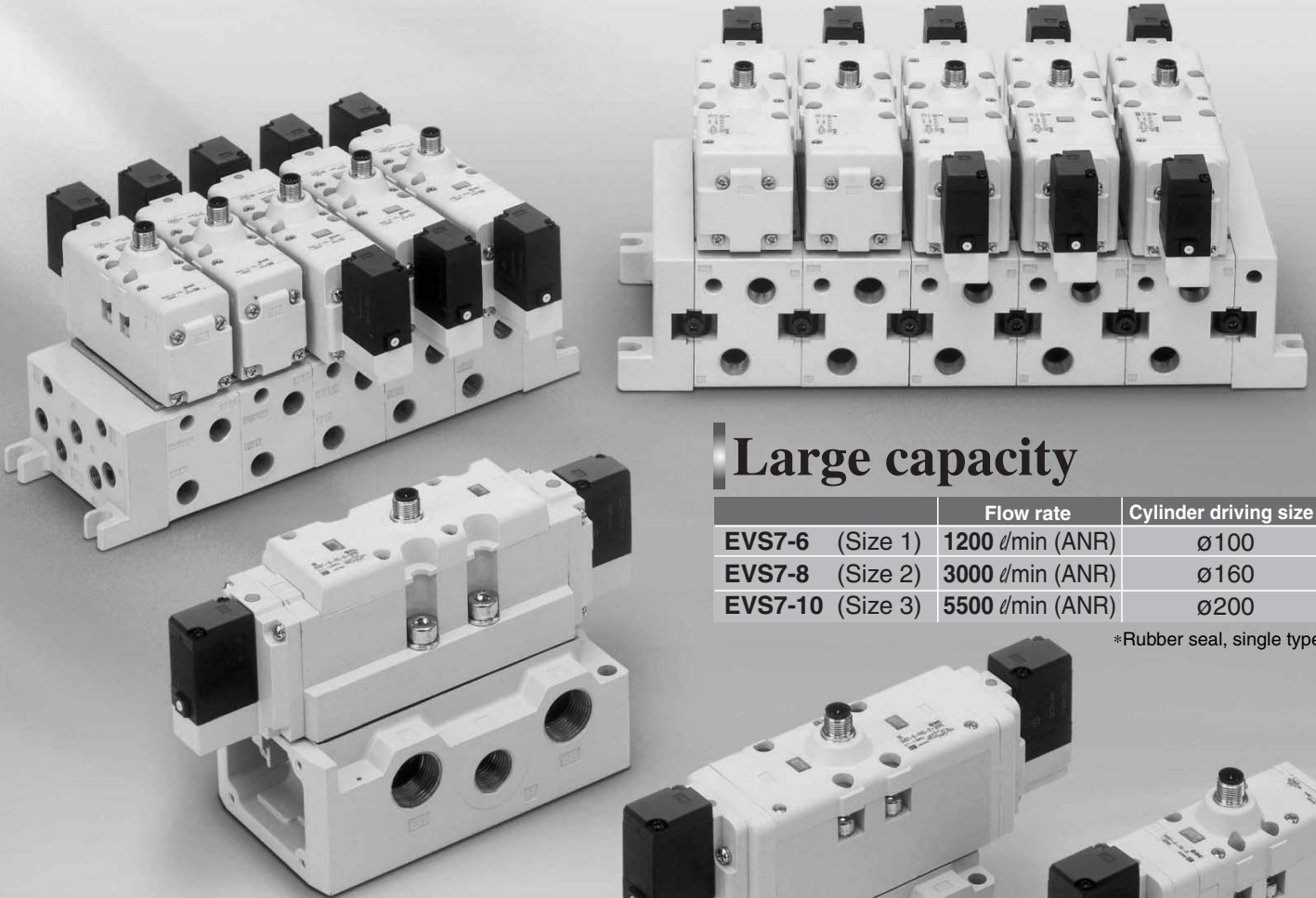


# Conforming to ISO Standard Solenoid Valve (with M12 Connector) Series *EVS7-6/7-8/7-10*

(Size 1) (Size 2) (Size 3)



VK  
VZ  
VF  
VFR  
VP4  
VZS  
VFS  
VS4  
VQ7  
EVS  
VFN

## Large capacity

	Flow rate	Cylinder driving size
<b>EVS7-6</b> (Size 1)	1200 $\ell$ /min (ANR)	$\varnothing$ 100
<b>EVS7-8</b> (Size 2)	3000 $\ell$ /min (ANR)	$\varnothing$ 160
<b>EVS7-10</b> (Size 3)	5500 $\ell$ /min (ANR)	$\varnothing$ 200

\*Rubber seal, single type

## Lightweight

Size 1 (3 position): 0.55 kg  
Size 2 (3 position): 0.80 kg  
Size 3 (3 position): 1.13 kg

## Interface conforms to ISO standard

Size 1 (**EVS7-6**), Size 2 (**EVS7-8**), and Size 3 (**EVS7-10**)  
Conform to ISO5599/1

## Accommodates enclosure IP65

Dust/Splashproof type

## Reduced installation space

Up to 7% reduction in square area installation (compared to Series EVS7)  
Up to 35% reduction in cubic area installation (for Cnomo)

## Wide variety of manifold option

# ISO Standard Solenoid Valve Size 1, 2, 3/Single Unit

# Series *EVS7-6/7-8/7-10*

## How to Order

**Valve** **EVS7-6-FG-S-3- - - - - MO**

**Size**

6	Size 1
8	Size 2
10	Size 3

**Thread type**

Nil	Rc
F	G
T	NPTF

**Passage symbol**

<b>FG</b>	
<b>FHG</b>	
<b>FJG</b>	
<b>FIG</b>	
<b>FPG*</b>	

**Number of solenoids**

<b>S</b>	Single
<b>D</b>	Double

**Rated coil voltage**

<b>3</b>	24 VDC
<b>4</b>	12 VDC
<b>9</b>	Voltage other than above (50 VDC or less)

