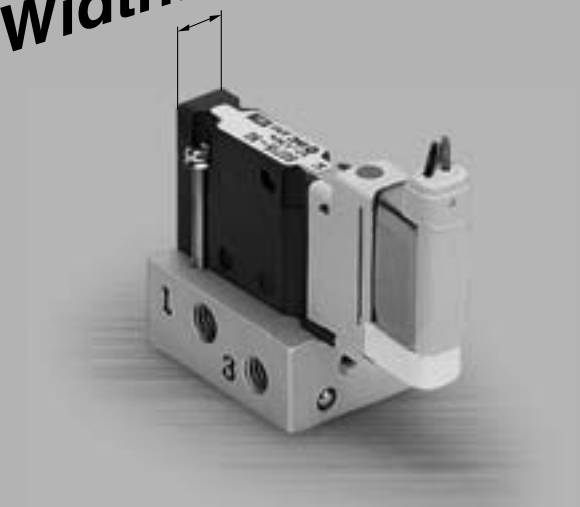
7 mm Width Compact Pilot Type 5 Port Solenoid Valve

Series S0700

Rubber Seal

Width: 7 mm

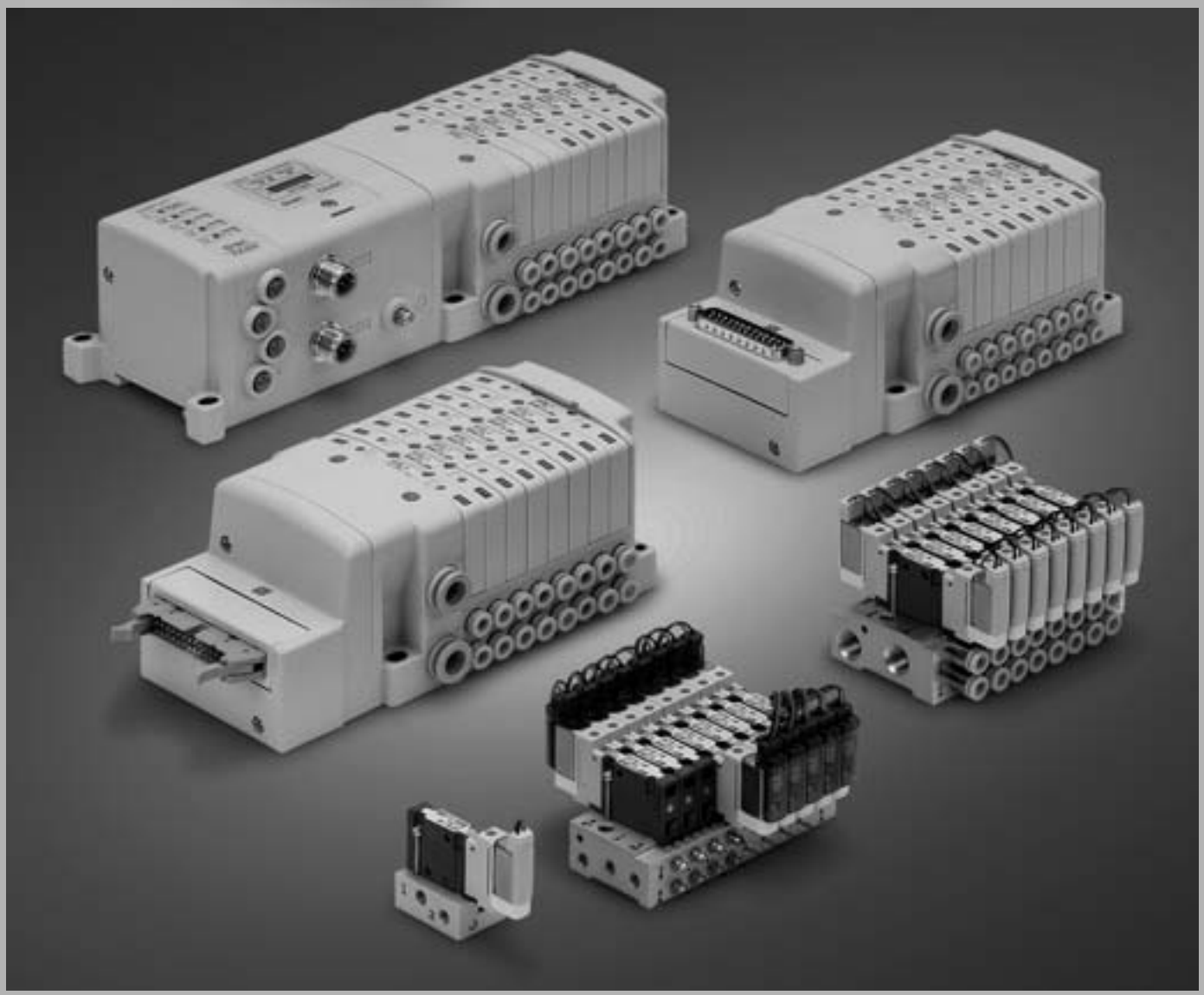


Flow Characteristics

C[dm³/(s·bar)]: 0.39

b: 0.39

Cv: 0.11



7 mm Width Compact Pilot Type 5 Port Solenoid Valve

Series S0700

Compact Design with High Flow Capacity

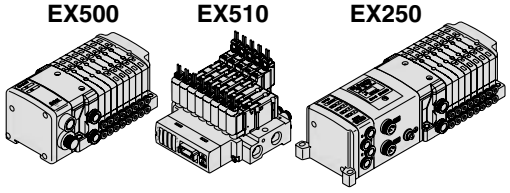
Series		Type of actuation	Model	Flow characteristics						Note 2) Response time (msec)
				1→4/2 (P→A/B)			4/2→5/3 (A/B→R1/R2)			
				C [dm³/(s·bar)]	b	Cv	C [dm³/(s·bar)]	b	Cv	
Plug-in type	2 position	Single	**S0710**	0.39	0.39	0.11	0.37	0.39	0.10	18 or less
		Double	**S0720**	0.39	0.39	0.11	0.37	0.39	0.10	10 or less
	4 position	Dual 3 port valve	**S07$^{A}_{B}_{C}$0**	0.34	0.34	0.09	0.33	0.33	0.08	18 or less
Plug lead type	2 position	Single	**S0715**	0.39	0.39	0.11	0.37	0.39	0.10	12 or less
		Double	**S0725**	0.39	0.39	0.11	0.37	0.39	0.10	10 or less
	4 position	Dual 3 port valve	**S07$^{A}_{B}_{C}$5**	0.34	0.34	0.09	0.33	0.33	0.08	12 or less

Note 1) The value for cylinder port fitting port size C6.
Note 2) Based on JIS B 8375-1993 (Supply pressure: 0.5 MPa, with indicator light and surge voltage suppressor, clean air. This will change depending on pressure and air quality.) The value when ON for the double type.

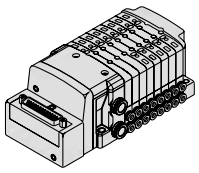
Many Combinations Available to Fit Your Needs

S kit Serial Transmission

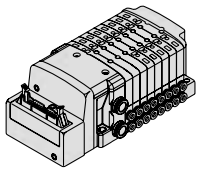
EX500 EX510 EX250



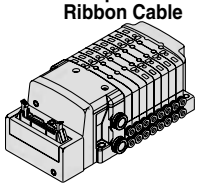
F kit D-sub Connector



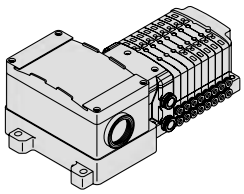
P kit Flat Ribbon Cable



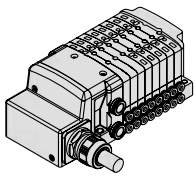
J kit PC Wiring System Compatible Flat Ribbon Cable



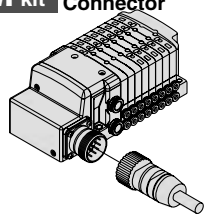
T kit Terminal Block



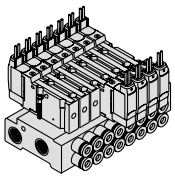
L kit Lead Wire



M kit Circular Connector



C kit Lead Wire



Applicable to Serial Wiring Gateway System

S kit

Series		Applicable protocol	Model
EX500	**Gateway System Serial Transmission System**	· DeviceNet · PROFIBUS DP · CC-Link · EtherNet/IP	
EX510	**Gateway System Serial Transmission System**	· DeviceNet · PROFIBUS DP · CC-Link	
EX250	**Integrated Type (For I/O) Serial Transmission System**	· DeviceNet · PROFIBUS DP · CC-Link · AS-Interface · ControlNet · CANopen · EtherNet/IP	

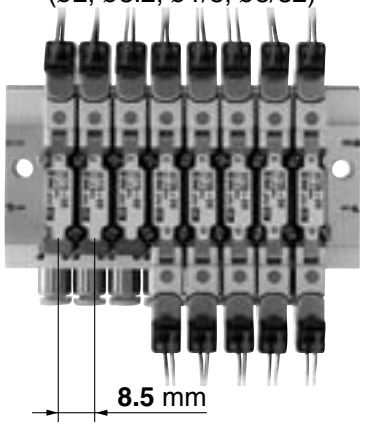
2 Types of Manifold Pitch Are Selectable.

(Plug lead type)

8.5 mm pitch

with one-touch fittings

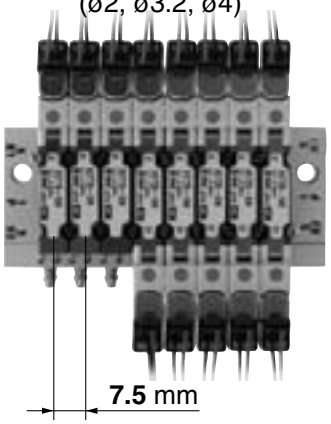
(ø2, ø3.2, ø1/8, ø5/32)



7.5 mm pitch

with barb fittings

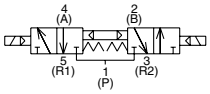
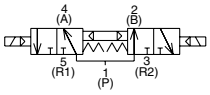
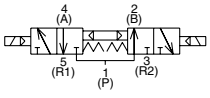
(ø2, ø3.2, ø4)

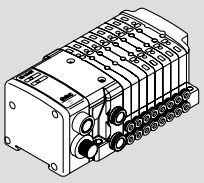
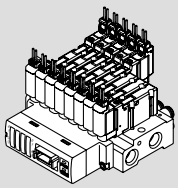
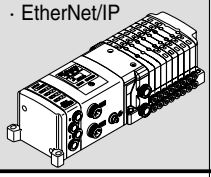
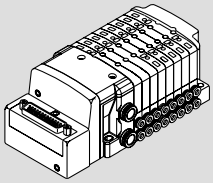
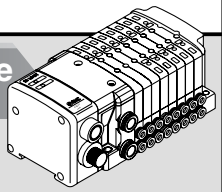
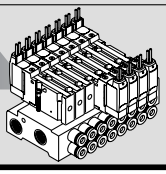


The mounting screw is tightened with the valve.

4 Position Dual 3 Port Valve

- Two 3 port valves in one body.
- Independently operating 3 port valve at each side of A and B.
- Number of stations occupied for 3 port valve – halved.
- Available as 4 position 5 port valve.

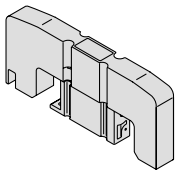
A side	B side	Symbol
N.C.	**N.C.**	
N.O.	**N.O.**	
N.C.	**N.O.**	

	S Kit Serial Transmission			F Kit D-sub Connector
	EX500 Gateway System Serial Transmission System Applicable network · DeviceNet · PROFIBUS DP · CC-Link · EtherNet/IP	**EX510** Gateway System Serial Transmission System Applicable network · DeviceNet · PROFIBUS DP · CC-Link	**EX250** Integrated Type (For I/O) Serial Transmission System Applicable network · DeviceNet · PROFIBUS DP · CANopen · CC-Link · AS-Interface · ControlNet · EtherNet/IP	MIL standard
				
Base Mounted **Plug-in type** Stacking base				
	Page 618		Page 620	Page 624
Base Mounted **Plug lead type** Bar base				
		Page 662		

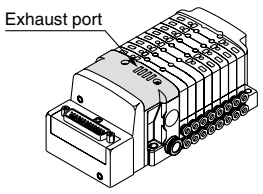
Options

Plug-in/Options

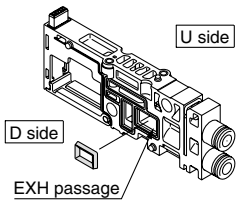
Blanking plate P.648
SS0700-10A-1



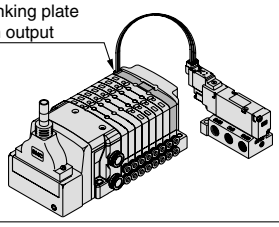
Built-in silencer, Direct exhaust [-S] P.648



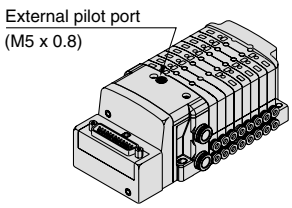
EXH block plate P.649
SS0700-B-R



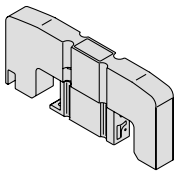
Blanking plate with output P.650
SS0700-1C-□



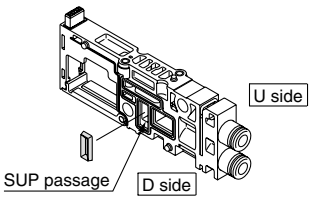
External pilot [-R] P.648



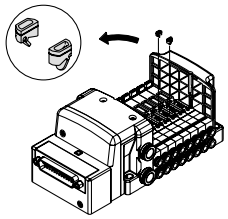
Spacer for Individual SUP/EXH
SS0700-PR-1 P.648



SUP block plate P.649
SS0700-B-P

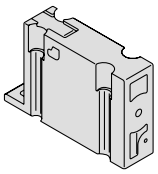


Back pressure check valve [-B] P.649
SS0700-7A-1

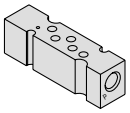


Plug Lead/Options

Blanking plate P.664
SS0700-10A-5

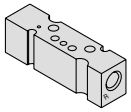


Individual SUP spacer P.664
SS0700-P-5-M5



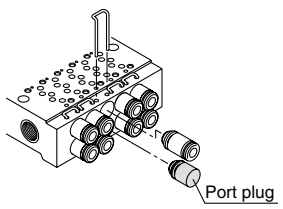
*Compatible with 8.5 mm pitch only.

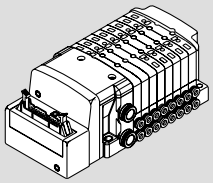
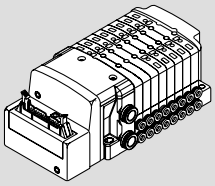
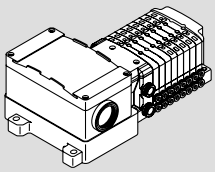
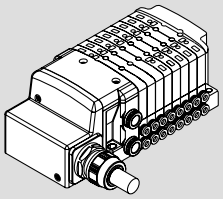
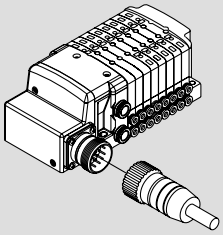
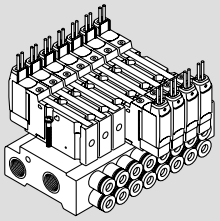
Individual EXH spacer P.664
SS0700-R-5-M5



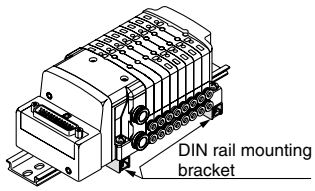
*Compatible with 8.5 mm pitch only.

Port plug P.664
VVQ0000-CP

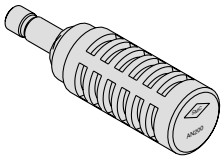


P Kit Flat Ribbon Cable	J Kit PC Wiring System Compatible Flat Ribbon Cable	T Kit Terminal Block	L Kit Lead Wire	M Kit Circular Connector	C Kit Lead Wire
MIL standard · 26 pins, 20 pins	MIL standard · 20 pins				
					
Page 628	Page 632	Page 636	Page 640	Page 644	
					Page 658

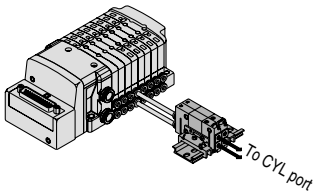
DIN rail mounting bracket **P.650**



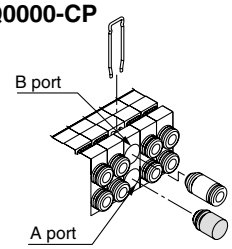
Silencer (for EXH port) **P.651**
AN200-KM8



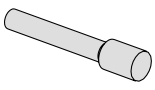
Perfect block (Separated) **P.652**
VQ1000-FPG-□□



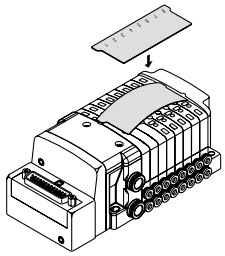
Port plug **P.650**
VVQ0000-CP



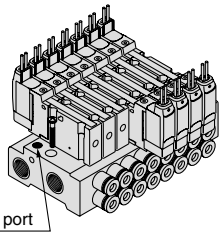
Blanking plug **P.650**
(for one-touch fitting)
KJP-02
KQ2P-23/04/06



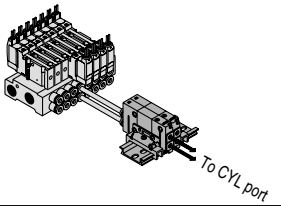
Name plate **P.651**



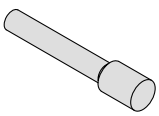
External pilot [-R] **P.664**



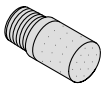
Double check block (Separated) **P.665**
VQ1000-FPG-□□



Blanking plug **P.666**
(for one-touch fitting)
KJP-02
KQ2P-23/04/06



Silencer **P.666**
(for manifold EXH port)
AN110-01



Valve Specifications

Valve Specifications

Model

Series		Type of actuation	Model	Flow characteristics						Response time (msec) Note 2)	Mass (g)
				1→4/2 (P→A/B)			4/2→5/3 (A/B→R1/R2)				
				C[dm³/(s·bar)]	b	Cv	C[dm³/(s·bar)]	b	Cv		
Plug-in type	2 position	Single	**S0710**	0.39	0.39	0.11	0.37	0.39	0.10	18 or less	30
		Double	**S0720**	0.39	0.39	0.11	0.37	0.39	0.10	10 or less	38
	4 position	Dual 3 port valve	**S07**$^{A}_{B}$**0**$_{C}$	0.34	0.34	0.09	0.33	0.33	0.08	18 or less	38
Plug lead type	2 position	Single	**S0715**	0.39	0.39	0.11	0.37	0.39	0.10	12 or less	28
		Double	**S0725**	0.39	0.39	0.11	0.37	0.39	0.10	10 or less	36
	4 position	Dual 3 port valve	**S07**$^{A}_{B}$**5**$_{C}$	0.34	0.34	0.09	0.33	0.33	0.08	12 or less	36

Note 1) The value for cylinder port fitting port size C6.
Note 2) Based on JIS B 8375-1993 (Supply pressure: 0.5 MPa, with indicator light and surge voltage suppressor, clean air. This will change depending on pressure and air quality.) The value when ON for the double type.

Standard Specifications

Valve specification	**Valve construction**		Rubber seal	
	Fluid		Air/Inert gas	
	Max. operating pressure		0.7 MPa	
	Min. operating pressure		0.2 MPa	
	Ambient and fluid temperature		–10 to 50°C Note 1)	
	Max. operating cycle		5 Hz	
	Pilot valve exhaust method		Plug-in type	Plug lead type
			Common exhaust Note 2)	Individual exhaust
	Pilot valve manual override		Push type	
	Lubrication		Not required	
	Impact resistance/Vibration resistance Note 3)		30/100 m/s²	
	Enclosure		IP40	
Electrical specification	**Coil rated voltage**		24 VDC	
	Allowable voltage fluctuation		±10% of rated voltage	
	Coil insulation type		Class B or equivalent	
	Power consumption (Current)	**24 VDC**	DC 0.35 W (15 mA)	

Note 1) Use dry air to prevent condensation when operating at low temperatures.
Note 2) Valves with the external pilot specifications have a pilot EXH with individual exhaust specifications.
Note 3) Impact resistance: No malfunction occurred when it is tested with a drop tester in the axial direction and at the right angles to the main valve and armature in both energized and de-energized states every once for each condition.
Vibration resistance: No malfunction occurred in a one-sweep test between 8.3 and 2000 Hz. Test was performed at both energized and de-energized states in the axial direction and at the right angles to the main valve and armature.

Manifold Specifications

Manifold Specifications

Model

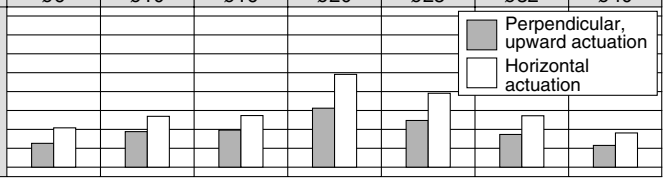
Base model		Port specification: Port size 1(P), 3(R)	Port specification: Port size 4(A), 2(B)	Type of connection	Applicable stations (Note 1)	5-station mass (g) (Note 3)	Addition per/station (g) (Note 3)
Plug-in type	**SS0750-□□□**	C8 (for ø8) Option (Direct exhaust with built-in silencer)	C2 (for ø2) C3 (for ø3.2) C4 (for ø4) N1 (for ø1/8") N3 (for ø5/32")	S kit: Serial transmission (EX500)	Max. 16 stations	360	20
				S kit: Serial transmission (EX250)	Max. 24 stations (Note 2)	560 (Note 4)	20
				F kit: D-sub connector	Max. 24 stations	330	20
				P kit: Flat ribbon cable	Max. 24 stations	325	20
				J kit: PC wiring compatible flat ribbon cable	Max. 16 stations	325	20
				T kit: Terminal block	Max. 20 stations	660	20
				L kit: Lead wire	Max. 24 stations	455 (Note 5)	20
				M kit: Circular connector	Max. 24 stations	390	20
Plug lead type	**SS0755-□C□C** (Manifold pitch: 8.5)	Rc 1/8	M5 thread C2 (for ø2) C3 (for ø3.2) C4 (for ø4) N1 (for ø1/8") N3 (for ø5/32")	C kit: Lead wire	Max. 20 stations	115	20
				S kit: Serial transmission (EX510)	Max. 16 stations	155	20
	SS0755-□V□C (Manifold pitch: 7.5)	M5 thread	M3 (M3 thread) V2 (Barb fitting for ø2) V3 (Barb fitting for ø3.2) V4 (Barb fitting for ø5)	C kit: Lead wire	Max. 20 stations	75	10
Single unit	**S07□5-5□-M5**	M5 thread	M5 thread	Connector kit	—	14 (Note 6)	

Note 1) Maximum stations in case of mixed single and double wiring
Note 2) Differs depending on the serial unit type. For details, refer to page 620.
Note 3) Weight excluding valve. Refer to page 614 for valve mass.
Note 4) Weight with 1 input block
Note 5) Weight for lead wire length 0.6 m
Note 6) Weight of sub-plate only. Refer to page 614 for valve mass.

Cylinder Speed Chart

Use as a guide for selection.
Please confirm the actual conditions with SMC Sizing Program.

Base Mounted

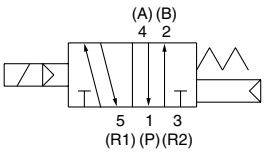
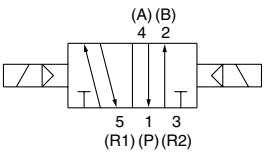
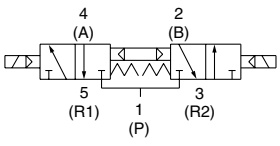
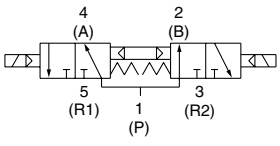
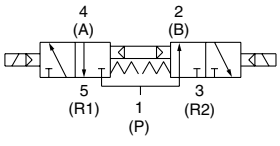
Series	Average speed mm/s	Bore size						
		Series CJ2 Pressure 0.5 MPa Load factor 50% Stroke 60 mm			Series CM2 Pressure 0.5 MPa Load factor 50% Stroke 300 mm			
		ø6	ø10	ø16	ø20	ø25	ø32	ø40
S0715-5G-M5	800 700 600 500 400 300 200 100 0							

* It is when the cylinder is extending that is meter-out controlled by speed controller which is directly connected with cylinder, and its needle valve with being fully open.
* The average velocity of the cylinder is what the stroke is divided by the total stroke time.
* Load factor: ((Load weight x 9.8)/Theoretical force) x 100%

Conditions

Base mounted		Series CJ2	Series CM2
S0715-5G-M5	Tube bore x Length	ø6 x 1 m	
	Speed controller	AS2001F-06	AS2301F-06
	Silencer	AN120-M5	

Symbol

Model	Type of actuation	JIS symbol
S0710 **S0715**	2 position single	
S0720 **S0725**	2 position double	
S07A0 **S07A5**	4 position dual 3 port N.C. + N.C. (Exhaust center)	
S07B0 **S07B5**	4 position dual 3 port N.O. + N.O. (Pressure center)	
S07C0 **S07C5**	4 position dual 3 port N.C. + N.O.	

Plug-in

Serial Transmission

S Kit

Stacking Base

Gateway System
Serial Transmission System
EX500

P.618

Integrated Type (For I/O)
Serial Transmission System
EX250

P.620

How to Order Manifold

SS0750 − 08 C4 SDA2 ☐ − B
① ② ③ ④ ⑤

① Stations

Symbol	Stations
01	1 station
⋮	⋮
16 Note)	16 stations

Note) The maximum number of stations will be different depending on the wiring specification.

② Cylinder port size

Symbol	Port size	
C2	With one-touch fitting for ø2	Metric
C3	With one-touch fitting for ø3.2	
C4	With one-touch fitting for ø4	
CM	Mixed size/with port plug Note)	
N1	With one-touch fitting for ø1/8"	Inch
N3	With one-touch fitting for ø5/32"	
NM	Mixed size/with port plug Note)	

Note) Specify "Mixed size/with port plug" in the manifold specification sheet.

⑤ Option

Symbol	Stations
Nil	None
B Note 2)	With back pressure check valve (all stations)
D	With DIN rail (Rail length: Standard)
D0	Without DIN rail (with bracket)
D☐ Note 3)	With DIN rail Designated length (☐: station)
K Note 4)	Special wiring specification (Except double wiring)
N	With name plate
R Note 5)	External pilot
S	Built-in silencer

Note 1) When two or more options are specified, indicate them alphabetically.
Example) -BRS
Note 2) When installing a back pressure check valve on the required station, enter the part number and specify the station position in the manifold specification sheet.
Note 3) The available number of stations is larger than the number of manifold stations.
Note 4) Indicate the wiring specification for mixed single and double wirings.
Note 5) For details, refer to page 648.
* **For manifold optional parts, refer to pages 648 to 652.**
* **For manifold exploded view, refer to page 654.**

③ Kit name

Kit name		Symbol	Specification	Standard station	Max. number of stations for special wiring specification	Max. number of solenoids
S kit	Decentralized serial wiring serial transmission	**SD0**	Without serial unit	1 to 8 stations	16 stations	16
		SDA2	DeviceNet, PROFIBUS DP, CC-Link, EtherNet/IP			

Note 1) The maximum number of stations is determined by the total number of solenoids. For mixed single and double wirings, enter "-K" to the order code options.
Note 2) For SI unit part number, refer to page 655.

Type of actuation	Single type	Double, Dual 3 port type
Number of solenoids	1	2

Refer to pages 1680 to 1694 for the details of EX500 gateway system serial transmission system.

④ SI unit COM.

SI unit COM.		EX500			
		DeviceNet	PROFIBUS DP	CC-Link	EtherNet/IP
Nil	+COM.	○	○	○	○
N	−COM.	○	○	○	○

Note) Without SI unit (SD0), the symbol is nil.

How to Order Valves

S07 1 0 ☐ − 5

Type of actuation

Symbol	Specification
1	2 position single
2	2 position double
A	4 position dual 3 port type (N.C. + N.C.) [Exhaust center]
B	4 position dual 3 port type (N.O. + N.O.) [Pressure center]
C	4 position dual 3 port type (N.C. + N.O.)

Note) For JIS symbol, refer to page 616.

Base mounted plug-in

Function

Symbol	Specification
Nil	Standard
R	External pilot Note)

Note) Not compatible with dual 3 port valves.

Voltage: 24 VDC

How to Order Manifold Assembly

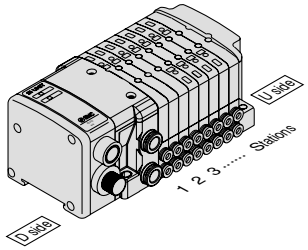
Specify the part numbers for valves and options together beneath the manifold base part number.

<Example>
Serial transmission kit

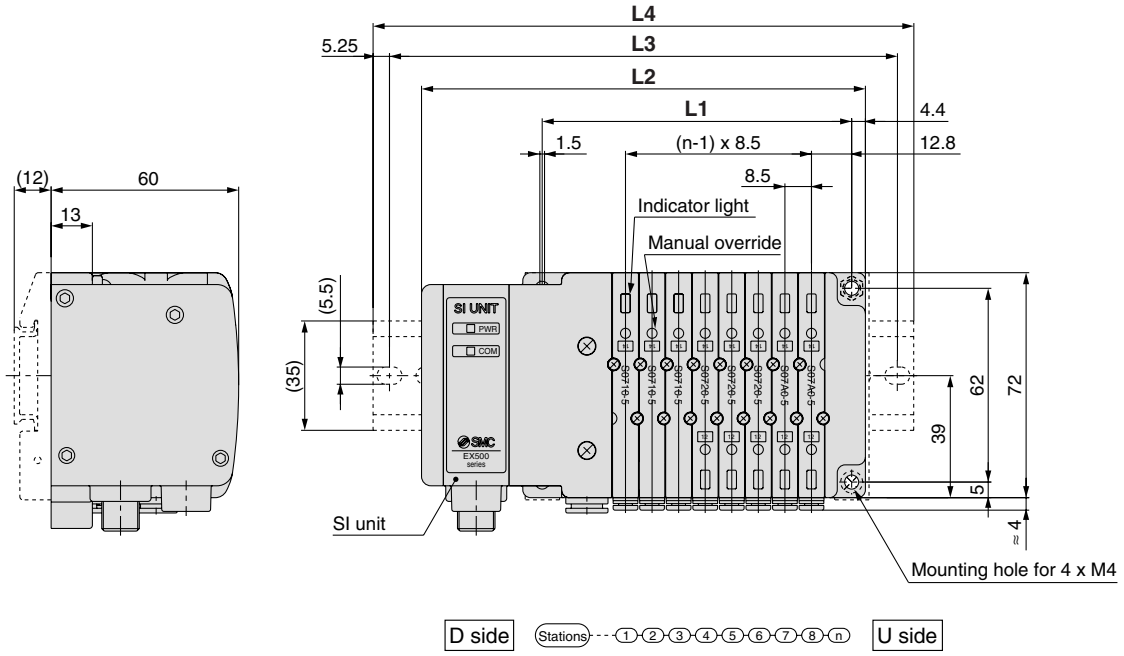
SS0750-08C4SDA2 ····· 1 set – Manifold base part no.
* S0710-5 ····· 3 sets – Valve part no. (Stations 1 to 3)
* S0720-5 ····· 2 sets – Valve part no. (Stations 4 to 5)
* S07A0-5 ····· 2 sets – Valve part no. (Stations 6 to 7)
* SS0700-10A-1 ····· 1 set – Blanking plate part no. (Station 8)

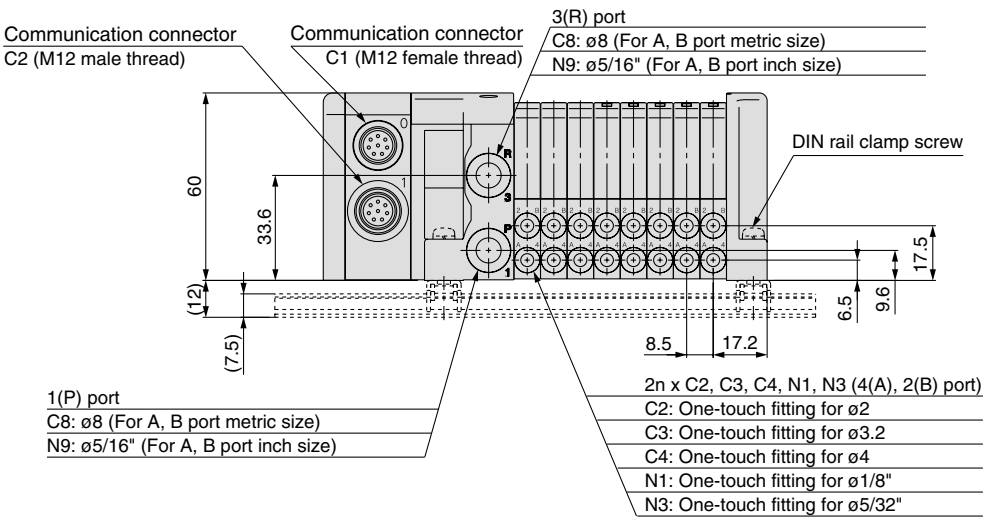
Prefix the asterisk to the part nos. of the solenoid valve, etc.

