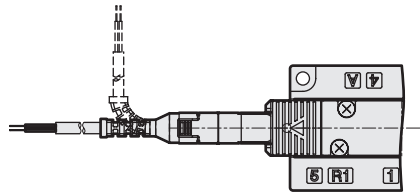
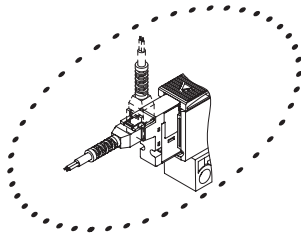
Dimensions

● E-connector (E)



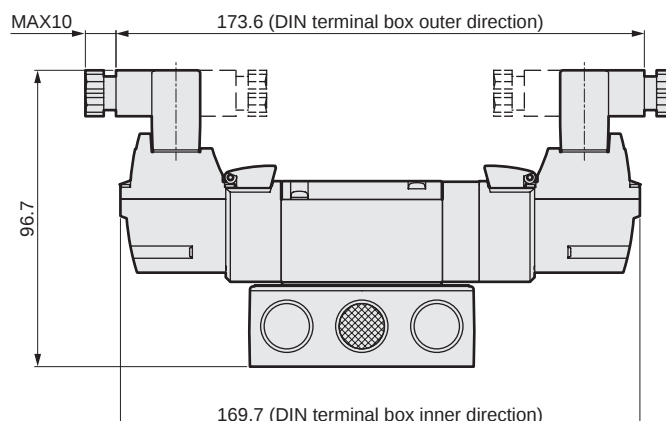
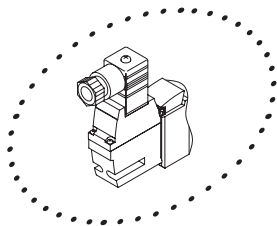
Note: Values in () are for AC voltage.

● 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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

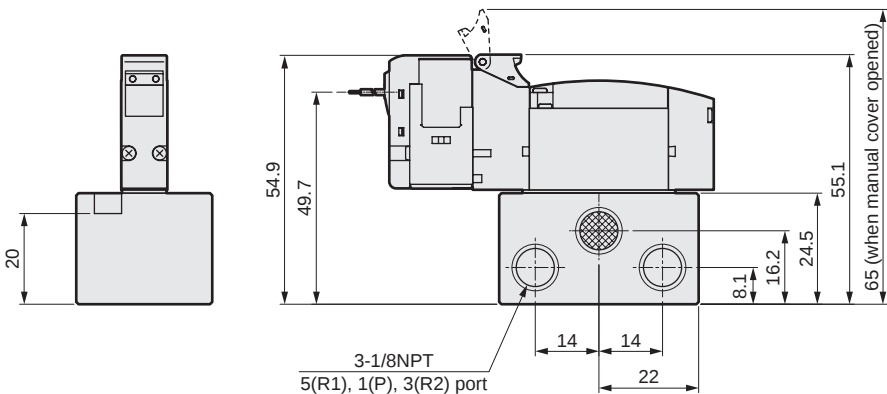
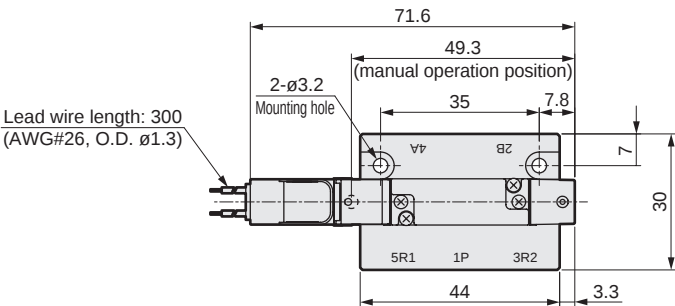
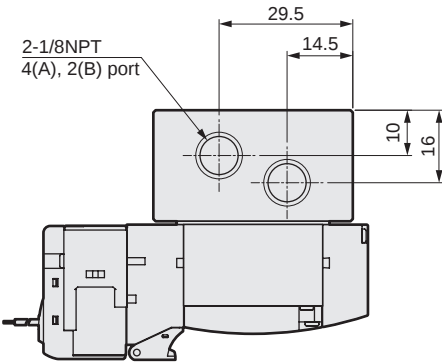
3GB1/4GB1 Series

