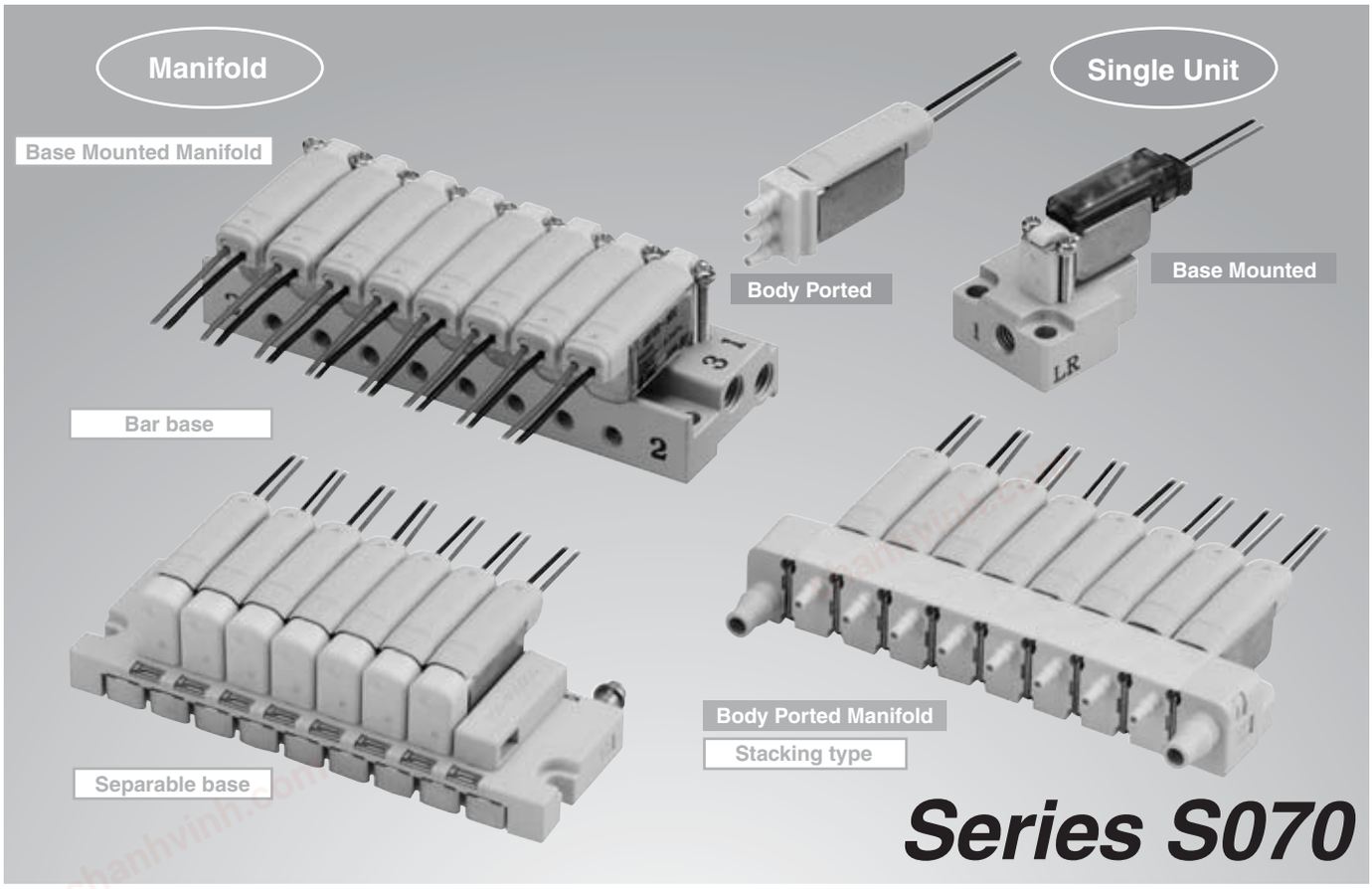
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SMC

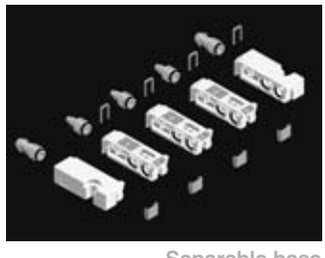
CE

3 Port Solenoid Valve

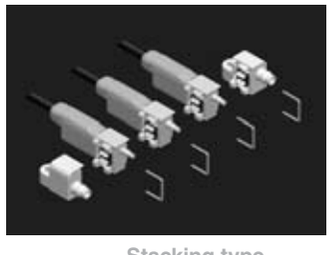


- Valve width 7 mm
- Weight 5 g (single unit valve)
- Power consumption 0.35 W (standard), 0.1 W (with power saving circuit)
- Operation noise 38 dB (A) or less
- Sonic conductance: C 0.060 [dm³/(s·bar)]
- Flow rate: 15 ℓ/min
- Stacking type manifold





Separable base



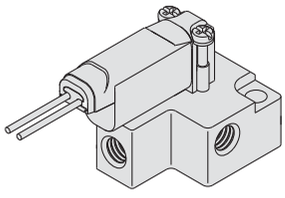
Stacking type

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Compact Direct Operated 3 Port Solenoid Valve

Series S070

How to Order Valve



Body type

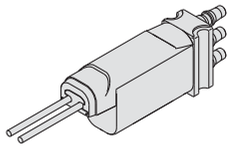
Symbol	Body type
B	Base mounted type with screws

Sub-plate/Port size of sub-plate

Symbol	Sub-plate
Nil	Without sub-plate
M3	With sub-plate
M5	

Base Mounted S070 **B** – **5** **B** **G** □

Body Ported S070 **C** – **5** **B** **G** – **32**



Body type

Symbol	Body type
C	Body ported

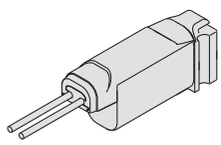
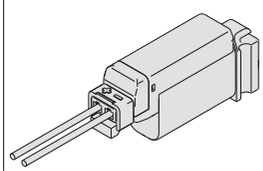
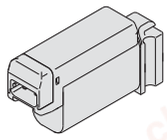
Port size

Symbol	Connection	Applicable tubing
32	Barb fitting	ø3.18/ø2

Coil voltage

5	24 VDC
6	12 VDC
V	6 VDC
S	5 VDC
R	3 VDC

Electrical entry

G – Grommet	**C** – Plug lead with light/surge voltage suppressor and connector with lead wire (L=150m)
	
CO – Plug lead without connector and with light/surge voltage suppressor	
	

Power consumption – Pressure specification – Flow rate

Symbol	Power consumption (W)	Maximum operating pressure (MPa)	Cv factor
A	0.35	0.1	0.016
B		0.3	0.011
C	0.5	0.3	0.016
D		0.5	0.011
E Note)	0.1 (with power saving circuit)	0.1	0.011
F Note)		0.3	0.006

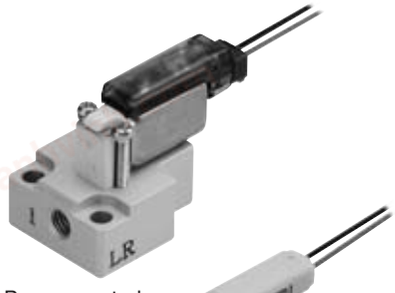
Note) An option only applicable to 24 VDC plug lead type.

Made to Order

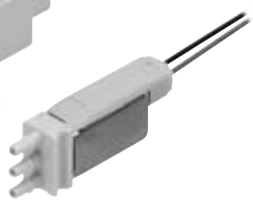
Symbol	Specifications
X26	Grommet type, Special lead wire length
X50	Universal type
X62	Normaly open type

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Compact Direct Operated 3 Port Solenoid Valve *Series S070*

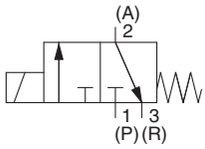


Base mounted



Body ported

JIS symbol



Specifications

Valve construction	Poppet
Fluid	Air / Low vacuum (1.33 x 10^2 Pa)
Maximum operating pressure	0.3 MPa (0.35 W, 0.1 W), 0.5 MPa (0.5 W)
Proof pressure	1 MPa
Ambient and fluid temperature Note 1)	–10 to 50°C
Lubrication	Not required
Impact/Vibration resistance Note 2)	30/150 m/s^2
Enclosure	IP40
Weight	5 g (single unit valve)
Mounting orientation	Free

Note 1) Use dry air and prevent condensation at low temperatures.
Note 2) Vibration resistance: No malfunction resulted in 45 to 2000 Hz, a one-sweep test performed in the axial and right angle directions of the main valve and armature for both energized and de-energized states.
Impact resistance: No malfunction resulted in an impact test using a drop impact tester. The test was performed one time each in the axial and right angle directions of the main valve and armature, for both energized and de-energized states.
With the 0.1 W specification, the vibration and impact resistance is 10/50 m/s^2 or less.
Note 3) With the low vacuum specification, the operating pressure range is 1.33 x 10^2 Pa to the maximum operating pressure.

Solenoid specifications

Power consumption Note 1)	0.35 W (standard), 0.5 W (high pressure), 0.1 W (power saving)
Rated coil voltage	3, 5, 6, 12, 24 VDC
Allowable voltage fluctuation Note 2)	±10% of the rated voltage
Coil insulation type	Equivalent to class B

Note 1) With a light/surge voltage suppressor and power saving circuit, the light consumes a power equivalent to 2 mA. With the 0.1 W DC specification 0.35 W DC at inrush (20 ms) and 0.1 W DC at holding.
Note 2) With a power saving circuit, keep the voltage fluctuation within 24 VDC ±5%.