Write sequentially from the 1st station on the D side. When part nos. written collectively are complicated, specified by using the manifold specification sheet.



SS0750
S Kit (Serial transmission: EX500)





Dimensions

Formula L1 = 8.5n + 31, L2 = 8.5n + 74 n: Station (Maximum 16 stations)

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	48	56.5	65	73.5	82	90.5	99	107.5	116	124.5	133	141.5	150	158.5	167
L2	91	99.5	108	116.5	125	133.5	142	150.5	159	167.5	176	184.5	193	201.5	210
L3	112.5	125	137.5	137.5	150	162.5	162.5	175	187.5	187.5	200	212.5	212.5	225	237.5
L4	123	135.5	148	148	160.5	173	173	185.5	198	198	210.5	223	223	235.5	248

How to Order Manifold

SS0750 − 08 C4 SDQ N □ □ □ − B

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Stations

Symbol	Stations
01	1 station
⋮	⋮
24 Note)	24 stations

Note) The maximum number of stations will be different depending on the wiring specification.

② Cylinder port size

Symbol	Port size	
C2	With one-touch fitting for ø2	Metric
C3	With one-touch fitting for ø3.2	
C4	With one-touch fitting for ø4	
CM	Mixed size/with port plug Note)	
N1	With one-touch fitting for ø1/8"	Inch
N3	With one-touch fitting for ø5/32"	
NM	Mixed size/with port plug Note)	

Note) Specify "Mixed size/with port plug" in the manifold specification sheet.

③ Kit name

Kit name		Symbol Note 2)	Specification	Standard station	Max. number of stations for special wiring specification	Max. number of solenoids
S kit	For I/O serial transmission	**SD0**	Without serial unit	1 to 12 stations	24 stations	24
		SDQ	DeviceNet			
		SDN	PROFIBUS DP			
		SDV	CC-Link			
		SDY	CANopen			
		SDZCN	ControlNet			
		SDZEN	EtherNet/IP			
		SDTA	AS-Interface 31SLAVE 8 IN/8 OUT 2 power supply systems	1 to 4 stations	8	8
		SDTB	AS-Interface 31SLAVE 4 IN/4 OUT 2 power supply systems	1 to 2 stations	4	4
		SDTC	AS-Interface 31SLAVE 8 IN/8 OUT 1 power supply system	1 to 4 stations	8	8
		SDTD	AS-Interface 31SLAVE 4 IN/4 OUT 1 power supply system	1 to 2 stations	4	4

Note 1) The maximum number of stations is determined by the total number of solenoids. For mixed single and double wirings, enter "-K" to the order code options.
Note 2) For SI unit part number, refer to page 655.

Type of actuation	Single type	Double, Dual 3 port type
Number of solenoids	1	2

④ SI unit COM.

SI unit COM.		EX250						
		DeviceNet	PROFIBUS DP	CC-Link	AS-Interface	CANopen	ControlNet	EtherNet/IP
Nil	+COM.	—	—	○	—	—	—	—
N	–COM.	○	○	—	○	○	○	○

Note) Without SI unit (SD0), the symbol is nil.

⑤ Input block (for I/O unit only)

Symbol	Specification
Nil	SI unit/Input block: None (SD0)
0	Input block: None
1	Input block 1 pc.
⋮	⋮
8	Input block 8 pcs.

Note) Without SI unit (SD0), the symbol is nil.

⑥ Input block type (for I/O unit only)

Symbol	Specification
Nil	Input block: None
1	M12 2 inputs
2	M12 4 inputs
3	M8 4 inputs (3 pins)

Note) Without SI unit (SD0), the symbol is nil.

⑦ Input block COM (for I/O unit only)

Symbol	Specification
Nil	PNP sensor input (+COM) or without input block
N	NPN sensor input (–COM)

Note) Without SI unit (SD0), the symbol is nil.

⑧ Option

Symbol	Option
Nil	None
B Note 2)	With back pressure check valve (all stations)
D	With DIN rail (Rail length: Standard)
D0	Without DIN rail (with bracket)
D□ Note 3)	With DIN rail Designated length (□: station)
K Note 4)	Special wiring specification (Except double wiring)
N	With name plate
R Note 5)	External pilot
S	Built-in silencer

Note 1) When two or more options are specified, indicate them alphabetically. Example) -BRS
Note 2) When installing a back pressure check valve on the required station, enter the part number and specify the station position in the manifold specification sheet.
Note 3) The available number of stations is larger than the number of manifold stations.
Note 4) Indicate the wiring specification for mixed single and double wirings.
Note 5) For details, refer to page 648.
* **For manifold optional parts, refer to pages 648 to 652.**
* **For manifold exploded view, refer to page 654.**

Refer to pages 1664 to 1679 for the details of EX250 integrated type (for I/O) serial transmission system.

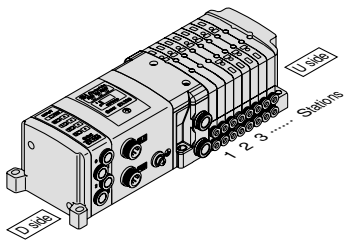
How to Order Manifold Assembly

Specify the part numbers for valves and options together beneath the manifold base part number.

<Example>
Serial transmission kit
SS0750-08C4SDQN13N ····· 1 set – Manifold base part no.
* S0710-5 ····· 3 sets – Valve part no. (Stations 1 to 3)
* S0720-5 ····· 2 sets – Valve part no. (Stations 4 to 5)
* S07A0-5 ····· 2 sets – Valve part no. (Stations 6 to 7)
* SS0700-10A-1 ····· 1 set – Blanking plate part no. (Station 8)

Prefix the asterisk to the part nos. of the solenoid valve, etc.

Write sequentially from the 1st station on the D side. When part nos. written collectively are complicated, specified by using the manifold specification sheet.



How to Order Valves

S07 1 0 □ − 5

Type of actuation

Symbol	Specification
1	2 position single
2	2 position double
A	4 position dual 3 port type (N.C. + N.C.) [Exhaust center]
B	4 position dual 3 port type (N.O. + N.O.) [Pressure center]
C	4 position dual 3 port type (N.C. + N.O.)

Note) For JIS symbol, refer to page 616.

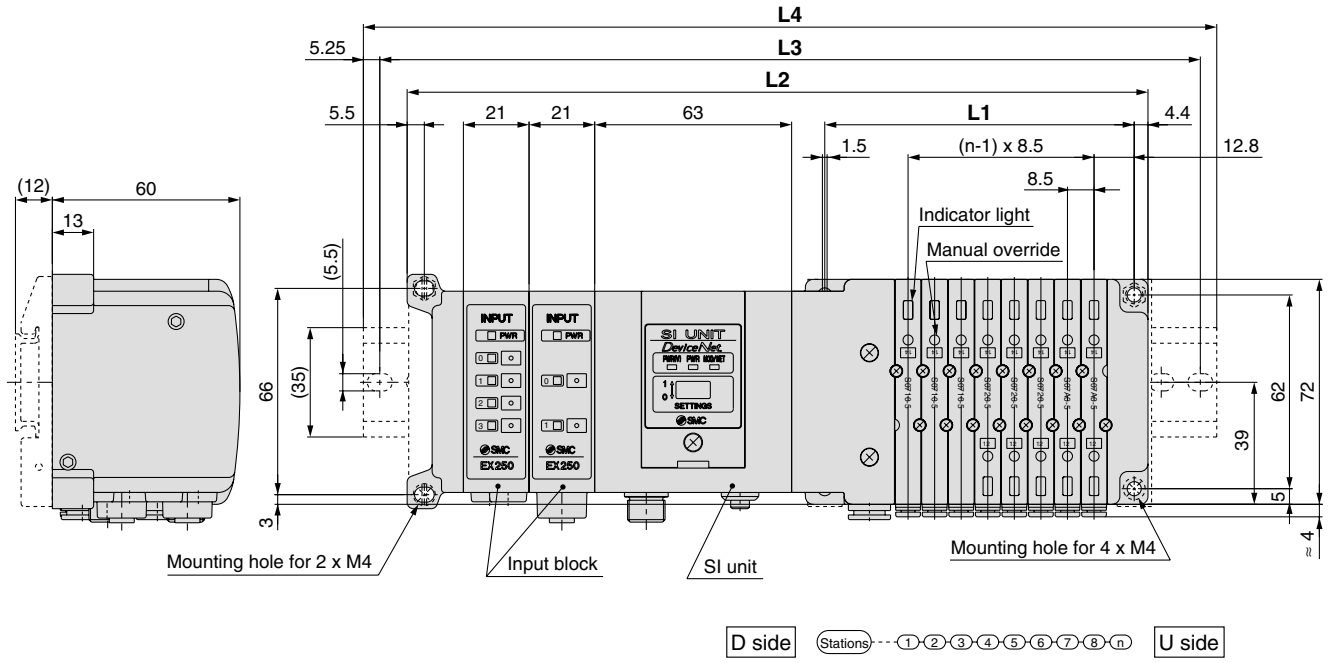
Base mounted plug-in

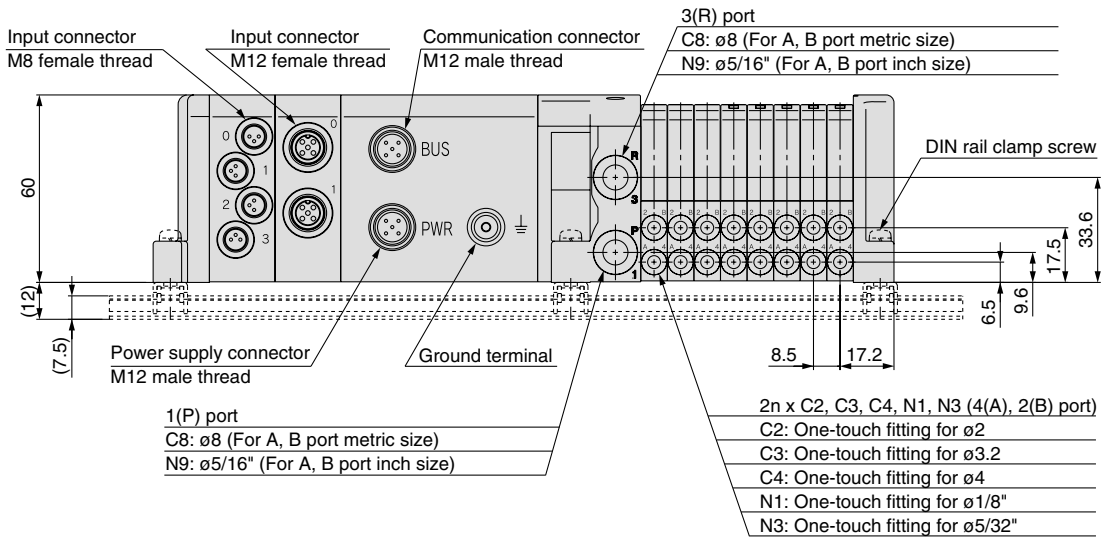
Function

Symbol	Specification
Nil	Standard
R	External pilot Note)

Note) Not compatible with dual 3 port valves.

Voltage: 24 VDC





Dimensions

Formula L1 = 8.5n + 31, L2 = 8.5n + 169 (In the case of 2 input block 21 mm is added per 1 pc.) n: Station (Maximum 24 stations)

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	48	56.5	65	73.5	82	90.5	99	107.5	116	124.5	133	141.5	150	158.5	167
L2	186	194.5	203	211.5	220	228.5	237	245.5	254	262.5	271	279.5	288	296.5	305
L3	212.5	225	225	237.5	250	250	262.5	275	275	287.5	300	300	312.5	325	325
L4	223	235.5	235.5	248	260.5	260.5	273	285.5	285.5	298	310.5	310.5	323	335.5	335.5

L \ n	17	18	19	20	21	22	23	24
L1	175.5	184	192.5	201	209.5	218	226.5	235
L2	313.5	322	330.5	339	347.5	356	364.5	373
L3	337.5	350	350	362.5	375	387.5	387.5	400
L4	348	360.5	360.5	373	385.5	398	398	410.5

Plug-in

D-sub Connector

F Kit

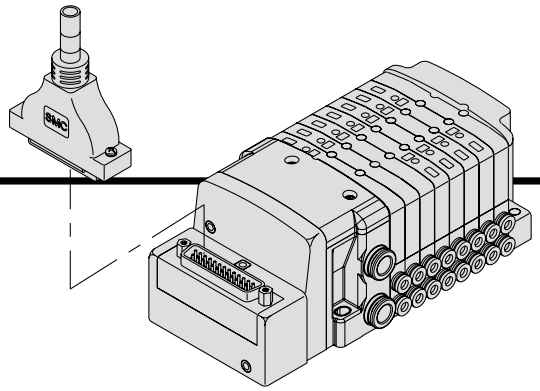
MIL Standard

- 25 pins
- Cable length
  - 1.5 m
  - 3 m
  - 5 m

Connector entry direction can be changed from the top to the side, and vice versa.

P.624

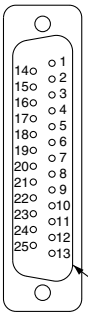
F S0700
Kit (D-sub Connector)



- **The D-sub connector reduces installation labor for electrical connections.**
- **Using the D-sub connector (25P), conforming to MIL standard permits the use of connectors put on the market and gives a wide interchangeability.**
- **Top or side receptacle position can be selected in accordance with the available mounting space.**

Electrical Wiring Specifications

D-sub connector



Connector terminal no.

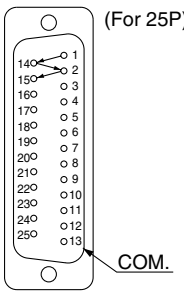
As the standard electrical wiring specifications, double wiring (connected to SOL. A and SOL. B) is adopted for the internal wiring of each station for 12 stations or less, regardless of valve and option types.
Mixed single and double wiring is available as an option. For details, refer to "Special Wiring Specifications" (Option) below.

D-sub connector assembly wire color (AXT100-DS25- $^{015}_{030}$ $_{050}$**)**

		Terminal no.	Polarity		Lead wire color	Dot marking
1 station	SOL.A	1	(–)	(+)	Black	None
	SOL.B	14	(–)	(+)	Yellow	Black
2 stations	SOL.A	2	(–)	(+)	Brown	None
	SOL.B	15	(–)	(+)	Pink	Black
3 stations	SOL.A	3	(–)	(+)	Red	None
	SOL.B	16	(–)	(+)	Blue	White
4 stations	SOL.A	4	(–)	(+)	Orange	None
	SOL.B	17	(–)	(+)	Purple	None
5 stations	SOL.A	5	(–)	(+)	Yellow	None
	SOL.B	18	(–)	(+)	Gray	None
6 stations	SOL.A	6	(–)	(+)	Pink	None
	SOL.B	19	(–)	(+)	Orange	Black
7 stations	SOL.A	7	(–)	(+)	Blue	None
	SOL.B	20	(–)	(+)	Red	White
8 stations	SOL.A	8	(–)	(+)	Purple	White
	SOL.B	21	(–)	(+)	Brown	White
9 stations	SOL.A	9	(–)	(+)	Gray	Black
	SOL.B	22	(–)	(+)	Pink	Red
10 stations	SOL.A	10	(–)	(+)	White	Black
	SOL.B	23	(–)	(+)	Gray	Red
11 stations	SOL.A	11	(–)	(+)	White	Red
	SOL.B	24	(–)	(+)	Black	White
12 stations	SOL.A	12	(–)	(+)	Yellow	Red
	SOL.B	25	(–)	(+)	White	None
	COM.	13	(+)	(–)	Orange	Red
			Positive common specification	Negative common specification Note)		

Note) Mounting valve have no polarity. It can also be used as a negative common.

Special Wiring Specifications (Option) [-K]



Mixed single and double wiring are available as an option. The maximum number of manifold stations is determined by the number of solenoids. Count one point for a single solenoid type and two points for a double solenoid type. The total number of solenoids (points) must not exceed 24.

1. How to order valves

Indicate an option symbol, -K, for the manifold no. and be sure to specify the mounting position and number of stations of the single and double wiring by means of the manifold specification sheet.

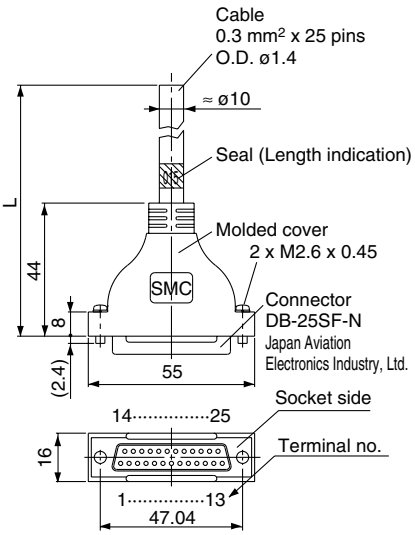
2. Wiring specifications

Connector terminal numbers are connected from solenoid station 1 on the A side in the order indicated by the arrows without shipping any terminal numbers.

Cable Assembly

AXT100-DS25- $^{015}_{030}$ $_{050}$

The D-sub connector cable assemblies can be ordered with manifolds. Refer to "How to Order Manifold".



D-sub connector cable assembly

Wire Color by Terminal No.

Terminal no.	Lead wire color	Dot marking
1	Black	None
2	Brown	None
3	Red	None
4	Orange	None
5	Yellow	None
6	Pink	None
7	Blue	None
8	Purple	White
9	Gray	Black
10	White	Black
11	White	Red
12	Yellow	Red
13	Orange	Red
14	Yellow	Black
15	Pink	Black
16	Blue	White
17	Purple	None
18	Gray	None
19	Orange	Black
20	Red	White
21	Brown	White
22	Pink	Red
23	Gray	Red
24	Black	White
25	White	None

D-sub Connector Cable Assembly (Option)

Cable length (L)	Assembly part no.	Note
1.5 m	AXT100-DS25-015	Cable 0.3 mm² x 25 cores
3 m	AXT100-DS25-030	
5 m	AXT100-DS25-050	

∗ For other commercial connectors, use a 25 pins type with female connector conforming to MIL-C-24308.
∗ Cannot be used for transfer wiring.

Electric Characteristics

Item	Characteristics
Conductor resistance Ω/km, 20°C	65 or less
Withstand voltage V, 1 min, AC	1000
Insulation resistance MΩ/km, 20°C	5 or more

Note) The min. bending radius of D-sub cable assembly is 20 mm.

Connector manufacturers' example

- Fujitsu Limited
- Japan Aviation Electronics Industry, Ltd.
- J.S.T. Mfg. Co., Ltd.
- Hirose Electric Co., Ltd.

SMC

How to Order Manifold

SS0750 − 08 C4 FD1 − B

Stations

Symbol	Stations
02	2 stations
⋮	⋮
24 Note)	24 stations

Note) The maximum number of stations will be different depending on the wiring specification.

Cylinder port size

Symbol	Port size	
C2	With one-touch fitting for ø2	Metric
C3	With one-touch fitting for ø3.2	
C4	With one-touch fitting for ø4	
CM	Mixed size/with port plug Note)	
N1	With one-touch fitting for ø1/8"	Inch
N3	With one-touch fitting for ø5/32"	
NM	Mixed size/with port plug Note)	

Note) Specify "Mixed size/with port plug" in the manifold specification sheet.

Kit name / Cable length

Kit name	Symbol	Specification	Standard station	Max. number of stations for special wiring specification	Max. number of solenoids
F kit	**FD0**	D-sub connector (25P), without cable	1 to 12 stations	24 stations	24
	FD1	D-sub connector (25P), with 1.5 m cable			
	FD2	D-sub connector (25P), with 3.0 m cable			
	FD3	D-sub connector (25P), with 5.0 m cable			

Note) The maximum number of stations is determined by the total number of solenoids. For mixed single and double wirings, enter "-K" to the order code options.

Type of actuation	Single type	Double, Dual 3 port type
Number of solenoids	1	2

Option

Symbol	Option
Nil	None
B Note 2)	With back pressure check valve (all stations)
D	With DIN rail (Rail length: Standard)
D0	Without DIN rail (with bracket)
D□ Note 3)	With DIN rail Designated length (□: station)
K Note 4)	Special wiring specification (Except double wiring)
N	With name plate
R Note 5)	External pilot
S	Built-in silencer

Note 1) When two or more options are specified, indicate them alphabetically. Example) -BRS

Note 2) When installing a back pressure check valve on the required station, enter the part number and specify the station position in the manifold specification sheet.

Note 3) The available number of stations is larger than the number of manifold stations.

Note 4) Indicate the wiring specification for mixed single and double wirings.

Note 5) For details, refer to page 648.

∗ **For manifold optional parts, refer to pages 648 to 652.**

∗ **For manifold exploded view, refer to page 654.**

How to Order Valves

S07 1 0 □ − 5

Type of actuation

Symbol	Specification
1	2 position single
2	2 position double
A	4 position dual 3 port type (N.C. + N.C.) [Exhaust center]
B	4 position dual 3 port type (N.O. + N.O.) [Pressure center]
C	4 position dual 3 port type (N.C. + N.O.)

Note) For JIS symbol, refer to page 616.

Base mounted plug-in

Voltage

Symbol	Specification
5	24 VDC
6	12 VDC

Function

Symbol	Specification
Nil	Standard
R	External pilot Note)

Note) Not compatible with dual 3 port valves.

How to Order Manifold Assembly

Specify the part numbers for valves and options together beneath the manifold base part number.

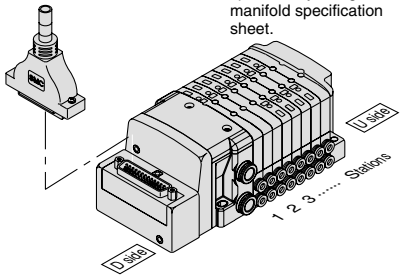
<Example>

Serial transmission kit

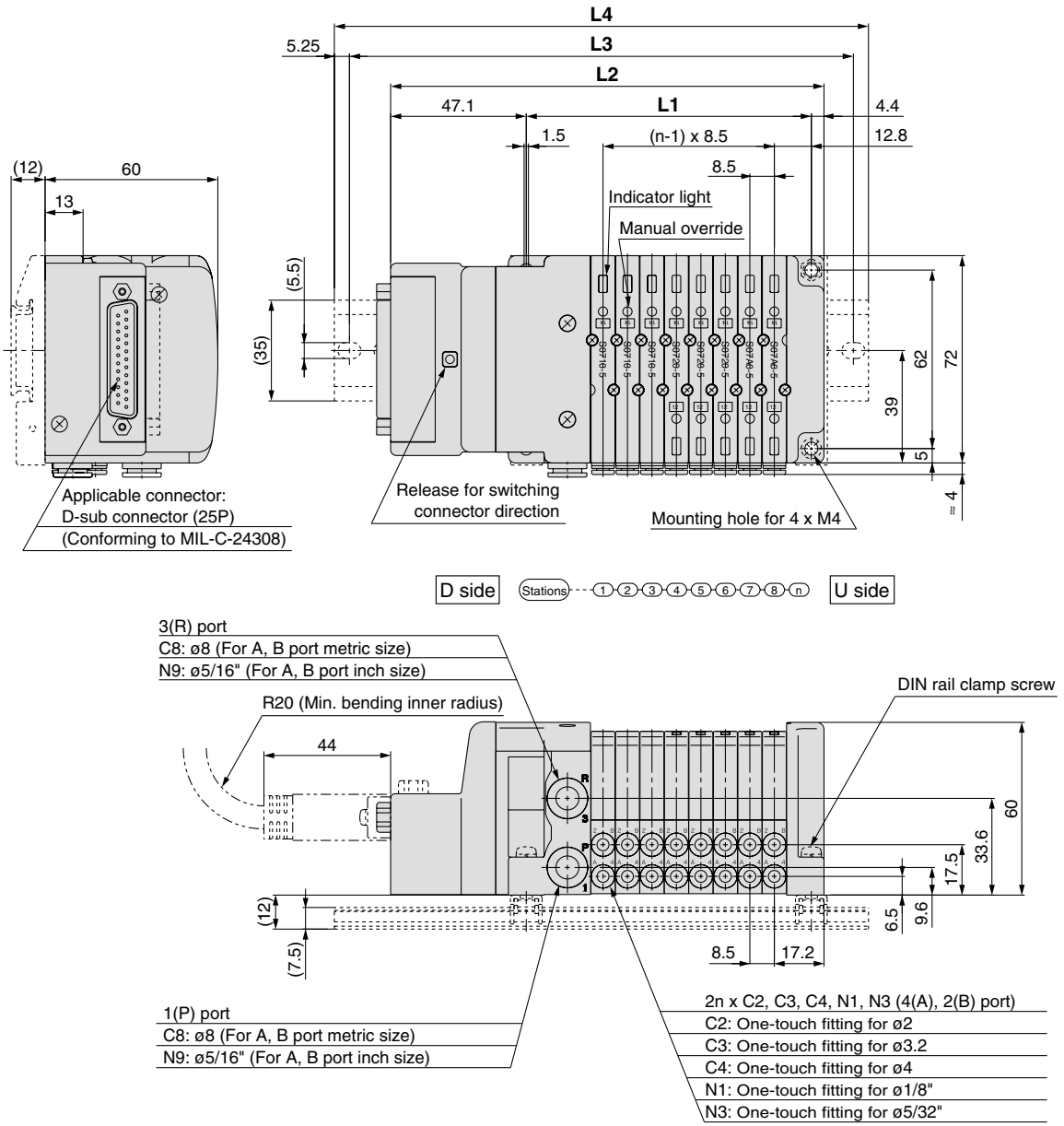
SS0750-08C4FD1 ····· 1 set – Manifold base part no.
∗ S0710-5 ····· 3 sets – Valve part no. (Stations 1 to 3)
∗ S0720-5 ····· 2 sets – Valve part no. (Stations 4 to 5)
∗ S07A0-5 ····· 2 sets – Valve part no. (Stations 6 to 7)
∗ SS0700-10A-1 ····· 1 set – Blanking plate part no. (Station 8)

Prefix the asterisk to the part nos. of the solenoid valve, etc.

Write sequentially from the 1st station on the D side. When part nos. written collectively are complicated, specified by using the manifold specification sheet.



S0700
Kit (D-sub Connector)



Dimensions

Formula L1 = 8.5n + 31, L2 = 8.5n + 82.5 n: Station (Maximum 24 stations)

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	48	56.5	65	73.5	82	90.5	99	107.5	116	124.5	133	141.5	150	158.5	167	175.5	184	192.5	201	209.5	218	226.5	235
L2	99.5	108	116.5	125	133.5	142	150.5	159	167.5	176	184.5	193	201.5	210	218.5	227	235.5	244	252.5	261	269.5	278	286.5
L3	125	137.5	137.5	150	162.5	162.5	175	187.5	187.5	200	212.5	212.5	225	237.5	250	250	262.5	275	275	287.5	300	300	312.5
L4	135.5	148	148	160.5	173	173	185.5	198	198	210.5	223	223	235.5	248	260.5	260.5	273	285.5	285.5	298	310.5	310.5	323

Plug-in

Flat Ribbon Cable

P Kit

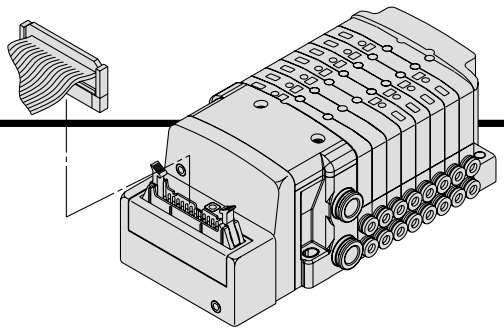
MIL Standard

- **26 pins,**
  20 pins
- **Cable length**
  1.5 m
  3 m
  5 m

Connector entry direction can be changed from the top to the side, and vice versa.

P.628

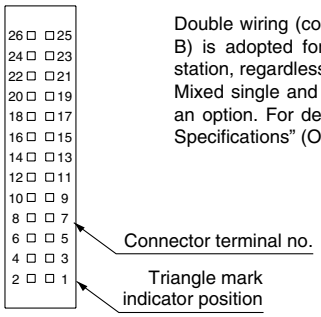
P S0700
Kit (Flat Ribbon Cable)



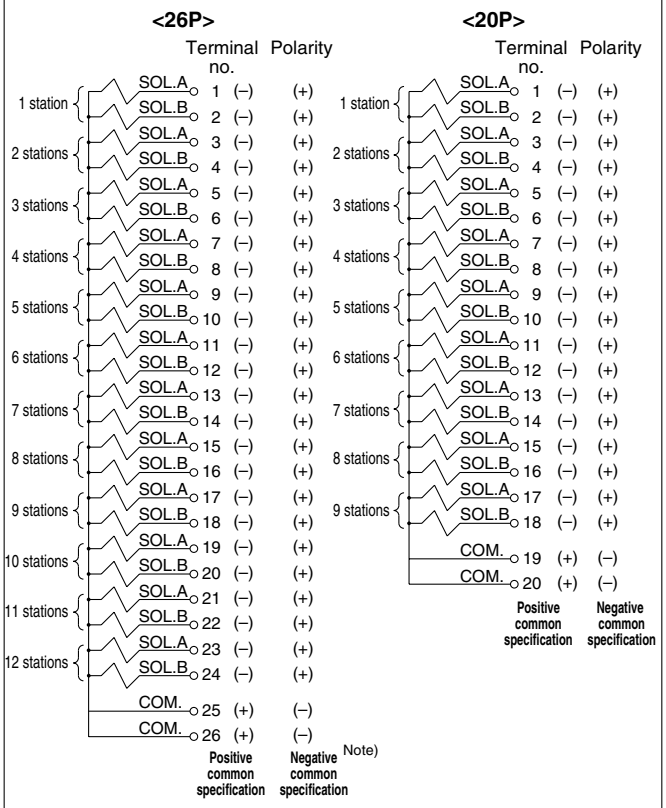
- **Flat ribbon cable connector reduces installation labor for electrical connection.**
- **Using the connector for flat ribbon cable (26P, 20P) conforming to MIL standard permits the use of connectors put on the market and gives a wide interchangeability.**
- **Top or side receptacle position can be selected in accordance with the available mounting space.**

Electrical Wiring Specifications

Flat ribbon cable connector



Double wiring (connected to SOL. A and SOL. B) is adopted for the internal wiring of each station, regardless of valve and option types. Mixed single and double wiring is available as an option. For details, refer to "Special Wiring Specifications" (Option) below.

