

3, 5 port pilot operated valve 4GA/B • 4GD/E R Series



3,5 PORT PILOT OPERATED VALVE 4GA/B 4GD/E R Series

**User Friendly.
Upgraded Performance.**



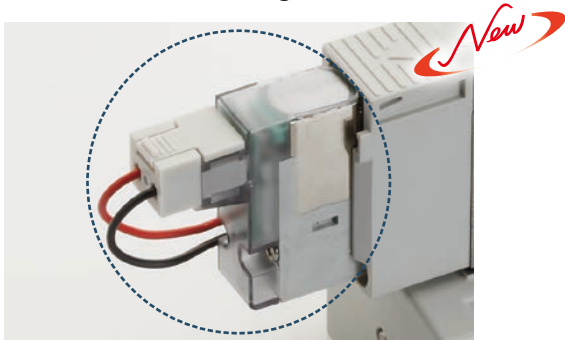
New 4G! Start!

The new 4G is further evolved while inheriting the conventional 4G series concept. It starts here.

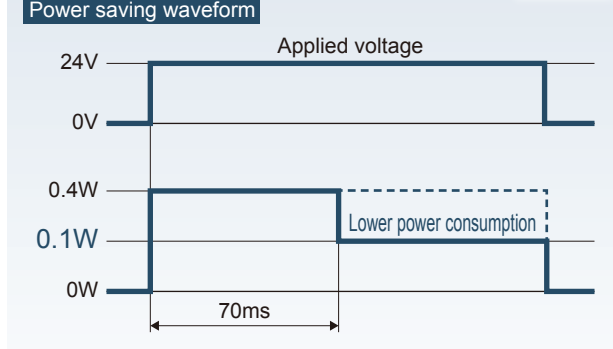
Power consumption 0.1w Minimal heat generated with integrated energy saving circuit 4GAB	Power consumption 0.35w Standard products
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Power Consumption

Continuous energization OK (single solenoid type)
Improved Solenoid Design. **4GAB**



Lower power consumption **4GAB**

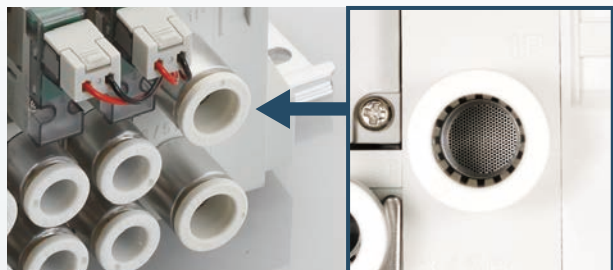


Safety

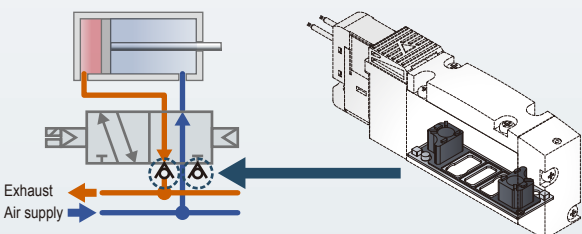
Manual override protection
Manual override with protective covers.



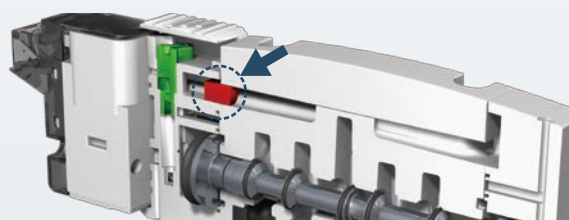
Contamination prevention
Filter standard equipment
(Available on A and B ports as an option)

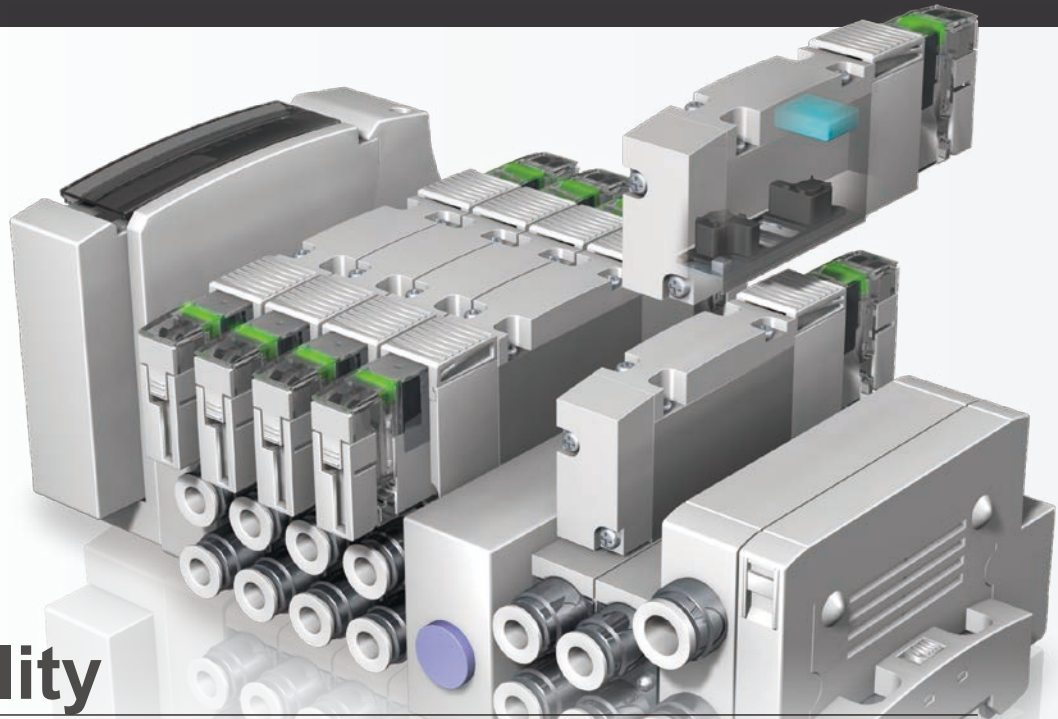


Potential for exhaust back-pressure eliminated.
Exhaust malfunction prevention valve.
Standard feature in both metal and plastic base designs.



Internal pilot filter is standard equipment.





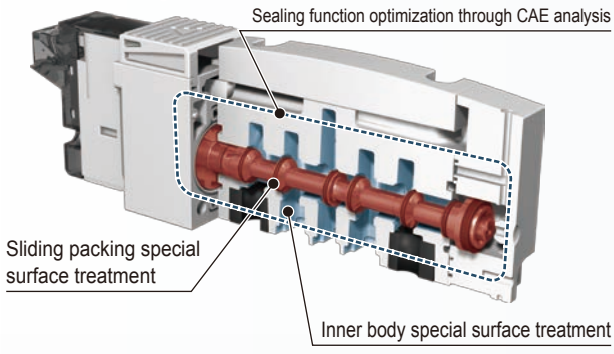
Reliability

Low friction design with improved life cycle rating
 Excellent response time and long life achieved with the main spool. **4GAB**



Life Rating
100 million cycles or more
 Single solenoid, through our predetermined conditions
4GAB

Response time
12±2ms
 4G1 test results

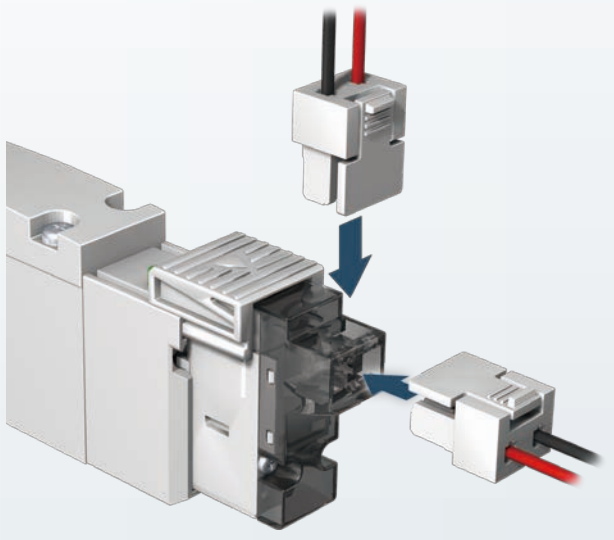


Improved response even after weekend shutdown

Smooth start-up even after a prolonged shut-down. **4GAB**

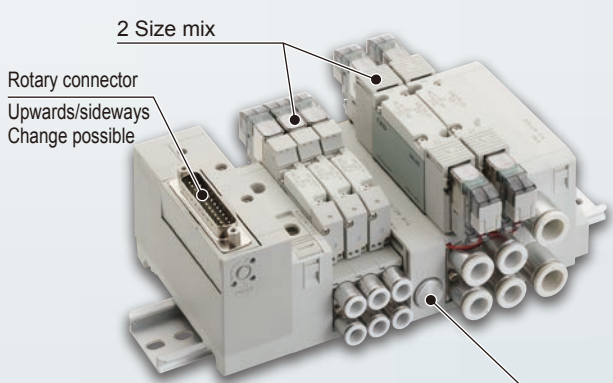
Flexible Functionality

Two-way wiring connector of top or side.
 Wire connection orientation is easily adjusted in the field.



Manifold flexibility

Manifolds can include a mixture of valve sizes and port sizes.



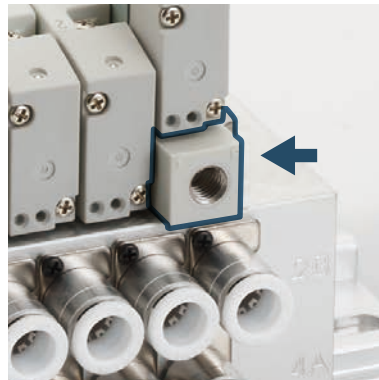
Manifolds can include a mixture of valve sizes and port sizes

Variety of options



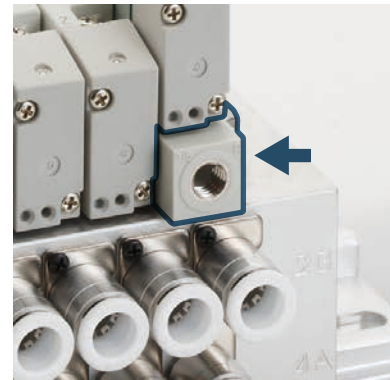
Individual Valve shut-off

Valves are individually replaceable without stopping operation of the production line!



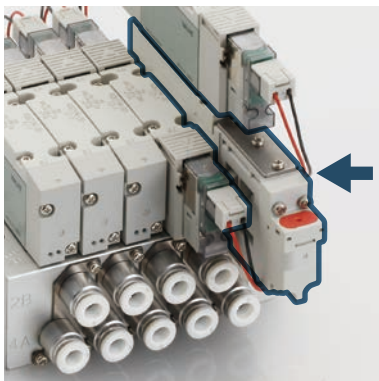
Individual supply spacer

Ideal for cylinder thrust adjustment in the individual valve pressure increase/decrease!



Exhaust spacer

Prevent malfunction of Single-acting cylinders in the individual exhaust!



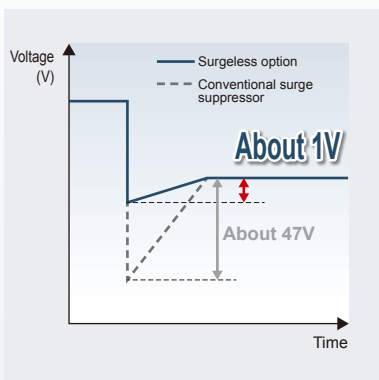
Pilot check valve spacer

For intermediate valve stoppage. Provides a short-term positive lock of a double-acting cylinder



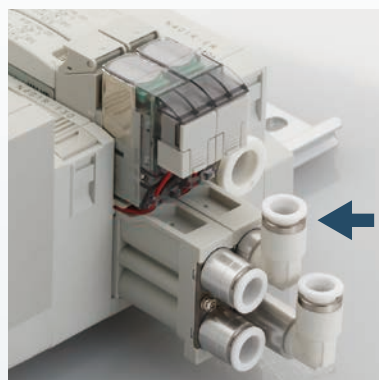
More valve porting options

4G1 now includes 8mm tubing (C8)
4G2 now includes 10mm tubing



Surge Protection

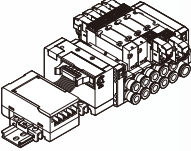
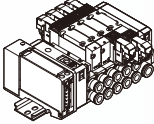
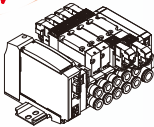
The coil surge voltage is reduced about 1V to protect the output contacts!



Elbow fitting option for block manifold

Improve the flexibility of valve installation with the addition of piping direction

Automation communication protocols supported

		CC-Link	Compo Bus/S	S-LINK	Uniwire H system	Device Net	SAVE NET	Compo Net	PROFI BUS-DP	Ether CAT	EtherNet /IP
	OPP3 Output 8/16points	●	●	●	●						
	M4G Metal Manifold										
	OPP4 Output 8/16points Thin type	●	●	●		●	●	●			
	MN4G Resin Manifold										
	OPP7 Output 16/32 points Thin type	●							●	●	●
	M4G Metal Manifold										
	MN4G Resin Manifold										

Applications/environment table

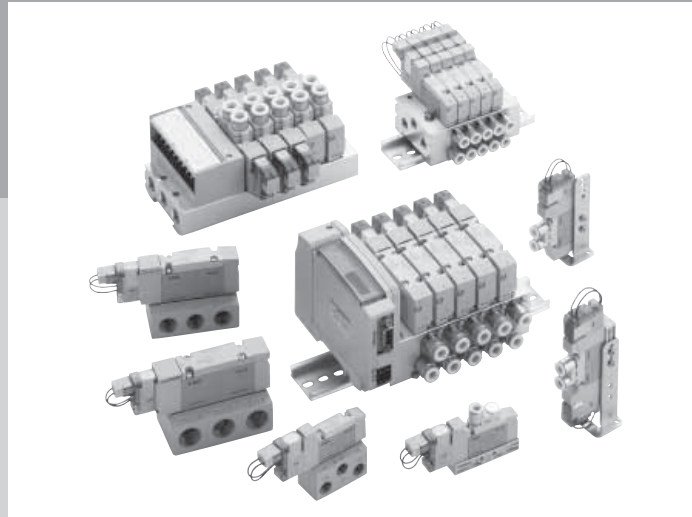
		Multi function type 4GA/B R	Standard type 4GD/E R
Reliability	Air quality		
	Ultra-dry air • N2	●	○
	Dry air	●	○
	Oil contaminated air/ low ozone	○	○
	Drain air	●	○
	Countermeasure for the use after weekend shutdown	●	○
	Low vacuum support	○	
Safety	Exhaust malfunction prevention function	○	○
	Manual override protective cover	○	○
	Built-in contamination protection	○	○
Usability	90 degree elbow quick to connect fittings	○	
	External pilot	○	
	Two-way wiring connector of top/side	○	○
	Manual operation without tools	○	○

● Recommended

4GA1 to 3 & 4GB1 to 3

3, 5 port pilot operated valve

Metal base



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● Base piping (M3GB1 to 2-T* (D)/M4GB1 to 3-T*(D)) · Common terminal block/D sub-connector/flat cable connector/ serial transmission	152
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* Refer to page 215 block manifold.

* Refer to page 309 for the master valve.

4GA/B	M4GA/B	MN4GA/B	4GA/B Master valve	4GD/E	M4GD/E	MN4GD/E	Technical data	Safety precautions	Manifold Specifications	Series appearance		Model no.	Position No. of solenoid JIS symbol	Valve performance		Voltage (v)	Valve Position						
										Flow rate characteristics (dm ³ /(s/bar)) (Note 1)	Applicable Cylinder diameter (φ)			2-position									
										Normally closed	Normally open	Single	Double										
Discrete	3GA110R-E* 4GA120R-E* 4GB310R-E*		Body piping	3 port	3GA1 3GA2 3GA3	● 3 port valves 2-position single N.C. type		0.66 to 0.70	20 to 40	AC100 AC200 DC24 DC12 DC3 DC5 (Note 2)	●	●											
								2.2 to 2.7	40 to 80		●	●											
								3.9	63 to 100		●	●											
								Base piping	3 port		3GB1 3GB2	● 2-position single N.O. type		0.66 to 0.70	20 to 40								
														2.4 to 2.7	40 to 80								
														3.2 to 4.0	63 to 100								
	5 port	4GA1 4GA2 4GA3	● 5 port valves 2-position single		1.1 to 1.3	20 to 40																	
					2.2 to 2.5	40 to 80																	
					3.2 to 4.2	63 to 100																	
	Individual wiring manifold	M4GA280R-E*D M4GB110R-E*D		Body piping	Direct mount type DIN rail mount type (-D)	M4GA1 M4GA2 M4GA3	● 2-position double		0.66 to 1.0	20 to 40	AC100 AC200 DC24 DC12 DC3 DC5 (Note 2)	●	●	●	●								
									1.7 to 2.5	40 to 80		●	●	●	●								
									2.5 to 3.3	63 to 100		●	●	●	●								
Base piping									Direct mount type DIN rail mount type (-D)	M4GB1 M4GB2 M4GB3		● 3-position all ports closed		0.67 to 1.0	20 to 40								
														1.6 to 2.4	40 to 80								
														2.6 to 3.3	63 to 100								
M4GA280R-T10 M4GA180R-T8D M4GB210R-T8*			Body piping	Mount type Direct	Terminal block type (-T1*) Connector type (-T30, -T5*)	M4GA1 M4GA2 M4GA3	● 3-position A/B/R connection		0.66 to 1.0	20 to 40	DC24 DC12	●	●	●	●								
									1.7 to 2.5	40 to 80		●	●	●	●								
									2.5 to 3.3	63 to 100		●	●	●	●								
									DIN rail mount type	Terminal block type (-T1*D) Connector type (-T30D, -T5*D)		M4GA1 M4GA2 M4GA3	● 3-position P/A/B connection		0.66 to 1.0	20 to 40							
															1.7 to 2.5	40 to 80							
															2.5 to 3.3	63 to 100							
Mount type Direct	Terminal block type (-T1*) Connector type (-T30, -T5*)	M4GB1 M4GB2 M4GB3	● Dual 3 port valve integrated type N.C./N.C. type		0.66 to 1.0	20 to 40																	
					1.7 to 2.5	40 to 80																	
					2.5 to 3.3	63 to 100																	
					N.C./N.O. type	Terminal block type (-T1*) Connector type (-T30, -T5*)	M4GB1 M4GB2 M4GB3	● N.O./N.C. type		0.67 to 1.0	20 to 40												
										1.6 to 2.4	40 to 80												
										2.6 to 3.3	63 to 100												
DIN rail mount type	Terminal block type (-T1*D) Connector type (-T30D, -T5*D)	M4GB1 M4GB2 M4GB3	● N.O./N.O. type		0.67 to 1.0	20 to 40																	
					1.6 to 2.4	40 to 80																	
					2.6 to 3.3	63 to 100																	
					Serial transmission (-T8*)	Terminal block type (-T6*D) Connector type (-T8*D)	M4GA1 M4GA2 M4GA3	● N.C./N.O. type		0.66 to 1.0	20 to 40												
										1.7 to 2.5	40 to 80												
										2.5 to 3.3	63 to 100												
Serial transmission (-T8*)	Terminal block type (-T6*D) Connector type (-T8*D)	M4GB1 M4GB2 M4GB3	● N.O./N.O. type		0.67 to 1.0	20 to 40																	
					1.6 to 2.4	40 to 80																	
					2.6 to 3.3	63 to 100																	

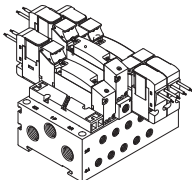
4GA1 to 3 & 4GB1 to 3 Series

	Electrical connections				Manual operating device	Other options
	Discrete valve/individual wiring manifold		Reduced wiring manifold			
4GA/B	Blank Grommet lead wire (W)	E3 E type connector with socket/terminal (L S)	T10 T11 Common terminal block type (left side) M3 thread specifications/push tightening specifications	T51 T52 T53 Flat cable power supply without terminal (left side)	Blank Non-locking/locking common type	H With check valve
M4GA/B	● Lead wire length 300mm 				(standard) 	 Provided as standard for pilot exhaust.
MN4GA/B	E0 E type connector (W)	A2N A type connector downward without socket	T10R T11R Common terminal block type (right side) M3 thread specifications/push tightening specifications	T51R T52R T53R Flat cable power supply without terminal (right side)	 (1) For non-locking, push to turn ON, release to turn OFF (2) For locking, push and turn 90° clockwise to hold the ON state. Turn counterclockwise to unlock and turn OFF	P Mounting plate
MN4GA/B	● Lead wire length 300mm 500mm 1000mm 2000mm 3000mm 					K External pilot
4GA/B Master valve	E0N E type connector without socket	● For 100 VAC, dimension (a) is 3.5 mm longer than 12/24 VDC. 	T30 D sub-connector type (left side)	T6¹ Serial transmission type		A Ozone/cutting oil proof
4GD/E						M Non-locking
M4GD/E	E1 E type connector with socket/terminal	B BN DIN terminal box (BN: Without terminal box)	T30R D-sub connector type (right side)	T8¹ Serial transmission type (Thin type)		Select for cutting oil inflow and ozone measures.
MN4GD/E						
Technical data	E2 E type connector (W L S)	E0¹ EJ EJ type connector (W)	T50 Flat cable power supply with terminal (left side)	(W): With lead wire (L): With indicator light (S): With surge suppressor		F A/B port filter integrated
Safety precautions	● Lead wire length 300mm 500mm 1000mm 2000mm 3000mm 					Pilot check valve (separate type)
Manifold Specifications	E2N E type connector without socket (L S)	E2¹ EJ EJ connector (W L S)	T50R Flat cable with power supply terminal (right side)			Cylinder B port Cylinder A port

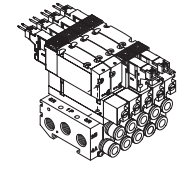
Electrical connections circuit diagram

Other options

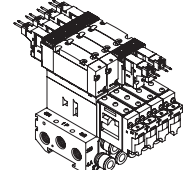
Z1 Air supply spacer
Z3 Exhaust spacer



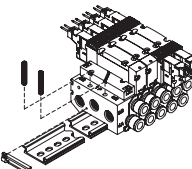
Z2 In stop valve spacer



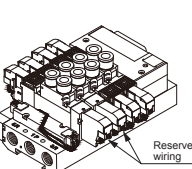
Z6 Spacer type
Pilot check valve

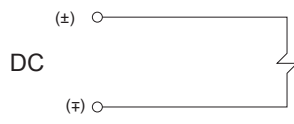
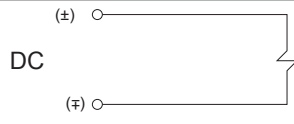

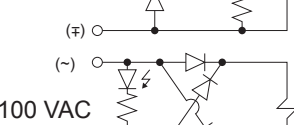
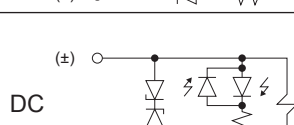
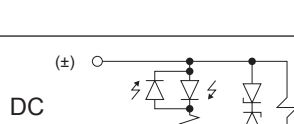
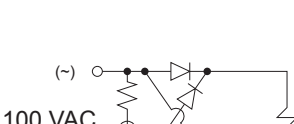
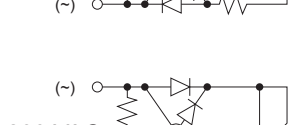
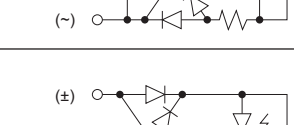


D DIN rail mount

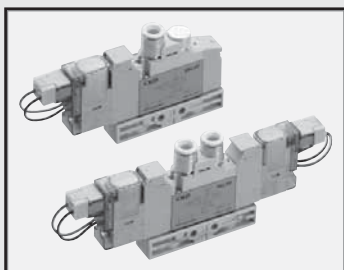


W1 Double wiring
(With single reduced wiring)



Electrical connections		Without lead wire	With lead wire	With light	With surge suppressor	Without socket	Circuit diagram
	Blank	Grommet lead wire		●			 <p>DC</p>
	E0	E type connector		●			 <p>DC</p>
	E0*J	EJ type connector		●			
	E0N	E type connector				●	 <p>100 VAC</p>
	E1	E type connector	●				
	E2	E type connector		●	●	●	 <p>DC</p>
	E2*J	EJ type connector		●	●	●	
	E2N	E type connector			●	●	
	E3	E type connector	●		●	●	 <p>100 VAC</p>
	A2N	A type connector			●	●	
	B	DIN terminal box	●		●		 <p>DC</p>
	BN	DIN terminal box (Without terminal box)	●			●	 <p>100 VAC</p>
Option S	E2	E type connector		●	●	●	 <p>DC</p>
	E2*J	EJ type connector		●	●	●	
	E2N	E type connector			●	●	
Option E	E2	E type connector		●	●	●	 <p>DC</p>
	E2*J	EJ type connector		●	●	●	
	E2N	E type connector			●	●	

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



Discrete valve body porting

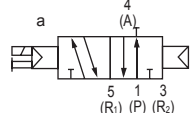
3GA1, 2, 3 & 4GA1, 2, 3 Series

● Applicable cylinder bore size: $\phi 20$ to $\phi 100$

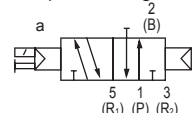


JIS symbol

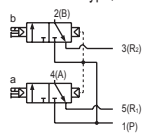
- 3 port valve
2-position single N.C. type



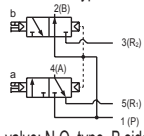
- 2-position single N.O. type



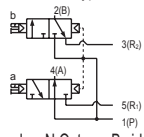
- Dual 3 port valve integrated type
(A side valve: N.C. type, B side valve: N.C. type)



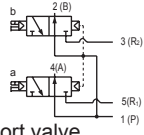
- (A side valve: N.C. type, B side valve: N.O. type)



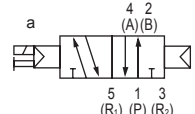
- (A side valve: N.O. type, B side valve: N.C. type)



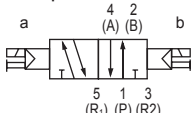
- (A side valve: N.O. type, B side valve: N.O. type)



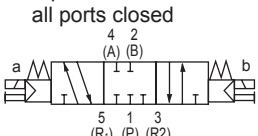
- 5 port valve
2-position single



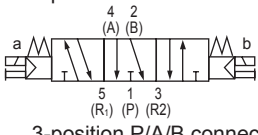
- 2-position double



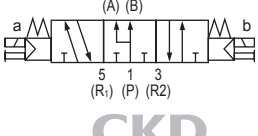
- 3-position all ports closed



- 3-position A/B/R connection



- 3-position P/A/B connection



Common specifications

Descriptions	
Valve type and operation method	Pilot-operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	0.7
Min. working pressure MPa	0.2
Proof pressure MPa	1.05
Ambient temperature °C	-5 to 55 (no freezing)
Fluid temperature °C	5 to 55
Manual operating device	Non-locking/locking common type (standard)
Pilot exhaust method	Main valve/pilot valve common exhaust type
Lubrication Note 1	Not required
Degree of protection Note 2	Dust proof
Vibration resistance m/s ²	50 or less
Shock resistance m/s ²	300 or less
Atmosphere	Containing corrosive gas is not permissible

Note 1 Use the turbine oil Class 1 ISO VG32 if lubricated. Excessive or intermittent lubrication results in unstable operation.

Note 2 Avoid water drops or oil, etc. during use. IP65 (jet-proof type) applies for DIN terminal box specifications. Note that the specified adaptive cord outer diameter and tightening torque must be used for IP65 rating to apply.

Individual specifications

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

Note 4: This is a available consult factory order.

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

Values including a light surge suppressor. The response time is the value at 0.5 MPa supply pressure, 20°C, with no lubrication. It varies depending on the pressure and the lubricant quality.

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

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

• The weight of dual 3 port valve integrated type is the same as that of 2-position double.

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety precautions

Manifold Specifications

3GA1, 2, 3 & 4GA1, 2, 3 Series

Discrete valve; body piping

Flow characteristics

Model no.	Valve Position	P→A/B		A/B→R1/R2		
		C [dm ³ /(s·bar)]	b	C [dm ³ /(s·bar)]	b	
3GA1 4GA1	Dual 3 port valve integrated type	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	Dual 3 port valve integrated type	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

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

Ozone specifications / **Cutting oil proof type specifications**

Select the option "A" of (E) in how to order on page 8.

Clean room specifications (Catalog No. CB-033S)

- Particle generation preventing structure for use in clean rooms

** - Voltage - **P7***

Specification for secondary battery (Catalog No. CC-947)

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

** - Voltage - **P4**

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

3GA1, 2, 3 & 4GA1, 2, 3 Series

Discrete valve; body piping

How to order

4GA1 1 0 R - C6 - E2 - 1

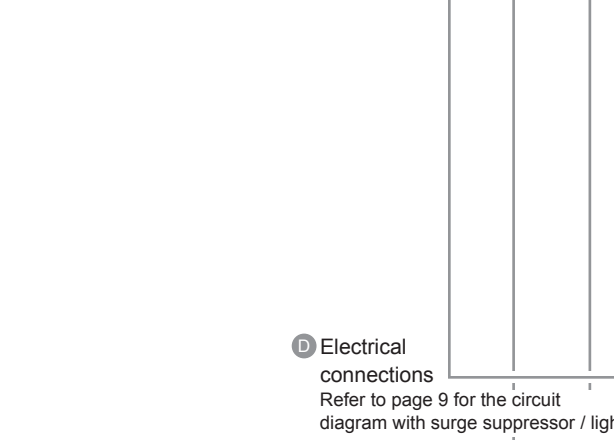
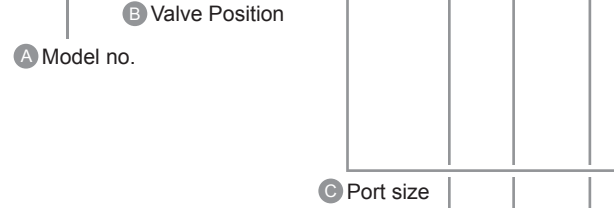
3GA1 1 0 R - C6 - E2 - 1

Discrete valve for mounting base

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

Discrete 3 port valve for mounting base

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



Note on model no. selection

Note 1 For 3GA normally closed type, the piping connection 2 (B) and 3 (R2) ports are plugged. For 3GA normally open type, avoid plugging 5 (R1) port. Not doing so could cause malfunctions.

Note 2 Dimensions are the same as the respective 2-position double.

Note 3 "4G3" is available consult factory order product.

Note 4 3-position all ports closed and PAB connection are not provided with check valve.

Note 5 Only the E2* type, E2* J type connector and 12/24 VDC are supported.

In addition, the surgeless "S" and low heat energy-saving circuit "E" cannot be selected at the same time.

Note 6 This is surgeless specifications.

Note 7 The P port has a filter built inside as a standard.

Note 8 Only the DIN terminal box are supported.

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

Symbol	Descriptions	3GA1	3GA2	3GA3	4GA1	4GA2	4GA3
B Valve Position							
1	2-position single				●	●	●
2	2-position double				●	●	●
3	3-position all ports closed				●	●	●
4	3-position ABR connection				●	●	●
5	3-position PAB connection				●	●	●
1	2-position single normally closed	Note1	●	●			
11	2-position single normally open	Note1	●	●			
66	Dual 3 port valve integrated type	Note 2	●	●			
	A side valve: Normally closed						
	B side valve: Normally closed						
67	Dual 3 port valve integrated type	Note 2	●	●			
	A side valve: Normally closed						
	B side valve: Normally open						
76	Dual 3 port valve integrated type	Note 2	●	●			
	A side valve: Normally open						
	B side valve: Normally closed						
77	Dual 3 port valve integrated type	Note 2	●	●			
	A side valve: Normally open						
	B side valve: Normally open						

C Port size							
Port	4(A)/2(B)port	P/R1/R2 port (1) = M5 (2) = Rc1/8 (3) = Rc1/4					
CF	φ1.8 barbed fitting (applicable tube UP-9102.**)	(1)			(1)		
C18	φ1.8 push-in fitting (applicable tube UP-9402.**)	(1)			(1)		
C4	φ4 push-in fitting	(1)	(2)		(1)	(2)	
C6	φ6 push-in fitting	(1)	(2)	(3)	(1)	(2)	(3)
C8	φ8 push-in fitting		(2)	(3)		(2)	(3)
C10	φ10 push-in fitting			(3)			(3)
M5	M5	(1)			(1)		
06	Rc1/8		(2)			(2)	
08	Rc1/4			(3)			(3)
Port	4(A)/2(B)port	P/R1/R2 port (1) = M5 (5) = 1/8NPT (6) = Rc1/4NPT					
C3N	φ1/8 inch push-in fitting	(1)			(1)		
C4N	φ5/32 inch push-in fitting	(1)			(1)		
C6N	φ1/4 inch push-in fitting		(5)			(5)	
C8N	φ5/16 inch push-in fitting (Note3)		(5)	(6)		(5)	(6)
C10N	φ3/8 inch push-in fitting (Note 3)			(6)			(6)
06N	1/8NPT		(5)			(5)	
08N	1/4NPT (Note 3)			(6)			(6)
Port	4(A)/2(B)port	P/R1/R2 port (8) = G1/8					
C4G	φ4 push-in fitting		(8)			(8)	
C6G	φ6 push-in fitting		(8)			(8)	
C8G	φ8 push-in fitting		(8)			(8)	
06G	G1/8		(8)			(8)	

D Electrical connections
Refer to the electrical connection list on next page.

E Option							
Blank	Non-locking/locking common manual override	●	●	●	●	●	●
M	Non-locking manual override	●	●	●	●	●	●
H	With check valve (Note 4)	●	●	●	●	●	●
P	Mounting plate	●	●	●	●	●	●
A	Ozone/Cutting oil proof	●	●	●	●	●	●
S	Surgeless (Note 5)	●	●	●	●	●	●
E	Low heat and energy saving circuit (Note 5), (Note 6)	●	●	●	●	●	●
F	A/B port filter integrated (Note 7)	●	●	●	●	●	●

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

■ is not available.
○ Contact CKD for price and availability.

3GA1, 2, 3 & 4GA1, 2, 3 Series

Discrete valve; body piping

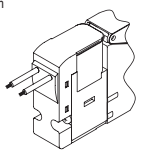
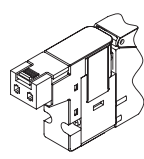
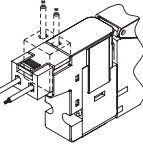
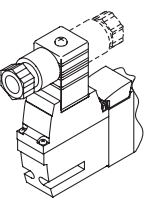
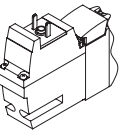
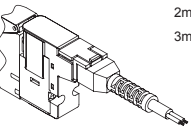
[Electrical connections]

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

Note 9 Grommet lead wire specifications are only for DC voltage.

Note 10 Supports AC voltage and 12/24 VDC. The light is also attached to the terminal box.

Note 11 AC voltage comes with a rectifier circuit.

Electrical connections			
Blank	Grommet lead wire ● Lead wire length 300mm 	E1 E3	E type connector with socket/terminal 
E0 E2	E type connector ● Lead wire length 300mm, 500mm, 1000mm, 2000mm, 3000mm 	B	DIN terminal box 
E0N E2N	E type connector without socket	BN	DIN terminal box without terminal box 
E0J E2J	EJ type connector ● Lead wire length 1m, 2m, 3m 		

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

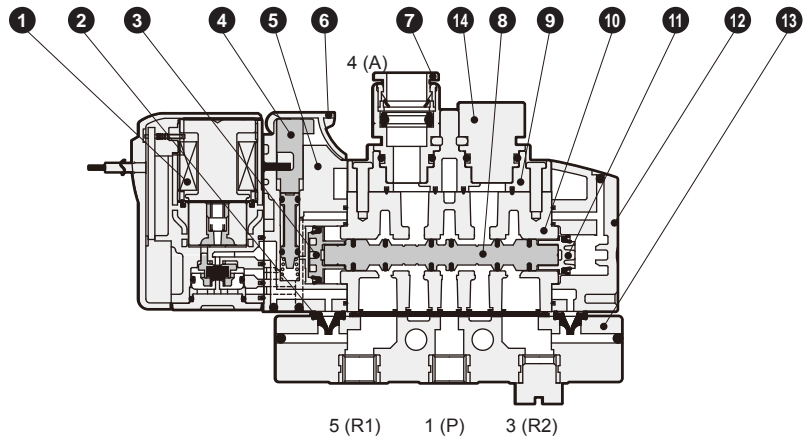
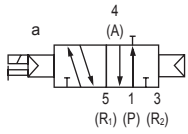
3GA1 Series

Discrete valve; body piping

Internal structure and parts list

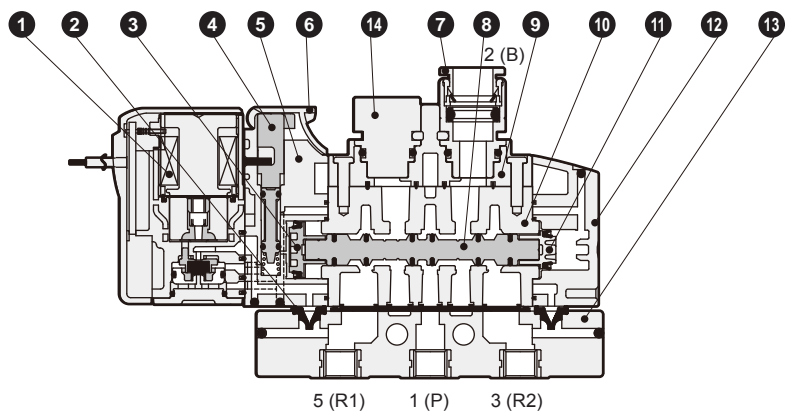
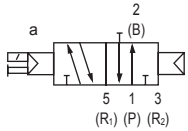
3GA110R

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



3GA1110R

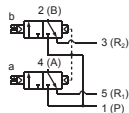
- 2-position single: Normally open
- Grommet lead wire (blank)



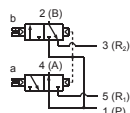
3GA1⁶⁶₆₇⁷⁶0R

- Dual 3 port valve integrated type
- Grommet lead wire (blank)

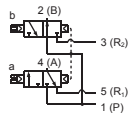
A side valve: Normally closed,
B side valve: Normally closed



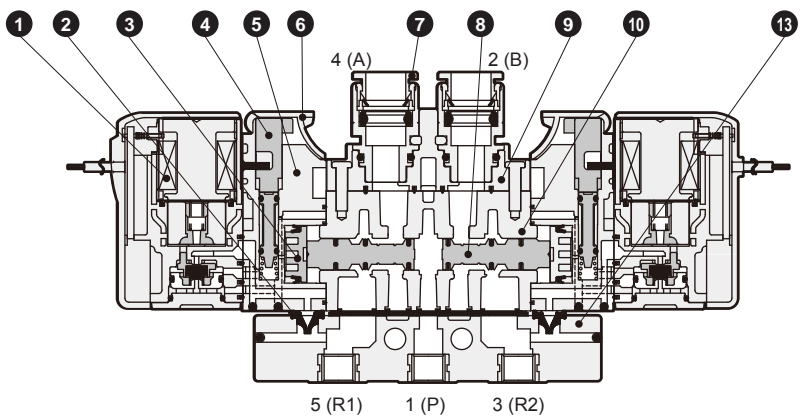
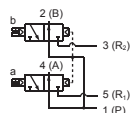
A side valve: Normally open,
B side valve: Normally closed



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



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



Main parts list

No.	Parts name	Material
1	Coil assembly	-
2	Pilot exhaust check valve	Hydrogenated nitrile rubber, HNBR
3	Piston D assembly	-
4	Manual operating device	Plastic
5	Piston room	Plastic
6	Manual protection cover	Plastic
7	Cartridge type push-in fitting or barbed fitting	-
8	Spool assembly	-
9	Fitting adaptor	Plastic
10	Body	Aluminum alloy die-casting
11	Piston S assembly	-
12	Cap	Plastic
13	Piping adaptor	Plastic
14	Plug cartridge	Aluminum

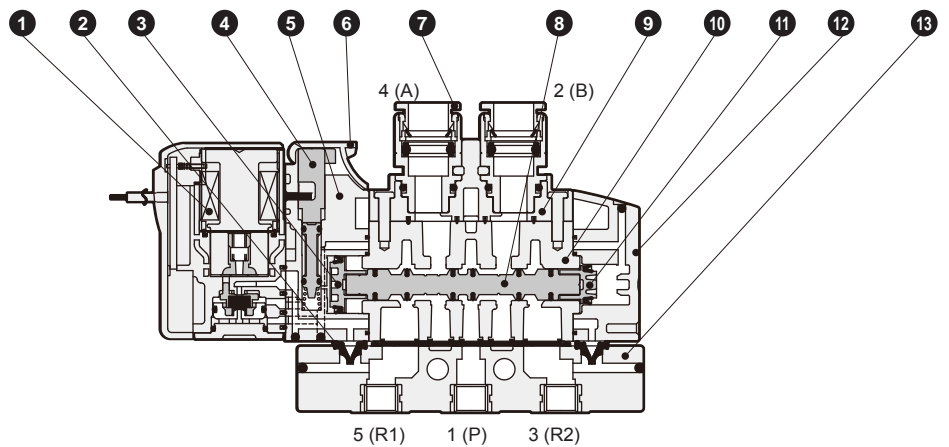
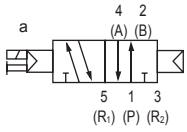
Parts list

No.	Parts name	Model no.	
1	Coil assembly	4GR - <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>Electrical connections</td></tr></table> - * - COIL - Voltage	Electrical connections
		Electrical connections	
Blank: Standard A: Ozone specifications Blank: Grommet lead wire			
7	Cartridge type push-in fitting and related parts	φ1.8 barbed type 4G1R-JOINT-CF	
		φ1.8 straight type 4G1R-JOINT-C18	
		φ4 straight type 4G1R-JOINT-C4	
		φ6 straight 4G1R-JOINT-C6	
		Plug cartridge 4G1R-JOINT-CPG	
		φ1/8 inch straight type 4G1R-JOINT-C3N	
		φ5/32 inch straight type 4G1R-JOINT-C4N	

Internal structure and parts list

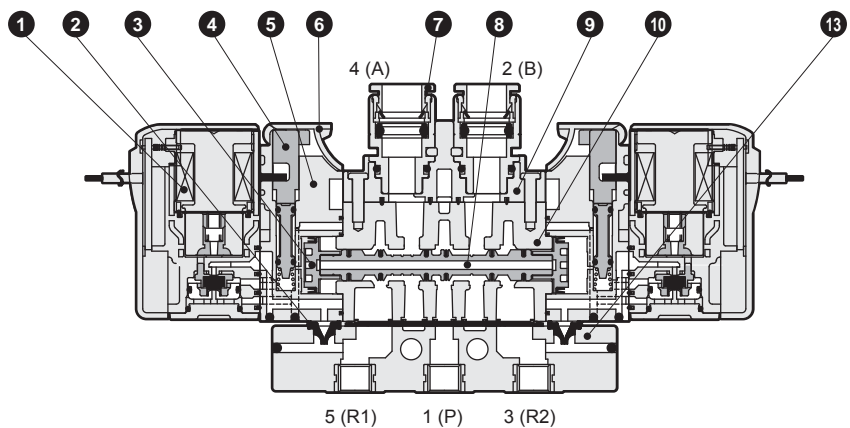
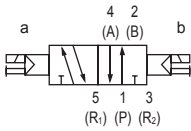
4GA110R

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



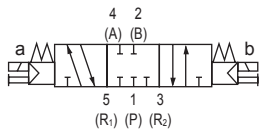
4GA120R

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

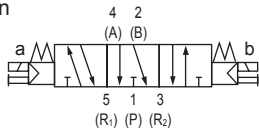


4GA1³/₅0R

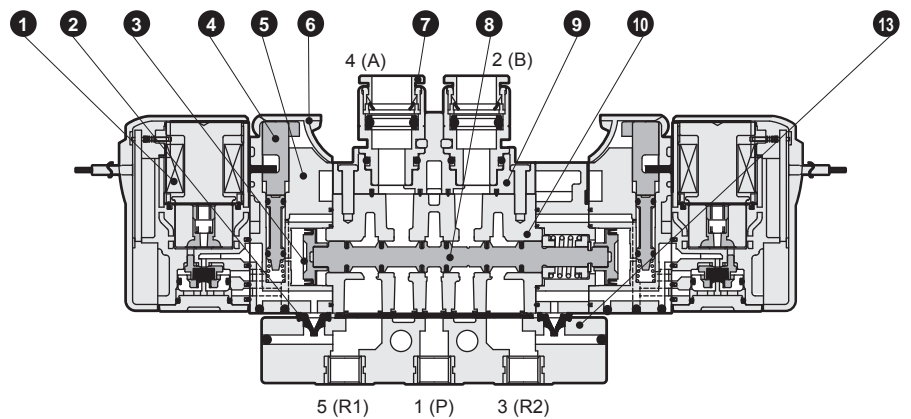
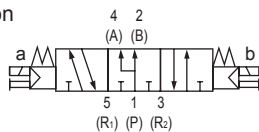
- 3-position
- Grommet lead wire (blank)
- All ports closed