Flow specifications/Response time

Power consumption	Maximum operating pressure	Flow characteristics				Response time ms Note 2, 3)	
		C[dm^3/(s·bar)]	b	Cv	Flow rate [l/min], ANR Note 4	ON	OFF
0.5 W DC	0.5 MPa	0.042	0.27	0.011	9.6	3 or less	3 or less
	0.3 MPa	0.060	0.28	0.016	10.9	5 or less	3 or less
0.35 W DC	0.3 MPa	0.042	0.27	0.011	7.6	3 or less	3 or less
	0.1 MPa	0.060	0.28	0.016	6.9	5 or less	3 or less
0.1 W DC (at holding) with power saving circuit Note 1)	0.3 MPa	0.021	0.27	0.006	3.8	3 or less	6 or less
	0.1 MPa	0.042	0.28	0.011	4.8	5 or less	6 or less

Note 1) With the 0.1 W DC specification, keep the vibration/impact within10/50 m/s^2.
0.35 W DC at inrush (20 ms) and 0.1 W DC at holding.
Note 2) The response time is the value at the rated voltage and maximum operating pressure, ambient and fluid temperature (approx. 25°C)
Note 3) If the product is used in the following conditions or environment, switching of the valve may be significantly delayed compared to the above values.
1. The first response time when the valve is not used for a long period of time.
2. When using at low supply pressure (0.1 MPa or less)
3. When using in an environment where the ambient and fluid temperature is low (10°C or less)
Note 4) The flow values are calculated by using the maximum operating pressure with a Delta P = 0.1 MPa.
Calculation follow ISO 6358

Weight

Part №	Weight (g)	Note
S070A-**G	6.4	-
S070A-**C	6.9	
S070A-**CO	6.1	
S070B-**G	6.1	Weight of mounting screw is 0.3 (g) for S070B
S070B-**C	6.6	
S070B-**CO	6.8	
S070C-**G	6.2	Weight of mounting screw is 0.3 (g) for S070C
S070C-**C	6.7	
S070C-**CO	5.9	

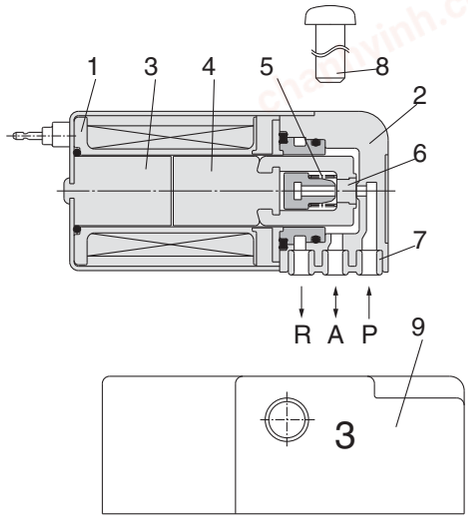
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Series S070

Construction - Individual type

Component Parts

Number	Description	Material
1	Solenoid coil	—
2	Body	Resin
3	Core	Stainless steel
4	Armature assembly	Stainless steel, resin
5	Return spring	Stainless steel
6	Poppet	FKM
7	Interface gasket	HNBR
8	Round head combination screw	Carbon steel
9	Sub-plate	Aluminum

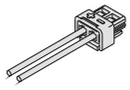


∗ The above figure is an example of S070B-□□G base piping type (mounted with screws).

Accessories - Individual type

Plug connector assembly (for plug lead)

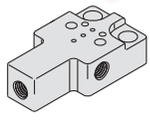
S070–14A–□



Lead wire length		Weight (g)
Nil	150 mm	0.8
3	300 mm	1.4
6	600 mm	2.6
10	1000 mm	4.2

Sub-plate

S070–S–M3



Port size		Weight (g)
M3	M3 female thread	7.6
M5	M5 female thread	7.7

Replacement Parts - Individual type

Gasket

Valve model	Gasket No.
S070A	**S070A-80A-1**
S070B	**S070B-80A-1**
S070M	**S070M-80A-1**



Note) Order is accepted in 10 units.

Mounting screw

Valve model	Mounting screw No.
S070B	**AXT632-106A-1**
S070C	**AXT632-106A-2**



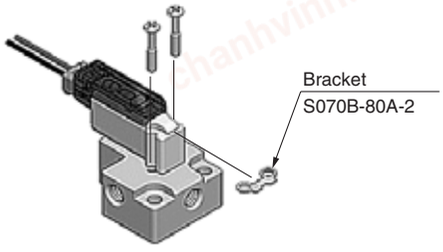
Note) Each of the above part numbers is for two screws, which are to be ordered by 10 units. Order is accepted in 10 units.

Bracket (S070B)

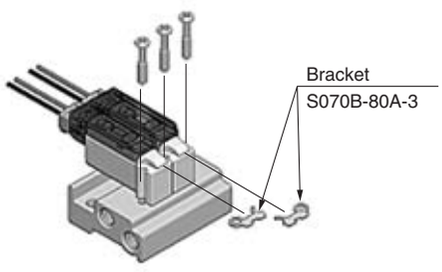
Valve model	Bracket no.	Note
S070B, SS073B	**S070B-80A-2**	For sub-plates and manifolds (more than 3 stations)
SS073B	**S070B-80A-3**	For manifolds (2 stations only)



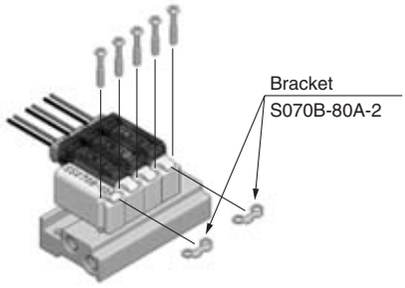
Note) Order is accepted in 10 units.
∗ This is used when mounting a valve on the sub-plate and manifold.



Single unit (base mounted)



Manifold with 2 stations



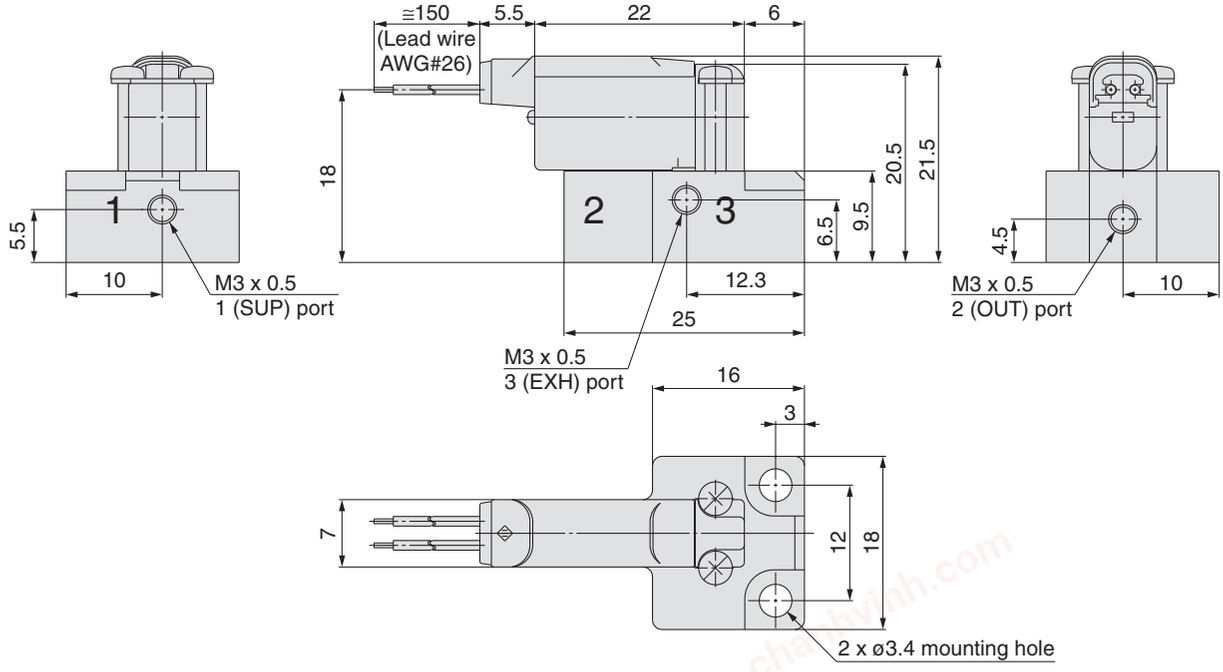
Manifold with more than 3 stations

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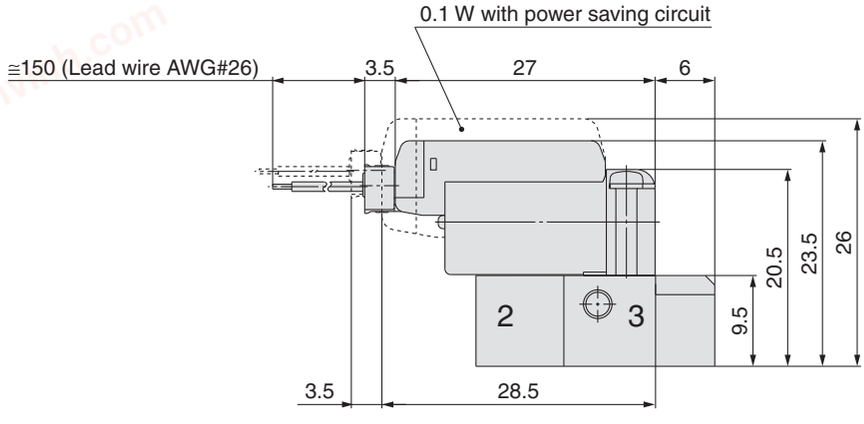
Dimensions

