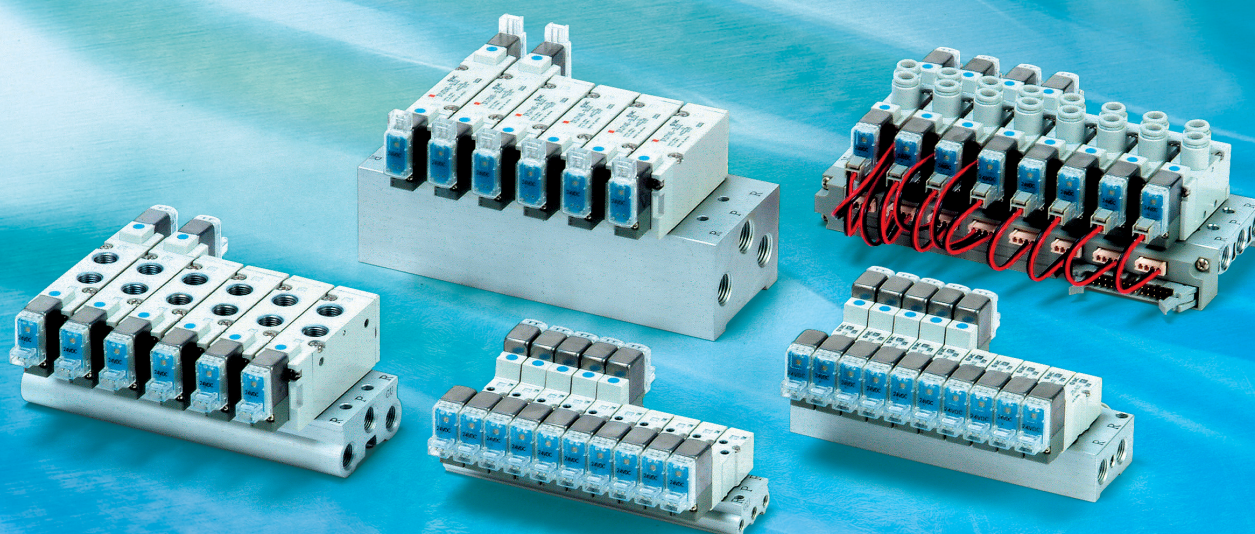
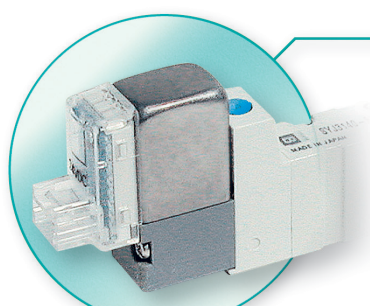


4/5 Port Solenoid Valve

Power Consumption
0.1 W
With Power Saving Circuit



Series SYJ3000/5000/7000



Cover (stainless steel)

● Improved pilot valve

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

● Flow Characteristics

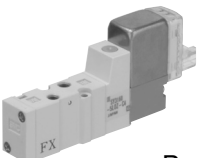
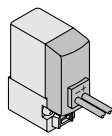

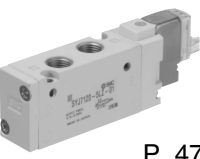
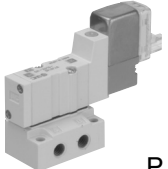
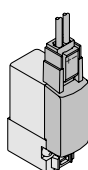
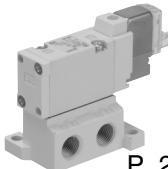
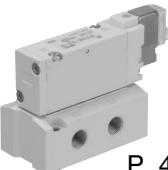
Series	Flow characteristics		
	C [(dm ³ /s·bar)]	b	Cv
SYJ3000	0.46	0.36	0.12
SYJ5000	0.83	0.32	0.21
SYJ7000	2.9	0.35	0.74