A/B/R connection



P/A/B Connection



Main parts list

No.	Parts name	Material
1	Coil assembly	-
2	Pilot exhaust check valve	Hydrogenated nitrile rubber
3	Piston D assembly	-
4	Manual operating device	Plastic
5	Piston room	Plastic
6	Manual protection cover	Plastic
7	Cartridge type push-in fitting or barbed fitting	-
8	Spool assembly	-
9	Fitting adaptor	Plastic
10	Body	Aluminum alloy die-casting
11	Piston S assembly	-
12	Cap	Plastic
13	Piping adapter	Plastic
14	Plug cartridge	Aluminum

Parts list

No.	Parts name	Model no.	
1	Coil assembly	4GR - <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>Electrical connections</td></tr></table> - * - COIL - Voltage	Electrical connections
Electrical connections			
7	Cartridge type push-in fitting and related parts	Blank: Standard	
		Blank: Grommet lead wire	
		φ1.8 barbed type	4G1R-JOINT-CF
		φ1.8 straight type	4G1R-JOINT-C18
		φ4 straight type	4G1R-JOINT-C4
		φ6 straight type	4G1R-JOINT-C6
		Plug cartridge	4G1R-JOINT-CPG
	φ1/8 inch straight type	4G1R-JOINT-C3N	
	φ5/32 inch straight type	4G1R-JOINT-C4N	

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety precautions

Manifold Specifications

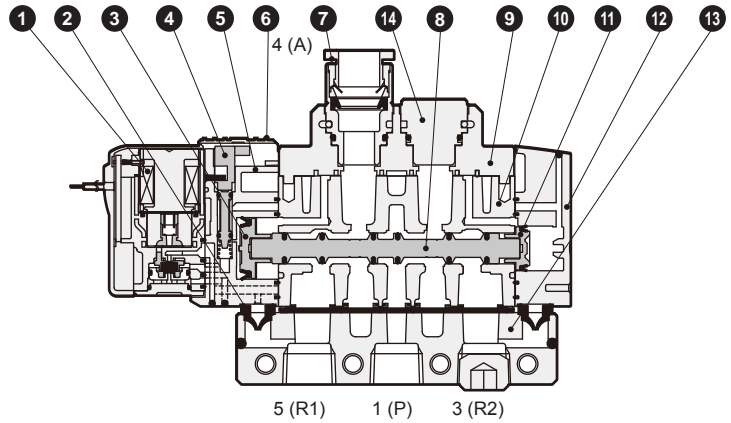
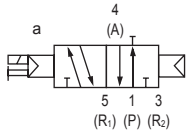
3GA2/3 Series

Discrete valve; body piping

Internal structure and parts list

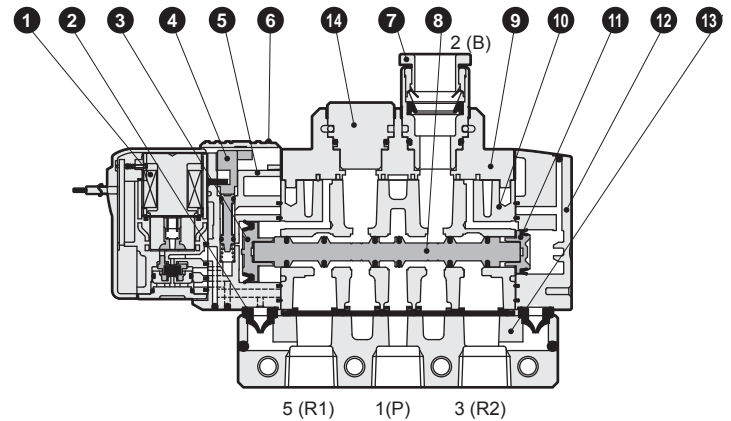
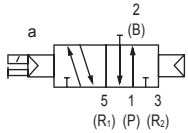
3GA210R/3GA310R

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



3GA2110R/3GA3110R

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

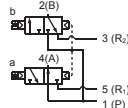
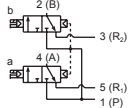


3GA2⁶⁶₆₇⁷⁶₇₇0R

- Dual 3 port valve integrated type
- Grommet lead wire (blank)

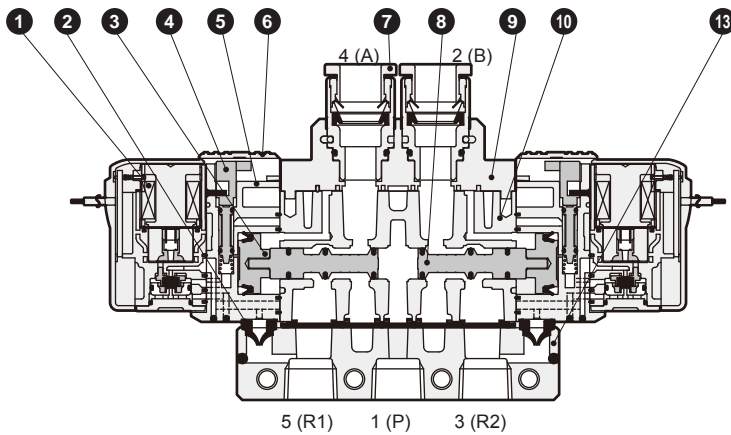
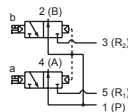
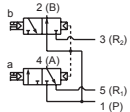
A side valve: Normally closed,
B side valve: Normally closed

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.	Parts name	Material
1	Coil assembly	-
2	Pilot exhaust check valve	Hydrogenated nitrile rubber, HNBR
3	Piston assembly	-
4	Manual operating device	Plastic
5	Piston room	Plastic
6	Manual protection cover	Plastic
7	Cartridge type push-in fitting	-
8	Spool assembly	-
9	Fitting adaptor	Plastic
10	Body	Aluminum alloy die-casting
11	Piston S assembly	-
12	Cap	Plastic
13	Piping adapter	Aluminum alloy die-casting
14	Plug cartridge	Aluminum

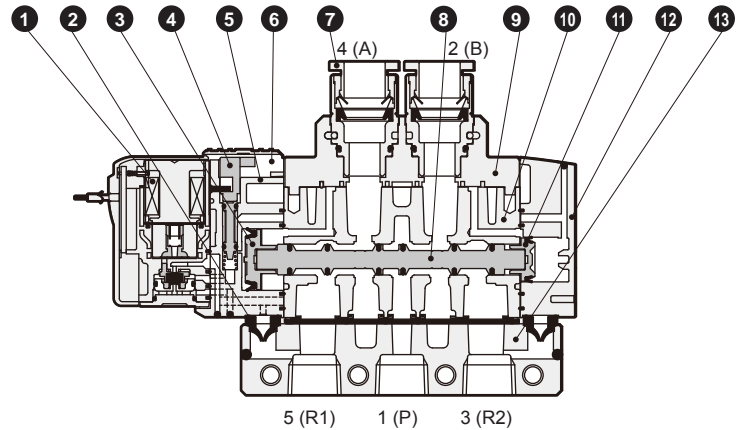
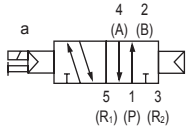
Parts list

No.	Parts name	Model no.				
1	Coil assembly	4GR - <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>Electrical connections</td> <td>- * -</td> <td>COIL -</td> <td>Voltage</td> </tr> </table> Blank: Standard A: Ozone specifications Blank: Grommet lead wire	Electrical connections	- * -	COIL -	Voltage
Electrical connections	- * -	COIL -	Voltage			
7	Cartridge type push-in fitting and related parts	3G2	φ4 straight type	4G2R-JOINT-C4		
			φ6 straight type	4G2R-JOINT-C6		
			φ8 straight type	4G2R-JOINT-C8		
			Plug cartridge	4G2R-JOINT-CPG		
			φ1/4 inch straight type	4G2R-JOINT-C6N		
		3G3	φ5/16 inch straight type	4G2R-JOINT-C8N		
			φ6 straight type	4G3R-JOINT-C6		
			φ8 straight type	4G3R-JOINT-C8		
			φ10 straight type	4G3R-JOINT-C10		
			Plug cartridge	4G3R-JOINT-CPG		
		φ5/16 inch straight type	4G3R-JOINT-C8N			
		φ3/8 inch straight type	4G3R-JOINT-C10N			

Internal structure and parts list

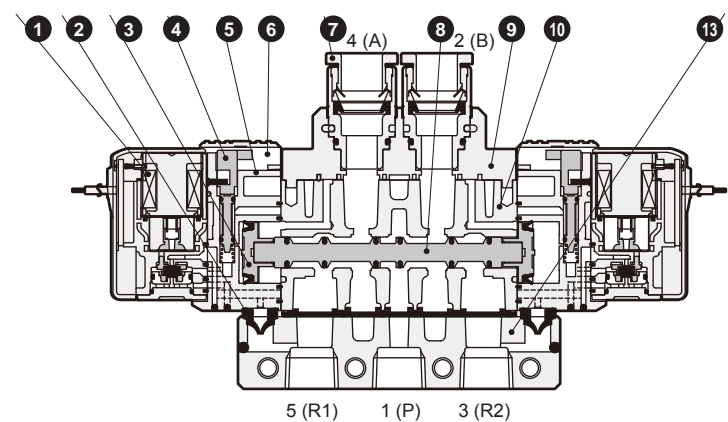
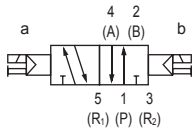
4GA210R & 4GA310R

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



4GA220R & 4GA320R

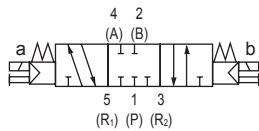
- 2-position double
- Grommet lead wire (blank)



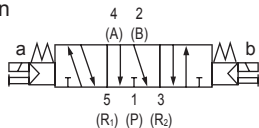
4GA2³/₅0R & 4GA3³/₅0R

- 3-position
- Grommet lead wire (blank)

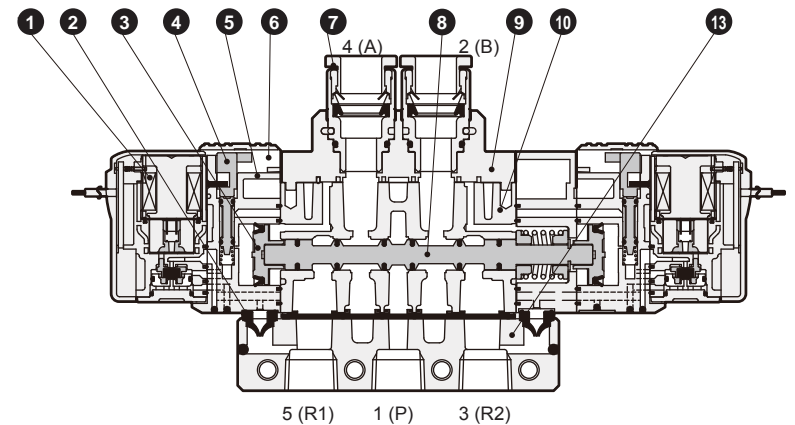
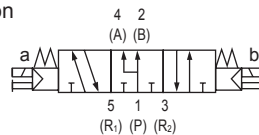
All ports closed



A/B/R connection



P/A/B Connection



Main parts list

No.	Parts name	Material
1	Coil assembly	-
2	Pilot exhaust check valve	Hydrogenated nitrile rubber, HNBR
3	Piston D assembly	-
4	Manual operating device	Plastic
5	Piston room	Plastic
6	Manual protection cover	Plastic
7	Cartridge type push-in fitting	-
8	Spool assembly	-
9	Fitting adaptor	Plastic
10	Body	Aluminum alloy die-casting
11	Piston S assembly	-
12	Cap	Plastic
13	Piping adapter	Aluminum alloy die-casting

Parts list

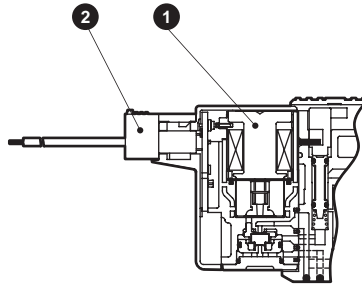
No.	Parts name	Model no.	
1	Coil assembly	4GR - Electrical connections - * - COIL - [Voltage]	
		Blank: Standard A: Ozone specifications Blank: Grommet lead wire	
7	Cartridge type push-in fitting and related parts	4G2	
		φ4 straight type	4G2R-JOINT-C4
		φ6 straight type	4G2R-JOINT-C6
		φ8 straight type	4G2R-JOINT-C8
		Plug cartridge	4G2R-JOINT-CPG
		φ1/4 inch straight type	4G2R-JOINT-C6N
		φ5/16 inch straight type	4G2R-JOINT-C8N
		4G3	
		φ6 straight type	4G3R-JOINT-C6
		φ8 straight type	4G3R-JOINT-C8
		φ10 straight type	4G3R-JOINT-C10
		Plug cartridge	4G3R-JOINT-CPG
φ5/16 inch straight type	4G3R-JOINT-C8N		
φ3/8 inch straight type	4G3R-JOINT-C10N		

3GA1, 2, 3 & 4GA1, 2, 3 Series

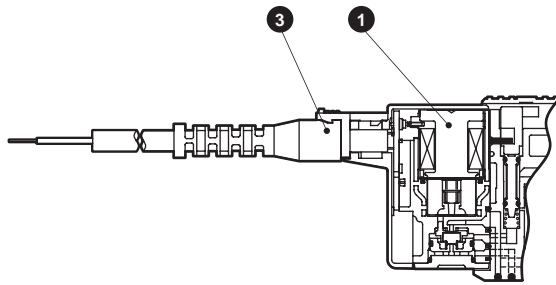
Discrete valve; body piping

Internal structure and parts list (electrical connections section)

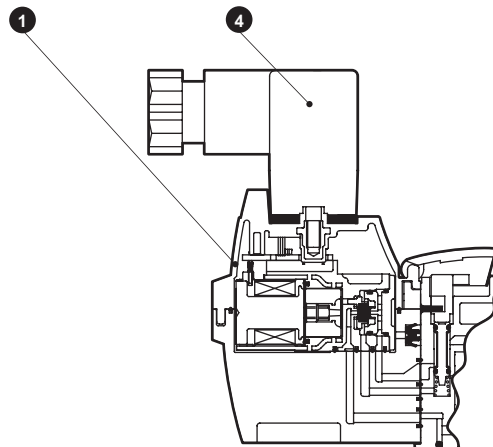
● E type connector type E**



● EJ type connector type E**J



● DIN terminal box type B



Main parts list

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

Parts list

No.	Parts name	Model no.							
1	Coil assembly	4GR - <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>Electrical connections</td> <td>-</td> <td>*</td> <td>-</td> <td>COIL</td> <td>-</td> <td>[Voltage]</td> </tr> </table> Blank: Standard A: Ozone specifications E* : E type connector type E*J: Socket with cover type B* : DIN terminal box type B includes the DIN terminal box BN does not include DIN terminal box.	Electrical connections	-	*	-	COIL	-	[Voltage]
Electrical connections	-	*	-	COIL	-	[Voltage]			
2	E type connector socket assembly	4GR-SOCKET-ASSY-E**-[Voltage]							
3	Socket assembly with cover	4GR-SOCKET-ASSY-E**J							
4	DIN terminal box assembly	4GR-TERMINAL-BOX-[Voltage]							

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

MEMO

4GA/B	M4GA/B	MN4GA/B	4GA/B Master valve	4GD/E	M4GD/E	MN4GD/E	Technical data	Safety precautions	Manifold Specifications
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3GA1 Series

Discrete valve; body piping

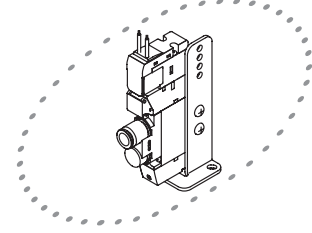
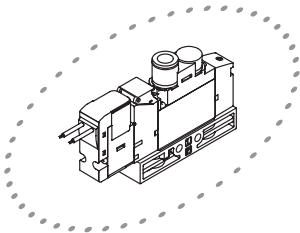
Dimensions



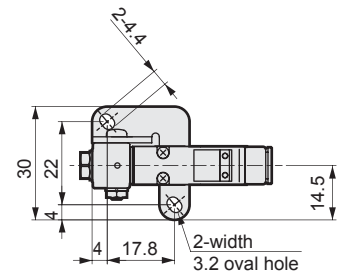
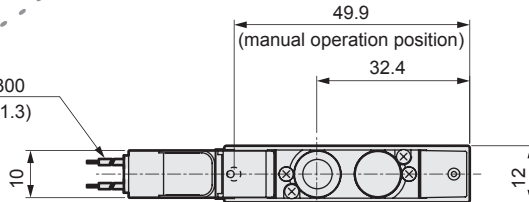
3GA110R * Please refer to page from 46 to 53 for the NPT threads and G threads specifications.

- 2-position single normally closed
Gommet lead wire (blank)

- Mounting plate type (P)

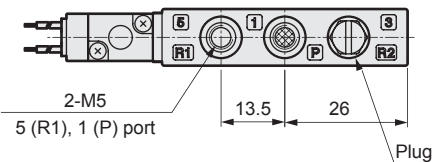
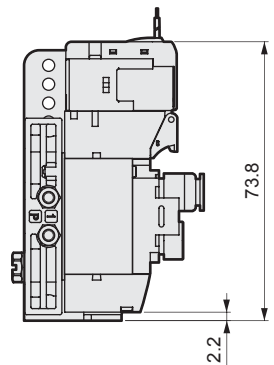
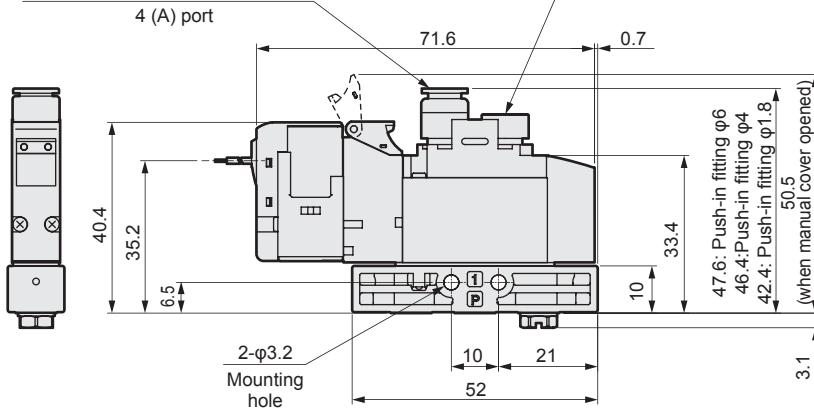


Lead wire length 300
(AWG#26, O.D. ϕ 1.3)



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

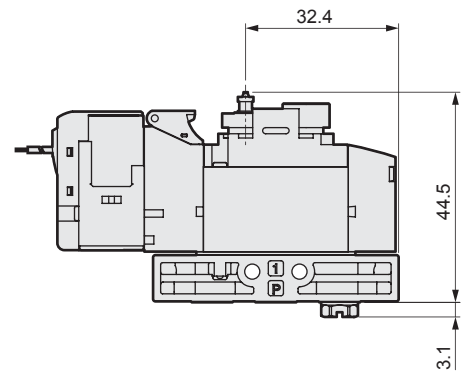
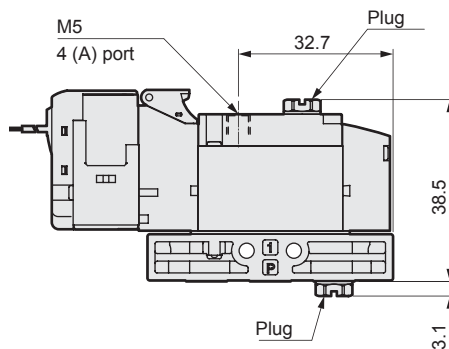
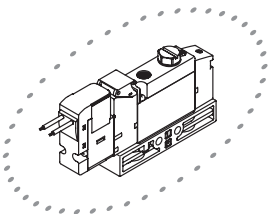
Plug



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

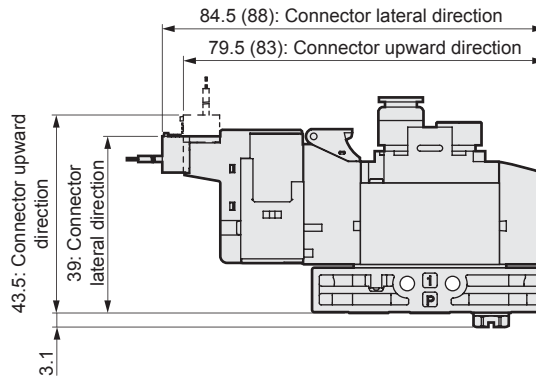
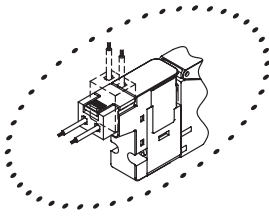
- M5 female thread type (M5)

- ϕ 1.8 barbed fitting type (CF)



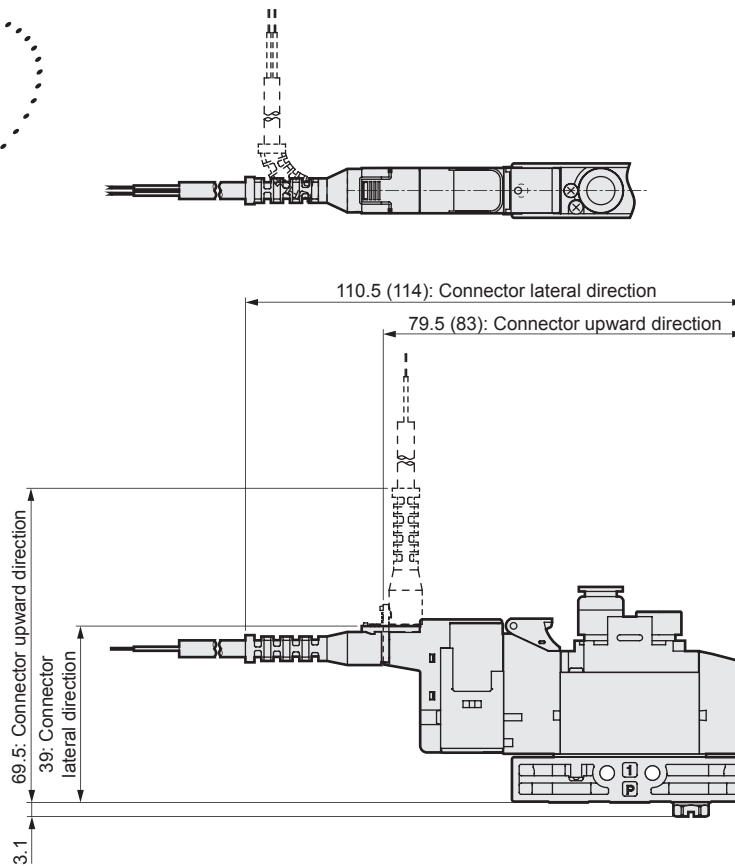
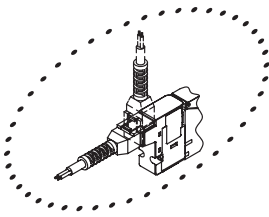
Dimensions

● E connector type (E)



Note: Values in () apply for 100 VAC

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC.

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

3GA1 Series

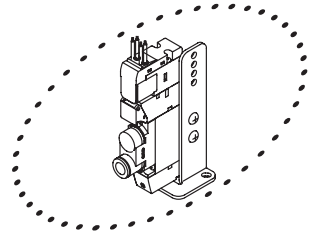
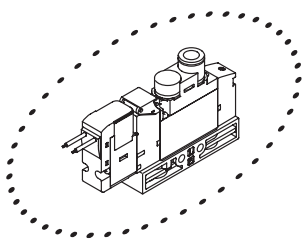
Discrete valve; body piping

Dimensions 

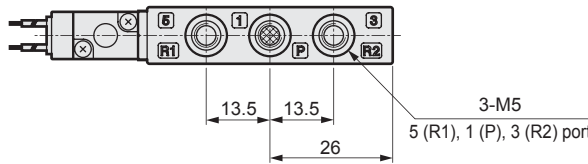
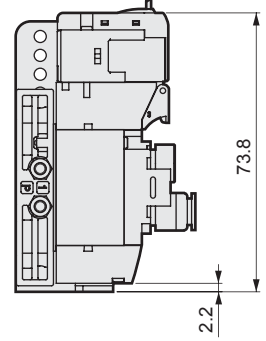
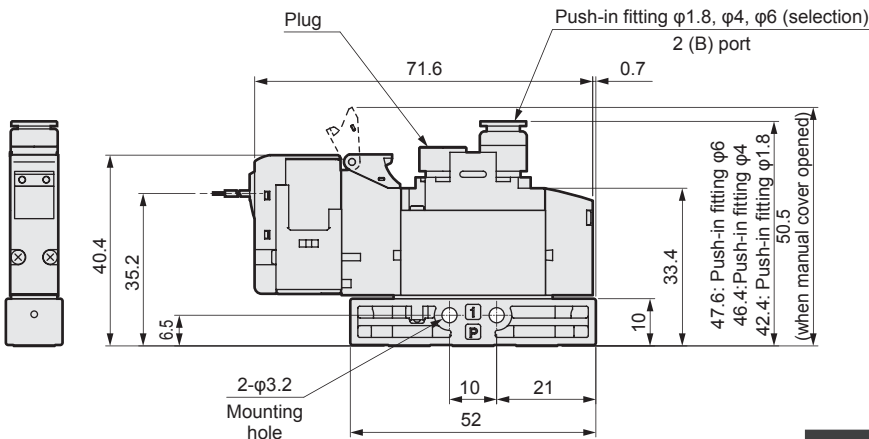
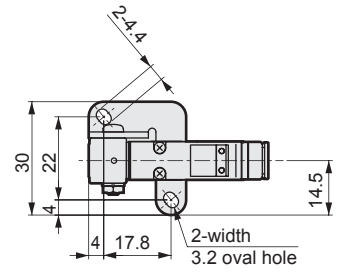
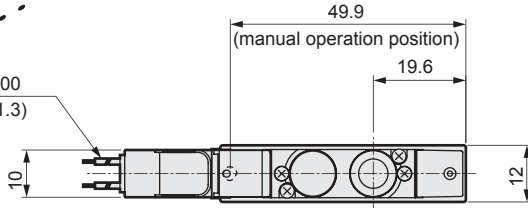
3GA1110R * Please refer to page from 46 to 53 for the NPT threads and G threads specifications.

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

● Mounting plate type (P)



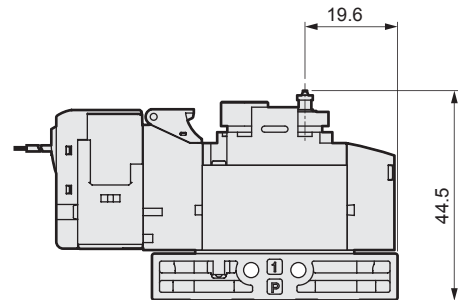
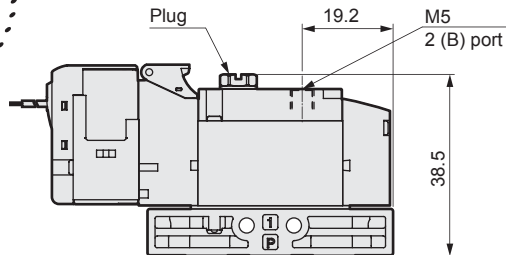
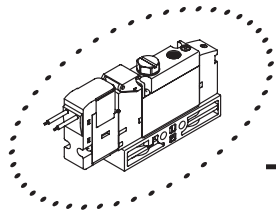
Lead wire length 300
(AWG#26, O.D. ϕ 1.3)



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

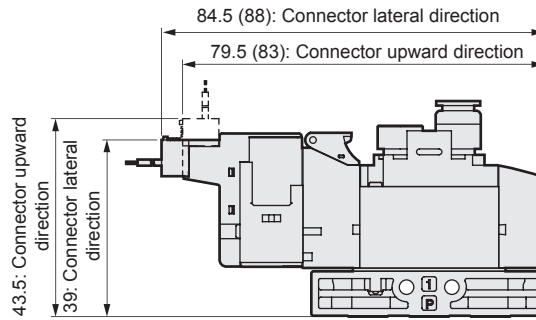
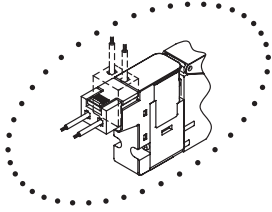
● M5 female thread type (M5)

● ϕ 1.8 barbed fitting type (CF)



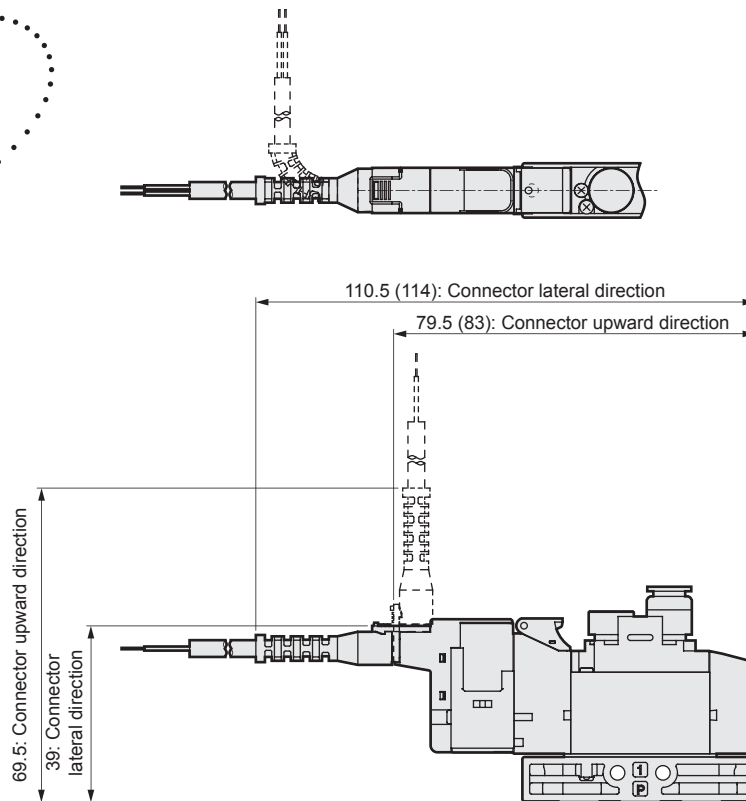
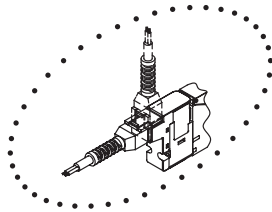
Dimensions

● E type connector type (E)



Note: Values in () apply for 100 VAC.

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC.

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E


Technical data

Safety
precautions

Manifold
Specifications

3GA2 Series

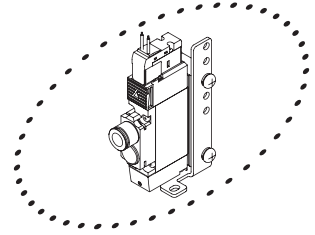
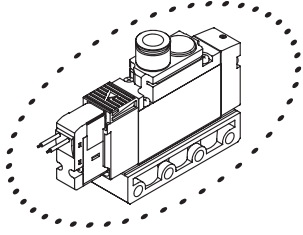
Discrete valve; body piping

Dimensions 

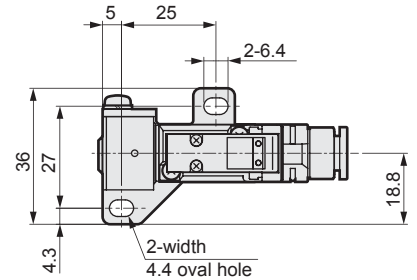
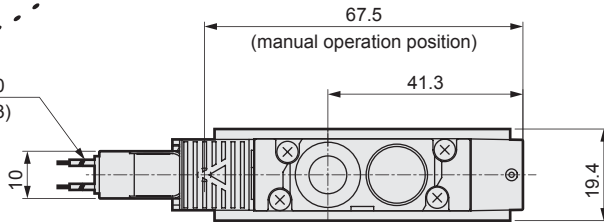
3GA210R * Please refer to page from 46 to 53 for the NPT threads and G threads specifications.

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

● Mounting plate type (P)

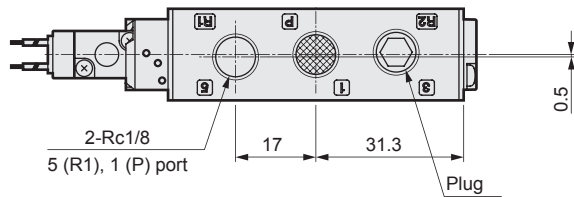
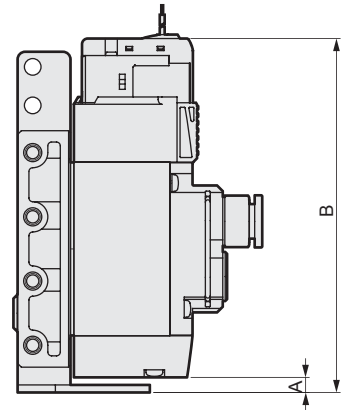
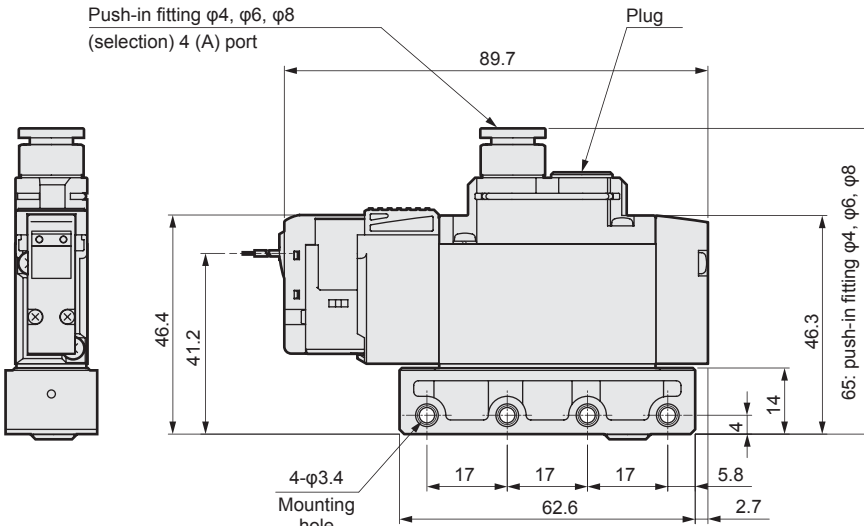


Lead wire length 300 (AWG#26, O.D. ϕ 1.3)



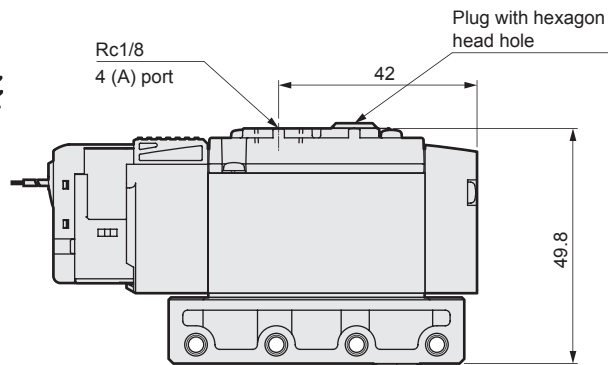
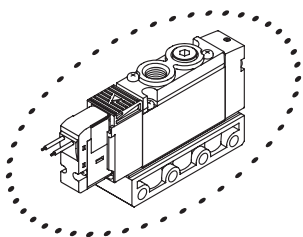
Push-in fitting ϕ 4, ϕ 6, ϕ 8 (selection) 4 (A) port

Plug



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

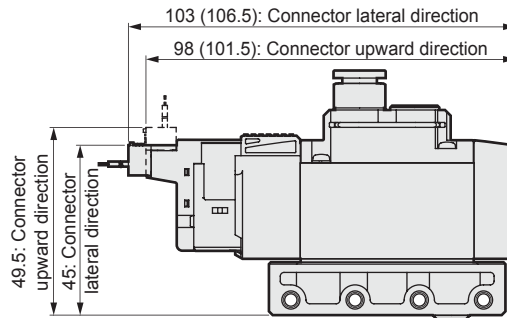
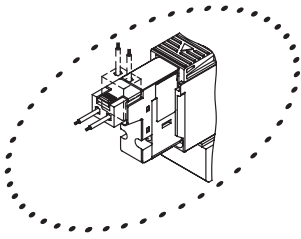
● Rc1/8 Female thread type(06)



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

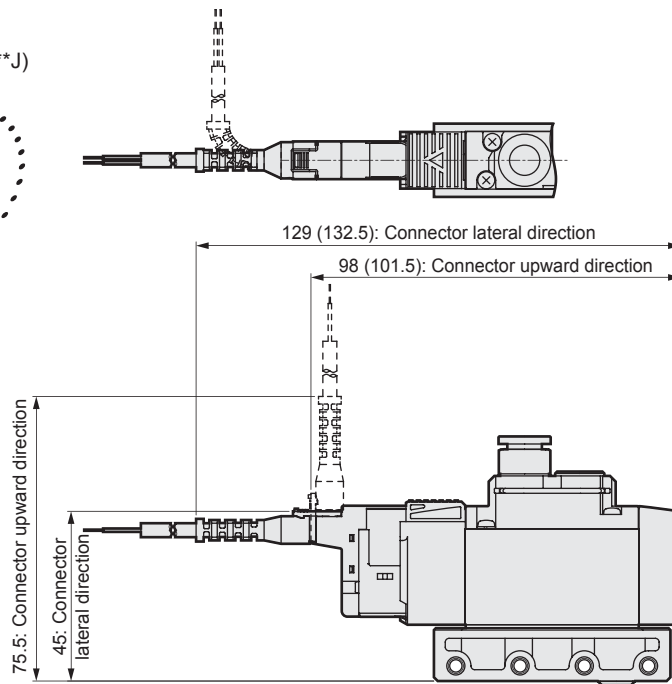
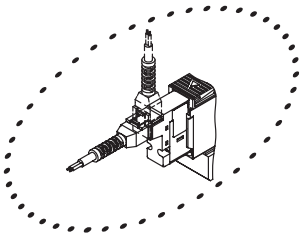
Dimensions

● E connector type (E)



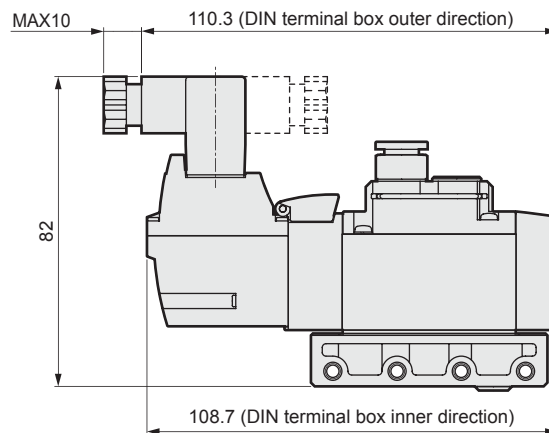
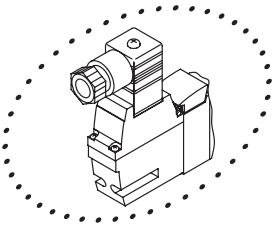
Note: Values in () apply for 100 VAC

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC

● DIN terminal box type (B)



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

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

3GA2 Series

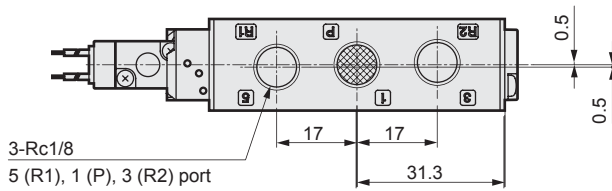
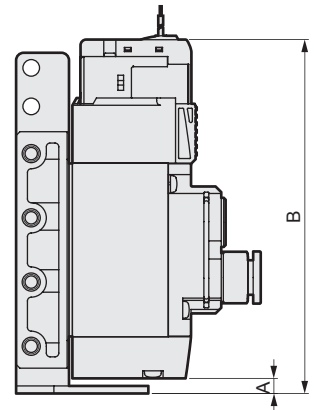
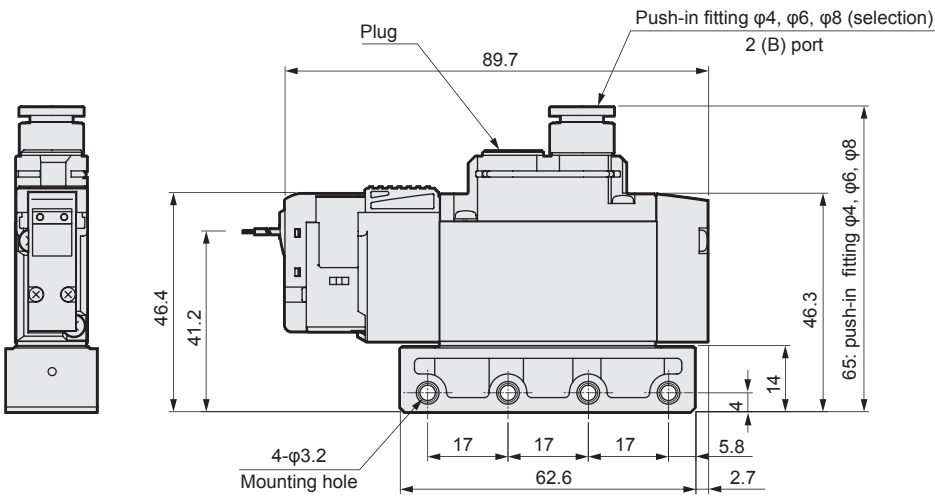
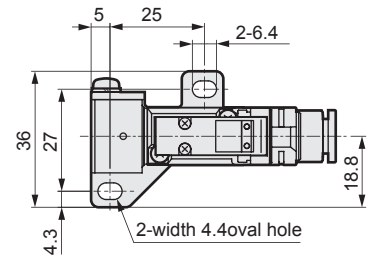
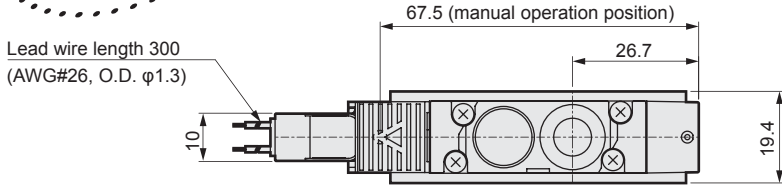
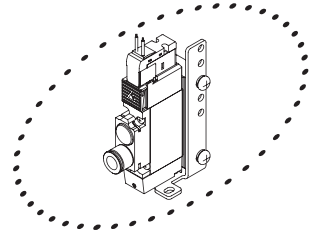
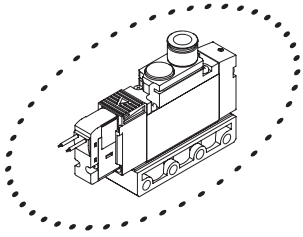
Discrete valve; body piping

Dimensions 

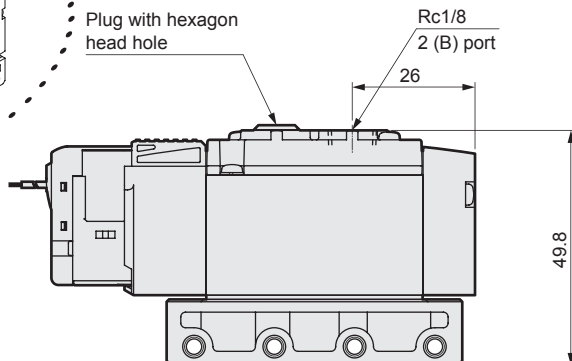
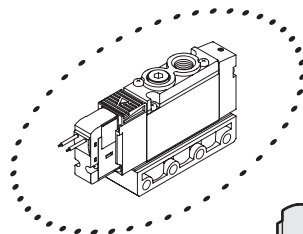
3GA2110R * Please refer to page from 46 to 53 for the NPT threads and G threads specifications.