Discrete valve; base piping

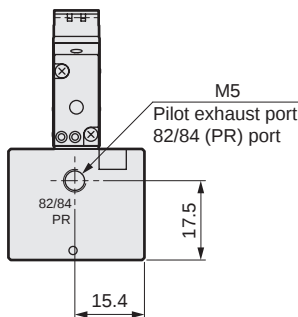
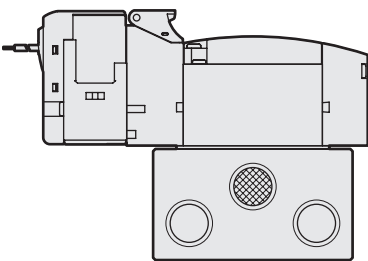
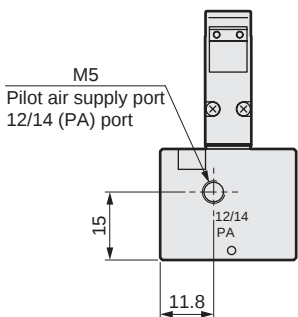
Dimensions Port size; NPT thread

3GB1⁶⁶0R, 4GB1⁷⁶OR

● 2-position single grommet lead wire (blank)

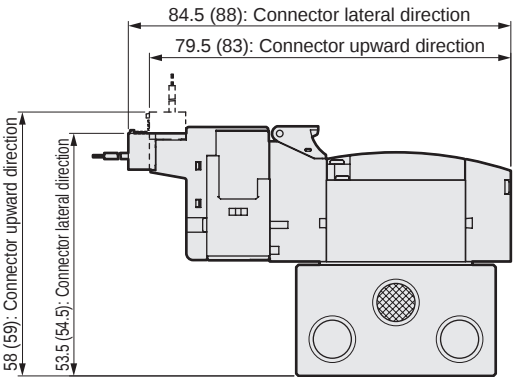


● External pilot (K)



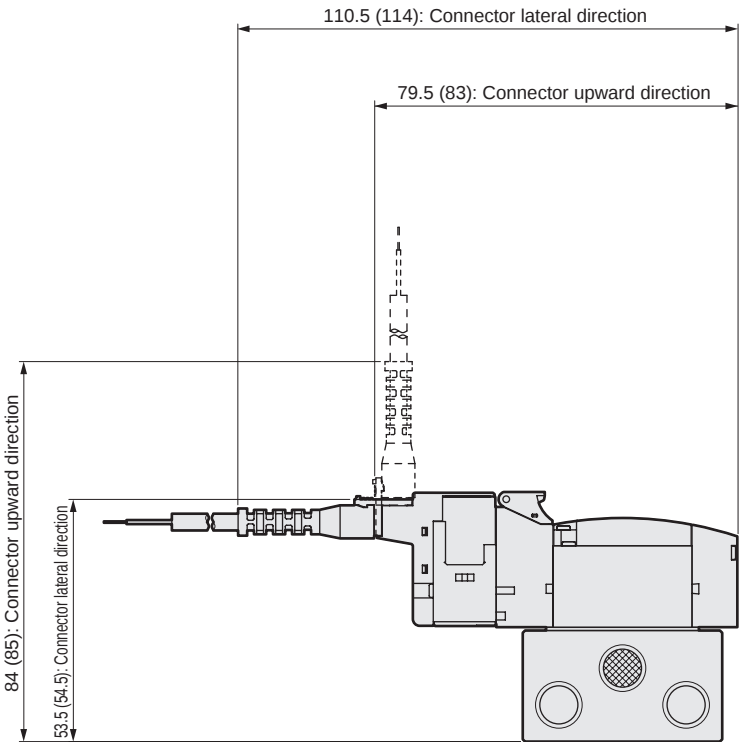
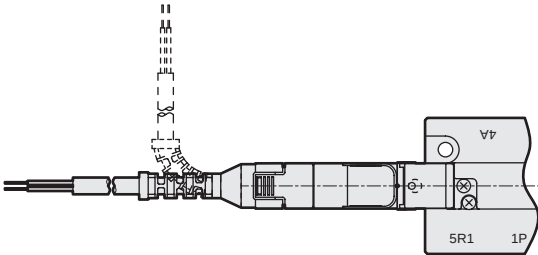
Dimensions Port size; NPT thread

● E-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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

