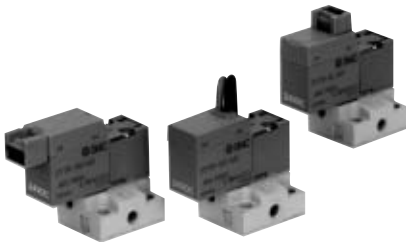


3 Port Direct Operated Solenoid Valve Rubber Seal

Series SY100



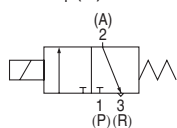
Body ported



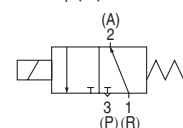
Base mounted

JIS Symbol

SY11³₄ (A)



SY12³₄ (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) ⁽¹⁾	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 ¹ ₂ 4, SY1 ¹ ₂ 4A only)
Lubrication	Not required
Mounting position	Unrestricted
Impact/Vibration resistance (m/s ²) ⁽²⁾	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 ¹³ ₂₄	SY1 ¹³ ₂₄ 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 ²)	Weight (g) ⁽²⁾	
				1(P) port	3(R) port	1(P), 3(R) port	2(A) port		Grommet	L plug connector, M plug connector
N.C.	SY11 ³ ₄	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 ³ ₄ 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 ³ ₄ ⁽¹⁾	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 ³ ₄ A ⁽¹⁾	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		

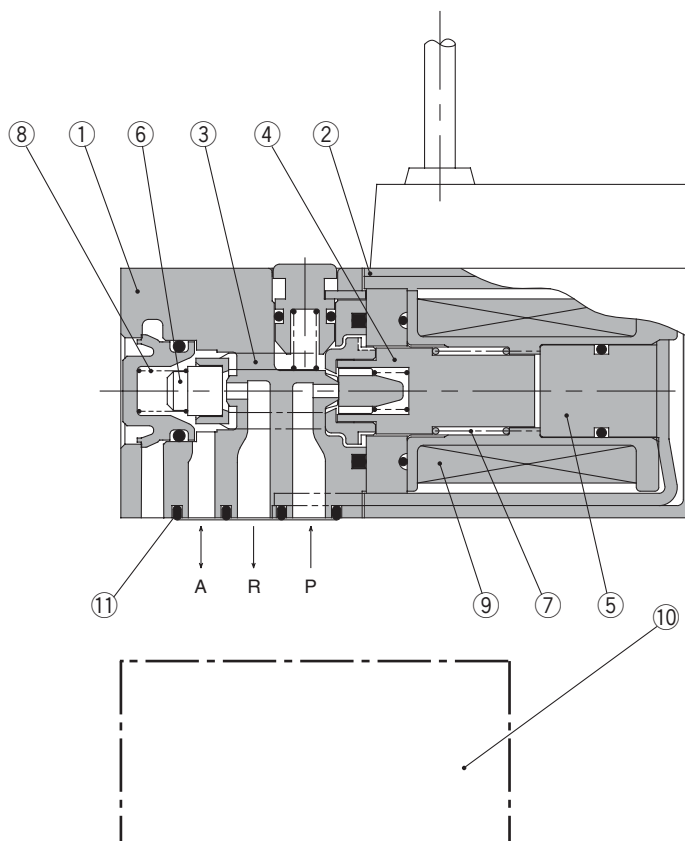
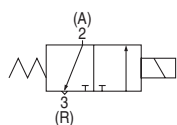


Note 1) SY123/SY124³ and SY123/SY124³A: Supply pressure to 1(R) port and exhaust air from 3(P) port.

Note 2) Value for DC. Add 1 g for AC. (): Without sub-plate.

Construction

SY114, SY114A



Component Parts

No.	Description	Material	Note
①	Body	Resin	Gray
②	Cover	Resin	Gray
③	Push rod	Resin	—
④	Movable iron core assembly	HNBR/Stainless steel	—
⑤	Fixed iron core	Stainless steel	—
⑥	Exhaust poppet	HNBR	—
⑦	Return spring	Stainless steel	—
⑧	Poppet spring	Stainless steel	—
⑨	Coil assembly	—	—

Replacement Parts

No.	Description	Part no.	Material
⑩	Sub-plate	SY100-74-1	Zinc die-casted
⑪	Gasket	VJ100-6-8	HNBR

How to Order Connector Assembly

For DC: **SY100-30-4A**

For 100 VAC: **SY100-30-1A**

For 200 VAC: **SY100-30-2A**

For other voltages of AC: **SY100-30-3A**

Without lead wire: **SY100-30-A**
(With connector and
2 pcs. of socket)

Lead wire length

Nil	300 mm
6	600 mm
10	1000 mm
15	1500 mm
20	2000 mm
25	2500 mm
30	3000 mm
50	5000 mm

V100

SY

SYJ

VK

VZ

VT

VP

VG

VP

S070

VQ

VKF

VQZ

VZ

VS

VFN