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

- Mounting plate type (P)



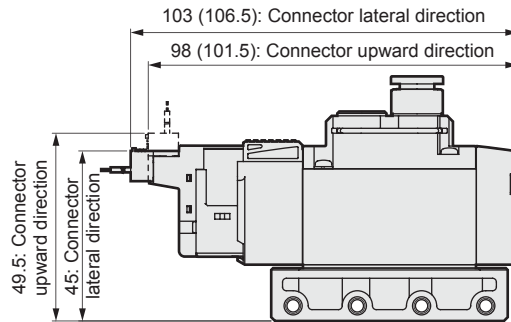
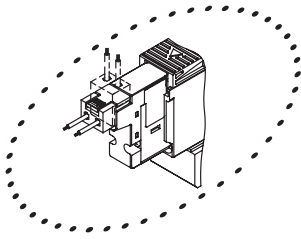
- Rc1/8 female thread type (06)



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

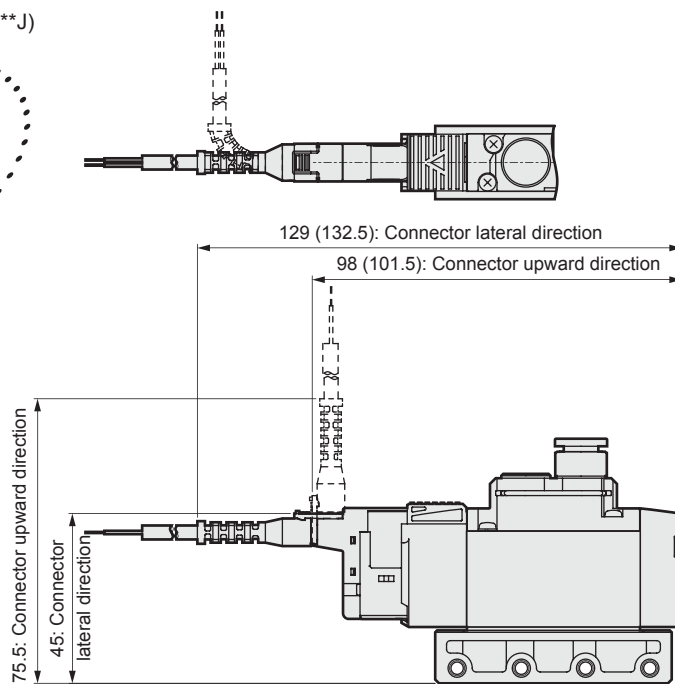
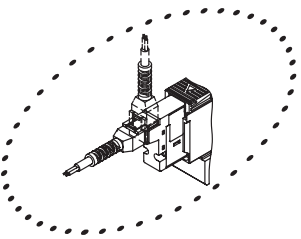
Dimensions

● E connector type (E)



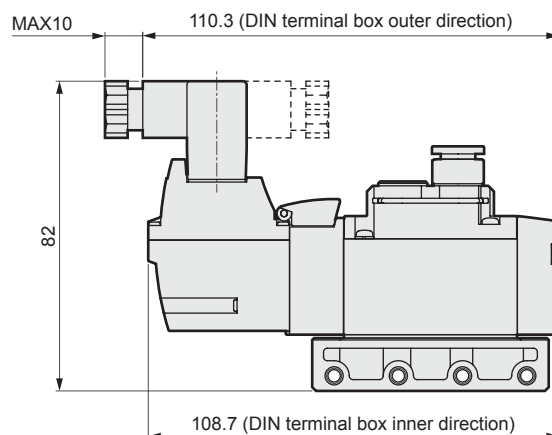
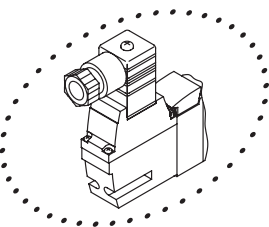
Note: Values in () apply for 100 VAC

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC

● DIN terminal box type (B)



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

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety precautions

Manifold Specifications

3GA3 Series

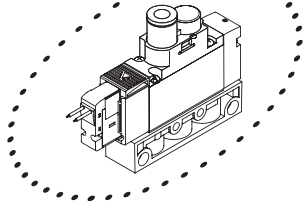
Discrete valve; body piping

Dimensions

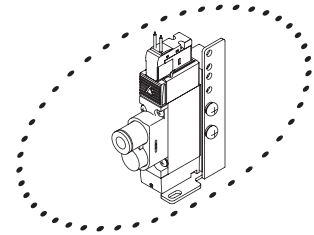


3GA310R * Please refer to page from 46 to 53 for the NPT threads and G threads specifications.

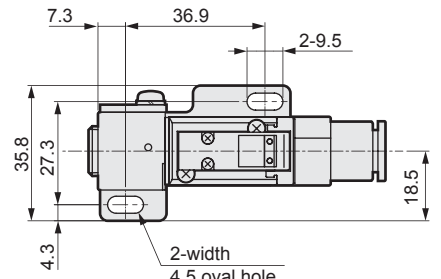
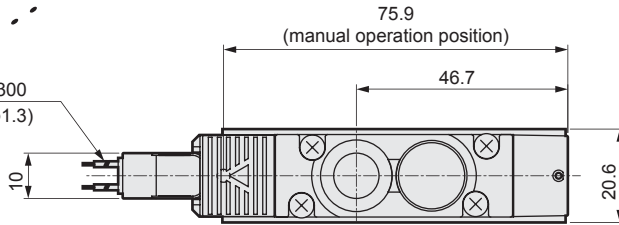
- 2-position single normally closed grommet lead wire (blank)



- Mounting plate type (P)

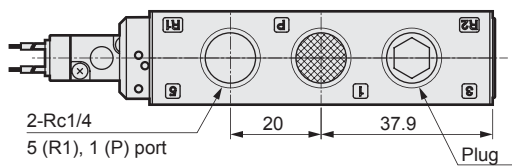
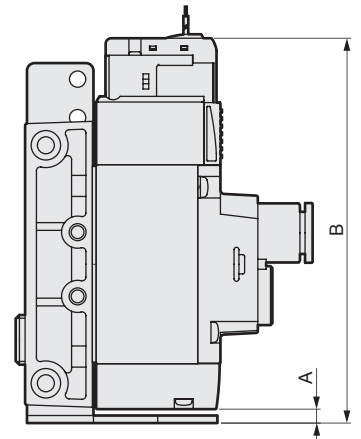
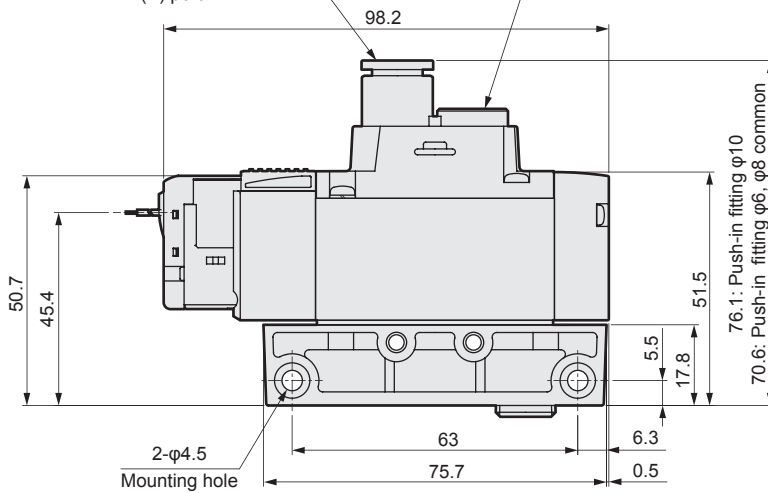
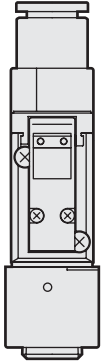


Lead wire length 300
(AWG#26, O.D. ϕ 1.3)



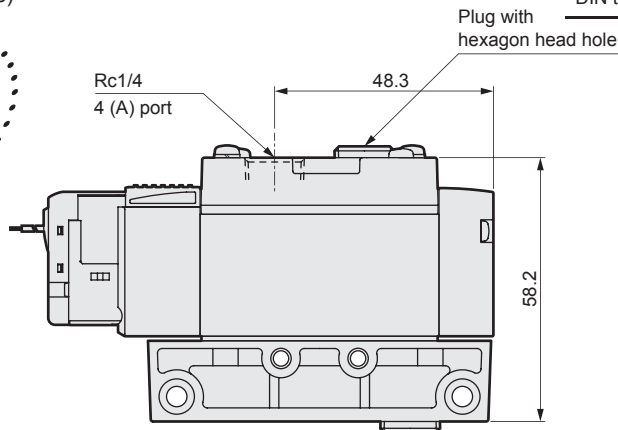
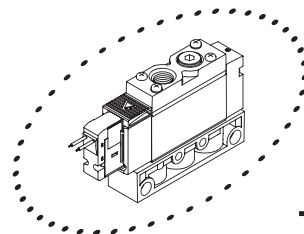
Push-in fitting ϕ 6, ϕ 8, ϕ 10 (selection)
4 (A) port

Plug



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

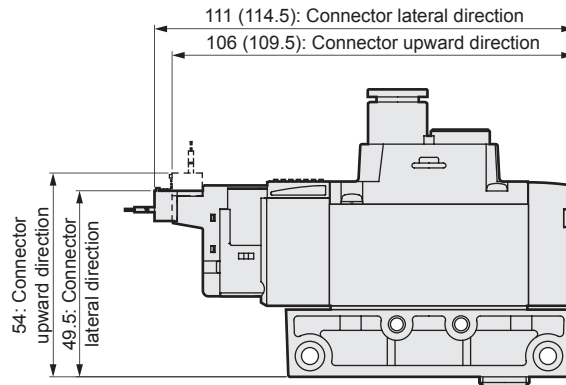
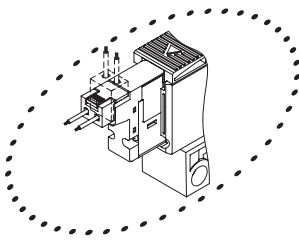
- Rc1/4 female thread type (08)



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

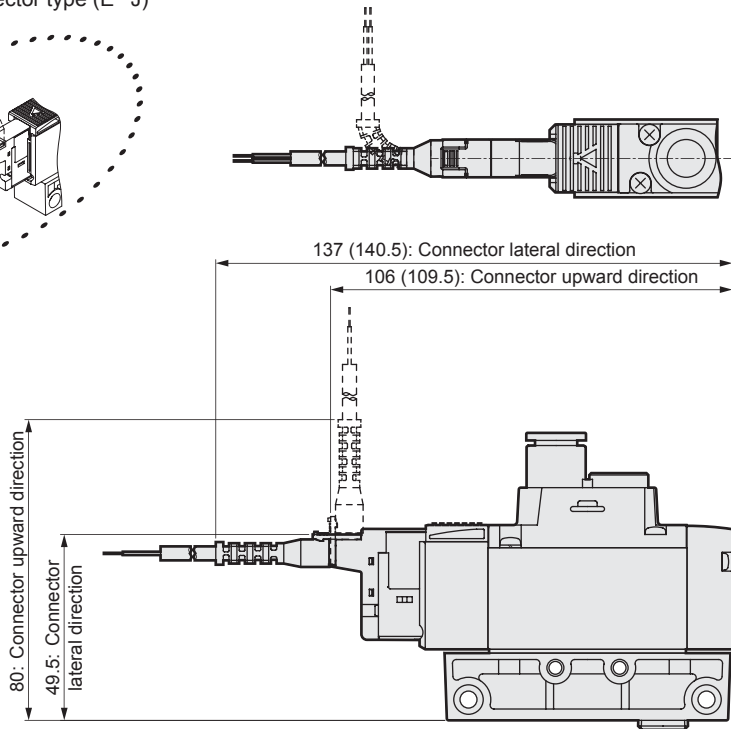
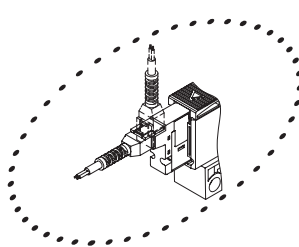
Dimensions

● E type connector type (E)



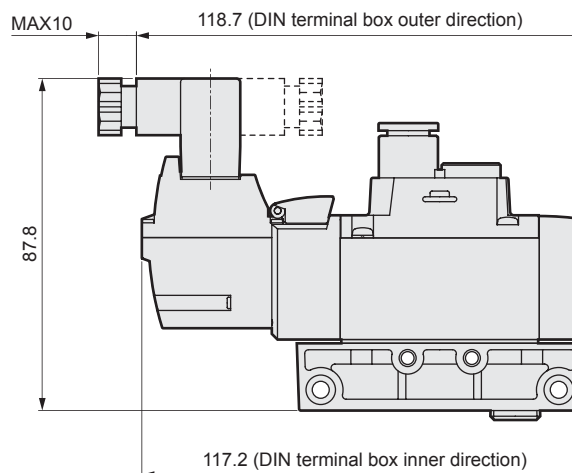
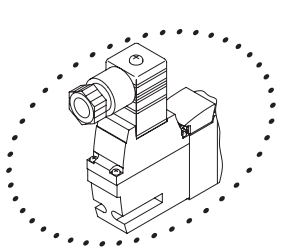
Note: Values in () apply for 100 VAC

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC

● DIN terminal box type (B)



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

4GAB	M4GAB	MN4GAB	4GAB Master valve	4GD/E	M4GD/E	MN4GD/E	Technical data	Safety precautions	Manifold Specifications
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3GA3 Series

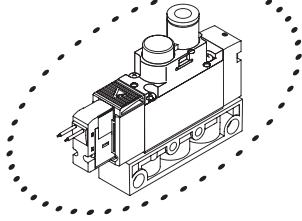
Discrete valve; body piping

Dimensions

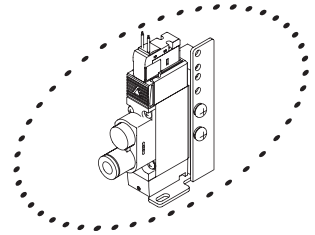


3GA3110R * Please refer to page from 46 to 53 for the NPT threads and G threads specifications.

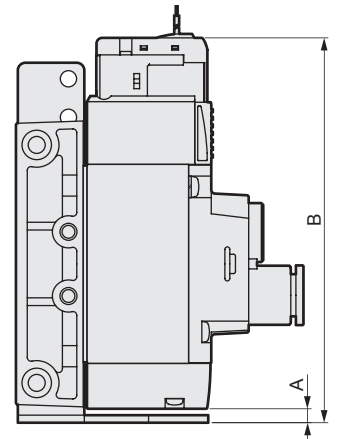
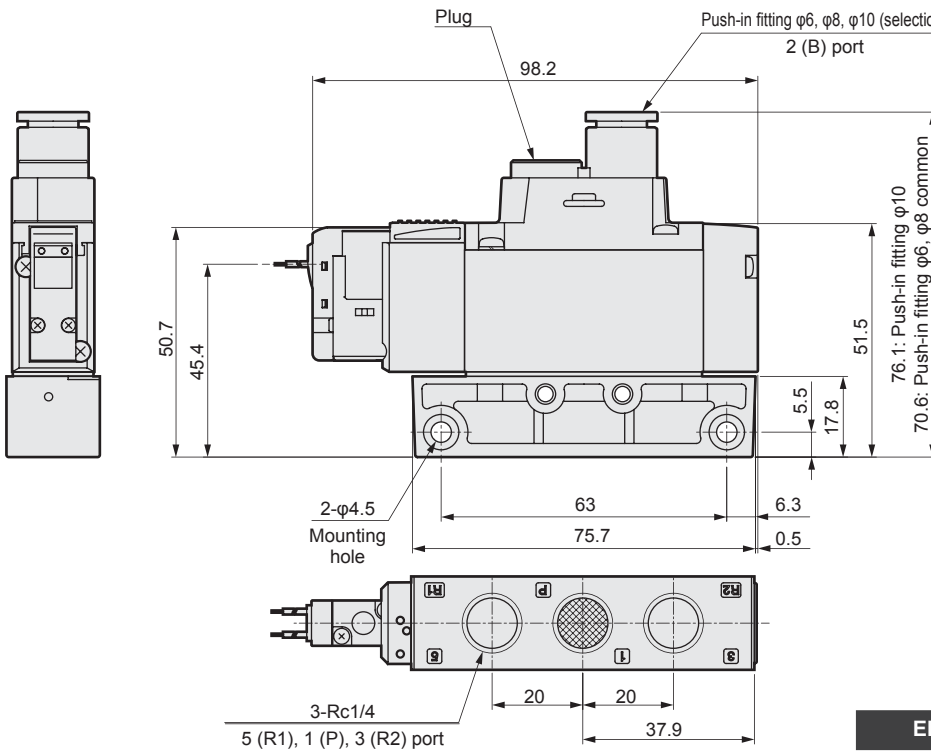
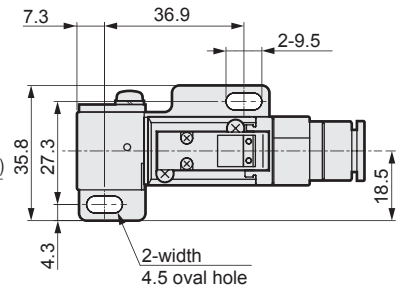
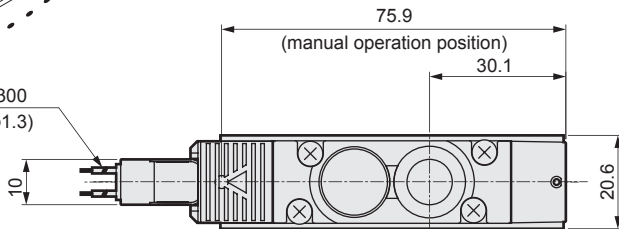
- 2-position single normally open grommet lead wire (blank)



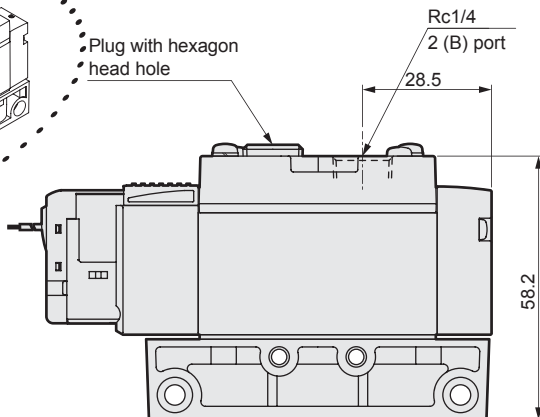
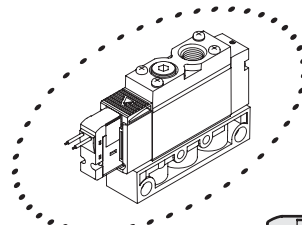
- Mounting plate type (P)



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



- Rc1/4 Female thread type (08)

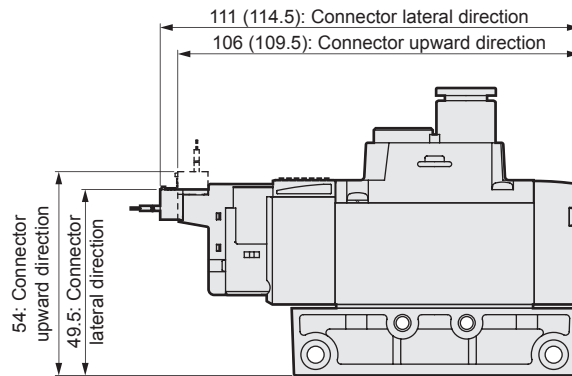
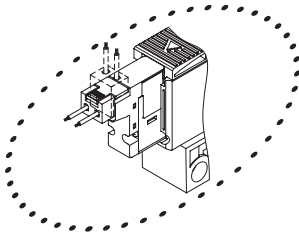


Electrical connections	A	B
Grommet lead wire	3.7	101.8
E, EJ type connector (upward direction), DC voltage		110
E, EJ type connector (upward direction), AC voltage		113.5
DIN terminal box (inner direction)		120.9

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

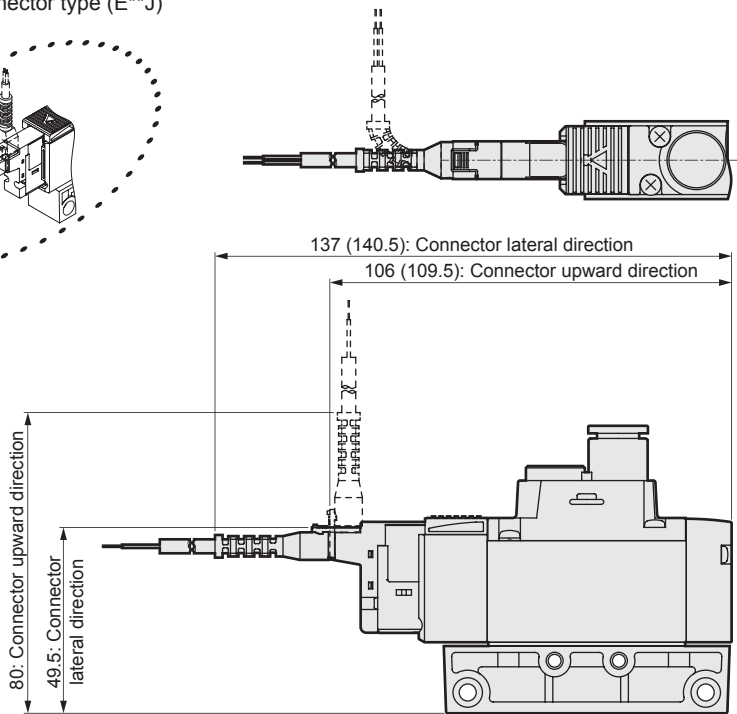
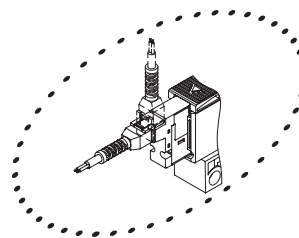
Dimensions

● E type connector type (E)



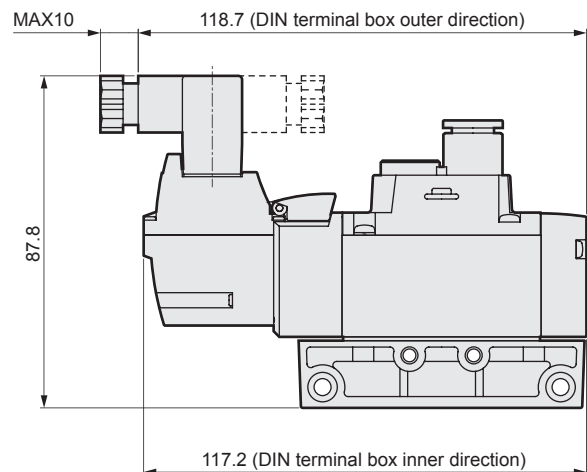
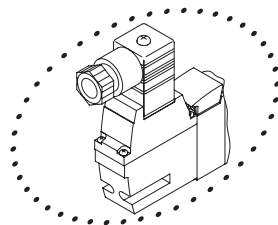
Note: Values in () apply for 100 VAC

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC

● DIN terminal box type s(B)



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

4GAB

M4GAB

MN4GAB

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

4GA1 Series

Discrete valve; body piping

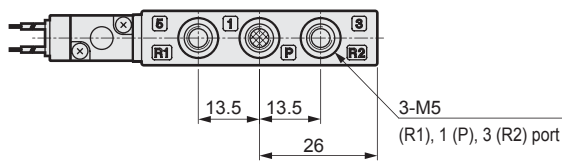
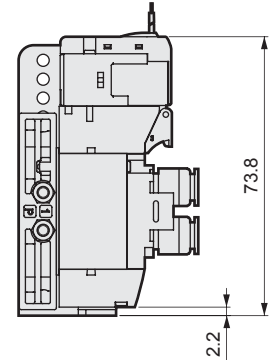
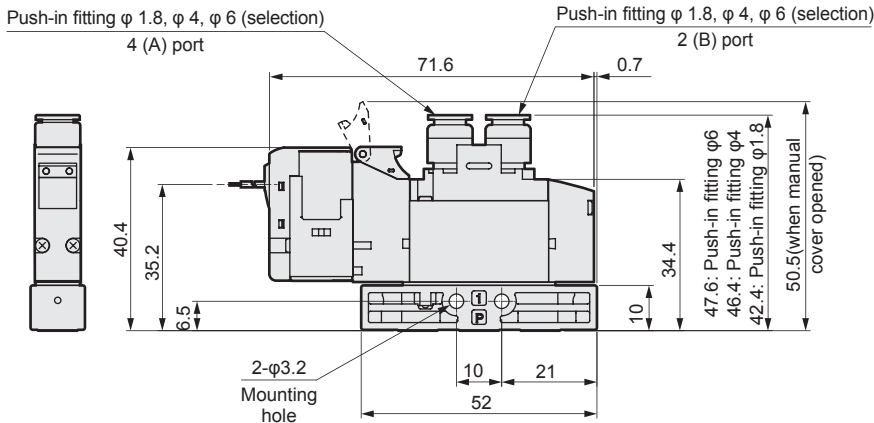
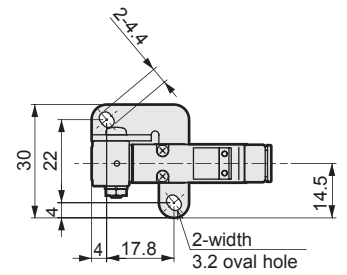
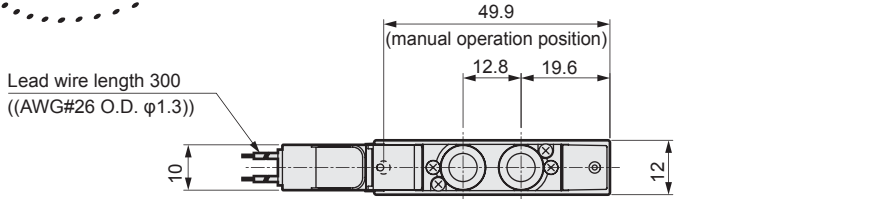
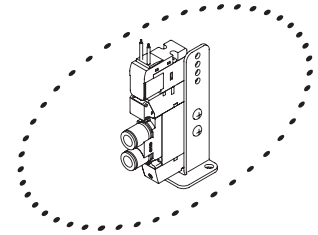
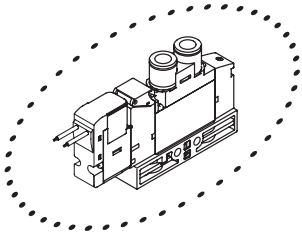
Dimensions 00



4GA110R * Please refer to page from 46 to 53 for the NPT threads and G threads specifications.

● 2-position single grommet lead wire (blank)

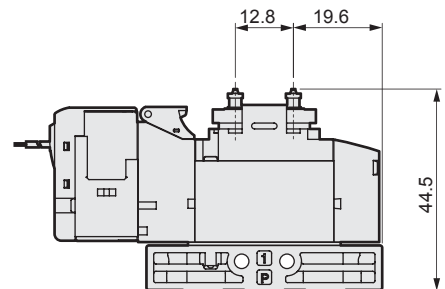
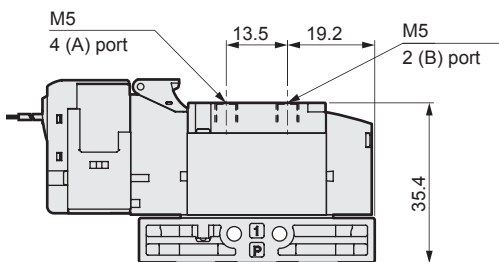
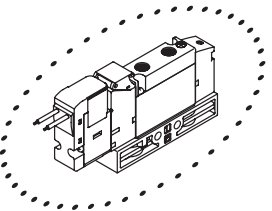
● Mounting plate type (P)



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

● M5 Female thread type (M5)

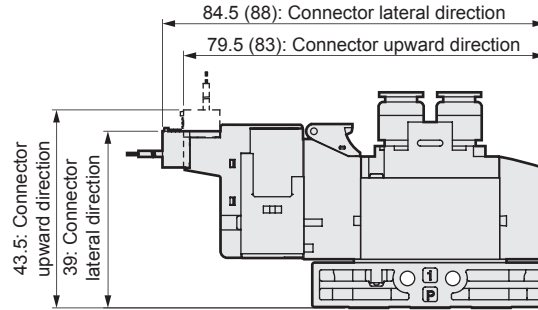
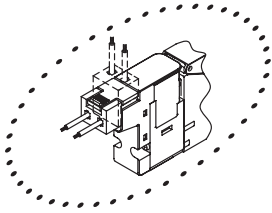
● φ1.8 Barbed fitting type (CF)



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

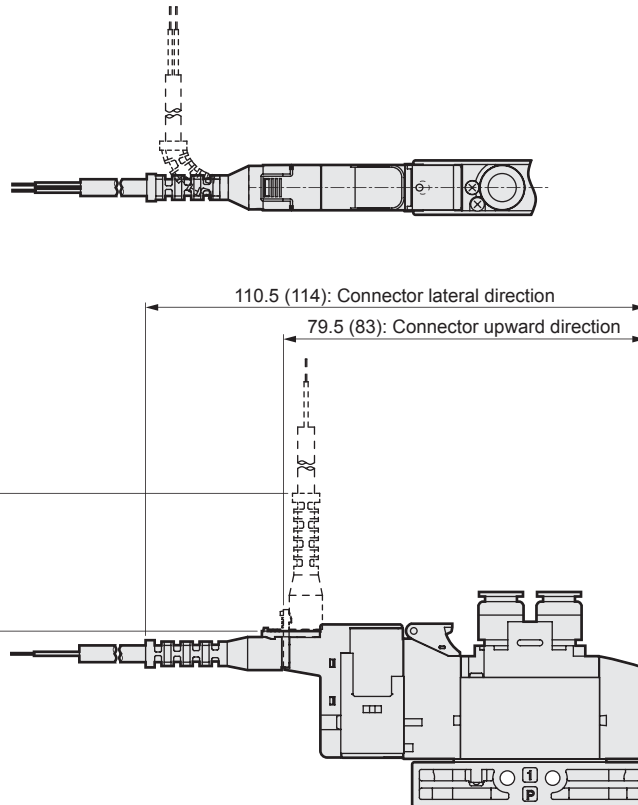
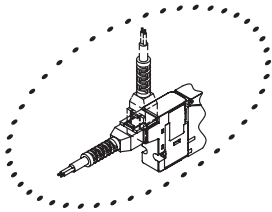
Dimensions

● E type connector type (E)



Note: Values in () apply for 100 VAC

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

4GA1 Series

Discrete valve; body piping

Dimensions 

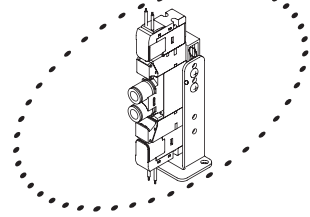
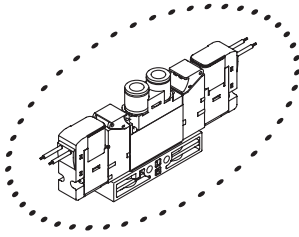
4GA120R * Please refer to page from 46 to 53 for the NPT threads and G threads specifications.

- 2-position double grommet lead wire (blank)

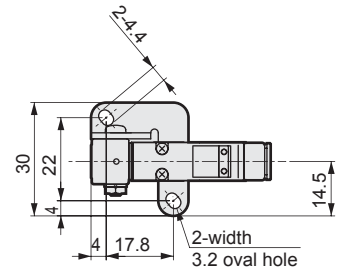
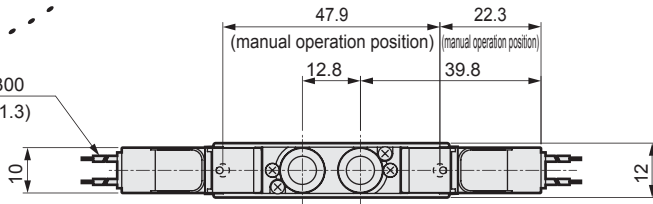
3GA1660R, 3GA1670R, 3GA1760R, 3GA1770R

- Dual 3 port valve integrated type grommet lead wire (blank)

- Mounting plate type (P)

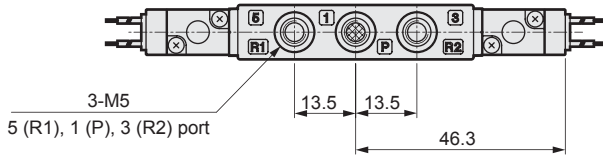
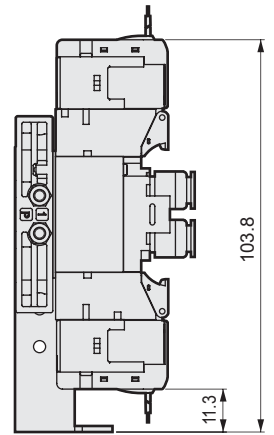
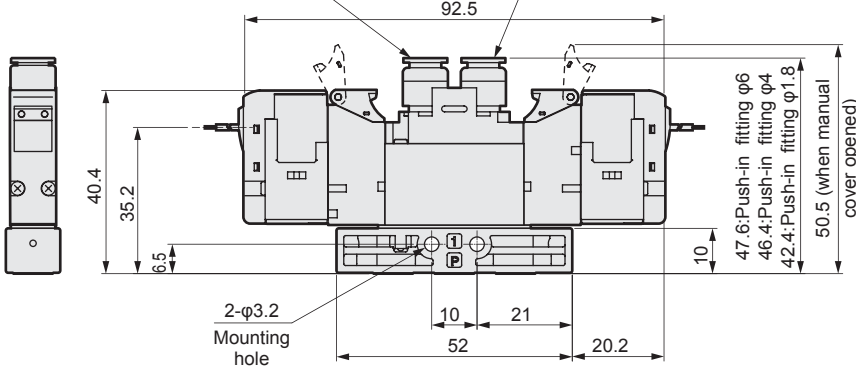


Lead wire length 300
(AWG#26, O.D. ϕ 1.3)



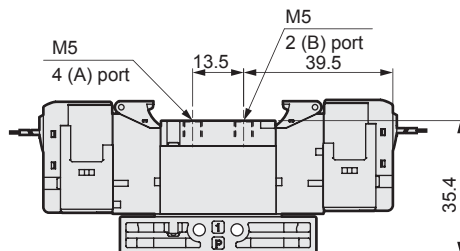
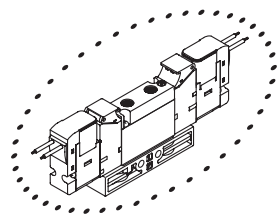
Push-in fitting ϕ 1.8, ϕ 4, ϕ 6 (selection)
4 (A) port

Push-in fitting ϕ 1.8, ϕ 4, ϕ 6 (selection)
2 (B) port

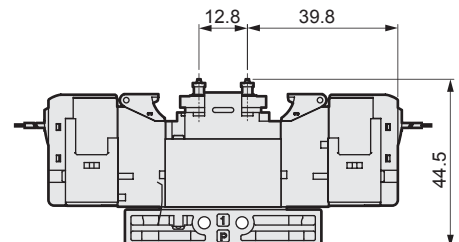


Electrical connections	A	B
Grommet lead wire	11.3	103.8
E, EJ type connector (upward direction), DC voltage	3	112
E, EJ type connector (upward direction), AC voltage	5	124

- M5 Female thread type (M5)



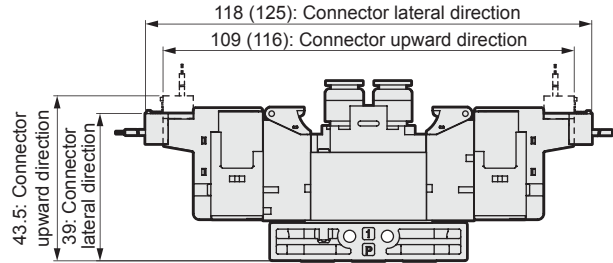
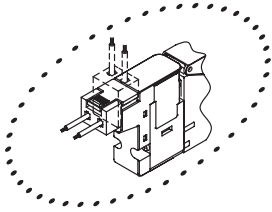
- ϕ 1.8 barbed fitting type (CF)



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

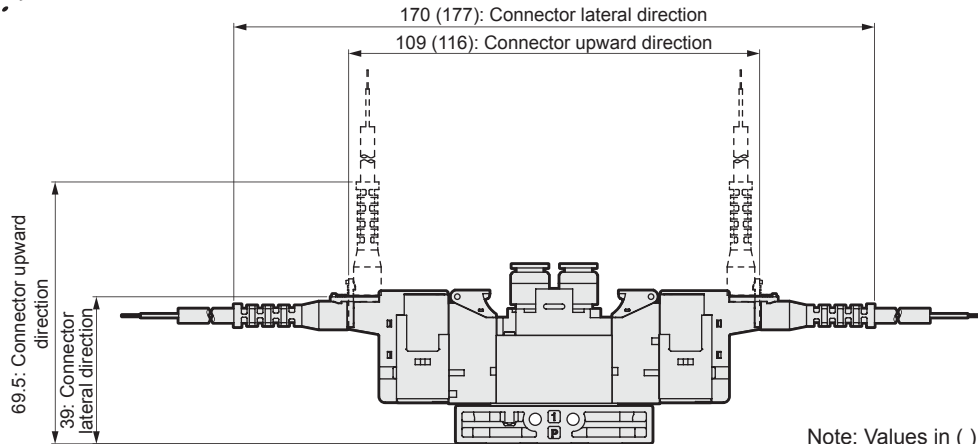
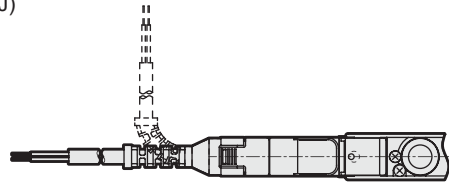
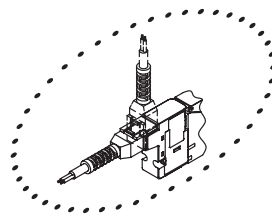
Dimensions

● E type connector type (E)



Note: Values in () apply for 100 VAC

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

4GA1 Series

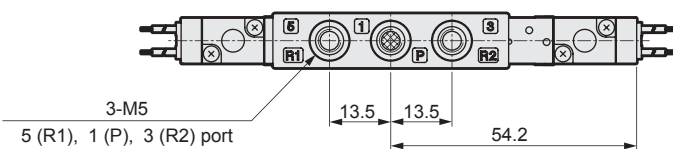
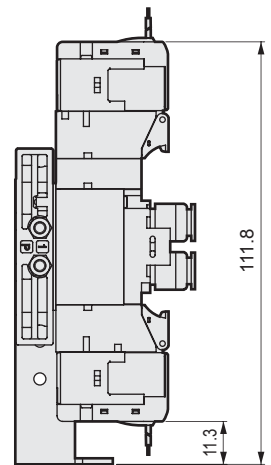
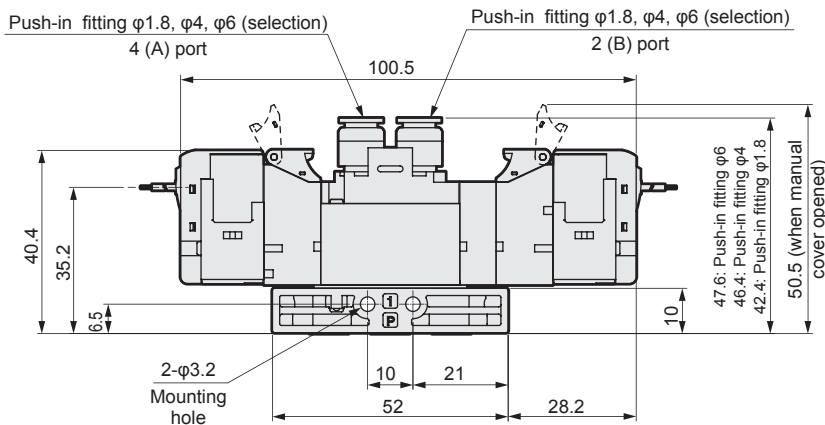
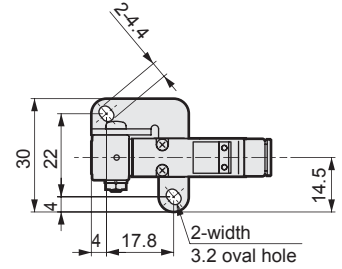
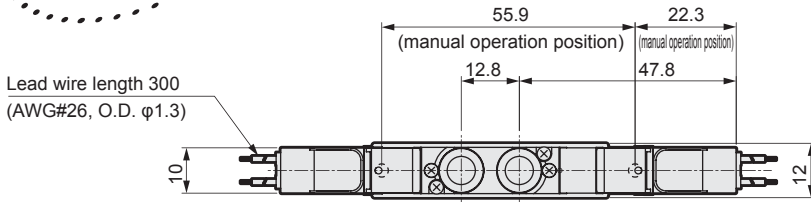
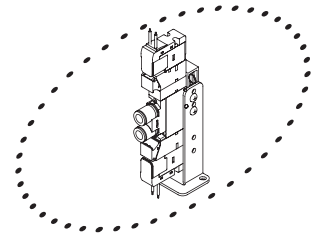
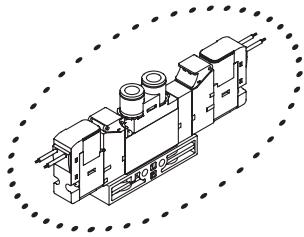
Discrete valve; body piping

Dimensions 

4GA1 $\frac{3}{4}$ 0R * Please refer to page from 46 to 53 for the NPT threads and G threads specifications.