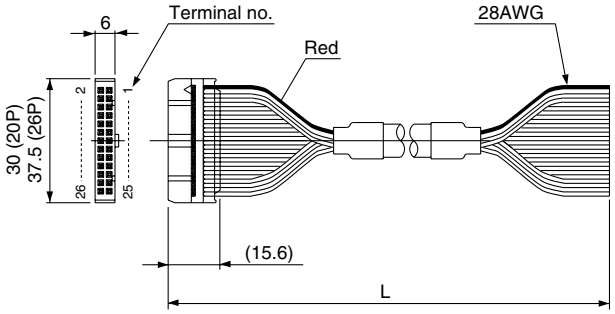


Note) Mounting valve have no polarity. It can also be used as a negative common.

Cable Assembly

AXT100-FC $\begin{matrix}20\\26\end{matrix}$ **-** $\begin{matrix}1\\2\\3\end{matrix}$

(Type 26P flat ribbon cable connector assemblies can be ordered with manifolds. Refer to "How to Order Manifold".)



Flat Ribbon Cable Connector Assembly (Option)

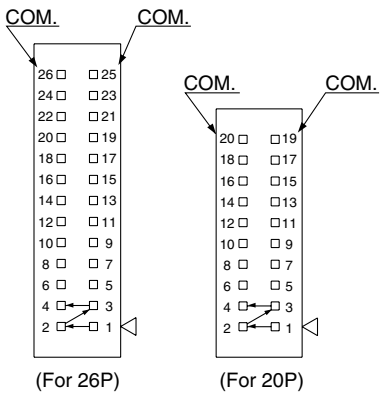
Cable length (L)	Assembly part no.	
	26P	20P
1.5 m	AXT100-FC26-1	AXT100-FC20-1
3 m	AXT100-FC26-2	AXT100-FC20-2
5 m	AXT100-FC26-3	AXT100-FC20-3

∗ For other commercial connectors, use a 20 or 26 pins type with strain relief conforming to MIL-C-83503.
∗ Cannot be used for transfer wiring.

Connector manufacturers' example

- Hirose Electric Co., Ltd.
- Sumitomo 3M Limited
- Fujitsu Limited
- Japan Aviation Electronics Industry, Ltd.
- J.S.T. Mfg. Co., Ltd.
- Oki Electric Cable Co., Ltd.

Special Wiring Specifications (Option) [-K]



Mixed single and double wiring are available as an option. The maximum number of manifold stations is determined by the number of solenoids. Count one point for a single solenoid type and two points for a double solenoid type. The total number of solenoids (points) must not exceed 24 for 26P, 18 for 20P.

1. How to order valves

Indicate an option symbol, -K, for the manifold no. and be sure to specify the mounting position and number of stations of the single and double wiring by means of the manifold specification sheet.

2. Wiring specifications

Connector terminal numbers are connected from solenoid station 1 on the A side in the order indicated by the arrows without shipping any terminal numbers.

How to Order Manifold

SS0750 − 08 C4 PD1 − B

Stations

Symbol	Stations
02	2 stations
⋮	⋮
24 Note)	24 stations

Note) The maximum number of stations will be different depending on the wiring specification.

Cylinder port size

Symbol	Port size	
C2	With one-touch fitting for ø2	Metric
C3	With one-touch fitting for ø3.2	
C4	With one-touch fitting for ø4	
CM	Mixed size/with port plug Note)	
N1	With one-touch fitting for ø1/8"	Inch
N3	With one-touch fitting for ø5/32"	
NM	Mixed size/with port plug Note)	

Note) Specify "Mixed size/with port plug" in the manifold specification sheet.

Kit name / Cable length

Kit name	Symbol	Specification	Standard station	Max. number of stations for special wiring specification	Max. number of solenoids
P kit	**PD0**	Flat ribbon cable (26P), without cable	1 to 12 stations	24 stations	24
	PD1	Flat ribbon cable (26P), with 1.5 m cable			
	PD2	Flat ribbon cable (26P), with 3.0 m cable			
	PD3	Flat ribbon cable (26P), with 5.0 m cable			
	PDC	Flat ribbon cable (20P), without cable	1 to 9 stations	18 stations	18

Note) The maximum number of stations is determined by the total number of solenoids. For mixed single and double wirings, enter "-K" to the order code options.

Type of actuation	Single type	Double, Dual 3 port type
Number of solenoids	1	2

Option

Symbol	Option
Nil	None
B Note 2)	With back pressure check valve (all stations)
D	With DIN rail (Rail length: Standard)
D0	Without DIN rail (with bracket)
D□ Note 3)	With DIN rail Designated length (□: station)
K Note 4)	Special wiring specification (Except double wiring)
N	With name plate
R Note 5)	External pilot
S	Built-in silencer

Note 1) When two or more options are specified, indicate them alphabetically. Example) -BRS
Note 2) When installing a back pressure check valve on the required station, enter the part number and specify the station position in the manifold specification sheet.
Note 3) The available number of stations is larger than the number of manifold stations.
Note 4) Indicate the wiring specification for mixed single and double wirings.
Note 5) For details, refer to page 648.
∗ **For manifold optional parts, refer to pages 648 to 652.**
∗ **For manifold exploded view, refer to page 654.**

How to Order Valves

S07 1 0 □ − 5

Type of actuation

Symbol	Specification
1	2 position single
2	2 position double
A	4 position dual 3 port type (N.C. + N.C.) [Exhaust center]
B	4 position dual 3 port type (N.O. + N.O.) [Pressure center]
C	4 position dual 3 port type (N.C. + N.O.)

Note) For JIS symbol, refer to page 616.

Base mounted plug-in

Function

Symbol	Specification
Nil	Standard
R	External pilot Note)

Note) Not compatible with dual 3 port valves.

Voltage

Symbol	Specification
5	24 VDC
6	12 VDC

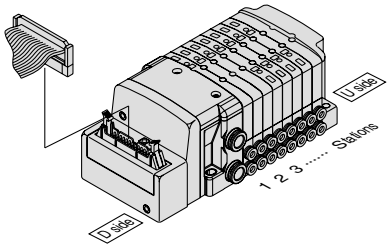
How to Order Manifold Assembly

Specify the part numbers for valves and options together beneath the manifold base part number.

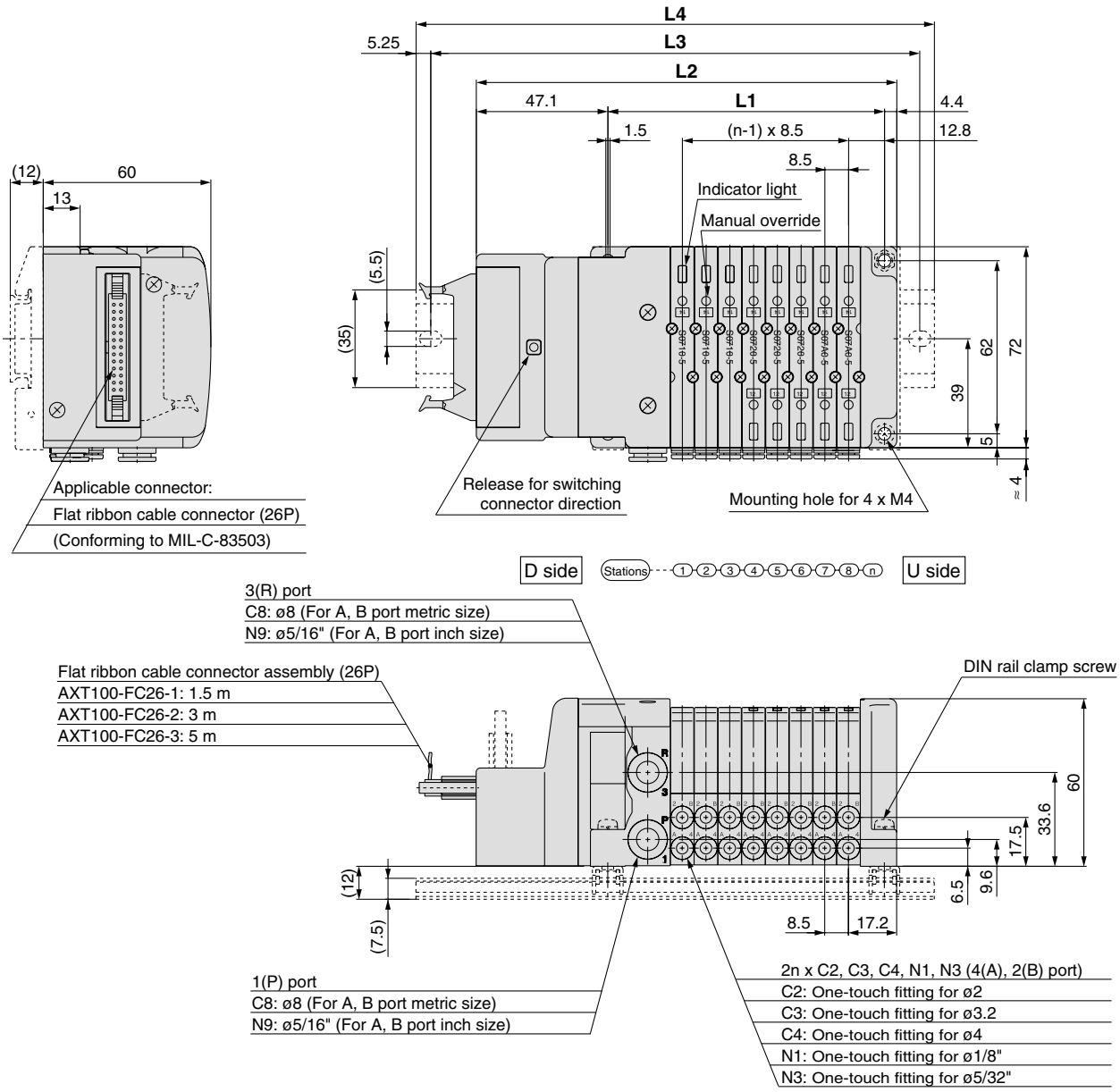
<Example>
Serial transmission kit
SS0750-08C4PD1 ··· 1 set – Manifold base part no.
∗ S0710-5 ····· 3 sets – Valve part no. (Stations 1 to 3)
∗ S0720-5 ····· 2 sets – Valve part no. (Stations 4 to 5)
∗ S07A0-5 ····· 2 sets – Valve part no. (Stations 6 to 7)
∗ SS0700-10A-1 ····· 1 set – Blanking plate part no. (Station 8)

Prefix the asterisk to the part nos. of the solenoid valve, etc.

Write sequentially from the 1st station on the D side. When part nos. written collectively are complicated, specified by using the manifold specification sheet.



S0700
Kit (Flat Ribbon Cable)



Dimensions

Formula L1 = 8.5n + 31, L2 = 8.5n + 82.5 n: Station (Maximum 24 stations)

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	48	56.5	65	73.5	82	90.5	99	107.5	116	124.5	133	141.5	150	158.5	167	175.5	184	192.5	201	209.5	218	226.5	235
L2	99.5	108	116.5	125	133.5	142	150.5	159	167.5	176	184.5	193	201.5	210	218.5	227	235.5	244	252.5	261	269.5	278	286.5
L3	125	137.5	137.5	150	162.5	162.5	175	187.5	187.5	200	212.5	212.5	225	237.5	250	250	262.5	275	275	287.5	300	300	312.5
L4	135.5	148	148	160.5	173	173	185.5	198	198	210.5	223	223	235.5	248	260.5	260.5	273	285.5	285.5	298	310.5	310.5	323

Plug-in

PC Wiring System Compatible Flat Ribbon Cable

J Kit

20 pins

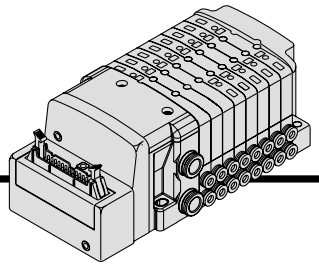
MIL Standard

● **20 pins**

PC Wiring System compatible

→ P.632

J S0700
Kit (PC Wiring System Compatible Flat Ribbon Cable)

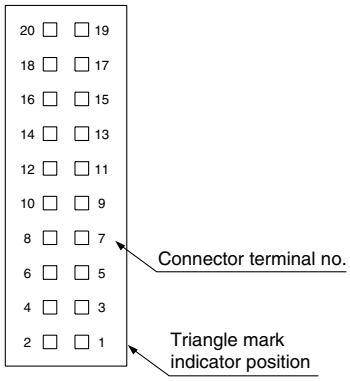


- **Compatible with PC wiring system.**
- **Using connector for flat ribbon cable (20P) conforming to MIL standard permits the use of connectors put on the market and gives a wide interchangeability.**
- **Top or side receptacle position can be selected in accordance with the available mounting space.**

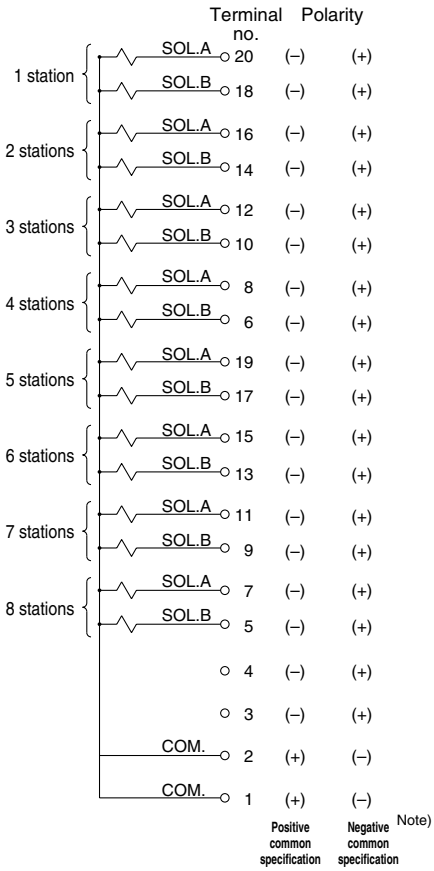
Electrical Wiring Specifications

Double wiring (connected to SOL. A and SOL. B) is adopted for the internal wiring of each station, regardless of valve and option types.
Mixed single and double wiring is available as an option.
For details, refer to “Special Wiring Specifications” (Option) below.

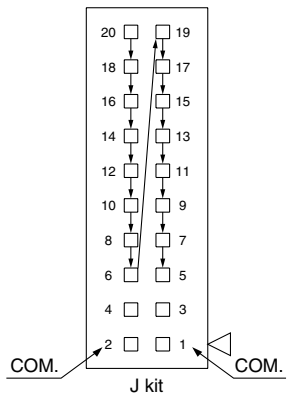
Flat ribbon cable connector



Note) Mounting valve have no polarity. It can also be used as a negative common.
For details about the PC Wiring System, refer to catalog CAT.ES02-20 separately.



Special Wiring Specifications (Option) [-K]



J kit
Flat ribbon cable connector (20P)
PC wiring compatible

Mixed single and double wiring are available as an option. The maximum number of manifold stations is determined by the number of solenoids. Count one point for a single solenoid type and two points for a double solenoid type. The total number of solenoids (points) must not exceed 16.

1. How to order valves

Indicate an option symbol, -K, for the manifold no. and be sure to specify the mounting position and number of stations of the single and double wiring by means of the manifold specification sheet.

2. Wiring specifications

Connector terminal numbers are connected from solenoid station 1 on the A side in the order indicated by the arrows without shipping any terminal numbers.

How to Order Manifold

SS0750 − 08 C4 JD0 − B

Stations

Symbol	Stations
02	2 stations
⋮	⋮
16 Note)	16 stations

Note) The maximum number of stations will be different depending on the wiring specification.

Cylinder port size

Symbol	Port size	
C2	With one-touch fitting for ø2	Metric
C3	With one-touch fitting for ø3.2	
C4	With one-touch fitting for ø4	
CM	Mixed size/with port plug Note)	
N1	With one-touch fitting for ø1/8"	Inch
N3	With one-touch fitting for ø5/32"	
NM	Mixed size/with port plug Note)	

Note) Specify "Mixed size/with port plug" in the manifold specification sheet.

Kit name

Kit name	Symbol	Specification	Standard station	Max. number of stations for special wiring specification	Max. number of solenoids
J kit	**JD0**	Flat ribbon cable (20P) PC wiring system compatible Note 1)	1 to 8 stations	16 stations	16

Note 1) Separately order the 20P type cable assembly for the J kit.
Note 2) The maximum number of stations is determined by the total number of solenoids. For mixed single and double wirings, enter "-K" to the order code options.

Type of actuation	Single type	Double, Dual 3 port type
Number of solenoids	1	2

Option

Symbol	Option
Nil	None
B Note 2)	With back pressure check valve (all stations)
D	With DIN rail (Rail length: Standard)
D0	Without DIN rail (with bracket)
D□ Note 3)	With DIN rail Designated length (□: station)
K Note 4)	Special wiring specification (Except double wiring)
N	With name plate
R Note 5)	External pilot
S	Built-in silencer

Note 1) When two or more options are specified, indicate them alphabetically. Example) -BRS
Note 2) When installing a back pressure check valve on the required station, enter the part number and specify the station position in the manifold specification sheet.
Note 3) The available number of stations is larger than the number of manifold stations.
Note 4) Indicate the wiring specification for mixed single and double wirings.
Note 5) For details, refer to page 648.

∗ **For manifold optional parts, refer to pages 648 to 652.**
∗ **For manifold exploded view, refer to page 654.**

How to Order Valves

S07 1 0 □ − 5

Type of actuation

Symbol	Specification
1	2 position single
2	2 position double
A	4 position dual 3 port type (N.C. + N.C.) [Exhaust center]
B	4 position dual 3 port type (N.O. + N.O.) [Pressure center]
C	4 position dual 3 port type (N.C. + N.O.)

Note) For JIS symbol, refer to page 616.

Base mounted plug-in

Voltage

Symbol	Specification
5	24 VDC
6	12 VDC

Function

Symbol	Specification
Nil	Standard
R	External pilot Note)

Note) Not compatible with dual 3 port valves.

How to Order Manifold Assembly

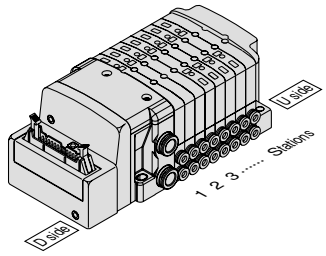
Specify the part numbers for valves and options together beneath the manifold base part number.

<Example>
Flat ribbon cable connector kit

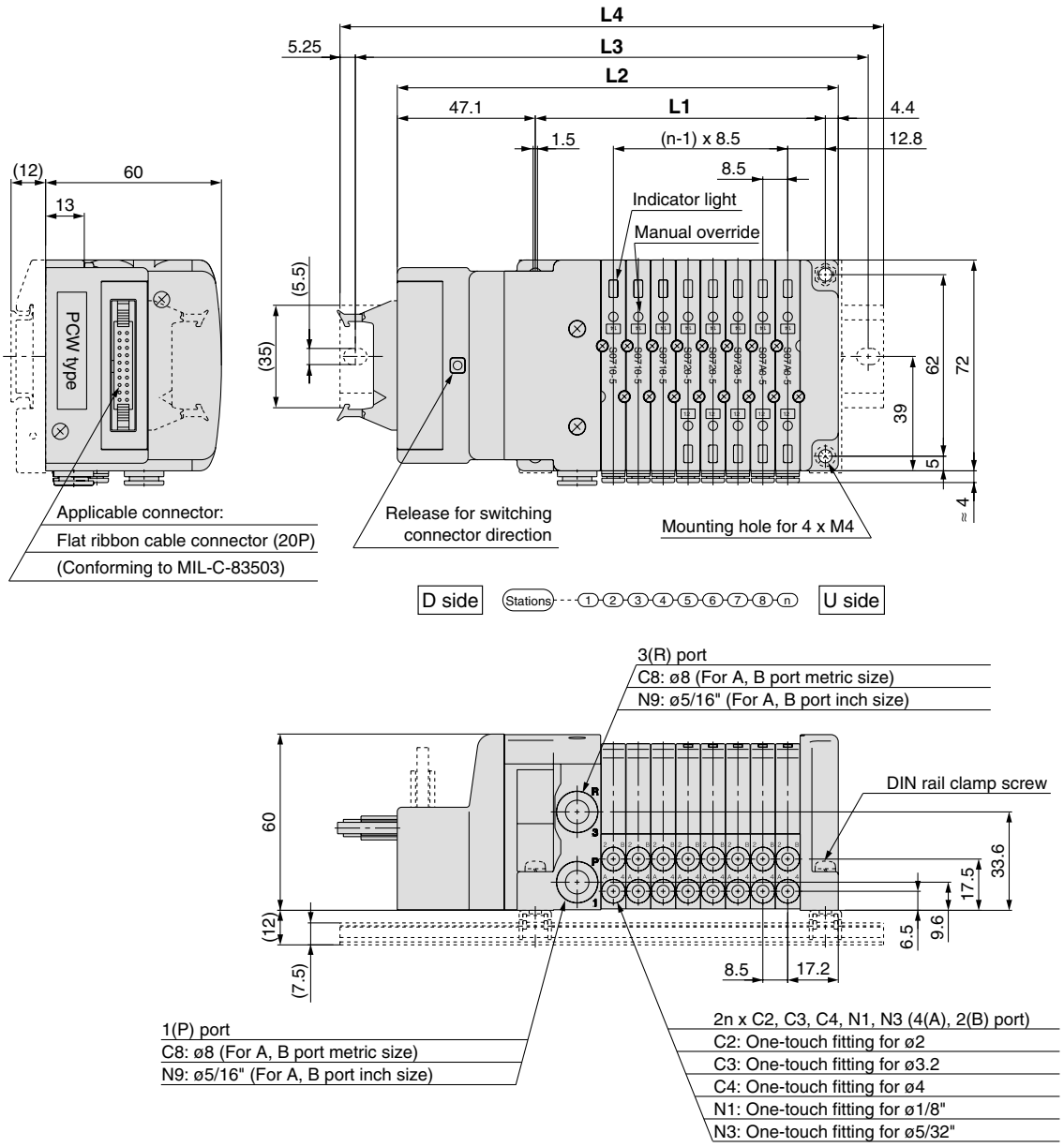
SS0750-08C4JD0 ··· 1 set – Manifold base part no.
∗ S0710-5 ····· 3 sets – Valve part no. (Stations 1 to 3)
∗ S0720-5 ····· 2 sets – Valve part no. (Stations 4 to 5)
∗ S07A0-5 ····· 2 sets – Valve part no. (Stations 6 to 7)
∗ SS0700-10A-1 ····· 1 set – Blanking plate part no. (Station 8)

Prefix the asterisk to the part nos. of the solenoid valve, etc.

Write sequentially from the 1st station on the D side. When part nos. written collectively are complicated, specified by using the manifold specification sheet.



S0700
Kit (PC Wiring System Compatible Flat Ribbon Cable)



Dimensions

Formula L1 = 8.5n + 31, L2 = 8.5n + 82.5 n: Station (Maximum 16 stations)

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	48	56.5	65	73.5	82	90.5	99	107.5	116	124.5	133	141.5	150	158.5	167
L2	99.5	108	116.5	125	133.5	142	150.5	159	167.5	176	184.5	193	201.5	210	218.5
L3	125	137.5	137.5	150	162.5	162.5	175	187.5	187.5	200	212.5	212.5	225	237.5	250
L4	135.5	148	148	160.5	173	173	185.5	198	198	210.5	223	223	235.5	248	260.5

Plug-in

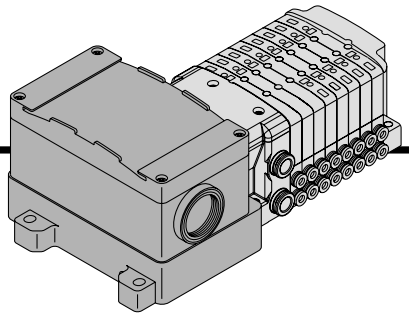
Terminal Block

T Kit

With Terminal Block

P.636

T S0700
Kit (Terminal Block)

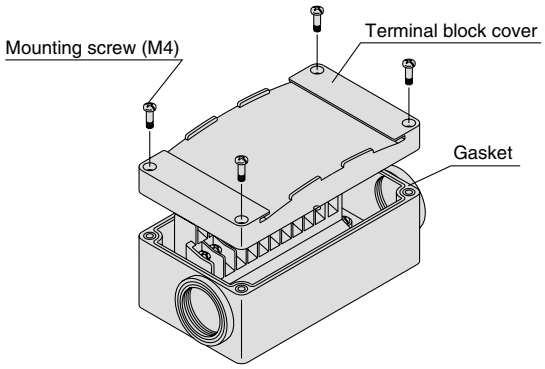


● **This kit has a small terminal box inside a junction box. The electrical entry port {G 3/4} permits connection of conduit fittings.**

Terminal Block Connection

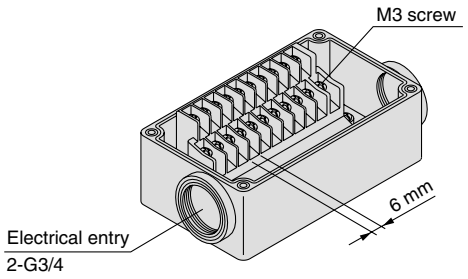
Step 1. How to remove terminal block cover

Loosen the 4 mounting screws (M4) and open the terminal block cover.



Step 2. The diagram below shows the terminal block wiring schematic. All stations are provided with double solenoid wiring.

Connect each wire to the power supply side, according to the markings provided inside the terminal block.



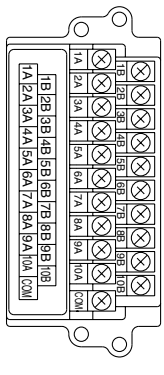
Step 3. How to replace terminal block cover

Securely tighten the screws with the torque shown in the table below, after confirming that the gasket is installed correctly.

Proper tightening torque (N·m)
0.7 to 1.2

• Applicable crimp terminal: 1.25-3S,1.25Y-3,1.25Y-3N,1.25Y-3.5

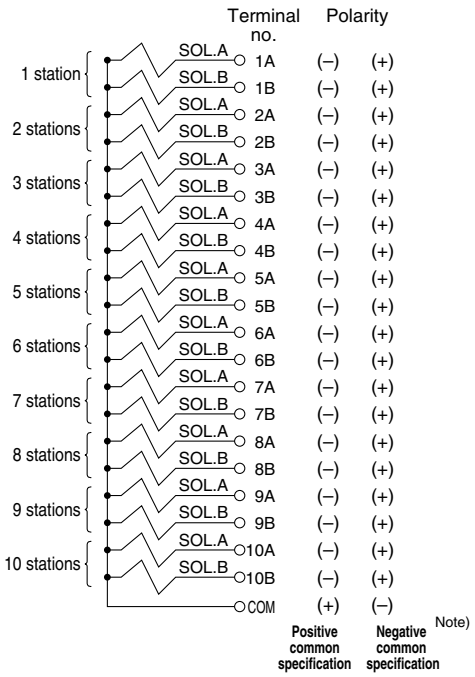
Electrical Wiring Specifications



Double wiring (connected to SOL. A and SOL. B) is adopted for the internal wiring of each station, regardless of valve and option types.
Mixed single and double wiring is available as an option.

Note) Mounting valve have no polarity. It can also be used as a negative common.

Standard wiring



Special Wiring Specifications (Option) [-K]

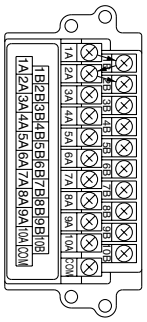
Mixed single and double wiring are available as an option. The maximum number of manifold stations is determined by the number of solenoids. Count one point for a single solenoid type and two points for a double solenoid type. The total number of solenoids (points) must not exceed 20.

1. How to order valves

Indicate an option symbol, -K, for the manifold no. and be sure to specify the mounting position and number of stations of the single and double wiring by means of the manifold specification sheet.

2. Wiring specifications

Connector terminal numbers are connected from solenoid station 1 on the A side in the order indicated by the arrows without shipping any terminal numbers.



SMC

How to Order Manifold

SS0750 − 08 C4 TD0 − B
① ② ③ ④

① Stations

Symbol	Stations
01	1 station
⋮	⋮
20 Note)	20 stations

Note) The maximum number of stations will be different depending on the wiring specification.

② Cylinder port size

Symbol	Port size	
C2	With one-touch fitting for ø2	Metric
C3	With one-touch fitting for ø3.2	
C4	With one-touch fitting for ø4	
CM	Mixed size/with port plug Note)	
N1	With one-touch fitting for ø1/8"	Inch
N3	With one-touch fitting for ø5/32"	
NM	Mixed size/with port plug Note)	

Note) Specify "Mixed size/with port plug" in the manifold specification sheet.

③ Kit name

Kit name	Symbol	Specification	Standard station	Max. number of stations for special wiring specification	Max. number of solenoids
T kit	**TD0**	Terminal block	1 to 10 stations	20 stations	20

Note) The maximum number of stations is determined by the total number of solenoids. For mixed single and double wirings, enter "-K" to the order code options.

Type of actuation	Single type	Double, Dual 3 port type
Number of solenoids	1	2

④ Option

Symbol	Option
Nil	None
B Note 2)	With back pressure check valve (all stations)
D	With DIN rail (Rail length: Standard)
D0	Without DIN rail (with bracket)
D□ Note 3)	With DIN rail Designated length (□: station)
K Note 4)	Special wiring specification (Except double wiring)
N	With name plate
R Note 5)	External pilot
S	Built-in silencer

Note 1) When two or more options are specified, indicate them alphabetically. Example) -BKN
Note 2) When installing a back pressure check valve on the required station, enter the part number and specify the station position in the manifold specification sheet.
Note 3) The available number of stations is larger than the number of manifold stations.
Note 4) Indicate the wiring specification for mixed single and double wirings.
Note 5) For details, refer to page 648.
∗ **For manifold optional parts, refer to pages 648 to 652.**
∗ **For manifold exploded view, refer to page 654.**

How to Order Valves

S07 1 0 □ − 5

Type of actuation

Symbol	Specification
1	2 position single
2	2 position double
A	4 position dual 3 port type (N.C. + N.C.) [Exhaust center]
B	4 position dual 3 port type (N.O. + N.O.) [Pressure center]
C	4 position dual 3 port type (N.C. + N.O.)

Note) For JIS symbol, refer to page 616.

Base mounted plug-in

Function

Symbol	Specification
Nil	Standard
R	External pilot Note)

Note) Not compatible with dual 3 port valves.

Voltage

Symbol	Specification
5	24 VDC
6	12 VDC

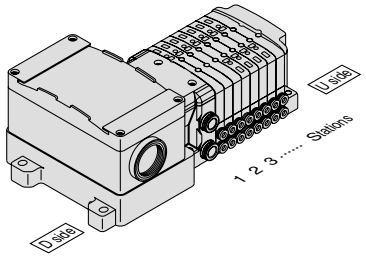
How to Order Manifold Assembly

Specify the part numbers for valves and options together beneath the manifold base part number.

