

3 Port Direct Operated Solenoid Valve Rubber Seal



Series **V100**



Features

- ➔ Ultra-compact 3 port direct acting valves.
- ➔ Can be manifold mounted.
- ➔ N.O. or N.C. options.
- ➔ High flow and power saving versions.

How to Order

Base mounted

V1 **1** 4 **5** MO

Type of actuation

1	Normally closed
2	Normally open

Coil specification

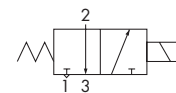
Nil	0.35 W
T	0.1 W (With power saving circuit) (24 VDC, 12 VDC only)
A	1.0 W (High Flow type)

Rated voltage

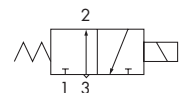
For DC	
5	24 VDC
6	12 VDC
V	6 VDC
S	5 VDC
R	3 VDC

Symbol

V114(A)



V124(A)



Light/Surge voltage suppressor

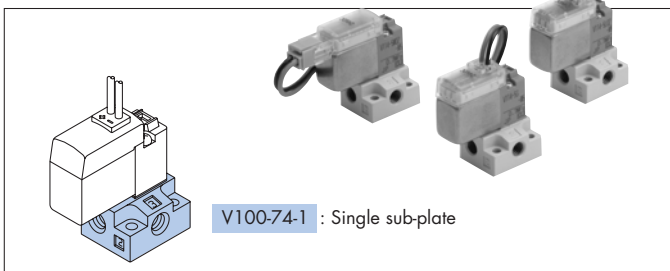
Nil	Without light/surge voltage suppressor
Z	With light/surge voltage suppressor (Power Saving type)
R	With surge voltage suppressor
U	With light/surge voltage suppressor (Non-polar, not for Power Saving type)

Electrical entry

24 VDC, 12 VDC, 6 VDC, 5 VDC, 3 VDC		
Grommet	L plug connector	M plug connector
G: 300 mm lead wire	LO: Without connector	MO: Without connector

Note: Connector lead for L and M type connectors are common to SY valves. Please see the cable appendix in this catalogue for details and part numbers.

Accessories



Specifications

Fluid	Air
Ambient and fluid temperature (°C)	-10 to 50 No freezing
Response time (ms)	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

Electrical 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	
Allowable voltage fluctuation		-10 to 10%	
Power consumption (W)	DC	Standard: 0.35 (With indicator light: 0.4) With power saving circuit 0.1	1 W (With indicator light: 1.1)
Indicator light		LED	

Pressure Specifications

Valve model	Type of actuation	Model	Operating pressure range (MPa)	Vacuum specification (MPa)		Port size		Weight (g) ^{with sub-plate}	
				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	M5	V1□4: 27 V1□4A: 30	Plug connector V1□4: 26 V1□4A: 29
V114A	N.C.	Large flow capacity	0 to 0.7	-100 kPa to 0.6	-100 kPa to 0	M5	M5		
V124	N.O.	Standard	0 to 0.7	-100 kPa to 0	-100 kPa to 0.6	M5	M5		
V124A	N.O.	Large flow capacity	0 to 0.7	-100 kPa to 0	-100 kPa to 0.6	M5	M5		