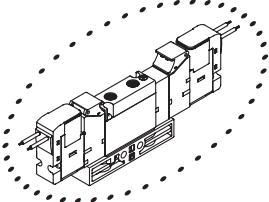
- 3 position grommet lead wire (blank)

- Mounting plate type (P)

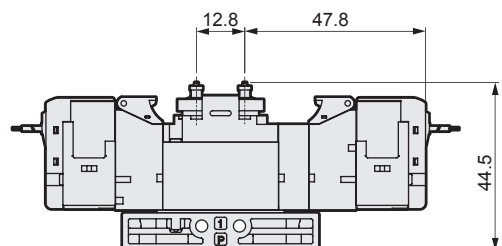
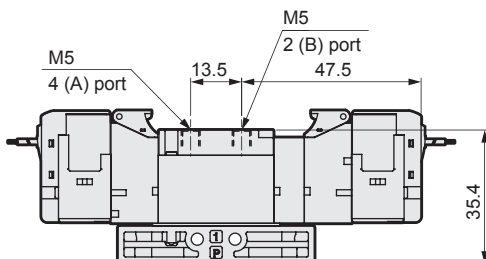


Electrical connections	A	B
Grommet lead wire	11.3	111.8
E, EJ type connector (upward direction), DC voltage	3	120
E, EJ type connector (upward direction), AC voltage	5	132

- M5 female thread type (M5)

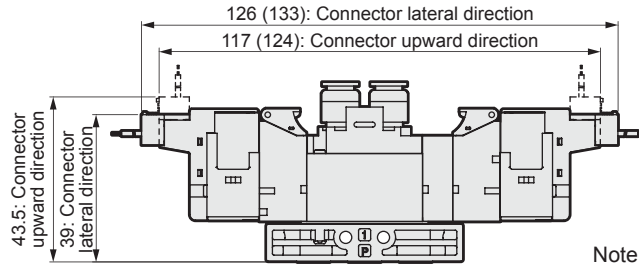
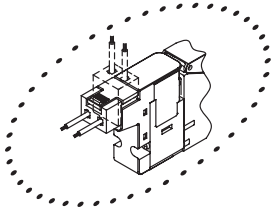


- ϕ 1.8 barbed fitting type (CF)



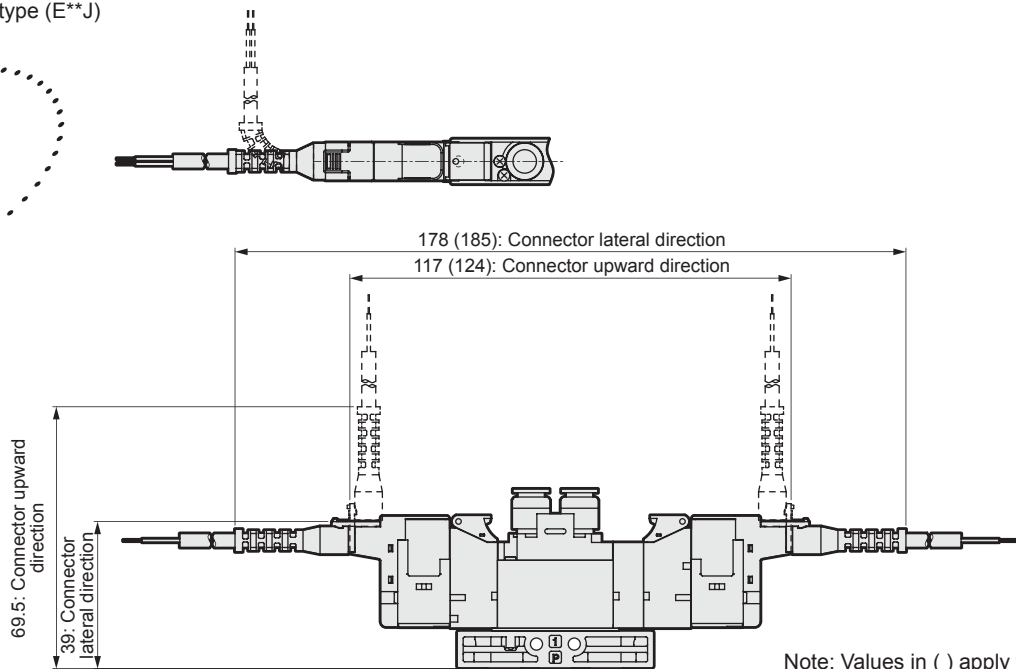
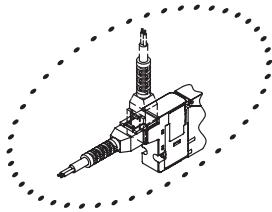
Dimensions

● E type connector type (E)



Note: Values in () apply for 100 VAC

● EJ type connector type (E**J)



Note: Values in () apply for AC

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

4GA2 Series

Discrete valve; body piping

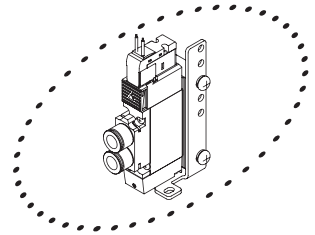
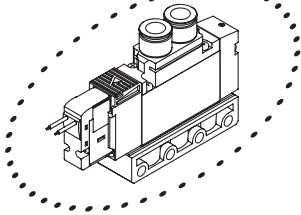
Dimensions



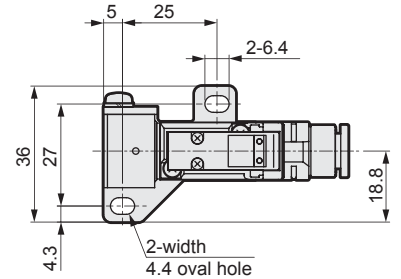
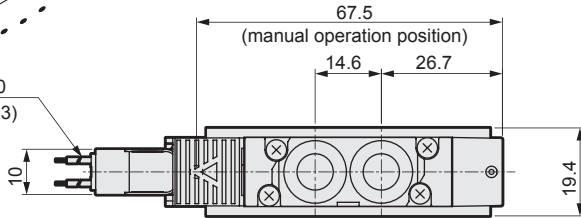
4GA210R * Please refer to page from 46 to 53 for the NPT threads and G threads specifications.

- 2-position single
Grommet lead wire (blank)

- Mounting plate type (P)

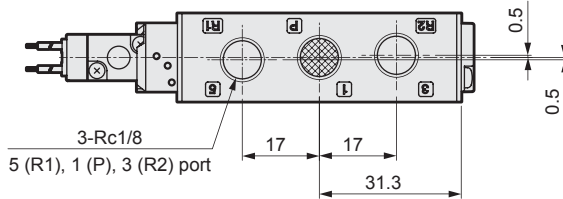
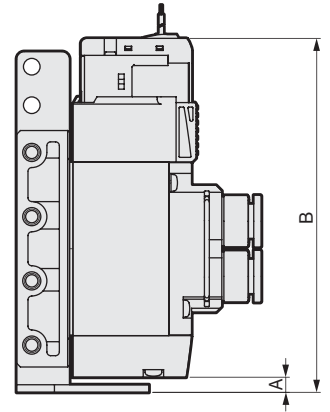
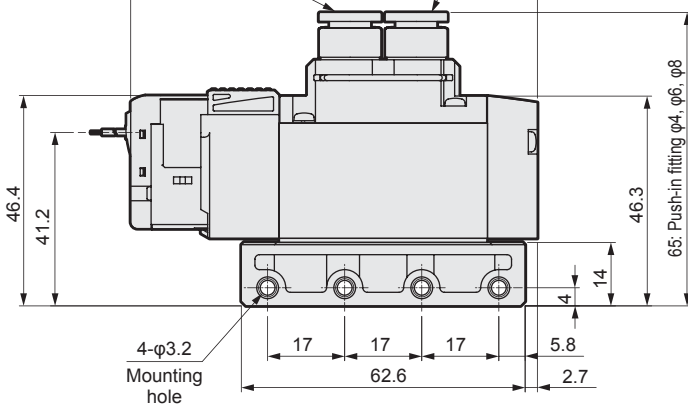
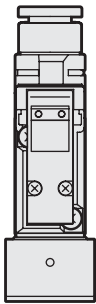


Lead wire length 300
(AWG#26, O.D. ϕ 1.3)

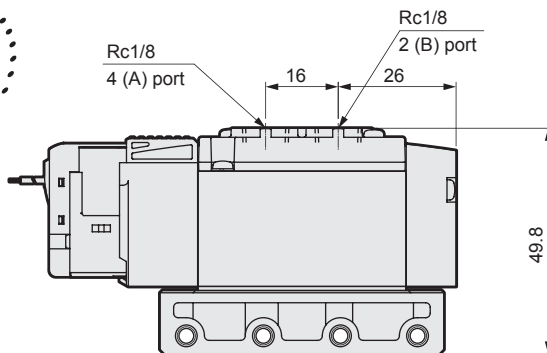
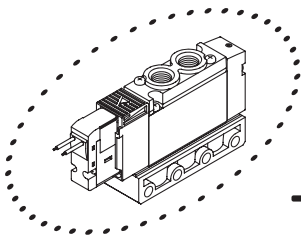


Push-in fitting ϕ 4, ϕ 6, ϕ 8 (selection)
4 (A) port

Push-in fitting ϕ 4, ϕ 6, ϕ 8 (selection)
2 (B) port



- Rc1/8 female thread type (06)

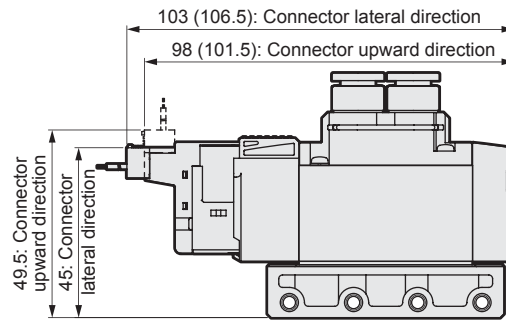
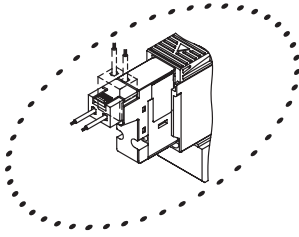


Electrical connections	A	B
Grommet lead wire	4	93.7
E, EJ type connector (upward direction), DC voltage		102
E, EJ type connector (upward direction), AC voltage		105.5
DIN terminal box (inner direction)		112.7

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

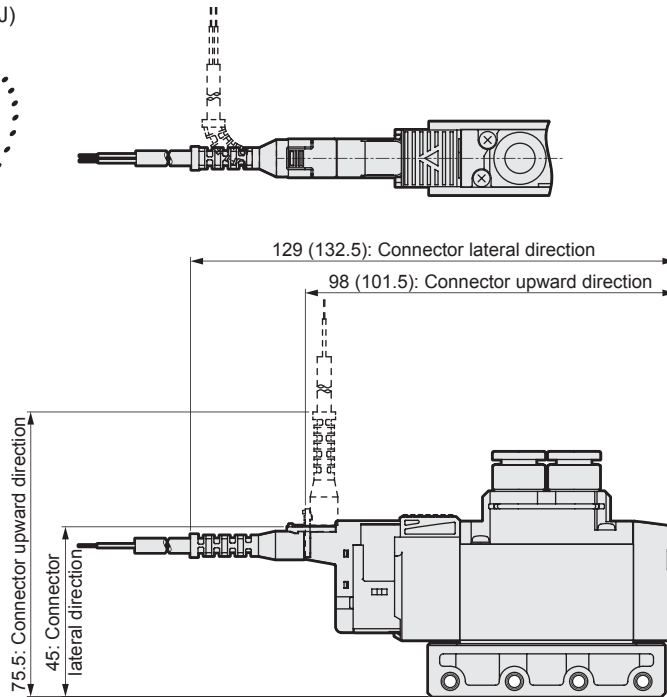
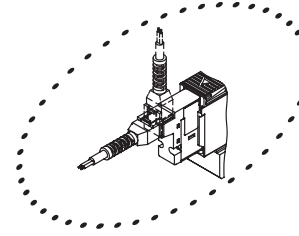
Dimensions

● E type connector type (E)



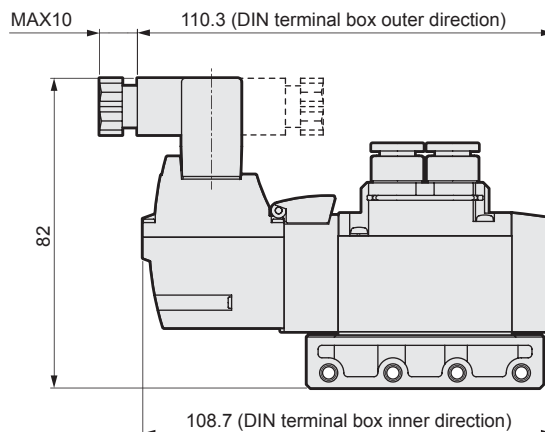
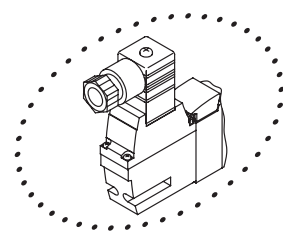
Note: Values in () apply for 100 VAC

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC

● DIN terminal box type (B)



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

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

4GA2 Series

Discrete valve; body piping

Dimensions



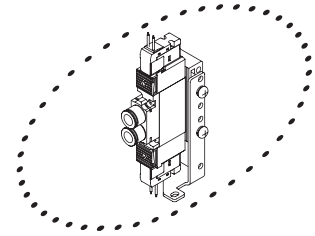
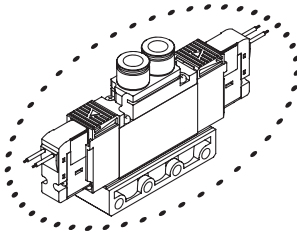
4GA220R * Please refer to page from 46 to 53 for the NPT threads and G threads specifications.

- 2-position double grommet lead wire (blank)

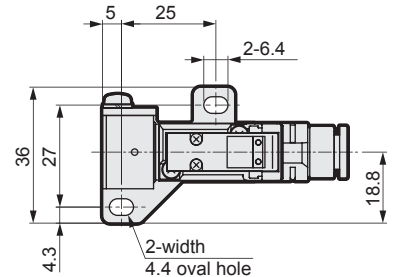
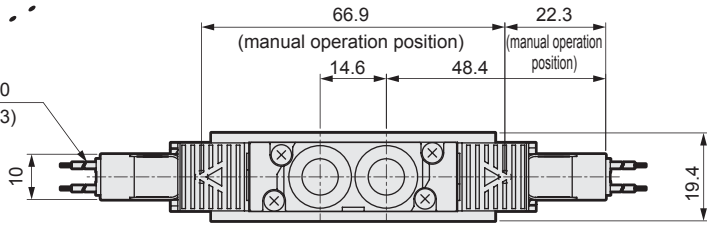
3GA2660R, 3GA2670R, 3GA2760R, 3GA2770R

- Dual 3 port valve integrated type
Grommet lead wire (blank)

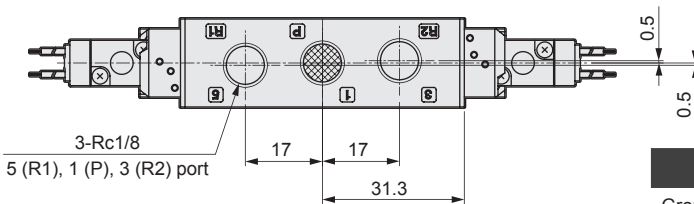
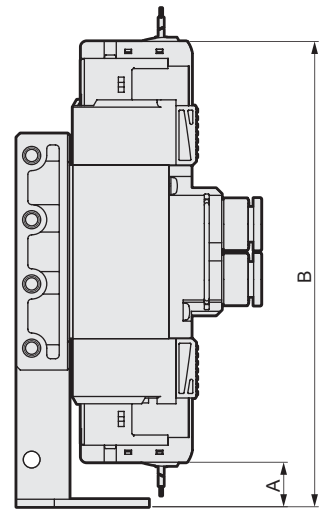
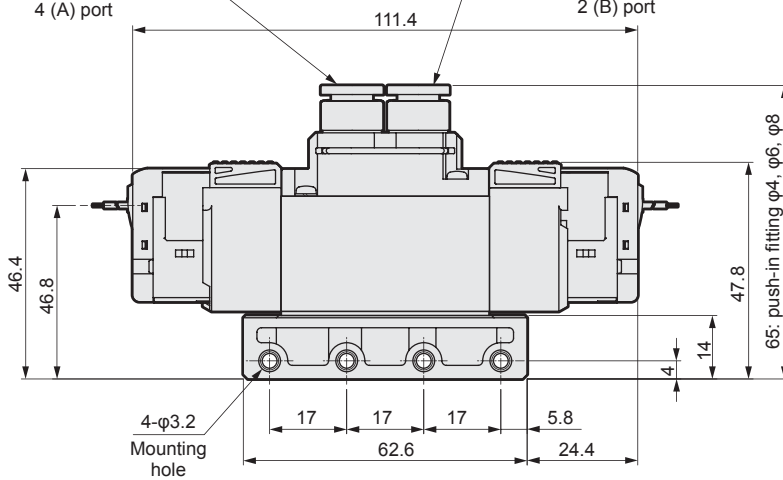
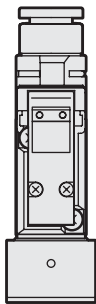
- Mounting plate type (P)



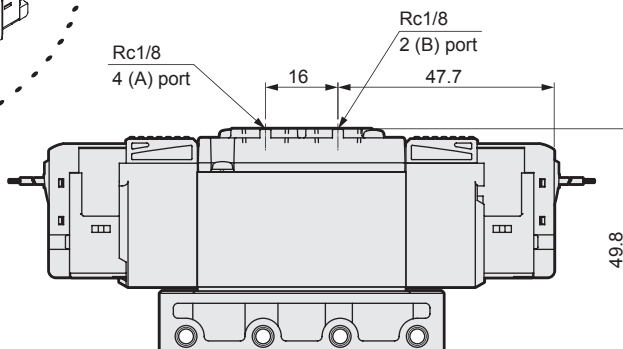
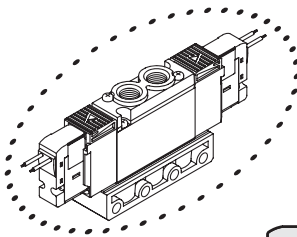
Lead wire length 300
(AWG#26, O.D. ϕ 1.3)



Push-in fitting ϕ 4, ϕ 6, ϕ 8 (selection)
4 (A) port Push-in fitting ϕ 4, ϕ 6, ϕ 8 (selection)
2 (B) port



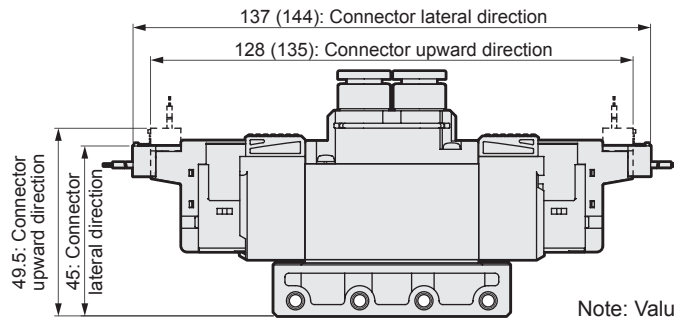
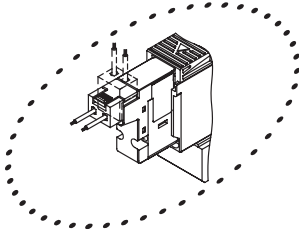
- Rc1/8 female thread type (06)



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

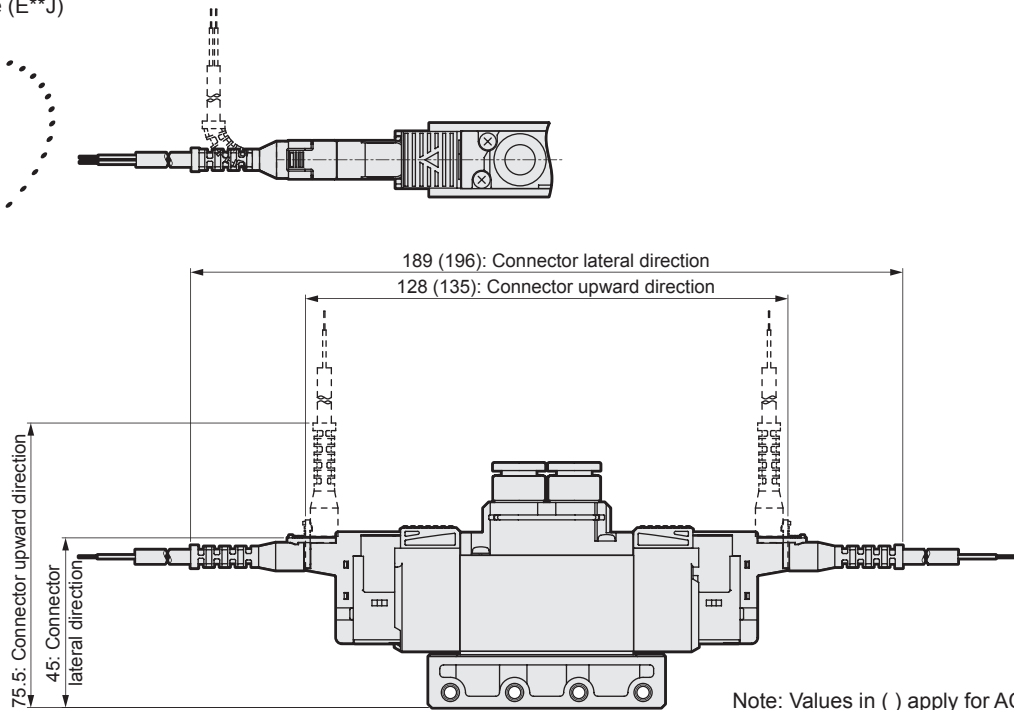
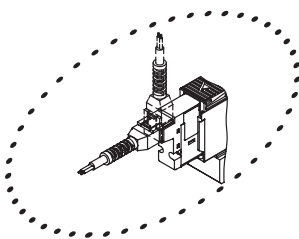
Dimensions

● E type connector type (E)



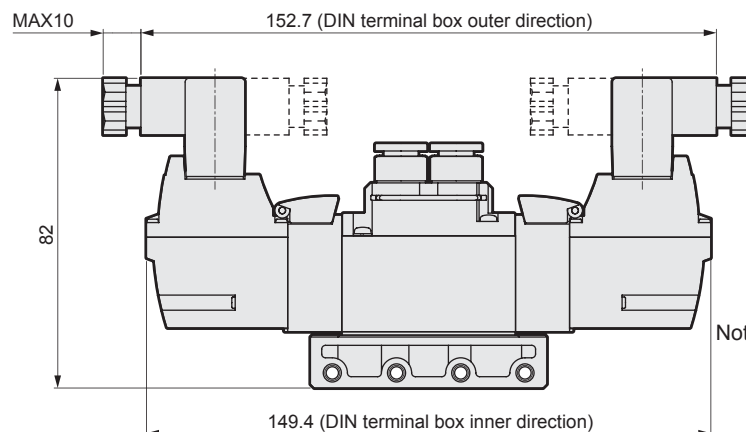
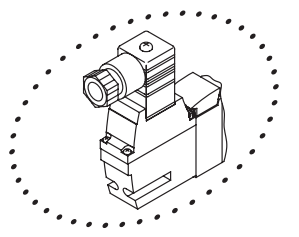
Note: Values in () apply for 100 VAC

● EJ type connector type (E**J)



Note: Values in () apply for AC

● DIN terminal box type (B)



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

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

4GA2 Series

Discrete valve; body piping

Dimensions

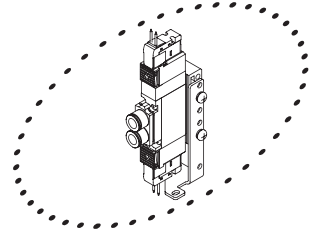
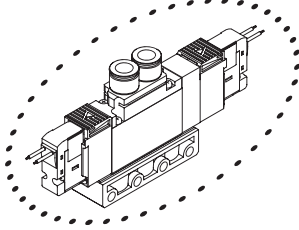


4GA2^{OR} * Please refer to page from 46 to 53 for the NPT threads and G threads specifications.

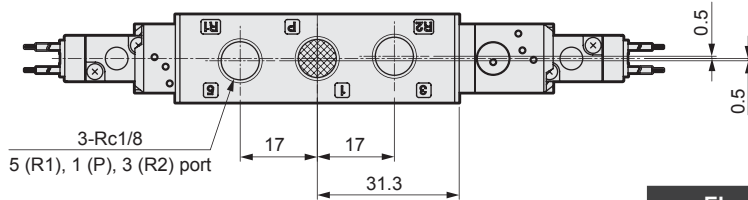
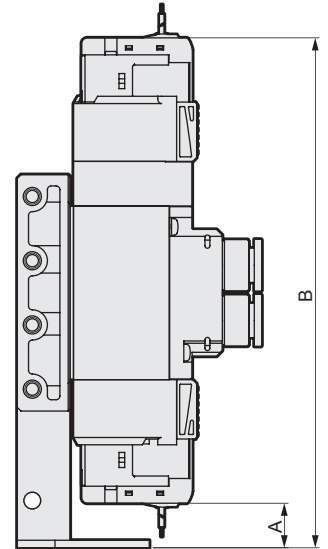
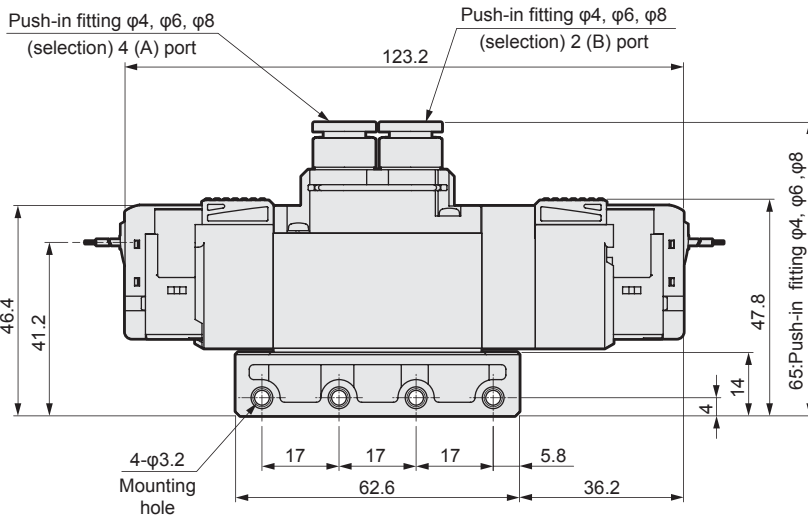
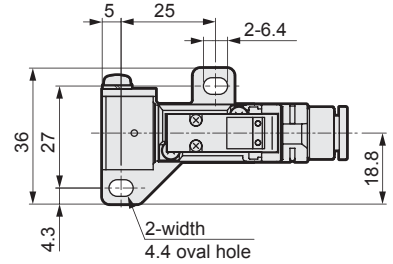
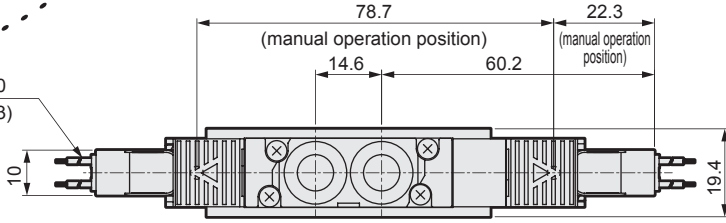
● 3 position

Grommet lead wire (blank)

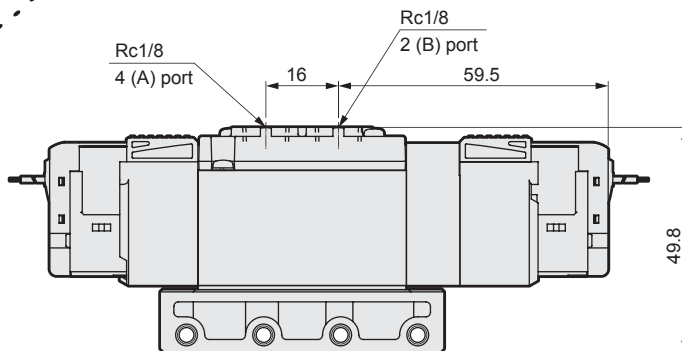
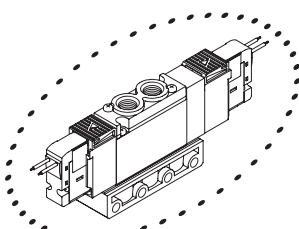
● Mounting plate type (P)



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



● Rc1/8 female thread type (06)

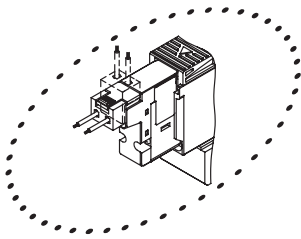


Electrical connections	A	B
Grommet lead wire	11.8	135
E, EJ type connector (upward direction), DC voltage	3.5	143
E, EJ type connector (upward direction), AC voltage	10.5	160.5
DIN terminal box (inner direction)	3	164.2

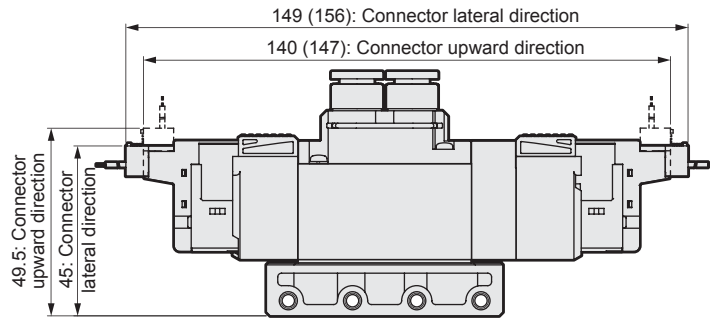
4GA/B
M4GA/B
MN4GA/B
4GA/B Master valve
4GD/E
M4GD/E
MN4GD/E
Technical data
Safety precautions
Manifold Specifications

Dimensions

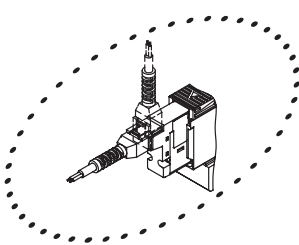
● E type connector type (E)



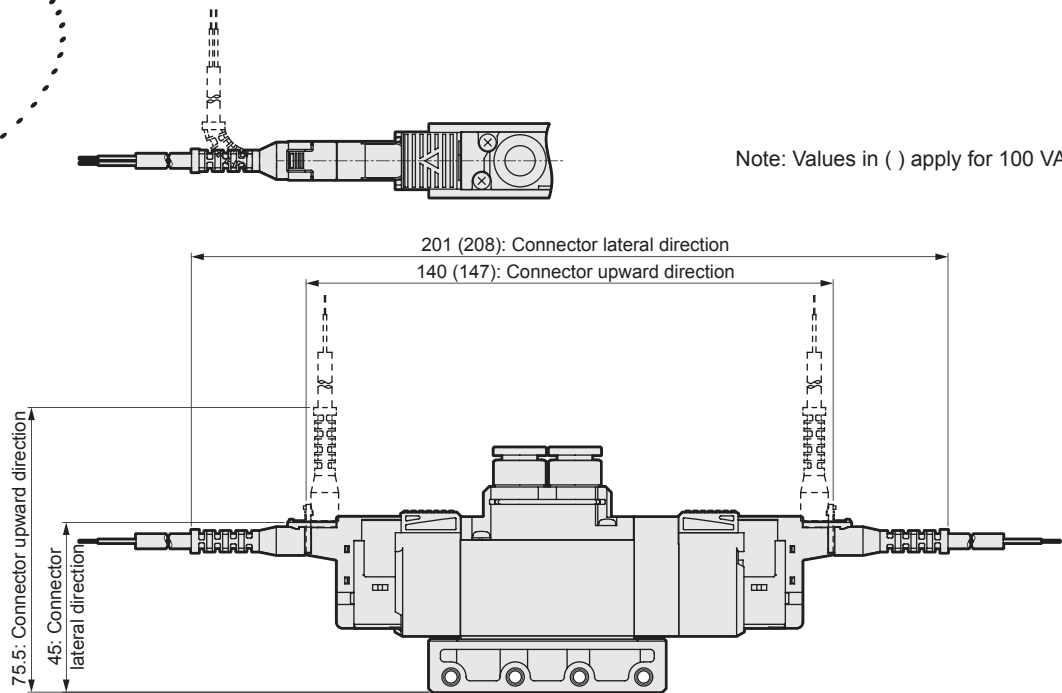
Note: Values in () apply for 100 VAC



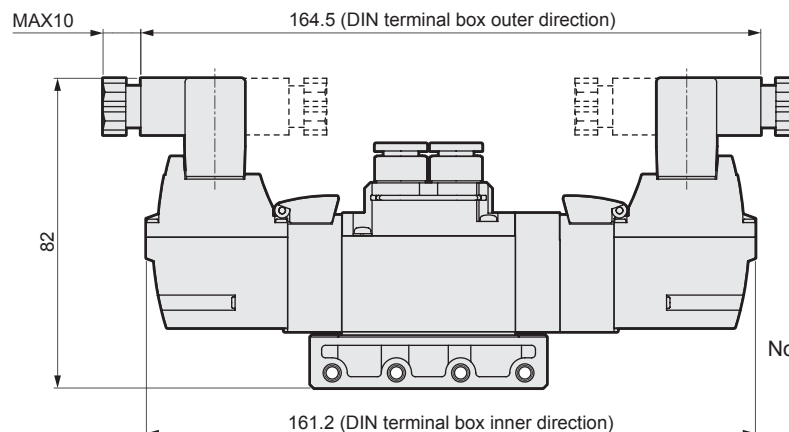
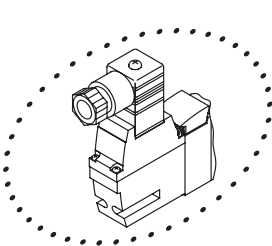
● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC



● DIN terminal box type (B)



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

4GA/B	M4GA/B	MN4GA/B	4GA/B Master valve	4GD/E	M4GD/E	MN4GD/E	Technical data	Safety precautions	Manifold Specifications
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4GA3 Series

Discrete valve; body piping

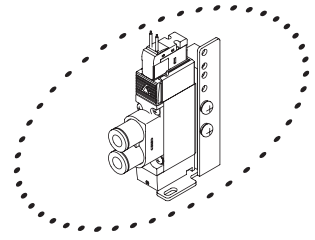
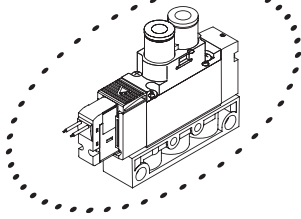
Dimensions



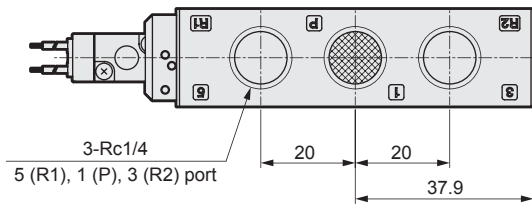
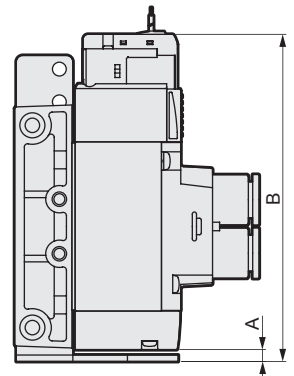
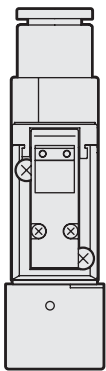
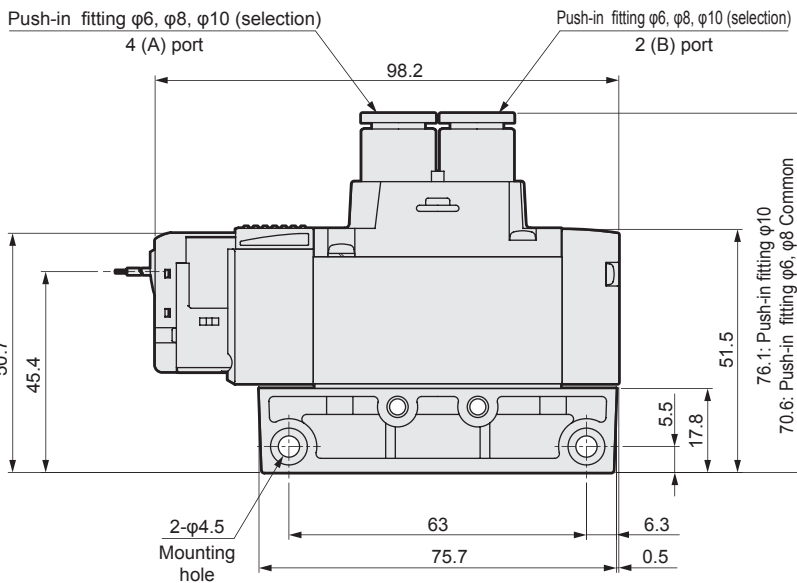
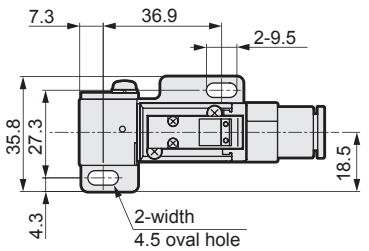
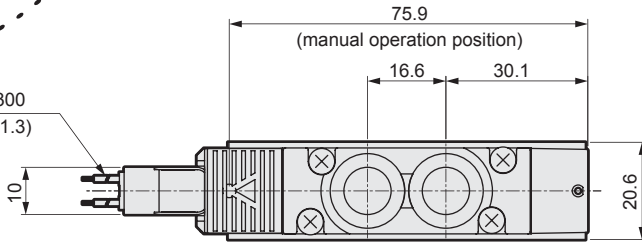
4GA310R * Please refer to page from 46 to 53 for the NPT threads and G threads specifications.

- 2-position single
Grommet lead wire (blank)

- Mounting plate type (P)

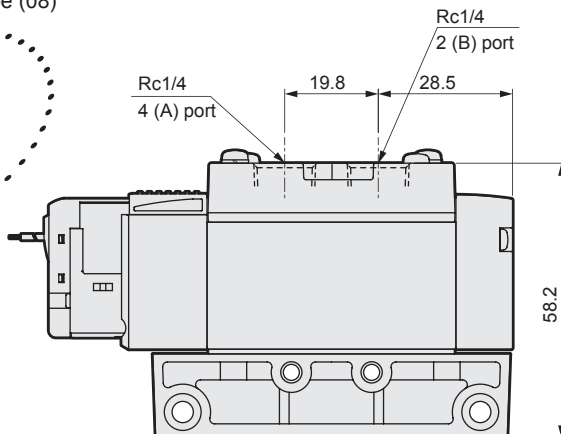
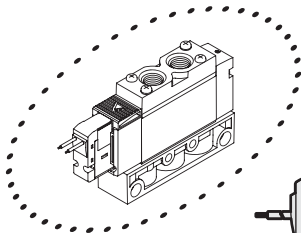


Lead wire length 300
(AWG#26, O.D. ϕ 1.3)



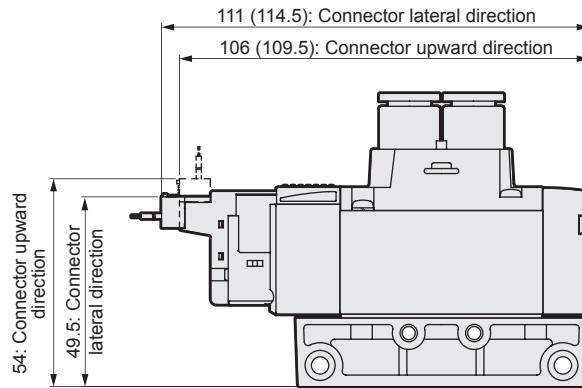
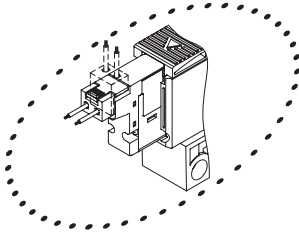
Electrical connections	A	B
Grommet lead wire	3.7	101.8
E, EJ type connector (upward direction), DC voltage		110
E, EJ type connector (upward direction), AC voltage		113.5
DIN terminal box (inner direction)		120.9

- Rc1/4 female thread type (08)



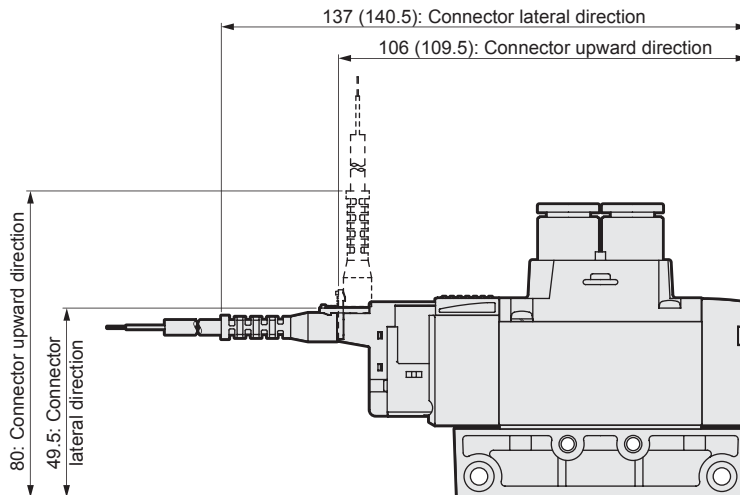
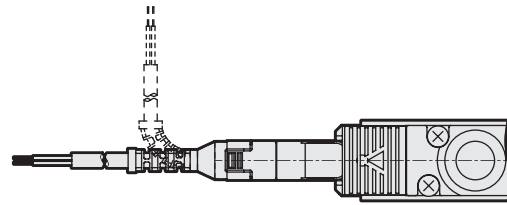
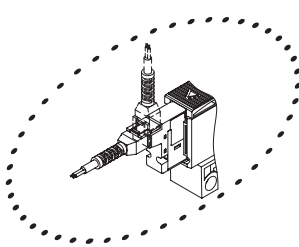
Dimensions

● E type connector type (E)



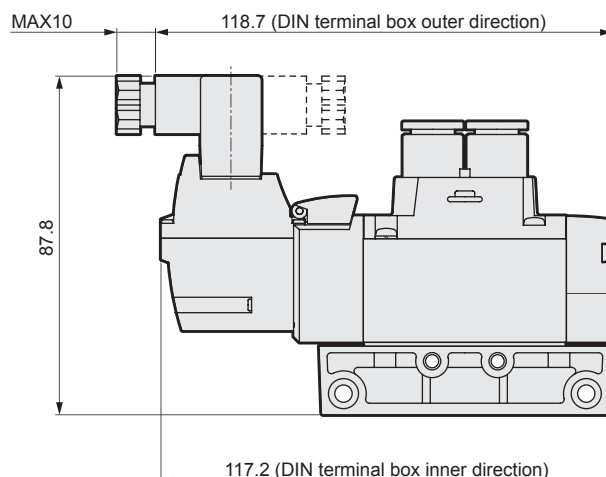
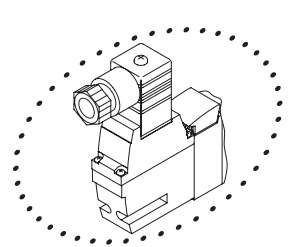
Note: Values in () apply for 100 VAC

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC

● DIN terminal box type (B)



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

4GA/B	M4GA/B	MN4GA/B	4GA/B Master valve	4GD/E	M4GD/E	MN4GD/E	Technical data	Safety precautions	Manifold Specifications
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4GA3 Series

Discrete valve; body piping

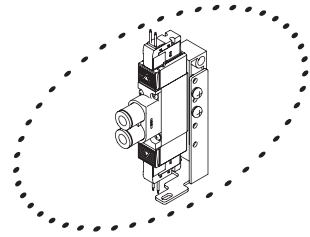
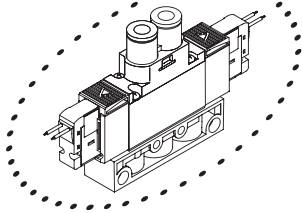
Dimensions



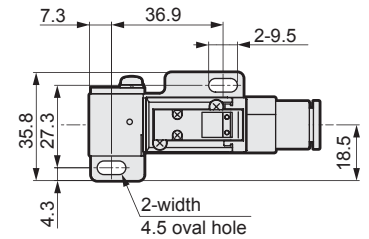
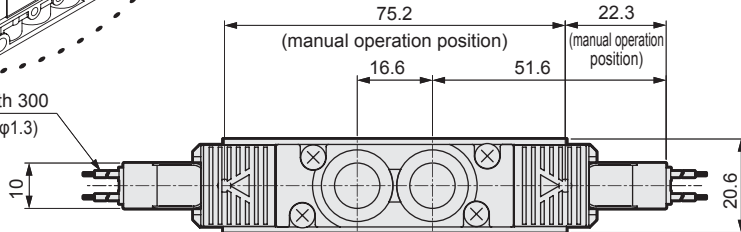
4GA320R * Please refer to page from 46 to 53 for the NPT threads and G threads specifications.