Base mounted with sub-plate

S070B-□□G-M3
Grommet type



S070B-□□C-M3
Plug lead type



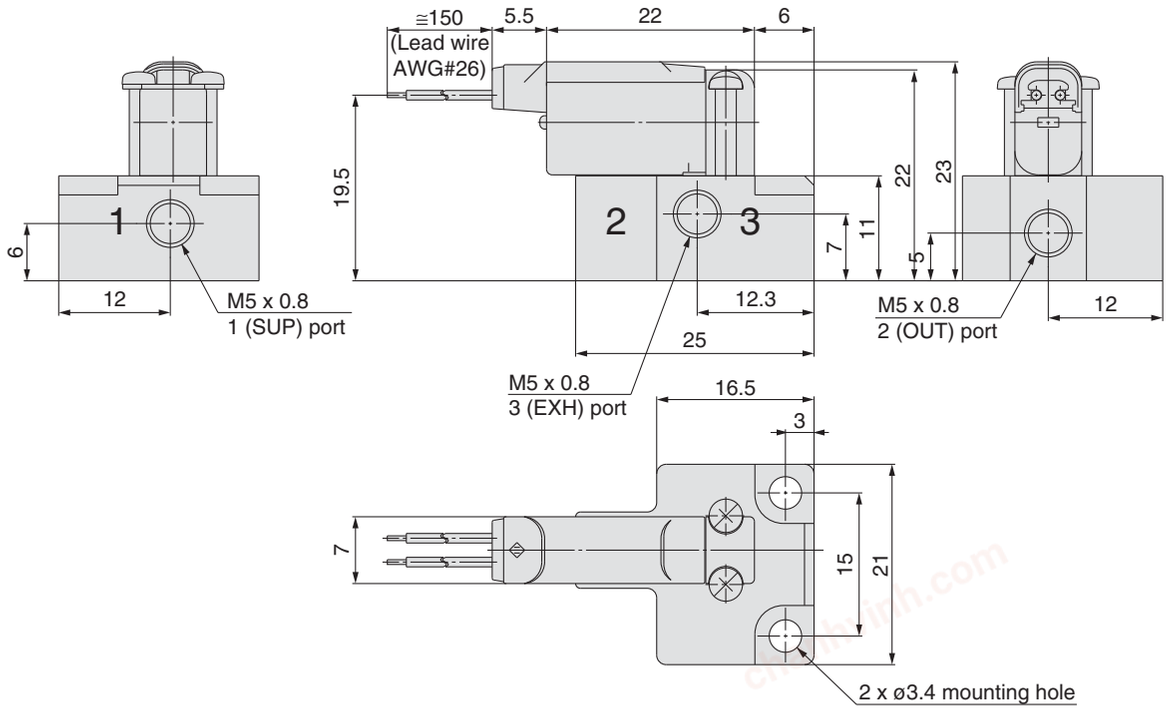
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Series S070

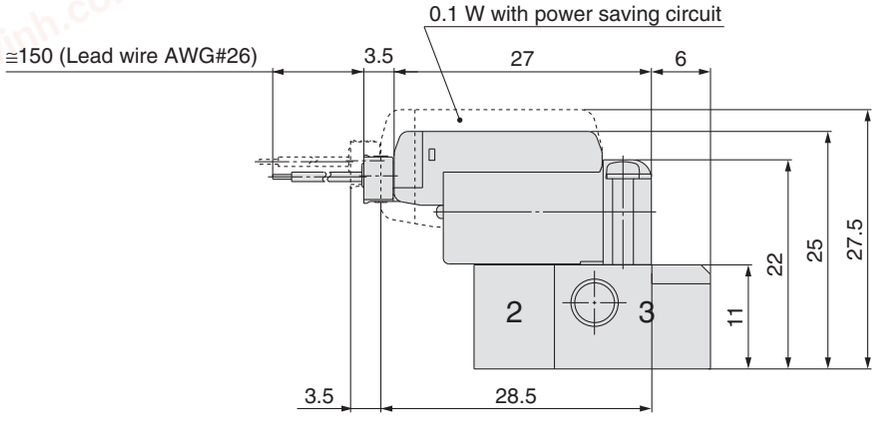
Dimensions

Base mounted with sub-plate

S070B-□□G-M5
Grommet type



S070B-□□C-M5
Plug lead type

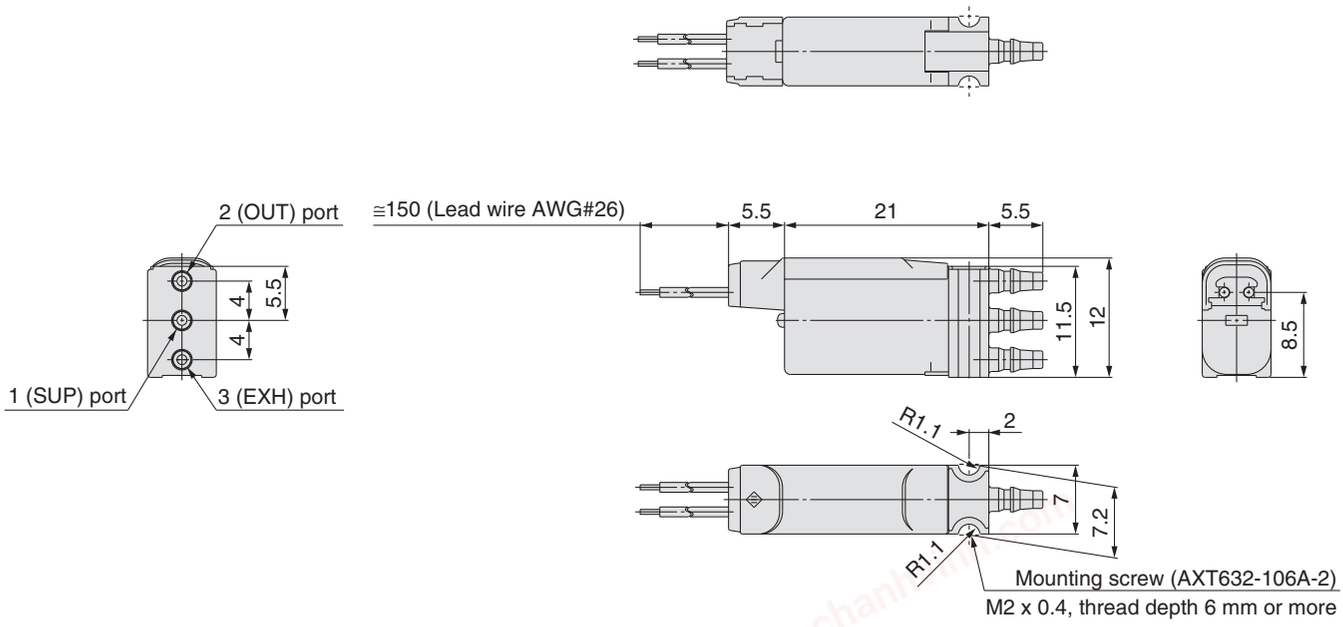


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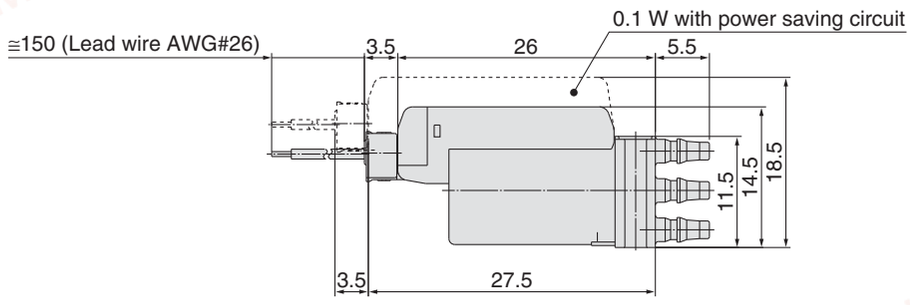
Dimensions

Body ported

S070C-□□G-32
Grommet type



S070C-□□C-32
Plug lead type



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3 Port Solenoid Valve
Series S070 / Base Mounted Manifold
Stacking Base Type

How to Order Manifold

Base Mounted Manifold Stacking Base **SS07 3 A01 — 08 C**

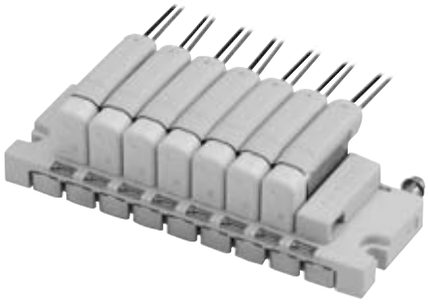
Ports

3	3 port

Port size

Symbol	SUP/EXH port (Applicable tubing)	OUT port	
			Applicable tubing
A01	Barb fittings (ø6/ø4)	Barb fittings	ø3.18/ø2
A02			ø4/ø2.5

Note) The outside and inside diameters of the "applicable tubing" are indicated for the barb fitting.



Stations

02	2 stations
03	3 stations
⋮	⋮
20	20 stations

Note) Maximum of 20 stations

Electrical entry

C	Grommet/Plug lead

How to Order Manifold Assembly

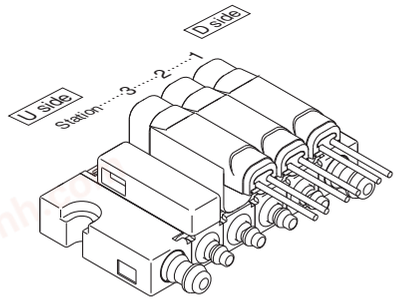
Enter the part numbers of the valves and options to be mounted below the manifold base part number.

<Example>
SS073A01-04C ..... 1 set ——— Manifold Base no.
∗S070A-5BG ..... 3 set ——— Valve no.

∗SS070A-10A ..... 1 set — Blanking plate assembly no.