Flow Specifications

On single sub-plate

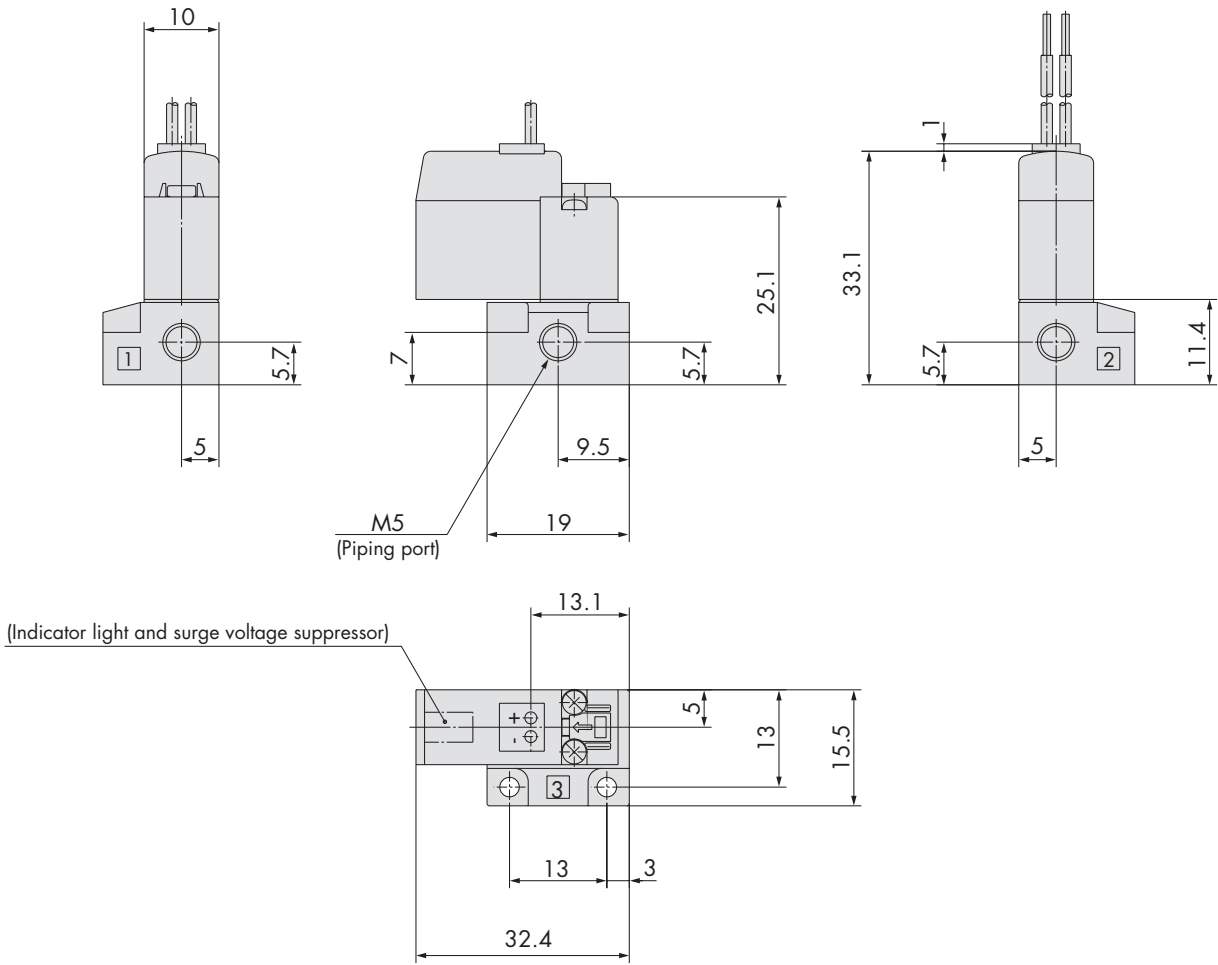
	Flow characteristics					
	1 → 2			2 → 3		
	C[dm ³ /(s·bar)]	b	Cv	C[dm ³ /(s·bar)]	b	Cv
V114	0.037	0.11	0.0080	0.054	0.35	0.015
V114A	0.076	0.070	0.016	0.099	0.23	0.024
V124	0.054	0.35	0.015	0.037	0.11	0.0080
V124A	0.099	0.23	0.024	0.076	0.070	0.016

On manifold mounting

Manifold		Port size	Flow characteristics					
			1 → 2			2 → 3		
		1, 2, 3 port	C[dm ³ /(s·bar)]	b	Cv	C[dm ³ /(s·bar)]	b	Cv
Type VV100-S41	V114	M5	0.032	0.13	0.0072	0.050	0.26	0.012
	V114A		0.070	0.10	0.016	0.085	0.16	0.020
	V124		0.050	0.26	0.012	0.032	0.13	0.0072
	V124A		0.085	0.16	0.020	0.070	0.10	0.016

