

Conforming to ISO Standard
Solenoid Valve (with M Connector)

Series *EVS1-01/1-02*

(Size 1)

(Size 2)



VK

VZ

VF

VFR

VP4

VZS

VFS

VS4

VQ7

EVS

VFN

Large capacity

	Flow rate	Cylinder driving size
EVS1-01 (Size: 01)	1140 L/min (ANR)	ø100
EVS1-02 (Size: 02)	560 L/min (ANR)	ø80

Lightweight

Size 01 (3 position): 0.26 kg

Size 02 (3 position): 0.18 kg

ISO 15407-1 Interface

Size 01 (**EVS1-01**) and Size 02 (**EVS1-02**)

Interface conforms to ISO 15407-1

Accommodates enclosure IP65

Dust/Splashproof type

ISO Standard Solenoid Valve Size 1,2/Single Unit

Series *EVS1-01/1-02*

How to Order

Valve

EVS1-01-FG-S-3- - - - - M0

Size

01	Size 01
02	Size 02

Passage symbol

FG	
FHG	
FJG	
FIG	

Number of solenoids

S	Single
D	Double

Rated coil voltage

3	24 VDC
4	12 VDC
9	Voltage other than above (50 VDC or less)

Thread type

Nil	Rc
F	G
T	NPTF

Port size

Symbol	Piping specifications	Size 01	Size 02
Nil	Without sub-plate	○	○
A01	Side ported 1/8	○	○
A02	Side ported 1/4	○	—

Sealing type

Nil	Metal seal
R	Rubber seal

Option

Nil	None
Z	Light/Surge voltage suppressor

Sub-plate

VS1-01-A02- -

Size

01	Size 01
02	Size 02

Thread type

Nil	Rc
F	G
T	NPTF

Port size

Symbol	Piping specifications	Size 01	Size 02
A01	Side ported 1/8	○	○
A02	Side ported 1/4	○	—

Specifications

Model	Piping specifications			Weight (kg)
	Piping direction	Port size for 1(P), 2(B), 4(A)	Port size for 3(R2), 5(R1)	
VS1-01-A01	Horizontal	1/8		0.14
VS1-01-A02		1/4		
VS1-02-A01	Horizontal	1/8		0.07

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Solenoid Valve (with M Connector) **Series EVS1-01/1-02**

Model



Series EVS1-01

Positions			Flow characteristics					
			1 → 4, 2 (P → A, B)			4, 2 → 5, 3 (A, B → EA, EB)		
			C	b	Cv	C	b	Cv
2 position	Single	Metal seal	3.10	0.10	0.60	3.40	0.10	0.70
		Rubber seal	4.57	0.24	1.14	4.78	0.20	1.15
	Double	Metal seal	3.10	0.10	0.60	3.40	0.10	0.70
		Rubber seal	4.57	0.24	1.14	4.78	0.20	1.15
3 position	Closed center	Metal seal	3.10	0.10	0.60	3.20	0.10	0.60
		Rubber seal	3.20	0.34	0.80	4.20	0.30	1.00
	Exhaust center	Metal seal	2.70	0.10	0.60	3.30	0.10	0.70
		Rubber seal	3.10	0.26	0.80	4.00	0.25	1.10
	Pressure center	Metal seal	3.20	0.10	0.70	3.20	0.10	0.60
		Rubber seal	4.40	0.25	1.00	3.60	0.25	1.00

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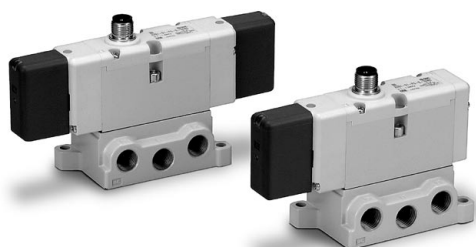
VFS

VS4

VQ7

EVS

VFN



Series EVS1-02

Positions			Flow characteristics					
			1 → 4, 2 (P → A, B)			4, 2 → 5, 3 (A, B → EA, EB)		
			C	b	Cv	C	b	Cv
2 position	Single	Metal seal	1.50	0.10	0.30	1.70	0.10	0.30
		Rubber seal	2.20	0.32	0.55	2.32	0.22	0.57
	Double	Metal seal	1.50	0.10	0.30	1.70	0.10	0.30
		Rubber seal	2.20	0.32	0.55	2.32	0.22	0.57
3 position	Closed center	Metal seal	1.50	0.10	0.30	1.60	0.10	0.30
		Rubber seal	2.10	0.20	0.50	2.10	0.10	0.40
	Exhaust center	Metal seal	1.30	0.10	0.20	1.60	0.10	0.20
		Rubber seal	2.00	0.16	0.50	2.10	0.10	0.40
	Pressure center	Metal seal	1.60	0.10	0.20	1.50	0.10	0.20
		Rubber seal	2.20	0.20	0.50	2.10	0.10	0.40

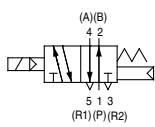
Note) Values for 2 position single from the cylinder port to the exhaust (from 2 to 3 and from 4 to 5) C (Sonic conductance) and b (Critical pressure ration) are subject to ISO 6358/JIS B 8390. Cv (Flow coefficient) is subject to ANSI/CNFPA T3.21.3.

