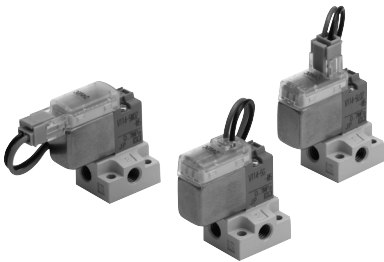


Rubber Seal 3 Port Solenoid Valve/Direct Operated Series V100



Specifications

Fluid	Air
Ambient and fluid temperature (°C)	-10 to 50 (No freezing. Refer to back page 2.)
Response time (DC) (ms) ^{Note 1)}	ON: 5 or less OFF: 4 or less
Max. operating frequency (Hz)	20
Manual override	Non-locking push, Locking slotted
Lubrication	Not required
Mounting position	Unrestricted
Impact/Vibration resistance (m/s ²) ^{Note 2)}	150/30
Enclosure	Dust proof



Note 1) Based on dynamic performance test JIS B8374-1981 (standard type: at coil temperature of 20°C, with rated voltage, without surge voltage suppressor)

Note 2) Impact resistance: No malfunction resulted in an impact test using a drop impact tester. The test was performed one time each in the axial and right angle directions of the main valve and armature, for both energized and de-energized states. (Value in the initial stage)

Vibration resistance: No malfunction resulted in 45 to 2000 Hz, a one-sweep test performed in the axial and right angle directions of the main valve and armature for both energized and de-energized states. (Value in the initial stage)

Solenoid Specifications

Series	V114/V124		V114A/V124A
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	Standard: 0.35 (with light: 0.4) With power saving circuit 0.1	1 W (with light: 1.1)
	AC	100 V	0.78 (with light: 0.81)
110 V [115 V]		0.86 (with light: 0.89) [0.94 (with light: 0.97)]	—
200 V		1.18 (with light: 1.22)	—
220 V [230 V]		1.30 (with light: 1.34) [1.42 (with light: 1.46)]	—
Surge voltage suppressor	Refer to back page 6.		
Indicator light	LED		

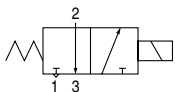


* Can be used for 110 VAC and 115 VAC, 220 VAC and 230 VAC in common.

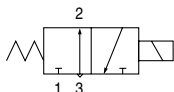
* For 115 VAC and 230 VAC, the allowable voltage fluctuation will be -15% to 5% of the coil rated voltage.

JIS symbol

V114(A)



V124(A)



Specifications

Valve model	Type of actuation	Model	Operating pressure range (MPa)	Vacuum specification (MPa)		Port size		Weight (g) ^{Note 2)}	
				Port 1	Port 3	Port 1, 3	Port 2	Grommet	L plug connector M plug connector
V114	N.C.	Standard	0 to 0.7	-100 kPa to 0.6	-100 kPa to 0	M5 x 0.8	M5 x 0.8	V1□4:13(27) V1□4A:16(30)	Plug connector V1□4:12(26) V1□4A:15(29)
V114A	N.C.	Large flow capacity	0 to 0.7	-100 kPa to 0.6	-100 kPa to 0	M5 x 0.8	M5 x 0.8		
V124 ^{Note 1)}	N.O.	Standard	0 to 0.7	-100 kPa to 0	-100 kPa to 0.6	M5 x 0.8	M5 x 0.8		
V124A ^{Note 1)}	N.O.	Large flow capacity	0 to 0.7	-100 kPa to 0	-100 kPa to 0.6	M5 x 0.8	M5 x 0.8		