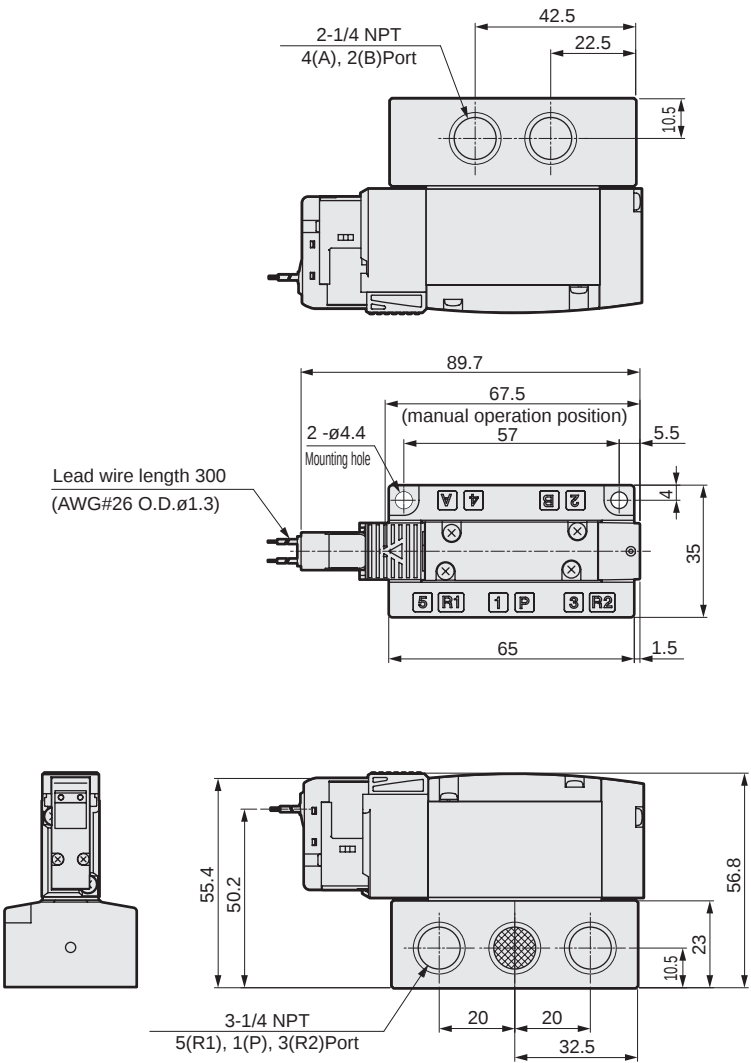
3GB2/4GB2 Series

Discrete valve; base piping

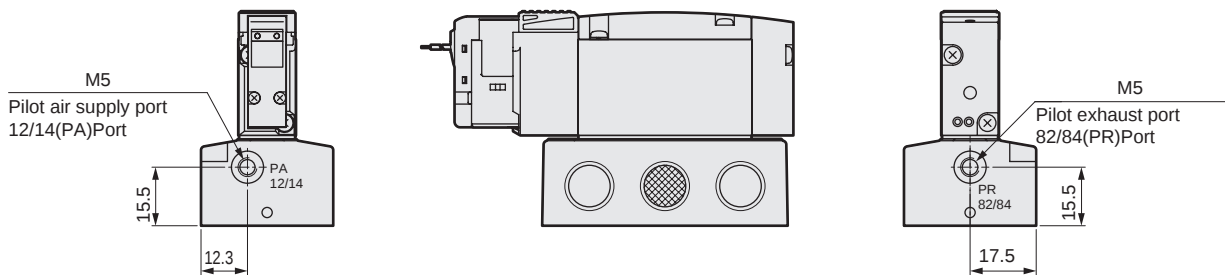
Dimensions port size; NPT thread

3GB2⁶⁶₆₇⁶⁶₇₆⁶⁶₇₇ OR, 4GB2¹₂¹₃¹₄ OR

● 2-position single grommet lead wire (blank)

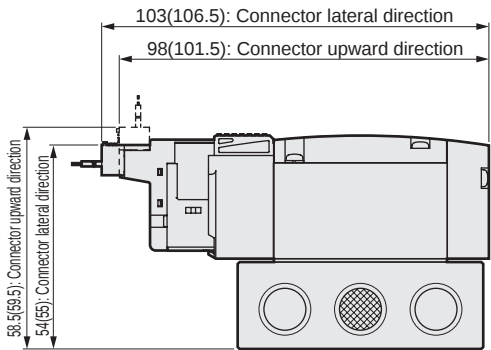


● External pilot (K)



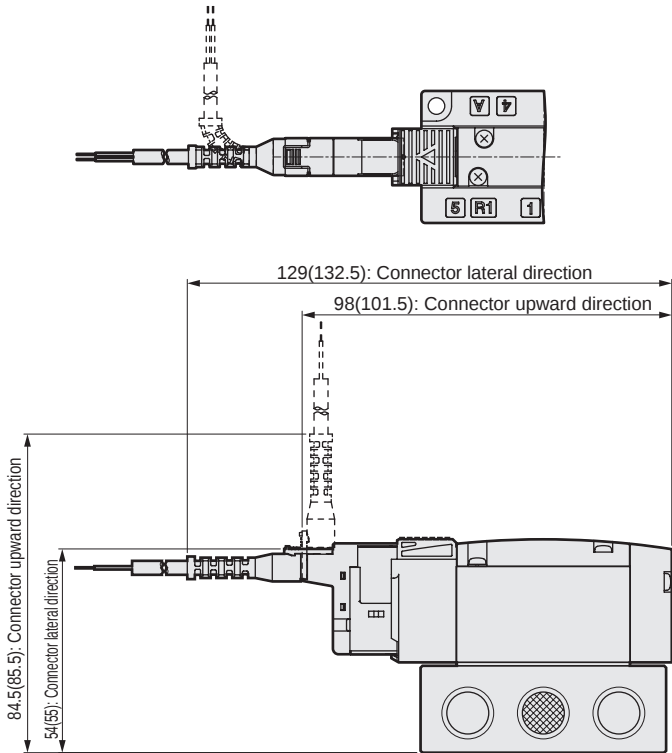
Dimensions port size; NPT thread

● E-connector (E)