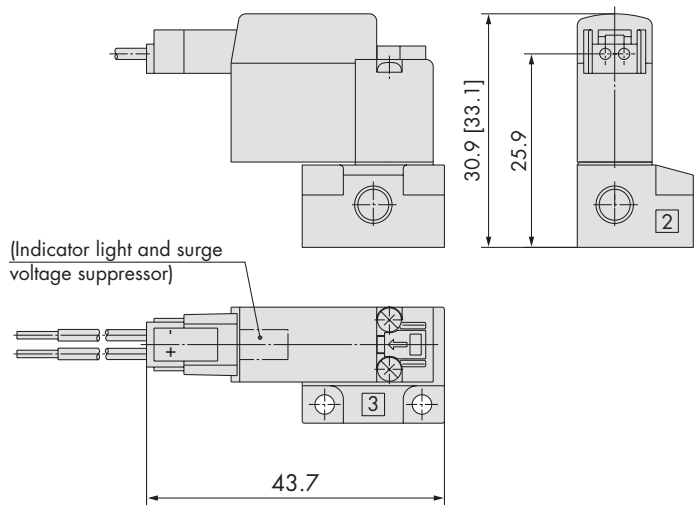
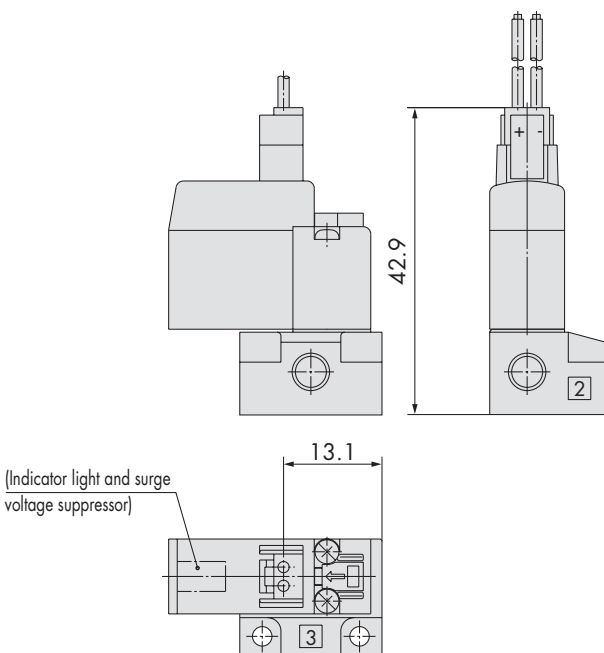
Note) Values when manifold base (5 stations) is mounted.

Dimensions: Base Mounted (With sub-plate) Grommet (G): V1 $\frac{1}{2}$ 4(A)-□G□□-M5



L plug connector (L): V1 $\frac{1}{2}$ 4(A)-□L□□-M5

M plug connector (M): V1 $\frac{1}{2}$ 4(A)-□M□□-M5



* Other dimensions are same as grommet style.

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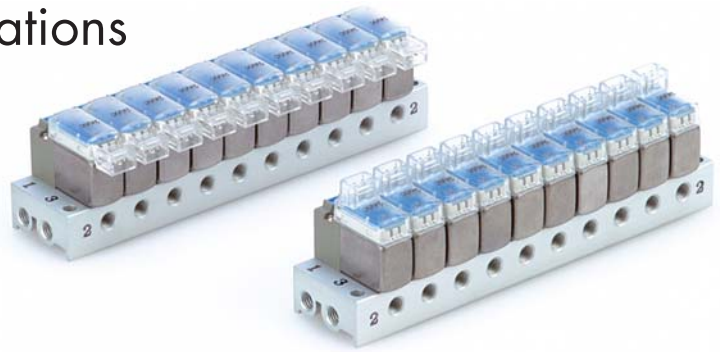
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Manifold Specifications

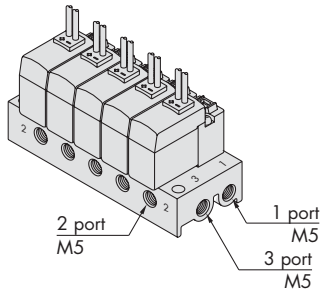
Series V100



How to Order

Common SUP/Common EXH

Type S41



How to Order

VV100-S41-05-M5

Stations	
02	2 stations
⋮	⋮
20	20 stations

2 port size	
M5	M5

Applicable solenoid valve
 V114-□□□□
 V114A-□□□□
 V124-□□□□
 V124A-□□□□

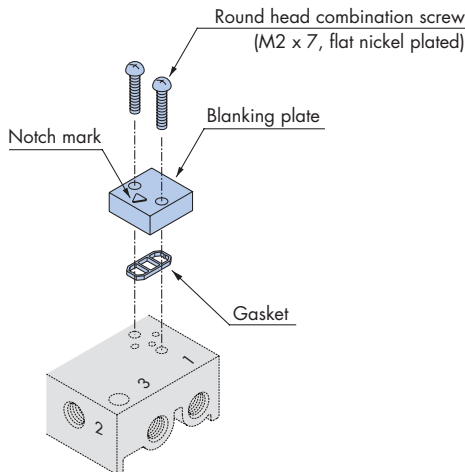
Note: V114(A) and V124(A) cannot be mixed on manifolds.

Accessories

Blanking Plate Assembly

Part no.: V100-77-1A

Place notch mark on the blank plate to 2 port side when assembling.