**Option**

<b>Nil</b>	None
<b>Z</b>	Light/Surge voltage suppressor

**Port size**

Symbol	Piping specifications	Size 1	Size 2	Size 3
<b>Nil</b>	Without sub-plate	○	○	○
<b>A02</b>	Side-ported 1/4	○		
<b>A03</b>	Side-ported 3/8	○	○	
<b>A04</b>	Side-ported 1/2		○	○
<b>A06</b>	Side-ported 3/4		○	○
<b>A10</b>	Side-ported 1			○
<b>B02</b>	Bottom-ported 1/4	○		
<b>B03</b>	Bottom-ported 3/8	○	○	
<b>B04</b>	Bottom-ported 1/2		○	○
<b>B06</b>	Bottom-ported 3/4		○	○

**Sealing type**

<b>Nil</b>	Metal seal
<b>R</b>	Rubber seal

\* Available for 7-6 and 7-8 only

**Sub-plate** **VS7-1-A02- -**

**Size**

1	Size 1
2	Size 2
3	Size 3

**Port size**

Symbol	Piping specifications	Size 1	Size 2	Size 3
<b>A02</b>	Side-ported 1/4	○		
<b>A03</b>	Side-ported 3/8	○	○	
<b>A04</b>	Side-ported 1/2		○	○
<b>A06</b>	Side-ported 3/4		○	○
<b>A10</b>	Side-ported 1			○
<b>B02</b>	Bottom-ported 1/4	○		
<b>B03</b>	Bottom-ported 3/8	○	○	
<b>B04</b>	Bottom-ported 1/2		○	○
<b>B06</b>	Bottom-ported 3/4		○	○

