

Rubber Seal 5 Port Solenoid Valve Series SYJ7000



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Specifications

Fluid		Air
Operating pressure range MPa	2 position single	0.15 to 0.7
	2 position double	0.1 to 0.7
	3 position	0.15 to 0.7
Ambient and fluid temperature (°C)		-10 to 50 (No freezing. Refer to back page 3.)
Response time (ms) ^{Note 1)} (at 0.5 MPa)	2 position single, double	30 or less
	3 position	60 or less
Max. operating frequency (Hz)	2 position single, double	5
	3 position	3
Manual override (Manual operation)	Non-locking push type, Push-turn locking slotted type, Push-turn locking lever type	
Pilot exhaust method	Individual exhaust for the pilot valve, Common exhaust for the pilot and main valve	
Lubrication	Not required	
Mounting orientation	Unrestricted	
Shock/Vibration resistance (m/s²) ^{Note 2)}	150/30	
Enclosure	Dust proof (* DIN terminal, M8 connector conforms to IP65.)	

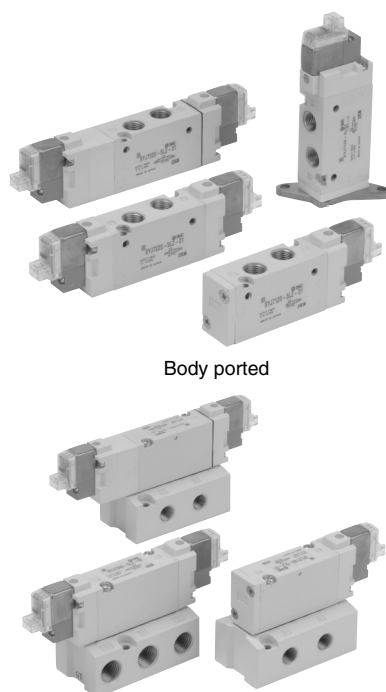


* Based on IEC60529

Note 1) Based on dynamic performance test, JIS B 8375-1981. (Coil temperature: 20°C, at rated voltage, without surge suppressor)

Note 2) Impact resistance: No malfunction occurred when it is tested 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. (Value in the initial state)

Vibration resistance: No malfunction occurred in one sweep test between 45 and 2000 Hz. Test was performed to axis and right angle directions of the main valve and armature when pilot signal is ON and OFF. (Value in the initial state)

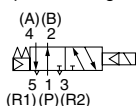


Body ported

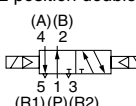
Base mounted

JIS Symbol Body ported

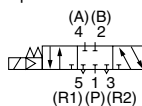
2 position single



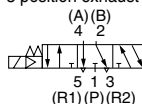
2 position double



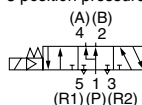
3 position closed center



3 position exhaust center

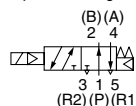


3 position pressure center

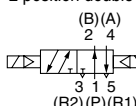


Base mounted

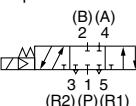
2 position single solenoid



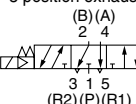
2 position double solenoid



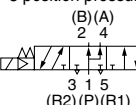
3 position closed center



3 position exhaust center



3 position pressure center



Solenoid Specifications

Electrical entry			Grommet (G), (H) L plug connector (L) M plug connector (M) DIN terminal (D) M8 connector (W)	
			G, H, L, M, W	D
Coil rated voltage (V)	DC		24, 12, 6, 5, 3	24, 12
	AC 50/60 Hz		100, 110, 200, 220	
Allowable voltage fluctuation			±10% of rated voltage *	
Power consumption (W)	DC	Standard	0.35 {With light: 0.4 (DIN terminal with light: 0.45)}	
		With power saving circuit	0.1 (With light only)	
Apparent power VA *	AC	100 V	0.78 (With light: 0.81)	0.78 (With light: 0.87)
		110 V	0.86 (With light: 0.89)	0.86 (With light: 0.97)
		[115 V]	[0.94 (With light: 0.97)]	[0.94 (With light: 1.07)]
		200 V	1.18 (With light: 1.22)	1.15 (With light: 1.30)
		220 V	1.30 (With light: 1.34)	1.27 (With light: 1.46)
		[230 V]	[1.42 (With light: 1.46)]	[1.39 (With light: 1.60)]
Surge voltage suppressor			Diode (DIN terminal, Varistor when non-polar types)	
Indicator light			LED (Neon light when AC with DIN terminal)	



* In common between 110 VAC and 115 VAC, and between 220 VAC and 230 VAC.