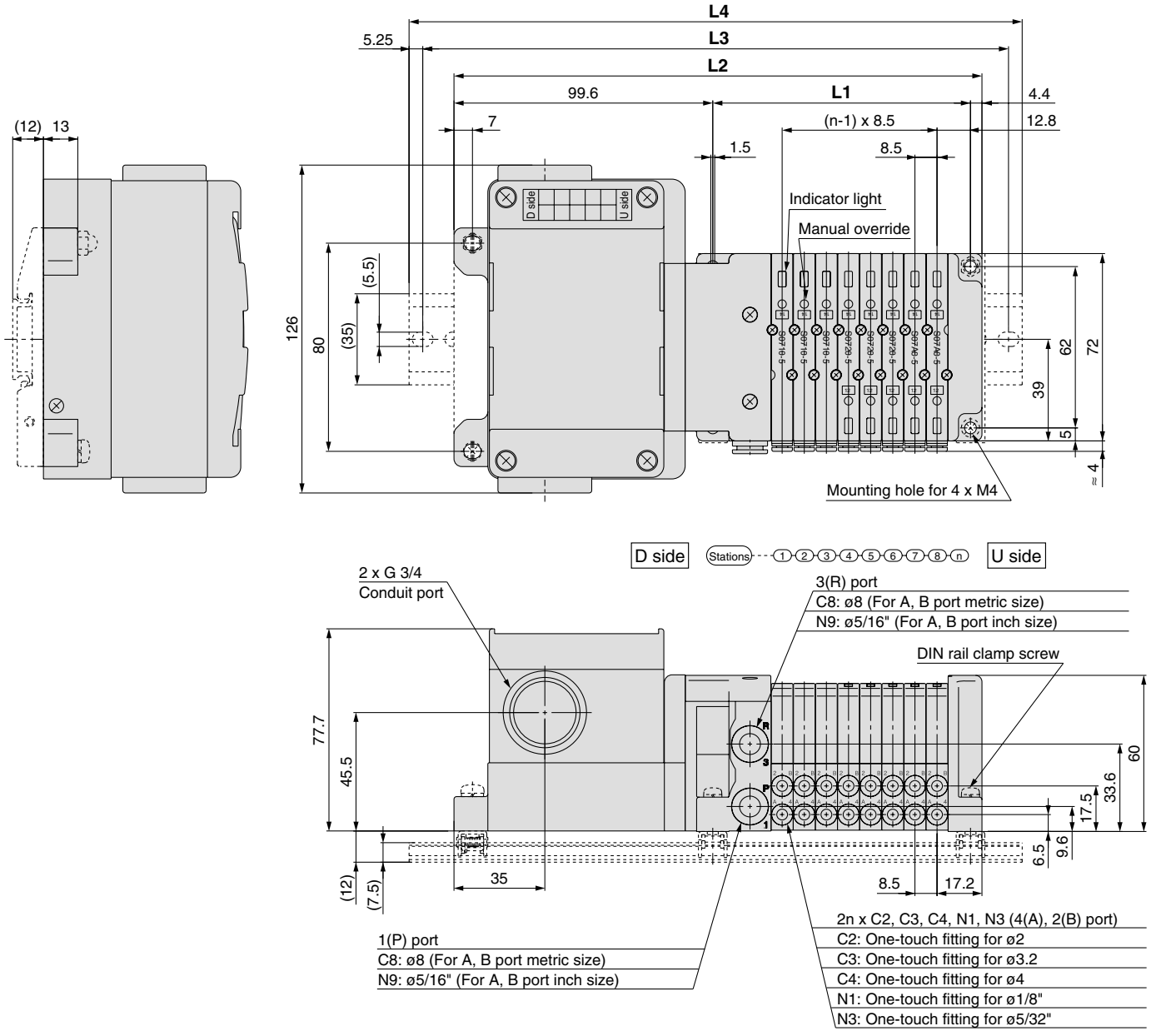
<Example>
Terminal block kit
SS0750-08C4TD0 ··· 1 set – Manifold base part no.
∗ S0710-5 ····· 3 sets – Valve part no. (Stations 1 to 3)
∗ S0720-5 ····· 2 sets – Valve part no. (Stations 4 to 5)
∗ S07A0-5 ····· 2 sets – Valve part no. (Stations 6 to 7)
∗ SS0700-10A-1 ····· 1 set – Blanking plate part no. (Station 8)

Prefix the asterisk to the part nos. of the solenoid valve, etc.

Write sequentially from the 1st station on the D side. When part nos. written collectively are complicated, specified by using the manifold specification sheet.



T S0700
Kit (Terminal Block)



Dimensions

Formula L1 = 8.5n + 31, L2 = 8.5n + 135 n: Station (Maximum 20 stations)

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	48	56.5	65	73.5	82	90.5	99	107.5	116	124.5	133	141.5	150	158.5	167	175.5	184	192.5	201
L2	152	160.5	169	177.5	186	194.5	203	211.5	220	228.5	237	245.5	254	262.5	271	279.5	288	296.5	305
L3	175	187.5	200	200	212.5	225	225	237.5	250	250	262.5	275	275	287.5	300	300	312.5	325	325
L4	185.5	198	210.5	210.5	223	235.5	235.5	248	260.5	260.5	273	285.5	285.5	298	310.5	310.5	323	335.5	335.5

Plug-in

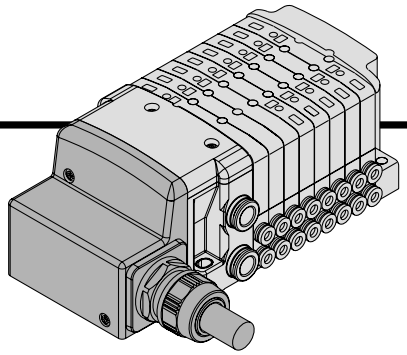
Lead Wire

L Kit

Lead Wire
Direct Entry
Type

P.640

L S0700
Kit (Lead Wire)

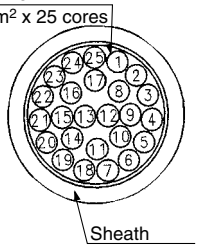


●**Direct electrical entry type**

Electrical Wiring Specifications

Wiring specifications

Lead wire
0.3 mm² x 25 cores



Sheath
Color: White

As the standard electrical wiring specifications, double wiring (connected to SOL. A and SOL. B) is adopted for the internal wiring of each station for 12 stations or less, regardless of valve and option types.
Mixed single and double wiring is available as an option. For details, refer to "Special Wiring Specifications" (Option) below.

	Terminal no.	Polarity		Lead wire color	Dot marking
		Positive common specification	Negative common specification Note)		
1 station SOL.A	1	(–)	(+)	Black	None
1 station SOL.B	14	(–)	(+)	Yellow	Black
2 stations SOL.A	2	(–)	(+)	Brown	None
2 stations SOL.B	15	(–)	(+)	Pink	Black
3 stations SOL.A	3	(–)	(+)	Red	None
3 stations SOL.B	16	(–)	(+)	Blue	White
4 stations SOL.A	4	(–)	(+)	Orange	None
4 stations SOL.B	17	(–)	(+)	Purple	None
5 stations SOL.A	5	(–)	(+)	Yellow	None
5 stations SOL.B	18	(–)	(+)	Gray	None
6 stations SOL.A	6	(–)	(+)	Pink	None
6 stations SOL.B	19	(–)	(+)	Orange	Black
7 stations SOL.A	7	(–)	(+)	Blue	None
7 stations SOL.B	20	(–)	(+)	Red	White
8 stations SOL.A	8	(–)	(+)	Purple	White
8 stations SOL.B	21	(–)	(+)	Brown	White
9 stations SOL.A	9	(–)	(+)	Gray	Black
9 stations SOL.B	22	(–)	(+)	Pink	Red
10 stations SOL.A	10	(–)	(+)	White	Black
10 stations SOL.B	23	(–)	(+)	Gray	Red
11 stations SOL.A	11	(–)	(+)	White	Red
11 stations SOL.B	24	(–)	(+)	Black	White
12 stations SOL.A	12	(–)	(+)	Yellow	Red
12 stations SOL.B	25	(–)	(+)	White	None
COM.	13	(+)	(–)	Orange	Red

Note) Mounting valve have no polarity. It can also be used as a negative common.

Lead wire length

SS0750−08 C4 LD [0]

Lead wire length

0	0.6 m
1	1.5 m
2	3.0 m

Electric Characteristics

Item	Characteristics
Conductor resistance Ω/km, 20°C	65 or less
Withstand voltage V, 1 min, AC	1000
Insulation resistance MΩ/km, 20°C	5 or more

Note) Cannot be used for transfer wiring. The min. bending radius of D-sub cable assembly is 20 mm.

Special Wiring Specifications (Option) [-K]

Mixed single and double wiring are available as an option. The maximum number of manifold stations is determined by the number of solenoids. Count one point for a single solenoid type and two points for a double solenoid type. The total number of solenoids (points) must not exceed 24.

1. How to order valves

Indicate an option symbol, -K, for the manifold no. and be sure to specify the mounting position and number of stations of the single and double wiring by means of the manifold specification sheet.

2. Wiring specifications

Connector terminal numbers are connected from solenoid station 1 on the A side in the order indicated by the arrows without shipping any terminal numbers.

How to Order Manifold

SS0750 − 08 C4 LD0 − B

Stations

Symbol	Stations
02	2 stations
⋮	⋮
24 Note)	24 stations

Note) The maximum number of stations will be different depending on the wiring specification.

Cylinder port size

Symbol	Port size	
C2	With one-touch fitting for ø2	Metric
C3	With one-touch fitting for ø3.2	
C4	With one-touch fitting for ø4	
CM	Mixed size/with port plug Note)	
N1	With one-touch fitting for ø1/8"	Inch
N3	With one-touch fitting for ø5/32"	
NM	Mixed size/with port plug Note)	

Note) Specify "Mixed size/with port plug" in the manifold specification sheet.

Kit name / Cable length

Kit name	Symbol	Specification	Standard station	Max. number of stations for special wiring specification	Max. number of solenoids
L kit	**LD0**	Lead wire, with 0.6 m cable	1 to 12 stations	24 stations	24
	LD1	Lead wire, with 1.5 m cable			
	LD2	Lead wire, with 3.0 m cable			

Note) The maximum number of stations is determined by the total number of solenoids. For mixed single and double wirings, enter "-K" to the order code options.

Type of actuation	Single type	Double, Dual 3 port type
Number of solenoids	1	2

Option

Symbol	Option
Nil	None
B Note 2)	With back pressure check valve (all stations)
D	With DIN rail (Rail length: Standard)
D0	Without DIN rail (with bracket)
D□ Note 3)	With DIN rail Designated length (□: station)
K Note 4)	Special wiring specification (Except double wiring)
N	With name plate
R Note 5)	External pilot
S	Built-in silencer

Note 1) When two or more options are specified, indicate them alphabetically. Example) -BKN
Note 2) When installing a back pressure check valve on the required station, enter the part number and specify the station position in the manifold specification sheet.
Note 3) The available number of stations is larger than the number of manifold stations.
Note 4) Indicate the wiring specification for mixed single and double wirings.
Note 5) For details, refer to page 648.

∗ **For manifold optional parts, refer to pages 648 to 652.**
∗ **For manifold exploded view, refer to page 654.**

How to Order Valves

S07 1 0 □ − 5

Type of actuation

Symbol	Specification
1	2 position single
2	2 position double
A	4 position dual 3 port type (N.C. + N.C.) [Exhaust center]
B	4 position dual 3 port type (N.O. + N.O.) [Pressure center]
C	4 position dual 3 port type (N.C. + N.O.)

Note) For JIS symbol, refer to page 616.

Voltage

Symbol	Specification
5	24 VDC
6	12 VDC

Function

Symbol	Specification
Nil	Standard
R	External pilot Note)

Note) Not compatible with dual 3 port valves.

Base mounted plug-in

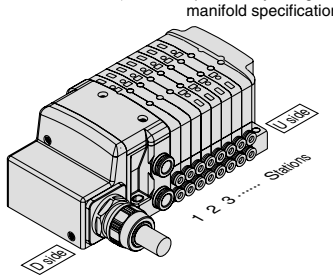
How to Order Manifold Assembly

Specify the part numbers for valves and options together beneath the manifold base part number.

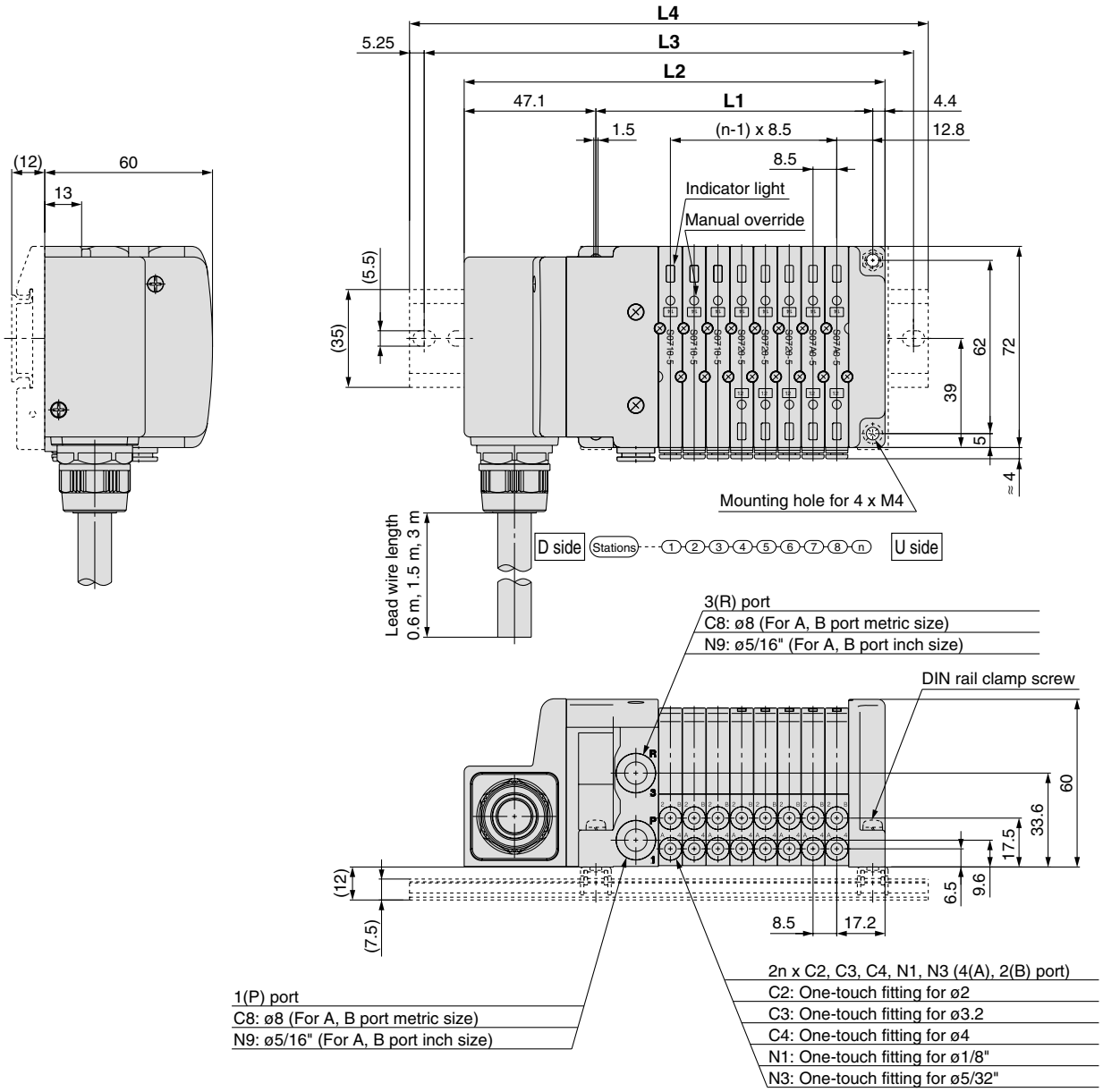
<Example>
Lead wire kit
SS0750-08C4LD0 ··· 1 set – Manifold base part no.
∗ S0710-5 ····· 3 sets – Valve part no. (Stations 1 to 3)
∗ S0720-5 ····· 2 sets – Valve part no. (Stations 4 to 5)
∗ S07A0-5 ····· 2 sets – Valve part no. (Stations 6 to 7)
∗ SS0700-10A-1 ····· 1 set – Blanking plate part no. (Station 8)

Prefix the asterisk to the part nos. of the solenoid valve, etc.

Write sequentially from the 1st station on the D side. When part nos. written collectively are complicated, specified by using the manifold specification sheet.



S0700
Kit (Lead Wire)



Dimensions

Formula L1 = 8.5n + 31, L2 = 8.5n + 82.5 n: Station (Maximum 24 stations)

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	48	56.5	65	73.5	82	90.5	99	107.5	116	124.5	133	141.5	150	158.5	167	175.5	184	192.5	201	209.5	218	226.5	235
L2	99.5	108	116.5	125	133.5	142	150.5	159	167.5	176	184.5	193	201.5	210	218.5	227	235.5	244	252.5	261	269.5	278	286.5
L3	125	137.5	137.5	150	162.5	162.5	175	187.5	187.5	200	212.5	212.5	225	237.5	250	250	262.5	275	275	287.5	300	300	312.5
L4	135.5	148	148	160.5	173	173	185.5	198	198	210.5	223	223	235.5	248	260.5	260.5	273	285.5	285.5	298	310.5	310.5	323

Plug-in

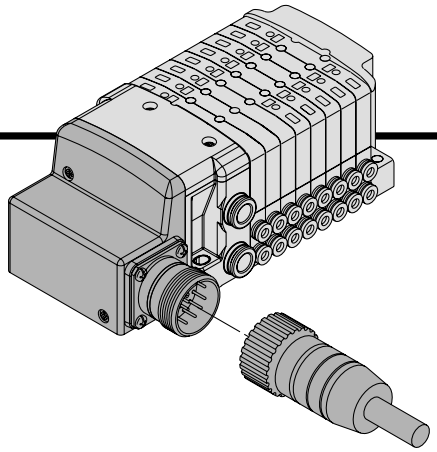
Circular Connector

M Kit

Circular Connector 26 Pins

P.644

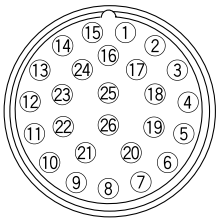
M S0700
Kit (Circular Connector)



● **Simplification and labor savings for wiring work can be achieved by using a circular connector for the electrical connection.**

Electrical Wiring Specifications

Circular Connector



Double wiring (connected to SOL. A and SOL. B) is adopted for the internal wiring of each station, regardless of valve and option types.
Mixed single and double wiring is available as an option. For details, refer to "Special Wiring Specifications" (Option) below.

		Terminal no.	Positive common specification	Negative common specification
1 station	SOL.A	1	(–)	(+)
	SOL.B	2	(–)	(+)
2 stations	SOL.A	3	(–)	(+)
	SOL.B	4	(–)	(+)
3 stations	SOL.A	5	(–)	(+)
	SOL.B	6	(–)	(+)
4 stations	SOL.A	7	(–)	(+)
	SOL.B	8	(–)	(+)
5 stations	SOL.A	9	(–)	(+)
	SOL.B	10	(–)	(+)
6 stations	SOL.A	11	(–)	(+)
	SOL.B	12	(–)	(+)
7 stations	SOL.A	13	(–)	(+)
	SOL.B	14	(–)	(+)
8 stations	SOL.A	15	(–)	(+)
	SOL.B	16	(–)	(+)
9 stations	SOL.A	17	(–)	(+)
	SOL.B	18	(–)	(+)
10 stations	SOL.A	19	(–)	(+)
	SOL.B	20	(–)	(+)
11 stations	SOL.A	21	(–)	(+)
	SOL.B	22	(–)	(+)
12 stations	SOL.A	23	(–)	(+)
	SOL.B	24	(–)	(+)
	COM.	25	(+)	(–)
	COM.	26	(+)	(–)

Note)

Note) Mounting valve have no polarity. It can also be used as a negative common.

Special Wiring Specifications (Option) [-K]

Mixed single and double wiring are available as an option. The maximum number of manifold stations is determined by the number of solenoids. Count one point for a single solenoid type and two points for a double solenoid type. The total number of solenoids (points) must not exceed 24.

1. How to order valves

Indicate an option symbol, -K, for the manifold no. and be sure to specify the mounting position and number of stations of the single and double wiring by means of the manifold specification sheet.

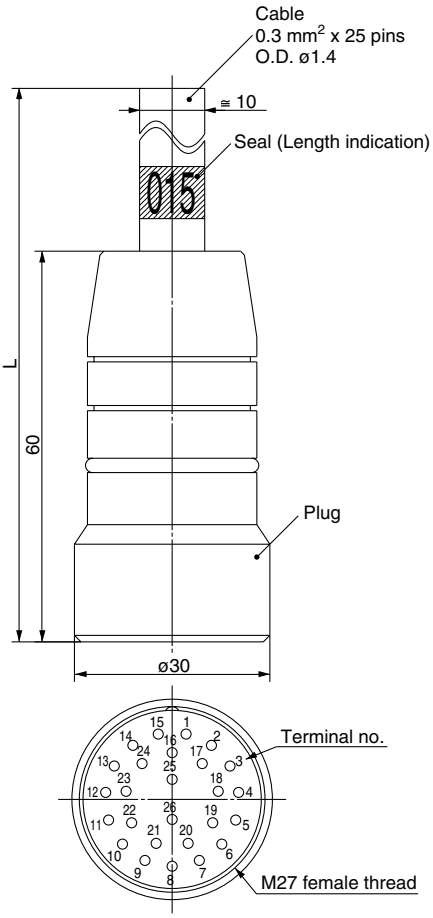
2. Wiring specifications

Connector terminal numbers are connected from solenoid station 1 on the A side in the order indicated by the arrows without shipping any terminal numbers.

Cable Assembly

AXT100-MC26- 015 / 030 / 050

(Circular connector assembly (26P type) included in a specific manifold model no. specific manifold model no. Refer to "How to Order Manifold".)



Circular Connector
Cable Assembly (Option)

Cable length (L)	Assembly part no.
	26P
1.5 m	AXT100-MC26-015
3 m	AXT100-MC26-030
5 m	AXT100-MC26-050

∗ Cannot be used for transfer wiring.

How to Order Manifold

SS0750 − 08 C4 MD1 − B

① ② ③ ④

① Stations

Symbol	Stations
02	2 stations
⋮	⋮
24 Note)	24 stations

Note) The maximum number of stations will be different depending on the wiring specification.

② Cylinder port size

Symbol	Port size	
C2	With one-touch fitting for ø2	Metric
C3	With one-touch fitting for ø3.2	
C4	With one-touch fitting for ø4	
CM	Mixed size/with port plug Note)	
N1	With one-touch fitting for ø1/8"	Inch
N3	With one-touch fitting for ø5/32"	
NM	Mixed size/with port plug Note)	

Note) Specify "Mixed size/with port plug" in the manifold specification sheet.

③ Kit name / Cable length

Kit name	Symbol	Specification	Standard station	Max. number of stations for special wiring specification	Max. number of solenoids
M kit	**MD0**	Circular connector (26P), without cable	1 to 12 stations	24 stations	24
	MD1	Circular connector (26P), with 1.5 m cable			
	MD2	Circular connector (26P), with 3.0 m cable			
	MD3	Circular connector (26P), with 5.0 m cable			

Note) The maximum number of stations is determined by the total number of solenoids. For mixed single and double wirings, enter "-K" to the order code options.

Type of actuation	Single type	Double, Dual 3 port type
Number of solenoids	1	2

④ Option

Symbol	Option
Nil	None
B Note 2)	With back pressure check valve (all stations)
D	With DIN rail (Rail length: Standard)
D0	Without DIN rail (with bracket)
D□ Note 3)	With DIN rail Designated length (□: station)
K Note 4)	Special wiring specification (Except double wiring)
N	With name plate
R Note 5)	External pilot
S	Built-in silencer

Note 1) When two or more options are specified, indicate them alphabetically. Example) -BKN

Note 2) When installing a back pressure check valve on the required station, enter the part number and specify the station position in the manifold specification sheet.

Note 3) The available number of stations is larger than the number of manifold stations.

Note 4) Indicate the wiring specification for mixed single and double wirings.

Note 5) For details, refer to page 648.

∗ **For manifold optional parts, refer to pages 648 to 652.**

∗ **For manifold exploded view, refer to page 654.**

How to Order Valves

S07 1 0 □ − 5

Type of actuation

Symbol	Specification
1	2 position single
2	2 position double
A	4 position dual 3 port type (N.C. + N.C.) [Exhaust center]
B	4 position dual 3 port type (N.O. + N.O.) [Pressure center]
C	4 position dual 3 port type (N.C. + N.O.)

Note) For JIS symbol, refer to page 616.

Base mounted plug-in

Function

Symbol	Specification
Nil	Standard
R	External pilot Note)

Note) Not compatible with dual 3 port valves.

Voltage

Symbol	Specification
5	24 VDC
6	12 VDC

How to Order Manifold Assembly

Specify the part numbers for valves and options together beneath the manifold base part number.

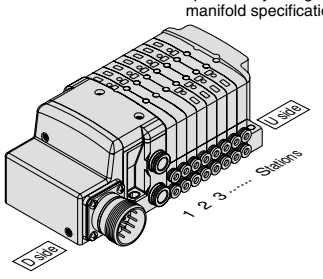
<Example>

Circular connector kit

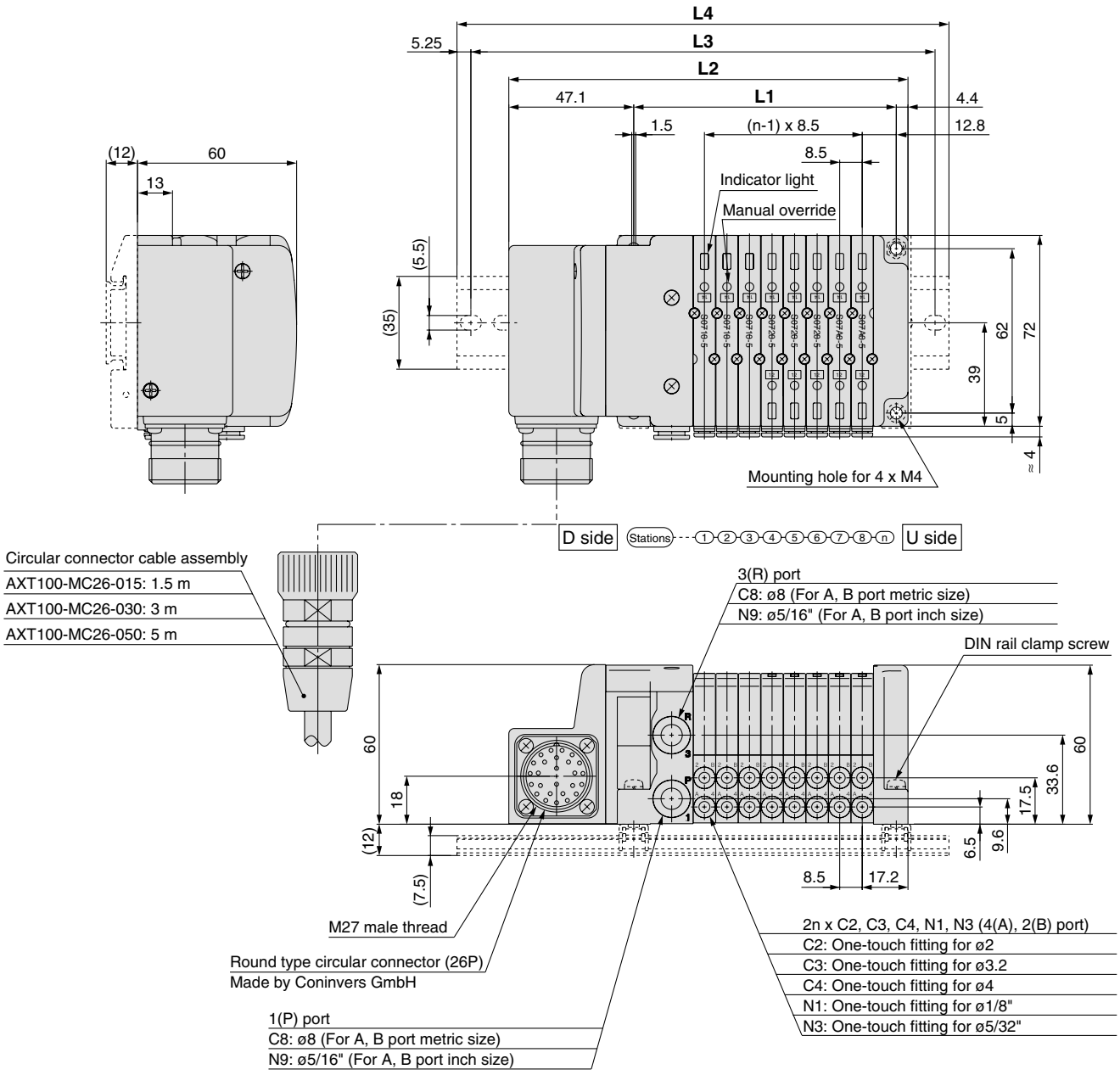
SS0750-08C4MD0··· 1 set – Manifold base part no.
∗ S0710-5 ····· 3 sets – Valve part no. (Stations 1 to 3)
∗ S0720-5 ····· 2 sets – Valve part no. (Stations 4 to 5)
∗ S07A0-5 ····· 2 sets – Valve part no. (Stations 6 to 7)
∗ SS0700-10A-1 ····· 1 set – Blanking plate part no. (Station 8)

Prefix the asterisk to the part nos. of the solenoid valve, etc.

Write sequentially from the 1st station on the D side. When part nos. written collectively are complicated, specified by using the manifold specification sheet.



S0700
Kit (Circular Connector)



Dimensions

Formula L1 = 8.5n + 31, L2 = 8.5n + 82.5 n: Station (Maximum 24 stations)

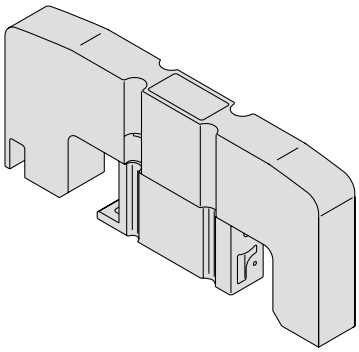
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	48	56.5	65	73.5	82	90.5	99	107.5	116	124.5	133	141.5	150	158.5	167	175.5	184	192.5	201	209.5	218	226.5	235
L2	99.5	108	116.5	125	133.5	142	150.5	159	167.5	176	184.5	193	201.5	210	218.5	227	235.5	244	252.5	261	269.5	278	286.5
L3	125	137.5	137.5	150	162.5	162.5	175	187.5	187.5	200	212.5	212.5	225	237.5	250	250	262.5	275	275	287.5	300	300	312.5
L4	135.5	148	148	160.5	173	173	185.5	198	198	210.5	223	223	235.5	248	260.5	260.5	273	285.5	285.5	298	310.5	310.5	323

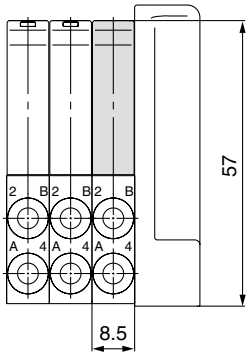
Blanking plate

SS0700-10A-1

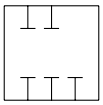
It is used by attaching on the manifold block for being prepared for removing a valve for maintenance reasons or planning to mount a spare valve, etc.