Prefix the symbol "∗" to the solenoid valve part number.

Write sequentially from the 1st station on the D side.



How to Order Valve

S070 A — 5 B G

Body type

Symbol	Body type
A	Base mounted with clips

Electrical entry

G	Grommet
C	Plug lead with light/surge voltage suppressor and connector with lead wire (L=150m)

Coil voltage

5	24 VDC
6	12 VDC
V	6 VDC
S	5 VDC
R	3 VDC

Power consumption – Pressure specification – Flow rate

Symbol	Power consumption (W)	Maximum operating pressure (MPa)	Cv factor
A	0.35	0.1	0.016
B		0.3	0.011
C	0.5	0.3	0.016
D		0.5	0.011
E Note)	0.1 (with power saving circuit)	0.1	0.011
F Note)		0.3	0.006

Note) An option only applicable to 24 VDC plug lead type.

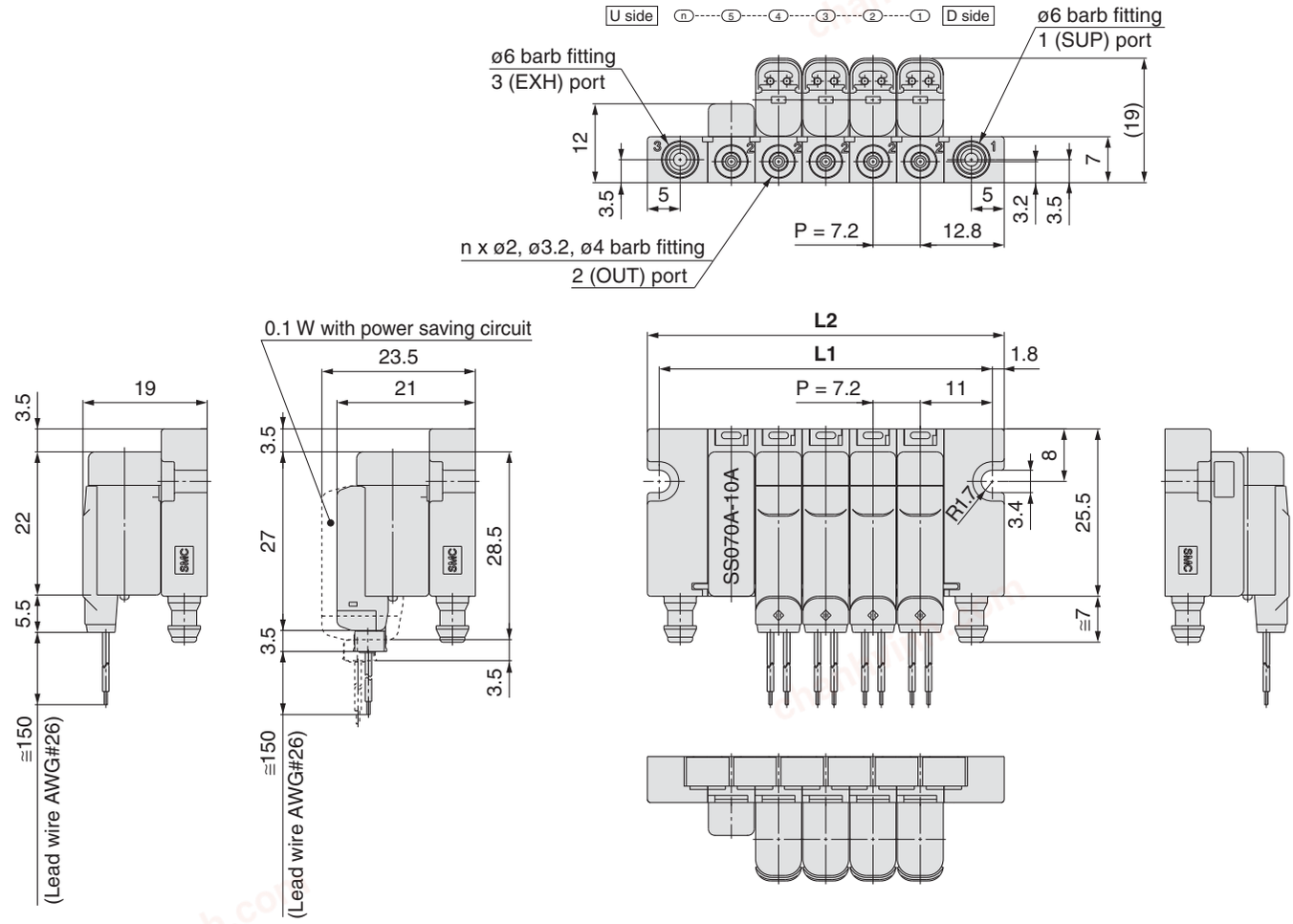
Note) Accessories please refer to page 1-914.

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Dimensions

Base mounted manifold / Separable base

SS073A $^{01}_{02}$ - Stations C



Dimensions

Formulas: L1 = n x 7.2 + 14.8, L2 = n x 7.2 + 18.4, n: Stations (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	29.2	36.4	43.6	50.8	58	65.2	72.4	79.6	86.8	94	101.2	108.4	115.6	122.8	130	137.2	144.4	151.6	158.8
L2	32.8	40	47.2	54.4	61.6	68.8	76	83.2	90.4	97.6	104.8	112	119.2	126.4	133.6	140.8	148	155.2	162.4

Weight

Part Nº	Calculation of weight (g) (N=Station Number, 2 to 20)	Note
SS073A01-*C	5.4 + 2.1 x N	Not include valves
SS073A02-*C		

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3 Port Solenoid Valve
Series S070/Base Mounted Manifold
Bar Base Specification

How to Order Manifold

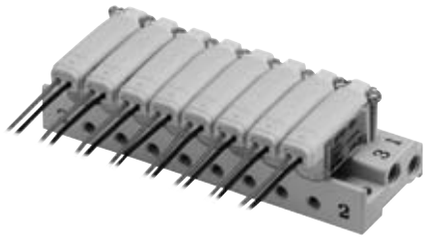
Base Mounted Manifold Bar Base **SS07 3 B01 – 08 C**

Ports

3	3 port

Port size

Symbol	SUP/EXH port (Applicable tubing)	OUT port	
			Applicable tubing
B01	M5 female thread	M3 female thread	–



Stations

02	2 stations
03	3 stations
⋮	⋮
20	20 stations

Note) Maximum of 20 stations

Electrical entry

C	Grommet/Plug lead

How to Order Manifold Assembly

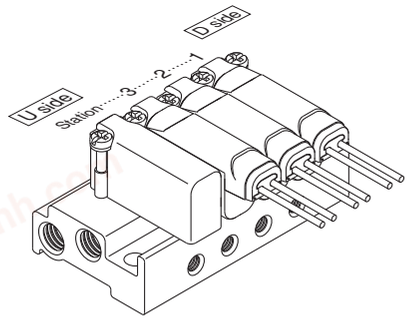
Enter the part numbers of the valves and options to be mounted below the manifold base part number.

<Example>
SS073B01-04C ..... 1 set ——— Manifold Base no.
***S070B-5BG** ..... 3 set ——— Valve no.

***SS070B-10A** ..... 1 set — Blanking plate assembly no.

Prefix the symbol "*" to the solenoid valve part number.

Write sequentially from the 1st station on the D side.



How to Order Valve

S070 B – 5 B G

Body type

Symbol	Body type
B	Base mounted with screws

Electrical entry

G	Grommet
C	Plug lead with light/surge voltage suppressor and connector with lead wire (L=150)

Coil voltage

5	24 VDC
6	12 VDC
V	6 VDC
S	5 VDC
R	3 VDC

Power consumption – Pressure specification – Flow rate

Symbol	Power consumption (W)	Maximum operating pressure (MPa)	Cv factor
A	0.35	0.1	0.016
B		0.3	0.011
C	0.5	0.3	0.016
D		0.5	0.011
E Note)	0.1 (with power saving circuit)	0.1	0.011
F Note)		0.3	0.006

Note) An option only applicable to 24 VDC plug lead type.