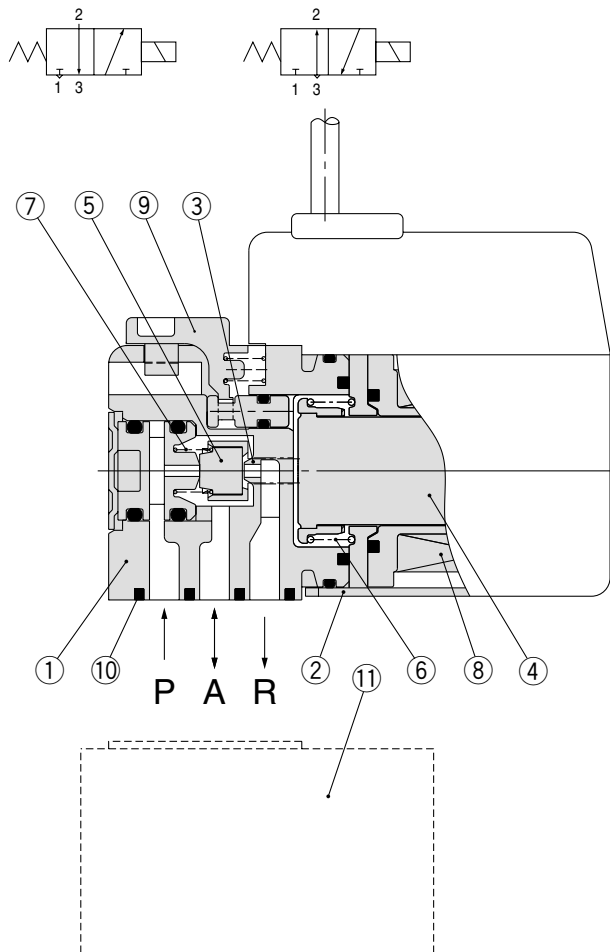
Valve model	Flow characteristics					
	1→2			2→3		
	C[dm ³ /(s·bar)]	b	Cv	C[dm ³ /(s·bar)]	b	Cv
V114	0.037	0.11	0.008	0.054	0.35	0.015
V114A	0.076	0.07	0.016	0.099	0.23	0.024
V124 ^{Note 1)}	0.054	0.35	0.015	0.037	0.11	0.008
V124A ^{Note 1)}	0.099	0.23	0.024	0.076	0.07	0.016

Note 1) For both V124 and V124A, pressure from port 3 and exhaust from port 1.
 Note 2) The values shown in () are for values with sub-plate.

Construction

V114(A)

V124(A)



Component Parts

No.	Description	Material
1	Body	Resin
2	Cover	Stainless steel
3	Push rod	Resin
4	Armature assembly	Stainless steel, Resin
5	Poppet	FKM
6	Return spring	Stainless steel
7	Poppet spring	Stainless steel
8	Coil assembly	—
9	Manual override	Resin

Replacement Parts

No.	Description	Part no.	Material	Note
10	Gasket assembly	V100-31-1A	FKM, Steel	Gasket, 2 screws
11	Sub-plate	V100-74-1	Aluminum die-cast	—

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**

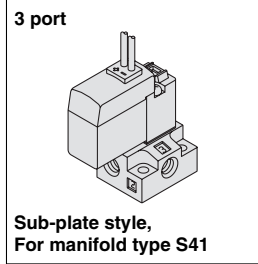
Without lead wire:
(with connector and 2 sockets) **SY100-30-A**

● 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

How to Order

Standard type



Type of actuation

1	Normally closed
2	Normally open

Coil specification

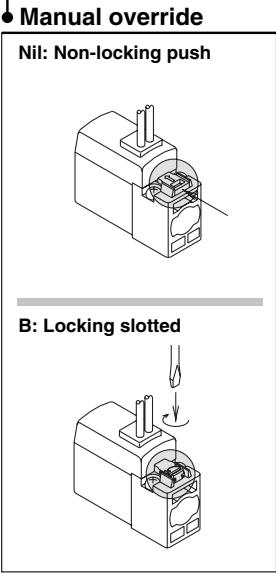
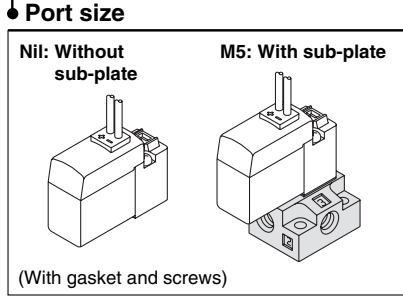
Nil	0.35 W
T	0.1 W (with power saving circuit) (24 VDC, 12 VDC only)

* All the types with power saving circuit are with light and surge voltage suppressor.

Rated voltage

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

For AC (50/60 Hz)	
1	100 VAC
2	200 VAC
3	110 VAC [115 VAC]
4	220 VAC [230 VAC]



Electrical entry

24 V, 12 V, 6 V, 5 V, 3 VDC/100 V, 110 V, 200 V, 220 VAC			
Grommet	L plug connector	M plug connector	
G: 300 mm lead wire	L: With 300 mm lead wire	M: With 300 mm lead wire	MN: Without lead wire
H: 600 mm lead wire	LN: Without lead wire	LO: Without connector	MO: Without connector

Indicator light and surge voltage suppressor

Nil	Without indicator light or surge voltage suppressor	For DC, AC
S	With surge voltage suppressor	For DC
Z	With indicator light and surge voltage suppressor	For DC, AC
R	With surge voltage suppressor (Non-polar)	For DC
U	With indicator light and surge voltage suppressor (Non-polar)	

* Only "Z" is available for the types with power saving circuit.