Mass: 25 g





JIS symbol

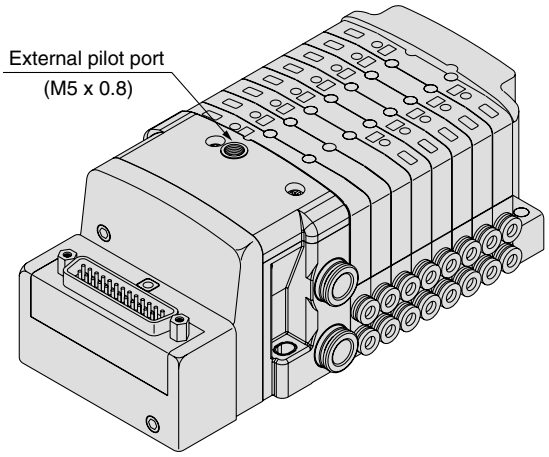


External pilot [-R]

This can be used when the air pressure is 0.1 to 0.2 MPa lower than the minimum operating pressure of the solenoid valves or used for vacuum specifications.
Add R to the part numbers of manifolds and valves to indicate the external pilot specification.
An M5 port will be installed on the top side of the manifold's SUP/EXH block.

● How to Order Valves (Example)
S0710 R -5
External pilot

● How to Order Manifold (Example)
∗ Indicate R for an option.
SS0750-08C4FD1-R
External pilot

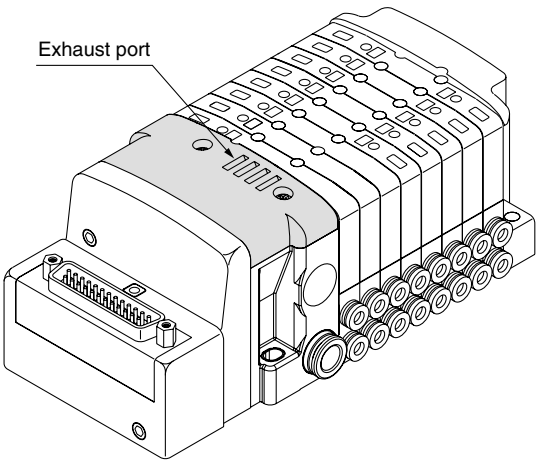


Note 1) The dual 3 port valve is not available.
Note 2) When the internal pilot type and external pilot type of valves are mixed up on the manifold, order the manifold suitable for the specifications of the external pilot valve.
Note 3) Valves with the external pilot have a pilot EXH with individual exhaust specifications and EXH can be pressurized. However, the pressure supplied from EXH should be 0.4 MPa or lower.

Built-in silencer, Direct exhaust [-S]

This is a type with an exhaust port atop the manifold end plate. The built-in silencer exhibits an excellent noise suppression effect. (Silencing effect: 30 dB)

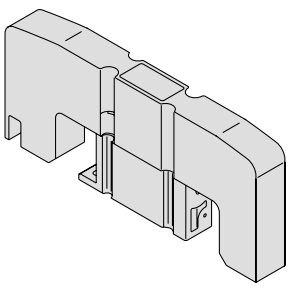
Note) A large quantity of drainage generated in the air source results in exhaust of air together with drainage.
∗ When ordering assemblies incorporated with a manifold, add suffix "-S" to the manifold no.
∗ For precautions on handling and how to replace elements, refer to "Specific Product Precautions."

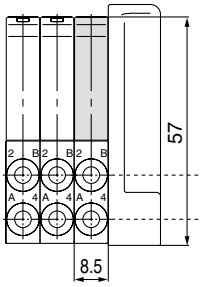


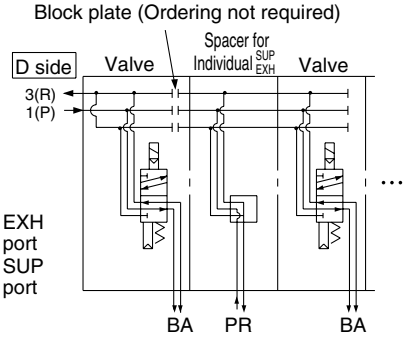
Spacer for Individual SUP/EXH

SS0700-PR-1

If this spacer is installed instead of a valve, it is possible to add SUP and EXH ports. In this condition, the A port should be an SUP port and the B port an EXH port.
∗ Specify the spacer mounting position and SUP/EXH passage shut off positions on the manifold specification sheet.
∗ The spacer comes with a SUP block plate and an EXH block plate.
∗ Electrical wiring is also connected to the spacer mounting position.







SUP block plate

SS0700-B-P

When different pressures, high and low, are supplied to one manifold, a SUP block plate is inserted between the stations under different pressures.

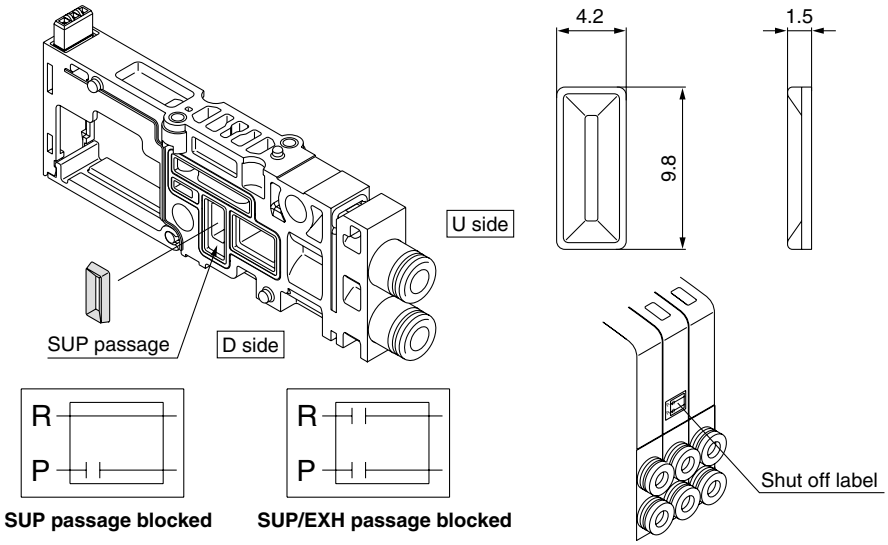
* Specify the number of stations on the manifold specification sheet.

<Shut off label>

When using block plates for SUP passage, indication label for confirmation of the blocking position from outside is attached. (One label of each)

* When ordering a block plate for SUP incorporated with the manifold no., a block indication label is attached to the manifold.

Mass: 0.3 g



EXH block plate

SS0700-B-R

When valve exhaust affects the other stations on the circuit, insert EXH block disk in between stations to separate valve exhaust.

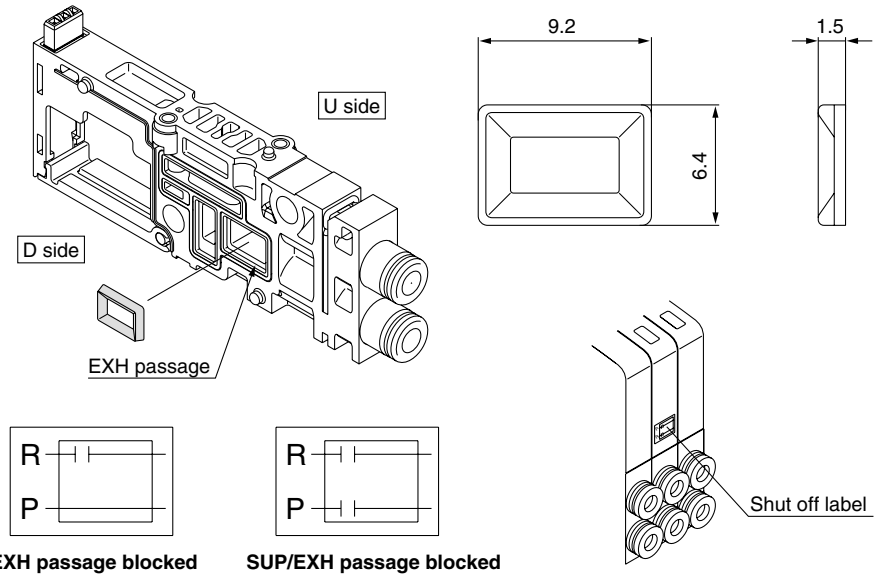
* Specify the number of stations on the manifold specification sheet.

<Shut off label>

When using block plates for EXH passage, indication label for confirmation of the blocking position from outside is attached. (One label of each)

* When ordering a block plate for EXH incorporated with the manifold no., a block indication label is attached to the manifold.

Mass: 0.3 g



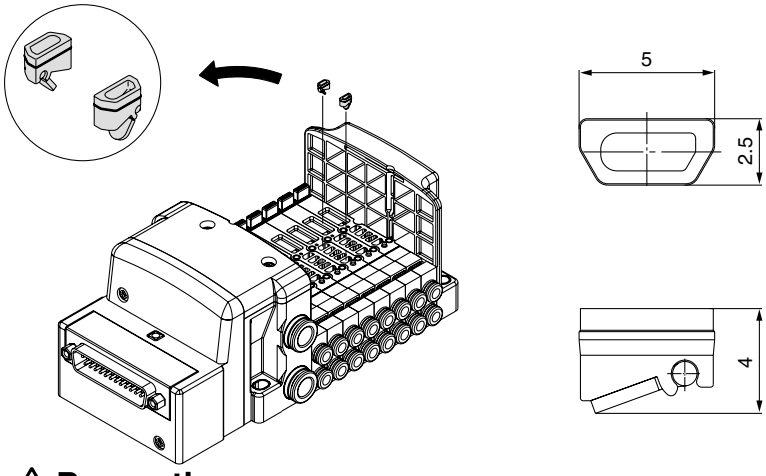
Back pressure check valve [-B]

SS0700-7A-1

It prevents cylinder malfunction caused by other valve exhaust. Insert it into R (EXH) port on the manifold side of a valve which is affected. It is effective when a single action cylinder is used or an exhaust center type solenoid valve is used.

* When a check valve for back pressure prevention is desired, and is to be installed only in certain manifold stations, write clearly the part no. and specify the number of stations by using the manifold specification sheet.
* When ordering assemblies incorporated with a manifold, add suffix "-B" to the manifold no.

Mass: 0.1 g



⚠ Precautions

1. The back pressure check valve assembly is assembly parts with a check valve structure. However, as slight air leakage is allowed for the back pressure, take care the exhaust air will not be throttled at the exhaust port.
2. When a back pressure check valve is mounted, the effective area of the valve will decrease, by about 20%.

Blanking plate with output

SS0700-1C-□

Lead wire length (mm)

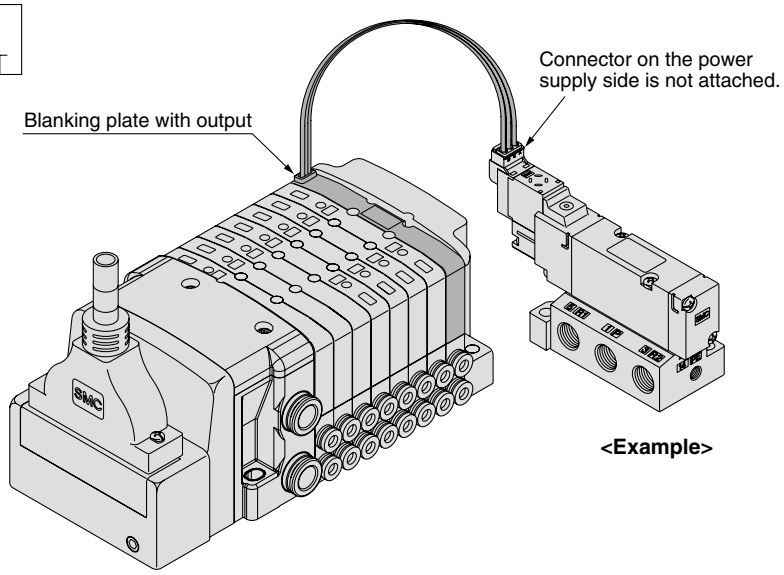
Nil	600	**20**	2000
10	1000	**25**	2500
15	1500	**30**	3000

Blanking plate with a connector for individually outputting electricity to drive a single valve or equipment that are not on the manifold base.

* Electric current should be 0.5 A or less. (Including the mounted valves.) When the current is output from two positions at the same time, the current should be 0.25 A or less.

Mass: 34 g

JIS symbol



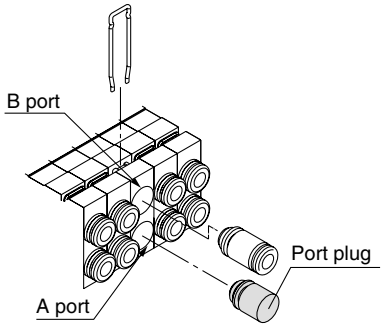
<Example>

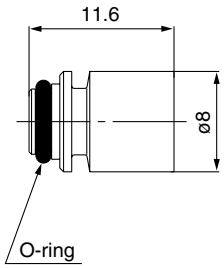
Port plug

VVQ0000-CP

The plug is used to block the cylinder port when using a 5 port valve as a 3 port valve.

* When ordering a plug incorporated with a manifold, indicate “CM” for the port size in the manifold no., as well as, the mounting position and number of stations and cylinder port mounting positions, A and B, on the manifold specification sheet.



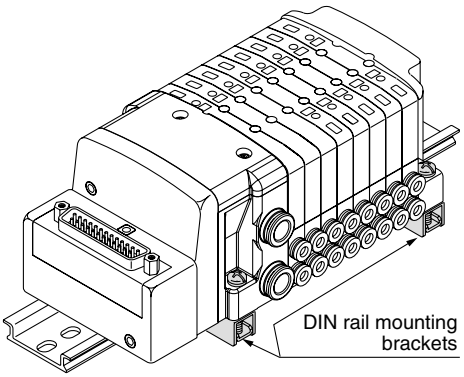


DIN rail mounting bracket

SS0700-57A-□

Symbol	Specification
Nil	S(EX500), F, P, L M kit
S	S(EX250) kit
T	T kit

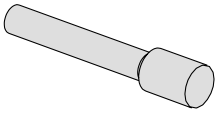
It is used for mounting a manifold on a DIN rail. The DIN rail mounted bracket is fixed to the manifold end plate. (The specification is the same as that for the option “-D”.)
1 set of DIN rail mounting bracket is used for 1 manifold (2 or 3 DIN rail mounting brackets (S, T kit).



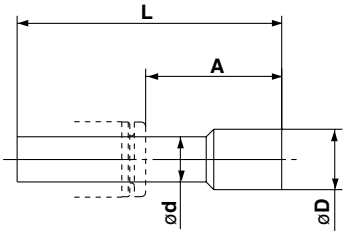
* When ordering assemblies incorporated with a manifold, add suffix “D” to the manifold no.

Blanking plug (For one-touch fittings)

KJP-02
KQ2P-23
04
06



It is inserted into an unused cylinder port and SUP/EXH ports.
Purchasing order is available in units of 10 pieces.



Dimensions (mm)

Applicable fitting size ød	Model	A	L	D	Mass: g
2	**KJP-02**	8.2	17	3	0.1
3.2	**KQ2P-23**	16	31.5	3.2	1
4	**KQ2P-04**	16	32	6	1
6	**KQ2P-06**	18	35	8	1

Applicable to DIN rail mounting

Each manifold can be mounted on a DIN rail.
Order it by indicating a manifold mounting symbol for DIN rail mounting style, -D.
Standard DIN rail which is approx. 30 mm longer than the manifold with the specified number of stations is attached.
The following options are also available.

● DIN rail length longer than the standard type (for stations to be added later, etc.)

In the manifold part number, specify -D for the manifold mounting symbol and add the number of required stations after the symbol.

Example) **SS0750-08C4FD0-D09K**

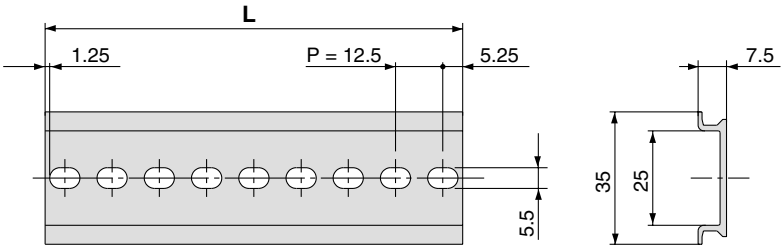
- 8 stations manifold
- Optional symbol (alphabetically)
- DIN rail for 9 stations

● How to Order DIN rail only

DIN rail part no.

AXT100-DR-n

Note) For n, enter a number from the No. line in the table below.
For L dimension, refer to the dimensions of each kit.



L Dimension

L = 12.5 x n+10.5

No.	1	2	3	4	5	6	7	8	9	10
L dimension	23	35.5	48	60.5	73	85.5	98	110.5	123	135.5

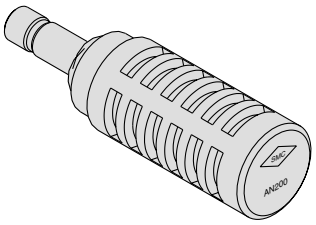
No.	11	12	13	14	15	16	17	18	19	20
L dimension	148	160.5	173	185.5	198	210.5	223	235.5	248	260.5

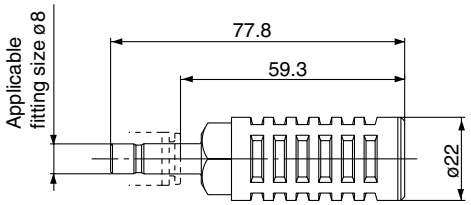
No.	21	22	23	24	25	26	27	28	29	30
L dimension	273	285.5	298	310.5	323	335.5	348	360.5	373	385.5

No.	31	32	33	34	35	36	37	38	39	40
L dimension	398	410.5	423	435.5	448	460.5	473	485.5	498	510.5

Silencer (For EXH port)

This silencer is to be inserted into the EXH port (one-touch fitting) of the common exhaust type.





Specification

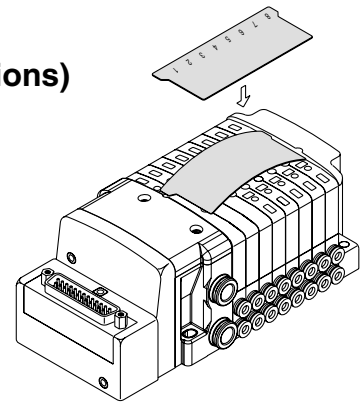
Model	Effective area (mm²) (Cv factor)	Noise reduction (dB)
AN200-KM8	20 (1.1)	30

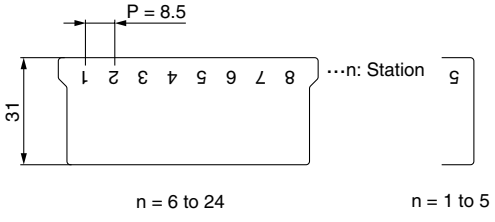
Name plate [-N]

SS0700-N-Station (1 to max. stations)

It is a transparent resin plate for placing a label that indicates solenoid valve function, etc.
Insert it into the groove on the side of the end plate and bend it as shown in the figure.

* When ordering assemblies incorporated with a manifold, add suffix "-N" to the manifold no.

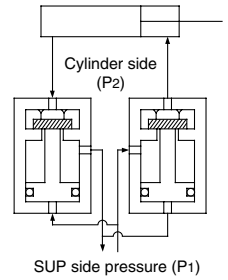


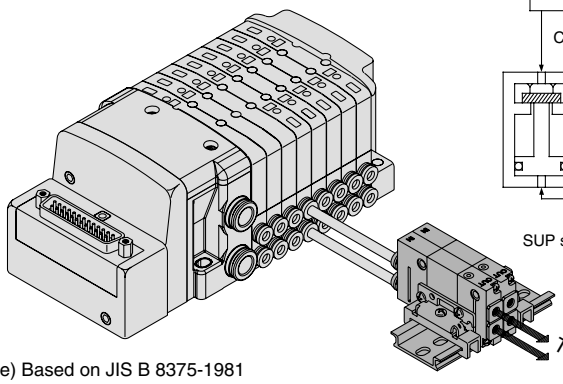


Double check block (Separated)
VQ1000-FPG-□□

It is used on the outlet side piping to keep the cylinder in the intermediate position for a long time. Combining the double check block with a built-in pilot type double check valve and a 2 position single/double solenoid valve will permit this block to be used for preventing the dropping at the cylinder stroke end when the SUP residual pressure is released.

<Check Valve Working Principle>





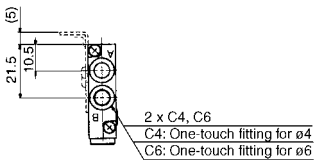
Specifications

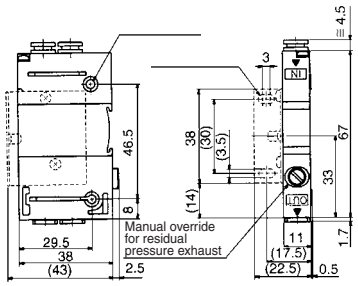
Max. operating pressure	0.8 MPa
Min. operating pressure	0.15 MPa
Ambient and fluid temp.	–5 to 50°C
Flow characteristics: C	0.60 dm³/(s·bar)
Max. operating frequency	180 c.p.m

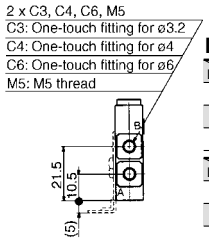
Note) Based on JIS B 8375-1981
(Supply pressure: 0.5 MPa)

Dimensions

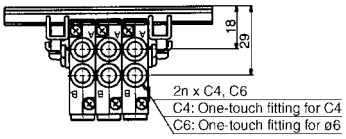
Single unit

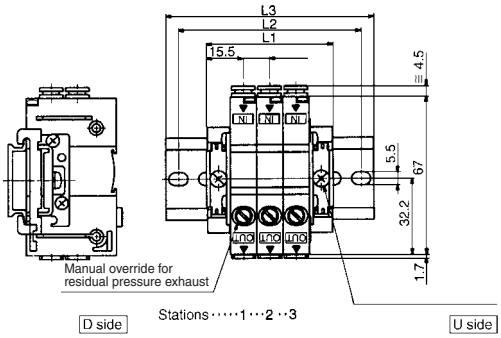


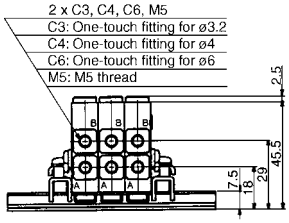




Manifold







Dimensions Formula L1 = 11n + 20 n: Station (Max. 24 stastions)

L \ n	1	2	3	4	5	6	7	8	9	10	11	12
L1	31	42	53	64	75	86	97	108	119	130	141	152
L2	50	62.5	75	87.5	100	112.5	125	125	137.5	150	162.5	175
L3	60.5	73	85.5	98	110.5	123	135.5	135.5	148	160.5	173	185.5

L \ n	13	14	15	16	17	18	19	20	21	22	23	24
L1	163	174	185	196	207	218	229	240	251	262	273	284
L2	187.5	187.5	200	212.5	225	237.5	250	250	262.5	275	287.5	300
L3	198	198	210.5	223	235.5	248	260.5	260.5	273	285.5	298	310.5

How to Order

Single unit, double check block

VQ1000−FPG−[C4][M5]−[F]

IN side port size

C4	One-touch fitting for ø4
C6	One-touch fitting for ø6

OUT side port size

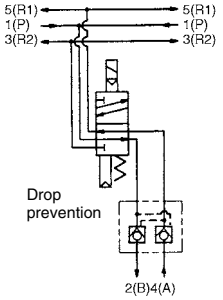
M5	M5 thread
C3	One-touch fitting for ø3.2
C4	One-touch fitting for ø4
C6	One-touch fitting for ø6

Option

Nil	None
D	DIN rail mounting style (For manifold)
F	With bracket
N	With name plate

Note) When two or more symbols are specified, indicate them alphabetically.
Example) -DN

<Example>
2 position



Manifold (DIN rail mounting type)

VVQ1000−FPG−[06]

Stations

01	1 station
⋮	⋮
16	16 stations

When ordering a double check block, order the DIN rail mounting style [-D].
<Example>
VVQ1000-FPG-06···6 stations manifold
∗ VQ1000-FPG-C4M5-D: 3set
∗ VQ1000-FPG-C6M5-D: 3set
} Double check block

Bracket Assembly

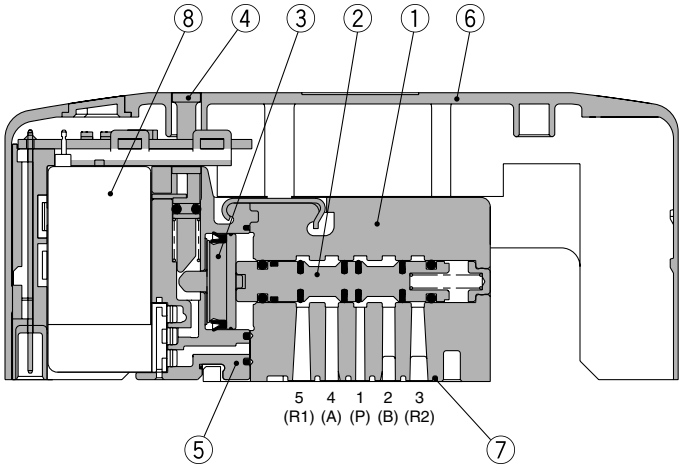
Part no.	Tightening torque
VQ1000-FPG-FB	0.22 to 0.25 N·m

⚠Caution

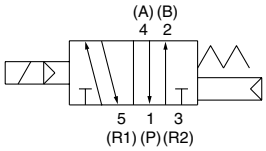
- Air leakage from the pipe between the valve and cylinder or from the fittings will prevent the cylinder from stopping for a long time. Check the leakage using neutral household detergent, such as dish washing soap.
  Also check the cylinder's tube gasket, piston packing and rod packing for air leakage.
- Since one-touch fittings allow slight air leakage, screw piping (with M5 thread) is recommended when stopping the cylinder in the middle for a long time.
- M5 fitting assembly is attached, not incorporated into the double check block. After screwing in the M5 fittings, mount the assembly on the double check block. {Tightening torque: 0.8 to 1.2 N·m}
- If the exhaust of the double check block is throttled too much, the cylinder may not operate properly and may not stop intermediately.
- Set the cylinder load so that the cylinder pressure will be within two times that of the supply pressure.

Construction

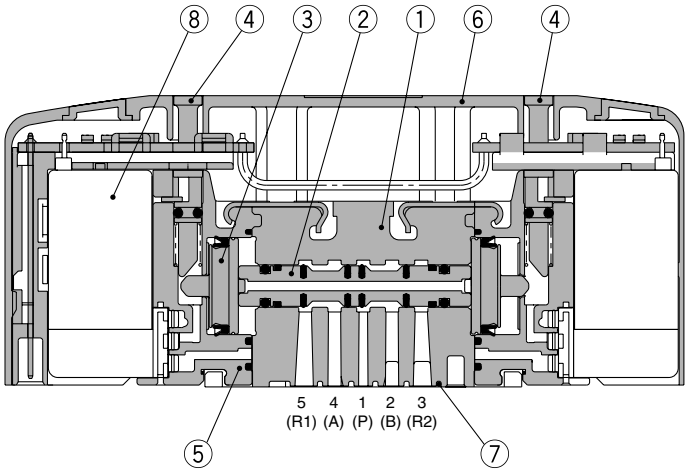
Single: S0710



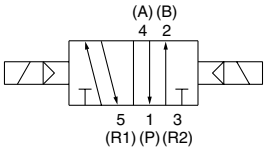
S0710



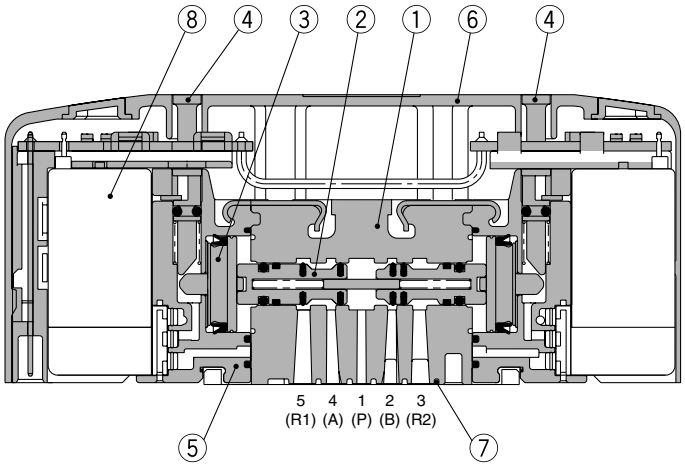
Double: S0720



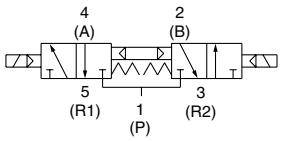
S0720



Dual 3 Port: S07**A**/**B**/**C**0

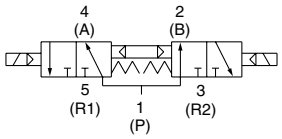


S07A0



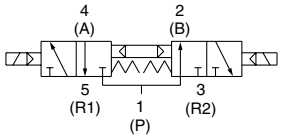
N.C. + N.C.

S07B0



N.O. + N.O.

S07C0



N.C. + N.O.

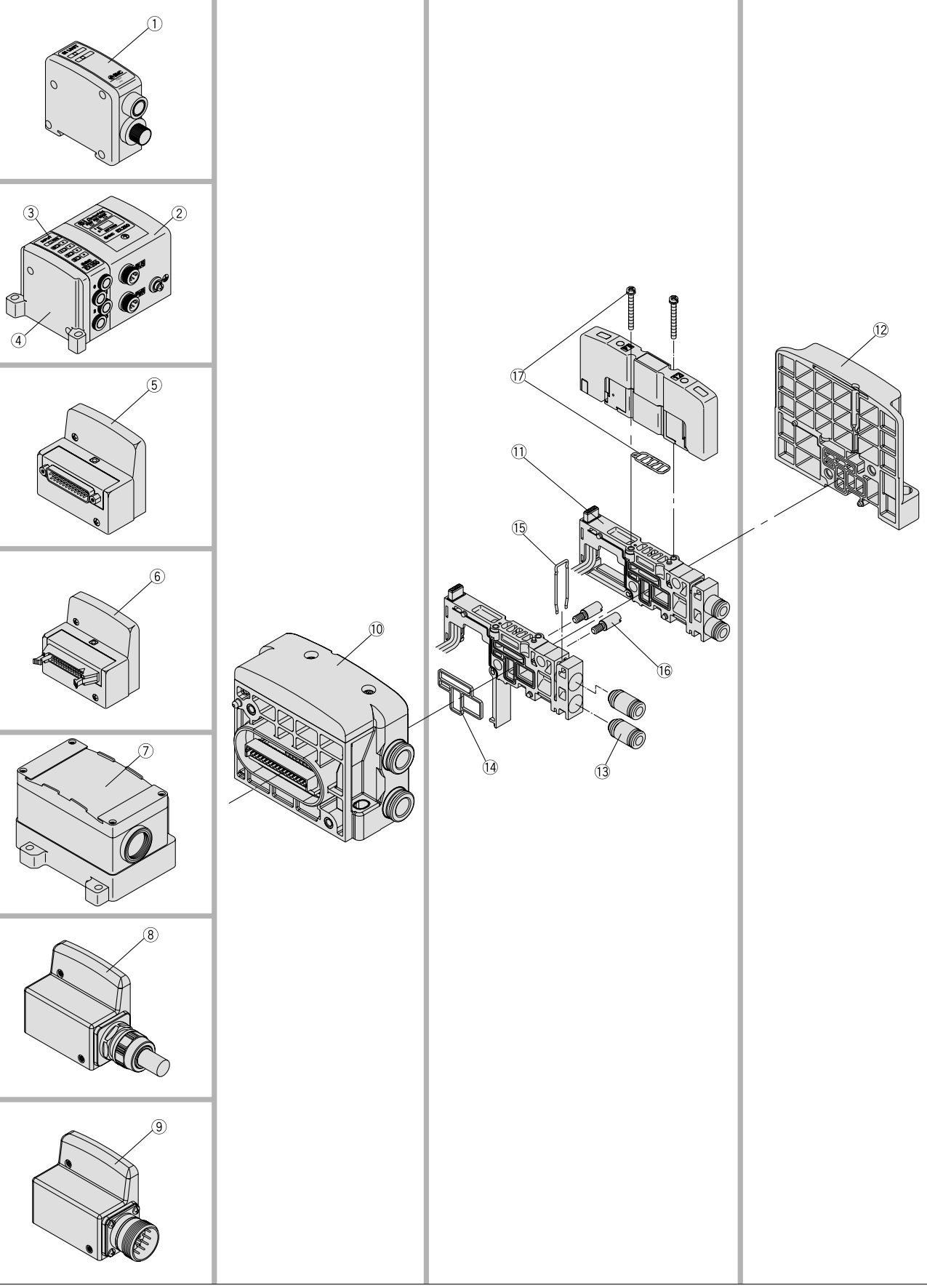
Component Parts

No.	Part no.	Material
1	**Body**	Zinc die-casted
2	**Spool**	Aluminum
3	**Piston**	Resin
4	**Manual**	Resin
5	**Adaptor plate**	Resin
6	**Cover**	Resin
7	**Interface gasket**	HNBR
8	**Pilot valve assembly** Note)	—

Note) Please consult SMC for pilot valve replacement.