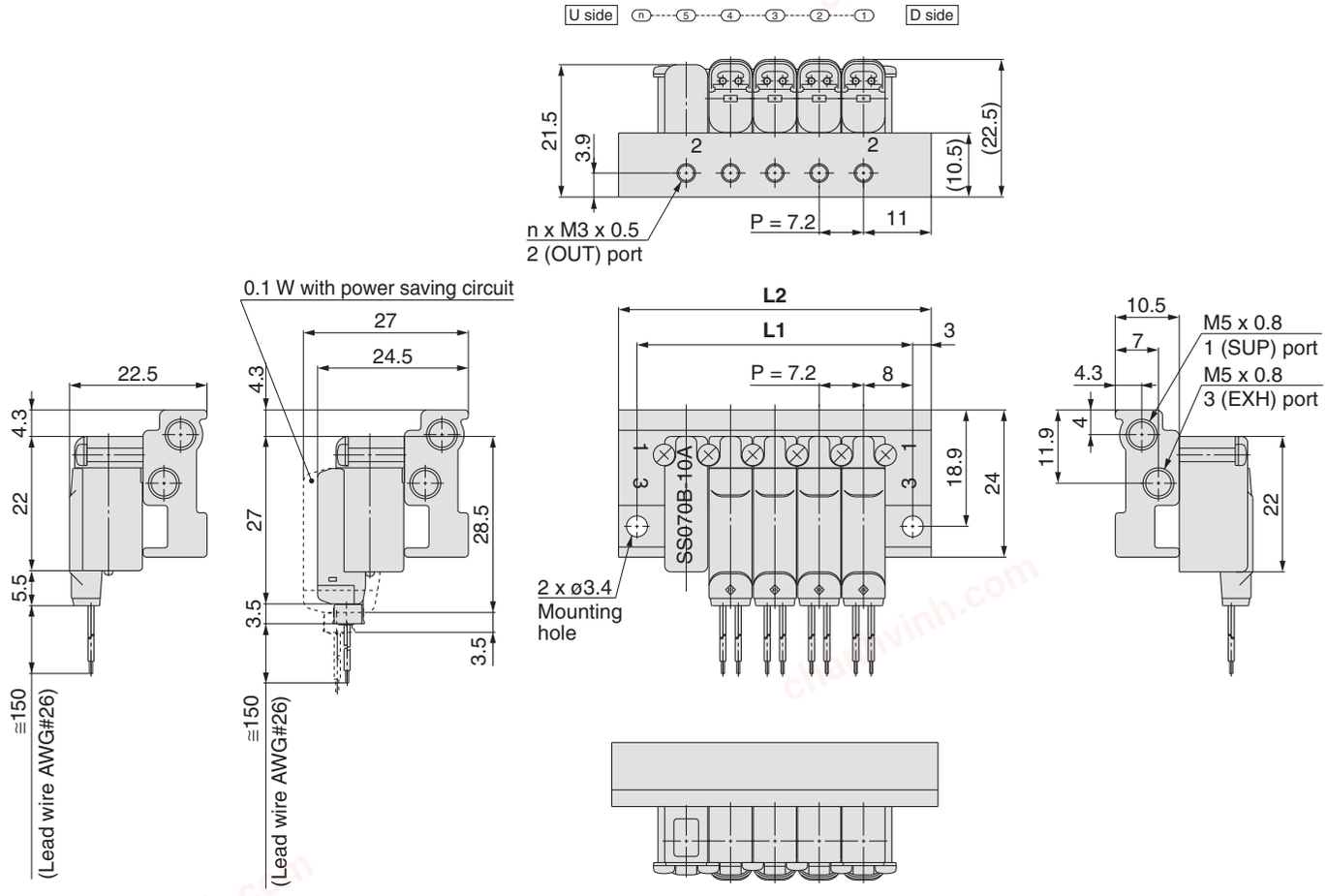
Note) Accessories please refer to page 1-914.

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Dimensions

Base mounted manifold / Bar base

SS073B01-Stations C



Dimensions

Formulas: L1 = n x 7.2 + 8.8, L2 = n x 7.2 + 14.8, n: Stations (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	23.2	30.4	37.6	44.8	52	59.2	66.4	73.6	80.8	88	95.2	102.4	109.6	116.8	124	131.2	138.4	145.6	152.8
L2	29.2	36.4	43.6	50.8	58	65.2	72.4	79.6	86.8	94	101.2	108.4	115.6	122.8	130	137.2	144.4	151.6	158.8

Weight

Part Nº	Calculation of weight (g) (N=Station Number, 2 to 20)	Note
SS073B01-*C	6.0 + 2.2 x N	Not include valves

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3 Port Solenoid Valve
Series S070/Body Ported Manifold
Stacking Type Specifications

How to Order Manifold

Body Ported Manifold Stacking type

SS07 3 M01 — 08 C

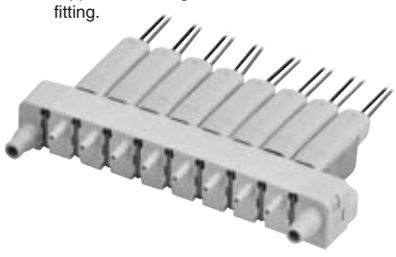
Ports

3	3 port

Port size

Symbol	SUP/EXH port (Applicable tubing)	OUT port	
			Applicable tubing
M01	Barb fittings (ø6/ø4)	Barb fittings	ø3.18/ø2
M02			ø4/ø2.5

Note) The outside and inside diameters of the "applicable tubing" are indicated for the barb fitting.



Stations

02	2 stations
03	3 stations
⋮	⋮
20	20 stations

Note) Maximum of 20 stations

Electrical entry

C	Grommet/Plug lead

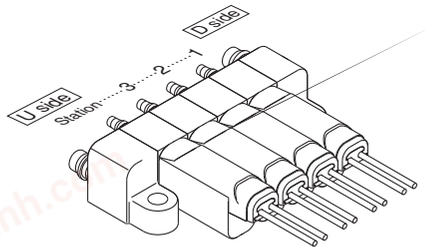
How to Order Manifold Assembly

Enter the part numbers of the valves and options to be mounted below the manifold base part number.

<Example>
SS073M01-04C ..... 1 set ——— Manifold Base no.
∗S070M-5BG-32 ..... 4 set ——— Valve no.

Prefix the symbol "∗" to the solenoid valve part number.

Write sequentially from the 1st station on the D side.



How to Order Valve

S070 M — 5 B G — 32

Body type

Symbol	Body type
M	Body ported stacking manifold type

Coil voltage

5	24 VDC
6	12 VDC
V	6 VDC
S	5 VDC
R	3 VDC

Power consumption – Pressure specification – Flow rate

Symbol	Power consumption (W)	Maximum operating pressure (MPa)	Cv factor
A	0.35	0.1	0.016
B		0.3	0.011
C	0.5	0.3	0.016
D		0.5	0.011
E Note)	0.1 (with power saving circuit)	0.1	0.011
F Note)		0.3	0.006

Note) An option only applicable to 24 VDC plug lead type.

Port size

Symbol	Connection	Applicable tubing
32	Barb fitting	ø3.18/ø2
40		ø4/ø2.5

Electrical entry

G	Grommet
C	Plug lead with light/surge voltage suppressor and connector with lead wire (L=150)

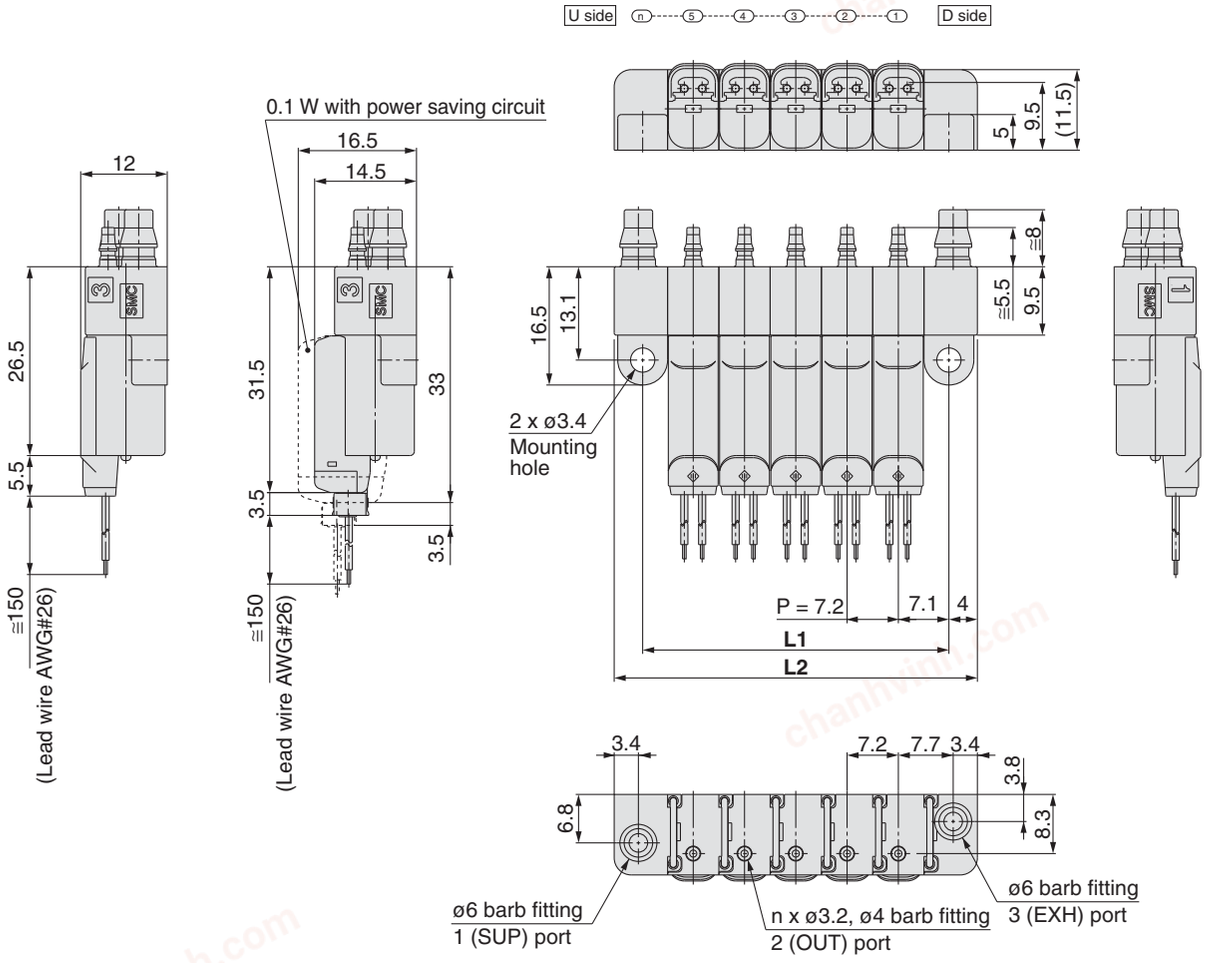
Note) Accessories please refer to page 1-914.