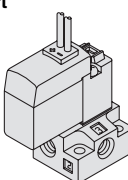
* LN and MN types are with 2 sockets.

How to Order

Large flow type

Base mounted V1 1 4 A — 5 M [] [] []

3 port



Sub-plate style,
For manifold type S41

Type of actuation

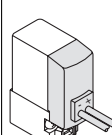
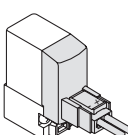
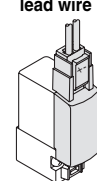
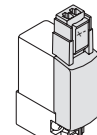
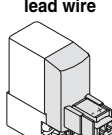
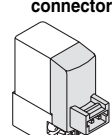
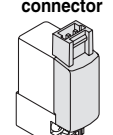
1	Normally closed
2	Normally open

Large flow capacity

Rated voltage

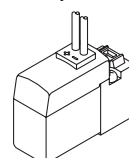
For DC	
5	24 VDC
6	12 VDC
V	6 VDC
S	5 VDC
R	3 VDC

Electrical entry

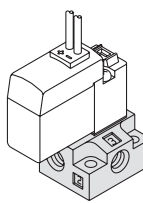
24 V, 12 V, 6 V, 5 V, 3 VDC			
Grommet	L plug connector	M plug connector	
G: 300 mm lead wire H: 600 mm lead wire	L: With 300 mm lead wire	M: With 300 mm lead wire	MN: Without lead wire
			
	LN: Without lead wire	LO: Without connector	MO: Without connector
			

Port size

Nil: Without sub-plate



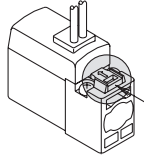
M5: With sub-plate



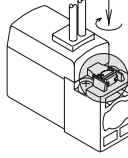
(With gasket and screws)

Manual override

Nil: Non-locking push



B: Locking slotted



Indicator light and surge voltage suppressor

Nil	Without indicator light or surge voltage suppressor	For DC
R	With surge voltage suppressor	
U	With indicator light and surge voltage suppressor	

* LN and MN types are with 2 sockets.

