

3 Port Solenoid Valve

Series *SYJ300/500/700*

Power Consumption
0.1 W
With Power Saving Circuit



Improved pilot valve

Pilot valve cover is stronger using stainless steel.
Mounting thread is also reinforced from size M1.7 to M2.

Flow Characteristics

Series	Flow characteristics		
	C [dm ³ /(s·bar)]	b	Cv
SYJ300	0.36	0.31	0.089
SYJ500	1.2	0.41	0.32
SYJ700	2.7	0.38	0.72

V100

SY

SYJ

VK

VZ

VT

VP

VG

VP

S070

VQ

VKF

VQZ

VZ


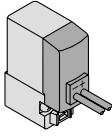
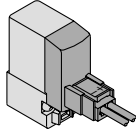
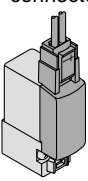



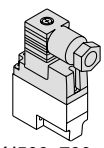
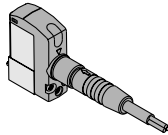


VS

VFN

3 Port Solenoid Valve Rubber Seal

Series SYJ300/500/700

Series Variations

	Series	Port size	Sonic conductance C [dm ³ /(s·bar)]	Type of actuation	Voltage	Electrical entry	Option	Manual override
							With light/surge voltage suppressor	
Body Ported	SYJ300  P. 4-4-4	M3 x 0.5	[Effective area 0.9 mm ² { 2 → 3 } { A → R }]	• N.C. • N.O.	For DC ■ 24 VDC 12 VDC 6 VDC 5 VDC 3 VDC For AC ■ 100 VAC ⁵⁰ / ₆₀ Hz 110 VAC ⁵⁰ / ₆₀ Hz 200 VAC ⁵⁰ / ₆₀ Hz 220 VAC ⁵⁰ / ₆₀ Hz	Grommet  L plug connector  M plug connector 	For DC ■ With surge voltage suppressor ■ With light/surge voltage suppressor	■ Non-locking push type
	SYJ500  P. 4-4-18	M5 x 0.8	0.66 { 2 → 3 } { A → R }					
	SYJ700  P. 4-4-37	1/8	2.5 { 2 → 3 } { A → R }					
Base Mounted	SYJ300  P. 4-4-4	M5 x 0.8	0.36 { 2 → 3 } { A → R }			DIN terminal  (SYJ500, 700 only) M8 connector 	For AC ^{Note)} ■ With light/surge voltage suppressor	■ Push-turn locking slotted type ■ Push-turn locking lever type
	SYJ500  P. 4-4-18	1/8	1.2 { 2 → 3 } { A → R }					
	SYJ700  P. 4-4-37	1/8, 1/4	2.7 { 2 → 3 } { A → R }					



Note) All AC voltage models have built-in surge voltage suppressor.

3 Port Pilot Operated Solenoid Valve Rubber Seal Series SYJ300

Flow Characteristics/Weight

Valve model		Type of actuation	Port size	Flow characteristics						Effective area (mm ²)	Weight (g) ^{Note)}		
				1 → 2 (P → A)			2 → 3 (A → R)				Grommet	L/M plug connector	M8 connector
				C [dm³/(s bar)]	b	Cv	C [dm³/(s bar)]	b	Cv				
Body ported	SYJ312	N.C.	M3 x 0.5	—	—	—	—	—	—	0.9	32	33	37
	SYJ322	N.O.		—	—	—	—	—	—				
Base mounted (with sub-plate)	SYJ314	N.C.	M5 x 0.8	0.41	0.18	0.086	0.35	0.33	0.086	—	53 (32)	54 (33)	58 (37)
	SYJ324	N.O.		0.36	0.31	0.089	0.36	0.31	0.089				



Note) Value for DC. Add 1 g for AC. (): Without sub-plate.

