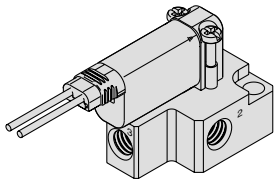
3 Port Solenoid Valve
Compact Direct Operated
Series S070

How to Order Valve



Body type

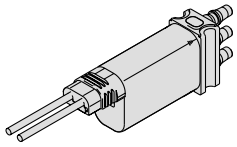
Symbol	Body type
B	Base mounted with screws

Port size

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

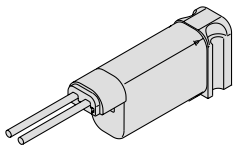
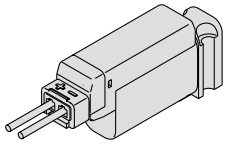
Port size

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
	

Power consumption – Pressure specification – Flow rate

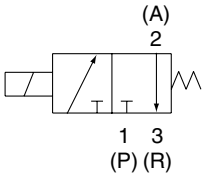
Symbol	Power consumption (W)	Maximum operating pressure (MPa)	Cv factor
A	0.35	0.1	0.021
B		0.3	0.011
C	0.5	0.3	0.021
D		0.5	0.011
E Note)	0.1 (With power saving circuit)	0.1	0.011
F Note)		0.3	0.006

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

Base mounted

Body ported

JIS Symbol



Specifications

Valve construction	Poppet
Fluid	Air/Inert gas/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 1.33×10^2 Pa to the maximum operating pressure.

Solenoid Specifications

Power consumption Note 1)	0.35 W (Standard), 0.5 W (High voltage), 0.1 W (Holding)
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.
Note 2) With a power saving circuit, keep the voltage fluctuation within 24 VDC ± 5%.

Flow Specifications/Response Time

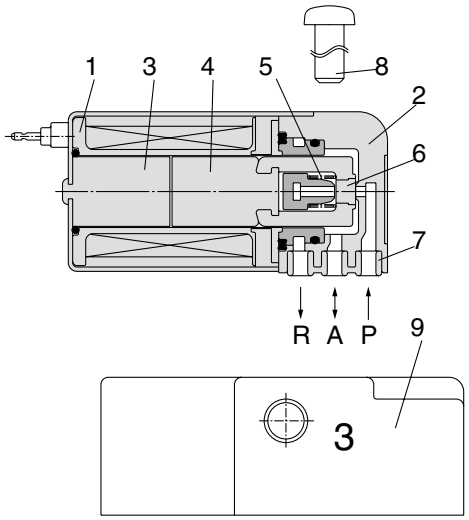
Power consumption	Maximum operating pressure	Flow characteristics			Response time ms Note 2)	
		C[dm^3/(s·bar)]	b	Cv	ON	OFF
0.5 W DC	0.5 MPa	0.042	0.27	0.011	3 or less	3 or less
	0.3 MPa	0.083	0.28	0.021	5 or less	3 or less
0.35 W DC	0.3 MPa	0.042	0.27	0.011	3 or less	3 or less
	0.1 MPa	0.083	0.28	0.021	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 or less	6 or less
	0.1 MPa	0.042	0.28	0.011	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.

Construction

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	FKM
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).

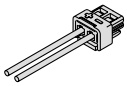
Replacement Parts

Plug connector assembly (for plug lead)

S070–14A–□

Lead wire length

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

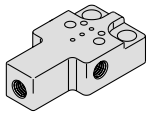


Sub-plate

S070–S–M3

Port size

M3	M3 female thread
M5	M5 female thread



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.