Series EVS1-01/1-02

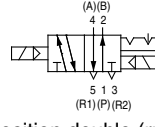
Standard Specifications

JIS Symbol

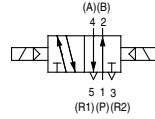
2 position single



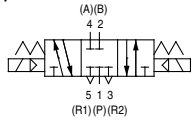
2 position double (metal)



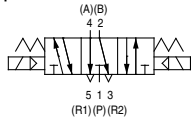
2 position double (rubber)



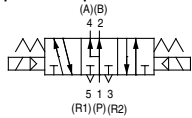
3 position closed center



3 position exhaust center



3 position pressure center



Valve specifications	Valve type		Metal seal	Rubber seal
	Fluid		Air	
	Maximum operating pressure		1.0 MPa	
	Minimum operating pressure	Single	0.1 MPa	0.15 MPa
		Double	0.1 MPa	0.1 MPa
		3 position	0.15 MPa	0.2 MPa
	Ambient and fluid temperature		-10° to 60°C (1)	-5° to 60°C (1)
	Lubrication		Not required (Non-lube type)	
	Manual override		Push type (Tool required)	
	Impact resistance/Vibration resistance		150, 30m/s ² (2)	
Enclosure		IP65 (Dust/Splashproof type)		
Electric specifications	Rated coil voltage		12 VDC, 24 VDC	
	Allowable voltage fluctuation		±10% of rated voltage	
	Type of coil insulation		Equivalent to class B	
	Power consumption (Current)	24 VDC	1 W DC (42 mA)	
		12 VDC	1 W DC (83 mA)	

Note 1) Use dry air to prevent condensation at low temperatures.

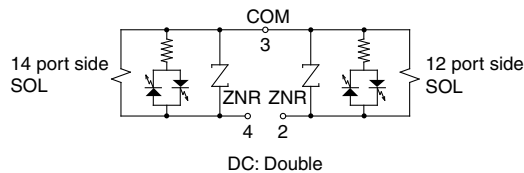
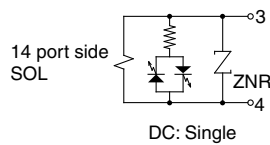
Note 2) Impact resistance: No malfunction resulted during an impact test using a drop impact tester. The test was performed one time each in the axial and right angle directions of the main valve and armature for both energized and de-energized conditions.

Vibration resistance: No malfunction resulted during an one-sweep test between 8.3 and 2000 Hz. The test was performed in the axial and right angle directions of the main valve and armature for both energized and de-energized conditions.

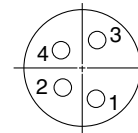
⚠ Precautions

⚠ Caution

Internal Wiring Specifications

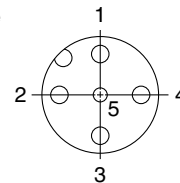


M8 Connector: Wiring specifications (EVS1-02)



- Pin no.
 1: Open
 2: 12 port side SOL (+)
 3: COM (-)
 4: 14 port side SOL (+)

M12 Connector: Wiring specifications (EVS1-01)