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Dimensions

Body ported stacking type manifold

SS073M $^{01}_{02}$ - Stations C



Dimensions Formulas: L1 = n x 7.2+ 7, L2 = n x 7.2 + 15, n: Stations (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	21.4	28.6	35.8	43	50.2	57.4	64.6	71.8	79	86.2	93.4	100.6	107.8	115	122.2	129.4	136.6	143.8	151
L2	29.4	36.6	43.8	51	58.2	65.4	72.6	79.8	87	94.2	101.4	108.6	115.8	123	130.2	137.4	144.6	151.8	159

Weight

Type	Part Nº	Calculation of weight (g) (N=Station Number, 2 to 20)	Note
Body ported stacking, Grommet	SS073M01-*C	2.8 + 6.7 x N	Include valves
	SS073M02-*C		
Body ported stacking, with connector	SS073M01-*C	2.8 + 7.2 x N	
	SS073M02-*C		
Body ported stacking, without connector	SS073M01-*C	2.8 + 6.4 x N	
	SS073M02-*C		

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Series S070
Made to Order

Please contact SMC for detailed specifications, dimensions and delivery.

Made to Order

1 Grommet Type: Special Lead Wire Length — X26

S070 B – □ □ G – □ – X26 – □

- Body type
- Coil voltage
- Power consumption – Pressure specifications – Flow rate
- Grommet type
- Port size
- Lead wire length (L)

Symbol	Length (L)
3	300 mm
6	600 mm
10	1000 mm

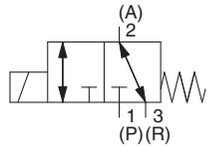
∗ Refer to pages 1-902, 1-908, 1-910 and 1-912 for body type, coil voltage, power consumption-pressure specifications, and port size.

2 Universal Specifications — X50

S070 B – □ □ G – □ – X50

- Body type
- Coil voltage
- Power consumption – Pressure specifications – Flow rate
- Electrical entry
- Port size

Symbol



Symbol	Power consumption	Operating pressure range	Flow characteristics			
			C (dm³/(s·bar))	b	CV	[L/min], ANR Note 1
A	0.35 WDC	0 to 0.1 MPa	0.042	0.27	0.011	4.8
B		0 to 0.3 MPa	0.021	0.27	0.006	3.8
C	0.5 WDC	0 to 0.3 MPa	0.042	0.27	0.011	7.6
D		0 to 0.5 MPa	0.021	0.27	0.006	4.7

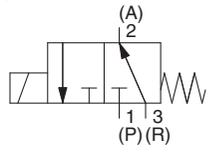
∗ Refer to pages 1-902, 1-908, 1-910 and 1-912 for body type, coil voltage, electrical entry, and port size.

3 Normally Open Specifications — X62

S070 B – □ □ G – □ – X62

- Body type
- Coil voltage
- Power consumption – Pressure specifications – Flow rate
- Electrical entry
- Port size

Symbol



Symbol	Power consumption	Max. operating pressure (3 port pressure)	Flow characteristics			
			C (dm³/(s·bar))	b	CV	[L/min], ANR Note 1
A	0.35 WDC	0 to 0.1 MPa	0.042	0.27	0.011	4.8
B		0 to 0.3 MPa	0.021	0.27	0.006	3.8
C	0.5 WDC	0 to 0.3 MPa	0.042	0.27	0.011	7.6
D		0 to 0.5 MPa	0.021	0.27	0.006	4.7

Note 1) When used in the vacuum release, use with 1-port vacuum, and 3-port vacuum release pressure.
Note 2) These values have been calculated according to ISO6358.

∗ Refer to pages 1-902, 1-908, 1-910 and 1-912 for body type, coil voltage, electrical entry, and port size.

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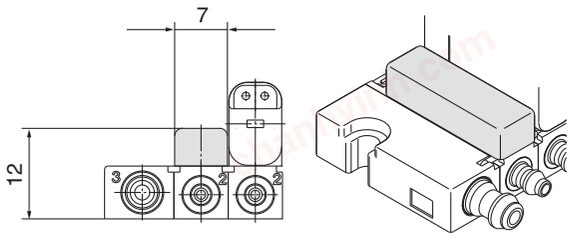
Series S070

Manifold Options

Blanking plate assembly (for SS073A)

SS070A-10A (for separable base)

This assembly is mounted on a manifold block where the valve is removed for maintenance or a replacement valve is going to be mounted.

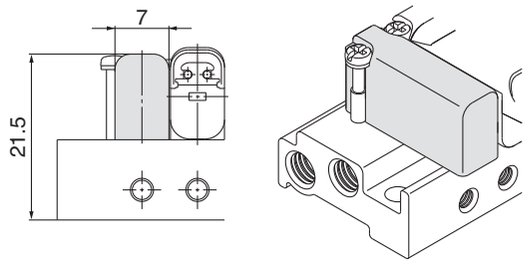


Name	No.	Weight (g)
Blanking plate	SS070A-10A	0.7

Blanking plate assembly (for SS073B)

SS070B-10A (for bar base)

This assembly is mounted on a manifold block where the valve is removed for maintenance or a replacement valve is going to be mounted.



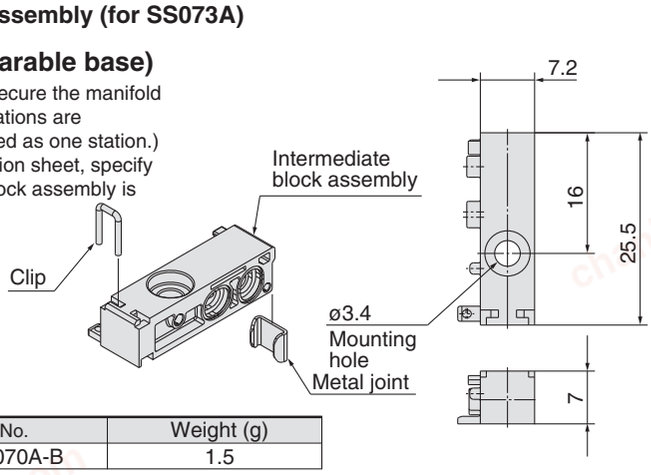
Name	No.	Weight (g)
Blanking plate	SS070B-10A	1.3

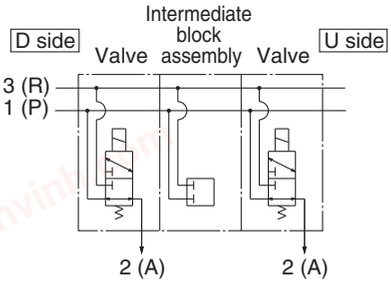
Intermediate block assembly (for SS073A)

SS070A-B (for separable base)

This assembly is used to secure the manifold when a large number of stations are manifolded. (Accommodated as one station.)

* In the manifold specification sheet, specify the position where the block assembly is mounted.





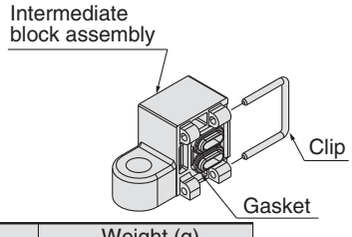
Name	No.	Weight (g)
Intermediate block	SS070A-B	1.5

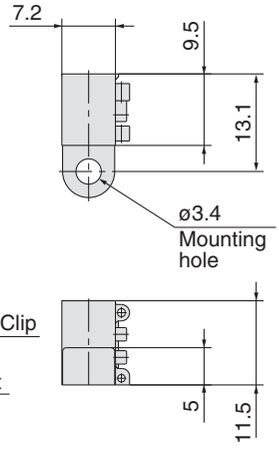
Intermediate block assembly (for SS073M)

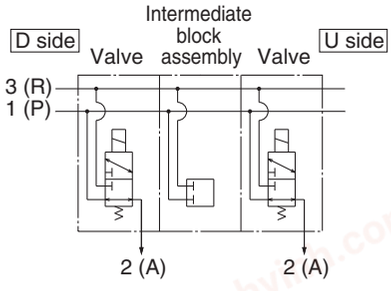
SS070M-B (for stacking type)

This assembly is used to secure the manifold when 20 or more stations are manifolded. (Accommodated as one station.)

* In the manifold specification sheet, specify the position where the block assembly is mounted.







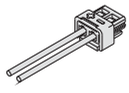
Name	No.	Weight (g)
Blanking plate	SS070M-B	1.2

Plug connector assembly (for plug lead)