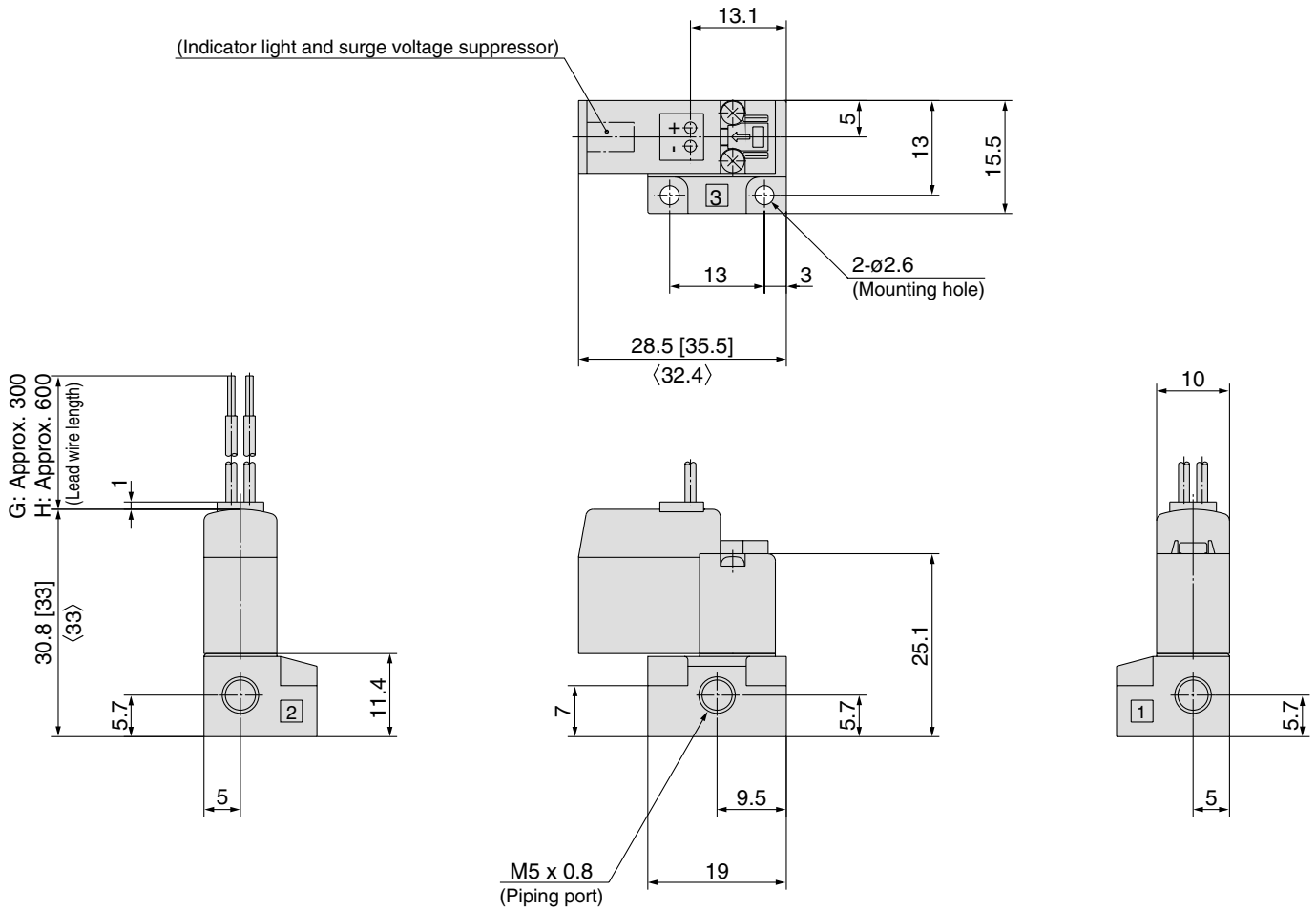
Series V100

Base Mounted (With sub-plate)

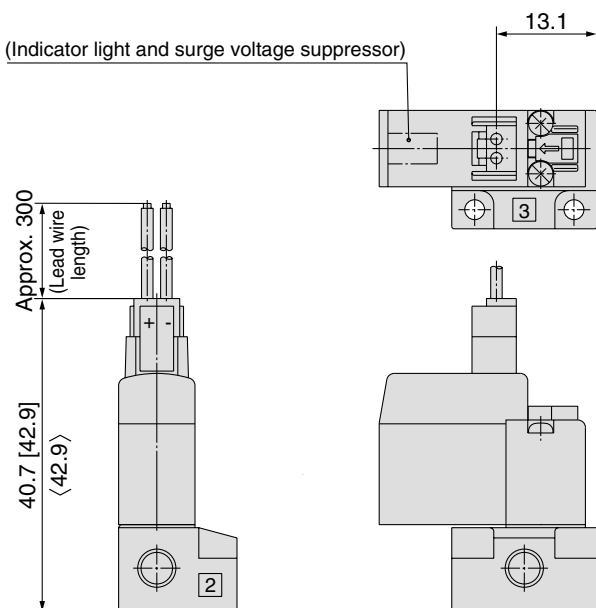
Note [] : AC

< > : values for the large flow type (A)

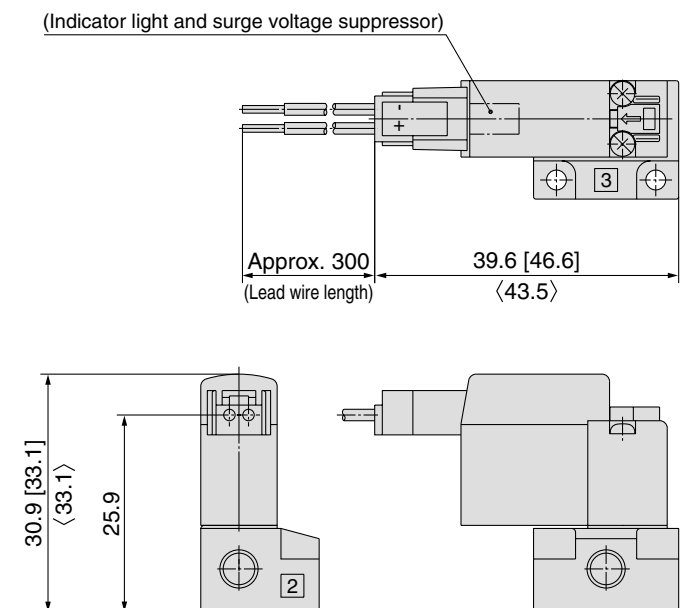
Grommet (G), (H): V1¹/₂4(A)-□^G□□-M5



L plug connector (L): V1¹/₂4(A)-□L□□-M5



M plug connector (M): V1¹/₂4(A)-□M□□-M5



* Other dimensions are same as the grommet type.

* Other dimensions are same as the grommet type.