**Thread type**

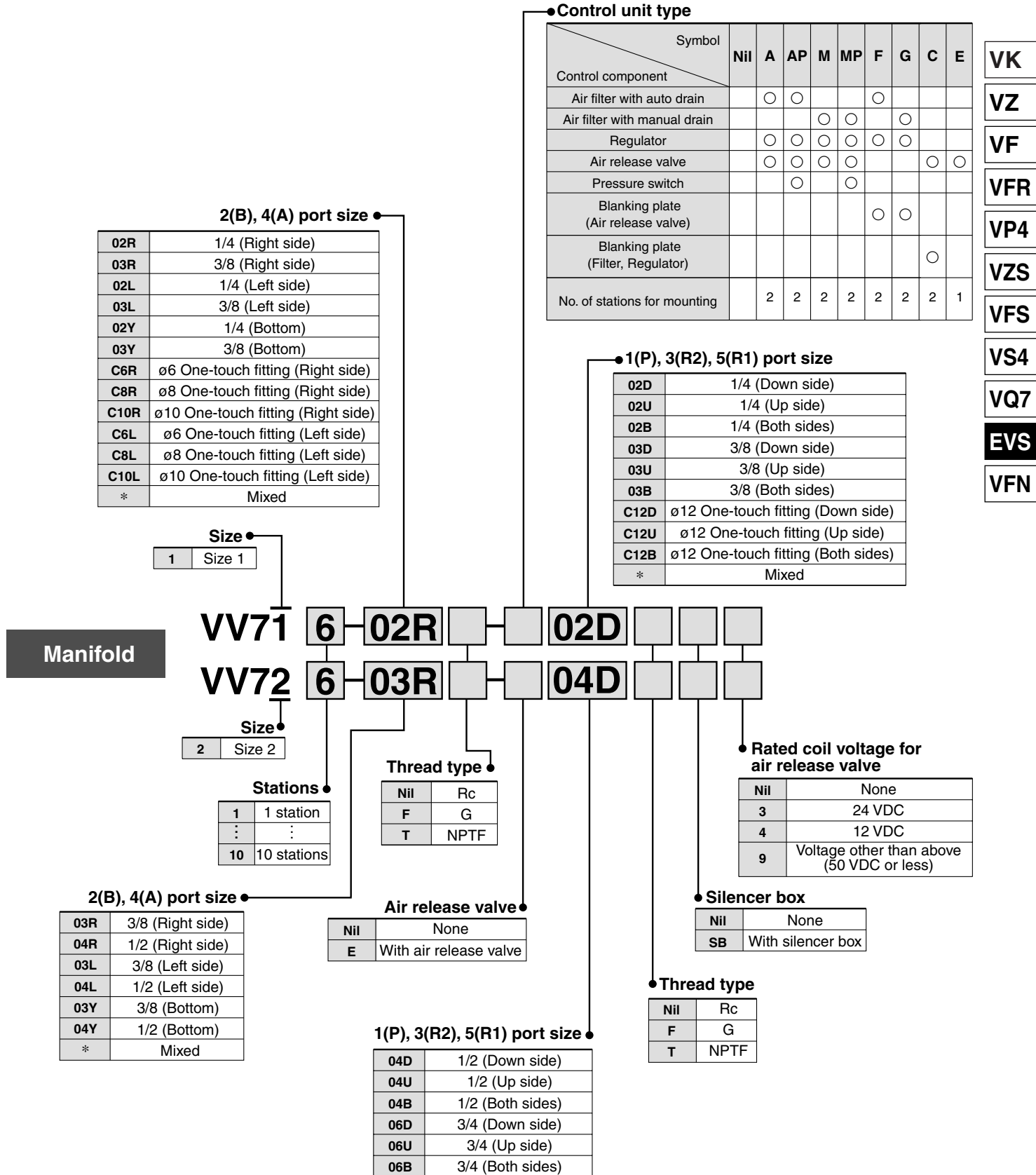
<b>Nil</b>	Rc
<b>F</b>	G
<b>T</b>	NPTF

## Specifications

Model	Piping specifications			Weight (kg)	
	Piping direction	Port size for 1(P), 2(B), 4(A)	Port size for 3(R2), 5(R1)		
<b>VS7-1-A02</b>	Horizontal	1/4	3/8	0.37	
<b>VS7-1-A03</b>		3/8			
<b>VS7-1-B02</b>	Bottom	1/4	3/8		
<b>VS7-1-B03</b>		3/8			
<b>VS7-2-A03</b>	Horizontal	3/8			0.68
<b>VS7-2-A04</b>		1/2			
<b>VS7-2-A06</b>	Bottom	3/4		1.29	
<b>VS7-2-B03</b>		3/8			0.68
<b>VS7-2-B04</b>		1/2			
<b>VS7-2-B06</b>		3/4			1.29
<b>VS7-3-A04</b>	Horizontal	1/2	3/4	1.50	
<b>VS7-3-A06</b>		3/4			
<b>VS7-3-A10</b>		1			
<b>VS7-3-B04</b>	Bottom	1/2			
<b>VS7-3-B06</b>		3/4			

# Manifold Specifications

## How to Order



# Series EVS7-□

## Model

### Series EVS7-6



Positions			Bore size	Flow characteristics					
				1 → 4, 2 (P → A, B)			4, 2 → 5, 3 (A, B → EA, EB)		
2 position	Single	Metal seal	1/4	C	b	Cv	C	b	Cv
		Double		Rubber seal	4.1	0.10	0.9	5.2	0.07
Metal seal	5.0			0.13	1.1	6.0	0.11	1.4	
3 position	Closed center	Rubber seal		4.1	0.10	0.9	5.2	0.07	1.1
		Metal seal		5.0	0.13	1.1	6.0	0.11	1.4
	Exhaust center	Rubber seal		4.1	0.10	0.9	5.2	0.10	1.1
		Metal seal		4.8	0.16	1.1	6.0	0.17	1.4
	Pressure center	Rubber seal		4.1	0.10	0.9	5.2	0.08	1.1
		Metal seal		5.6	0.15	1.2	5.9	0.08	1.3
	Perfect type	Rubber seal		1.4	—	—	3.1	—	—
		Metal seal		1.4	—	—	3.1	—	—

### Series EVS7-8



Positions			Bore size	Flow characteristics					
				1 → 4, 2 (P → A, B)			4, 2 → 5, 3 (A, B → EA, EB)		
2 position	Single	Metal seal	3/8	C	b	Cv	C	b	Cv
		Double		Rubber seal	10	0.18	2.4	12	0.24
Metal seal	12			0.24	3.0	13	0.27	3.3	
3 position	Closed center	Rubber seal		10	0.18	2.4	12	0.24	3.0
		Metal seal		12	0.24	3.0	13	0.27	3.3
	Exhaust center	Rubber seal		10	0.28	2.4	10	0.24	2.4
		Metal seal		11	0.25	2.8	11	0.27	2.8
	Pressure center	Rubber seal		10	0.16	2.4	10	0.20	2.4
		Metal seal		11	0.26	2.8	13	0.27	3.3
	Perfect type	Rubber seal		10	0.26	2.4	11	0.25	2.8
		Metal seal		13	0.27	3.3	12	0.29	3.0
Perfect type	Rubber seal	7.2		—	—	7.0	—	—	
	Metal seal	7.2	—	—	7.0	—	—		

### Series EVS7-10

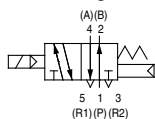


Positions			Bore size	Flow characteristics					
				1 → 4, 2 (P → A, B)			4, 2 → 5, 3 (A, B → EA, EB)		
2 position	Single	Metal seal	1/2	C	b	Cv	C	b	Cv
		Double		Rubber seal	13	0.10	3.0	18	0.10
Metal seal	16			0.20	4.0	18	0.20	4.4	
3 position	Closed center	Rubber seal		13	0.10	3.0	18	0.10	4.0
		Metal seal		16	0.20	4.0	18	0.20	4.4
	Exhaust center	Rubber seal		13	0.10	3.0	18	0.10	4.0
		Metal seal		15	0.20	3.5	15	0.20	3.7
	Pressure center	Rubber seal		13	0.10	3.0	18	0.10	4.0
		Metal seal		16	0.20	4.0	16	0.20	4.0
	Perfect type	Rubber seal		13	0.10	3.0	18	0.10	4.0
		Metal seal		15	0.20	3.8	19	0.10	4.4

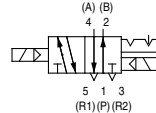
## Standard Specifications

### JIS Symbol

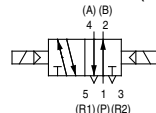
2 position single



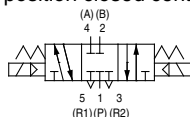
2 position double (metal)



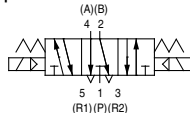
2 position double (rubber)



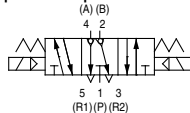
3 position closed center



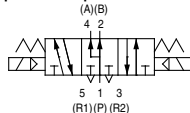
3 position exhaust center



3 position perfect



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	0.1 MPa
		Double	0.1 MPa	0.1 MPa
		3 position	0.1 MPa	0.1 MPa: Size 1 0.15 MPa: Size 2, 3
	Ambient and fluid temperature		-10° to 60°C <sup>(1)</sup>	-5° to 60°C <sup>(1)</sup>
	Lubrication		None	
	Manual override		Push type (Tool required)	
	Impact resistance/ Vibration resistance		150/50 m/s <sup>2</sup> <sup>(2)</sup>	
Enclosure		IP65 (Dust/Splashproof type)		
Electric specifications	Rated coil voltage		12 VDC, 24 VDC	
	Allowable voltage fluctuation		-15 to +10% of rated voltage	
	Type of coil insulation		Equivalent to Class B	
	Power consumption	24 VDC	1.8 W DC (75 mA)	
		12 VDC	1.8 W DC (150 mA)	