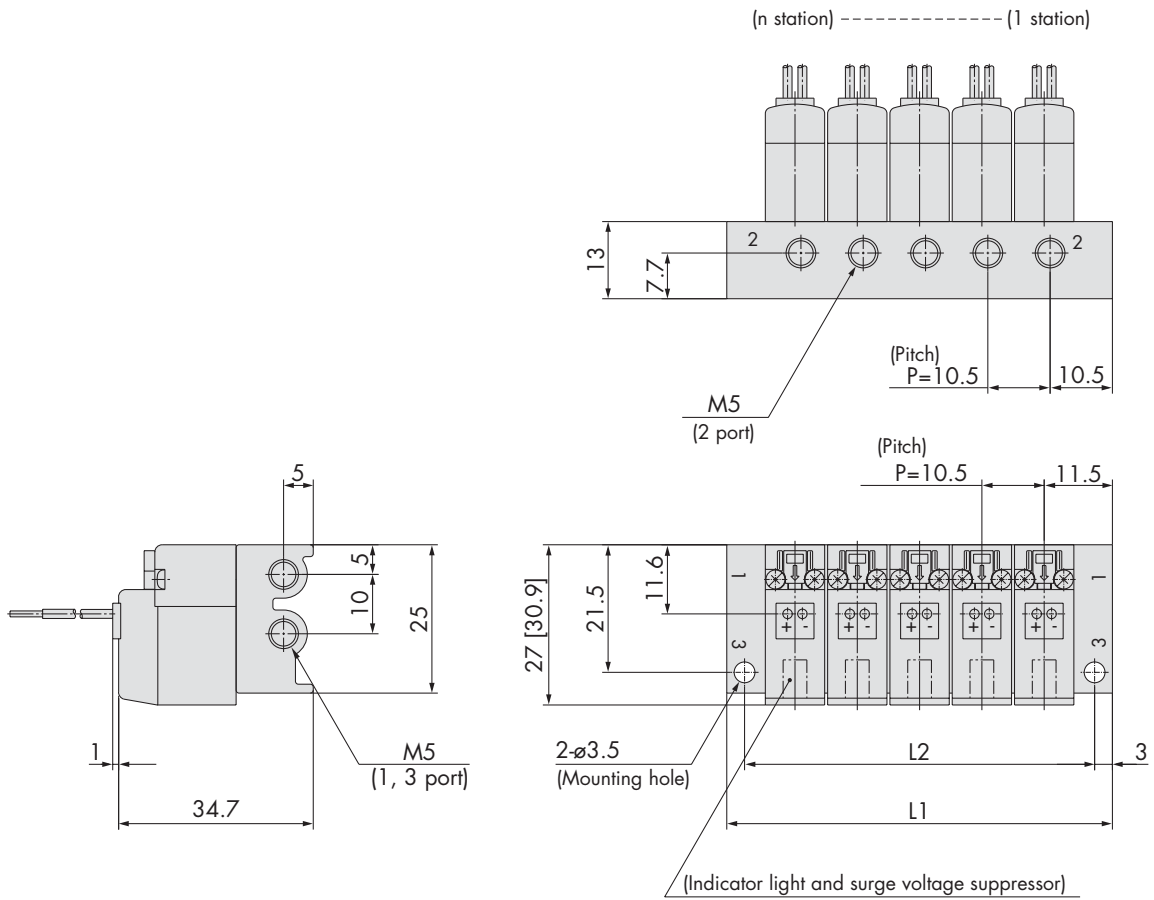


Manifold Specifications

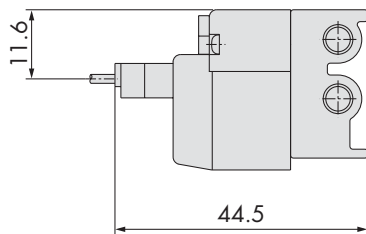
Specifications		Type S41
P (SUP)/R (EXH) type		Common SUP/Common EXH
Number of valves		2 to 20 stations
Output port porting specifications	Location	Base
	Direction	Side
Port size	1, 2, 3 port	M5

Note 1) V114(A) and V124(A) cannot be mounted onto the same manifold.
 Note 2) For V124(A), pressure from port 3 and exhaust from port 1.

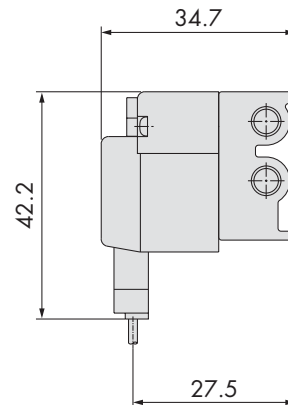
Dimensions: Manifold type S41: Side ported/VV100-S41- Stations -M5 Grommet (G)



L plug connector (L)



M plug connector (M)



* Other dimensions are same as grommet style.

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Station	2 stations	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20 stations
L1	33.5	44	54.5	65	75.5	86	96.5	107	117.5	128	138.5	149	159.5	170	180.5	191	201.5	212	222.5
L2	27.5	38	48.5	59	69.5	80	90.5	101	111.5	122	132.5	143	153.5	164	174.5	185	195.5	206	216.5