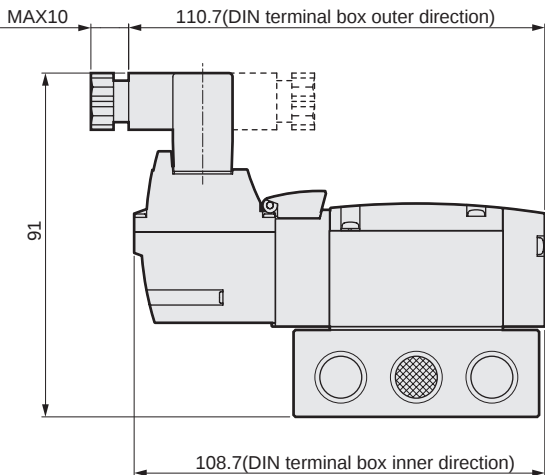
Note: Values in () are for AC voltage.

● 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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

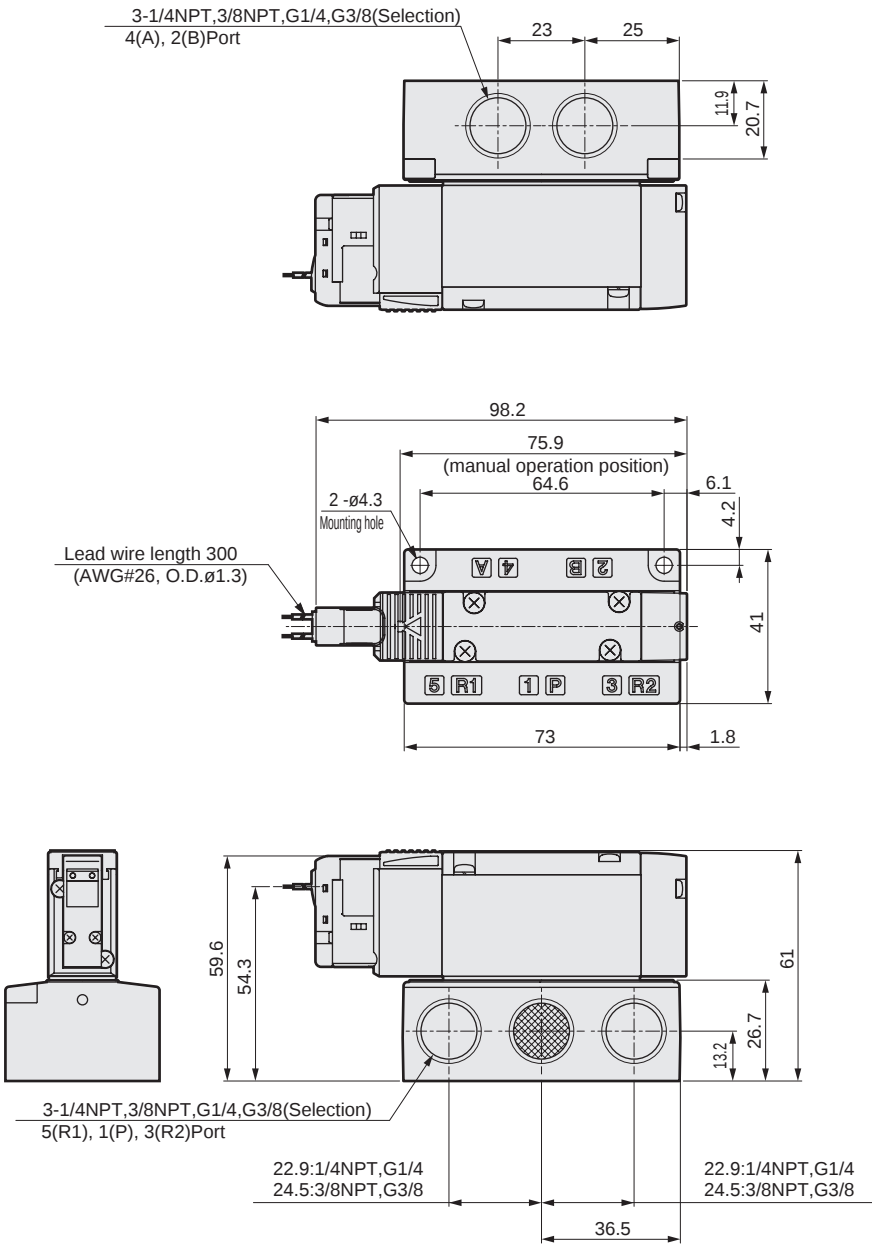
4GB3 Series

Discrete valve; base piping

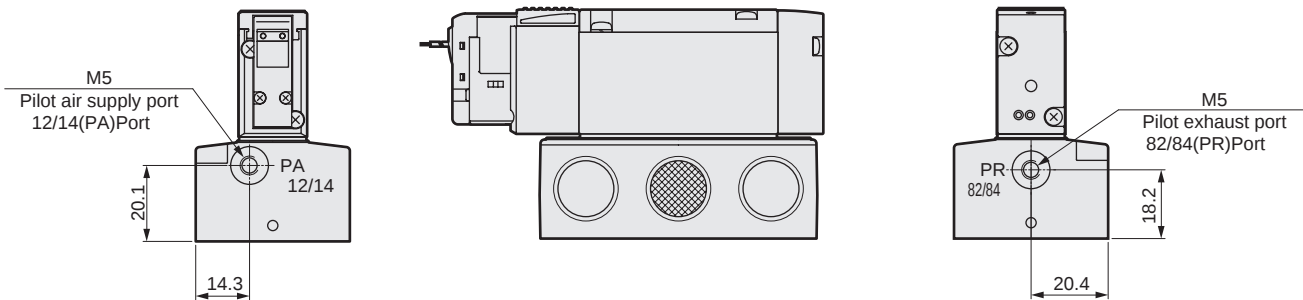