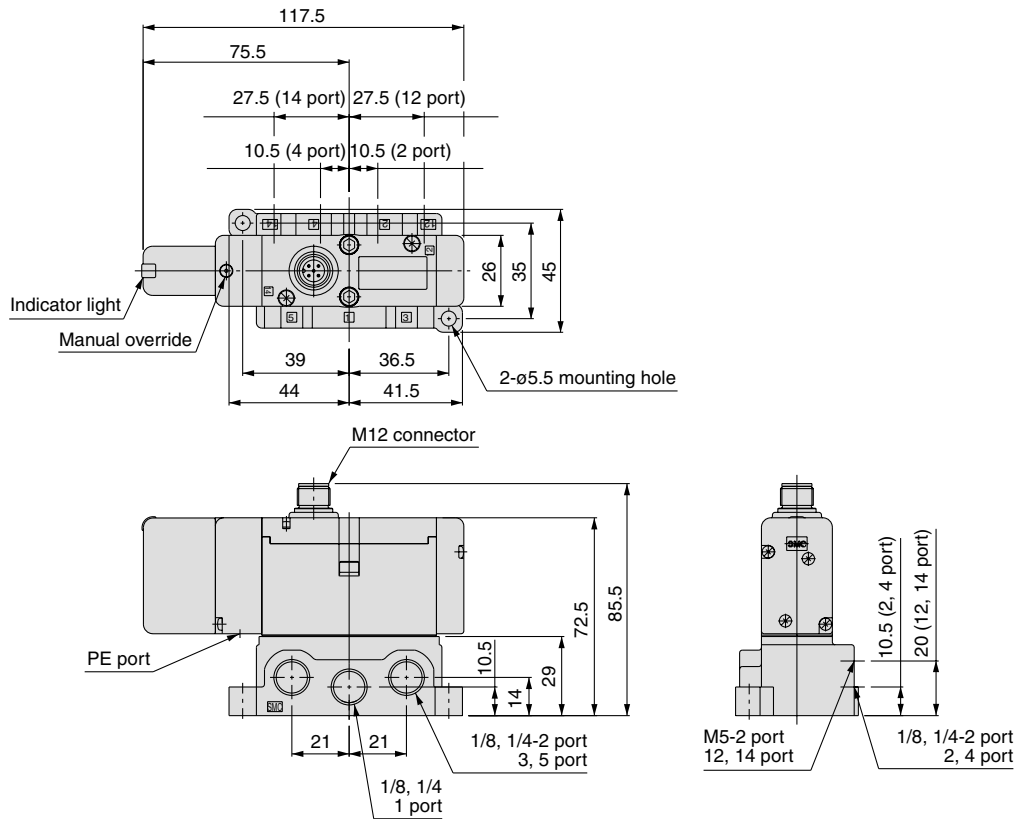


- Pin no.
 1: Open
 2: 12 port side SOL (+)
 3: COM (-)
 4: 14 port side SOL (+)
 5: Ground

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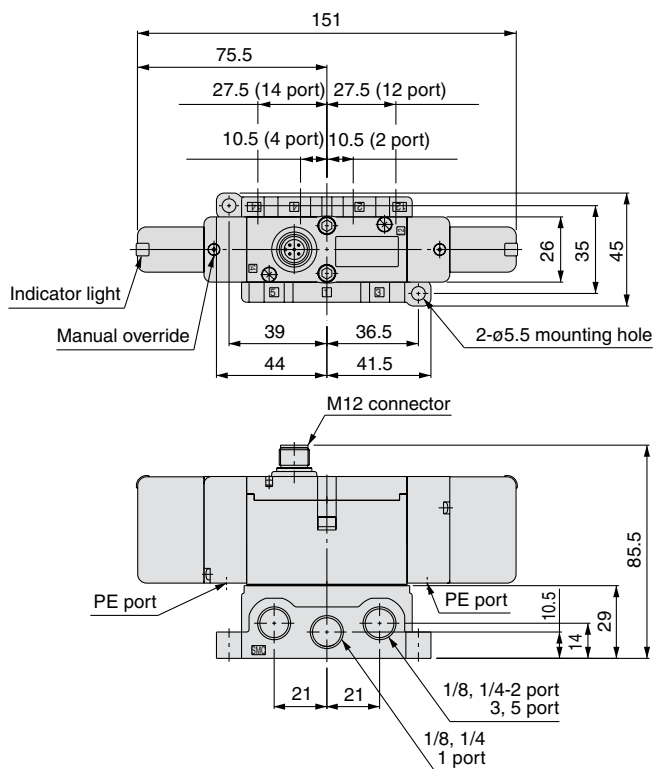
Dimensions