Multi-kit
Plug-in Type
Manifold Exploded View

	Housing assembly and SI unit	D side end plate assembly	Manifold block assembly	U side end plate assembly
S Kit EX500				
S Kit EX250				
F Kit				
P/J Kit				
T Kit				
L Kit				
M Kit				



Manifold Assembly Part No.

<Housing Assembly and SI Unit, Input Block>

No.	Description	Part no.	Note
①	**SI unit**	**EX500-Q001**	DeviceNet/PROFIBUS DP/CC-Link, EtherNet/IP (+COM.)
		EX500-Q101	DeviceNet/PROFIBUS DP/CC-Link, EtherNet/IP (–COM.)
②	**SI unit**	**EX250-SDN1**	DeviceNet (–COM.)
		EX250-SPR1	PROFIBUS-DP (–COM.)
		EX250-SMJ2	CC-Link (+COM.)
		EX250-SAS3	AS-Interface 31SLAVE 8 IN/8 OUT 2 power supply systems (–COM.)
		EX250-SAS5	AS-Interface 31SLAVE 4 IN/4 OUT 2 power supply systems (–COM.)
		EX250-SAS7	AS-Interface 31SLAVE 8 IN/8 OUT 1 power supply system (–COM.)
		EX250-SAS9	AS-Interface 31SLAVE 4 IN/4 OUT 1 power supply system (–COM.)
		EX250-SCA1A	CANopen (–COM.)
		EX250-SCN1	ControlNet (–COM.)
		EX250-SEN1	EtherNet/IP
③	**Input block**	**EX250-IE1**	M12 2 inputs
		EX250-IE2	M12 4 inputs
		EX250-IE3	M8 4 inputs
④	**End plate assembly**	**EX250-EA1**	For standard
		EX250-EA2	For DIN rail mounting
⑤	**D-sub connector assembly**	**VVQC1000-F25-1**	F kit 25 pins
⑥	**Flat ribbon cable housing assembly**	**VVQC1000-P26-1**	P kit 26 pins
		VVQC1000-P20-1	P kit 20 pins
	Flat ribbon cable housing assembly **Flat ribbon cable PC wiring system compatible**	**VVQC1000-J20-1**	J kit 20 pins
⑦	**Terminal block housing assembly**	**VVQC1000-T0-1**	T kit
⑧	**Lead wire housing assembly**	**VVQC1000-L25-0-1**	L kit Lead wire length 0.6 m
		VVQC1000-L25-1-1	L kit Lead wire length 1.5 m
		VVQC1000-L25-2-1	L kit Lead wire length 3.0 m
⑨	**Circular connector housing assembly**	**VVQC1000-M26-1**	M kit 26 pins

⑩ D side end plate assembly part no.

SS0700 – 3A – 1 – C8 – □

Port size

Symbol	Port size
C8	One-touch fitting for ø8
N9	One-touch fitting for ø5/16"

Option

Symbol	Specification
Nil	Common EXH
R	External pilot
S	Built-in silencer, Direct exhaust

Note) When both options are specified, indicate as "-RS".

⑪ Manifold block assembly Tie-rod (2 pcs.) and lead wire assembly for extensions are attached.

SS0700 – 1A – PD 05 – C3 – □

Wiring specification

Symbol	Specification
PD	Double wiring
PS	Single wiring
P0	None

Stations

Symbol	Stations
02	2 stations
⋮	⋮
24	24 stations

Option

Symbol	Specification
Nil	None
B	With back pressure check valve

Port size

Symbol	Port size
C2	One-touch fitting for ø2
C3	One-touch fitting for ø3.2
C4	One-touch fitting for ø4
N1	One-touch fitting for ø1/8"
N3	One-touch fitting for ø5/32"
C0	Without one-touch fitting

⑫ U side end plate assembly part no.

SS0700 – 2A – 2

⑬ Fitting assembly part no.

VVQ0000 – 50A – □

Port size

Symbol	Applicable tubing
C2	Applicable tubing ø2
C3	Applicable tubing ø3
C4	Applicable tubing ø4
N1	Applicable tubing ø1/8"
N3	Applicable tubing ø5/32"

Note 1) Purchasing order is available in units of 10 pieces.
Note 2) For one-touch fittings replacement, refer to "Specific Product Precautions."

<Replacement Parts for Manifold Block>

Replacement Parts

No.	Part no.	Description	Q'ty
⑭	SS0700-80A-2	Gasket	10 Note 1)
⑮	SS0700-80A-4	Clip	10 Note 1)
⑯	SS0700-TR-□	Tie-rod assembly	2 Note 2)

Note 1) 1 set includes 10 pieces.
Note 2) 1 set includes 2 pieces. Please order when eliminating manifold stations. When adding stations, tie-rods are attached to the manifold block assembly. Therefore, it is not necessary to order.
□: Stations 02 to 24

<Replacement Parts for Valve>

Replacement Parts

No.	Part no.	Description	Q'ty
⑰	S0700-GS-5	Gasket, Screw	10

Note) Above part number consists of 10 units. Each unit has one gasket and two screws.

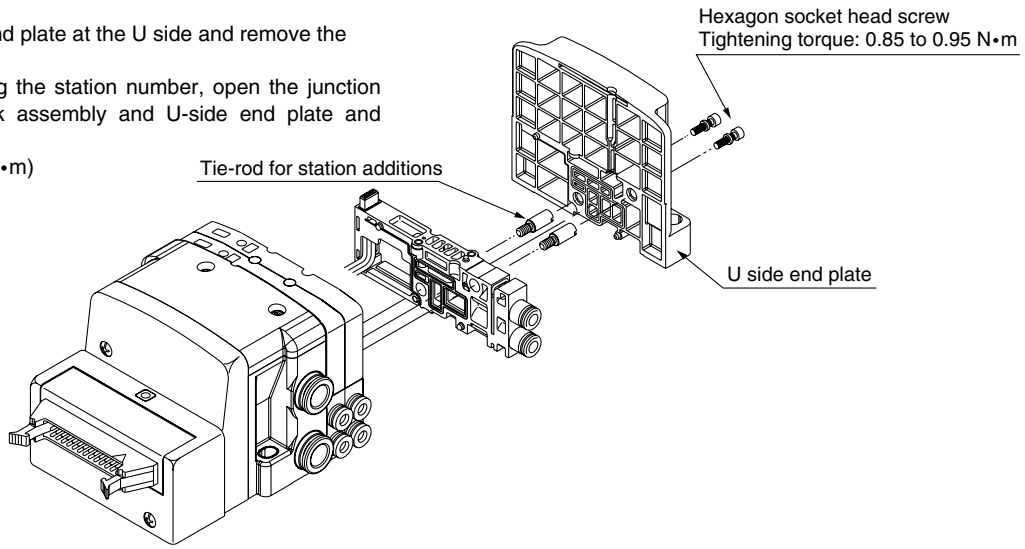
How to Add Manifold Stations (Plug-in Type / Lead Wire Connection Type)

What to order

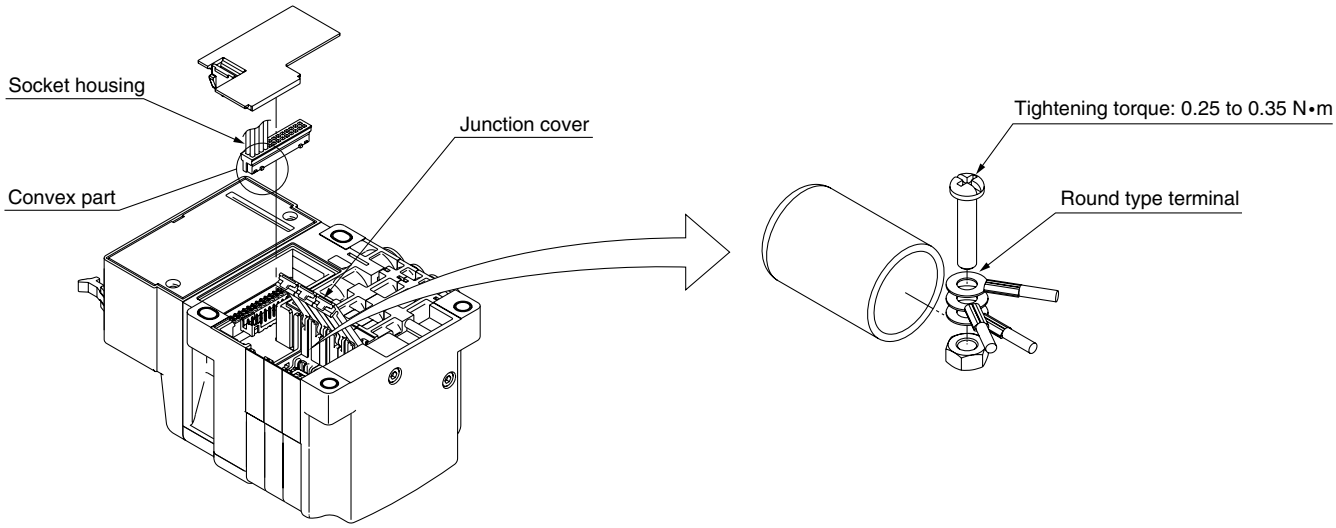
Manifold block assembly (Refer to page 655.)

Steps for adding stations

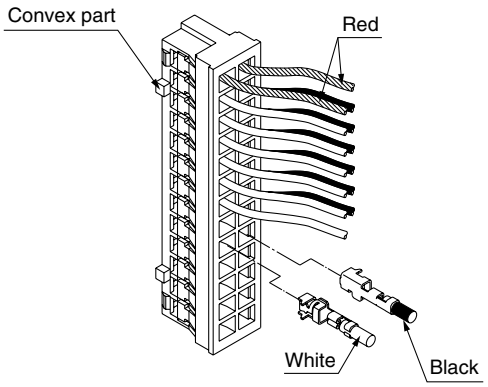
① Loosen hexagon bolts from the end plate at the U side and remove the end plate.
② Connect the tie rod for increasing the station number, open the junction cover, mount the manifold block assembly and U-side end plate and tighten them by hexagon bolts.
(Tightening torque: 0.85 to 0.95 N•m)



③ Connect lead wire assemblies included with manifold blocks as follows.



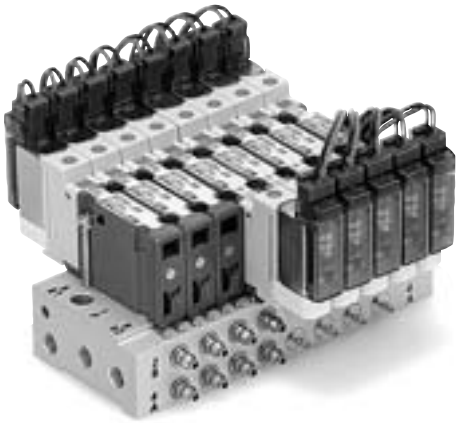
④ Take out the socket housing and connect the black and white lead wires.
The connection layout is common to all kits.



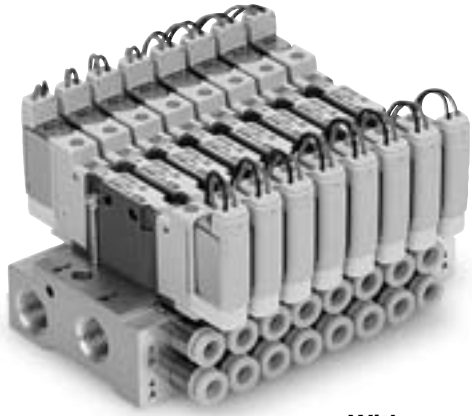
Plug Lead

Lead Wire

C Kit



With barb fittings



With one-touch fittings

Individual Connector

P.658

How to Order Manifold

SS0755 − 08 C4 ☐ C − ☐

Plug lead

Stations

Symbol	Stations
02	2 stations
⋮	⋮
20	20 stations

Option

Symbol	Option
Nil	None
R Note)	External pilot

Note) For details, refer to page 664.
∗ For manifold optional parts, refer to pages 664 to 666.

Connector kit

Cylinder port size

Symbol	Port size		Manifold pitch
M5	M5 thread	Metric	8.5
C2	With one-touch fitting for ø2		
C3	With one-touch fitting for ø3.2		
C4	With one-touch fitting for ø4		
CM	Mixed size/with port plug Note)		
N1	With one-touch fitting for ø1/8"	Inch	
N3	With one-touch fitting for ø5/32"		
NM	Mixed size/with port plug Note)		
M3	M3 thread	Metric	7.5
V2	With barb fitting for ø2		
V3	With barb fitting for ø3.2		
V4	With barb fitting for ø4		
VM	Mixed size/with port plug Note)		

Note) Specify "Mixed size/with port plug" in the manifold specification sheet.

P, R Port thread type

Symbol	Manifold pitch	
	8.5	7.5
Nil	Rc (PT)	M5
F	G (PF)	
N	NPT	
T	NPTF	

How to Order Valves

S07 1 5 ☐ − 5 G

Type of actuation

Symbol	Specification
1	2 position single
2	2 position double
A	4 position dual 3 port type (N.C. + N.C.) [exhaust center]
B	4 position dual 3 port type (N.O. + N.O.) [pressure center]
C	4 position dual 3 port type (N.C. + N.O.)

Note) For JIS symbol, refer to page 616.

Base mounted plug lead

Function

Symbol	Specification
Nil	Standard
R	External pilot Note)

Note) Not compatible with dual 3 port valves.

Voltage

Symbol	Specification
5	24 VDC
6	12 VDC

Electrical entry

Symbol	Specification
G	Grommet
M	Plug connector, with lead wire (Light/surge voltage suppressor)
MO	Plug connector, without lead wire (Light/surge voltage suppressor)

How to Order Manifold Assembly

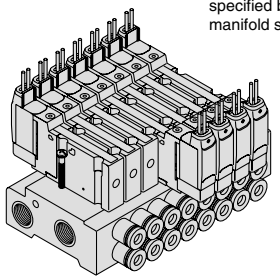
Specify the part numbers for valves and options together beneath the manifold base part number.

<Example>
Lead wire kit

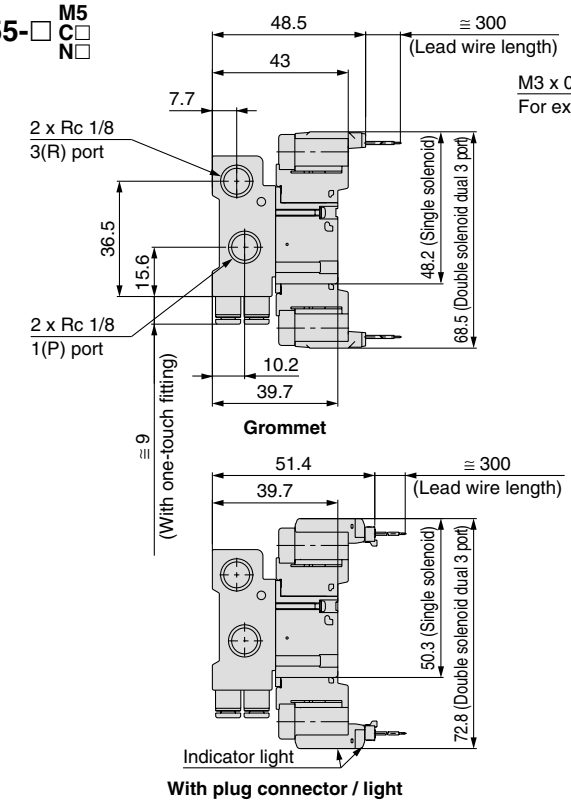
SS0755-07C4 ····· 1 set – Manifold base part no.
∗ S0715-5G ····· 3 sets – Valve part no. (Stations 1 to 3)
∗ S0725-5G ····· 2 sets – Valve part no. (Stations 4 to 5)
∗ S07A5-5G ····· 2 sets – Valve part no. (Stations 6 to 7)

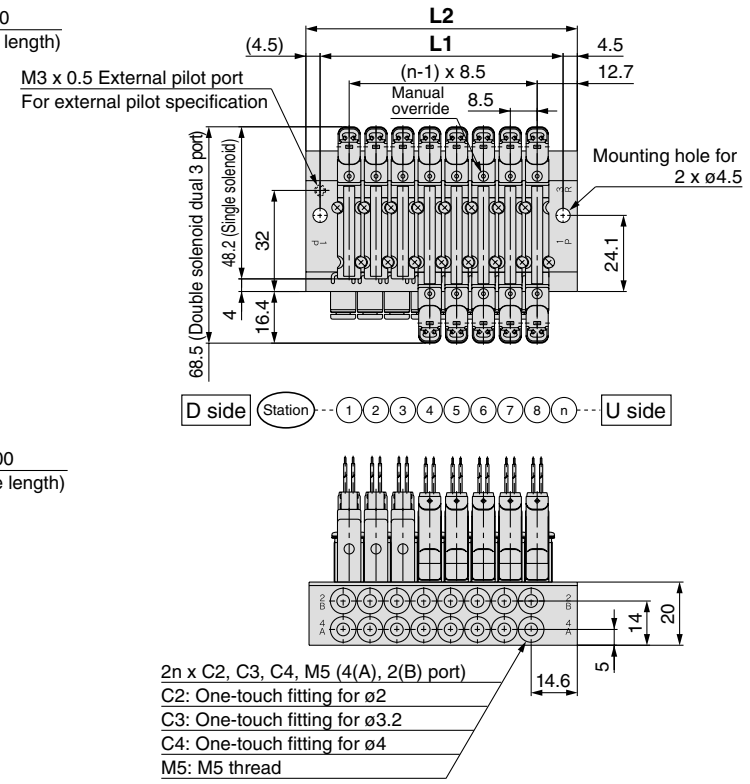
Prefix the asterisk to the part nos. of the solenoid valve, etc.

Write sequentially from the 1st station on the D side. When part nos. written collectively are complicated, specified by using the manifold specification sheet.



SS0755-□ M5 C□ N□



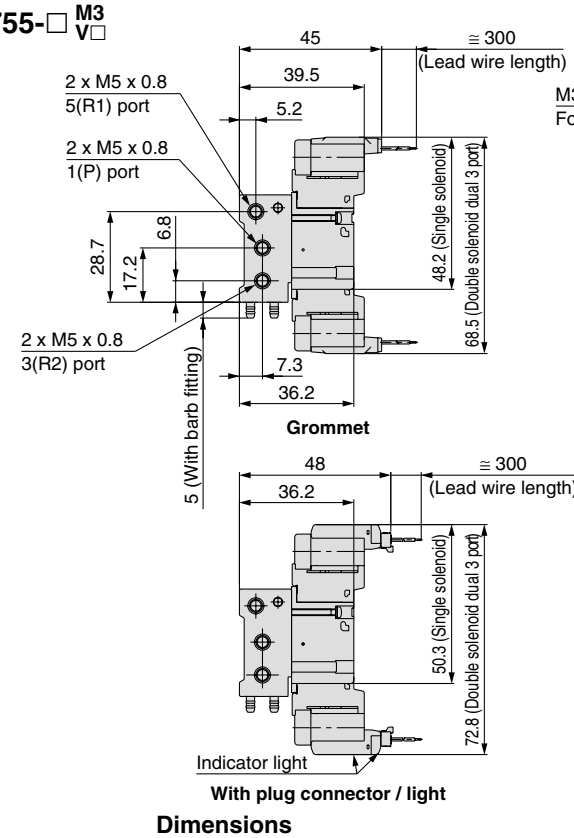


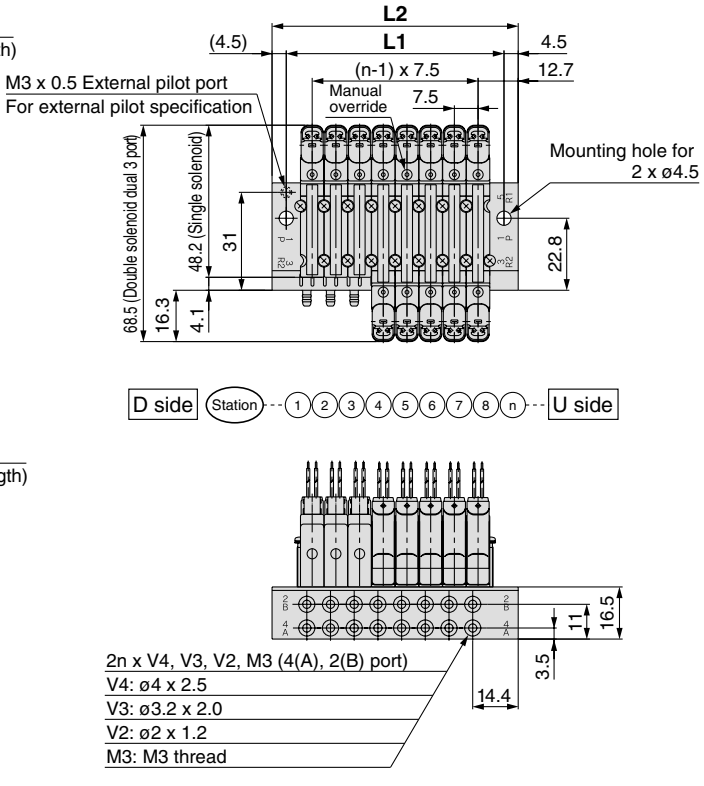
Dimensions

Formula L1 = 8.5n + 8.9, L2 = 8.5n + 17.9 n: Station (Maximum 20 stations)

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	25.9	34.4	42.9	51.4	59.9	68.4	76.9	85.4	93.9	102.4	110.9	119.4	127.9	136.4	144.9	153.4	161.9	170.4	178.9
L2	34.9	43.4	51.9	60.4	68.9	77.4	85.9	94.4	102.9	111.4	119.9	128.4	136.9	145.4	153.9	162.4	170.9	179.4	187.9

SS0755-□ M3 V□





Dimensions

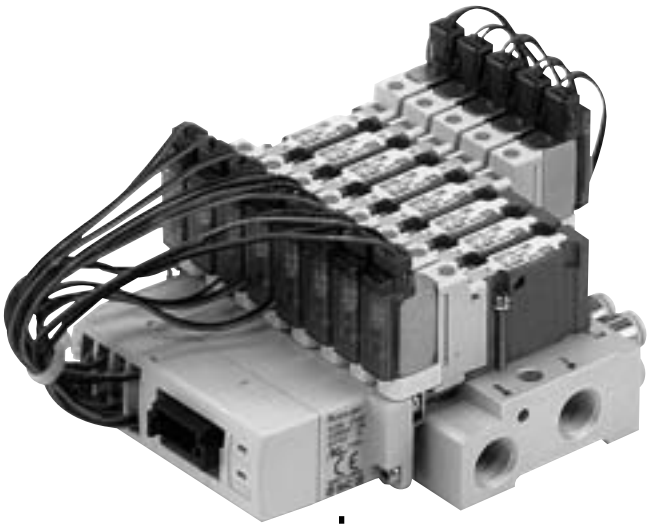
Formula L1 = 7.5n + 8.9, L2 = 7.5n + 17.9 n: Station (Maximum 20 stations)

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	23.9	31.4	38.9	46.4	53.9	61.4	68.9	76.4	83.9	91.4	98.9	106.4	113.9	121.4	128.9	136.4	143.9	151.4	158.9
L2	32.9	40.4	47.9	55.4	62.9	70.4	77.9	85.4	92.9	100.4	107.9	115.4	122.9	130.4	137.9	145.4	152.9	160.4	167.9

Plug Lead

Serial Transmission

S Kit



Gateway System
Serial Transmission System

EX510

Connect all wiring using connectors.

P.662

How to Order Manifold

SS0755 − SA □ 08 C4 □ − □

S kit
EX510 serial wiring

SI unit COM.

Nil	+COM.
N	–COM.

Option

Symbol	Option
Nil	None
K Note 2)	Special wiring specification (Except double wiring)
R Note 3)	External pilot

Note 1) When two or more options are specified, indicate them alphabetically. Example) -KR
Note 2) Indicate the wiring specification for mixed single and double wirings.
Note 3) For details, refer to page 664.
∗ **For manifold optional parts, refer to pages 664 to 666.**

P, R Port thread type

Symbol	Manifold pitch 8.5
Nil	Rc (PT)
F	G (PF)
N	NPT
T	NPTF

Stations

Symbol	Stations
02	2 stations
⋮	⋮
16	16 stations

Note) The maximum number of stations is determined by the total number of solenoids. For mixed single and double wirings, enter "-K" to the order code options.

Standard station	Max. number of stations for special wiring specification	Max. number of solenoids
1 to 8 stations	16 stations	16

Type of actuation	Single type	Double, Dual 3 port type
Number of solenoids	1	2

Refer to pages 1696 to 1724 for the details of EX510 gateway system serial transmission system.

Cylinder port size

Symbol	Port size	
M5	M5 thread	Metric
C2	With one-touch fitting for ø2	
C3	With one-touch fitting for ø3.2	
C4	With one-touch fitting for ø4	
CM	Mixed size/with port plug Note)	
N1	With one-touch fitting for ø1/8"	Inch
N3	With one-touch fitting for ø5/32"	
NM	Mixed size/with port plug Note)	

Note) Specify "Mixed size/with port plug" in the manifold specification sheet.

How to Order Valves

S07 1 5 □ − 5 MO

Type of actuation

Symbol	Specification
1	2 position single
2	2 position double
A	4 position dual 3 port type (N.C. + N.C.) [Exhaust center]
B	4 position dual 3 port type (N.O. + N.O.) [Pressure center]
C	4 position dual 3 port type (N.C. + N.O.)

Note) For JIS symbol, refer to page 616.

Base mounted plug lead

Function

Symbol	Specification
Nil	Standard
R	External pilot Note)

Note) Not compatible with dual 3 port valves.

Electrical entry
M plug connector, without lead wire (Light/surge voltage suppressor)

Voltage: 24 VDC

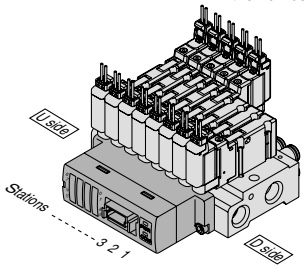
How to Order Manifold Assembly

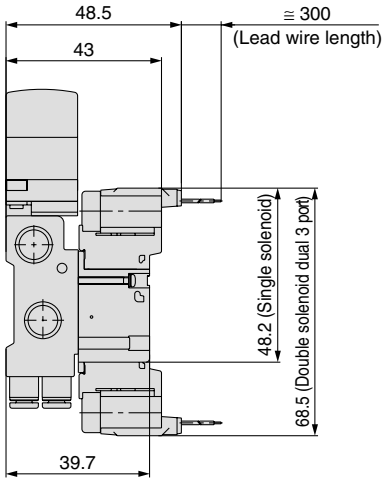
Specify the part numbers for valves and options together beneath the manifold base part number.

<Example>
Lead wire kit
SS0755-SA08C4 ····· 1 set – Manifold base part no.
∗ S0715-5G ····· 3 sets – Valve part no. (Stations 1 to 3)
∗ S0725-5G ····· 3 sets – Valve part no. (Stations 4 to 6)
∗ S07A5-5G ····· 2 sets – Valve part no. (Stations 7 to 8)

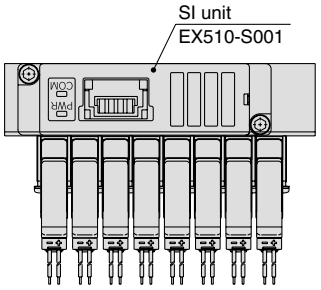
Prefix the asterisk to the part nos. of the solenoid valve, etc.

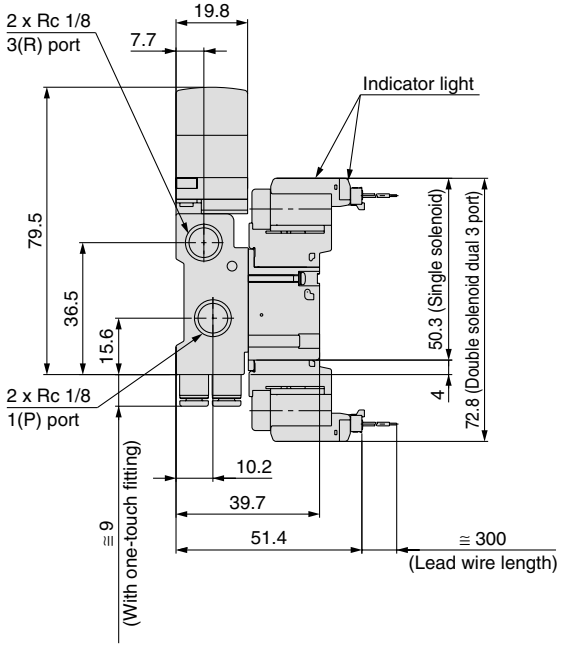
Write sequentially from the 1st station on the D side. When part nos. written collectively are complicated, specified by using the manifold specification sheet. The connector assembly lead wire length used for EX510 manifold varies depending on the number of stations. Therefore, solenoid valves (including a blanking plate) and connector assembly are assembled when shipped as a standard specification. Please specify the mounting solenoid valve when ordering.