- 2-position double grommet lead wire (blank)

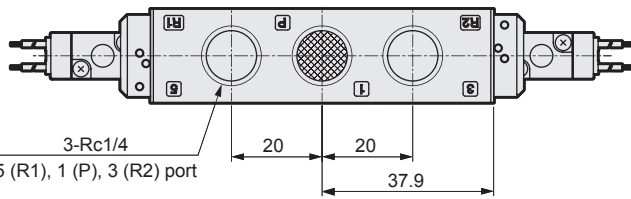
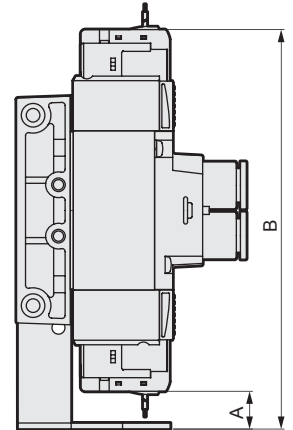
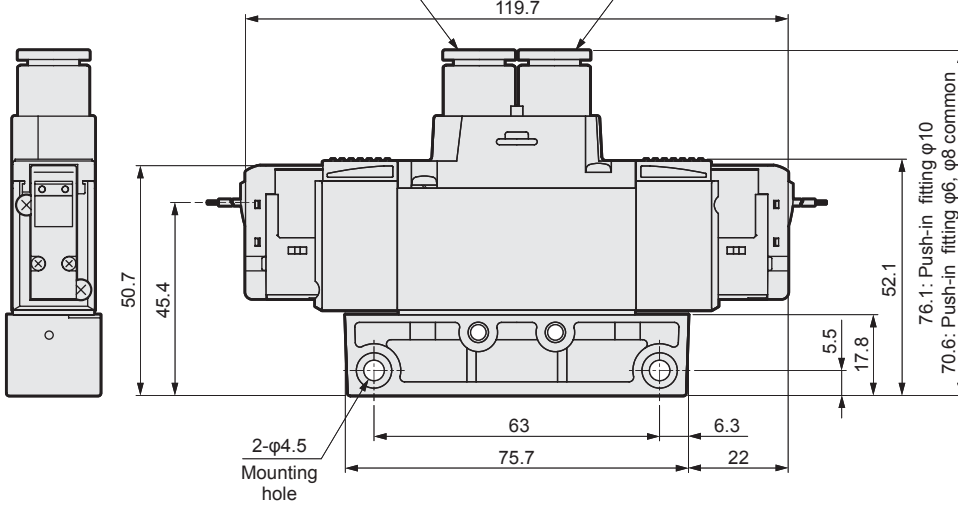
- Mounting plate type (P)



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

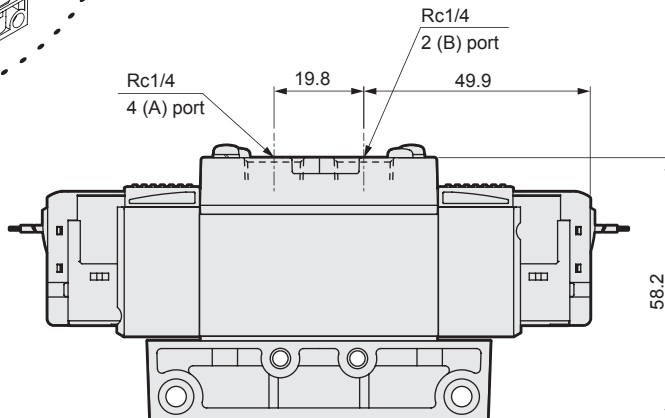
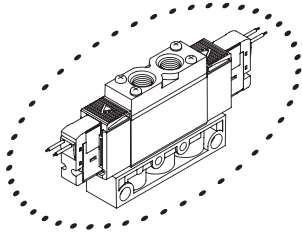


Push-in fitting ϕ 6, ϕ 8, ϕ 10 (selection)
4 (A) port 2 (B) port



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

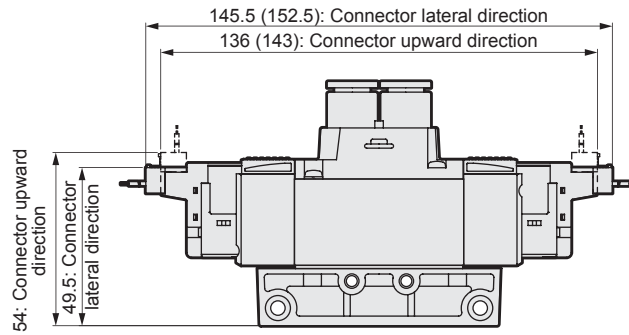
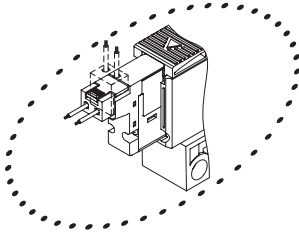
- Rc1/4 female thread type (08)



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

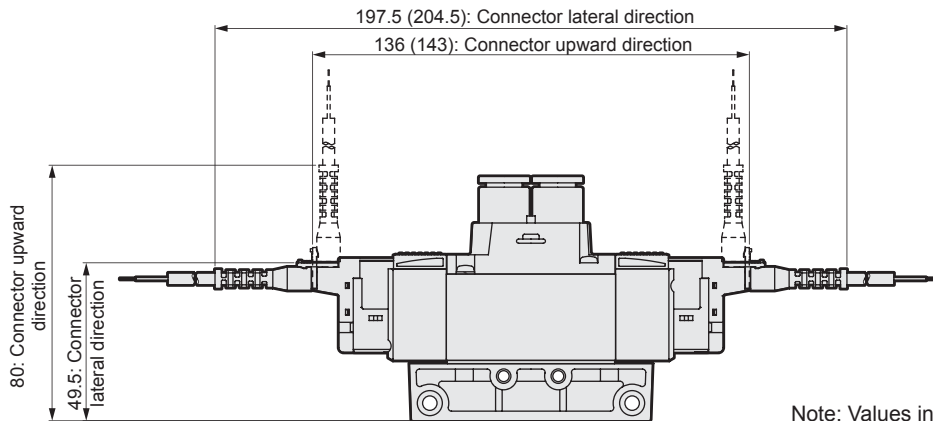
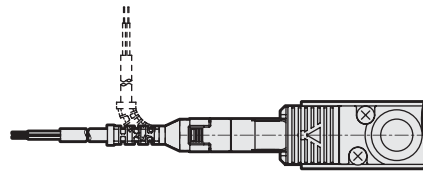
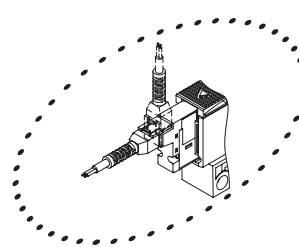
Dimensions

● E type connector type (E)



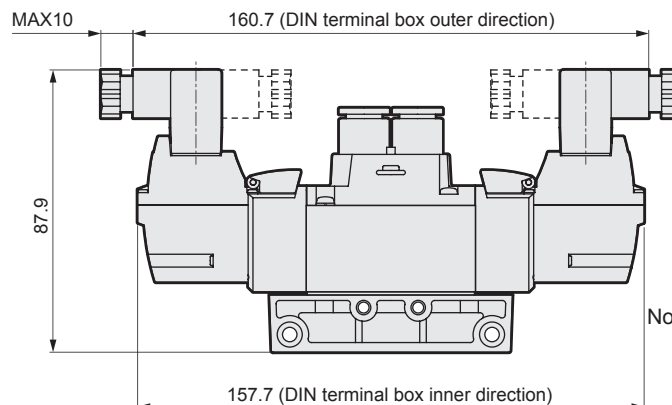
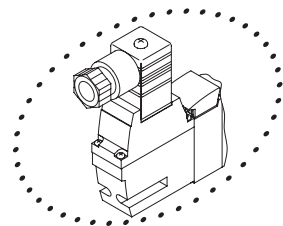
Note: Values in () apply for 100 VAC

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC

● DIN terminal box type (B)



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

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

4GA3 Series

Discrete valve; body piping

Dimensions

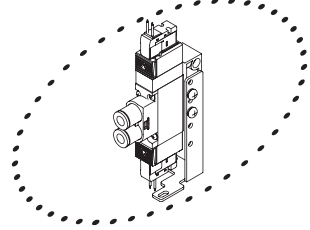
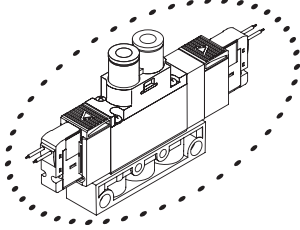


4GA3^{010R} * Please refer to page from 46 to 53 for the NPT threads and G threads specifications.

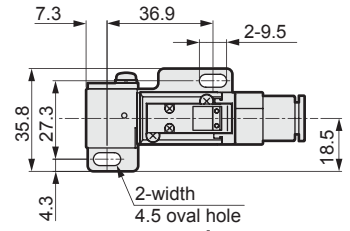
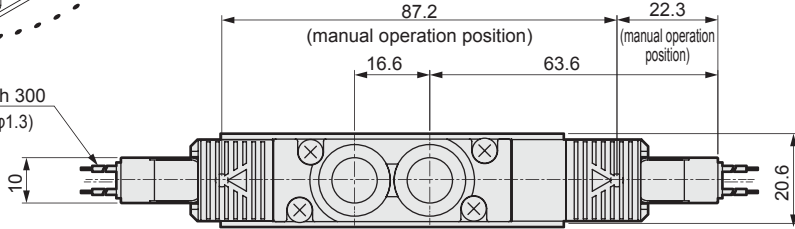
● 3 position

Grommet lead wire (blank)

● Mounting plate type (P)

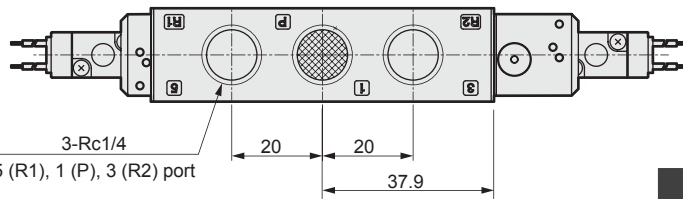
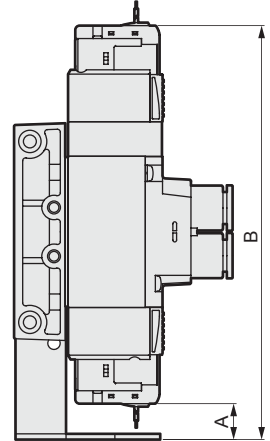
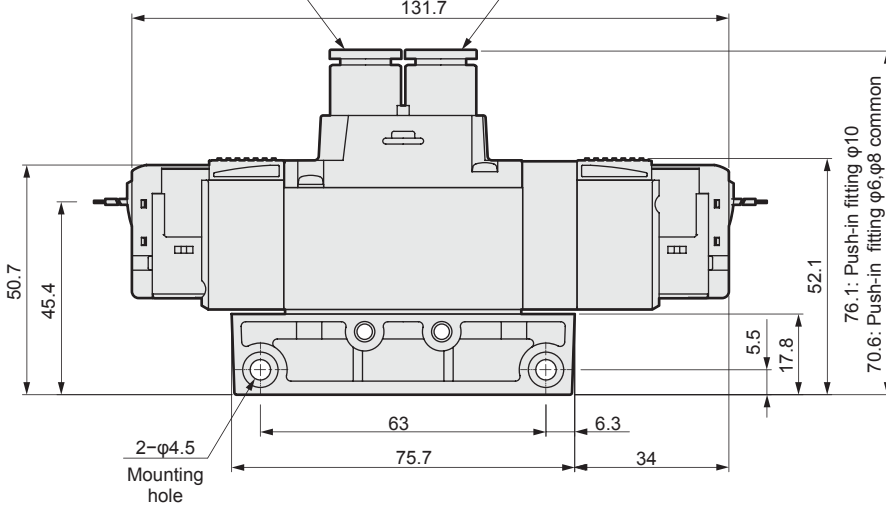
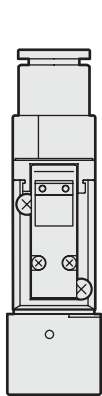


Lead wire length 300
(AWG#26, O.D. ϕ 1.3)

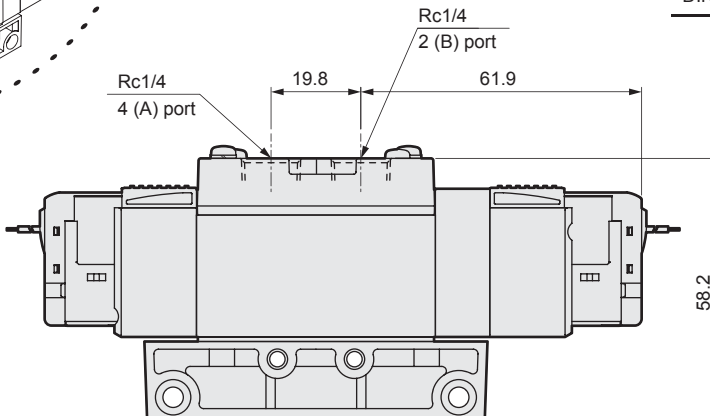
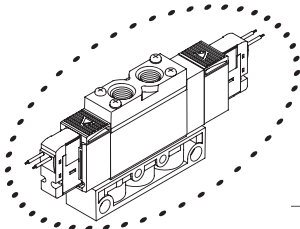


Push-in fitting ϕ 6, ϕ 8, ϕ 10 (selection)
4 (A) port

Push-in fitting ϕ 6, ϕ 8, ϕ 10 (selection)
2 (B) port



● Rc1/4 female thread type (08)

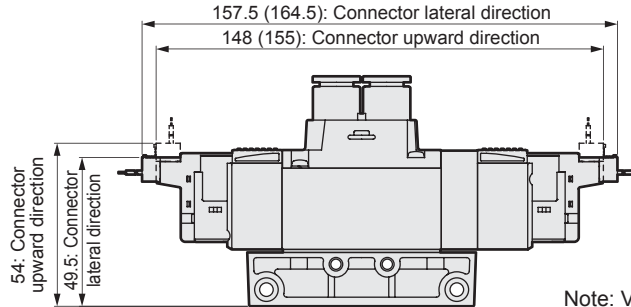
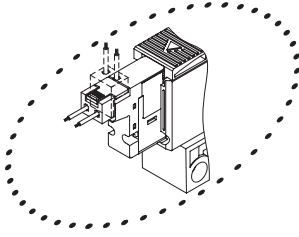


Electrical connections	A	B
Grommet lead wire	12.6	144.3
E, EJ type connector (upward direction), DC voltage	4.5	152.5
E, EJ type connector (upward direction), AC voltage	11	169.5
DIN terminal box (inner direction)	3.7	173.4

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

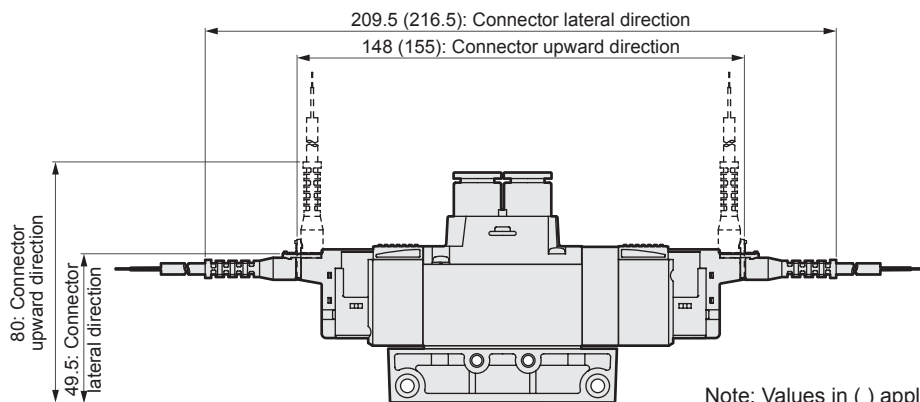
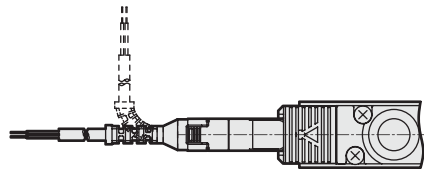
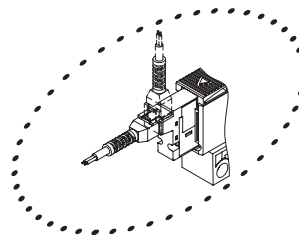
Dimensions

● E connector type (E)



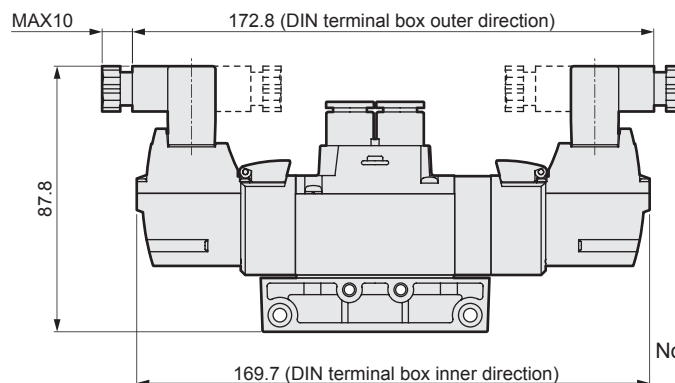
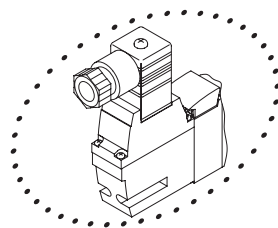
Note: Values in () apply for 100 VAC

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC

● DIN terminal box type (B)



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

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

3GA1 & 4GA1 Series

Discrete valve; body piping

Dimensions Port size; NPT thread

3GA1 0R, 4GA1 0R

● 2-position single

Grommet lead wire (blank)

● Mounting plate type (P)

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

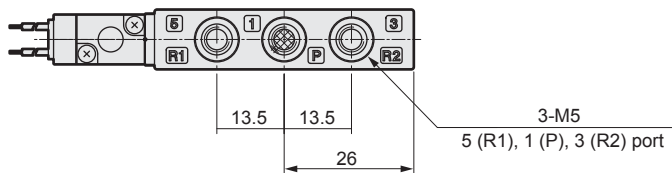
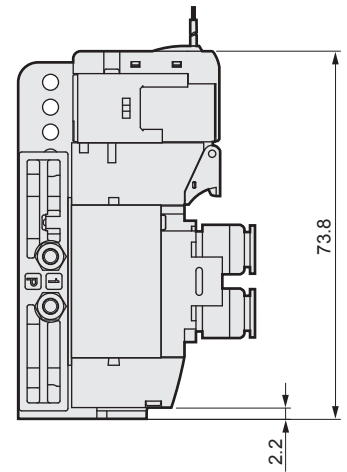
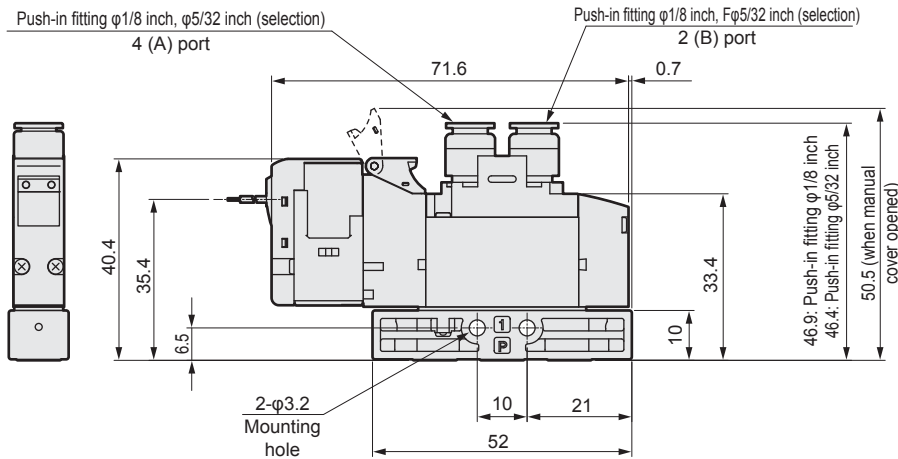
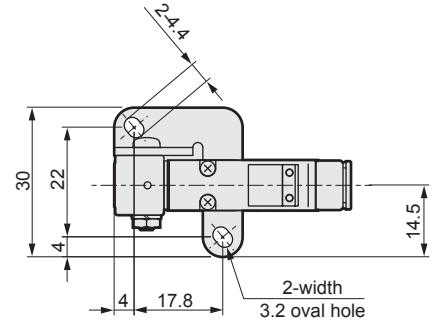
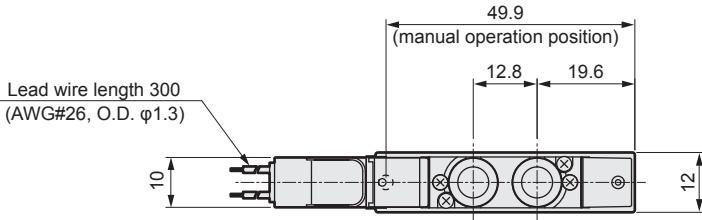
M4GD/E

MN4GD/E

Technical data

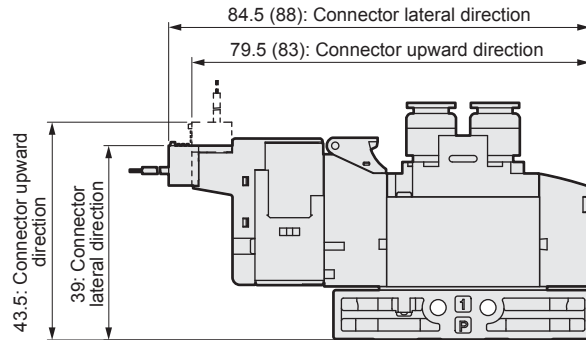
Safety
precautions

Manifold
Specifications



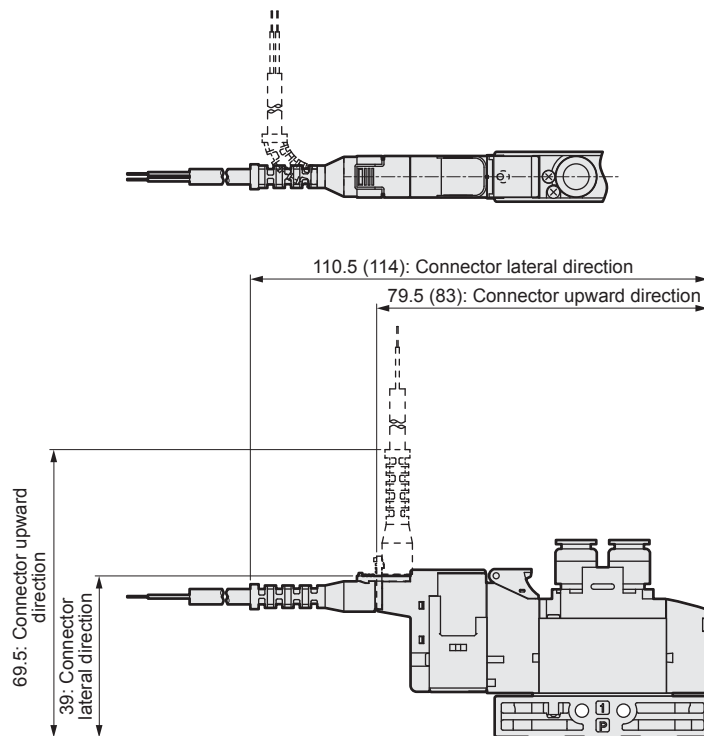
Dimensions Port size; NPT thread

- E type connector type (E)



Note: Values in () apply for 100 VAC

- EJ type connector type (E**J)



Note: Values in () apply for 100 VAC

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

3GA2 & 4GA2 Series

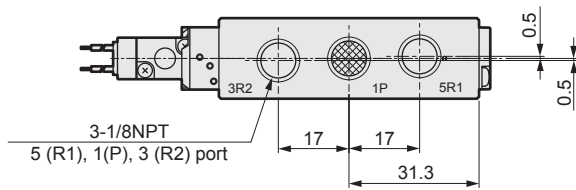
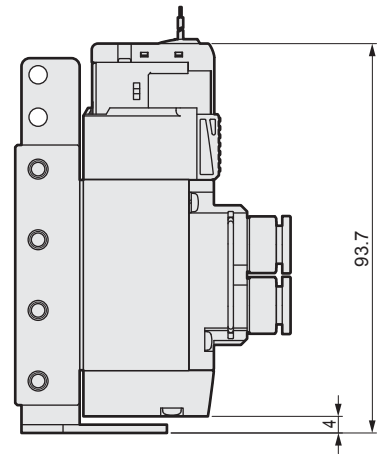
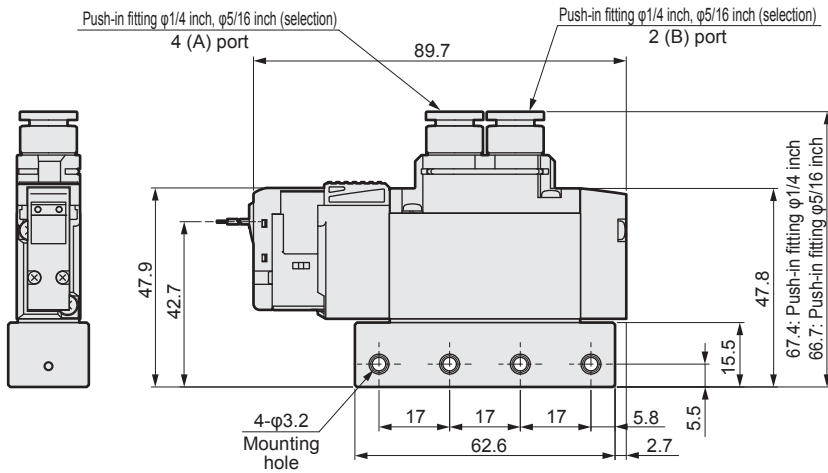
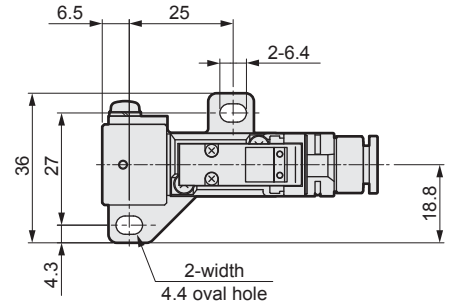
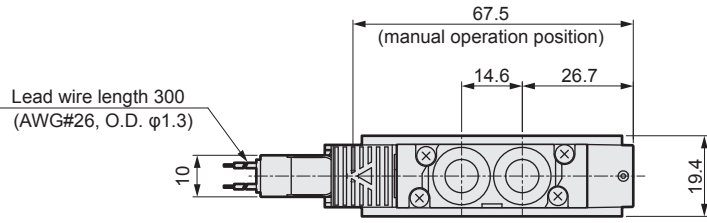
Discrete valve; body piping

Dimensions Port size; NPT thread

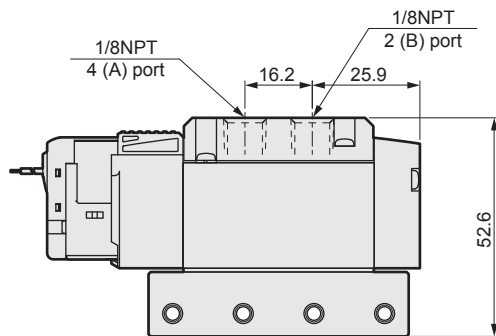
3GA2 1/8NPT, 4GA2 1/8NPT

● 2-position single grommet lead wire (blank)

● Mounting plate type (P)

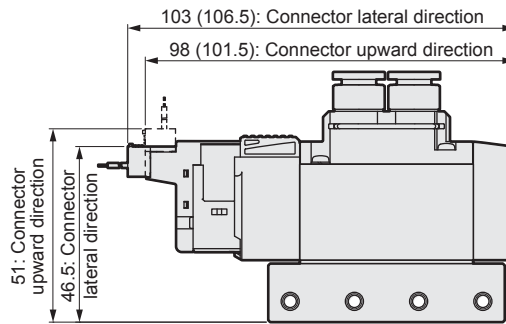


● 1/8NPT female thread type (06N)



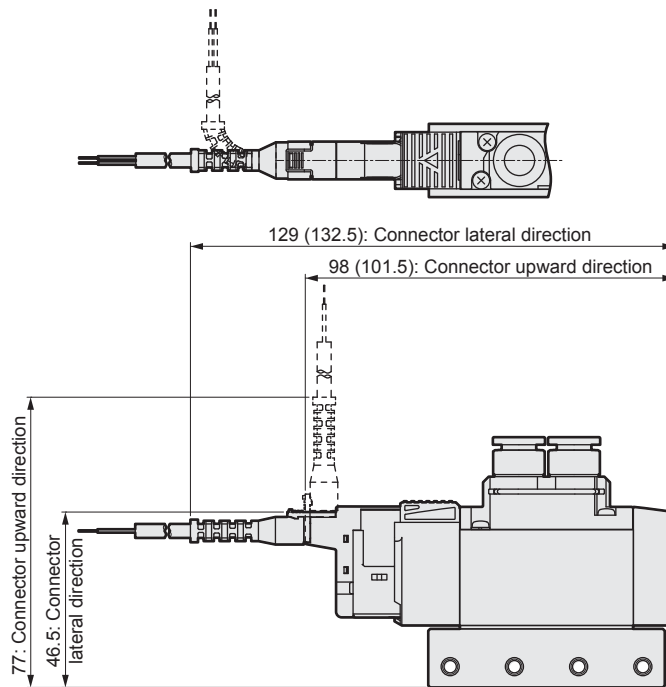
Dimensions Port size; NPT thread

● E type connector type (E)



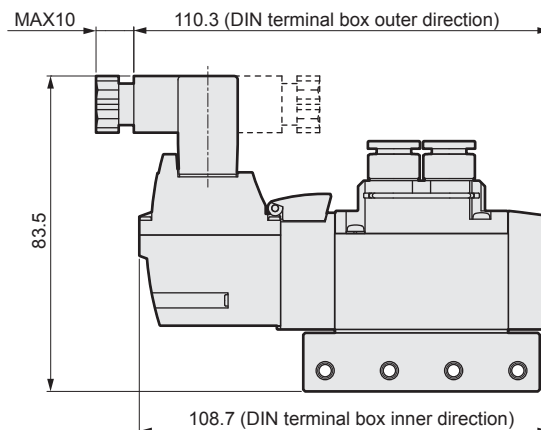
Note: Values in () apply for 100 VAC

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC

● DIN terminal box type (B)



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

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety precautions

Manifold Specifications

3GA3 & 4GA3 Series

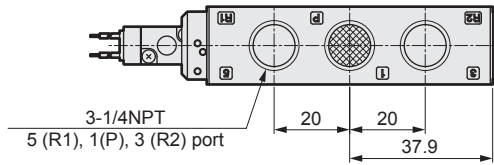
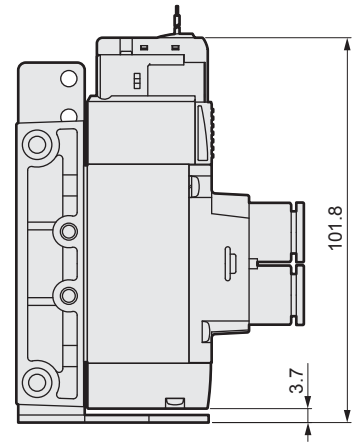
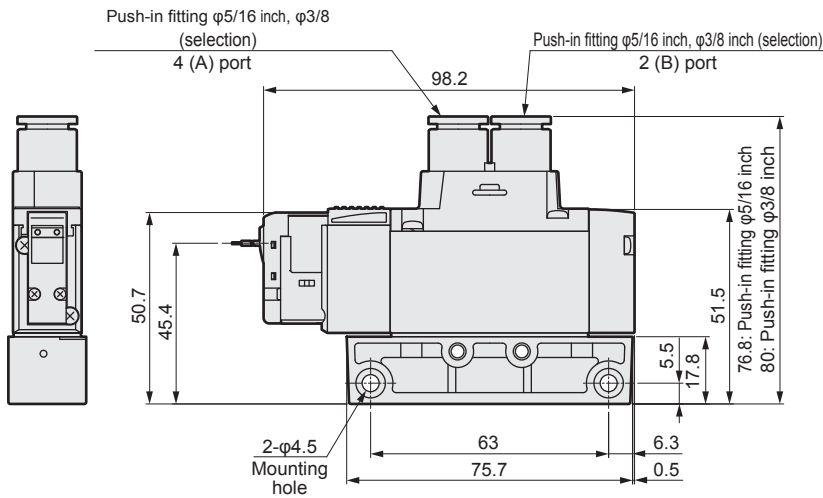
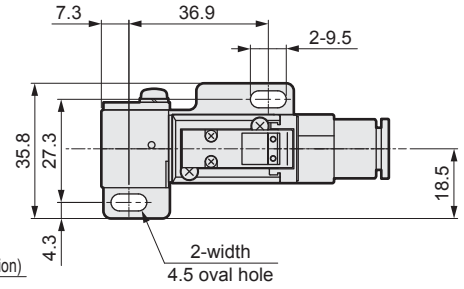
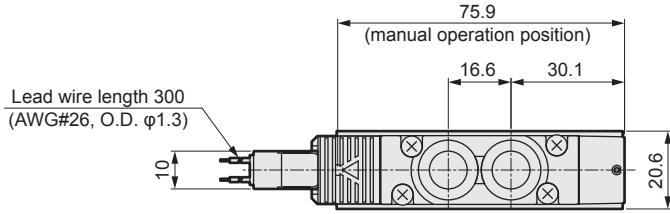
Discrete valve; body piping

Dimensions Port size; NPT thread

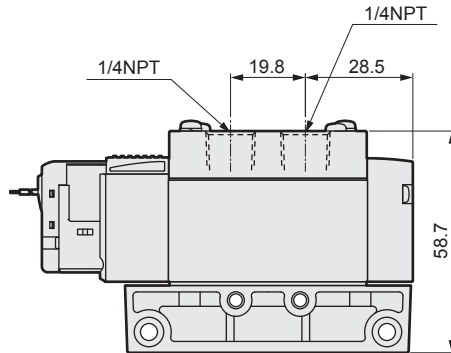
3GA3 1/4OR, 4GA3 1/4OR

- 2-position single grommet lead wire (blank)

- Mounting plate type (P)



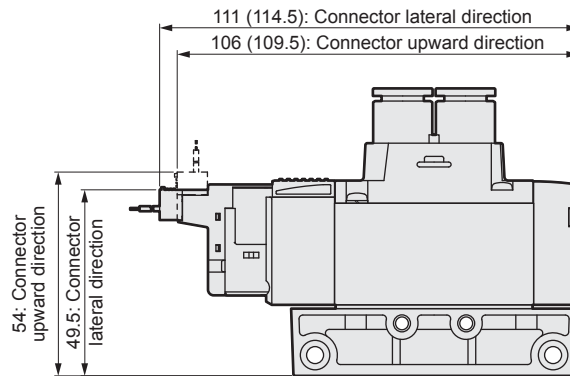
- 1/4NPT female thread type (08N)



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

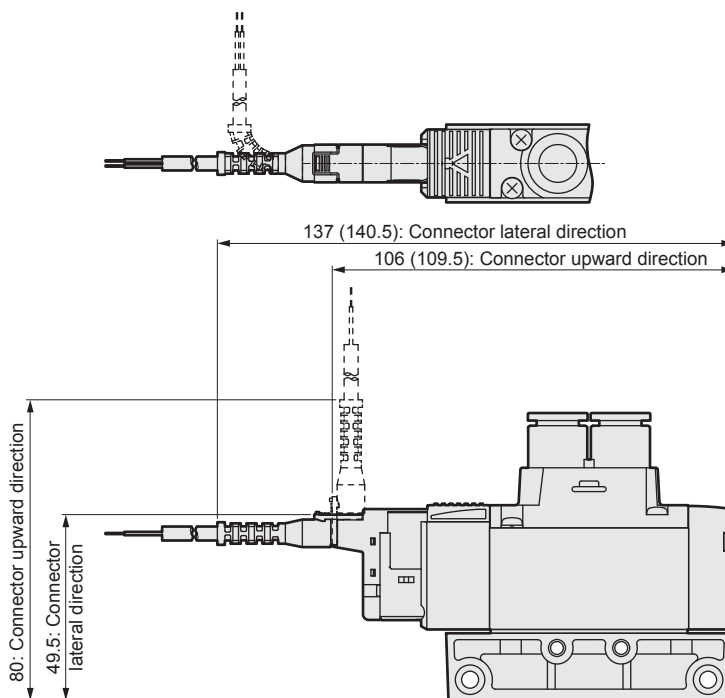
Dimensions Port size; NPT thread

● E type connector type (E)



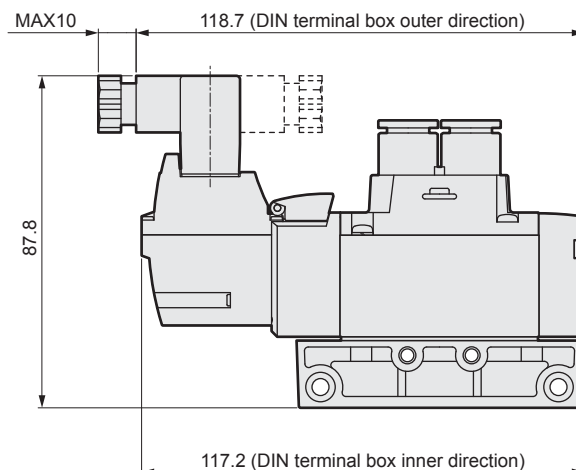
Note: Values in () apply for 100 VAC

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC

● DIN terminal box type (B)



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

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

3GA2 & 4GA2 Series

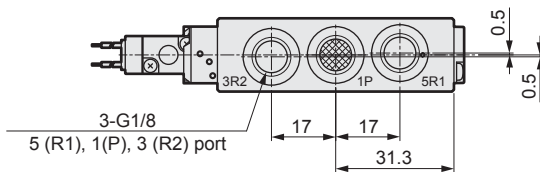
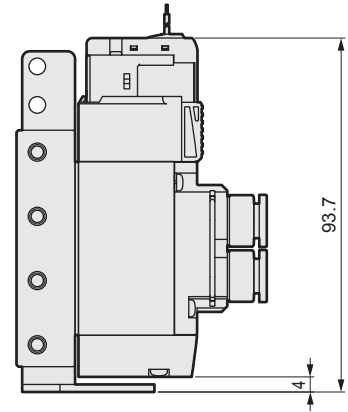
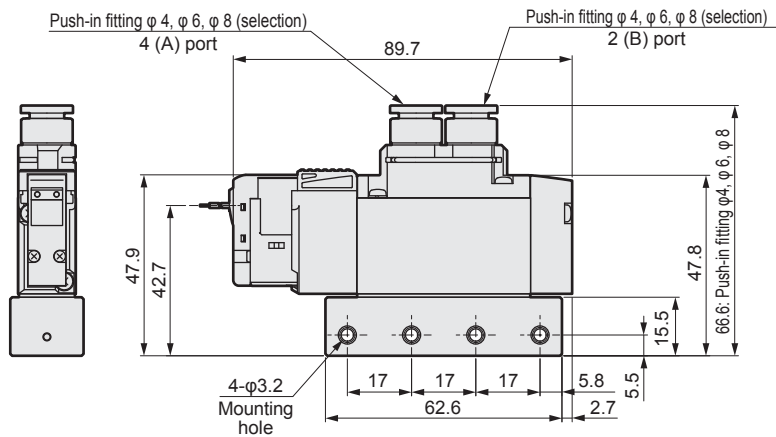
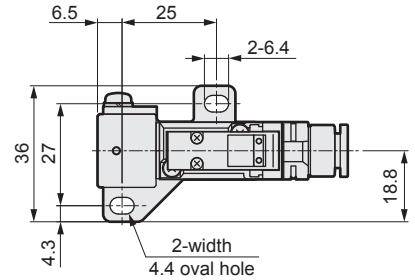
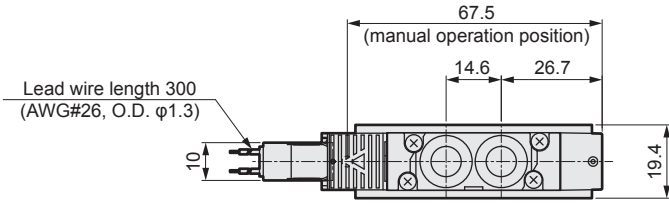
Discrete valve; body piping

Dimensions Port size; G thread

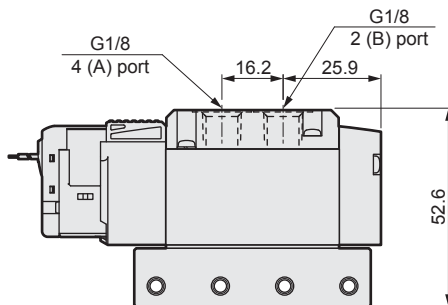
3GA2 10R, 4GA2 0R

- 2-position single
grommet lead wire (blank)

- Mounting plate type (P)



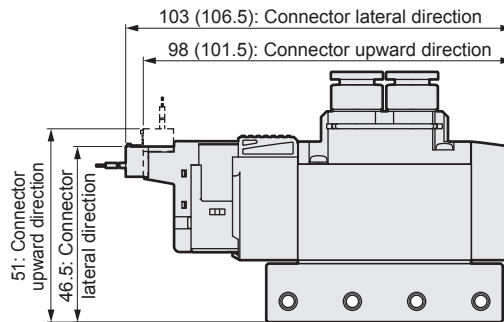
- G1/8 female thread type (06G)



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

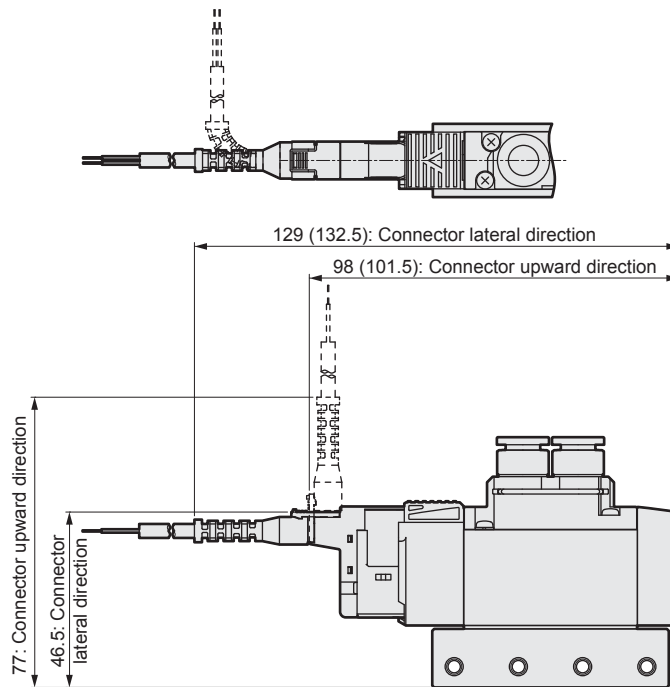
Dimensions Port size; G thread

● E type connector type (E)



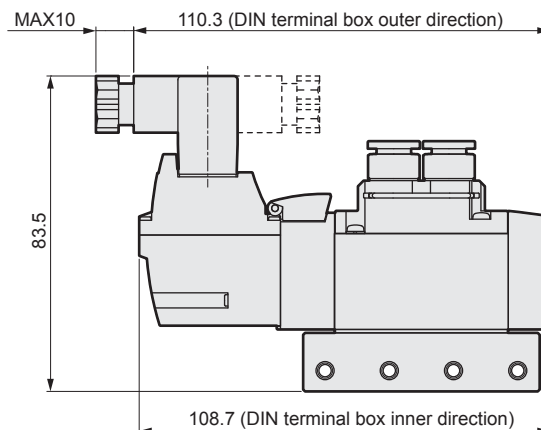
Note: Values in () apply for 100 VAC

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC

● DIN terminal box type (B)



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

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

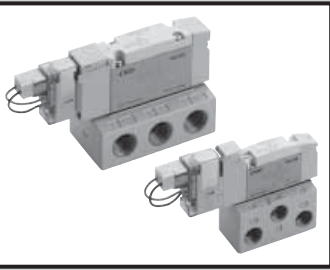
M4GD/E

MN4GD/E

Technical data

Safety precautions

Manifold Specifications



Discrete valve
Base piping

3GB1, 2 & 4GB1, 2, 3 Series

● Applicable cylinder bore size: $\phi 20$ to $\phi 100$

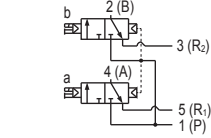


Refer to Ending for details.

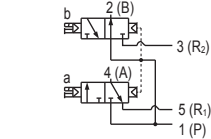


JIS symbol

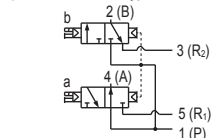
- Dual 3 port valve integrated type
(A side valve: N.C. type, B side valve: N.C. type)



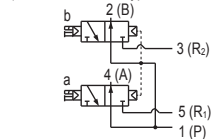
(A side valve: N.C. type, B side valve: N.O. type)



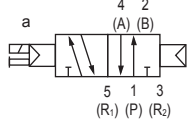
(A side valve: N.O. type, B side valve: N.C. type)



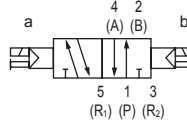
(A side valve: N.O. type, B side valve: N.O. type)



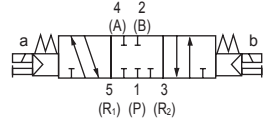
- 5 port valve
2-position single



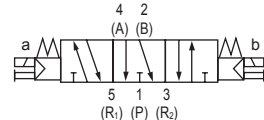
2-position double



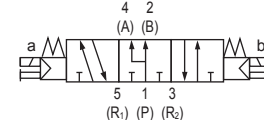
3-position
all ports closed



3-position A/B/R connection



3-position P/A/B connection



Common specifications

Descriptions		
Valve type and operation	Pilot operated soft spool valve	
Working fluid	Compressed air	
Max. working pressure MPa	0.7	
Min. working pressure MPa	0.2 (Note 3)	
Proof pressure MPa	1.05	
Ambient temperature °C	-5 to 55 (no freezing)	
Fluid temperature °C	5 to 55	
Manual operating device	Non-locking/locking common type (standard)	
Pilot exhaust method	Internal pilot	Main valve/pilot valve common exhaust type
	External pilot	Main valve/pilot valve individual exhaust type
Lubrication	Note 1 Not required	
Degree of protection	Note 2 Dust proof	
Vibration resistance m/s ²	50 or less	
Shock resistance m/s ²	300 or less	
Atmosphere	Containing corrosive gas is not permissible	

Note 1 Use the turbine oil Class 1 ISO VG32 if lubricated. Excessive or intermittent lubrication results in unstable operation.