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

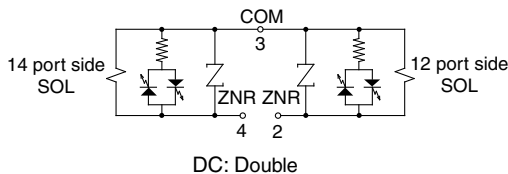
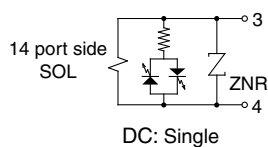
Note 2) Impact resistance: No malfunction resulted during on the impact test using a drop impact tester. The test was performed one time each in the axial and right angle directions of the main valve and armature for both energized and de-energized conditions.

Vibration resistance: No malfunction resulted during a 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.

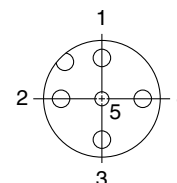
## ⚠ Precautions

### ⚠ Caution

#### Internal Wiring Specifications



#### M12 connector: Wiring specifications



Pin no.

- 1: Open
- 2: 12 port side SOL (+)
- 3: COM (-)
- 4: 14 port side SOL (+)
- 5: Ground

VK

VZ

VF

VFR

VP4

VZS

VFS

VS4

VQ7

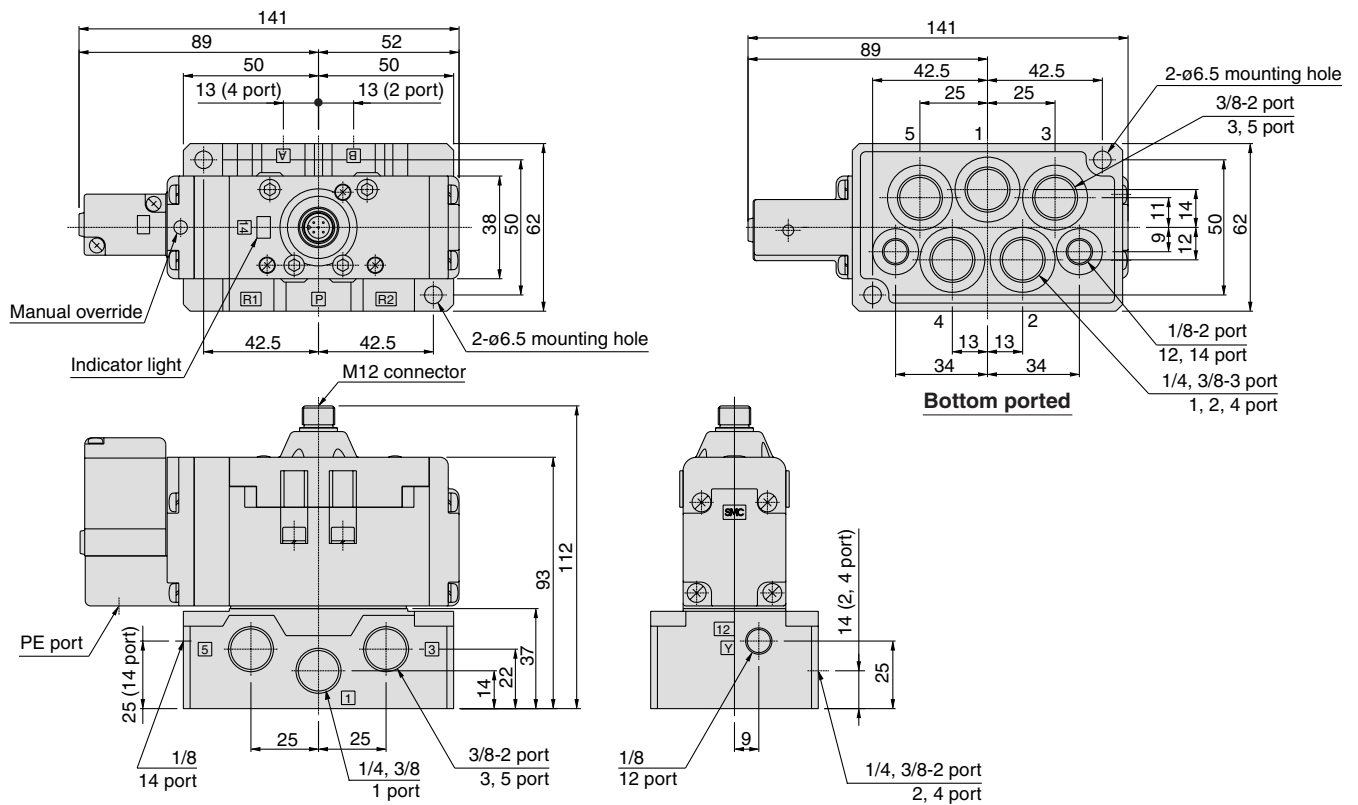
EVS

VFN

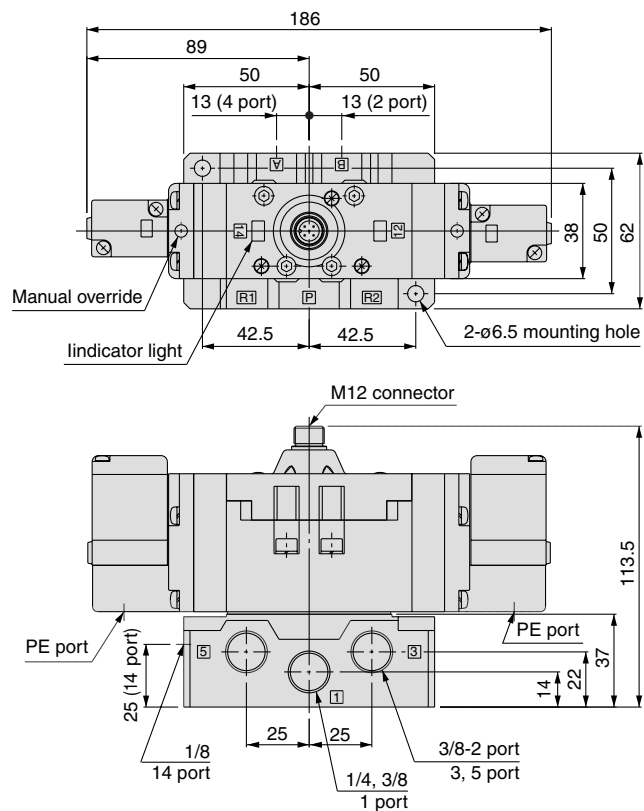
# Series EVS7-□

## Dimensions

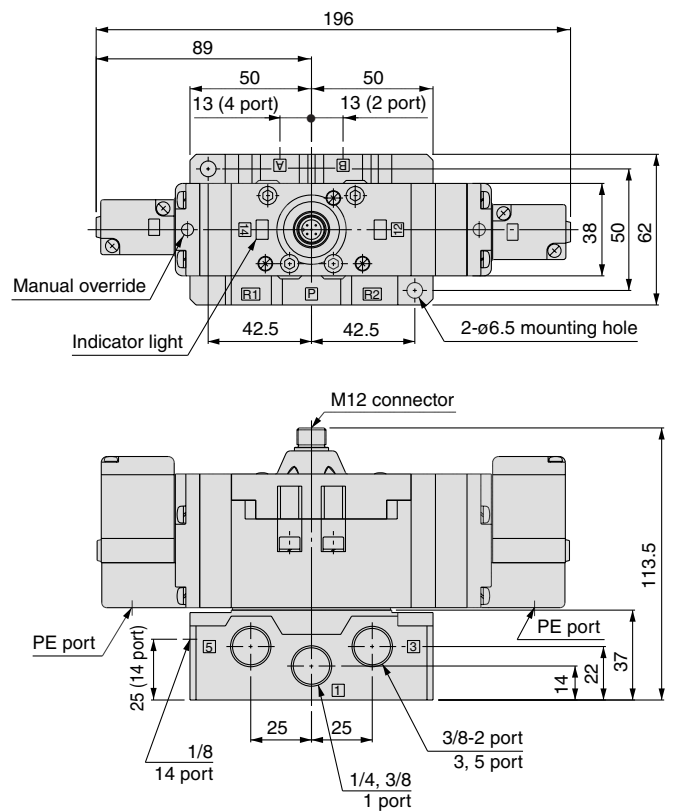