S070–14A– □

Lead wire length

		Weight (g)
Nil	150 mm	0.8
3	300 mm	1.4
6	600 mm	2.6
10	1000 mm	4.2

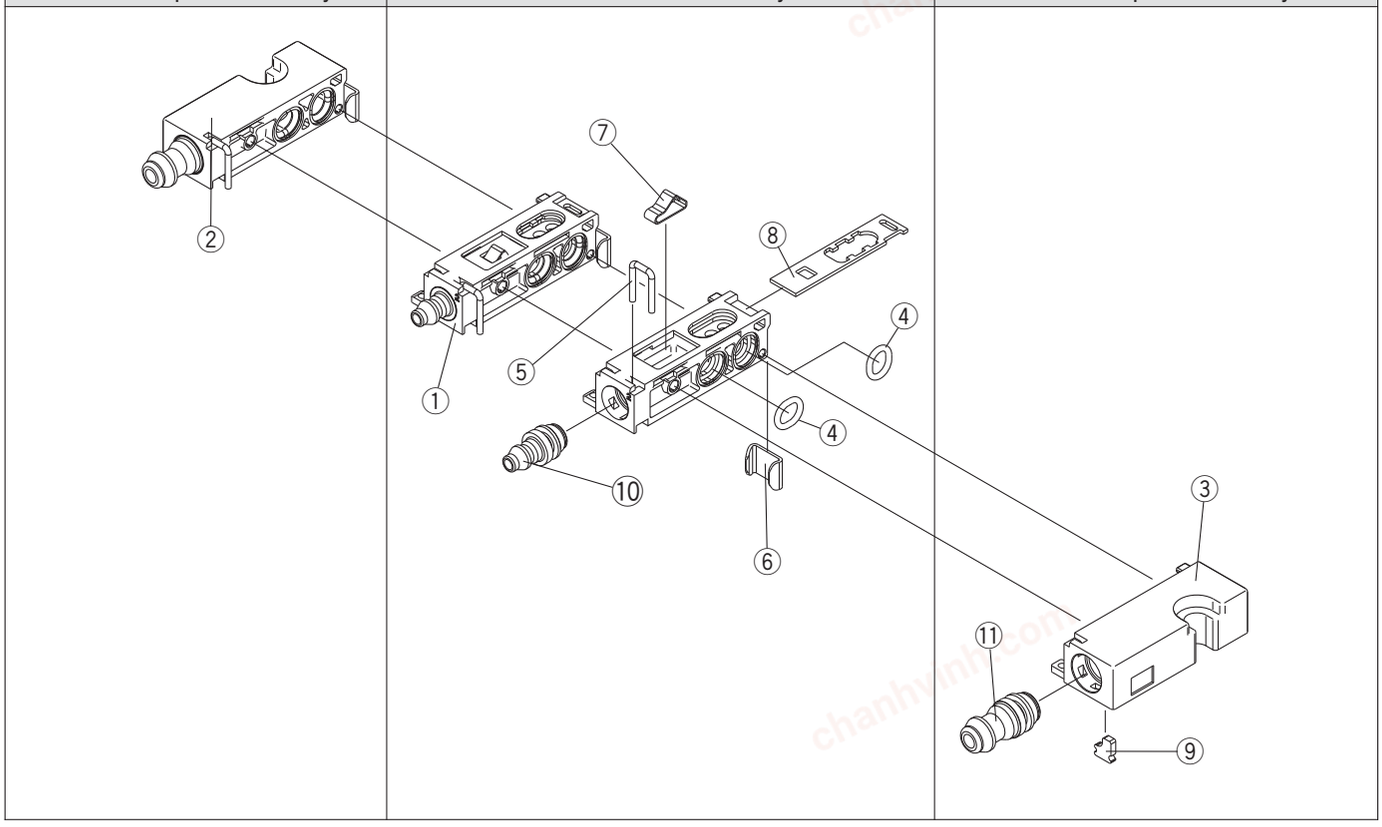


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Series S070
Exploded View of Separable Base

Base mounted / SS073A□-□C Exploded view of separable base

U side end plate assembly	Manifold block assembly	D side end plate assembly



< Manifold Block Assembly >

① **Manifold block assembly No.**

SS070A 01 –1A

Port size

01	With ø3.18/ø2 barb fitting
02	With ø4/ø2.5 barb fitting
03	With ø2/ø1.2 barb fitting

< U Side End Plate Assembly >

② **U side end plate assembly No.**

SS070A01–2A

< D Side End Plate Assembly >

③ **D side end plate assembly No.**

SS070A01–3A

< Replacement Parts for Manifold Block >

Replacement Parts

No.	No.	Description	Material	Number
④	SS070A-80A-1	O-ring	FKM	10
⑤	SS070A-80A-2	Clip	Stainless steel	10
⑥	SS070A-80A-3	Metal joint	Stainless steel	10
⑦	SS070A-80A-4	Leaf spring	Stainless steel	10
⑧	SS070A-80A-5	Mounting bracket	Stainless steel	10

<Replacement Parts for U/D End Plate>

Replacement Parts

No.	No.	Description	Material	Number
⑨	SS070A-80A-6	Stopper plate	Stainless steel	10

< Barb Fitting Assembly >

⑩ **Barb fitting assembly (for cylinder port)**

SS070–50A–32

Port size

32	Applicable tube ø3.18/ø2
40	Applicable tube ø4/ø2.5

Note) Order is accepted in 10 units.

⑪ **Barb fitting assembly (for 1(P), 3(R) ports)**

SS070–51A–60

Applicable tubing ø6/ø4

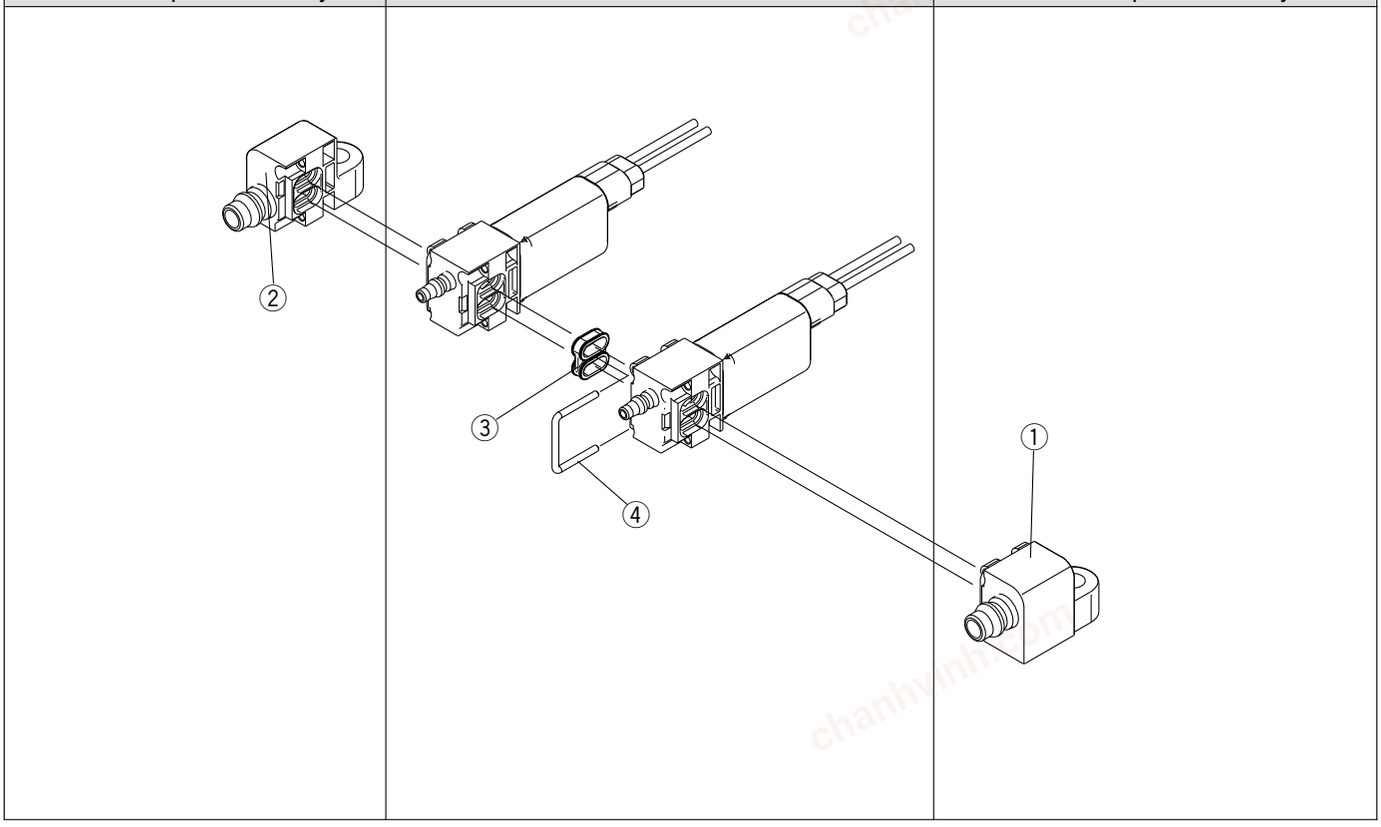
Note) Order is accepted in 10 units.

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Series S070
Exploded View of Stacking Type

Body ported type / SS073M01-□C Exploded view of stacking type

D side end plate assembly	Valve	U side end plate assembly



< U End Plate Assembly >

① **U end plate assembly No.**

SS070M01–2A

< D End Plate Assembly >

② **D end plate assembly No.**

SS070M01–3A

Replacement Parts

No.	No.	Description	Material	Number
③	S070M-80A-1	Gasket	FKM	10
④	SS070M-80A-2	Clip	Stainless steel	10

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Series S070/Specific Product Precautions 1

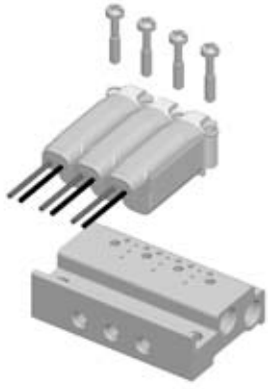
Be sure to read before handling.

⚠ Caution

Valve mounting / Removal

1. Base mounted with screws

With the base mounted type fixed with screws, confirm the installation of the gasket mounted on the body interface and fasten the dedicated mounting screws (AXT632-106-1) at an appropriate torque (0.10 to 0.14 Nm). (Fasten equally so that the valve will not tilt.)

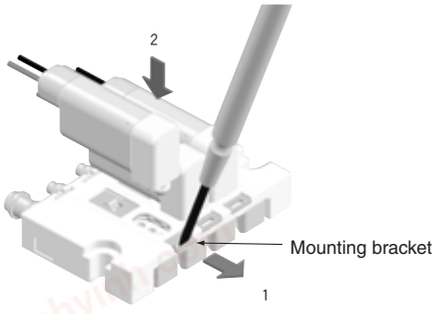


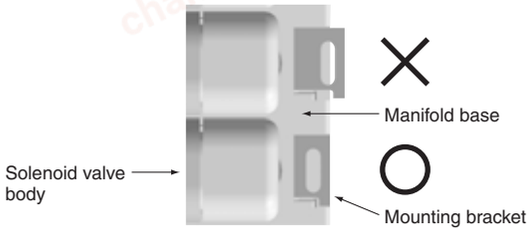
2. Base mounted with clips

1 Hook a flat head watchmakers screwdriver into the hole of the metal bracket and pull it approximately 1 mm in the direction indicated by the arrow.2 Insert the solenoid valve from above. After confirming that the bottom surface of the solenoid valve contacts the top surface of the manifold, detach the flat head screwdriver from the mounting bracket while holding the solenoid valve body.
(Before mounting, confirm the installation of the interface gasket on the solenoid valve body.)