Rubber Seal

4/5 Port Solenoid Valve

Series SYJ3000/5000/7000

Variations

	Series	Sonic conductance: C [dm ³ /(s·bar)]	Type of actuation	Voltage	Electrical entry	Option	Manual override
						With light/surge voltage suppressor	
Body ported	SYJ3000  P. 1	Effective area 0.9 mm ² { 4/2 → 5/3 } { (A/B → EA/EB) }		For DC ■ 24 VDC 12 VDC 6 VDC 5 VDC 3 VDC	Grommet 	For DC ■ With surge voltage suppressor	
	SYJ5000  P. 23	0.47 { 4/2 → 5/3 } { (A/B → EA/EB) }					
	SYJ7000  P. 47	2.4 { 4/2 → 5/3 } { (A/B → EA/EB) }					
Base mounted	SYJ3000  P. 1	0.46 { 4/2 → 5/3 } { (A/B → EA/EB) }	2 Position ● Single ● Double 3 Position ● Closed center ● Exhaust center ● Pressure center	For AC ■ 100 VAC ^{50/60} Hz 110 VAC ^{50/60} Hz 200 VAC ^{50/60} Hz 220 VAC ^{50/60} Hz	M plug connector 	For AC ■ Non-locking push type	
	SYJ5000  P. 23	0.83 { 4/2 → 5/3 } { (A/B → EA/EB) }					
	SYJ7000  P. 47	2.9 { 4/2 → 5/3 } { (A/B → EA/EB) }					



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

Flow Characteristics/Weight

Valve model		Type of actuation		Port size		Weight (g) ^{Note 3, 4)}			Effective area (mm ²)	Flow characteristics ^{Note 2)}												
				1, 5, 3 (P, EA, EB)	4, 2 (A, B)	Grommet	L/M plug connector	M8 connector		1 → 4/2 (P → A/B)			4/2 → 5/3 (A/B → EA/EB)									
										C [dm ³ /(s·bar)]	b	Cv	C [dm ³ /(s·bar)]	b	Cv							
5 port Base mounted (with sub-plate)	SYJ314□	2 position	Single	M5 x 0.8	M5 x 0.8	62 (36)	63 (37)	67 (41)	—	0.46	0.36	0.12	0.46	0.35	0.12							
	SYJ324□		Double			79 (53)	81 (55)	89 (63)														
	3 position	SYJ334□	Closed center			82 (56)	84 (58)	92 (66)								—	0.47	0.33	0.12	0.47	0.31	0.12
		SYJ344□	Exhaust center													—	0.36	0.39	0.10	0.59 [0.40]	0.43 [0.33]	0.16 [0.11]
		SYJ354□	Pressure center													—	0.58 [0.32]	0.42 [0.33]	0.16 [0.080]	0.46	0.32	0.11
5 port Body ported	SYJ312□	2 position	Single	M3 x 0.5	M3 x 0.5	36	37	41	0.9													
	SYJ322□		Double			53	55	63														
	3 position	SYJ332□	Closed center			56	58	66								—	—	—	—	—	—	
		SYJ342□	Exhaust center													—	—	—	—	—	—	
		SYJ352□	Pressure center													—	—	—	—	—	—	
^{Note 1)} 4 Port Base mounted (For manifold base only)	SYJ313□	2 position	Single	1/8	M5 x 0.8	36	37	41	—													
	SYJ323□		Double			53	55	63														
	3 position	SYJ333□	Closed center			56	58	66								—	—	—	—	—	—	
		SYJ343□	Exhaust center													—	—	—	—	—	—	
		SYJ353□	Pressure center													—	—	—	—	—	—	



Note 1) Dedicated for manifold base. For details, refer to page 11.

Note 2) [] denotes the normal position. Exhaust center: 4/2 → 5/3, Pressure center: 1 → 4/2

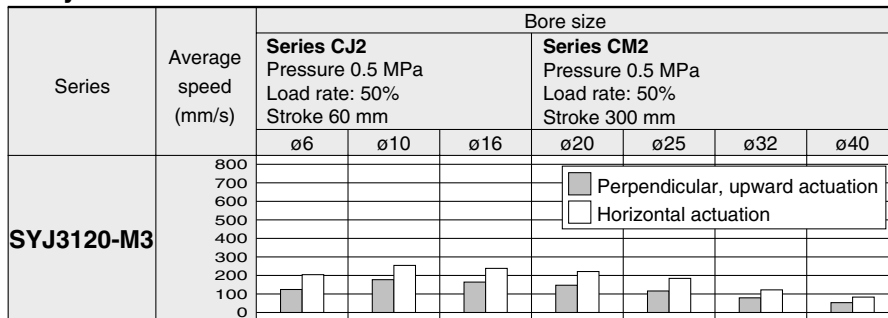
Note 3) (): Without sub-plate.