### EVS7-6-FG-S-□□M0



### EVS7-6-FG-D-□□M0



### EVS7-6-F<sup>H</sup>JG-D-□□M0

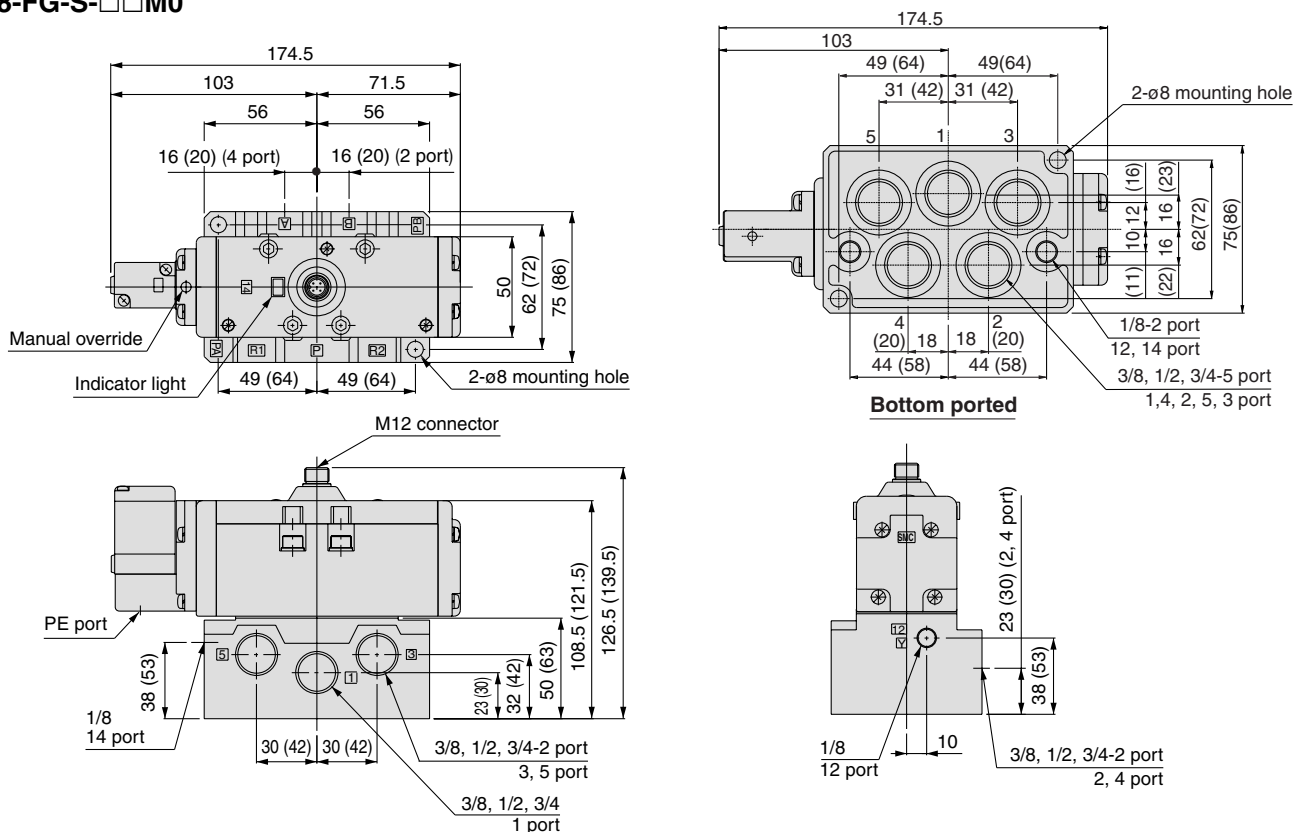




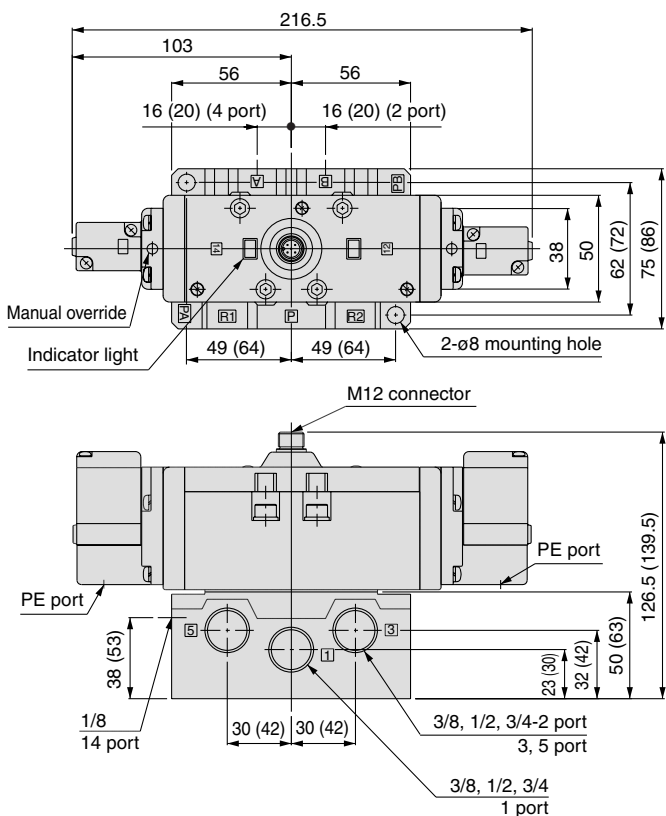
# Series EVS7-□

## Dimensions

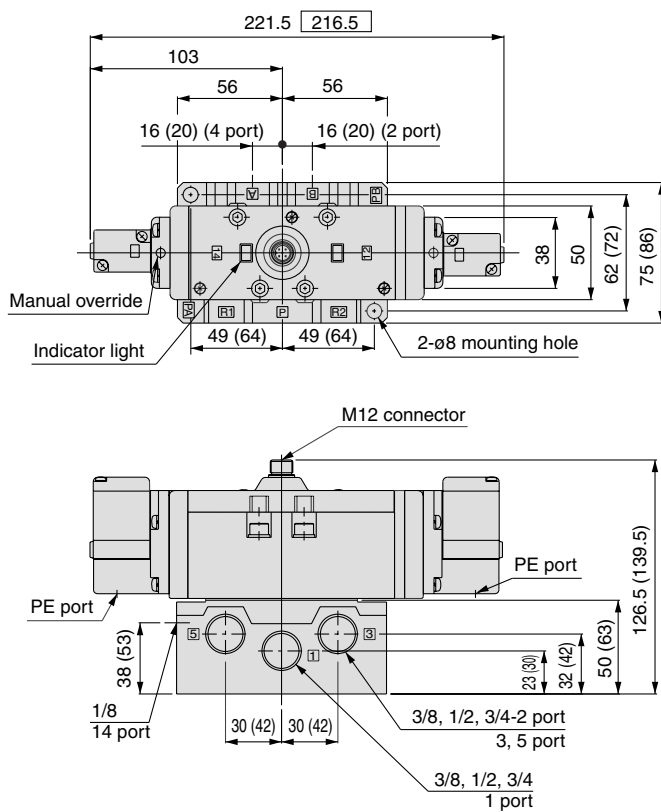
### EVS7-8-FG-S-□□M0



### EVS7-8-FG-D-□□M0



### EVS7-8-F<sup>H</sup>J<sub>I</sub>G-D-□□M0



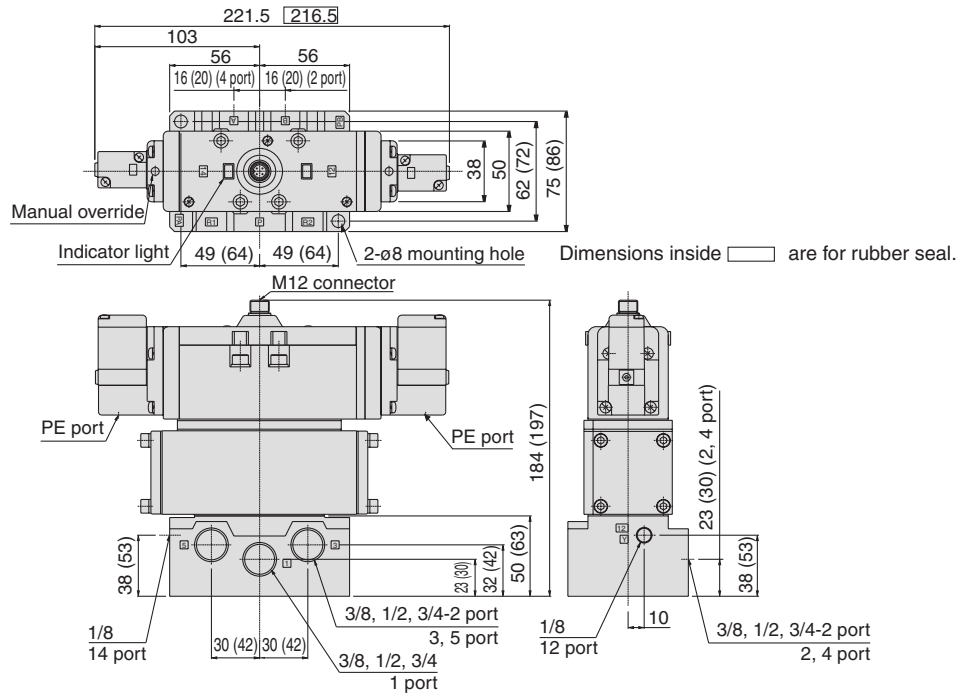
Dimension inside    is for rubber seal.  
 Dimensions inside ( ) are for Sub-plate.