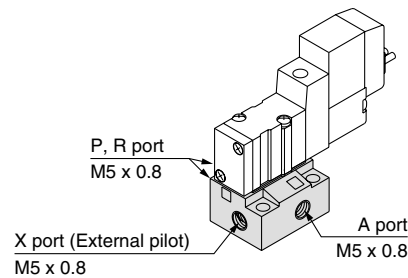
External Pilot

SYJ300R

Pilot valve pressure is supplied separately from the main valve pressure through the use of a separate supply port. It can be used in the vacuum (up to -100 kPa) or low pressure line with 0.15 MPa or less.

Specifications

Applicable model	Base mounted (SYJ314R, SYJ324R)	
Operating pressure range MPa	Main pressure	-100 kPa to 0.7
	External pilot pressure	0.15 to 0.7



Note 1) For manifold base, refer to page 4-4-10.

Note 2) External pilot type body ported valves (SYJ3□2R) can only be used on the manifold.

V100

SY

SYJ

VK

VZ

VT

VP

VG

VP

S070

VQ

VKF

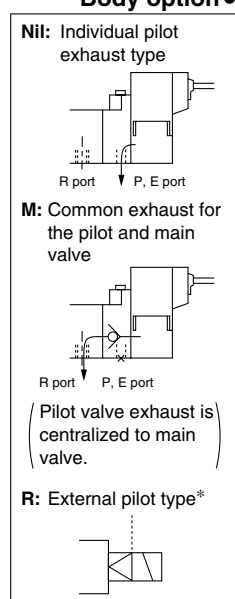
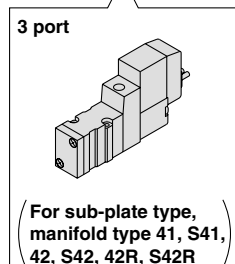
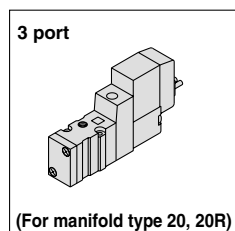
VQZ

VZ

VS

VFN

How to Order



Type of actuation

1	Normally closed
2	Normally open

Rated voltage

DC

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

AC (50/60 Hz)

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

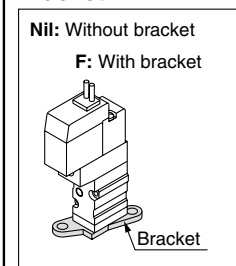
* For type "W□", DC voltage is only available.

Light/Surge voltage suppressor

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, U, DC voltage is only available.
* Power saving circuit is only available in the "Z" type.

Bracket



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

Body ported SYJ3 1 2 □ □ 5 M □ □ M3 □

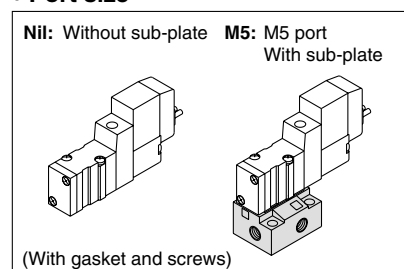
Base mounted SYJ3 1 4 □ □ 5 M □ □ □

Coil specifications

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

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

Port size

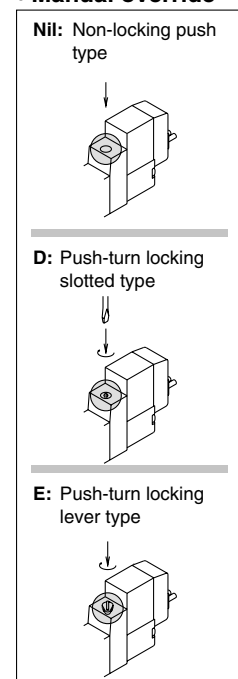


Electrical entry

24, 12, 6, 5, 3 VDC/100, 110, 200, 220 VAC				24, 12, 6, 5, 3 VDC
Grommet	L plug connector	M plug connector		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	WO: Without connector cable
H: Lead wire length 600 mm	LN: Without lead wire	LO: Without connector	MO: Without connector	

* "LN," "MN" type: with 2 sockets.
* For connector cable of M8 connector, refer to page 4-4-60.

Manual override



* SYJ3□2R is only for manifold use.

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 4-4-11.)