The built-in leaf spring returns the mounting bracket to its original position.
(Then confirm that the end of the mounting bracket is aligned with the side of the manifold block. Refer to the figure below.)

Similarly, to remove the valve, pull the mounting bracket and pull up the solenoid valve vertically. Use caution so that no excessive force is applied to the lead wire in mounting and removal.





⚠ Caution

Screwing in M5/M3 thread

After tightening by hand, tighten an additional 1/4 rotation for M3 and 1/6 rotation for M5. Overtightening may cause bending of the thread or air leakage due to deformation of the gasket. Insufficient screwing may cause loosening of the thread or air leakage.

Applicable Tubing Size

Stacking manifold

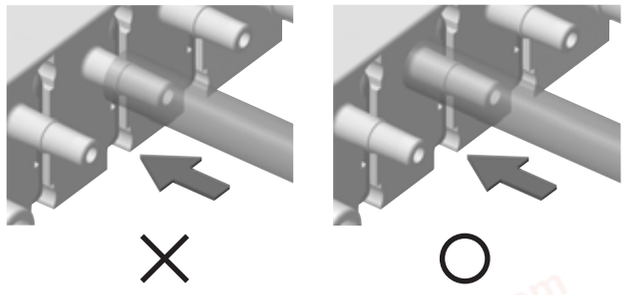
Port	Applicable tubing	Recommended tubing
1 (SUP), 3 (EXH)	ø6/ø4	TS0604/TU0604
2 (OUT)	ø4/ø2.5	TS0425/TU0425
	ø3.18/ø2	TIUB01

Note) In case of a body ported single unit valve, the applicable tubing size is ø3.18/ø2 for all 1 (SUP), 2 (OUT), and 3 (EXH) ports.

If fittings of a brand other than SMC are used, follow the specifications of the fittings to be mounted.

Tubing installation (with barb fitting)

1) Using tubing cutters TK-1, 2, or 3, cut the tubing perpen-dicularly to the tubing axis while allowing for sufficient margin to the required length.
2) Insert the tubing and push it all the way to the barb end. If the tubing is not installed securely to the end, problems such as leakage or disconnection of the tubing can occur.
3) When the tubing is inserted into the barb fitting, push it in the direction of the tubing axis to prevent excessive lateral loads being applied to the barb fitting.



4) To remove the tubing from the barb fitting, use caution so that no excessive lateral load will be applied to the barb fitting. When using a cutter to remove the tubing, sufficient care should be taken so as not to make any flaws on the barb fitting.
5) After tubing installation, avoid excessive loads, such as tensile, compressive, or bending strength, being applied to the tubing.

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Series S070/Specific Product Precautions 2

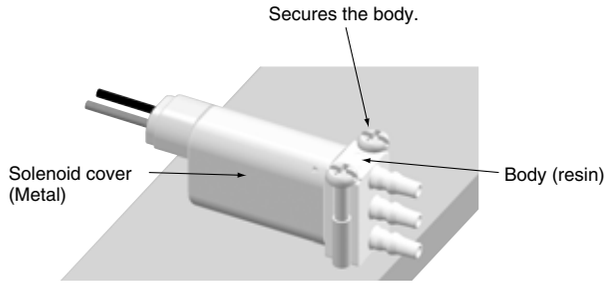
Be sure to read before handling.

⚠ Caution

Mounting

1. Solenoid valve fixing procedure (body ported single unit)

When mounting a body ported type single unit valve, tighten the dedicated mounting screw (AXT632-106A-2) at an appropriate torque (0.05 to 0.07 Nm) to firmly secure the valve body. (Tighten equally so that the valve will not tilt.) If the coil is fixed, the coil joint may break due to application of an excessive load to the tubing body, for example, when the tubing is inserted. With a base mounted type solenoid valve also, use caution to avoid excessive loads.



⚠ Caution

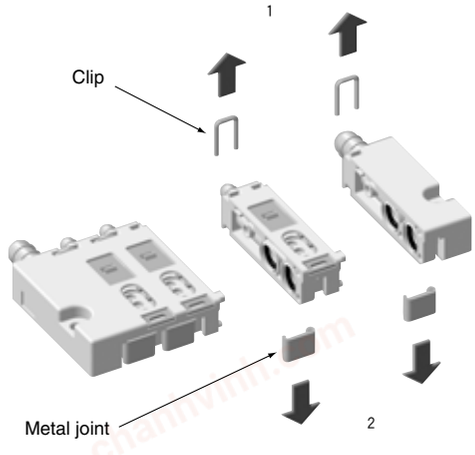
Adding and removing manifold stations

1. Base mounted stacking type

1 Remove the clip and metal joint from the position where the new station is to be mounted by pulling them in the directions indicated by the arrows.

2 Place the additional manifold block assembly and mount the metal joint and clip by reversing the assembly order. Securely insert the clip and the metal joint so that they will not protrude from the top and bottom surfaces respectively.

The clip is commonly used to secure the manifold block and fittings.

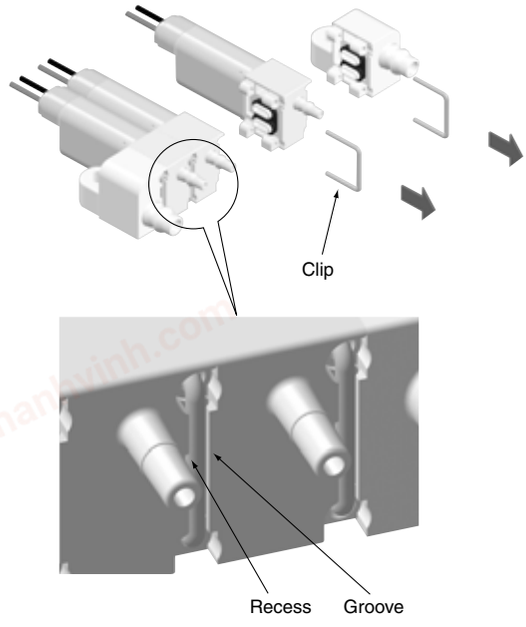


To remove the station, follow the same procedure for assembly and disassembly.

2. Body ported manifold type

1 Remove the clip on the position where the station is to be added by pulling it in the direction indicated by the arrow. (Insert a flat head screwdriver in the recess indicated in the figure to remove the clip.)

2 Place the additional solenoid valve into the separation and insert the clip.
Insert the clip until it fits in the groove on the body side.

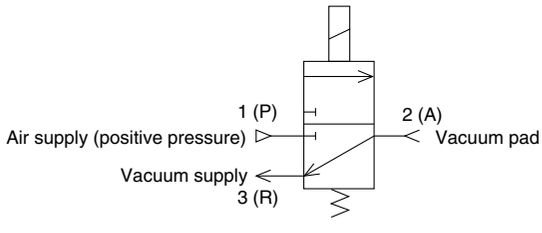


⚠ Caution

Vacuum application

An N.C. type valve pressurized at 1 (SUP) port can be used within the maximum operating pressure differential specified for the product. If the valve is to be used in the following applications, however, care should be taken about the piping ports, maximum operating pressure differential and allowable leakage.

1) Vacuum release application
Use 3 (R) port for vacuum pressure and 1 (P) port for vacuum release pressure. The pressure differential between 3 (R) and 1 (P) is the maximum operating pressure differential for each type.



2) Vacuum retention
Please consult SMC if the allowable leakage is limited when the valve is used for vacuum retention of a vessel, even within the low vacuum range (1.33×10^2 Pa or above).

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Series S070/Specific Product Precautions 3

Be sure to read before handling.

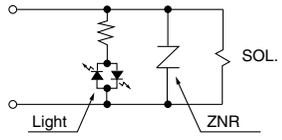
⚠ Caution

Wiring

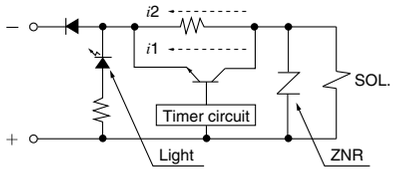
1) Internal wiring
   • Grommet
   (This solenoid valve has no polarity.)



   • With light/surge voltage suppressor
   (This solenoid valve has no polarity.)

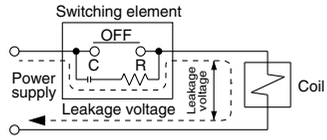


   • With 0.1 W power saving circuit



*i*1: Inrush current *i*2: Holding current

2) Electrical circuit
   (1) Adopt an electrical circuit with no chattering generated at the contact.
   (2) Keep the voltage within the ±10% range of the rated voltage.
   Care should be taken about the voltage drop when the rated voltage is 6 VDC or less or when the response speed is important.
   (3) When using a C-R element (surge voltage suppressor) for protection of the switching element, please keep in mind that leakage voltage will increase due to leakage current flowing through the C-R element.



   Keep the residual leakage voltage with 2% of the rated voltage.
   (4) Be sure to confirm the applied voltage. If a wrong voltage is applied, it can lead to malfunction or coil burning.
   (5) In wiring, use caution to avoid application of excessive force to the lead wire. It can cause malfunction or break the coil.

⚠ Caution

Power saving circuit of 0.1 W DC (at holding)

1) Keep the vibration and impact within 10/50 m/s^2.
2) Keep the voltage fluctuations within 24 VDC ± 5%.
3) The power consumption is 0.35 W DC at inrush (20 ms) and 0.1 W DC at holding.