**Conforming to ISO Standard  
Solenoid Valve (with M12 Connector) Series EVS7-□**

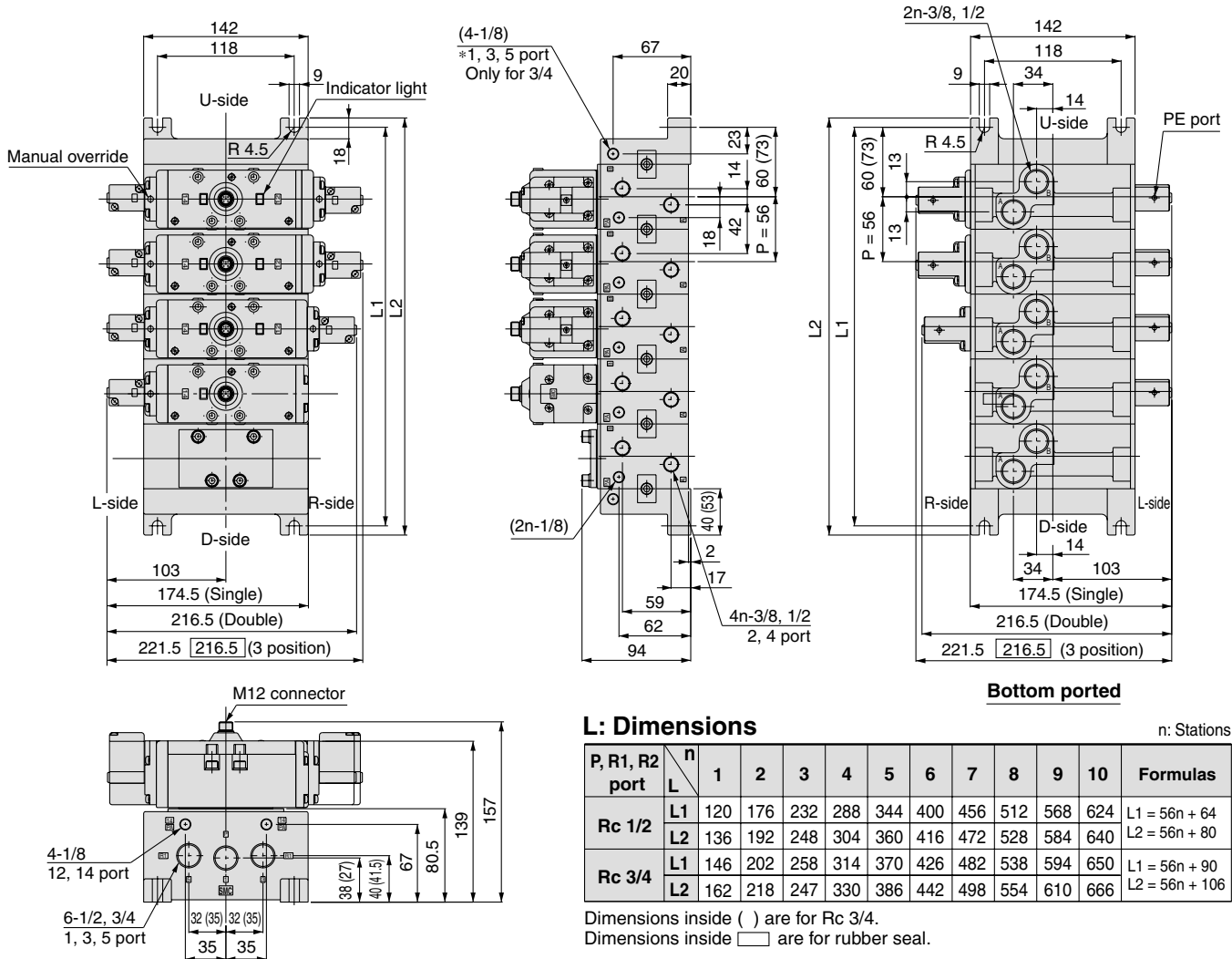
**Dimensions**

**EVS7-8-FPG-D-□□M0**



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

**VV72□-□-□□□  
(M connector type)**



**L: Dimensions**

n: Stations

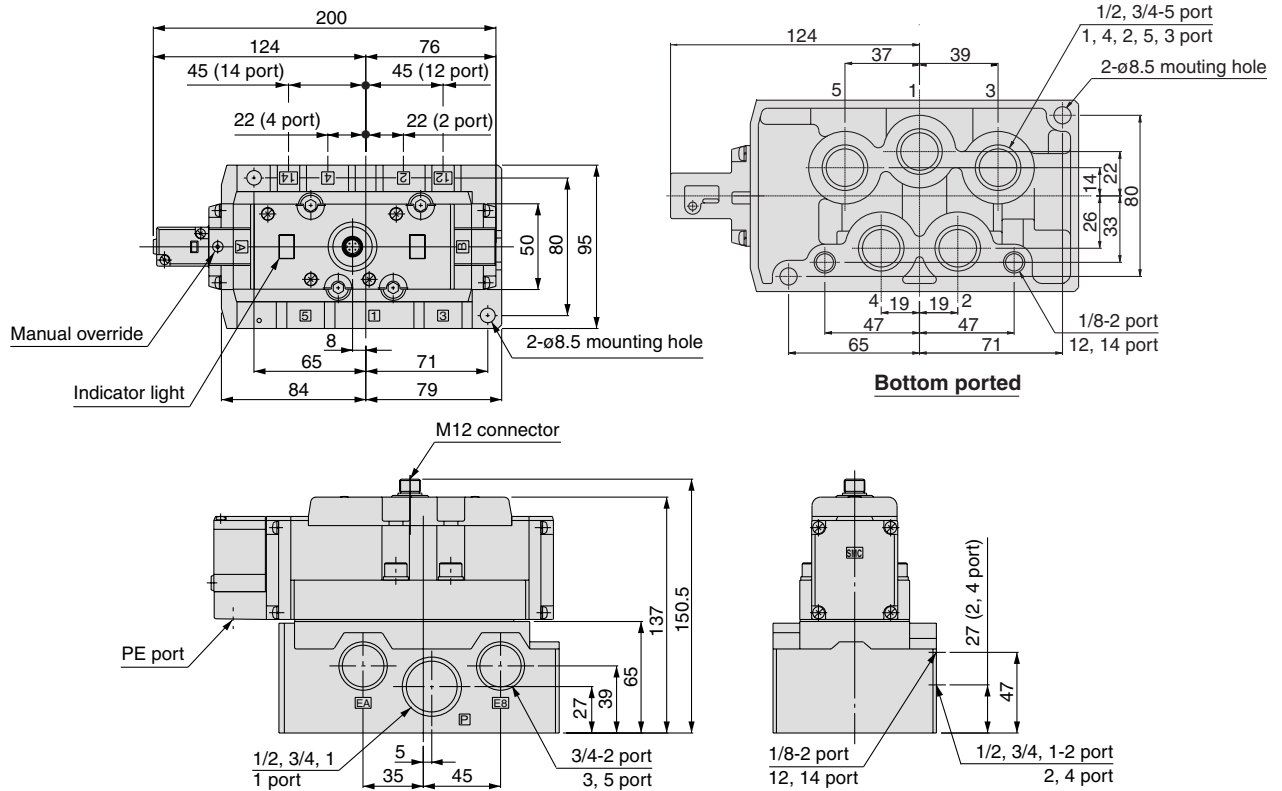
P, R1, R2 port	n	L										Formulas
		1	2	3	4	5	6	7	8	9	10	
Rc 1/2	L1	120	176	232	288	344	400	456	512	568	624	L1 = 56n + 64 L2 = 56n + 80