Dimensions port size; NPT thread, G thread

4GB3 1/2OR

● 2-position single grommet lead wire (blank)

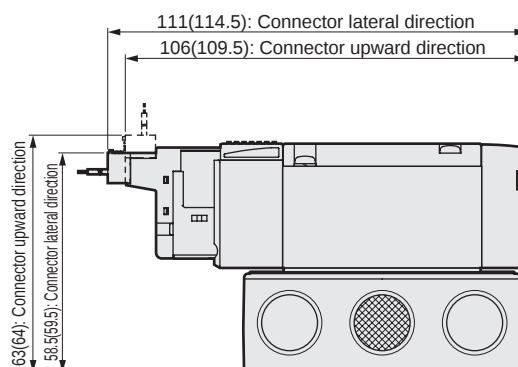


● External pilot (K)



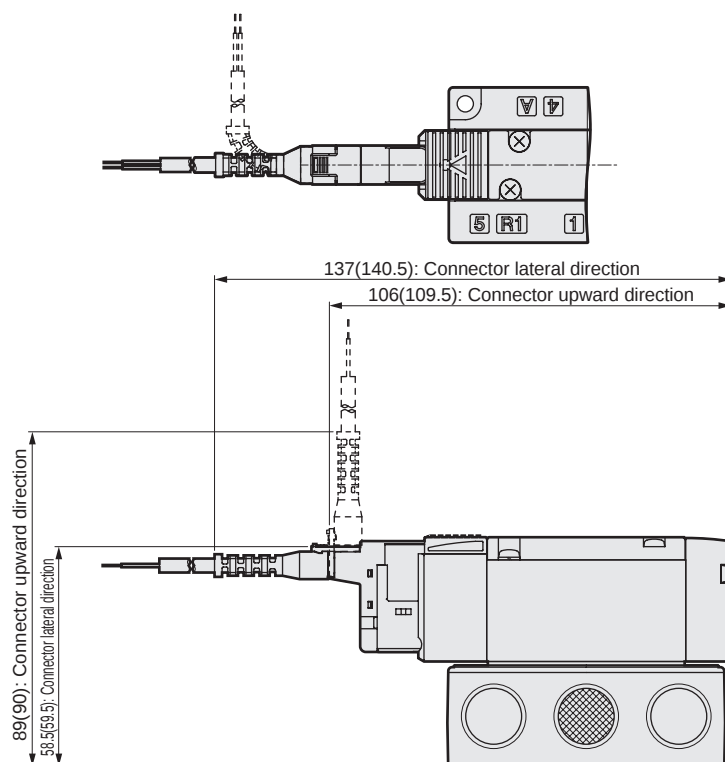
Dimensions port size; NPT thread, G thread

● E-connector (E)