Note 4) For DC voltages. For AC voltages add 3 g to the weight of the single solenoid and 6 g to the weight of the double solenoid and 3 position types.

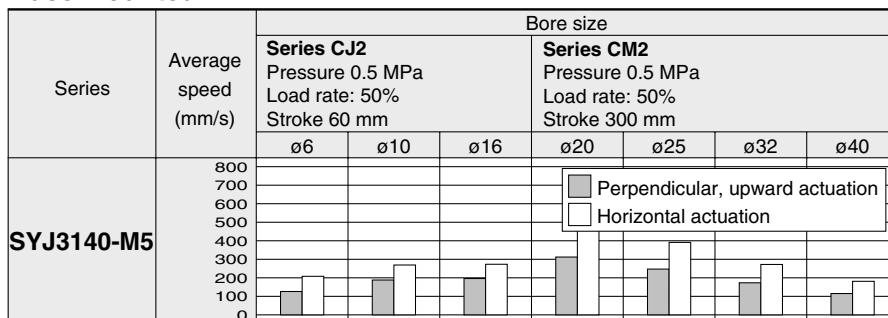
Cylinder Speed Chart

Use as a guide for selection.
Please confirm the actual conditions with SMC Sizing Program.

Body Ported



Base Mounted



* Cylinder is in extending. Speed controller is meter-out, which is directly connected with cylinder and its needle is fully opened.

* Average speed of cylinder is obtained by dividing the full stroke time by the stroke.

* Load factor: ((Load weight x 9.8) / Theoretical force) x 100%

Conditions

Body ported		Series CJ2	Series CM2
SYJ3120-M3	Tubing bore x Length	ø4 x 1 m	
	Speed controller	AS1301F-04	
	Silencer	AN120-M5	

Base mounted		Series CJ2	Series CM2
SYJ3140-M5	Tubing bore x Length	ø6 x 1 m	
	Speed controller	AS2001F-06	AS2301F-06
	Silencer	AN120-M5	

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

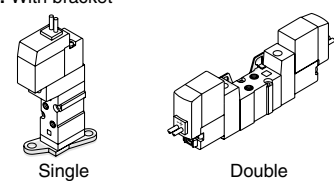
Light/surge voltage suppressor

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.

Bracket

Nil: Without bracket
F: With bracket



Single Double

* Brackets cannot be retrofitted.

Note) • The double solenoid mounting bracket is supplied unattached.
 • To order the double solenoid bracket for use with a single solenoid valve, order the single solenoid valve without a bracket and order the bracket (VJ3000-13-1) separately.
 (Example) SYJ3120-5M-M3 VJ3000-13-1

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		

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

Body ported

SYJ3 1 2 0 □ 5 M □ □ — M3 □

Base mounted (4 port)

SYJ3 2 3 0 □ 5 M □ □ (Manifold use only)

Base mounted (5 port)

SYJ3 2 4 0 □ 5 M □ □

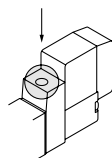
Coil specifications

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

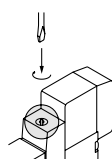
* Power saving circuit is not available in the case of W□ type.

Manual override


Nil: Non-locking push type



D: Push-turn locking slotted type

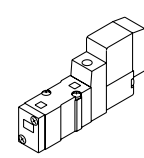


E: Push-turn locking lever type



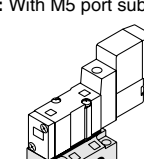
Port size

Nil: Without sub-plate



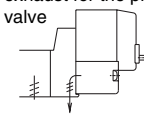
(With gasket and screws)

M5: With M5 port sub-plate



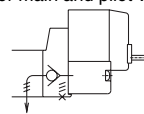
Body option

0: Pilot valve individual exhaust for the pilot valve



R port P, E port

3: Common exhaust type for main and pilot valve



R port P, E port

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	W□: With connector cable (Note 1)

* LN, MN type: with 2 sockets.
 * For connector cable of M8 connector, refer to back page 10.
 Note 1) Enter the cable length symbols in □. Please be sure to fill in the blank referring to back page 10.

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 15.)