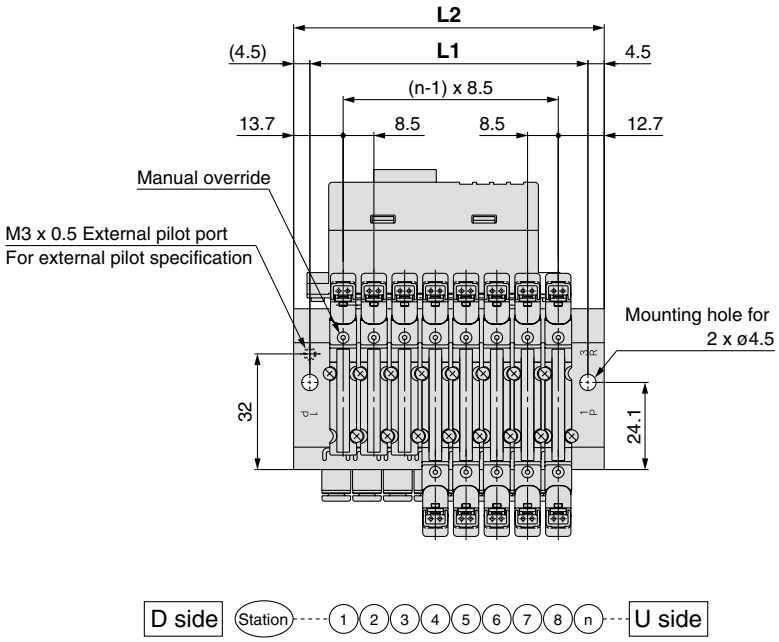


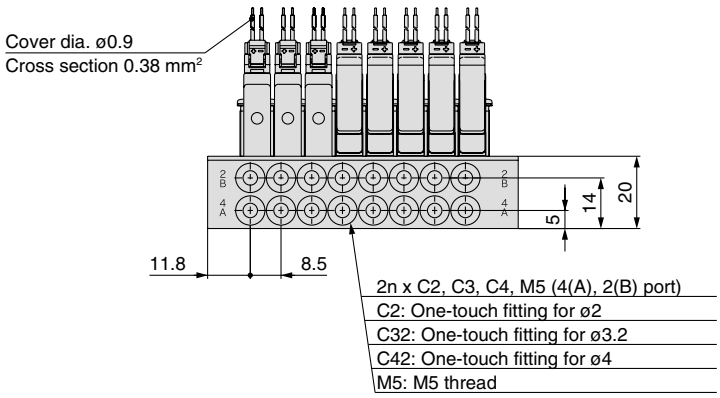
Grommet





With plug connector / light





Dimensions

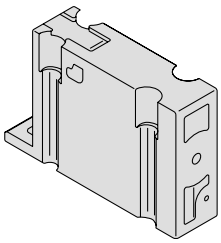
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	68.4	68.4	68.4	68.4	68.4	68.4	76.9	85.4	93.9	102.4	110.9	119.4	127.9	136.4	144.9
L2	77.4	77.4	77.4	77.4	77.4	77.4	85.9	94.4	102.9	111.4	119.9	128.4	136.9	145.4	153.9

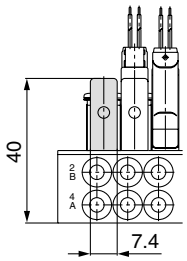
Blanking plate assembly

SS0700-10A-5

It is used by attaching on the manifold block for being prepared for removing a valve for maintenance reasons or planning to mount a spare valve, etc.

Mass: 21 g





Individual SUP spacer

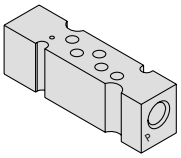
SS0700-P-5-M5

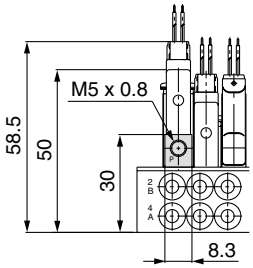
Port size

M5	M5 thread

Mounted on the manifold block to make an independent supply port when each solenoid valve uses different operating pressure.

Mass: 7 g
*Compatible with 8.5 mm pitch manifold only.





Individual EXH spacer

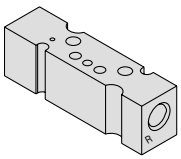
SS0700-R-5-M5

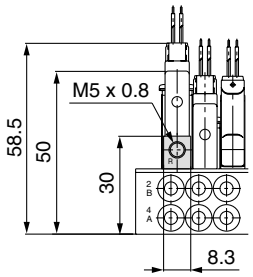
Port size

M5	M5 thread

Mounted on the manifold block to make an independent exhaust port when the exhaust from one valve affects valves on other stations in the air circuit.

Mass: 7 g
*Compatible with 8.5 mm pitch manifold only.



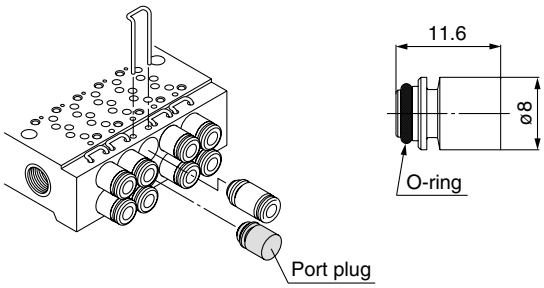


Port plug

VVQ0000-CP

The plug is used to block the cylinder port when using a 5 port valve as a 3 port valve.

* When ordering a plug incorporated with a manifold, indicate “CM” for the port size in the manifold no., as well as, the mounting position and number of stations and cylinder port mounting positions, A and B, by means of the manifold specification sheet.

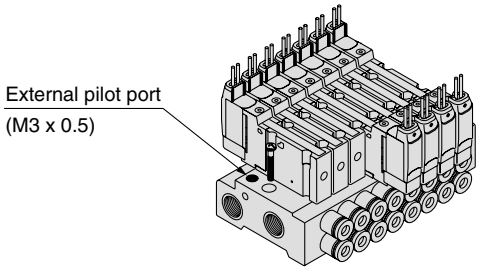


External pilot [-R]

This can be used when the air pressure is 0.1 to 0.2 MPa lower than the minimum operating pressure of the solenoid valves or used for vacuum specifications.
Add R to the part numbers of manifolds and valves to indicate the external pilot specification.
An M5 port will be installed on the top side of the manifold’s SUP/EXH block.

● How to Order Valves (Example)
S0715 R -5G
External pilot

● How to Order Manifold (Example)
* Indicate R for an option.
SS0755-08C4C-R
External pilot



Note 1) The dual 3 port valve is not available.
Note 2) When the internal pilot type and external pilot type of valves are mixed up on the manifold, order the manifold suitable for the specifications of the external pilot valve.
Note 3) Valves with the external pilot have a pilot EXH with individual exhaust specifications and EXH can be pressurized.
However, the pressure supplied from EXH should be 0.4 MPa or lower.

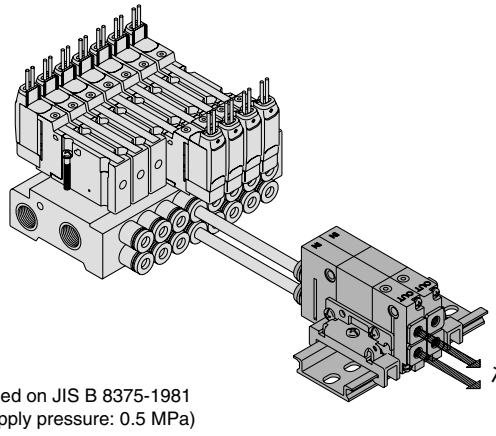
Double check block (Separated)

VQ1000-FPG-□□

It is used on the outlet side piping to keep the cylinder in the intermediate position for a long time. Combining the double check block with a built-in pilot type double check valve and a 2 position single/double solenoid valve will permit this block to be used for preventing the dropping at the cylinder stroke end when the SUP residual pressure is released.

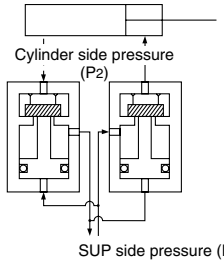
Specifications

Max. operating pressure	0.8 MPa
Min. operating pressure	0.15 MPa
Ambient and fluid temperature	–5 to 50°C
Flow characteristics: C	0.60 dm³/(s·bar)
Max. operating frequency	180 c.p.m



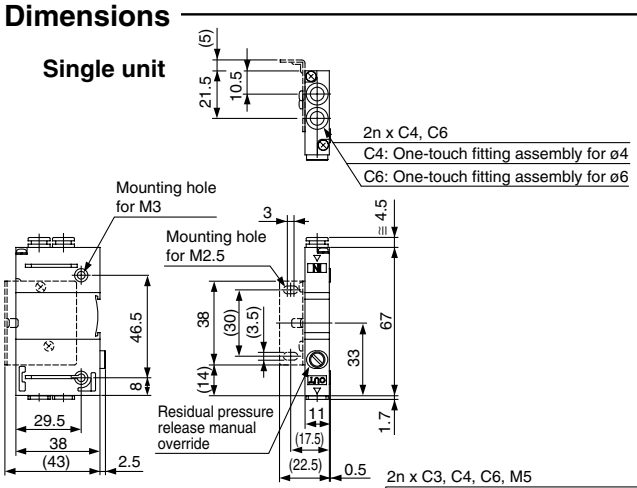
Note) Based on JIS B 8375-1981
(Supply pressure: 0.5 MPa)

<Check Valve Working Principle>

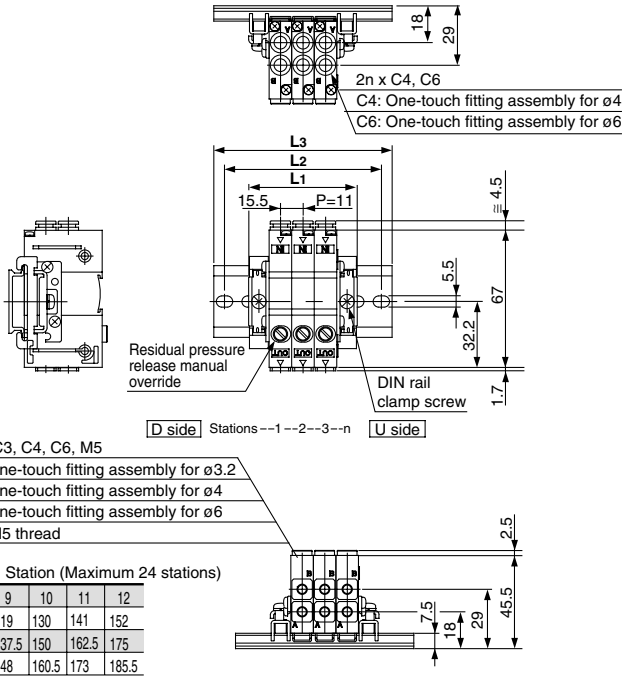


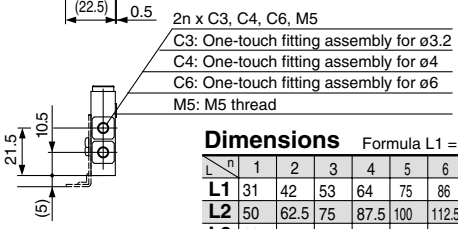
Dimensions

Single unit



Manifold





Dimensions

Formula L1 = 11n + 20 n: Station (Maximum 24 stations)

L / n	1	2	3	4	5	6	7	8	9	10	11	12
L1	31	42	53	64	75	86	97	108	119	130	141	152
L2	50	62.5	75	87.5	100	112.5	125	125	137.5	150	162.5	175
L3	60.5	73	85.5	98	110.5	123	135.5	135.5	148	160.5	173	185.5

L / n	13	14	15	16	17	18	19	20	21	22	23	24
L1	163	174	185	196	207	218	229	240	251	262	273	284
L2	187.5	187.5	200	212.5	225	237.5	250	250	262.5	275	287.5	300
L3	198	198	210.5	223	235.5	248	260.5	260.5	273	285.5	298	310.5

How to Order

Single unit, double check block

VQ1000 – FPG – C4 M5 – F

IN side port size

C4	One-touch fitting for ø4
C6	One-touch fitting for ø6

OUT side port size

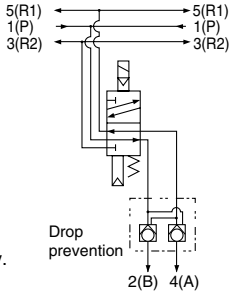
M5	M5 thread
C3	One-touch fitting for ø3.2
C4	One-touch fitting for ø4
C6	One-touch fitting for ø6

Option

Nil	None
D	DIN rail mounting style (For manifold)
F	With bracket
N	With name plate

Note) When two or more symbols are specified, indicate them alphabetically.
Example) -DN

<Example>
2 position



Manifold (DIN rail mounting type)

VVQ1000 – FPG – 06

When ordering a double check block, order the DIN rail mounting style [-D].

Stations

01	1 station
⋮	⋮
16	16 stations

<Example>
VVQ1000-FPG-06 ··· 6 stations manifold
* VQ1000-FPG-C4M5-D, 3 sets
* VQ1000-FPG-C6M5-D, 3 sets
} Double check block

⚠Caution

- Air leakage from the pipe between the valve and cylinder or from the fittings will prevent the cylinder from stopping for a long time. Check the leakage using neutral household detergent, such as dish washing soap.
  Also check the cylinder's tube gasket, piston packing and rod packing for air leakage.
- Since one-touch fittings allow slight air leakage, screw piping (with M5 thread) is recommended when stopping the cylinder in the middle for a long time.
- M5 fitting assembly is attached, not incorporated into the double check block. After screwing in the M5 fittings, mount the assembly on the double check block.
  {Tightening torque: 0.8 to 1.2 N·m}
- If the exhaust of the double check block is throttled too much, the cylinder may not operate properly and may not stop intermediately.

Bracket Assembly

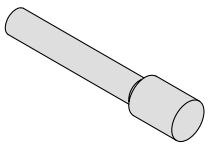
Part no.	Tightening torque
VQ1000-FPG-FB	0.22 to 0.25 N·m

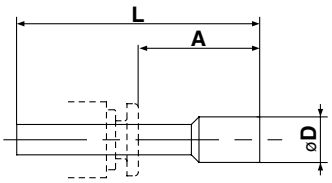
Note) This torque is used to mount the bracket on the double check block.

Blanking plug

KJP-02

23
KQ2P-04
06





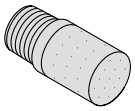
Dimensions (mm)

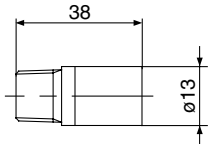
Applicable fitting size ø**d**	Model	**A**	**L**	**D**	Mass (g)
2	**KJP-02**	8.2	17	3	0.1
3.2	**KQ2P-23**	16	31.5	3.2	1
4	**KQ2P-04**	16	32	6	1
6	**KQ2P-06**	18	35	8	1

Silencer (For manifold EXH port)

AN110-01

Silencer is installed in the EXH port.

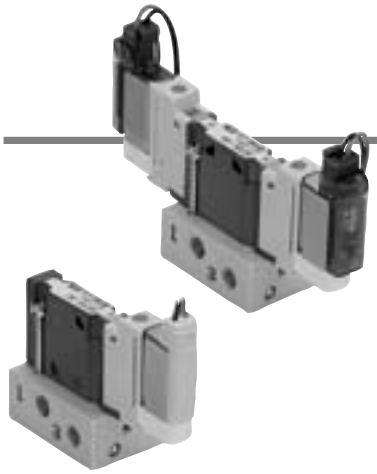




5 Port Solenoid Valve/Base Mounted Plug Lead

S0700

Single Unit



How to Order Valves

S07 [1] [5] [ ] – [5] [G] – [M5]

With / Without sub-plate

Symbol	Specification
Nil	Without sub-plate
M5	With sub-plate

Type of actuation

Symbol	Specification
1	2 position single
2	2 position double
A	4 position dual 3 port type (N.C. + N.C.) [exhaust center]
B	4 position dual 3 port type (N.O. + N.O.) [pressure center]
C	4 position dual 3 port type (N.C. + N.C.)

Note) For JIS symbol, refer to page 616.

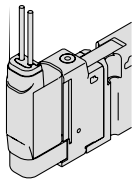
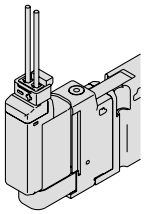
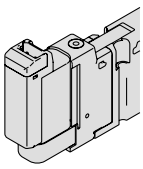
Plug lead

Function

Symbol	Specification
Nil	Standard
R	External pilot Note)

Note) Not compatible with dual 3 port valves.

Electrical entry

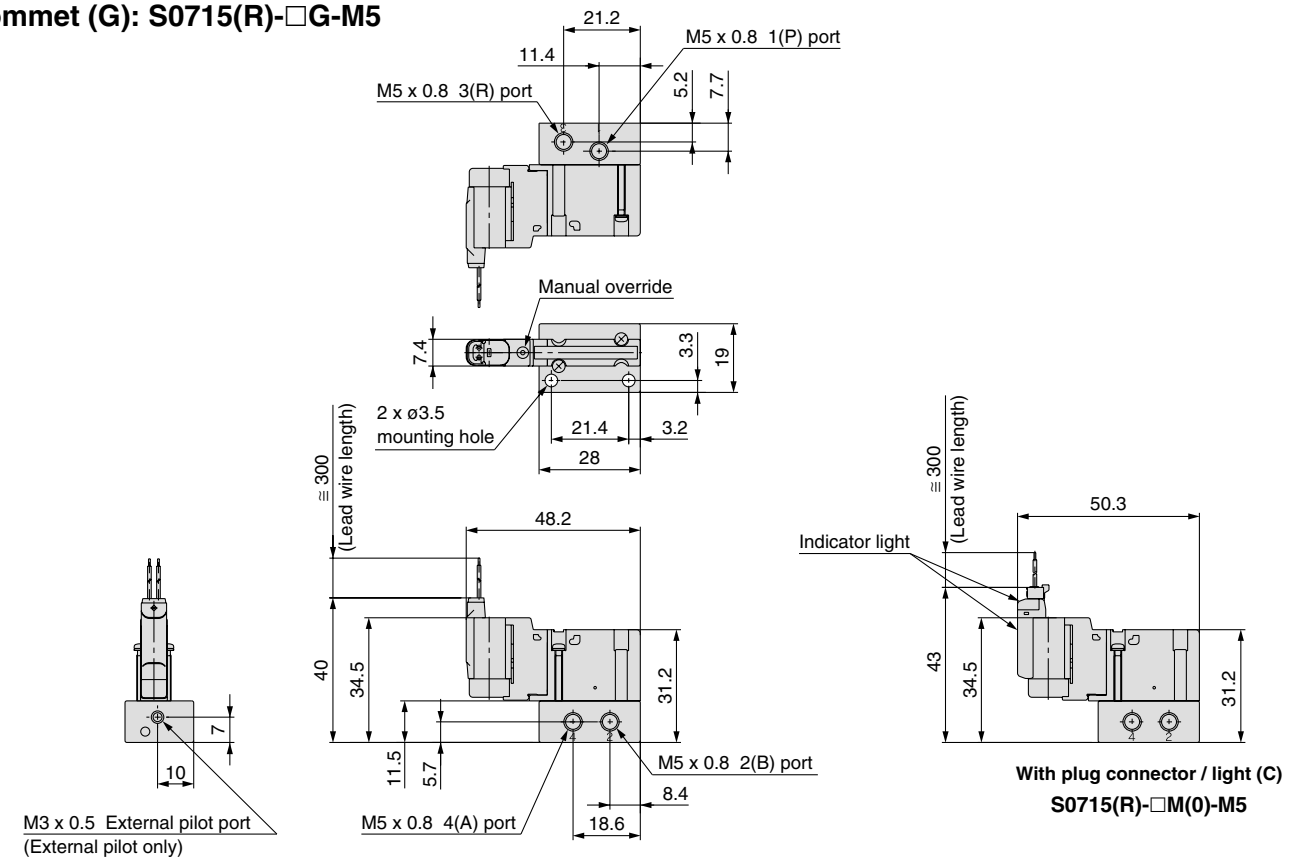
Symbol	Specification	Shape
G	Grommet	
M	M plug connector, with lead wire (With light/surge voltage suppressor)	
MO	M plug connector, without lead wire (With light/surge voltage suppressor)	

Electrical entry

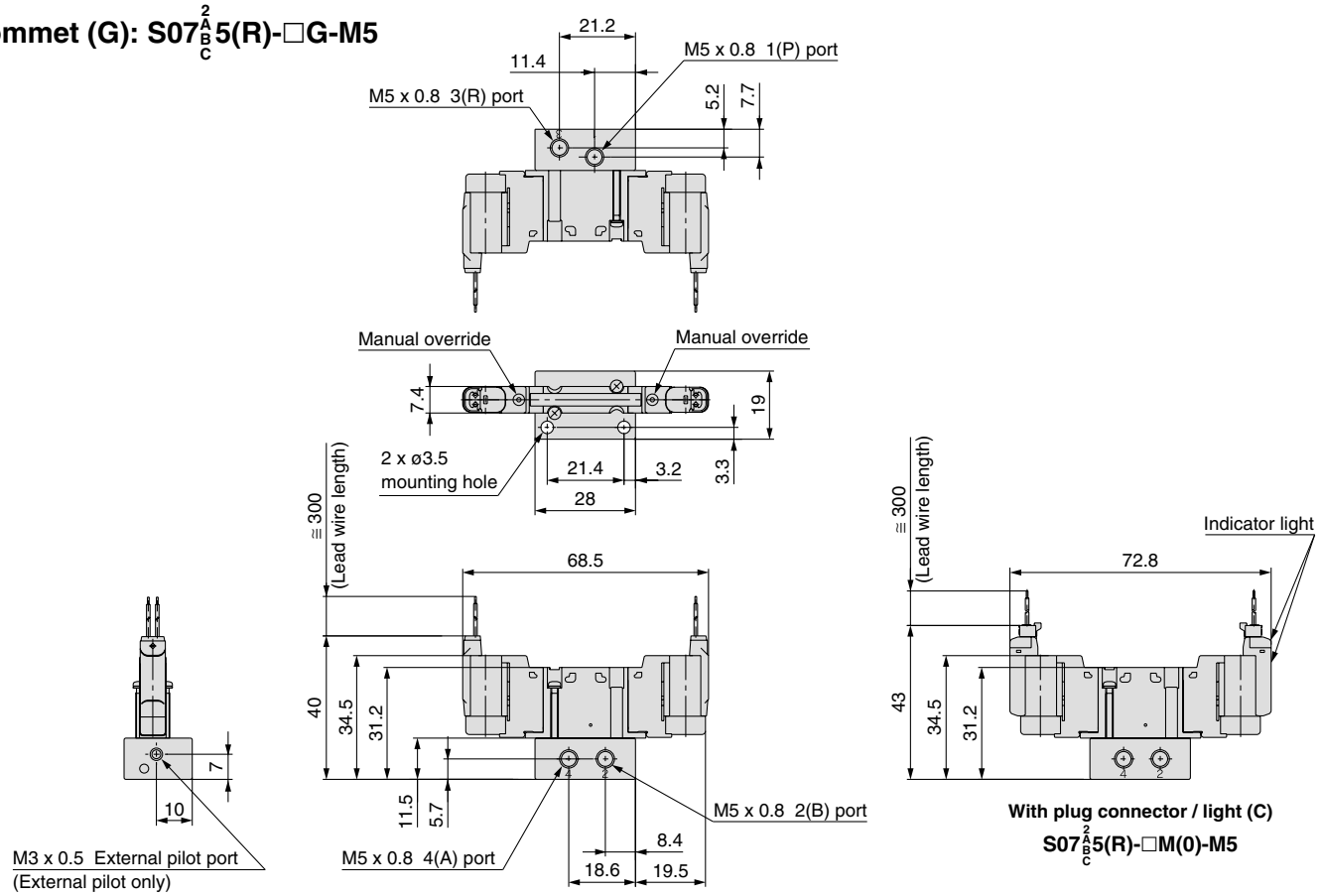
Symbol	Specification
5	24 VDC
6	12 VDC

Dimensions

2 Position Single
Grommet (G): S0715(R)-□G-M5

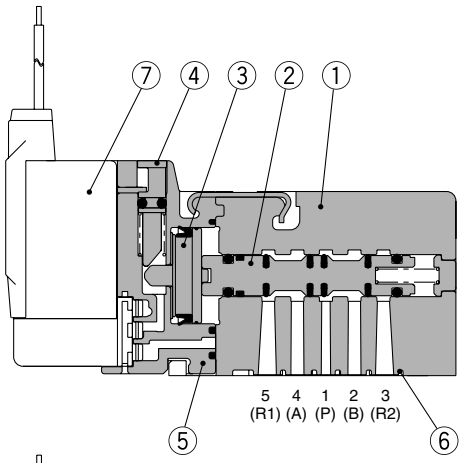


2 Position Double / 4 Position Dual 3 Port
Grommet (G): S07$^{2}_{A}$$_{B}$$_{C}$5(R)-□G-M5

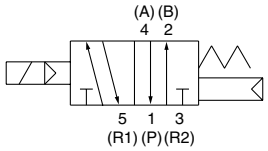


Construction: Main Parts / Replacement Parts

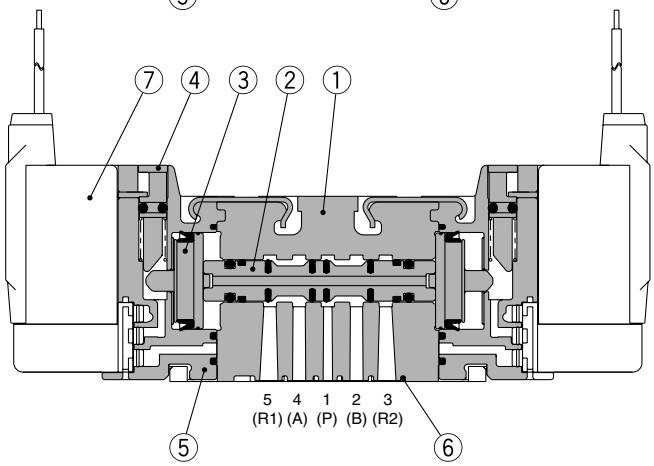
2 Position Single



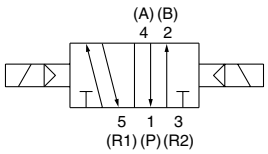
S0715



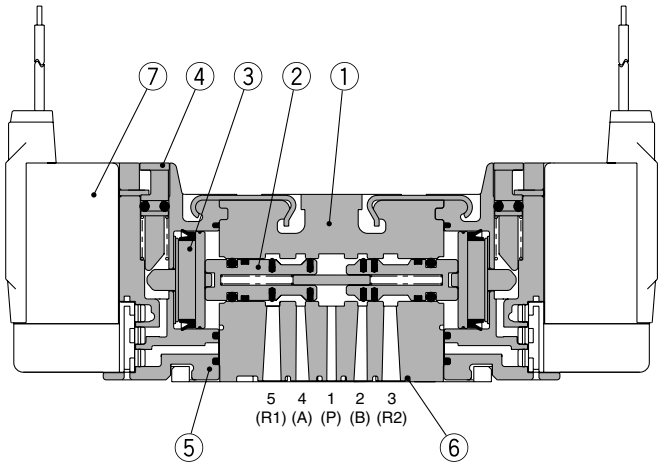
2 Position Double



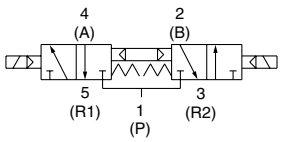
S0725



4 Position Dual 3 Port Valve

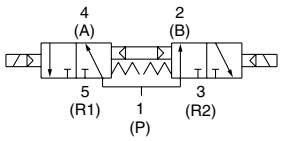


S07A5



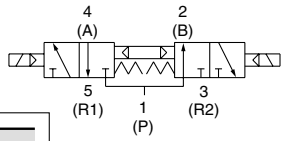
N.C. + N.C.

S07B5



N.O. + N.O.

S07C5



N.C. + N.O.

<Pilot Valve Assembly Part No.>

S070P – 5 B G –1

Voltage

Symbol	Specification
5	24 VDC
6	12 VDC

Accessory

Symbol	Specification
Nil	None
–1	Stopper plate is included.

Electrical entry

Symbol	Specification
G	Grommet
C	Plug connector, with lead wire (Light/surge voltage suppressor)
CO	Plug connector, without lead wire (Light/surge voltage suppressor)

Note) For pilot valve assembly replacement, refer to "Specific Product Precautions 4".

Component Parts

No.	Description	Material
1	**Body**	Zinc die-casted
2	**Spool**	Aluminum
3	**Piston**	Resin
4	**Manual override**	Resin
5	**Adapter plate**	Resin
6	**Interface gasket**	HNBR

Replacement Parts

No.	Description	Material
7	**Pilot valve assembly**	—

Note) For pilot valve assembly replacement, refer to "Specific Product Precautions 4".

Series S0700
Plug Lead Type
Replacement Parts

<One-touch Fitting Assembly (For Cylinder Port)>

Manifold pitch	Port size	Part no.
8.5	One-touch fitting for ø2	**VVQ0000-50A-C2**
	One-touch fitting for ø3.2	**VVQ0000-50A-C3**
	One-touch fitting for ø4	**VVQ0000-50A-C4**
	One-touch fitting for ø1/8"	**VVQ0000-50A-N1**
	One-touch fitting for ø5/32"	**VVQ0000-50A-N3**
7.5	Barb fitting for ø2	**SS070-50A-20**
	Barb fitting for ø3.2	**SS070-50A-32**
	Barb fitting for ø4	**SS070-50A-40**

Note) A set of parts containing 10 pcs. each is enclosed.

<Plug Connector Assembly>

S070 − 14A − □

Lead wire length

Symbol	Length
Nil	150 mm
3	300 mm
6	600 mm
10	1000 mm

Note) Standard wire length of valve with plug connector is 300 mm. When ordering a lead wire length of 600 mm or longer, list the part numbers for the valve without connector and the connector assembly.

<Pilot Valve Assembly>

S070P − 5 B G −1

Voltage

Symbol	Specification
5	24 VDC
6	12 VDC

Accessory

Symbol	Specification
Nil	None
−1	Stopper plate is included.

Electrical entry

Symbol	Specification
G	Grommet
C	Plug connector with lead wire (With indicator light and surge voltage suppressor)
CO	Plug connector without lead wire (With indicator light and surge voltage suppressor)

Note) For pilot valve assembly replacement, refer to “Specific Product Precautions 4”.

<Gasket, Screw Assembly>

Part no.
S0700-GS-5

Note) Above part number consists of 10 units. Each unit has one gasket and two screws.

<Sub-plate>

Part no.
S0700-S-M5

<SI Unit (Series EX510)>

EX510 − S 0 01

Output specification

0	NPN output (common (+))
1	PNP output (common (–))

Series S0700
Specific Product Precautions 1

Be sure to read before handling.
Refer to front matters 58 and 59 for Safety Instructions and pages 3 to 7 for 3/4/5 Port Solenoid Valve Precautions.

Manual Override

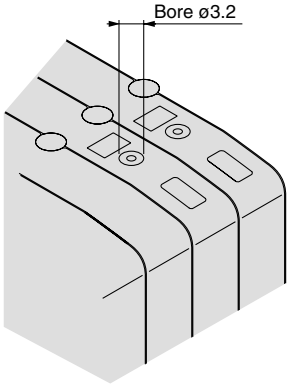
⚠ Warning

The manual override is used for switching the main valve.

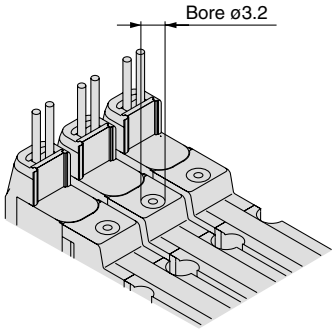
Push type (Tool required)

Push down on the manual override button with a small screwdriver until it stops.

Plug-in



Plug lead

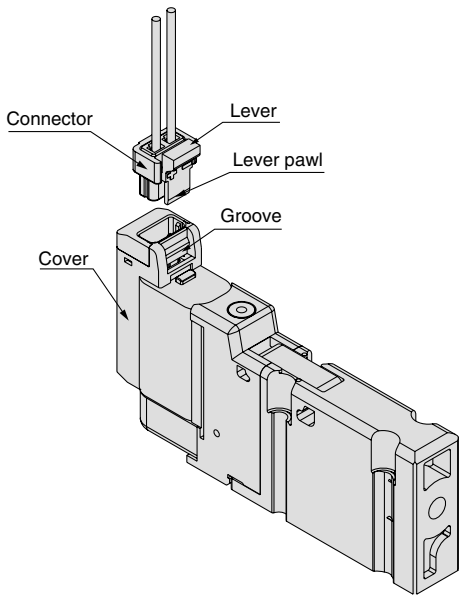


How to Attach and Detach a Connector

<Plug lead type only>

To attach a connector, hold the lever and connector unit between your fingers and insert straight onto the pins of the solenoid valve so that the lever's pawl is pushed into the groove and locks.

To detach a connector, remove the pawl from the groove by pushing the lever downward with your thumb, and pull the connector straight out.



Note) In order not to damage the connector and cover, do not pull the lead wire excessively (with a force of 10 N or more).