Note 2 Avoid water drops or oil, etc. during use. IP65 (jet-proof type) applies for DIN terminal box specifications. Note that the specified adaptive cord outer diameter and tightening torque must be used for fixing.

Note 3 The working pressure range is 0 to 0.7 MPa when the external pilot (option symbol: K) is selected. Set the external pilot pressure between 0.2 and 0.7 MPa.

Electric specifications

Descriptions							
Rated voltage		24 VDC	12 VDC	5 VDC	3 VDC	100 VAC	200 VAC
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)
	(Note 4) With low heat energy-saving circuit	0.005	0.010	-	-	-	-
Power consumption W	Standard	0.35 (0.40)		0.35 (0.40)		-	
	(Note 4) With low heat energy-saving circuit	0.1		-		-	
Apparent power VA (Note 4) (Note 5)	Standard	-		-		0.93 (0.98)	1.26
Thermal class		B					
Surge suppressor		Option					
Indicator		Light (option)					

Note 4 Values in () apply when a light is attached. In addition, the low heat energy-saving circuits only have a light attached.

Note 5 200 VAC is the DIN terminal box (with light) value.

Individual specifications

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

Note 5: This is a available consult factory order.

Descriptions			3GB1 & 4GB1		3GB2 & 4GB2		4GB3		
			ON	OFF	ON	OFF	ON	OFF	
Response time	ms	Dual 3 port valve integrated type	9	12	12	29	-	-	
		2-position	Single	12	12	19	19	25	28
			Double	9	-	18	-	24	-
		3-position ABR connection	8	15	17	30	23	45	

Values including a light surge suppressor. The response time is the value at 0.5 MPa supply pressure, 20°C, with no lubrication. It varies depending on the pressure and the lubricant quality.

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

• Values in () do not include a discrete sub-plate. Values for E type connector include the socket assembly (with 300 mm lead wire).

For EJ type connector, add 16 g/connector to E type connector weight.

• The weight of dual 3 port valve integrated type is the same as that of 2-position double.

Flow characteristics

Model no.	Valve Position	P→A/B		A/B→R1/R2		
		C [dm ³ /(s·bar)]	b	C [dm ³ /(s·bar)]	b	
3GB1 4GB1	Dual 3 port valve integrated type	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	Dual 3 port valve integrated type	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

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

Ozone proof specifications / Cutting oil proof type specifications

Select the option "A" of (E) in how to order on page 56.

Clean room specifications (Catalog No. CB-033S)

- Particle generation preventing structure for use in clean rooms

** - Voltage - P7*

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

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

** - Voltage - P4

4G/A/B

M4G/A/B

MN4G/A/B

4G/A/B
Master valve

4G/D/E

M4G/D/E

MN4G/D/E

Technical data

Safety
precautions

Manifold
Specifications

3GB1, 2 & 4GB1, 2, 3 Series

Discrete valve; base piping

How to order

4GB1 1 0 R - 06 - E2 - 3

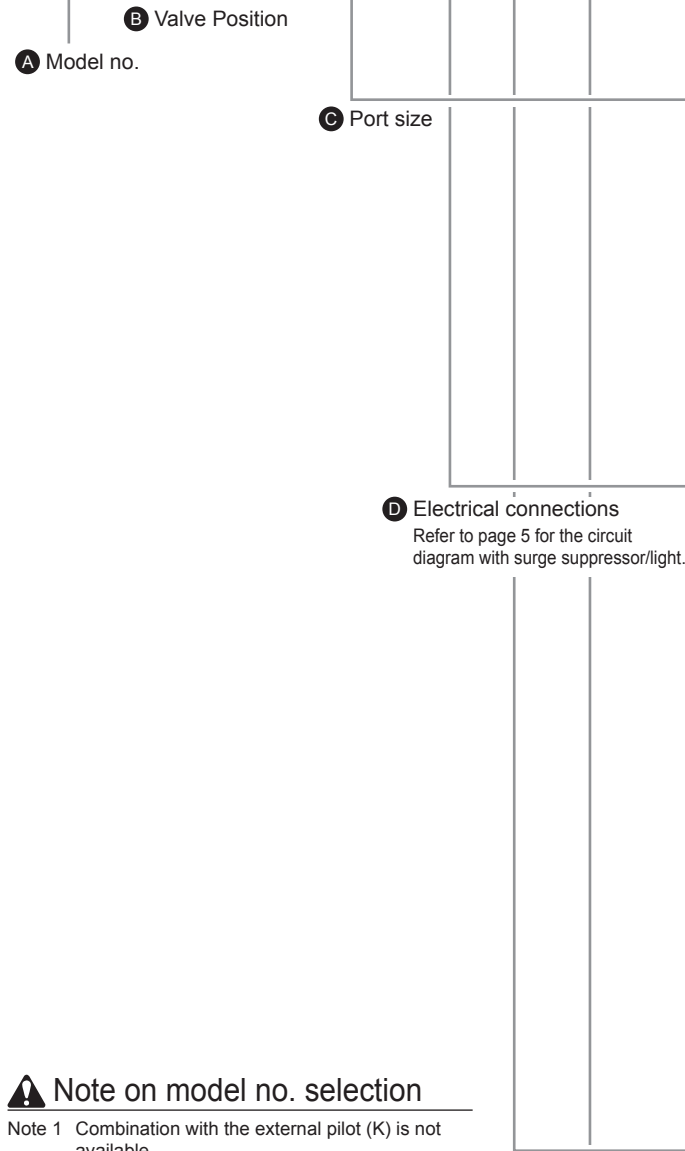
3GB1 66 0 R - 06 - E2 - 3

Discrete valve for mounting base

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

3 port discrete valve for mounting base

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



Note on model no. selection

- Note 1 Combination with the external pilot (K) is not available. Dimensions are the same as the respective 2-position double.
- Note 2 Available consult factory order.
- Note 3 3-position all ports closed and PAB connection are not provided with check valve. Refer to page 628 for details on check valve.
- Note 4 Only the E2* type, E2* J type connector and 12/24 VDC are supported. In addition, the surgeless "S" and Low heat energy-saving circuit "E" cannot be selected at the same time.
- Note 5 This is surgeless specifications.
- Note 6 The P port has a filter built inside as a standard.
- Note 7 Only the DIN terminal box are supported.
- Note 8 Grommet lead wire specifications are only for DC voltage.
- Note 9 Supports AC voltage and 12/24 VDC. The light is also attached to the terminal box.
- Note 10 AC voltage comes with a rectifier circuit.

A Model No.

3GB1	3GB2	4GB1	4GB2	4GB3
------	------	------	------	------

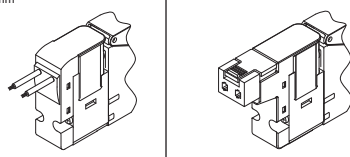
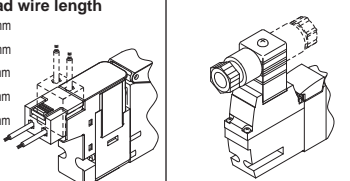
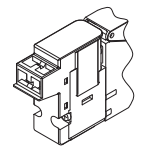
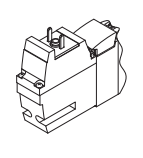
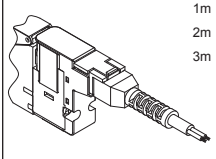
Symbol	Descriptions	3GB1	3GB2	4GB1	4GB2	4GB3
B Valve Position						
1	2-position single			●	●	●
2	2-position double			●	●	●
3	3-position all ports closed			●	●	●
4	3-position ABR connection			●	●	●
5	3-position PAB connection			●	●	●
66	Dual 3 port valve integrated type Note 1 A side valve: Normally closed B side valve: Normally closed	●	●			
67	Dual 3 port valve integrated type Note 1 A side valve: Normally closed B side valve: Normally closed	●	●			
76	Dual 3 port valve integrated type Note 1 A side valve: Normally open B side valve: Normally closed	●	●			
77	Dual 3 port valve integrated type Note 1 A side valve: Normally open B side valve: Normally open	●	●			
C Port size						
Port	4 (A)/2 (B)port	P/R1/R2 port (2) = Rc1/8 (3) = Rc1/4 (4) = 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/R2 port (5) = 1/8NPT (6) = 1/4NPT (7) = 3/8NPT				
06N	1/8NPT (Note 2)	(5)	(5)			
08N	1/4NPT (Note 2)		(6)	(6)	(6)	
10N	3/8NPT (Note 2)					(7)
Port	4 (A)/2 (B)port	P/R1/R2 port (8) = G1/8 (9) = G1/8				
06G	G1/8 (Note 2)	(8)	(8)			
08G	G1/4 (Note 2)		(9)	(9)	(9)	
00	Discrete valve for mounting base	●	●	●	●	●
D Electrical connections						
Blank	Grommet lead wire (300 mm) (Note 8)	●	●	●	●	●
B	DIN terminal box (Pg7) with surge suppressor/light (Note 9)		●		●	●
BN	DIN terminal box (Pg7) (without terminal box) with surge suppressor (Note 9)		●		●	●
E type connector (upward/lateral direction common)						
E0	Lead wire (300 mm) (Note 10)	●	●	●	●	●
E00	Lead wire (500 mm) (Note 10)	●	●	●	●	●
E01	Lead wire (1000 mm) (Note 10)	●	●	●	●	●
E02	Lead wire (2000 mm) (Note 10)	●	●	●	●	●
E03	Lead wire (3000 mm) (Note 10)	●	●	●	●	●
E0N	Without lead wire (without socket) (Note 10)	●	●	●	●	●
E1	Without lead wire (with socket/terminal) (Note 10)	●	●	●	●	●
E2	Lead wire (300 mm) with surge suppressor/light	●	●	●	●	●
E20	Lead wire (500 mm) with surge suppressor/light	●	●	●	●	●
E21	Lead wire (1000 mm) with surge suppressor/light	●	●	●	●	●
E22	Lead wire (2000 mm) with surge suppressor/light	●	●	●	●	●
E23	Lead wire (3000 mm) with surge suppressor/light	●	●	●	●	●
E2N	Without lead wire (without socket) with surge suppressor/light	●	●	●	●	●
E3	Without lead wire (with socket/terminal) with surge suppressor/light	●	●	●	●	●
EJ type connector (socket with cover, upward/lateral direction common)						
E01J	Lead wire (1000 mm) (Note 10)	●	●	●	●	●
E02J	Lead wire (2000 mm) (Note 10)	●	●	●	●	●
E03J	Lead wire (3000 mm) (Note 10)	●	●	●	●	●
E21J	Lead wire (1000 mm) with surge suppressor/light	●	●	●	●	●
E22J	Lead wire (2000 mm) with surge suppressor/light	●	●	●	●	●
E23J	Lead wire (3000 mm) with surge suppressor/light	●	●	●	●	●
F Option						
Blank	Non-locking/locking common manual override	●	●	●	●	●
M	Non-locking manual override	●	●	●	●	●
H	With check valve (Note 3)	●	●	●	●	●
K	External pilot			●	●	●
A	Ozone/cutting oil proof	●	●	●	●	●
S	Surgeless (Note 4)	●	●	●	●	●
E	Low heat and energy saving circuit (Note 4), (Note 5)	●	●	●	●	●
F	A/B port filter integrated (Note 6)	●	●	●	●	●
F Voltage						
1	100 VAC (rectifier integrated)	●	●	●	●	●
2	200 VAC (rectified integrated) (Note 7)		●		●	●
3	24 VDC	●	●	●	●	●
4	12 VDC	●	●	●	●	●
7	3 VDC	○	○	○	○	○
8	5 VDC	○	○	○	○	○

is not available.

○ Contact CKD for price and availability.

3GB1, 2 & 4GB1, 2, 3 Series

Discrete valve; base piping

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

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

3GB1 & 4GB1 Series

Discrete valve; base piping

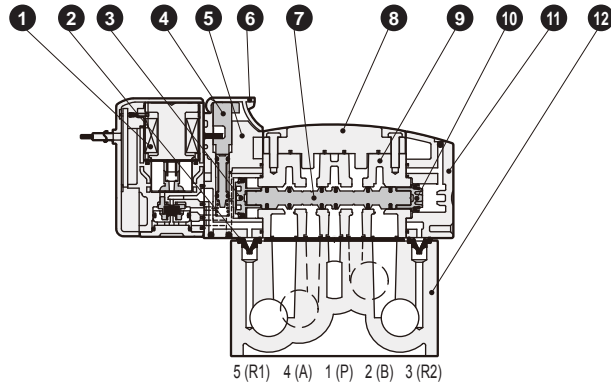
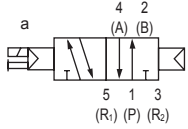
Internal structure and parts list

3GB1660R, 1670R, 1760R, 1770R

- Dual 3 port valve integrated type Refer to page 60.
- Grommet lead wire (blank)

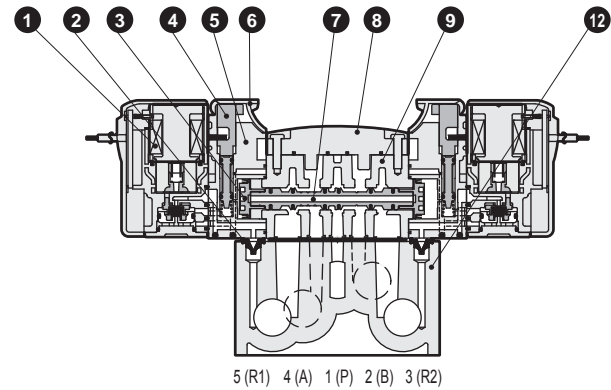
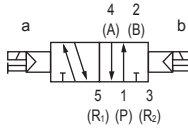
4GB110R

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



4GB120R

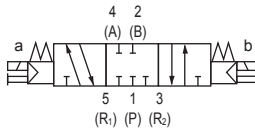
- 2-position double
- Grommet lead wire (blank)



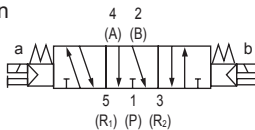
4GB1³/₄0R

- 3-position
- Grommet lead wire (blank)

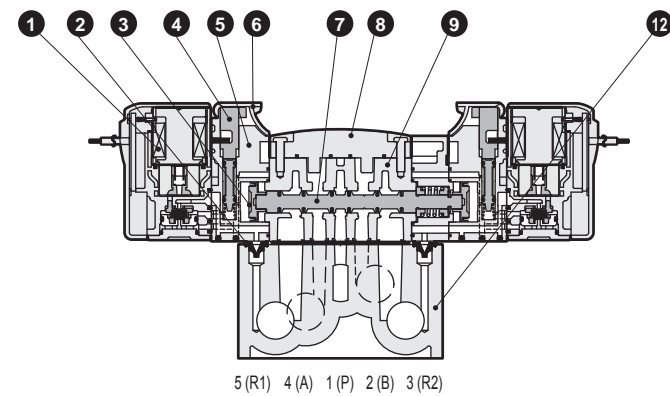
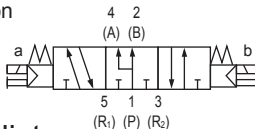
All ports closed



A/B/R connection



P/A/B Connection



Main parts list

No.	Parts name	Material
1	Coil assembly	-
2	Pilot exhaust check valve	Hydrogenated nitrile rubber, HNBR
3	Piston D assembly	-
4	Manual operating device	Plastic
5	Piston room	Plastic
6	Manual protection cover	Plastic
7	Spool assembly	-
8	Plate	Plastic
9	Body	Aluminum alloy die-casting
10	Piston S assembly	-
11	Cap	Plastic
12	Discrete sub-plate	Aluminum alloy die-casting

Parts list

No.	Parts name	Model no.							
1	Coil assembly	4GR - <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>Electrical connections</td> <td>-</td> <td>*</td> <td>-</td> <td>COIL</td> <td>-</td> <td>Voltage</td> </tr> </table>	Electrical connections	-	*	-	COIL	-	Voltage
Electrical connections	-	*	-	COIL	-	Voltage			
		Blank: Standard							
		A: Ozone specifications							
		Blank: Grommet lead wire							

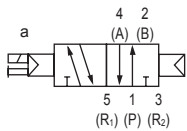
Internal structure and parts list

3GB2660R, 2670R, 2760R, 2770R

- Dual 3 port valve integrated type Refer to page 60.
- Grommet lead wire (blank)

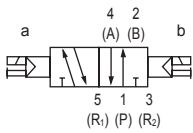
4GB210R & 4GB310R

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



4GB220R & 4GB320R

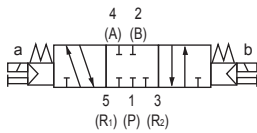
- 2-position double
- Grommet lead wire (blank)



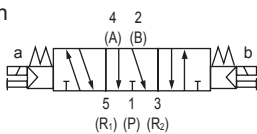
4GB2^{3/4}0R & 4GB3^{3/4}0R

- 3-position
- Grommet lead wire (blank)

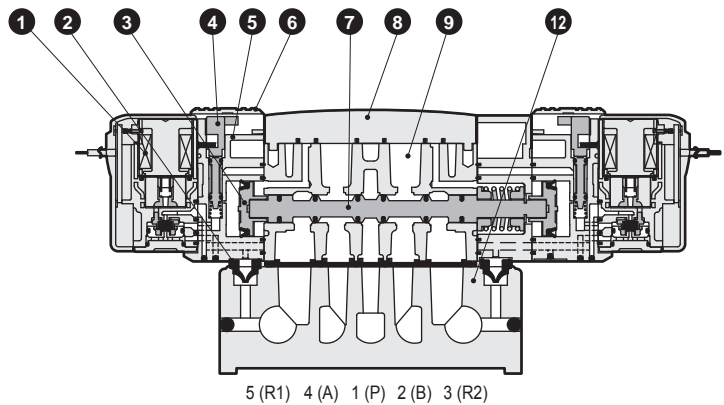
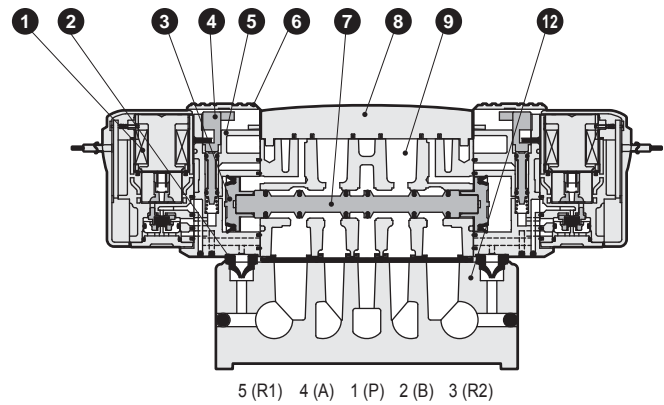
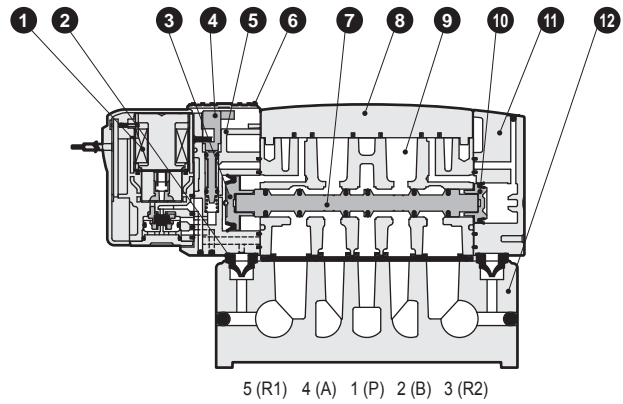
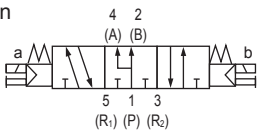
All ports closed



A/B/R connection



P/A/B Connection



Main parts list

No.	Parts name	Material
1	Coil assembly	-
2	Pilot exhaust check valve	Hydrogenated nitrile rubber, HNBR
3	Piston D assembly	-
4	Manual operating device	Plastic
5	Piston room	Plastic
6	Manual protection cover	Plastic
7	Spool assembly	-
8	Plate	Plastic
9	Body	Aluminum alloy die-casting
10	Piston S assembly	-
11	Cap	Plastic
12	Discrete sub-plate	Aluminum alloy die-casting

Parts list

No.	Parts name	Model no.							
1	Coil assembly	4GR - <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="padding: 2px;">Electrical connections</td> <td style="padding: 2px;">-</td> <td style="padding: 2px;">*</td> <td style="padding: 2px;">-</td> <td style="padding: 2px;">COIL</td> <td style="padding: 2px;">-</td> <td style="padding: 2px;">[Voltage]</td> </tr> </table>	Electrical connections	-	*	-	COIL	-	[Voltage]
Electrical connections	-	*	-	COIL	-	[Voltage]			

Blank: Standard
A: Ozone specifications
Blank: Grommet lead wire

4G/A/B

M4G/A/B

MN4G/A/B

4G/A/B
Master valve

4G/D/E

M4G/D/E

MN4G/D/E

Technical data

Safety
precautions

Manifold
Specifications

3GB1, 2 Series

Discrete valve; base piping

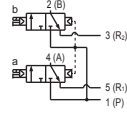
Internal structure and parts list

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

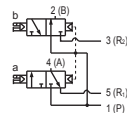
3GB1⁶⁶₆₇⁷⁶₇₇0R

- Dual 3 port valve integrated type
- Grommet lead wire (blank)

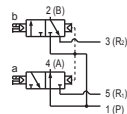
A side valve: Normally closed,
B side valve: Normally closed
NC/NC type



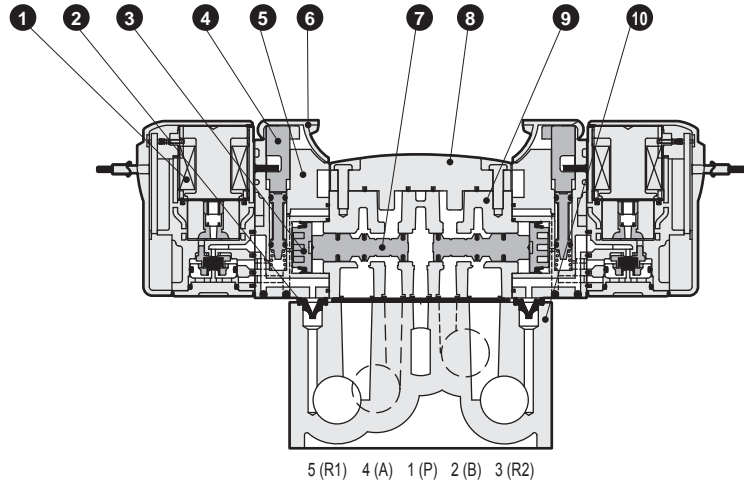
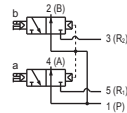
A side valve: Normally closed,
B side valve: Normally open
N.C./N.O. type



A side valve: Normally open,
B side valve: Normally open
N.O./N.C. type



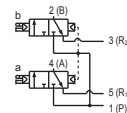
A side valve: Normally open,
B side valve: Normally open
N.O./N.O. type



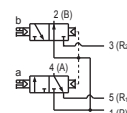
3GB2⁶⁶₆₇⁷⁶₇₇0R

- Dual 3 port valve integrated type
- Grommet lead wire (blank)

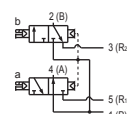
A side valve: Normally closed,
B side valve: Normally closed
NC/NC type



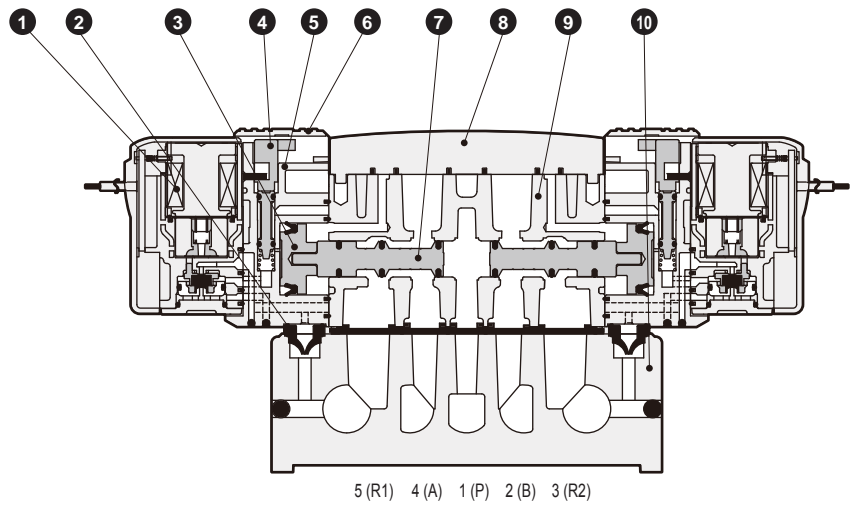
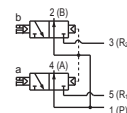
A side valve: Normally closed,
B side valve: Normally open
N.C./N.O. type



A side valve: Normally open,
B side valve: Normally closed
N.O./N.C. type



A side valve: Normally open,
B side valve: Normally open
N.O./N.O. type



Main parts list

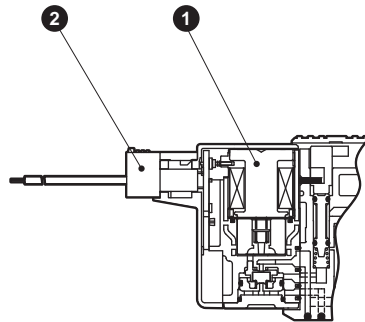
No.	Parts name	Material
1	Coil assembly	-
2	Pilot exhaust check valve	Hydrogenated nitrile rubber, HNBR
3	Piston assembly	-
4	Manual operating device	Plastic
5	Piston room	Plastic
6	Manual protection cover	Plastic
7	Spool assembly	-
8	Plate	Plastic
9	Body	Aluminum alloy die-casting
10	Discrete sub-plate	Aluminum alloy die-casting

Parts list

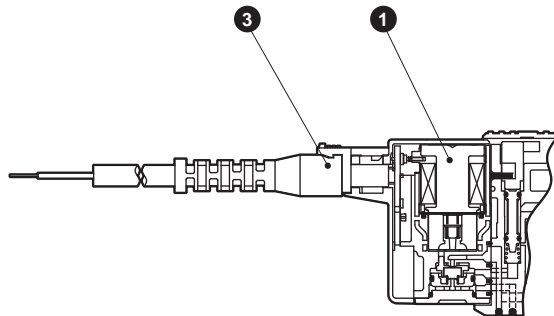
No.	Parts name	Model no.
1	Coil assembly	4GR - <input type="text" value="Electrical connections"/> - * - COIL - <input type="text" value="Voltage"/>
		Blank: Standard A: Ozone specifications Blank: Grommet lead wire

Electrical connections internal structure and parts list

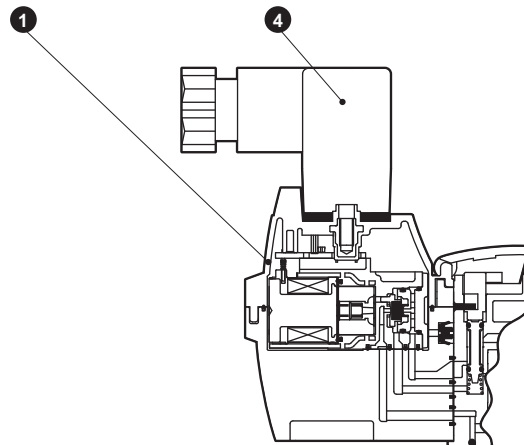
● E type connector type E**



● EJ type connector type E**J



● DIN terminal box type B



Main parts list

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

Parts list

No.	Parts name	Model no.
1	Coil assembly	4GR - Electrical connections - * - COIL - Voltage Blank: Standard A: Ozone specifications E* : E type connector type E*J: Socket with cover type B : DIN terminal box type B includes the DIN terminal box BN dose not include DIN terminal box
2	E type connector socket assembly	4GR - SOCKET - ASSY - E** - Voltage
3	Socket assembly with cover	4GR - SOCKET - ASSY - E**J
4	DIN terminal box assembly	4GR - TERMINAL - BOX - Voltage

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautionsManifold
Specifications

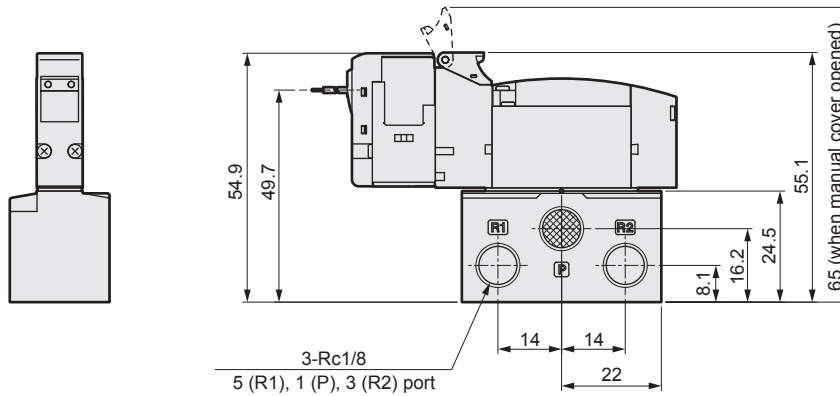
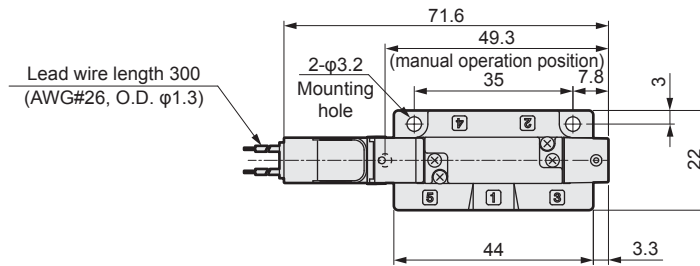
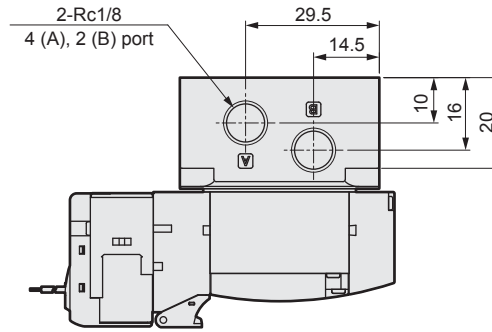
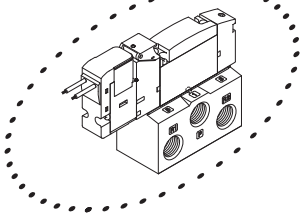
4GB1 Series

Discrete valve; base piping

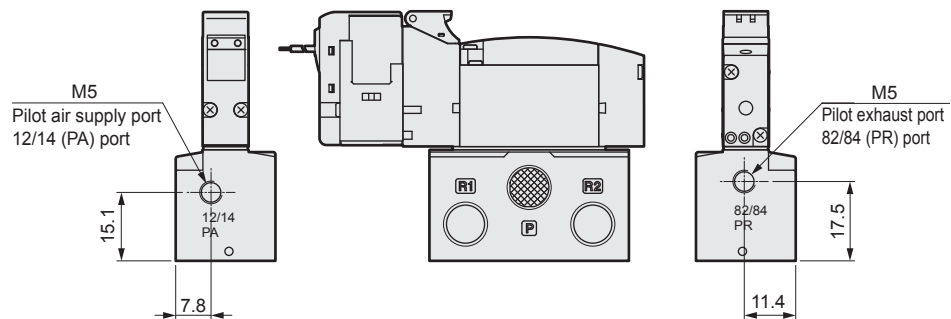
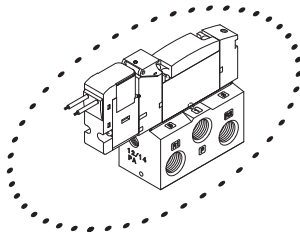
Dimensions 

4GB110R * Please refer to page 80 and page 89 for the NPT threads and G threads specifications.

- 2-position single grommet lead wire (blank)



- External pilot type (K)



4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

M4GD/E

MN4GD/E

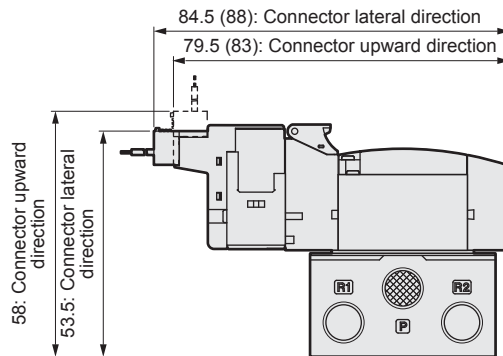
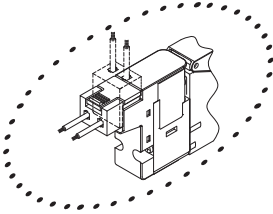
Technical data

Safety
precautions

Manifold
Specifications

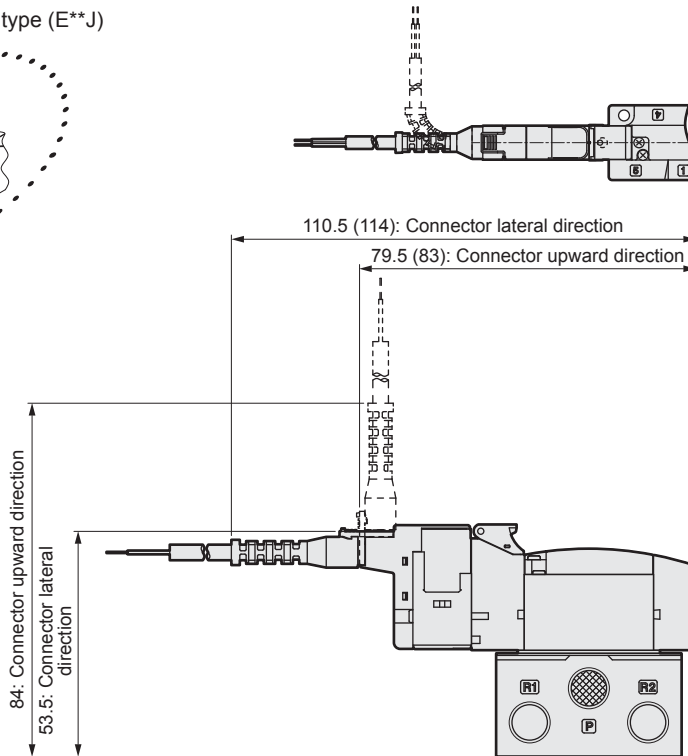
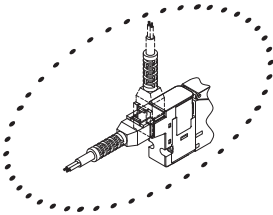
Dimensions

● E type connector type (E)



Note: Values in () apply for 100 VAC

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC

4GAB

M4GAB

MN4GAB

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

4GB1 Series

Discrete valve; base piping

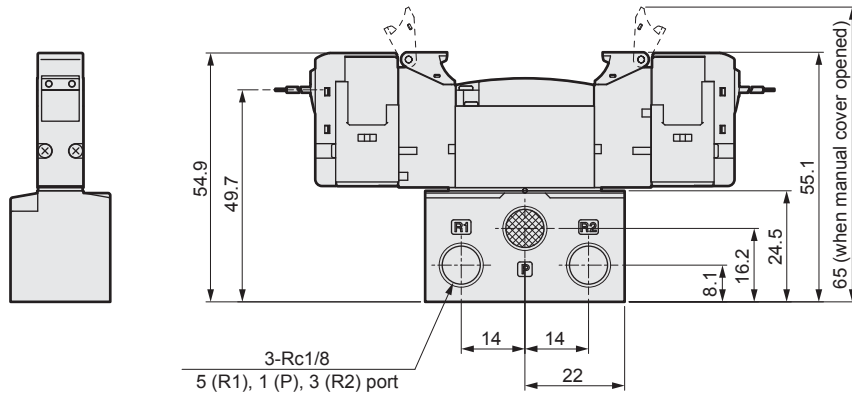
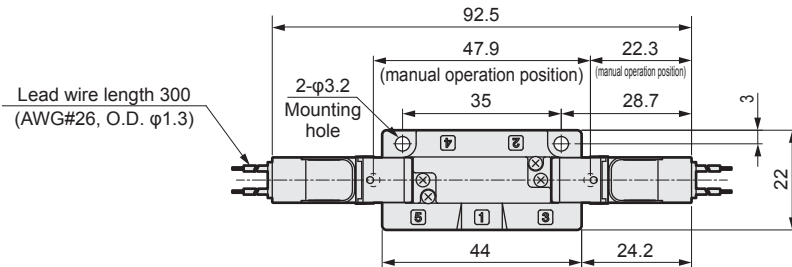
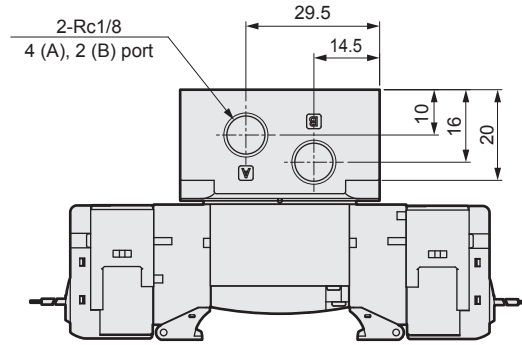
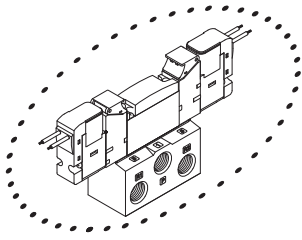
Dimensions 

4GB120R * Please refer to page 80 and page 89 for the NPT threads and G threads specifications.

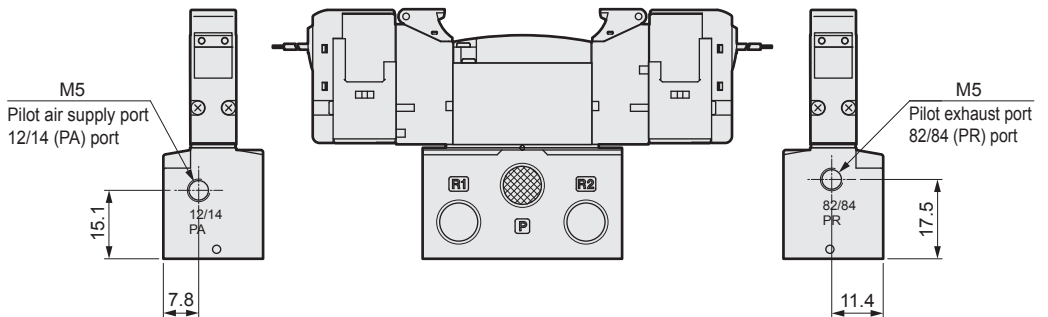
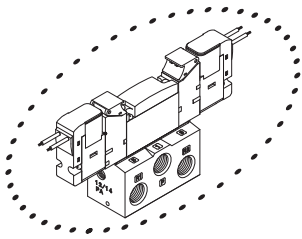
- 2-position double grommet lead wire (blank)

3GB1660R, 3GB1670R, 3GB1760R, 3GB1770R

- Dual 3 port valve integrated type grommet lead wire (blank)



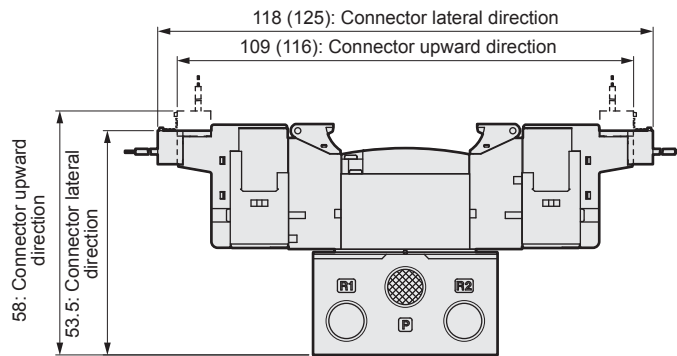
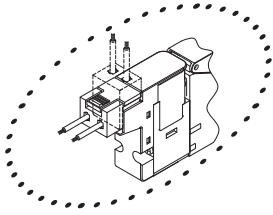
- External pilot type (K)



Note: Combination of dual 3 port valve integrated type and external pilot type is not available.

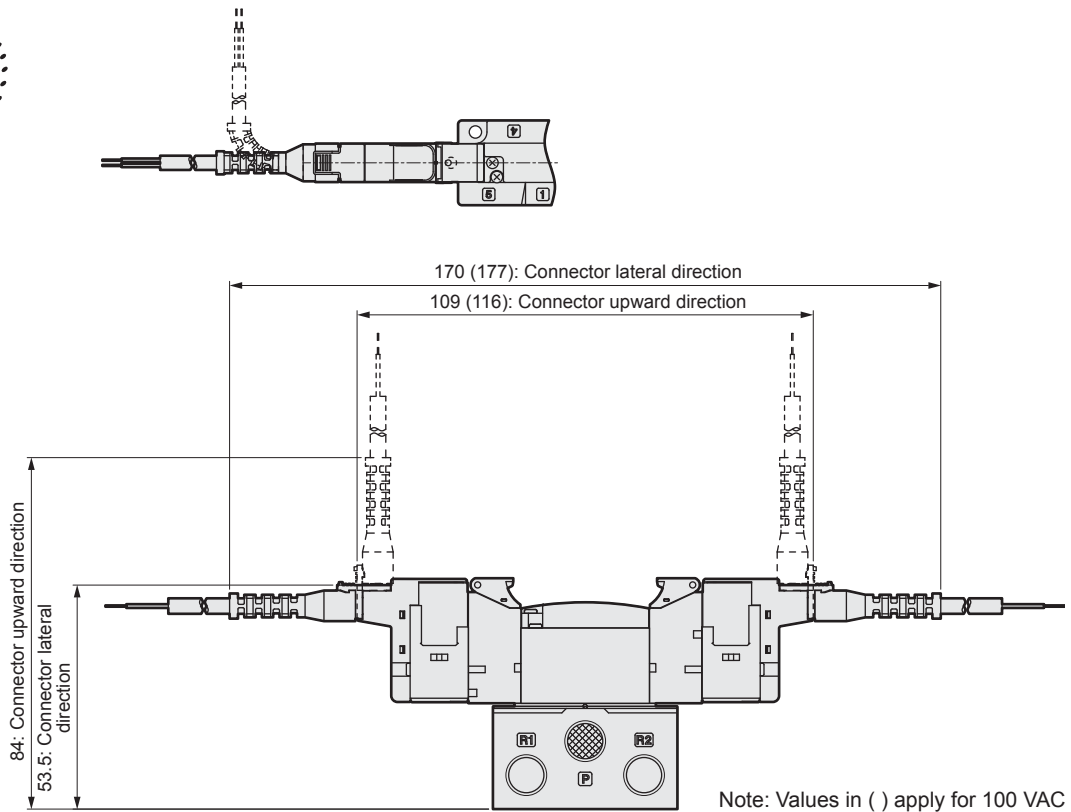
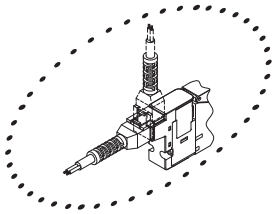
Dimensions

● E type connector type (E)



Note: Values in () apply for 100 VAC.