	L2	136	192	248	304	360	416	472	528	584	640	
Rc 3/4	L1	146	202	258	314	370	426	482	538	594	650	L1 = 56n + 90 L2 = 56n + 106
	L2	162	218	274	330	386	442	498	554	610	666	

Dimensions inside ( ) are for Rc 3/4.  
Dimensions inside □ are for rubber seal.

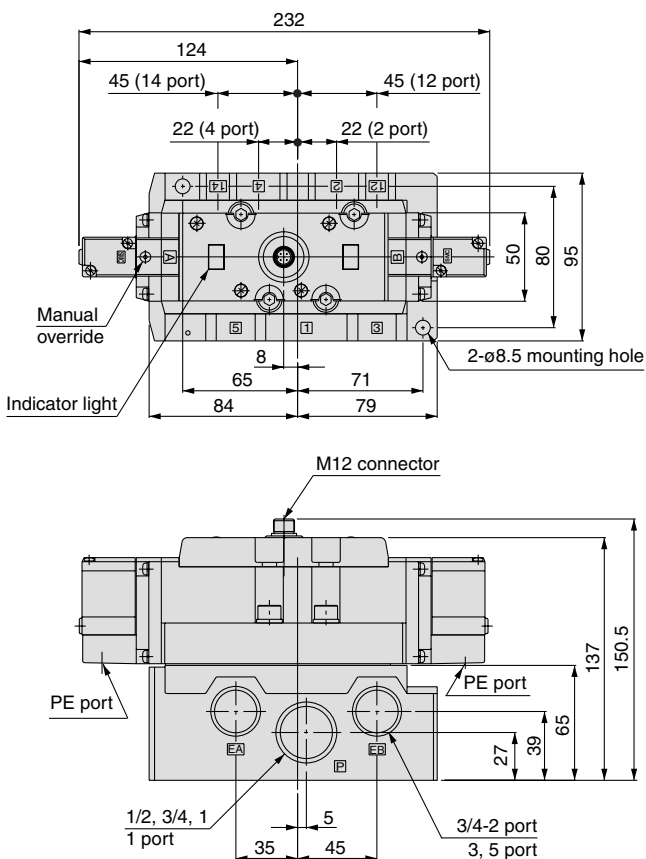
# Series EVS7-□

## Dimensions

### EVS7-10-FG-S-□□M0



### EVS7-10-FG-D-□□M0



### EVS7-10-F<sup>H</sup>J<sup>G</sup>-D-□□M0