* For 115 VAC and 230 VAC, the allowable voltage is -15% to +5% of rated voltage.

* S, Z and T type (with power saving circuit) should be used within the following allowable voltage fluctuation range due to a voltage drop caused by the internal circuit.

S and Z type: 24 VDC: -7% to +10%, 12 VDC: -4% to +10%

T type: 24 VDC: -8% to +10%, 12 VDC: -6% to +10%



Made to Order

(For details, refer to pages 79 through to 80.)

How to Order

Type of actuation

1	2 position single solenoid
2	2 position double solenoid
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Light/surge voltage suppressor

Electrical entry for G, H, L, M, W

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor
R	With surge voltage suppressor (Non-polar type)
U	With light/surge voltage suppressor (Non-polar type)

* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.
 * For type "R" and "U", DC voltage is only available.
 * Power saving circuit is only available in the "Z" type.

Electrical entry for D

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor (Non-polar type)
Z	With light/surge voltage suppressor (Non-polar type)

* DOZ is not available.
 * For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

Thread type

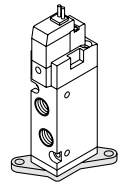
Nil	Rc
F	G
N	NPT
T	NPTF

A, B port size

01	1/8
C6	One-touch fitting for ø6
C8	One-touch fitting for ø8
N7	One-touch fitting for ø1/4"
N9	One-touch fitting for ø5/16"

Bracket

Nil: Without bracket
 F: With bracket

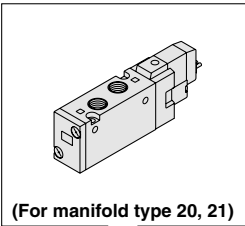


Note) Do not remove the factory installed bracket from models with the bracket option. Removal of the bracket will cause the valve to leak. Brackets cannot be retrofitted.

Rated voltage

DC		AC (50/60 Hz)	
5	24 VDC	1	100 VAC
6	12 VDC	2	200 VAC
V	6 VDC	3	110 VAC [115 VAC]
S	5 VDC	4	220 VAC [230 VAC]
R	3 VDC		

* DC specifications of type D and DO is only available with 12 and 24 VDC.
 * For type W□, DC voltage is only available.



Body ported

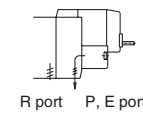
SYJ7 1 2 0 □ 5 M □ □ 01 □ □

Base mounted

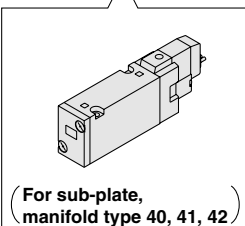
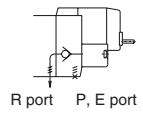
SYJ7 2 4 0 □ 5 M □ □ □ □

Body option

0: Pilot valve individual exhaust for the pilot valve



3: Common exhaust type for main and pilot valve



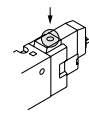
Coil specifications

Nil	Standard
T	With power saving circuit <24 V, 12 VDC only>

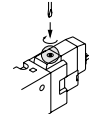
* Power saving circuit is not available in the case of D, DO or W□ type.

Manual override

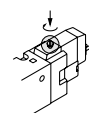
Nil: Non-locking push type



D: Push-turn locking slotted type



E: Push-turn locking lever type

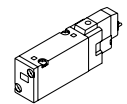


Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

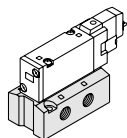
Port size

Nil: Without sub-plate

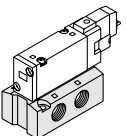


(With gasket and screws)

01: 1/8 With sub-plate



02: 1/4 With sub-plate



Note) R1, R2 port: 1/4

Electrical entry

24, 12, 6, 5, 3 VDC 100, 110, 200, 220 VAC				24, 12 VDC 100, 110, 200, 220 VAC	24, 12, 6, 5, 3 VDC
Grommet	L plug connector	M plug connector		DIN terminal	M8 connector
G: Lead wire length 300 mm	L: With lead wire (Length 300 mm)	M: With lead wire (Length 300 mm)	MN: Without lead wire	D: With connector	WO: Without connector cable
H: Lead wire length 600 mm	LN: Without lead wire	LO: Without connector	MO: Without connector	DO: Without connector	W□: With connector cable Note 1)

* LN, MN type: with 2 sockets.
 * DIN terminal type "Y" which conforms to EN-175301-803C (former DIN43650C) is also available. For details, refer to page 80.
 * For connector cable of M8 connector, refer to back page 10.