

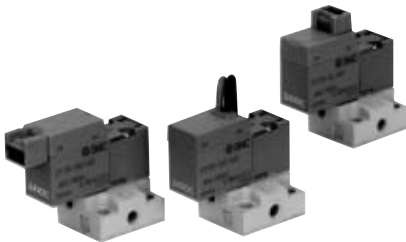


# 3 Port Direct Operated Solenoid Valve Rubber Seal

## Series SY100



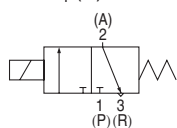
Body ported



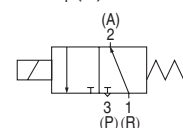
Base mounted

### JIS Symbol

SY11<sup>3</sup><sub>4</sub> (A)



SY12<sup>3</sup><sub>4</sub> (A)



**Made to Order Specifications**  
(For details, refer to page 4-3-17.)

### Specifications

Fluid	Air
Ambient and fluid temperature (°C)	-10 to 50°C (No freezing. Refer to page 4-18-4.)
Response time (ms) <sup>(1)</sup>	10 or less
Max. operating frequency (Hz)	20
Manual override	Non-locking push type, Locking slotted type Push-turn locking slotted type Push-turn locking lever type (SY1 <sup>1</sup> <sub>2</sub> 4, SY1 <sup>1</sup> <sub>2</sub> 4A only)
Lubrication	Not required
Mounting position	Unrestricted
Impact/Vibration resistance (m/s <sup>2</sup> ) <sup>(2)</sup>	150/30
Enclosure	Dustproof



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

Vibration resistance: No malfunction occurred in a one-sweep test between 45 and 2000 Hz. Test was performed at both energized and de-energized states in the axial direction and at the right angles to the main valve and armature. (Values at the initial period)

### Solenoid Specifications

Series			SY1 <sup>13</sup> <sub>24</sub>	SY1 <sup>13</sup> <sub>24</sub> A
Electrical entry			Grommet (G)/(H), L plug connector (L) M plug connector (M)	
Coil rated voltage (V)	DC		24, 12, 6, 5, 3	
	AC 50/60 Hz		100, 110, 200, 220	—
Allowable voltage fluctuation			−10 to +10%	
Power consumption (W)		DC	0.5 (With indicator light: 0.55)	0.75 W (With indicator light: 0.8 W)
Apparent power (VA)	AC	100 V	0.9 (With indicator light: 1.0)	—
		110 V [115 V]	1.0 (With indicator light: 1.1) [1.1 (With indicator light: 1.2)]	
		200 V	1.8 (With indicator light: 1.9)	
		220 V [230 V]	1.9 (With indicator light: 2.0) [2.2 (With indicator light: 2.3)]	
		Surge voltage suppressor		
Indicator light			LED	



\* It is in common between 110 VAC and 115 VAC, and between 220 VAC and 230 VAC.  
[Low wattage [0.45 W] is available, too. For details, refer to catalog on page 4-18-4.]

### Model

Function	Valve model	Type	Operating pressure range (MPa)	Vacuum specifications (MPa)		Port size		Effective area (mm <sup>2</sup> )	Weight (g) <sup>(2)</sup>	
				1(P) port	3(R) port	1(P), 3(R) port	2(A) port		Grommet	L plug connector, M plug connector
N.C.	SY11 <sup>3</sup> <sub>4</sub>	Standard	0 to 0.7	-100 kPa to 0.6	-100 kPa to 0	M3 x 0.5	M3 x 0.5	0.14	SY1□3(A): 13 SY1□4(A): 24 (12)	SY1□3(A): 15 SY1□4(A): 26 (14)
N.C.	SY11 <sup>3</sup> <sub>4</sub> A	Large flow	0 to 0.7	-100 kPa to 0.6	-100 kPa to 0	M3 x 0.5	M3 x 0.5	0.22		
N.O.	SY12 <sup>3</sup> <sub>4</sub> <sup>(1)</sup>	Standard	0 to 0.7	-100 kPa to 0	-100 kPa to 0.6	M3 x 0.5	M3 x 0.5	0.14		
N.O.	SY12 <sup>3</sup> <sub>4</sub> A <sup>(1)</sup>	Large flow	0 to 0.7	-100 kPa to 0	-100 kPa to 0.6	M3 x 0.5	M3 x 0.5	0.22		



Note 1) SY123/SY124<sup>3</sup> and SY123/SY124<sup>3</sup>A: Supply pressure to 1(R) port and exhaust air from 3(P) port.  
Note 2) Value for DC. Add 1 g for AC. ( ): Without sub-plate.