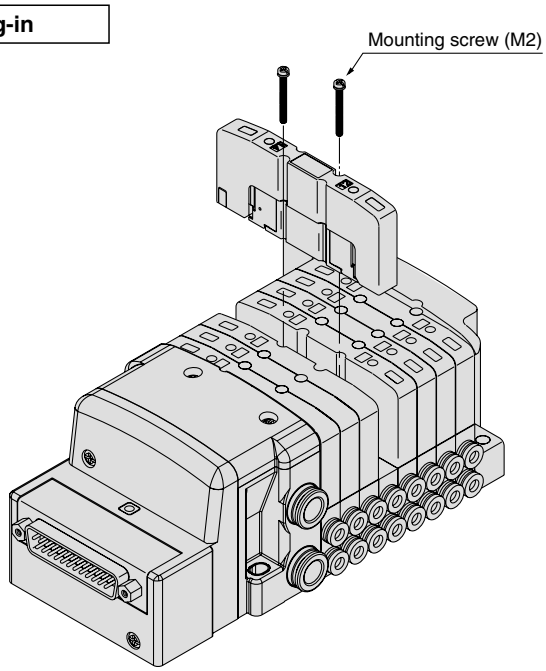
Mounting of Valves

⚠ Caution

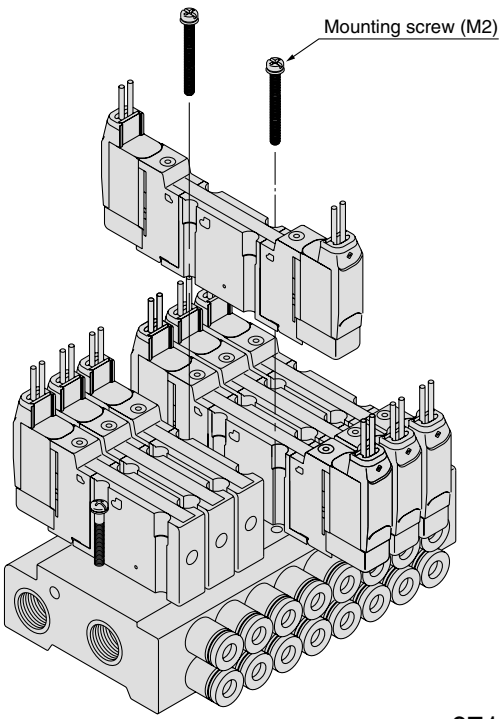
Tighten the bolts firmly to stop the gasket from coming away from the valve using the appropriate torque as shown on the following table.

Proper torque N•m
0.17 to 0.23

Plug-in



Plug lead



Series S0700
Specific Product Precautions 2

Be sure to read before handling.
Refer to front matters 58 and 59 for Safety Instructions and pages 3 to 7 for 3/4/5 Port Solenoid Valve Precautions.

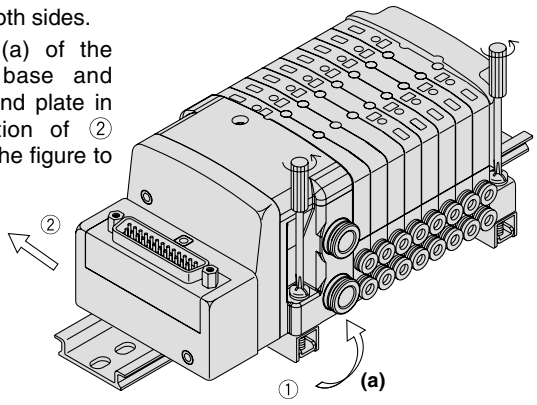
Mounting/Removing from the DIN Rail

⚠ Caution

Plug-in

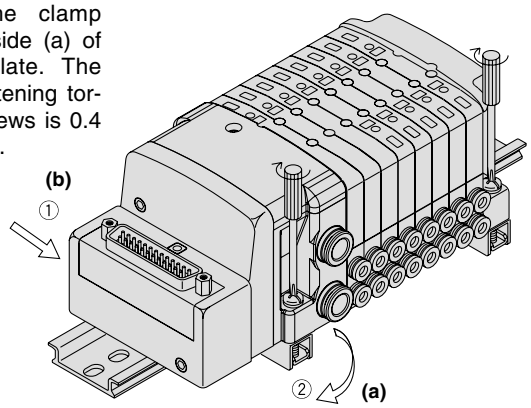
Removing

1) Loosen the clamp screw of the end plate on both sides.
2) Lift side (a) of the manifold base and side the end plate in the direction of ② shown in the figure to remove.



Mounting

1) Hook side (b) of the manifold base on the DIN rail.
2) Press down side (a) and mount the end plate on the DIN rail. Tighten the clamp screw on side (a) of the end plate. The proper tightening torque for screws is 0.4 to 0.6 N•m.

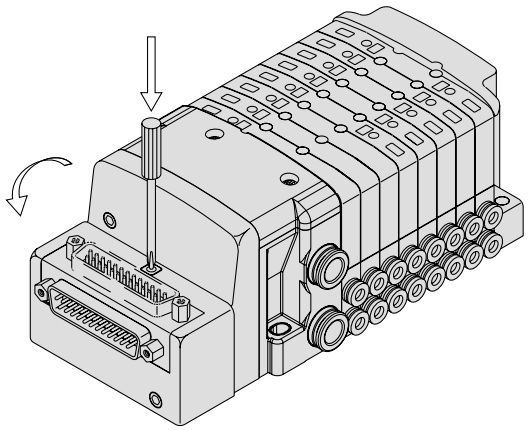


How to Change Connector Entry Direction

⚠ Caution

<Plug-in type only>

The connector entry direction can be changed from the top to the side by simply pressing the manual release button.
It is not necessary to use the manual release button when switching from the side to the top.



Built-in Silencer Replacement Element

⚠ Caution

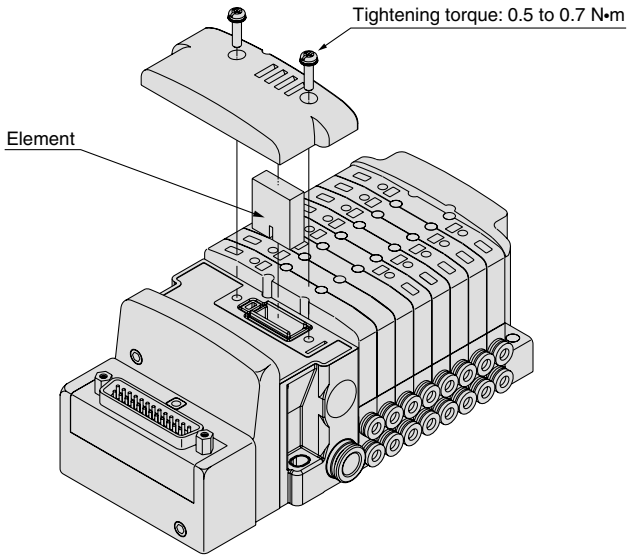
<Plug-in type only>

A silencer element is incorporated in the end plate on both sides of the base. A dirty and choked element may reduce cylinder speed or cause manifunction. Clean or replace the dirty element.

Element Part No.

Type	Element part no.
Built-in silencer, Direct exhaust (-S)	SS0700-82A

∗ Above part number is for a set of ten elements.



Remove the cover from the side of the end plate and remove the old element with a screwdriver, etc.

Series S0700
Specific Product Precautions 3

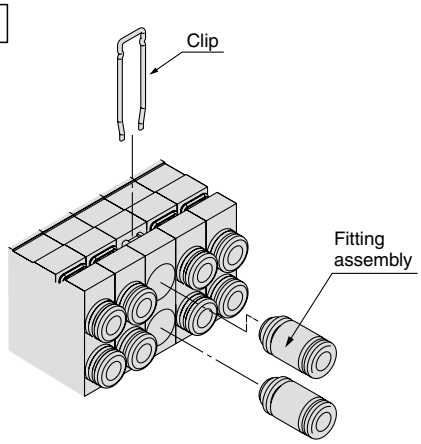
Be sure to read before handling.
Refer to front matters 58 and 59 for Safety Instructions and pages 3 to 7 for 3/4/5 Port Solenoid Valve Precautions.

Replacement of Cylinder Port Fittings

⚠ Warning

The cylinder port fittings are a cassette for easy replacement. The fittings are blocked by a clip inserted from the top of the valve.
Remove the clip with a screwdriver to remove fittings. For replacement, insert the fitting assembly until it strikes against the inside wall and then re-insert the clip to the specified position.

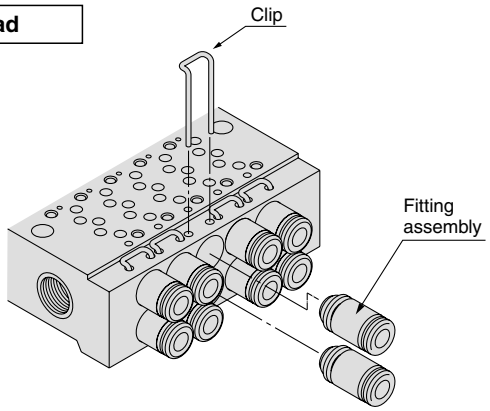
Plug-in



Applicable tubing O.D.	One-touch fitting part no.
Applicable tubing ø2	VVQ0000-50A-C2
Applicable tubing ø3.2	VVQ0000-50A-C3
Applicable tubing ø4	VVQ0000-50A-C4
Applicable tubing ø1/8"	VVQ0000-50A-N1
Applicable tubing ø5/32"	VVQ0000-50A-N3

∗ Part number is for one fitting assembly. Please order it in 10-piece units.

Plug lead



	Applicable tubing O.D.	Barb fitting part no.
8.5 mm pitch	Applicable tubing ø2	VVQ0000-50A-C2
	Applicable tubing ø3.2	VVQ0000-50A-C3
	Applicable tubing ø4	VVQ0000-50A-C4
	Applicable tubing ø1/8"	VVQ0000-50A-N1
	Applicable tubing ø5/32"	VVQ0000-50A-N3
7.5 mm pitch	Barb fitting ø2	SS070-50A-20
	Barb fitting ø3.2	SS070-50A-32
	Barb fitting ø4	SS070-50A-40

∗ Part number is for one fitting assembly. Please order it in 10-piece units.

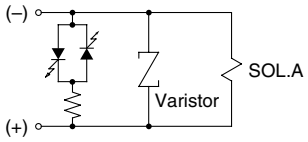
Internal Wiring Specifications

⚠ Caution

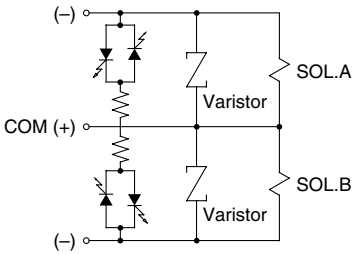
Light/surge voltage suppressor

No polarity by adopting non-polar light.

Plug-in Single/All plug lead types

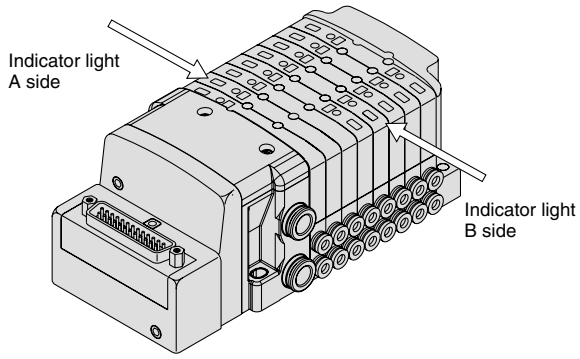


Plug-in Double, Dual 3 Port

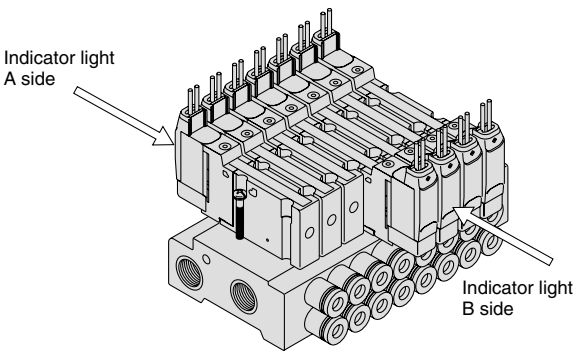


Note) Coil surge voltage generated when OFF is about –60V. Please contact SMC separately for further suppression of the coil surge voltage.

Plug-in



Plug lead



Series S0700
Specific Product Precautions 4

Be sure to read before handling.
Refer to front matters 58 and 59 for Safety Instructions and pages 3 to 7 for 3/4/5 Port Solenoid Valve Precautions.

Intrusion of the Surge Voltage

⚠ Caution

The surge voltage created when the power supply is cut off could apply to the de-energized load equipment through the output circuit. In cases where the energized load equipment has a larger capacity (power consumption) and is connected to the same power supply as the product, the surge voltage could malfunction and/or damage the internal circuit element of the product and the internal device of the output equipment. To avoid this situation, place an diode which can suppress the surge voltage between the COM lines of the load equipment and output equipment.

How to Exchange Pilot Valves

⚠ Caution

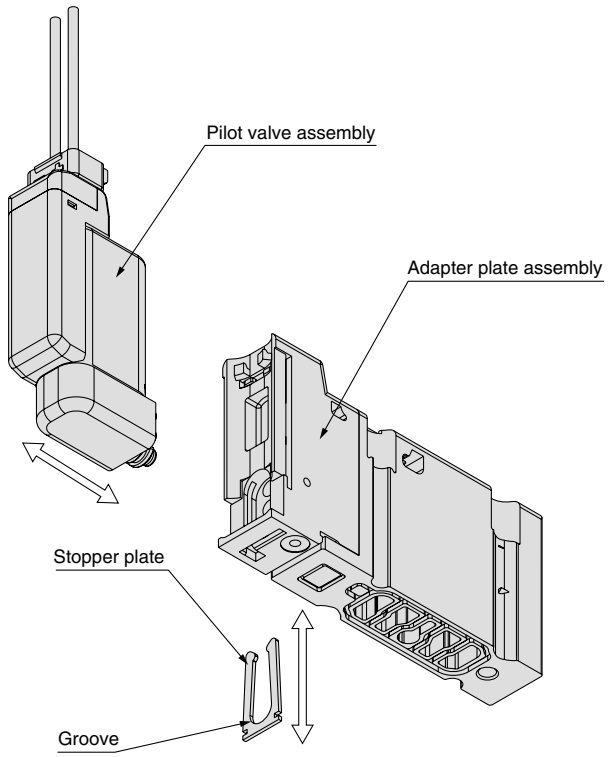
<For plug lead>

Removing

1) Remove the stopper plate from the adapter plate assembly by using a flat driver on the concave of the stopper plate.
2) Take off the pilot valve in horizontal direction.

Mounting

1) Mount the pilot valve on the adapter plate assembly.
2) Insert the stopper plate into the adapter plate so that the stopper plate will not protrude from the end of the adapter plate.

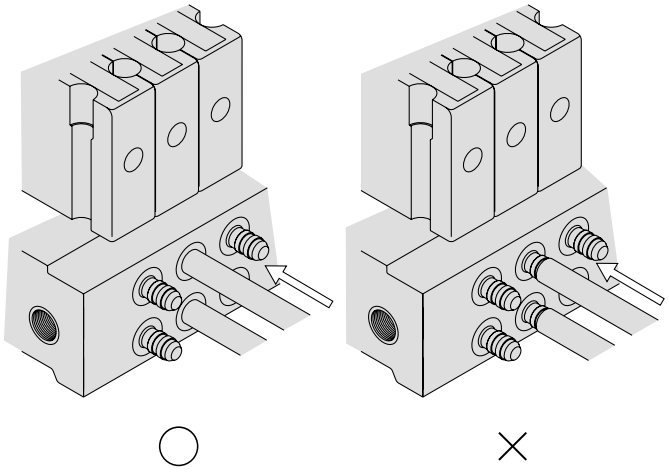


Connection of Tubing

⚠ Caution

<Plug lead For Barb fittings>

1) Perpendicularly cut the tube to the necessary length by using an SMC tube cutter TK-1, 2 or 3.
2) Firmly insert the tube into the barb fitting. Insufficient insertion of the tube could cause the air leakage and/or disconnection of the tube.
3) When inserting the tube into the barb fitting, move the tube in parallel to the axis of the barb fitting to avoid any excessive side load to the fitting.



4) Pay attention not to apply any excessive side load to the barb fitting when removing it from the tube. When using a tube cutter or something similar, be careful not to damage or crack the fitting.
5) Do not apply any excessive load such as tensile, compressive or bending force to the tube once connected.

Series S0700
Specific Product Precautions 5

Be sure to read before handling.
Refer to front matters 58 and 59 for Safety Instructions and pages 3 to 7 for 3/4/5 Port Solenoid Valve Precautions.

Serial Wiring EX500/EX250 Precautions

⚠ Warning

1. These products are intended for use in general factory automation equipment.

Avoid using these products in machinery/equipment which affects human safety, and in cases where malfunction or failure can result in extensive damage.

2. Do not use in an explosive atmosphere, environment with inflammable gases, or corrosive atmosphere.

This can cause injury or fire, etc.

3. Work such as transporting, installing, piping, wiring, operation, control and maintenance should be performed by personnel with specialized knowledge. There is a danger of electrocution, injury or fire, etc.

4. Install an external emergency stop circuit that can promptly stop operation and shut off the power supply.

5. Do not remodel these products, as there is a danger of injury and damage.

⚠ Caution

1. Read the instruction manual carefully, strictly observe the precautions and operate within the range of the specifications.

2. Do not drop these products or submit them to strong impacts. This can cause damage, failure or malfunction, etc.

3. In locations with poor electrical conditions, take steps to ensure a steady flow of the rated power supply. Use of a voltage outside of the specifications can cause malfunction, damage to the unit, electrocution or fire, etc.

4. Do not touch connector terminals or internal substrates when current is being supplied. There is a danger of malfunction, damage to the unit or electrocution if connector terminals or internal substrates are touched when current is being supplied.

Be sure that the power supply is OFF when adding or removing manifold valves or input blocks, etc., or when connecting or disconnecting connectors.

5. Operate at an ambient temperature that is within the specifications. Even when the ambient temperature range is within the specifications, do not use in locations where there are rapid temperature changes.

6. Keep wire scraps and other extraneous material from getting inside these products. This can cause fire, failure or malfunction, etc.

7. This product is not constructed to withstand water or oil penetration. Therefore it should be fitted with a protective cover when used in environments where it could be exposed to water or oil splash.

8. Observe the proper tightening torque.

There is a possibility of damaging threads if tightening exceeds the tightening torque range.

9. Adjustment / Operation

DIP switches and rotary switches should be set with a small watchmakers screwdriver.

⚠ Caution

10. Provide adequate protection when operating in locations such as the following:

- Where noise is generated by static electricity, etc.
- Where there is a strong electric field
- Where there is a danger of exposure to radiation
- When in close proximity to power supply lines

11. When these products are installed in equipment, provide adequate protection against noise by using noise filters, etc.

12. Since these products are components that are used after installation in other equipment, the customer should confirm conformity to EMC directives for the finished product.

13. Do not remove the name plate.

14. Perform periodic inspections and confirm normal operation. It may otherwise be impossible to guarantee safety due to unexpected malfunction or erroneous operation.

Safety Instructions for Power Supply

⚠ Caution

1. Operation is possible with a single power supply or a separate power supply. However, be sure to provide two wiring systems (one for solenoid valves, and one for input and control units).

2. Use the following UL approved products for DC power supply combinations.

1) Controlled voltage current circuit conforming to UL508
Circuit uses the secondary coil of an isolated transformer as the power supply, satisfying the following conditions.
- Max. voltage (with no load): 30 Vrms (42.4 V peak) or less
- Max. current: (1) 8 A or less (including shorts), and
(2) When controlled by a circuit protector (fuse, etc.) with the following rating

No-load voltage (V peak)	Max. current rating
0 to 20 [V]	5.0
Over 20 [V] to 30 [V]	$\frac{100}{\text{Peak voltage value}}$

2) A circuit (class 2 circuit) with maximum 30 Vrms (42.4 V peak) or less, and a power supply consisting of a class 2 power supply unit confirming to UL1310, or a class 2 transformer confirming to UL1585

Series S0700
Specific Product Precautions 6

Be sure to read before handling.
Refer to front matters 58 and 59 for Safety Instructions and pages 3 to 7 for 3/4/5 Port Solenoid Valve Precautions.

Serial Wiring EX500/EX250 Precautions

Safety Instructions for Cable

⚠ Caution

1. Be careful of miswiring. This can cause malfunction, damage and fire in the unit.
Avoid using these products in machinery/equipment which affects human safety, and in cases where malfunction or failure can result in extensive damage.

2. Do not connect cables during energizing.
This could damage or cause malfunction to the SI unit.

3. To prevent noise and surge in signal lines, keep all wiring separate from power lines and high voltage lines. Otherwise, this can cause malfunction.

4. Check wiring insulation, as defective insulation can cause damage to the unit due to excessive voltage or current.

5. Do not bend or pull cables repeatedly, and do not place heavy objects on them or allow them to be pinched. This can cause broken lines.

Serial Wiring EX510 Precautions

Caution on Design and Selection

⚠ Warning

1. Use within the allowable voltage range.
Using beyond the allowable voltage range is likely to cause the units and connecting devices to be damaged or to malfunction.

2. Do not use beyond the specification range.
Using beyond the specification range is likely to cause a fire, malfunction, or breakdown in the units and connecting devices. Check the specifications before handling.

3. Establish a backup system beforehand, which employs fail-safe concepts such as multiple equipment and devices to prevent breakage or malfunction of this product.

4. Provide an external emergency stop circuit that will immediately stop an operation and cut off the power supply.

5. When using for an interlock circuit:
- Provide a double interlock which is operated by another system (such mechanical protection function).
- Perform an inspection to check that it is working properly because it can cause possible injuries.

⚠ Caution

1. Keep the surrounding space free for maintenace.
When designing a system, take into consideration the amount of free space needed for performing maintenance.

2. Use the following UL approved products for DC power supply combinations.

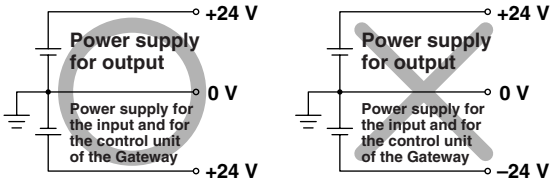
1) Controlled voltage current circuit conforming to UL508
Circuit uses the secondary coil of an isolated transformer as the power supply, satisfying the following conditions.
- Max. voltage (with no load): 30 Vrms (42.4 V peak) or less
- Max. current: (1) 8 A or less (including shorts), and
(2) When controlled by a circuit protector (fuse, etc.) with the following rating

No-load voltage (V peak)	Max. current rating
0 to 20 [V]	5.0
Over 20 [V] to 30 [V]	$\frac{100}{\text{Peak voltage value}}$

2) A circuit (class 2 circuit) with maximum 30 Vrms (42.4 V peak) or less, and a power supply consisting of a class 2 power supply unit confirming to UL1310, or a class 2 transformer confirming to UL1585

3. This product is one of the components to be equipped into a final equipment. Confirm the adaptability to the EMC directive as the whole equipment by customers themselves.

4. The power supply for the Gateway unit should be 0 V as the standard for both power supply for outputs as well as inputs and for the control unit of the Gateway.



Series S0700
Specific Product Precautions 7

Be sure to read before handling.
Refer to front matters 58 and 59 for Safety Instructions and pages 3 to 7 for 3/4/5 Port Solenoid Valve Precautions.

Serial Wiring EX510 Precautions

Mounting

⚠ Caution

1. Do not drop, bump, or apply excessive impact.

Otherwise, the unit can become damaged, malfunction, or fail to function.

2. Hold the body while handling this product.

Otherwise, the unit can become damaged, malfunction, or fail to function.

3. Observe the tightening torque range.

Tightening outside of the allowable torque range will likely damage the product.

4. Do not install a unit in a place where it can be used as a scaffold.

Applying any excessive load such as stepping on the unit by mistake or placing a foot on it, will cause it to break.

Wiring

⚠ Warning

1. Avoid miswiring.

If miswired, there is a probability of damaging units or connecting devices.

2. Do not wire while energizing the product.

It is likely to damage the units or connecting devices.

3. Avoid wiring the power line and high pressure line in parallel.

Noise or surge produced by signal line resulting from the power line or high pressure line could cause a malfunction. Wiring of the reduced wiring system and the power line or high pressure line should be separated from each other.

4. Confirm the wiring insulation.

Inferior insulation (contact with other circuit, insulation between terminals, etc.) will likely cause damage to the units or connecting devices due to excessive voltage or the influx of current.

⚠ Caution

1. Take measures to avoid applying repeated bending force or pulling force to the cable.

Also, pay attention not to place any heavy matter on the cable or clipping. It is likely to cause a broken wire.

2. Confirm grounding to maintain the safety of the reduced wiring system and for anti-noise performance.

Grounding should be close to units and keep the grounding distance short.

Operating Environment

⚠ Warning

1. Do not use this product in the presence of dust, particles, water, chemicals, and oil.

Use with such materials is likely to cause a malfunction or breakage.

2. Do not use this product in the presence of a magnetic field.

Use in such an environment is likely to cause a malfunction.

3. Do not use this product in an atmosphere containing an inflammable gas, explosive gas, or corrosive gas.

Use in such an atmosphere is likely to cause a fire, explosion, or corrosion.
This wire-reduced system is not explosion-proof.

4. Do not use this product in places where there are cyclic temperature changes.

In case that the cyclic temperature is beyond normal temperature changes, the internal unit is likely to be adversely effected.

5. Do not use this product in places where there is radiated heat around it.

Such a place is likely to cause a malfunction or breakage.

6. Do no use this product near sources that generate a surge which exceeds the benchmark test, even though this product is CE-marked certified.

The internal circuit components are likely to deteriorate or become damaged when there are equipment (solenoid type lifter, high frequency guided furnace, motor, etc.) which generate a large surge around the reduced wiring system. Take measures to prevent an electrical surge and avoid having the wires touch each other.

7. Use the product type that has an integrated surge absorption element when directly driving a load which generates surge voltage by relay or solenoid valves.

8. The reduced wiring system should be installed in places with no vibration or shock.

If installed in a place with vibration or shock, a malfunction or breakage is likely to occur.

Specific Product Precautions 8

Be sure to read before handling.
Refer to front matters 58 and 59 for Safety Instructions and pages 3 to 7 for 3/4/5 Port Solenoid Valve Precautions.

Serial Wiring EX510 Precautions

Adjustment and Operation

⚠ Warning

1. Do not short-circuit a load.

If a load is short-circuited, excessive can cause damage to the connected devices. The fuse of the input unit will melt and below. The output and SI unit will activate its overcurrent protection function. However, they cannot cover all modes, so damage is likely to occur.

2. Do not manipulate or perform settings with wet hands.

Performing such activity will likely cause an electrical shock.

⚠ Caution

1. DIP switches and rotary switches should be set with a small watchmaker's screwdriver.

Maintenance

⚠ Warning

1. Do not disassemble, modify (including circuit board replacement) or repair this product.

Such actions are likely to cause injuries or breakage.

2. Perform periodic inspection.

Confirm that wiring or screws are not loose.
Otherwise, unpredicted malfunction in the system composition devices is likely to occur.

3. When an inspection is performed.

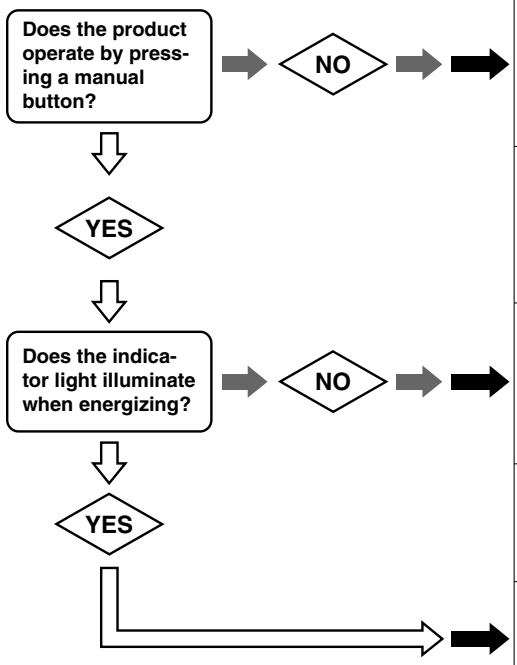
- Turn off the power supply.
- Stop the supplied fluid and discharge the fluid in the piping and confirm the release to the atmosphere before performing an inspection. It is likely to cause injuiries.

⚠ Caution

1. Do not wipe this product with chemicals such as benzine or thinner.

Using such chemicals is likely to cause damage.

Troubleshooting 1

Trouble	In the event of product failure, take remedial measures by checking the following items as detailed below .	Cause	Measures
Operating failure The air supply direction has not been changed.		1) Slide failure or sticking of the main valve Foreign matter from the air source has been caught in the main valve and has caused slide failure and sticking.	• Replace the valve. Replace the valve. • Purify the air source. (Refer to P7.)
		2) Pressure drop The pressure of the air source decreases and fails to reach the minimum operating pressure of the valve, resulting in operating failure.	Adjust the pressure of the valve within the operating pressure range.
		1) Electric system error • Sequencer failure • Incorrect wiring • Open fuse and lead wire disconnection • Voltage drop	Check each item and take applicable measure.
		1) Voltage drop The product may not operate due to a voltage drop even when its indicator light remains illuminated.	Check the voltage and take applicable measure if decreased.
		2) Current leakage The product does not shift from off to on due to the residual voltage.	Check the residual voltage, which shall be 2% or less of rated voltage.
		3) Pilot valve failure • Foreign matter from the air source has entered the inside of the pilot valve and has caused operating failure. • Open coil circuit	• Replace the pilot valve assembly. <Part no. of the pilot valve assembly> S070P-$\begin{matrix}5\\6\end{matrix}B\begin{matrix}G\\C\\CO\end{matrix}$ • Purify the air source. (Refer to P7.)
Response failure The product operates, but has a time delay.		1) Current leakage The response of the product was delayed due to the residual voltage.	Check the residual voltage, which should be 2% or less of the rated voltage.
		2) Clogging of the filter element of the manifold	• Clean or replace the element.
		3) Foreign matter from the air source has entered the main valve and has caused slide failure and sticking.	• Replace the valve. • Purify the air source. (Refer to P7.)

Troubleshooting 2

Trouble	In the event of product failure, take remedial measures by checking the following items as detailed below .	Cause	Measures
Air leakage	**Check the part where the air is leaking.** **1. Leakage between the valve and base** ➡	1-1) The clamp screw of mounting bolt is loose.	Tighten the clamp screw. Appropriate tightening torque 0.17 to 0.23 N•m Replace the gasket if it was damaged.
		1-2) The gasket got caught.	Replace the gasket. <Part no. of the gasket and spare parts> S0700-GS-5 (10 sets.)
	2. Air leakage from the one-touch fitting ➡	2-1) The tube did not bottom out. 2-2) The tube had a flaw. 2-3) The tube end was cut uneven.	Check each item and take applicable measures.
		2-4) The packing of the one-touch fitting was damaged.	Replace the one-touch fitting assembly. <Part no. of the one-touch fitting assembly> VVQ0000-50A-C2 VVQ0000-50A-C3 VVQ0000-50A-C4 VVQ0000-50A-N1 VVQ0000-50A-N3 SS070-50A-20 SS070-50A-32 SS070-50A-40
	3. Leakage from R port. ➡	3-1) The mounting screw is loose.	Tighten the mounting bolt. Appropriate tightening torque • 0.17 to 0.23 N•m Replace the gasket if it was damaged.
		3-2) Foreign matter from the air source got caught in the main valve and increased the internal leakage.	• Replace the valve. Purify the air source.