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC

4GAB

M4GAB

MN4GAB

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

4GB1 Series

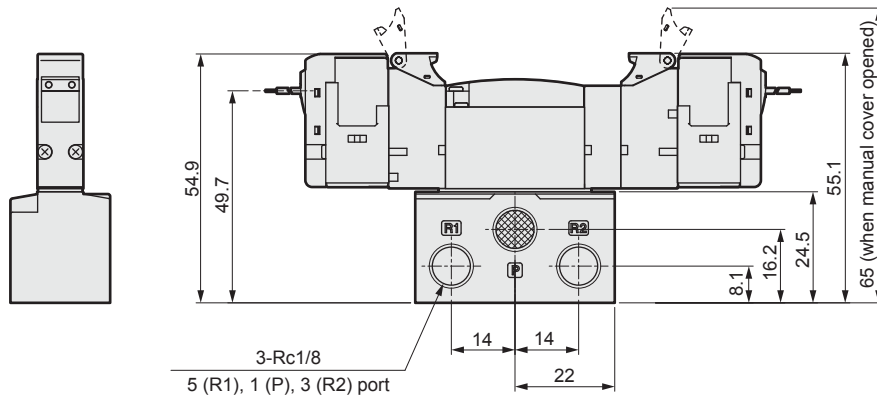
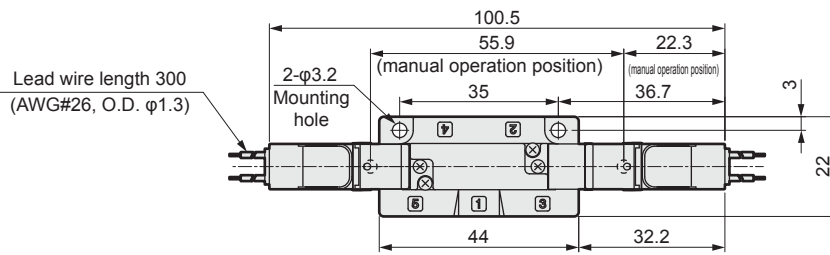
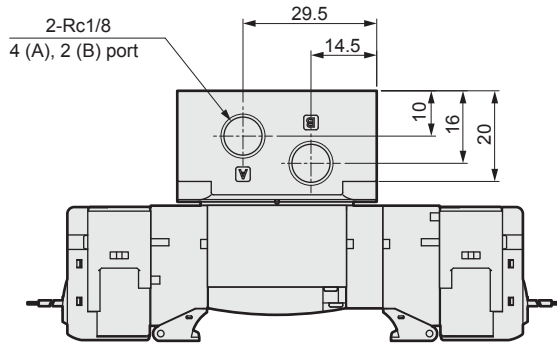
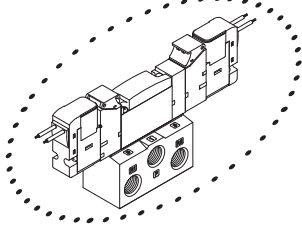
Discrete valve; base piping

Dimensions

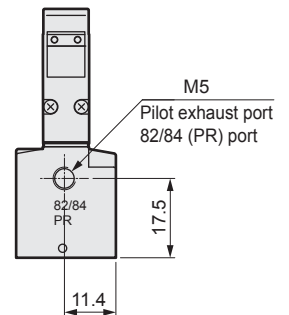
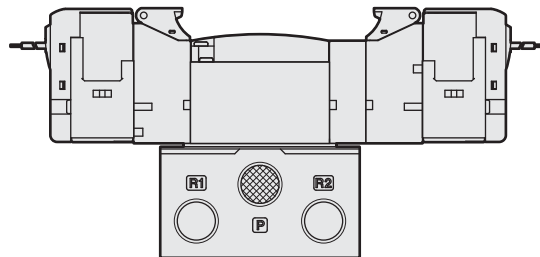
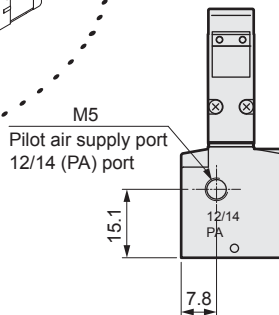
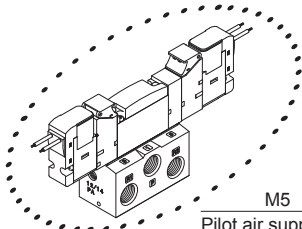


4GB1³/₄ 0R * Please refer to page 80 and page 89 for the NPT threads and G threads specifications.

- 3 position
Grommet lead wire (blank)

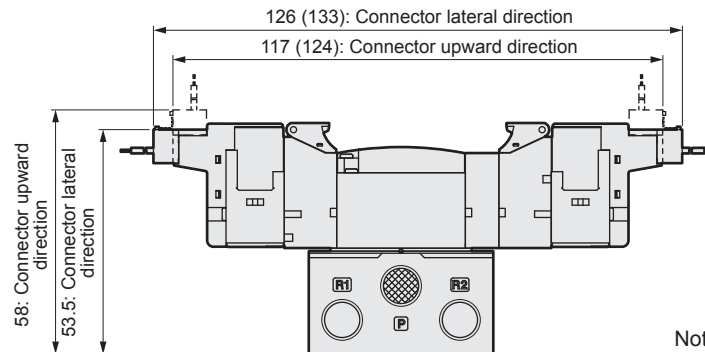
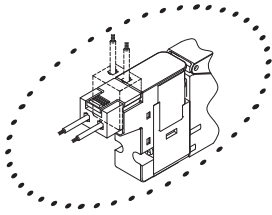


- External pilot type (K)



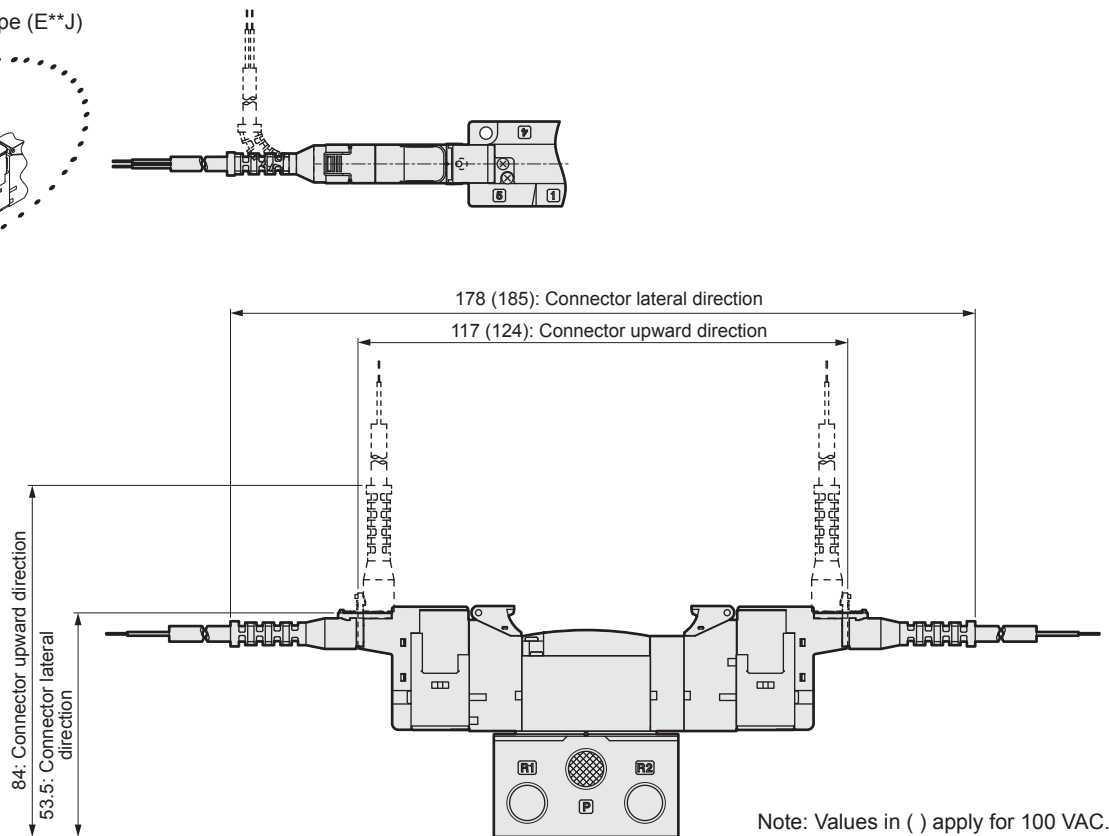
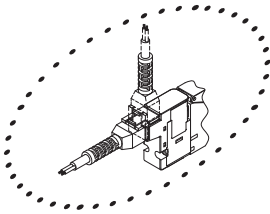
Dimensions

● E type connector type (E)



Note: Values in () apply for 100 VAC

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC.

4GAB

M4GAB

MN4GAB

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

4GB2 Series

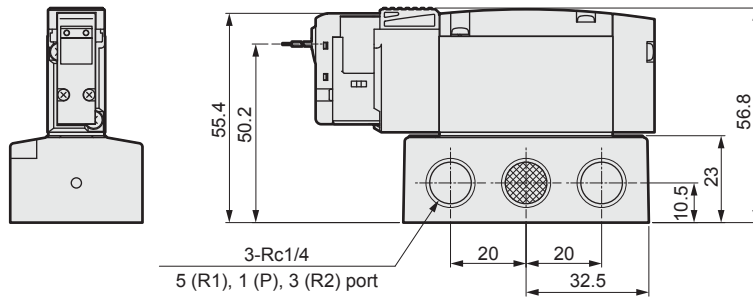
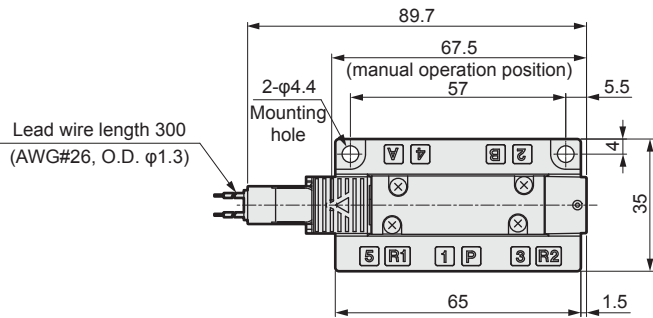
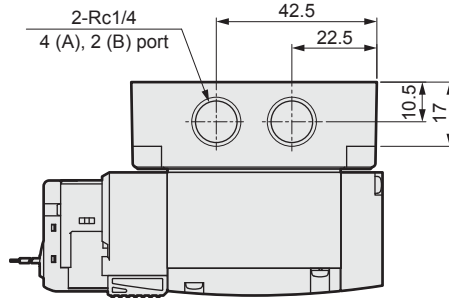
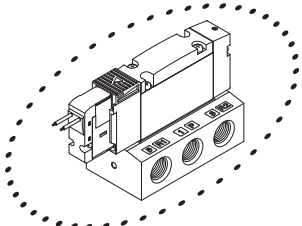
Discrete valve; base piping

Dimensions

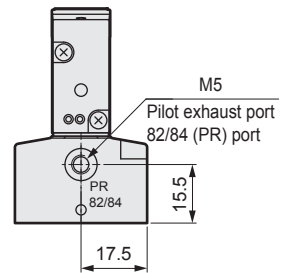
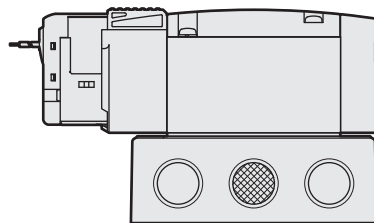
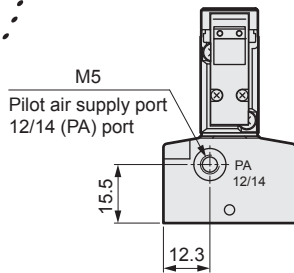
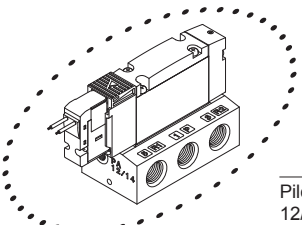


4GB210R * Please refer to page 80 and page 89 for the NPT threads and G threads specifications.

- 2-position single grommet lead wire (blank)



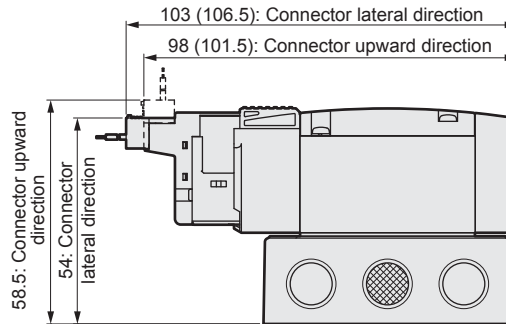
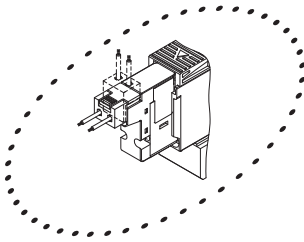
- External pilot type (K)



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

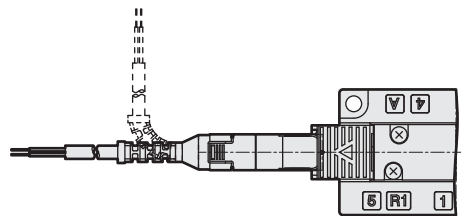
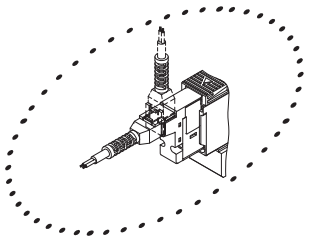
Dimensions

● E type connector type (E)

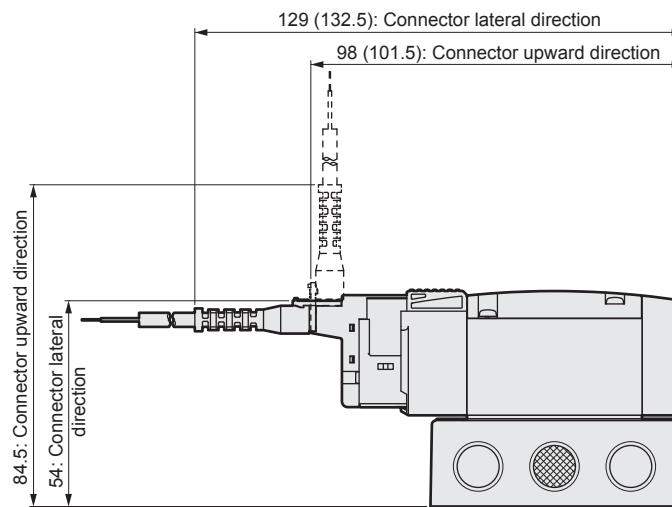


Note: Values in () apply for 100 VAC

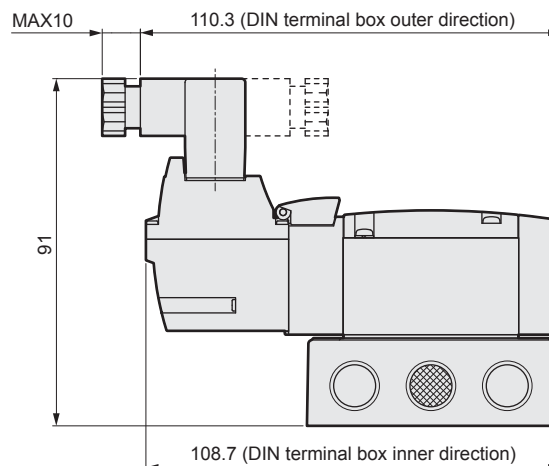
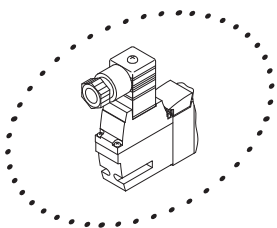
● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC



● DIN terminal box type (B)



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

4GAB

M4GAB

MN4GAB

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

4GB2 Series

Discrete valve; base piping

Dimensions

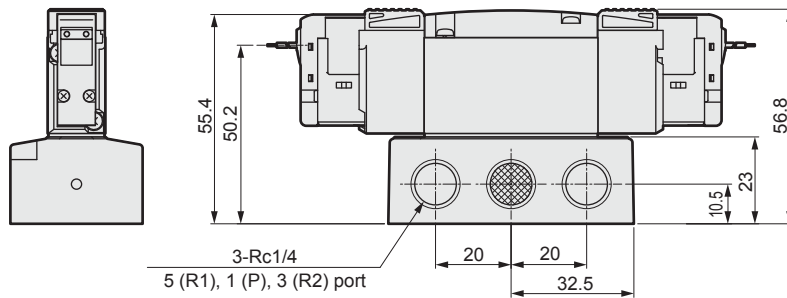
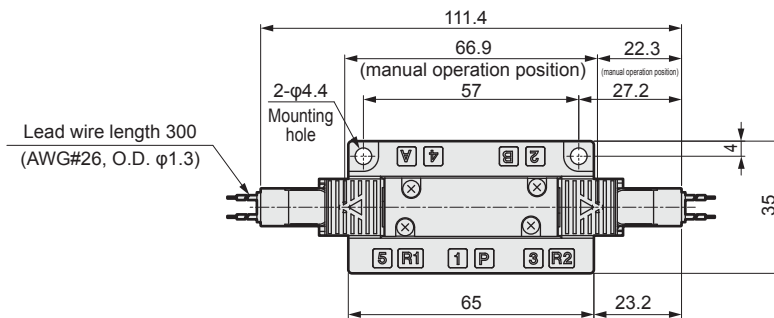
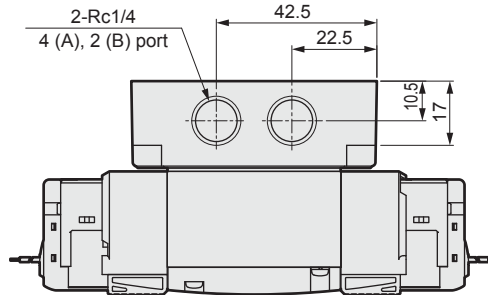
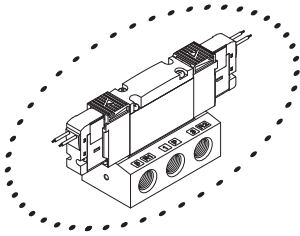


4GB220R * Please refer to page 80 and page 89 for the NPT threads and G threads specifications.

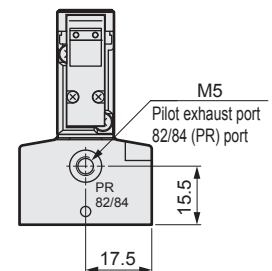
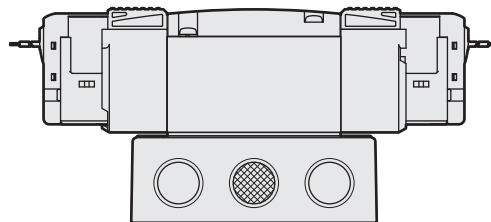
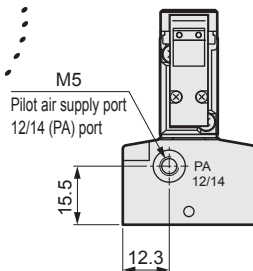
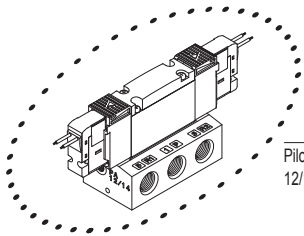
- 2-position double grommet lead wire (blank)

3GB2660R, 3GB2670R, 3GB2760R, 3GB2770R

- Dual 3 port valve integrated type grommet lead wire (blank)



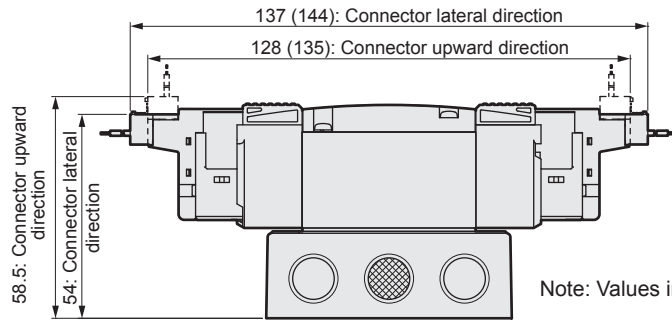
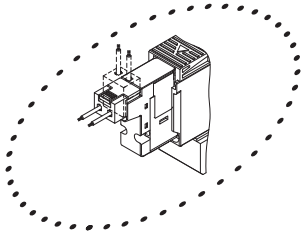
- External pilot type (K)



Note: Combination of dual 3 port valve integrated type and external pilot type is not available.

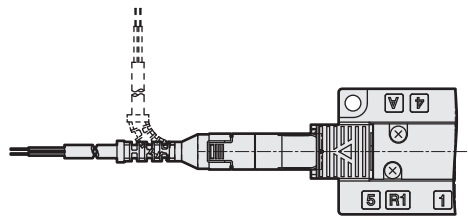
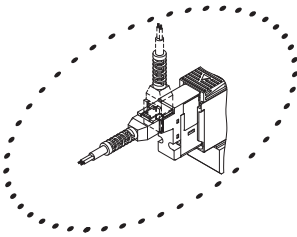
Dimensions

● E type connector type (E)

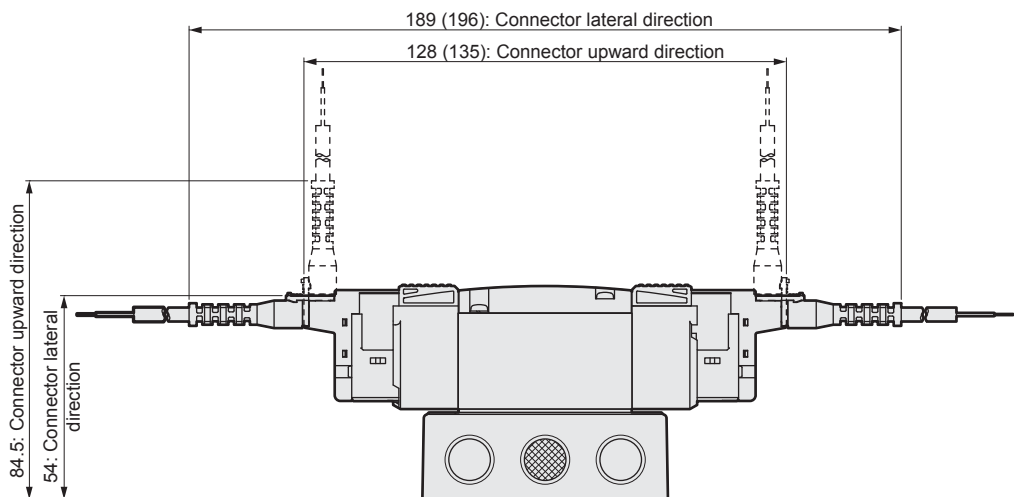


Note: Values in () apply for 100 VAC.

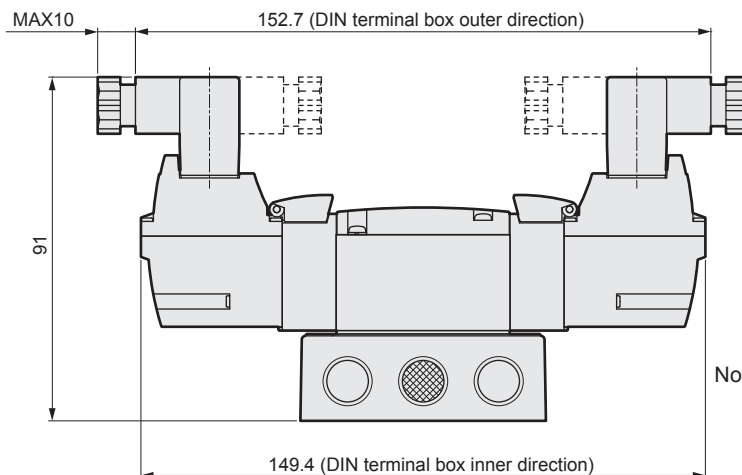
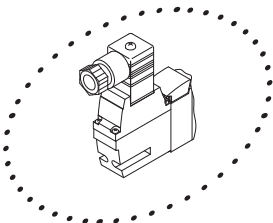
● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC.



● DIN terminal box type (B)



Note The DIN terminal box assembly is shipped facing inward.

4GAB

M4GAB

MN4GAB

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

4GB2 Series

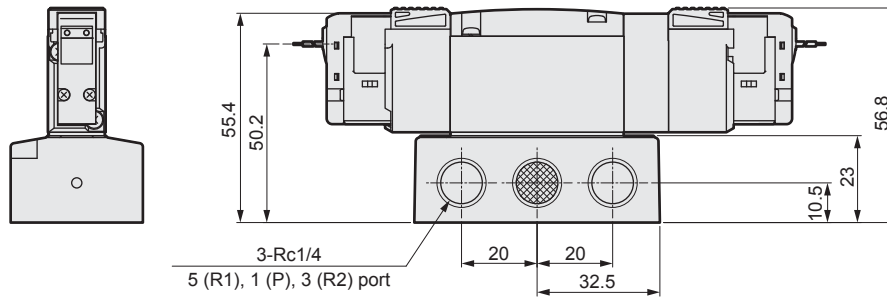
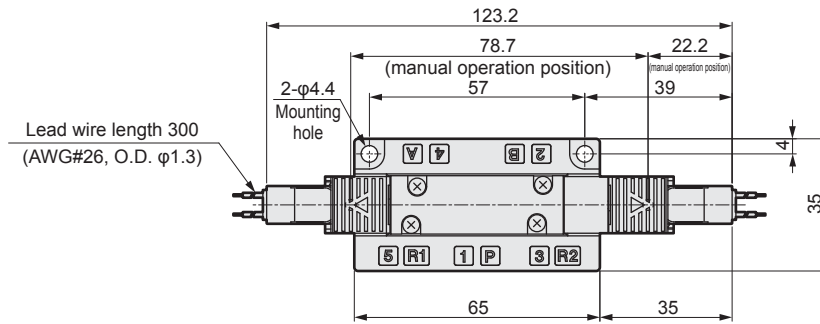
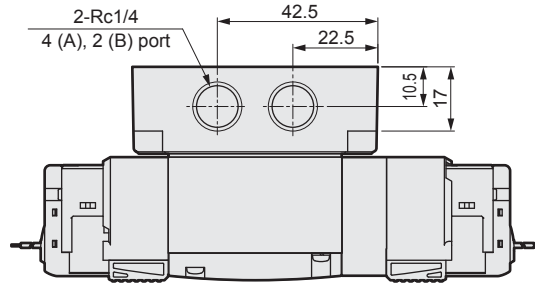
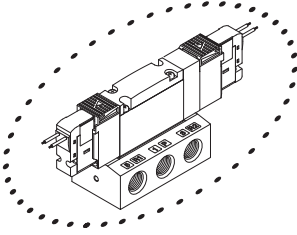
Discrete valve; base piping

Dimensions

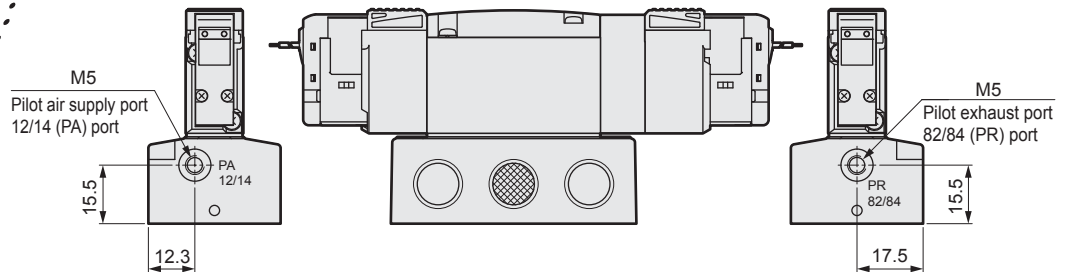
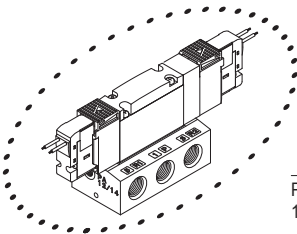


4GB2³_{5,4,3} 0R * Please refer to page 80 and page 89 for the NPT threads and G threads specifications.

- 3 position
Grommet lead wire (blank)



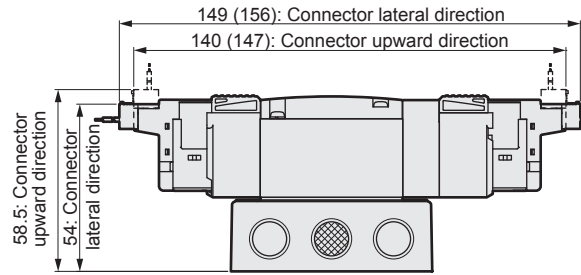
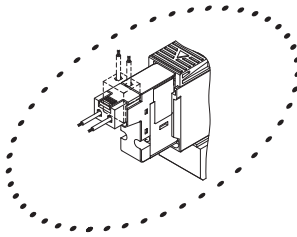
- External pilot type (K)



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

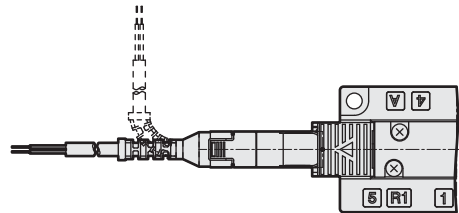
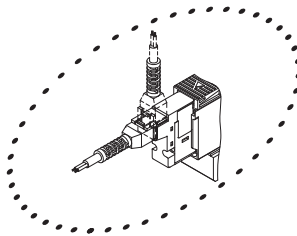
Dimensions

● E type connector type (E)

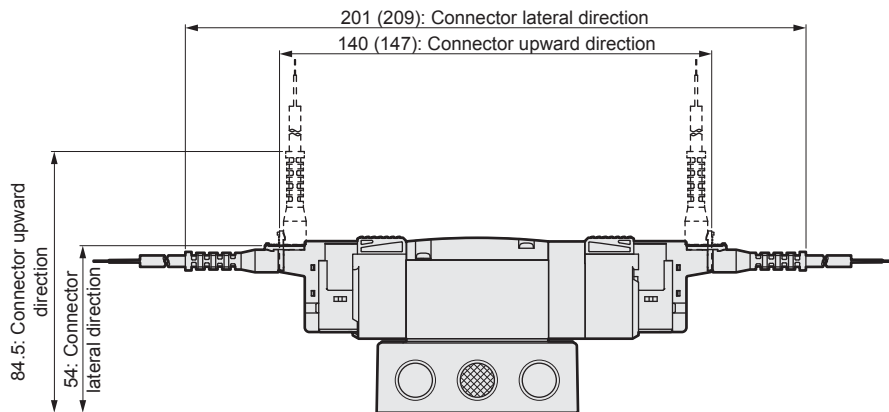


Note: Values in () apply for 100 VAC

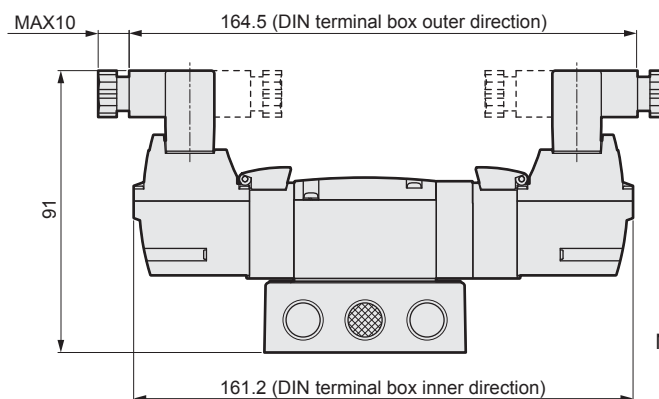
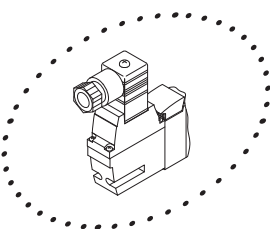
● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC



● DIN terminal box type (B)



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

4GAB

M4GAB

MN4GAB

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

4GB3 Series

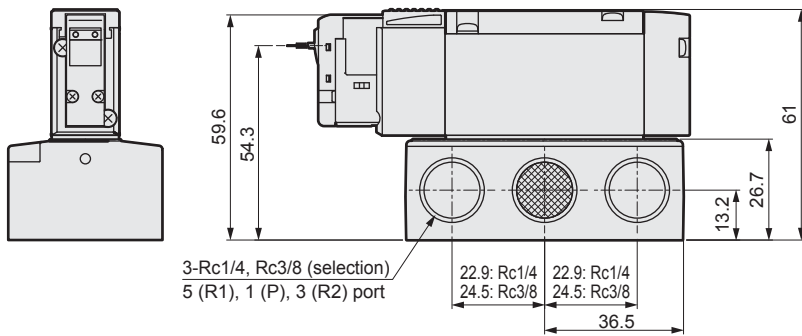
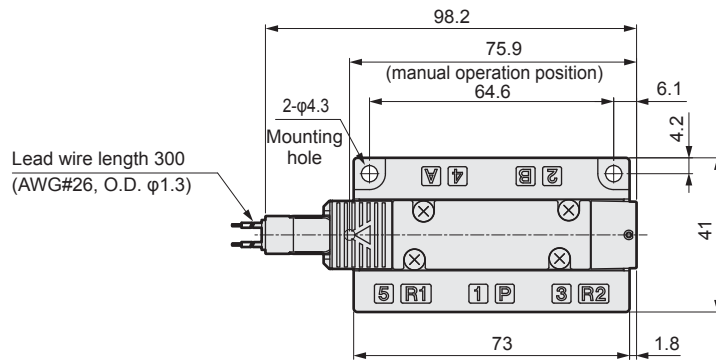
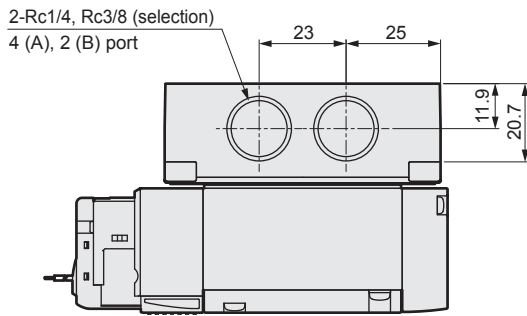
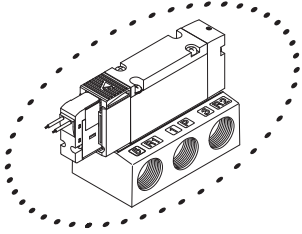
Discrete valve; base piping

Dimensions

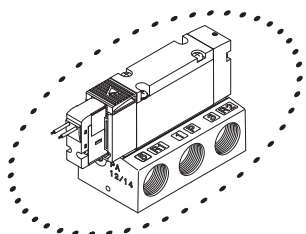


4GB310R * Please refer to page 80 and page 89 for the NPT threads and G threads specifications.

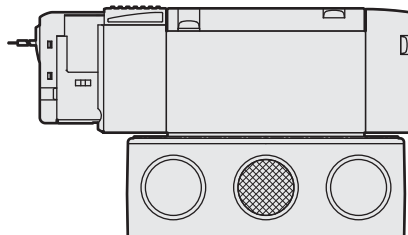
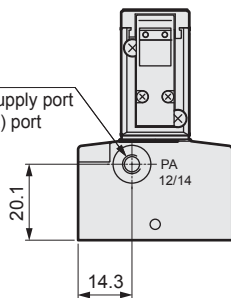
- 2-position single
Grommet lead wire (blank)



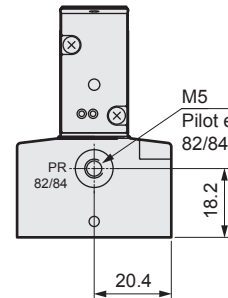
- External pilot type (K)



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

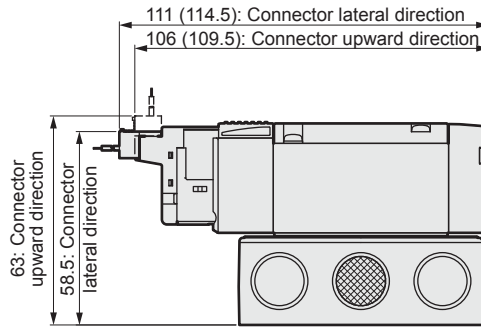
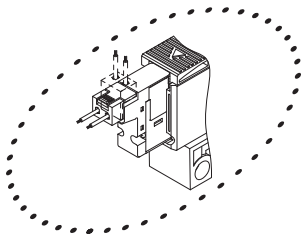


M5
Pilot exhaust port
82/84 (PR) port



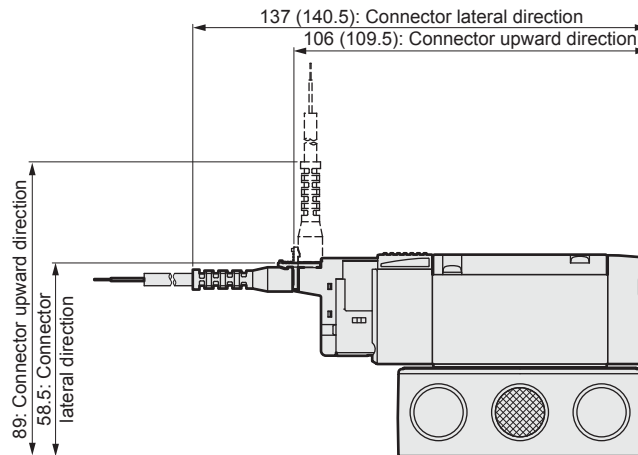
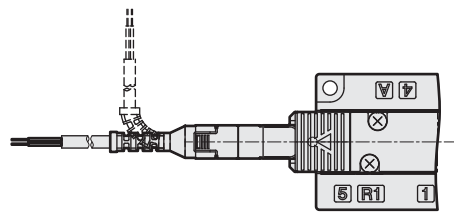
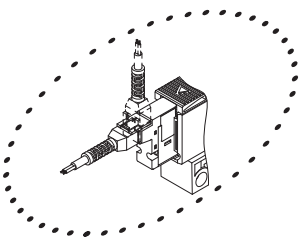
Dimensions

● E type connector type (E)



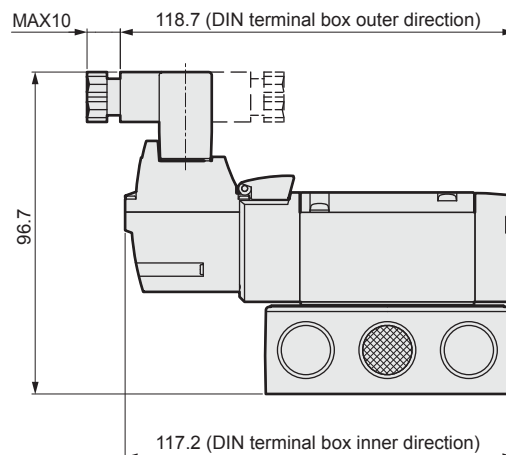
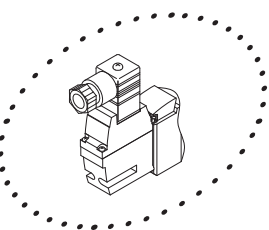
Note: Values in () apply for 100 VAC

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC

● DIN terminal box type (B)



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

4GAB	M4GAB	MN4GAB	4GAB Master valve	4GD/E	M4GD/E	MN4GD/E	Technical data	Safety precautions	Manifold Specifications
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4GB3 Series

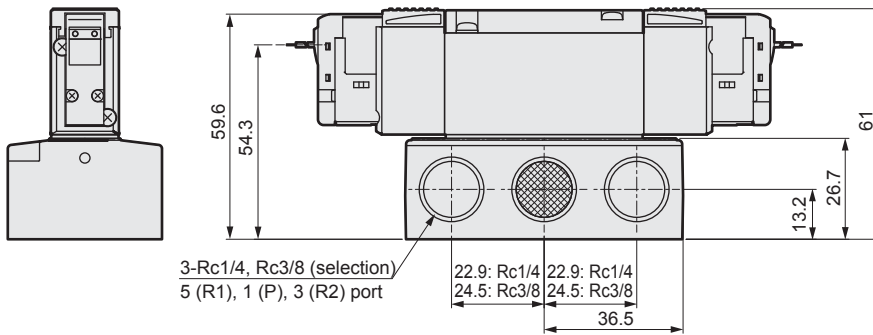
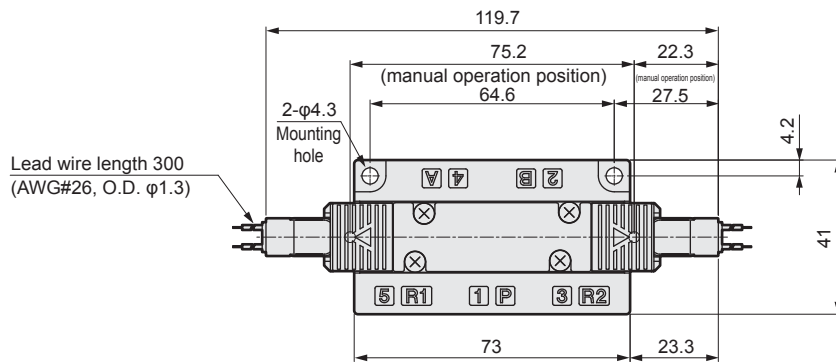
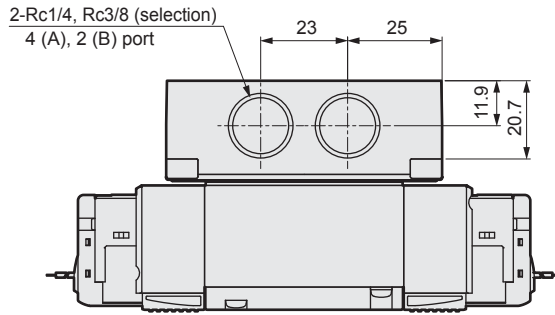
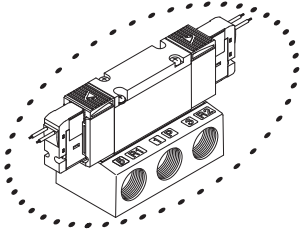
Discrete valve; base piping

Dimensions

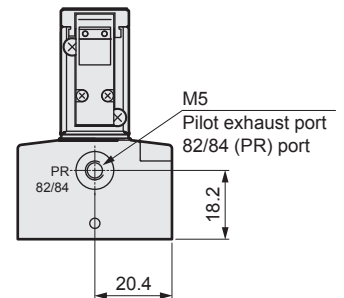
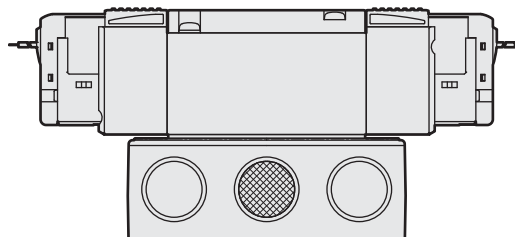
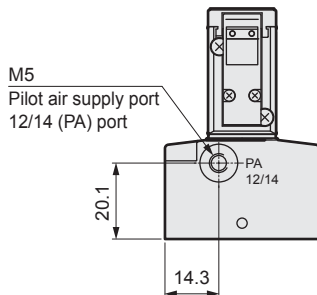
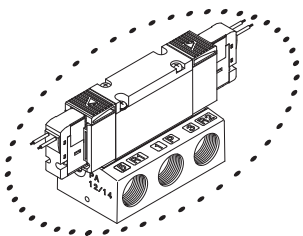


4GB320R * Please refer to page 80 and page 89 for the NPT threads and G threads specifications.