EVS1-01-FG-S-□□M0

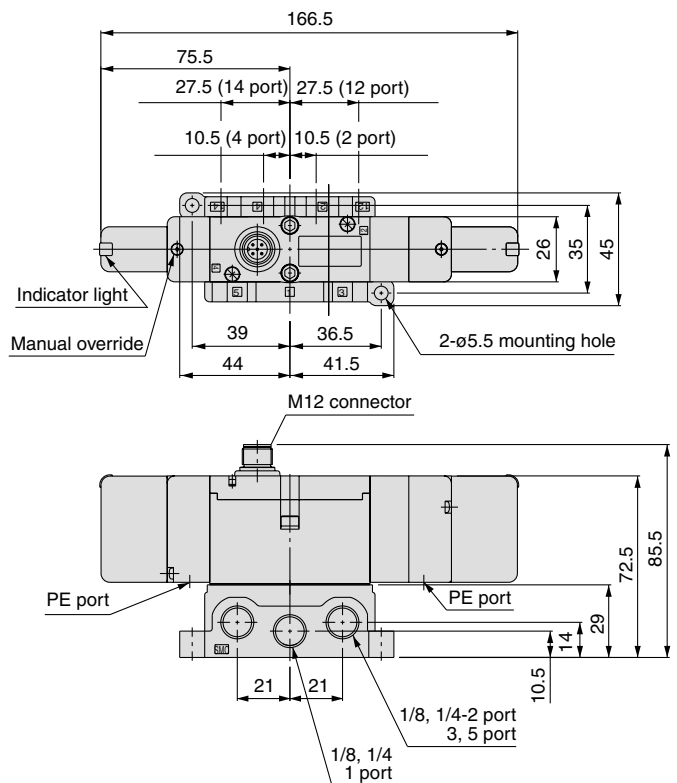


- VK
- VZ
- VF
- VFR
- VP4
- VZS
- VFS
- VS4
- VQ7
- EVS**
- VFN

EVS1-01-FG-D-□□M0



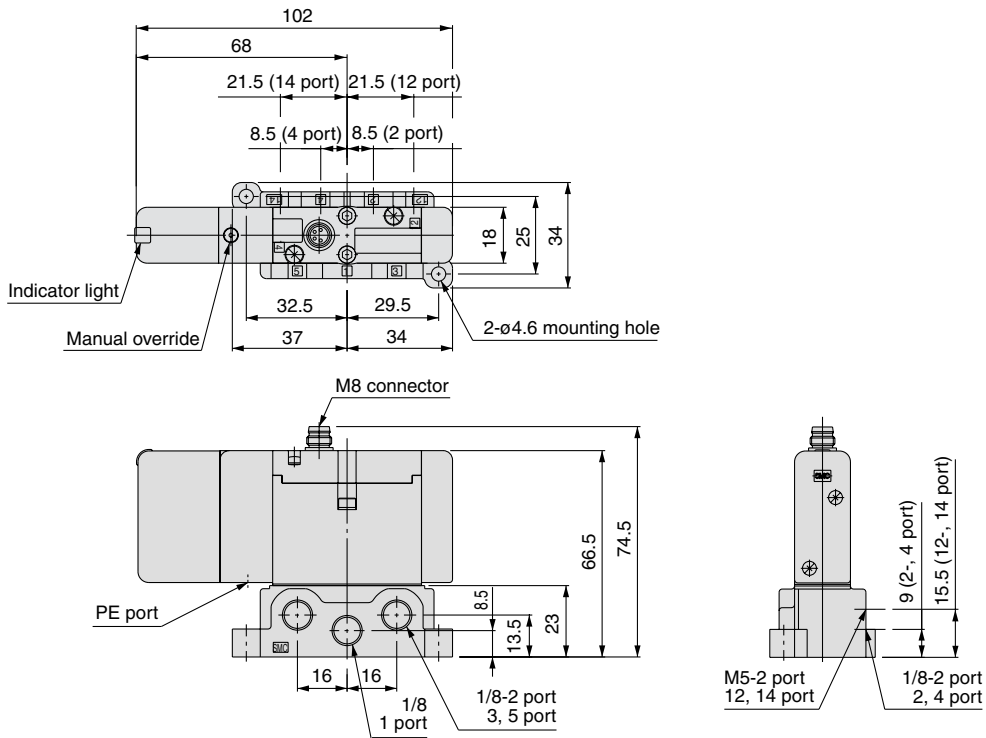
EVS1-01-F^HJ G-D-□□M0



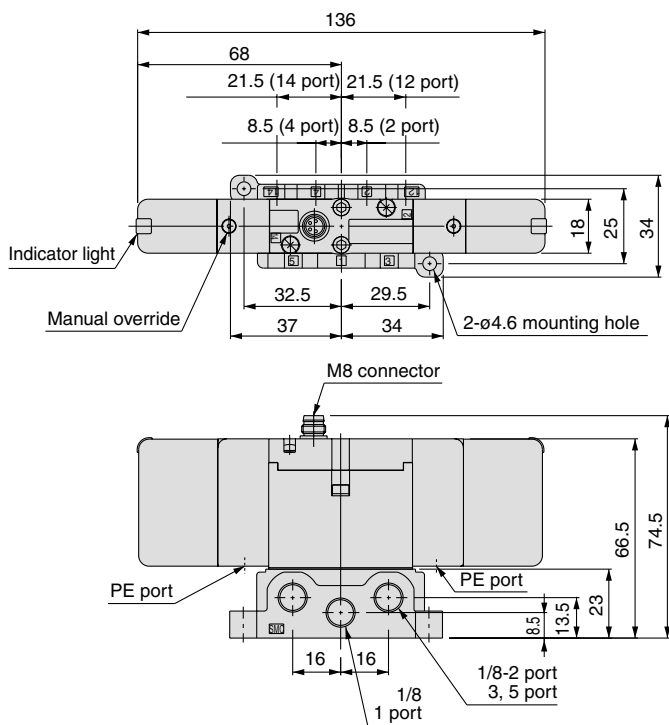
Series EVS1-01/1-02

Dimensions

EVS1-02-FG-S-□□M0



EVS1-02-FG-D-□□M0



EVS1-02-F^HJ G-D-□□M0