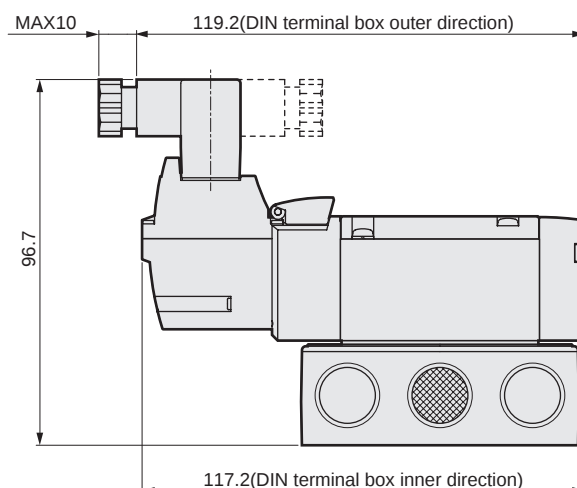
Note: Values in () are for AC voltage.

● 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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

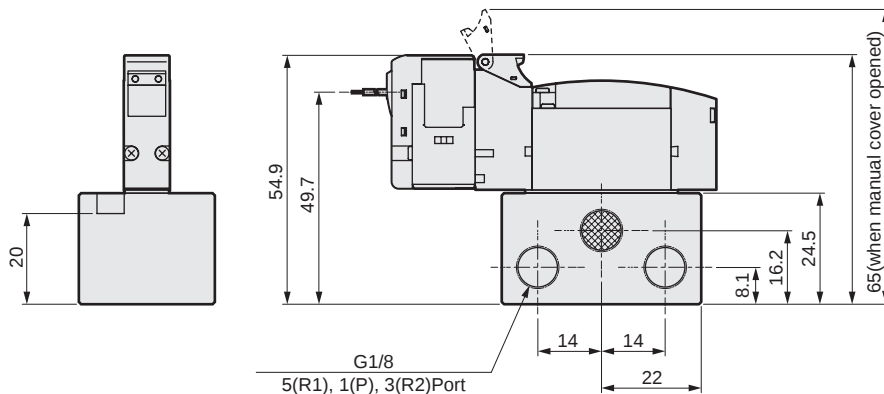
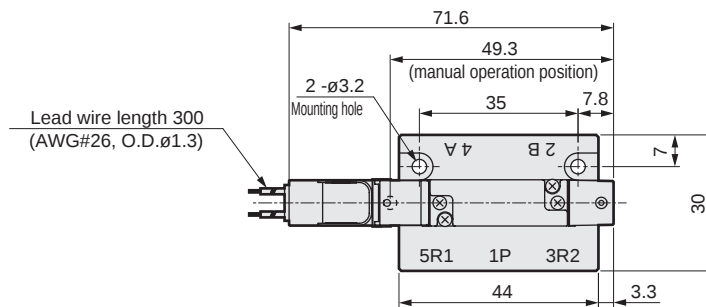
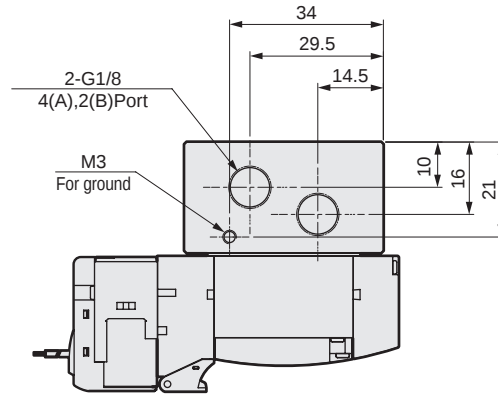
3GB1/4GB1 Series

Discrete valve; base piping

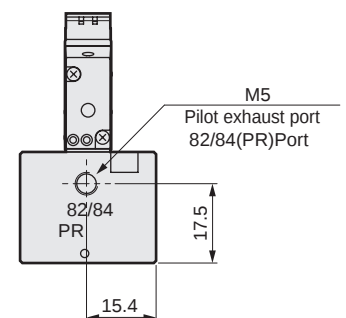
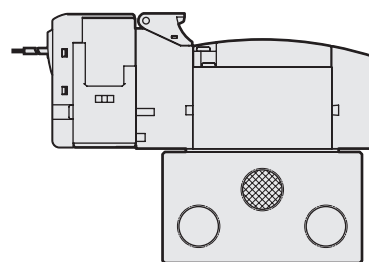
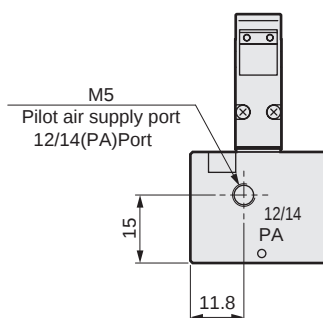
Dimensions port size; G thread

3GB1⁶⁶OR, 4GB1¹OR

● 2-position single grommet lead wire (blank)

