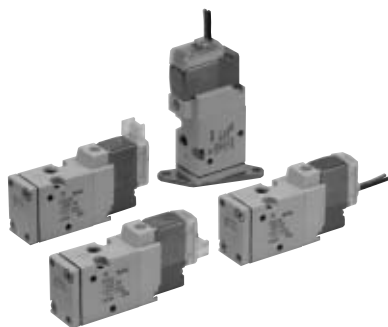
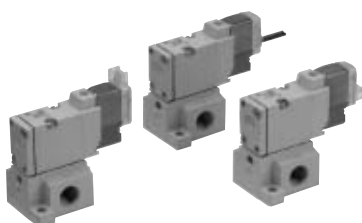




# 3 Port Pilot Operated Solenoid Valve Rubber Seal Series *SYJ500*



Body ported



Base mounted

## Specifications

Fluid	Air	
Operating pressure range MPa	Internal pilot	0.15 to 0.7
Ambient and fluid temperature (°C)	-10 to 50 (No freezing. Refer to page 4-18-4.)	
Response time ms (at 0.5 MPa) <sup>Note 1)</sup>	25 or less	
Max. operating frequency (Hz)	5	
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/s <sup>2</sup> ) <sup>Note 2)</sup>	150/30	
Enclosure	Dustproof (* DIN terminal, M8 connector conforms to IP65.)	



\* Based on IEC529

Note 1) Based on dynamic performance test, JIS B 8374-1981. (Coil temperature: 20°C, at rated voltage, without surge voltage suppressor.)

Note 2) 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. (Value in the initial state)

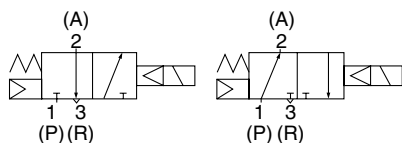
Vibration resistance: No malfunction occurred in one sweep test between 45 and 2000 Hz. Test was performed to axis and right angle directions of the main valve and armature when pilot signal is ON and OFF. (Value in the initial state)

## JIS Symbol

Internal pilot

SYJ51<sup>2</sup><sub>4</sub>

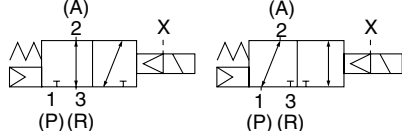
SYJ52<sup>2</sup><sub>4</sub>



External pilot

SYJ51<sup>2</sup><sub>4</sub>R

SYJ52<sup>2</sup><sub>4</sub>R



## Solenoid Specifications

Electrical entry			Grommet (G), (H), L plug connector (L), M plug connector (M), DIN terminal (D), M8 connector (W)
Coil rated voltage (V)	DC	24, 12, 6, 5, 3	
	AC <sup>50/60</sup> Hz	100, 110, 200, 220	
Allowable voltage fluctuation			±10% of rated voltage
Power consumption (W)	DC	Standard	0.35 (With indicator light: 0.4 (DIN terminal with indicator light: 0.45))
		With power saving circuit	0.1 (With indicator light only)
Apparent power (VA)	AC	100 V	1.4 (With indicator light: 1.5)
		110 V	1.6 (With indicator light: 1.7)
		[115 V]	[1.7 (With indicator light: 1.8)]
		200 V	2.3 (With indicator light: 2.4)
		220 V [230 V]	2.5 (With indicator light: 2.6) [2.7 (With indicator light: 2.8)]
Surge voltage suppressor			Diode (DIN terminal, varistor when non-polar types)
Indicator light			LED (Neon bulb 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.



**Made to Order Specifications**  
(For details, refer to pages 4-4-54 to 55.)

## How to Order

**Rated voltage**

**DC**

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

\* DC specifications of type D and DO is only available with 12 and 24 VDC.

**AC (50/60 Hz)**

1	100 VAC
2	200 VAC
3	110 VAC [115 VAC]
4	220 VAC [230 VAC]

\* For type "W□", DC voltage is only available.

**Type of actuation**

1	Normally closed
2	Normally open

**Light/Surge voltage suppressor**

**Electrical entry for G, H, L, 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.

**Bracket**

Nil: Without bracket  
F: With bracket

\* Bracket is mounted.  
\* External pilot type is not available.

**3 port**

(For manifold type 20, 21R)

**Body option**

Nil: Individual pilot exhaust type

R port, P, E port

M: Common exhaust for the pilot and main valve

R port, P, E port

R: External pilot type\*

\* SYJ5□2R is only for manifold use.

**Coil specifications**

Nil	Standard
T	With power saving circuit (24, 12 VDC only)

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

**Manual override**

Nil: Non-locking push type

D: Push-turn locking slotted type

E: Push-turn locking lever type

**Port size**

Nil: Without sub-plate    01: 1/8 port With sub-plate

(With gasket and screws)

**Thread type**

Nil	Rc
F	G
N	NPT
T	NPTF

**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	

Note) When placing an order for body ported solenoid valve as a single unit, mounting bolt for manifold and gasket are not attached. Order them separately, if necessary. (For details, refer to page 4-4-25.)

\* "LN", "MN" type: with 2 sockets.  
\* DIN terminal "Type Y" conforming to DIN43650C standard is also available. For details, refer to page 4-4-54.  
\* For connector cable of M8 connector, refer to page 4-4-60.

**Body ported** SYJ5 1 2 □ □ 5 M □ □ M5 □

**Base mounted** SYJ5 1 4 □ □ 5 M □ □ 01 □