- 2-position single grommet lead wire (blank)

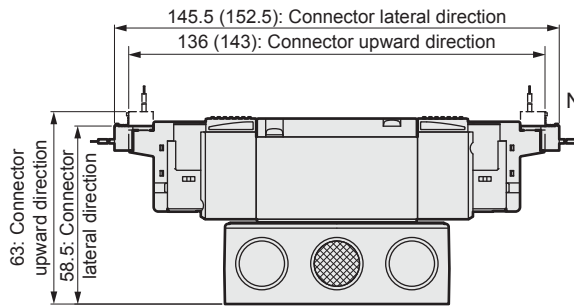
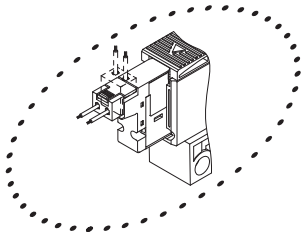


- External pilot type (K)



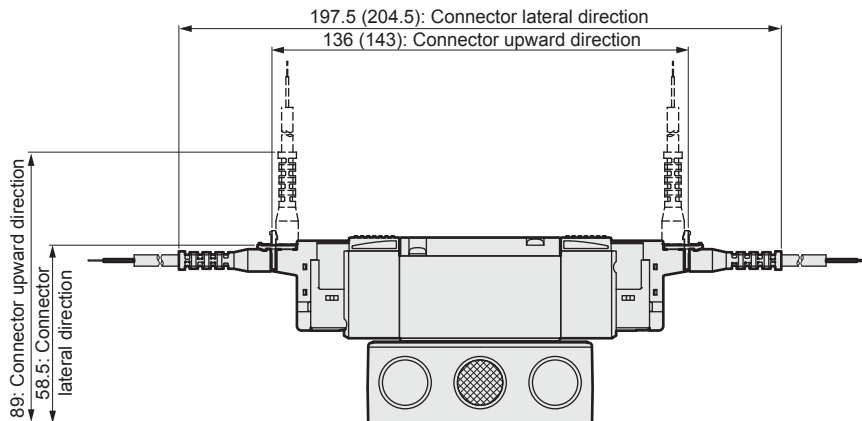
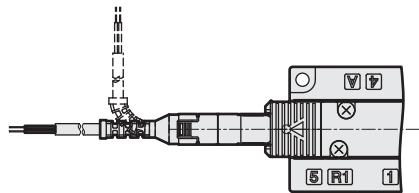
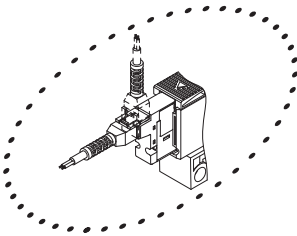
Dimensions

● E type connector type (E)



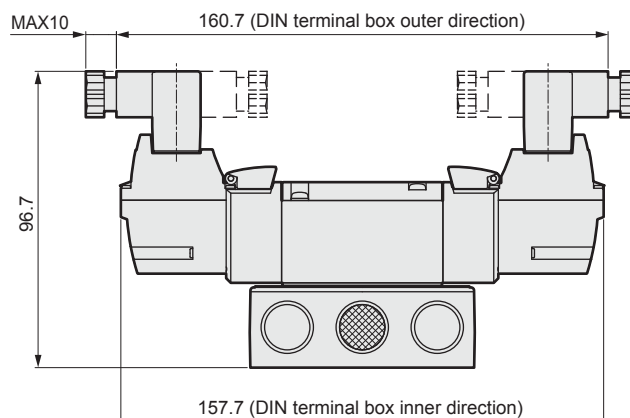
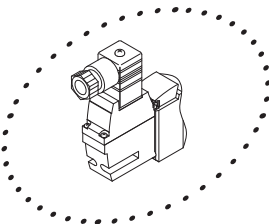
Note: Values in () apply for 100 VAC

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC

● DIN terminal box type (B)



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

4GAB

M4GAB

MN4GAB

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

4GB3 Series

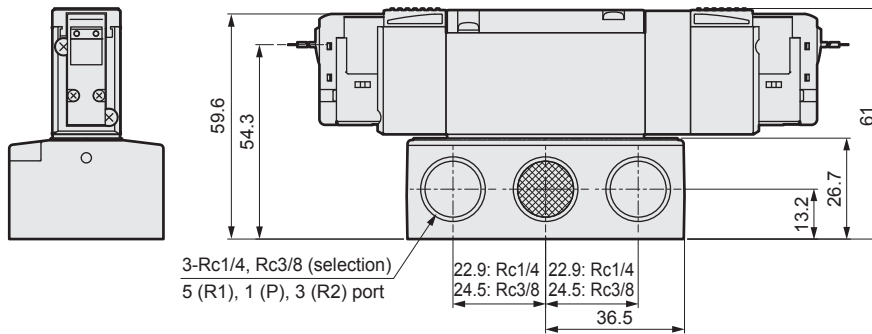
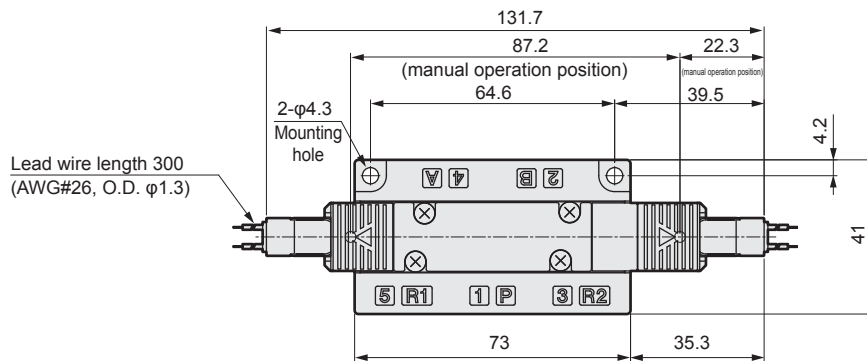
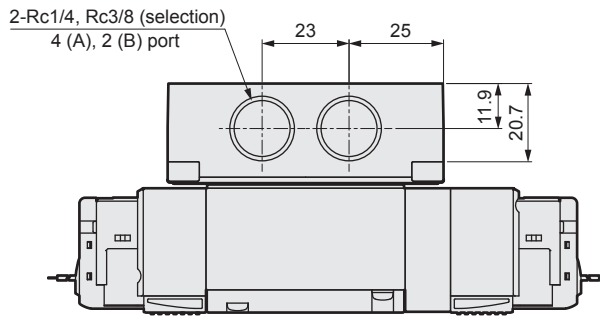
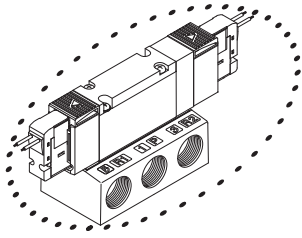
Discrete valve; base piping

Dimensions

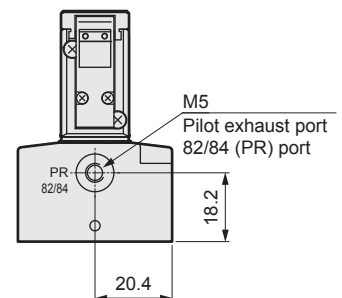
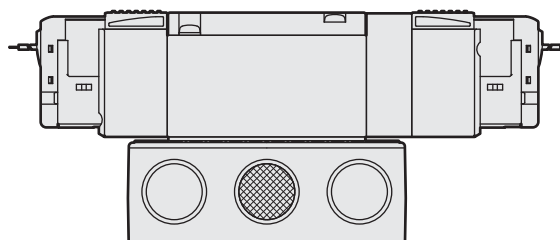
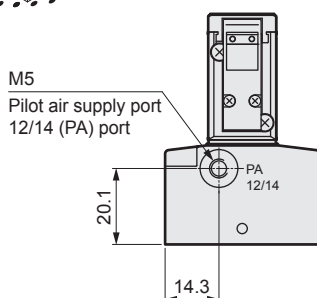
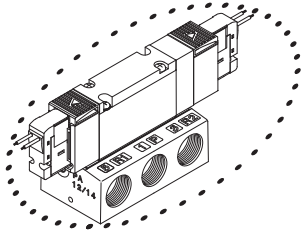


4GB3^{0R} * Please refer to page 80 and page 89 for the NPT threads and G threads specifications.

- 3 position
- Grommet lead wire (blank)

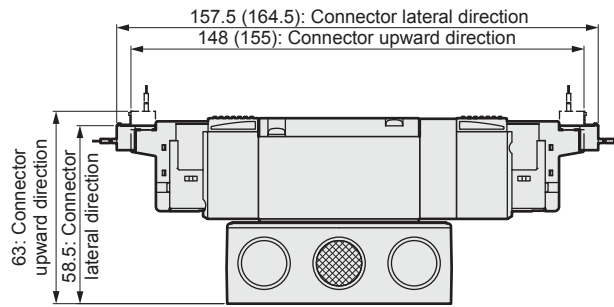
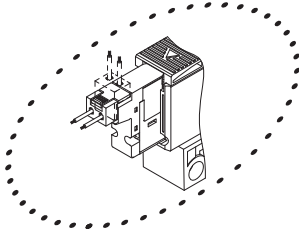


- External pilot type (K)



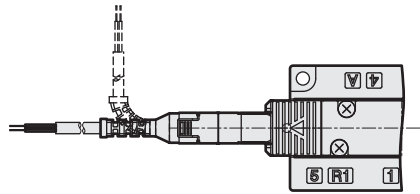
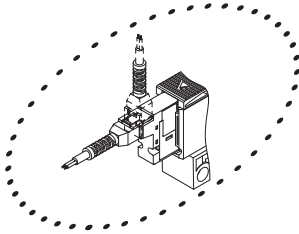
Dimensions

● E type connector type (E)

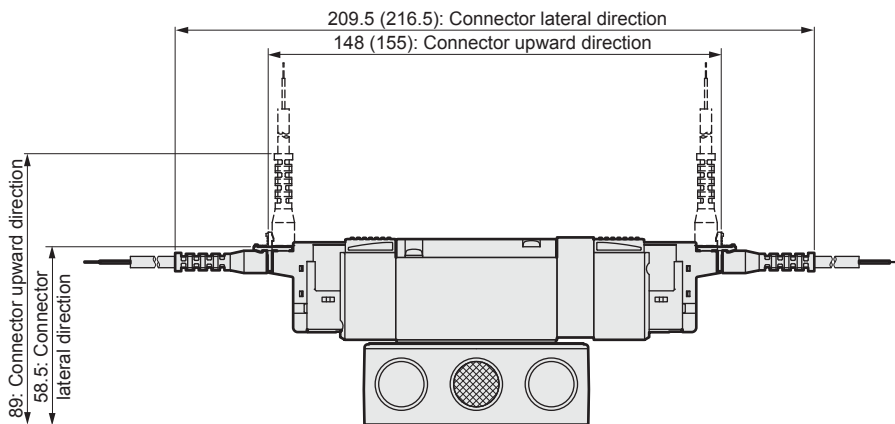


Note: Values in () apply for 100 VAC

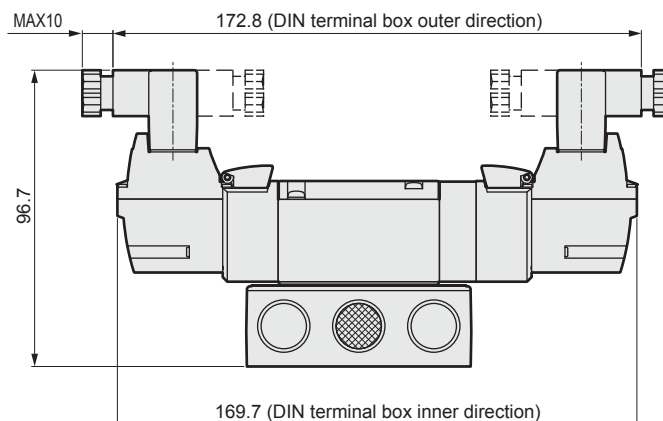
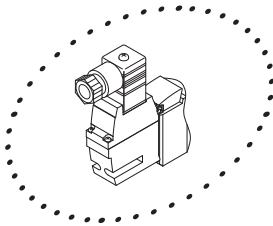
● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC



● DIN terminal box type (B)



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

4G/A/B

M4G/A/B

MN4G/A/B

4G/A/B
Master valve

4G/D/E

M4G/D/E

MN4G/D/E

Technical data

Safety
precautions

Manifold
Specifications

3GB1 & 4GB1 Series

Discrete valve; base piping

Dimensions Port size; NPT thread

3GB1⁶⁶₆₇⁷⁶₇₇ 0R, 4GB1 0R

- 2-position single
Grommet lead wire (blank)

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

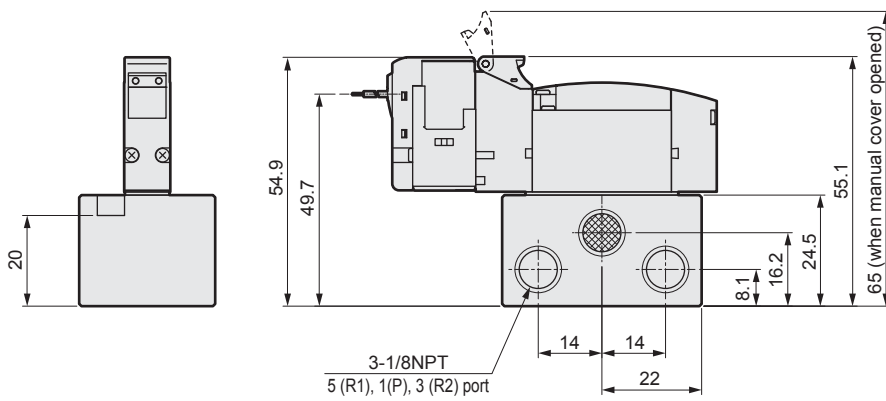
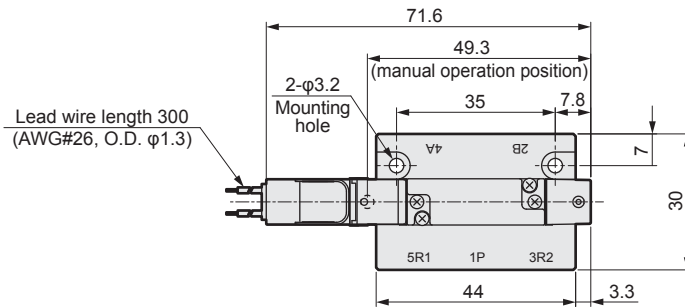
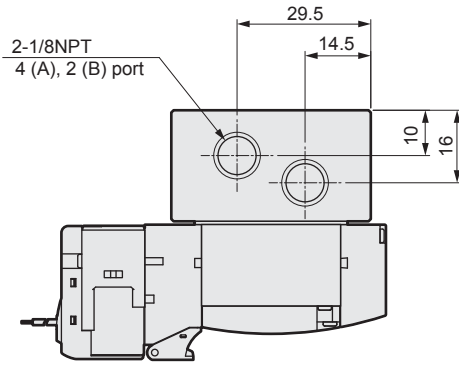
M4GD/E

MN4GD/E

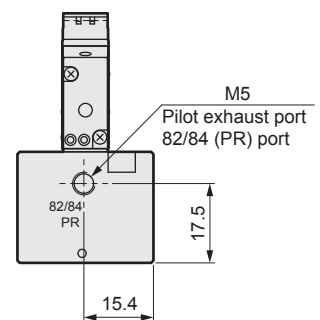
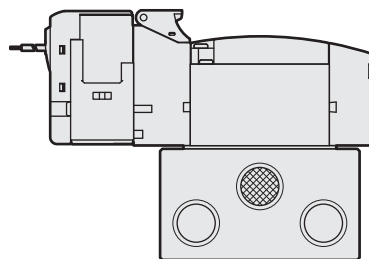
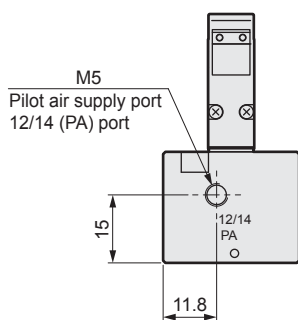
Technical data

Safety
precautions

Manifold
Specifications

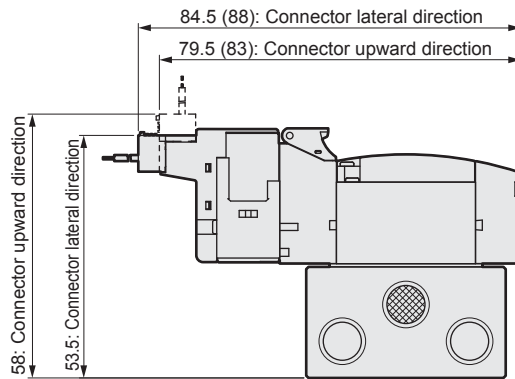


- External pilot type (K)



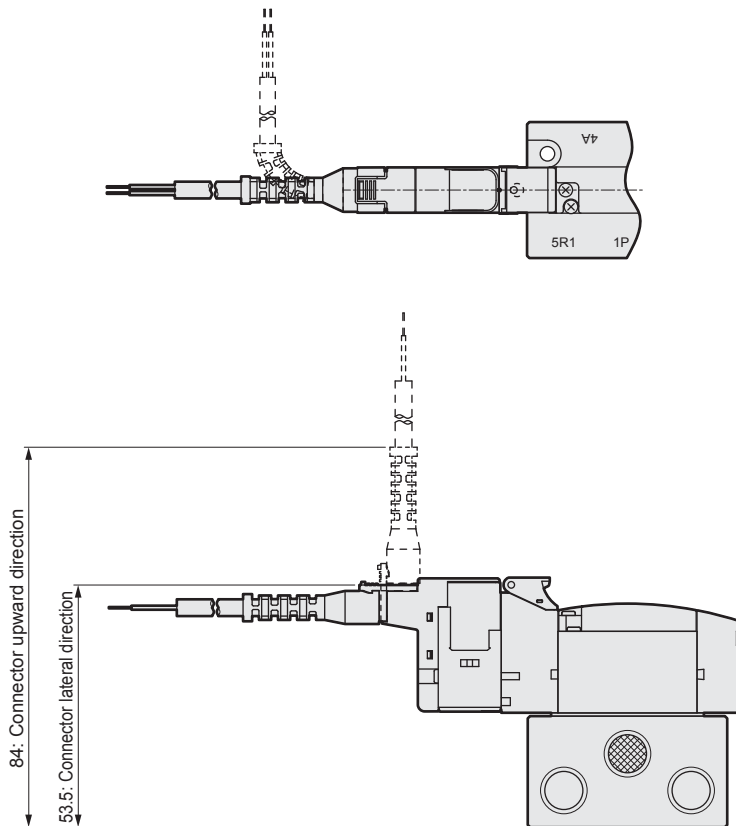
Dimensions Port size; NPT thread

- E type connector type (E)



Note: Values in () apply for 100 VAC.

- EJ type connector type (E**J)



4GAB

M4GAB

MN4GAB

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

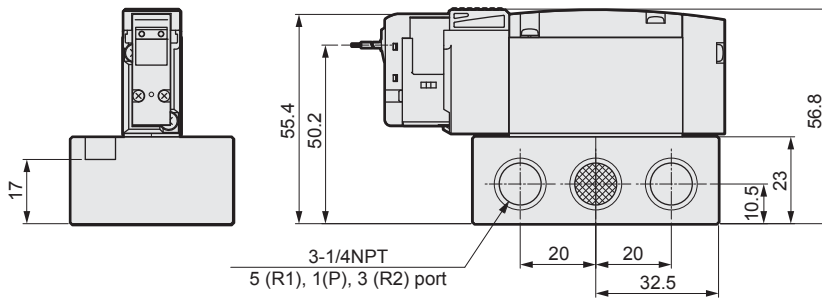
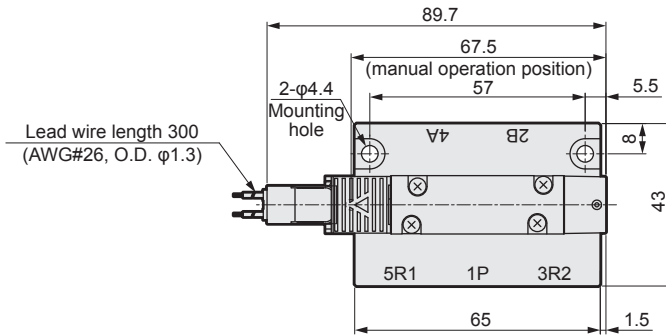
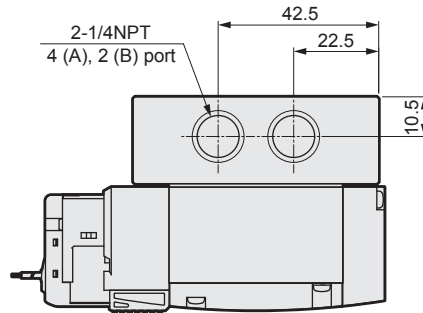
3GB2 & 4GB2 Series

Discrete valve; base piping

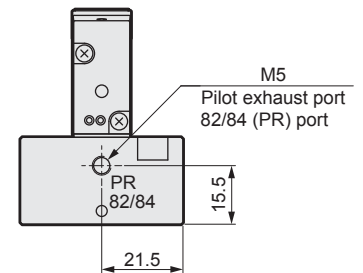
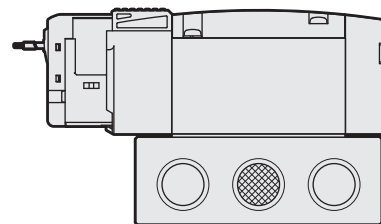
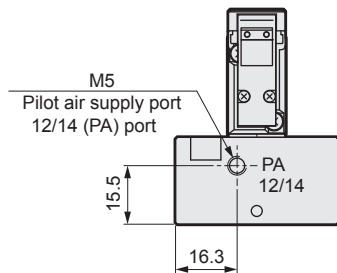
Dimensions Port size; NPT thread

3GB2⁸⁶₆₇^{0R}, 4GB2¹₅^{OR}

- 2-position single
Grommet lead wire (blank)

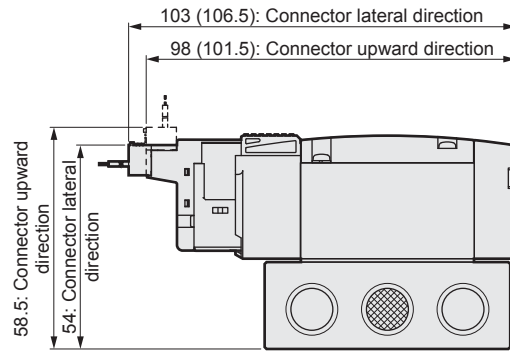


- External pilot type (K)



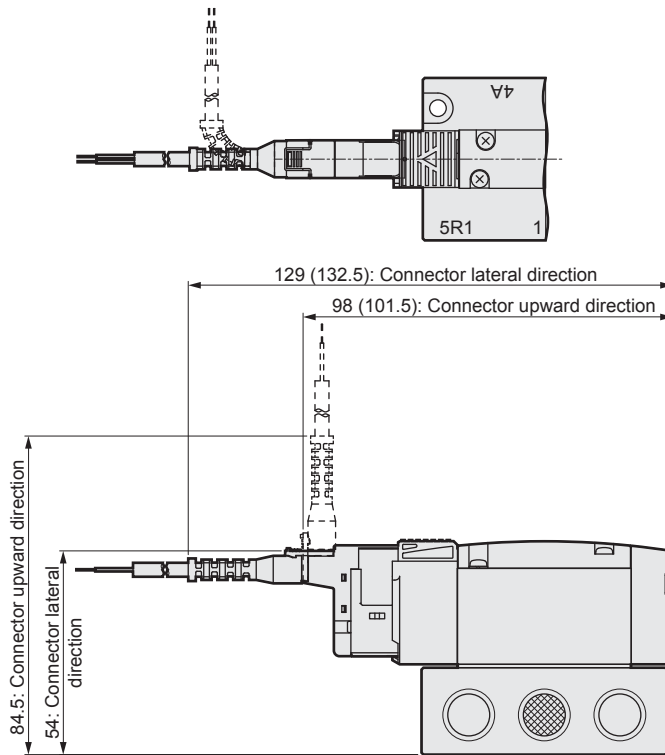
Dimensions Port size; NPT thread

● E type connector type (E)



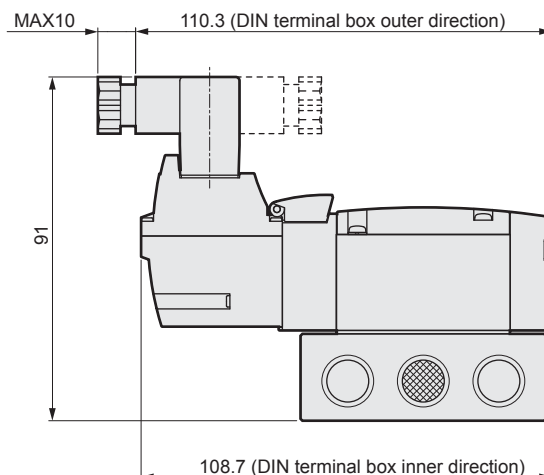
Note: Values in () apply for 100 VAC.

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC.

● DIN terminal box type (B)



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

4GAB

M4GAB

MN4GAB

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

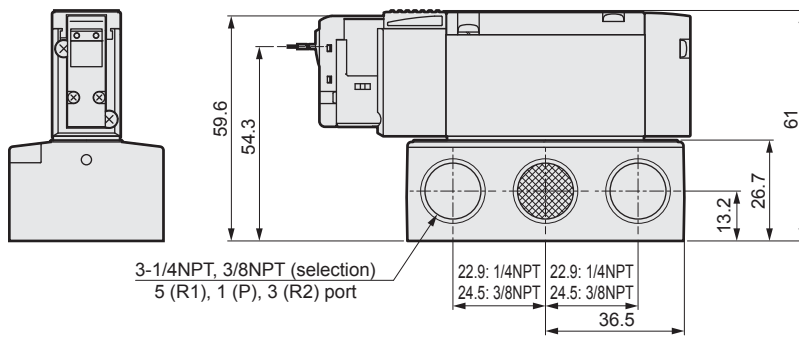
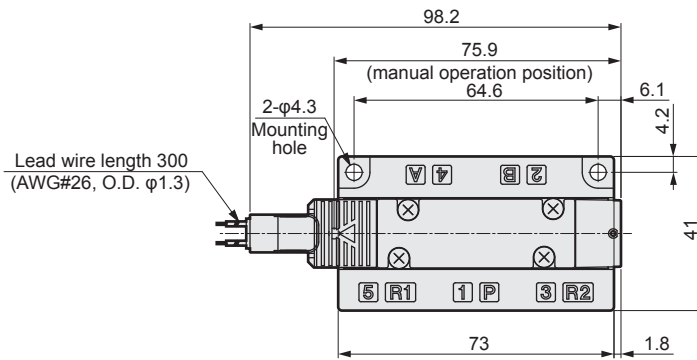
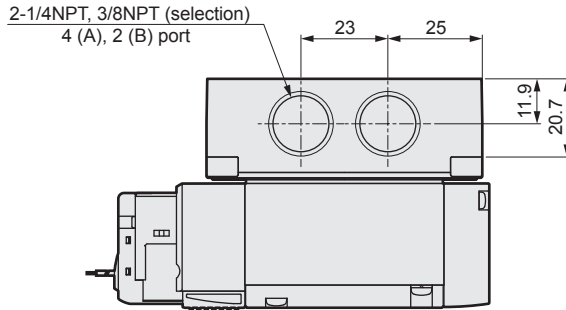
4GB3 Series

Discrete valve; base piping

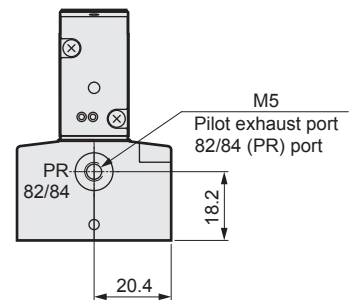
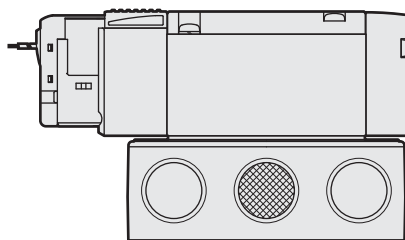
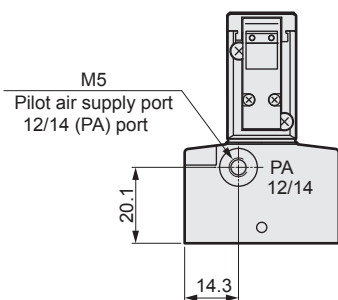
Dimensions Port size; NPT thread

4GB3 0R

- 2-position single
Grommet lead wire (blank)

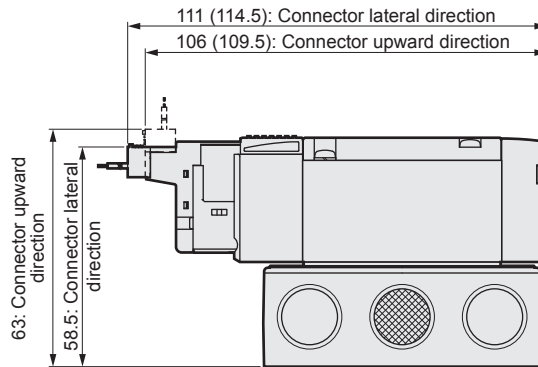


- External pilot type (K)



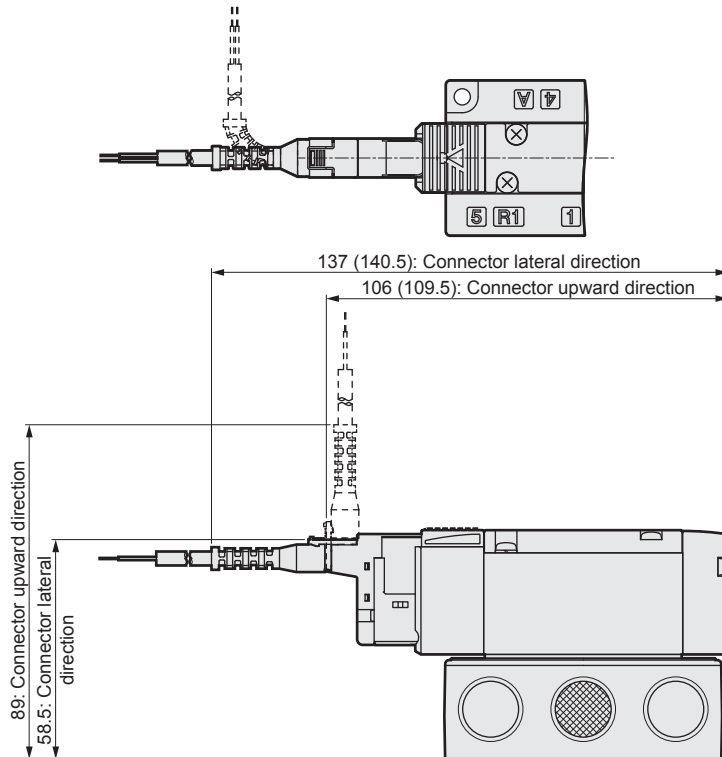
Dimensions Port size; NPT thread

● E type connector type (E)



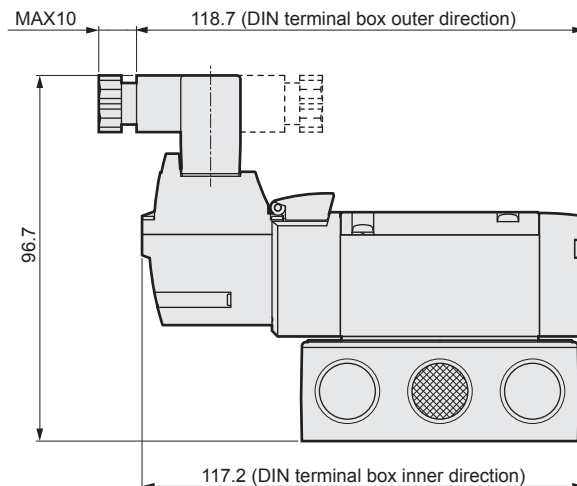
Note: Values in () apply for 100 VAC.

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC.

● DIN terminal box type (B)



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

4GAB/B	M4GAB/B	MN4GAB/B	4GAB/B Master valve	4GD/E	M4GD/E	MN4GD/E	Technical data	Safety precautions	Manifold Specifications
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3GB1 & 4GB1 Series

Discrete valve; base piping

Dimensions Port size; G thread

3GB1⁶⁶₆₇⁷⁶₇₇ 0R, 4GB1⁶⁶₆₇⁷⁶₇₇ 0R

- 2-position single
Grommet lead wire (blank)

4GA/B

M4GA/B

MN4GA/B

4GA/B
Master valve

4GD/E

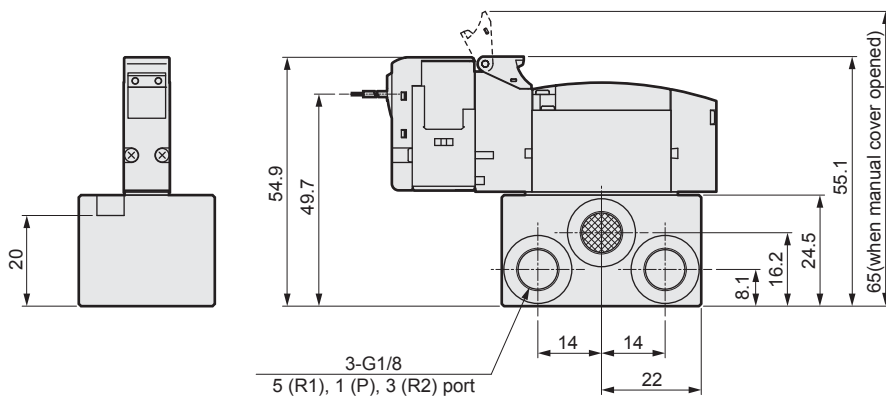
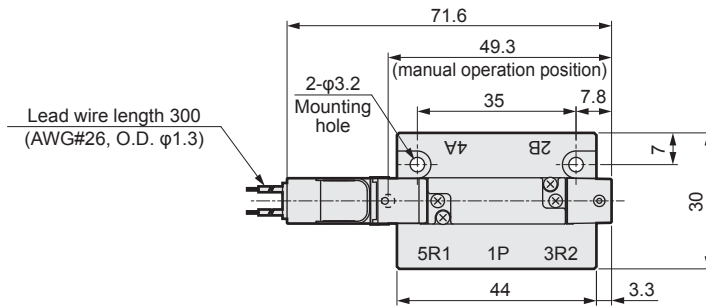
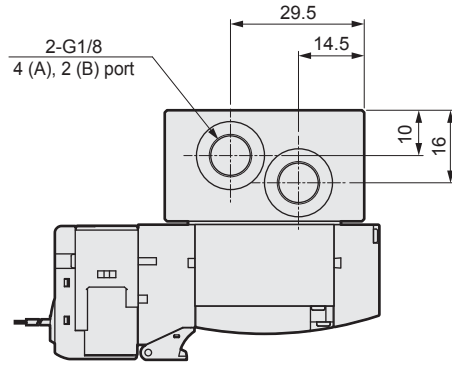
M4GD/E

MN4GD/E

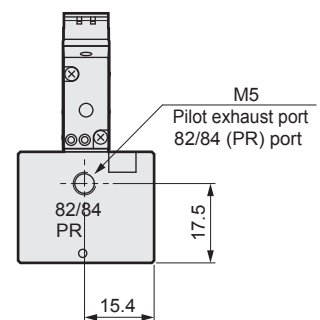
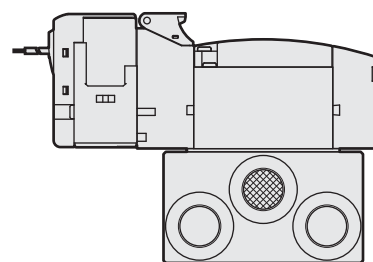
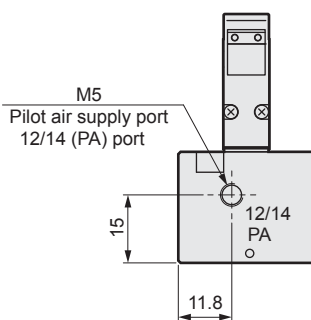
Technical data

Safety
precautions

Manifold
Specifications

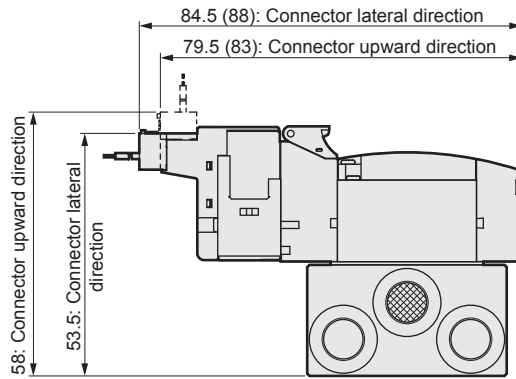


- External pilot type (K)



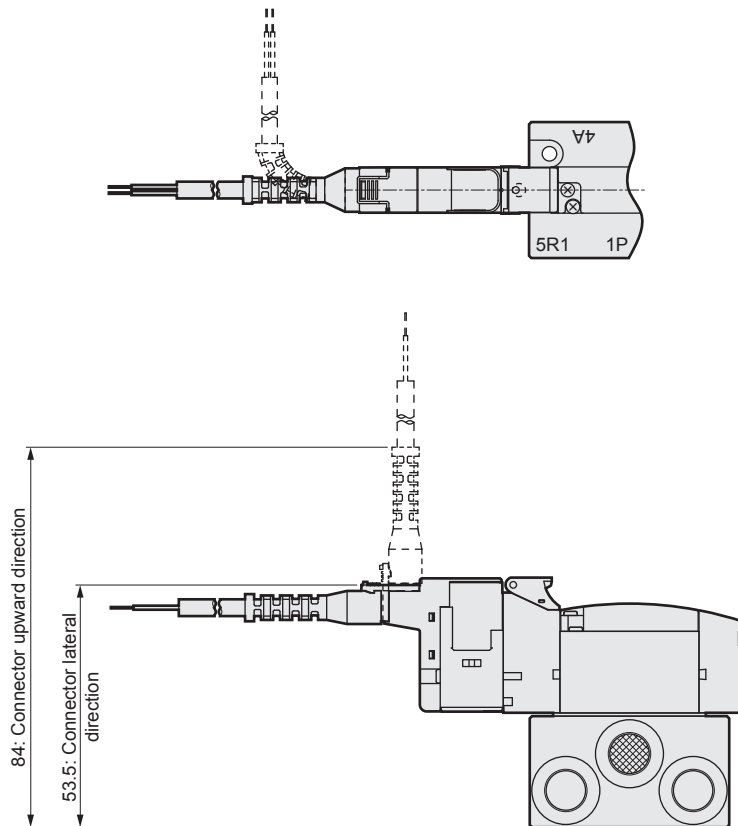
Dimensions Port size; G thread

- E type connector type (E)



Note: Values in () apply for 100 VAC.

- EJ type connector type (E**J)



4GAB

M4GAB

MN4GAB

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications

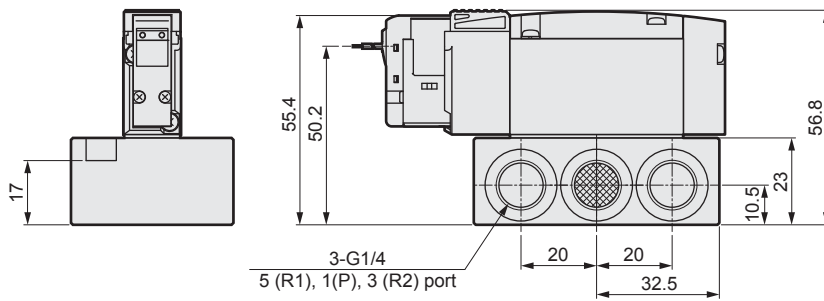
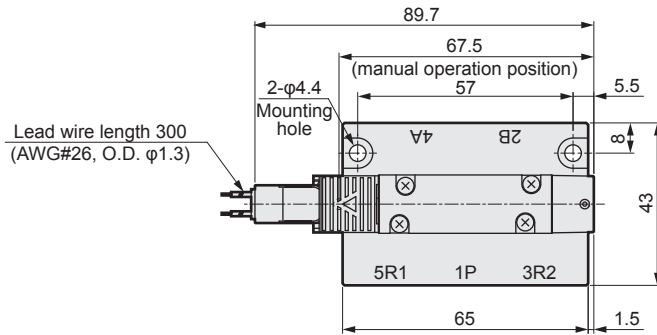
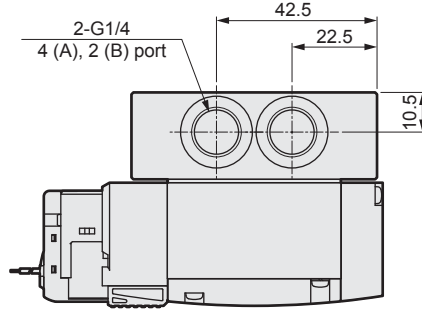
3GB2 & 4GB2 Series

Discrete valve; base piping

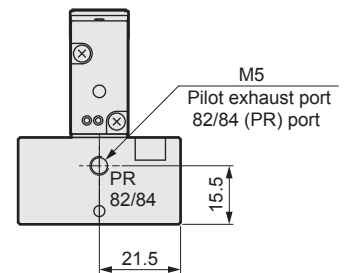
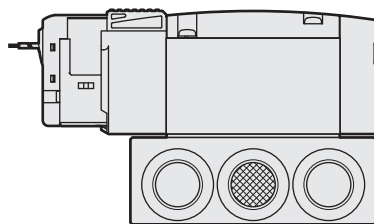
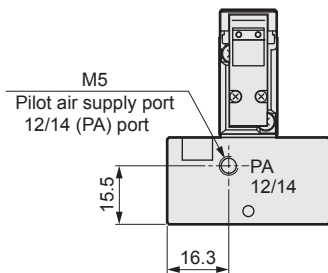
Dimensions Port size; G thread

3GB2⁸⁶₆₇^{0R}, 4GB2¹₀^{0R}

- 2-position single
Grommet lead wire (blank)

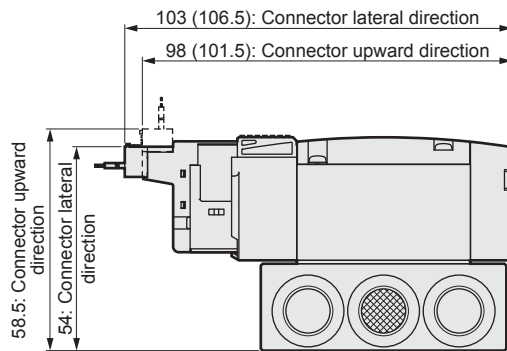


- External pilot type (K)



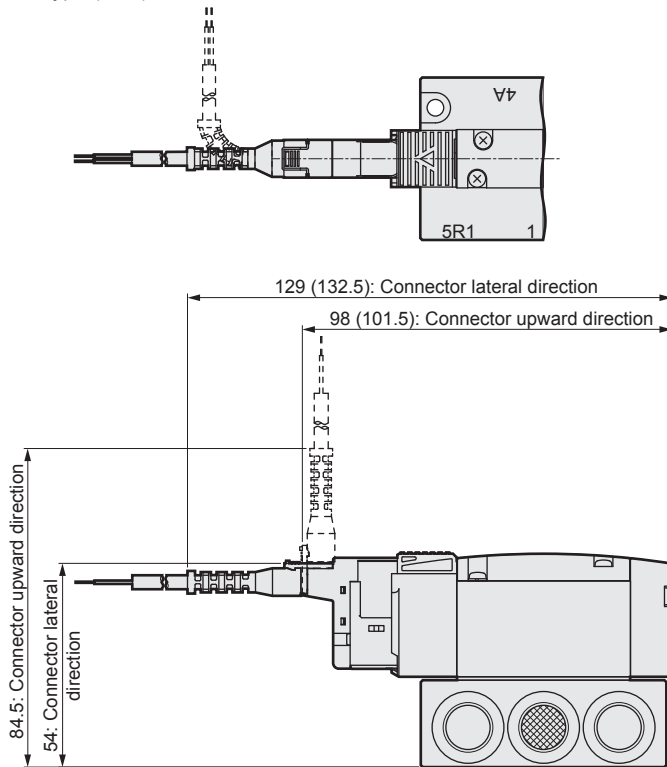
Dimensions Port size; G thread

● E type connector type (E)



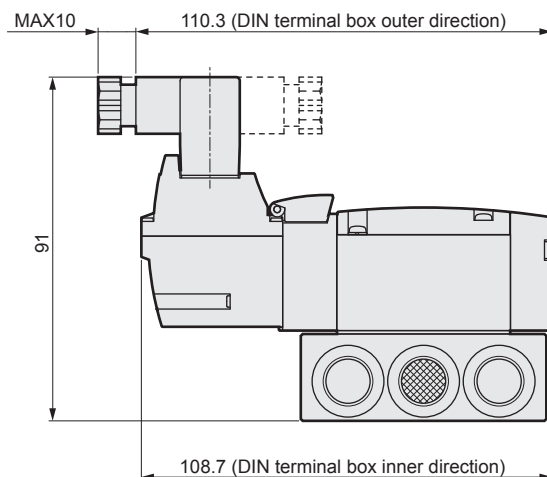
Note: Values in () apply for 100 VAC.

● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC

● DIN terminal box type (B)



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

4GAB

M4GAB

MN4GAB

4GAB
Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety
precautions

Manifold
Specifications