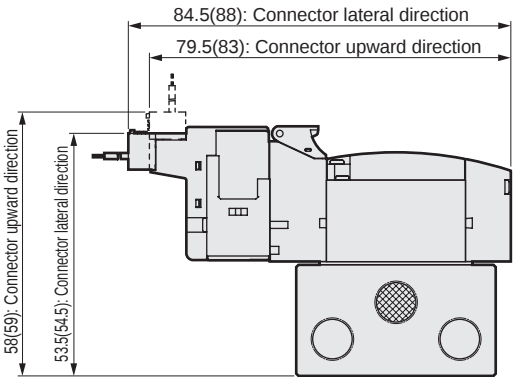


● External pilot (K)



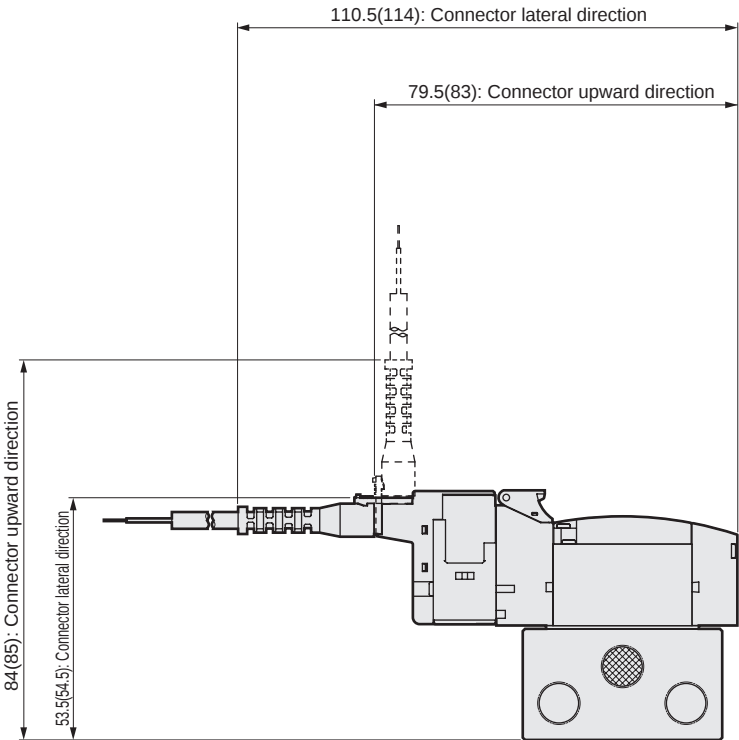
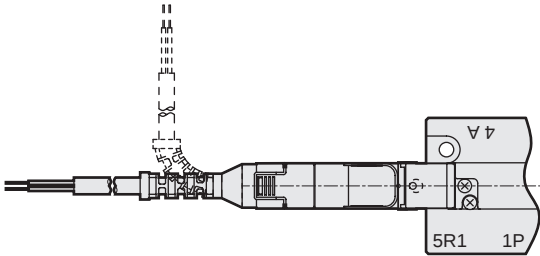
Dimensions port size; G thread

● E-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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

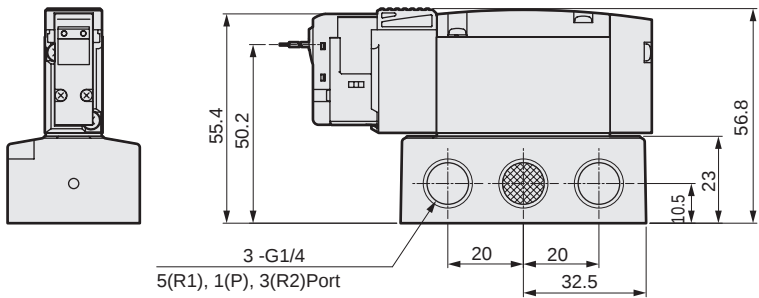
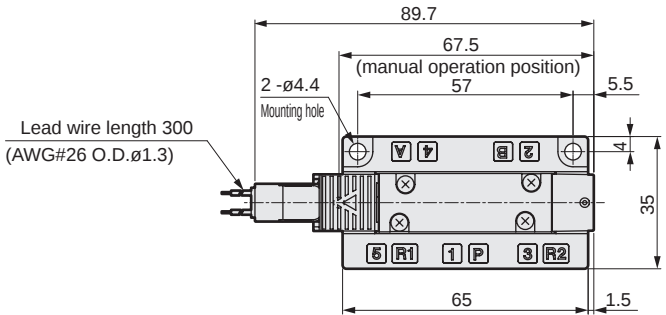
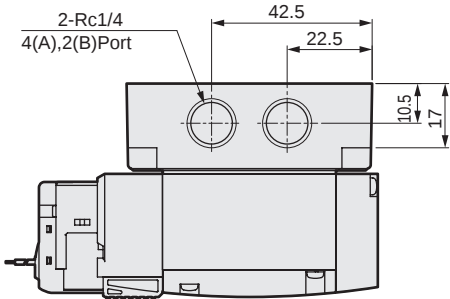
3GB2/4GB2 Series

Discrete valve; base piping

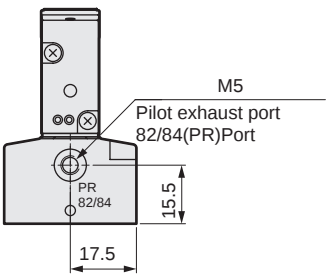
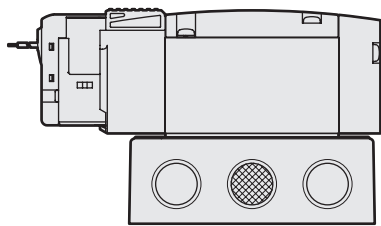
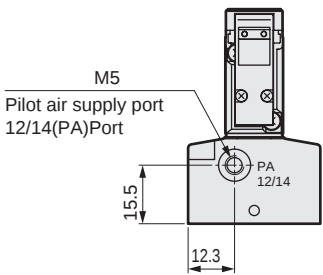
Dimensions port size; G thread

3GB2⁶⁶₆₇⁶⁶₇₆⁶⁶₇₇OR, 4GB2¹₁OR

● 2-position single grommet lead wire (blank)

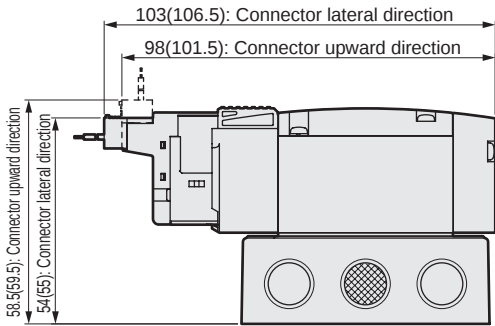


● External pilot (K)



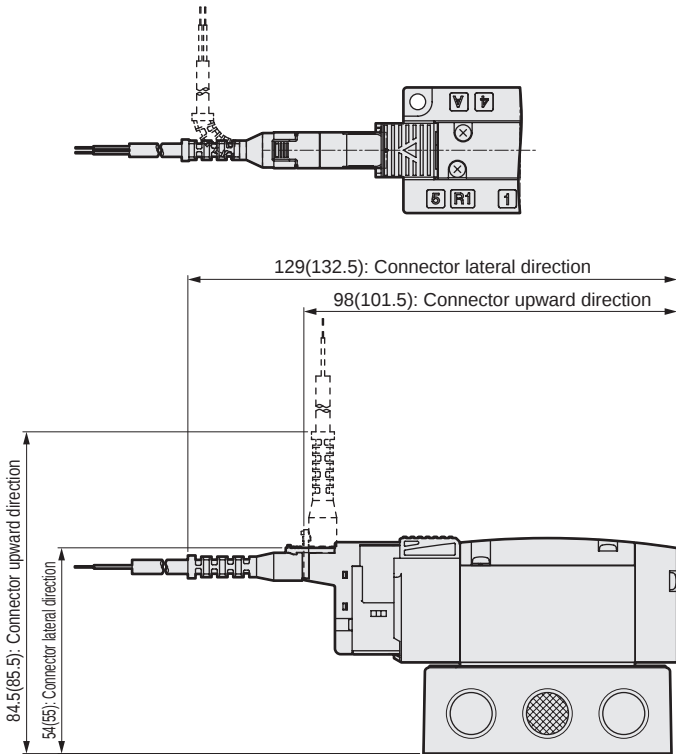
Dimensions port size; G thread

● E-connector (E)



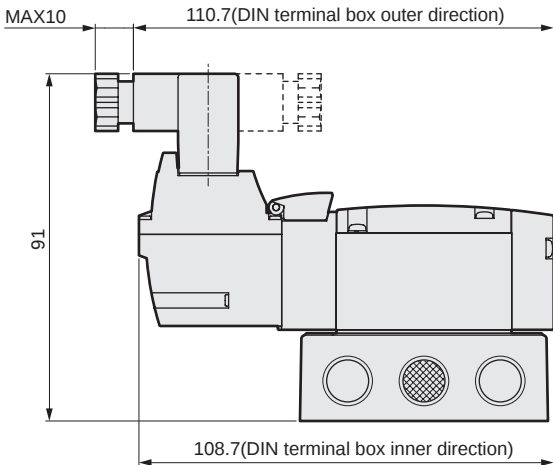
Note: Values in () are for AC voltage.

● 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 (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending