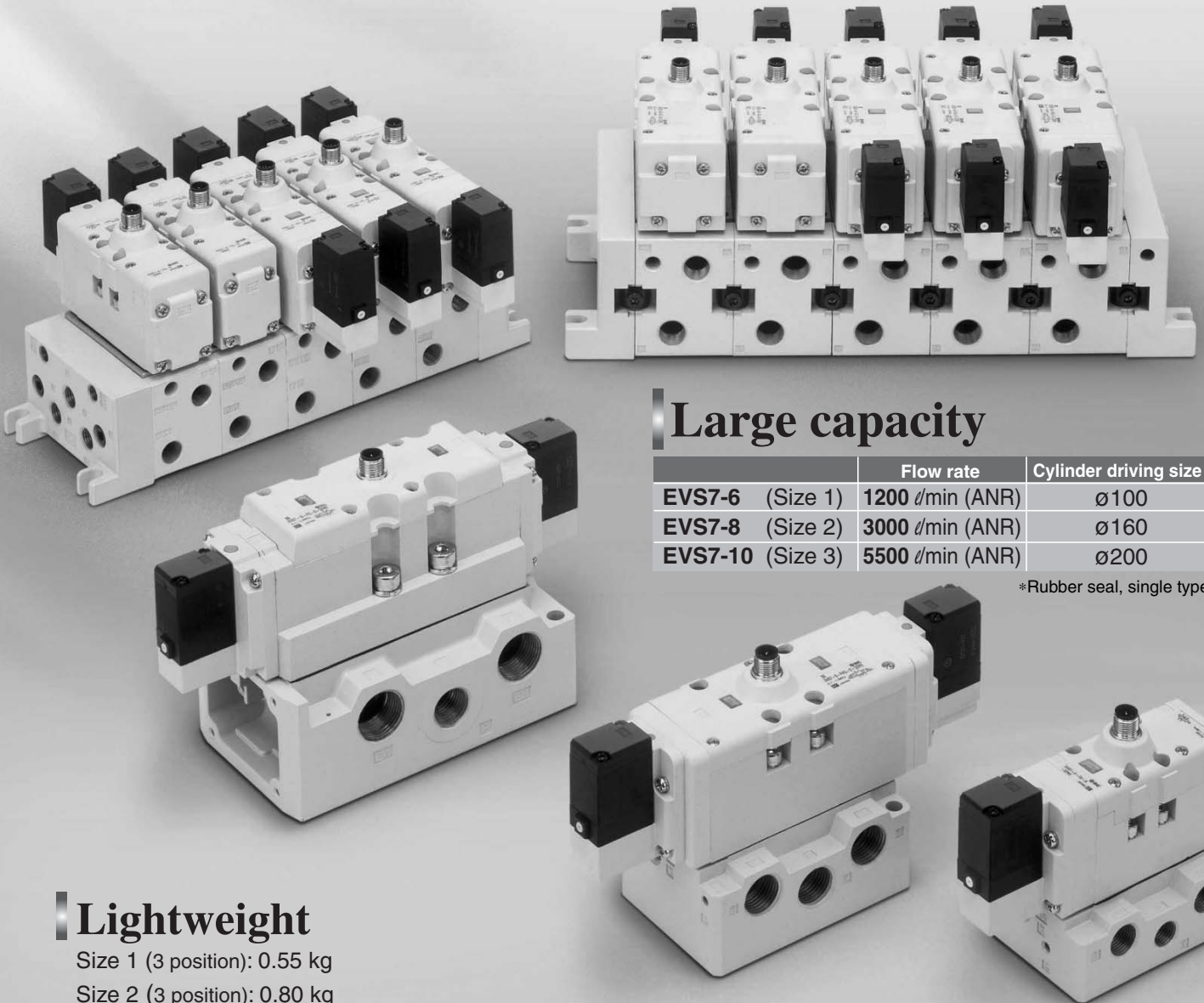


Conforming to ISO Standard Solenoid Valve (with M12 Connector) Series *EVS7-6/7-8/7-10*

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



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

Large capacity

	Flow rate	Cylinder driving size
EVS7-6 (Size 1)	1200 ℓ /min (ANR)	\varnothing 100
EVS7-8 (Size 2)	3000 ℓ /min (ANR)	\varnothing 160
EVS7-10 (Size 3)	5500 ℓ /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

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)

Accommodates enclosure IP65

Dust/Splashproof type

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

FG	
FHG	
FJG	
FIG	
FPG*	

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)

Option

Nil	None
Z	Light/Surge voltage suppressor

Port size

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

Sealing type

Nil	Metal seal
R	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
A02	Side-ported 1/4	○		
A03	Side-ported 3/8	○	○	
A04	Side-ported 1/2		○	○
A06	Side-ported 3/4		○	○
A10	Side-ported 1			○
B02	Bottom-ported 1/4	○		
B03	Bottom-ported 3/8	○	○	
B04	Bottom-ported 1/2		○	○
B06	Bottom-ported 3/4		○	○

Thread type

Nil	Rc
F	G
T	NPTF

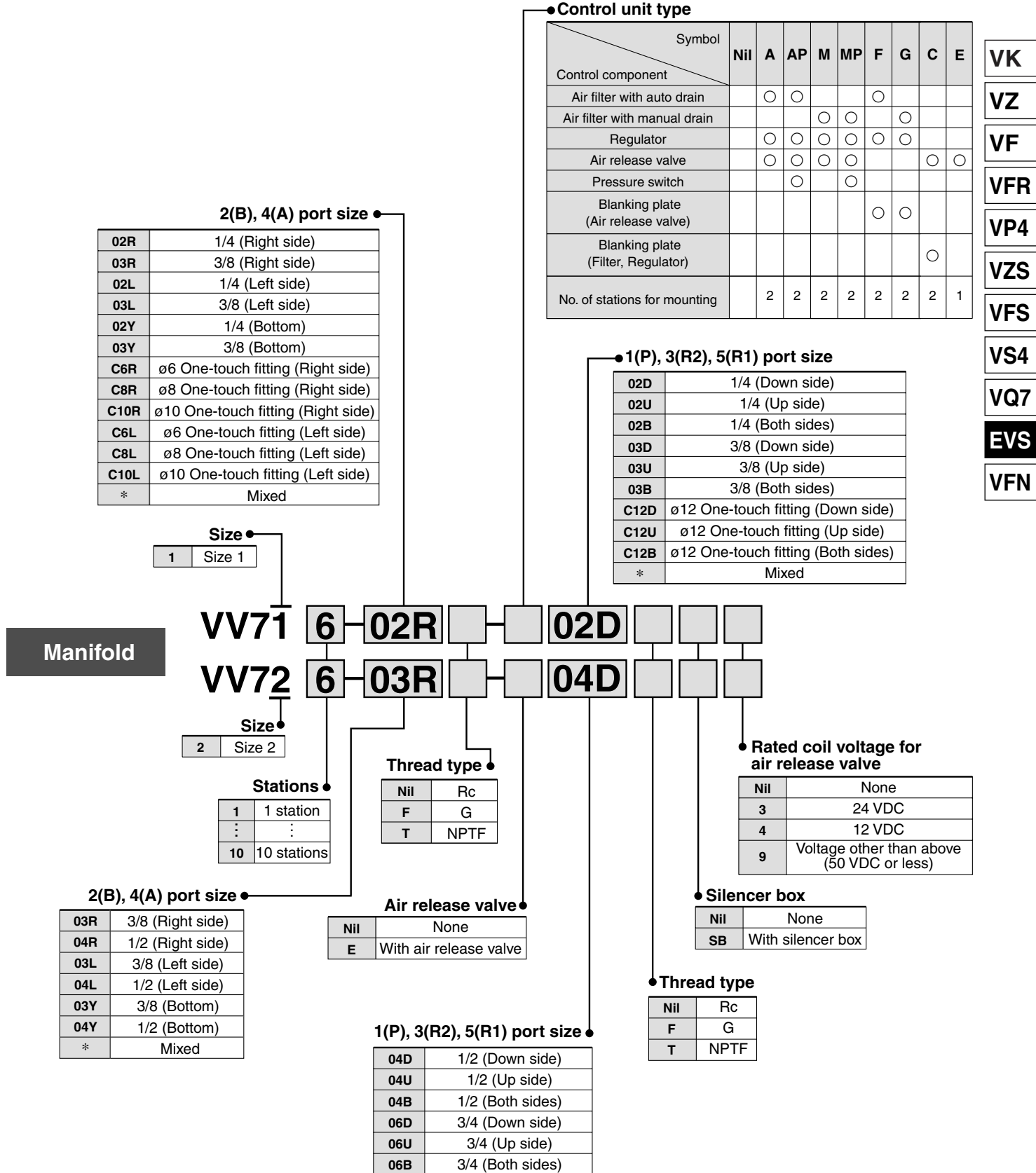
Specifications

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

Series EVS7-□

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
		Rubber seal		4.1	0.10	0.9	5.2	0.07	1.1
Double	Metal seal	5.0		0.13	1.1	6.0	0.11	1.4	
	Rubber seal	4.1		0.10	0.9	5.2	0.07	1.1	
3 position	Closed center	Metal seal		5.0	0.13	1.1	6.0	0.11	1.4
		Rubber seal		4.1	0.10	0.9	5.2	0.10	1.1
	Exhaust center	Metal seal		5.0	0.13	1.1	5.6	0.20	1.3
		Rubber seal		4.1	0.10	0.9	5.2	0.10	1.1
	Pressure center	Metal seal		4.8	0.16	1.1	6.0	0.17	1.4
		Rubber seal		4.1	0.10	0.9	5.2	0.08	1.1
	Perfect type	Metal seal		5.6	0.15	1.2	5.9	0.08	1.3
		Rubber seal		1.4	—	—	3.1	—	—
			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
		Rubber seal		10	0.18	2.4	12	0.24	3.0
Double	Metal seal	12		0.24	3.0	13	0.27	3.3	
	Rubber seal	10		0.18	2.4	12	0.24	3.0	
3 position	Closed center	Metal seal		12	0.24	3.0	13	0.27	3.3
		Rubber seal		10	0.28	2.4	10	0.24	2.4
	Exhaust center	Metal seal		11	0.25	2.8	11	0.27	2.8
		Rubber seal		10	0.16	2.4	10	0.20	2.4
	Pressure center	Metal seal		11	0.26	2.8	13	0.27	3.3
		Rubber seal		10	0.26	2.4	11	0.25	2.8
	Perfect type	Metal seal		13	0.27	3.3	12	0.29	3.0
		Rubber seal		7.2	—	—	7.0	—	—
			7.2	—	—	7.0	—	—	

Series EVS7-10



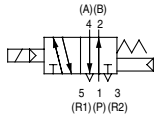
Positions			Bore size	Flow characteristics					
				1 → 4, 2 (P → A, B)			4, 2 → 5, 3 (A, B → EA, EB)		
2 position	Single	Metal seal	1/2	C	b	Cv	C	b	Cv
		Rubber seal		13	0.10	3.0	18	0.10	4.0
Double	Metal seal	16		0.20	4.0	18	0.20	4.4	
	Rubber seal	13		0.10	3.0	18	0.10	4.0	
3 position	Closed center	Metal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

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

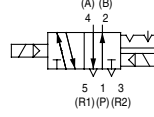
Standard Specifications

JIS Symbol

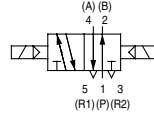
2 position single



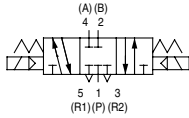
2 position double (metal)



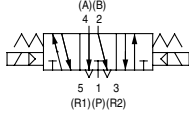
2 position double (rubber)



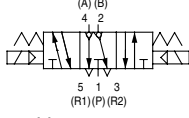
3 position closed center



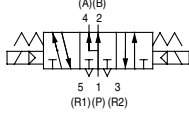
3 position exhaust center



3 position perfect



3 position pressure center



Valve specifications	Valve type	Metal seal	Rubber seal	
	Fluid	Air, Inert gas		
	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 ⁽¹⁾	-5° to 60°C ⁽¹⁾	
	Lubrication	None		
	Manual override	Push type (Tool required)		
	Impact resistance/ Vibration resistance	150/50 m/s ² ⁽²⁾		
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.

VK

VZ

VF

VFR

VP4

VZS

VFS

VS4

VQ7

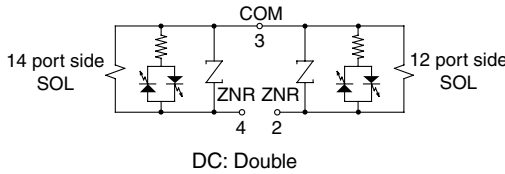
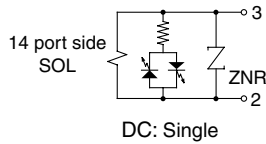
EVS

VFN

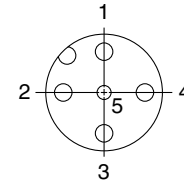
⚠ Precautions

⚠ Caution

Internal Wiring Specifications



M12 connector: Wiring specifications

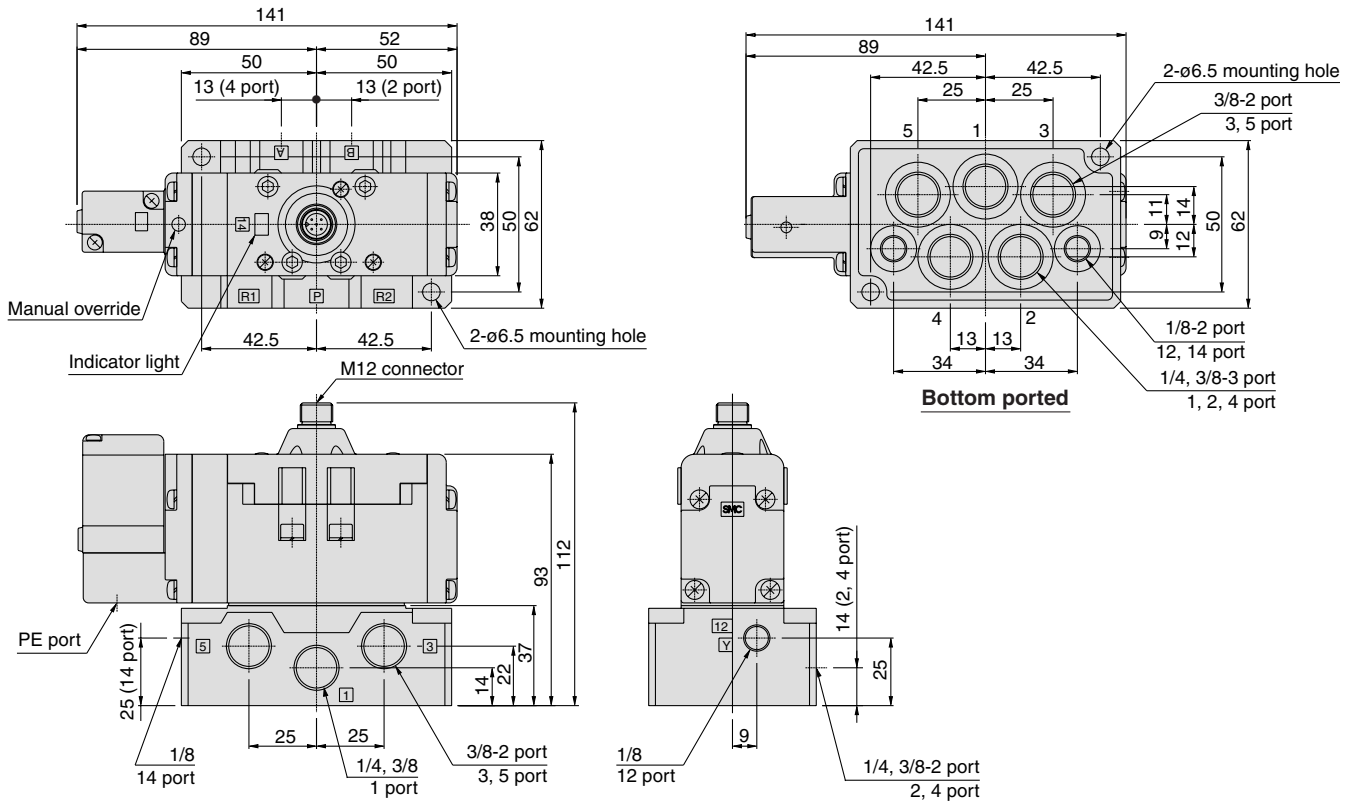


- Pin no.
- 1: Open
- 2: 12 port side SOL (+)
- 3: COM (-)
- 4: 14 port side SOL (+)
- 5: Ground

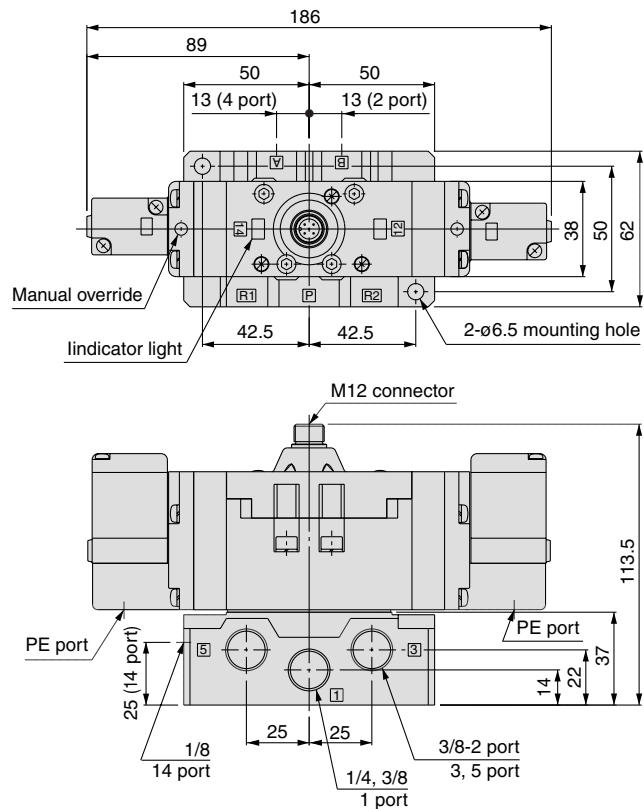
Series EVS7-□

Dimensions

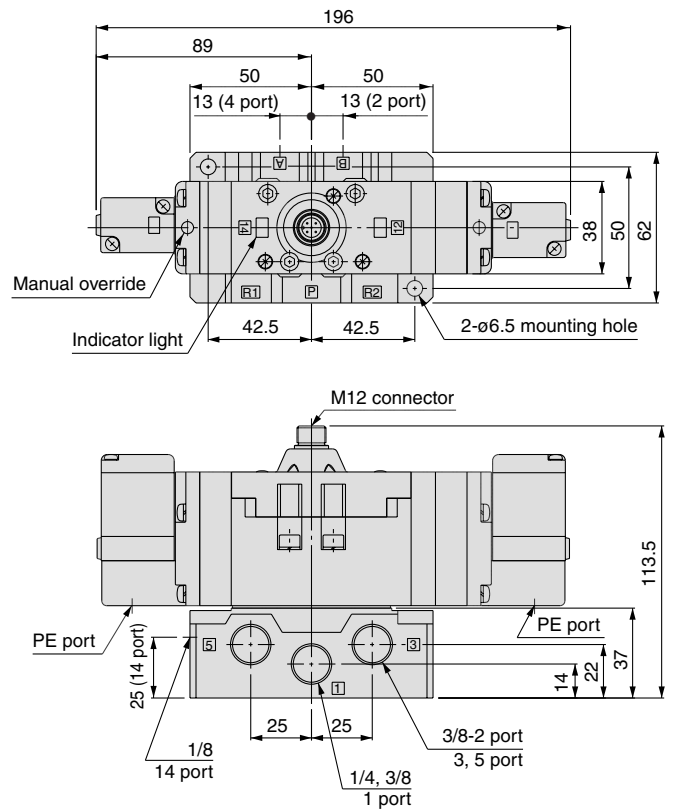
EVS7-6-FG-S-□□M0



EVS7-6-FG-D-□□M0



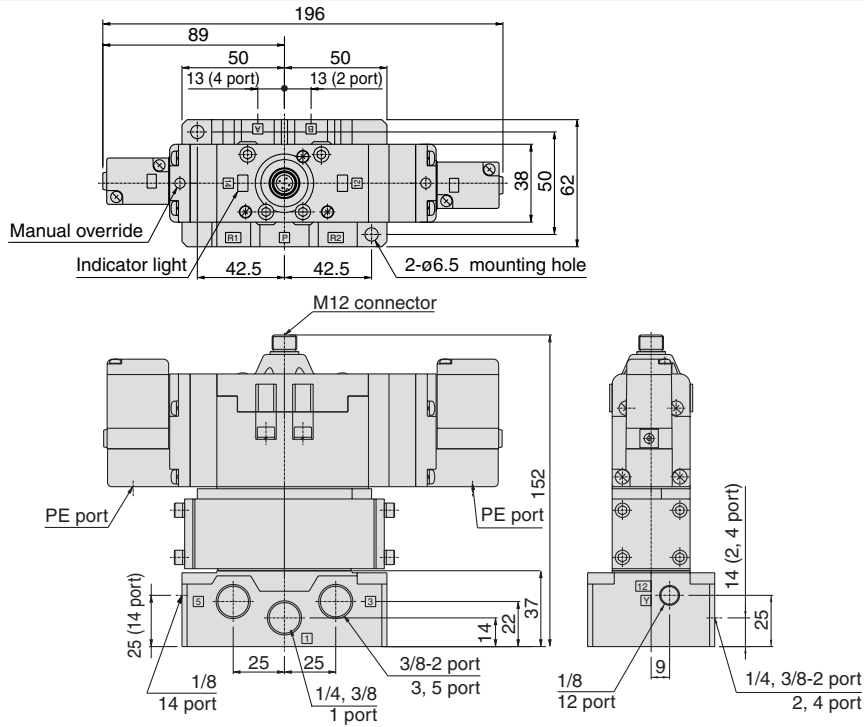
EVS7-6-F^HJG-D-□□M0



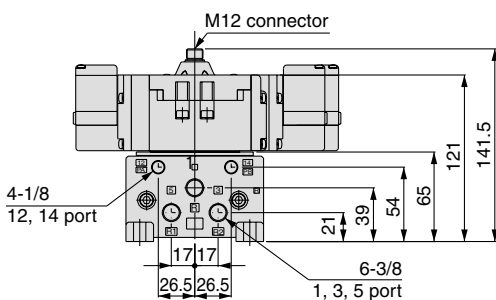
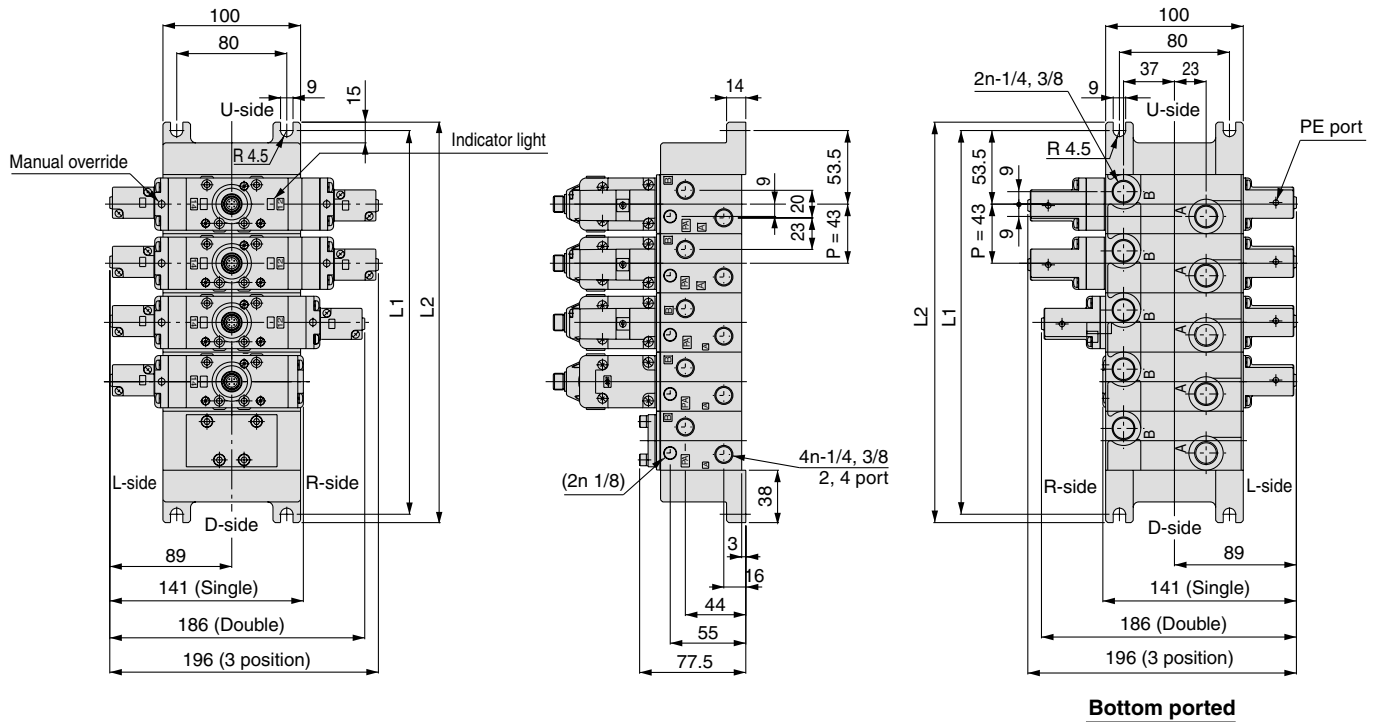
Conforming to ISO Standard Solenoid Valve (with M12 Connector) **Series EVS7-□**

Dimensions

EVS7-6-FPG-D-□□M0



VV71□-□-□□□
(M Connector type)



L: Dimensions

n: Stations

L/n	1	2	3	4	5	6	7	8	9	10	Formula
L1	107	150	193	236	279	322	365	408	451	494	L1 = 43n + 64
L2	119	162	205	248	291	334	377	420	463	506	L2 = 43n + 76

VK

VZ

VF

VFR

VP4

VZS

VFS

VS4

VQ7

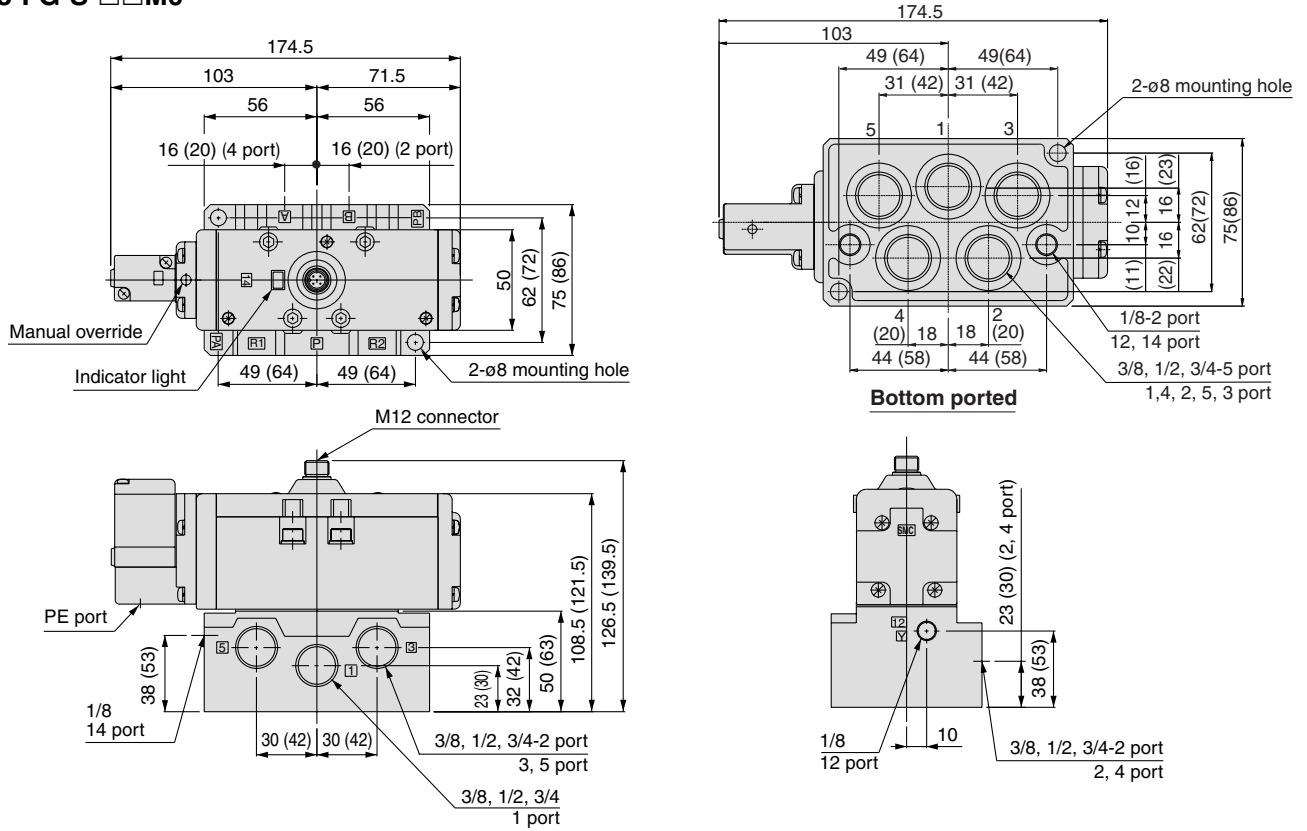
EVS

VFN

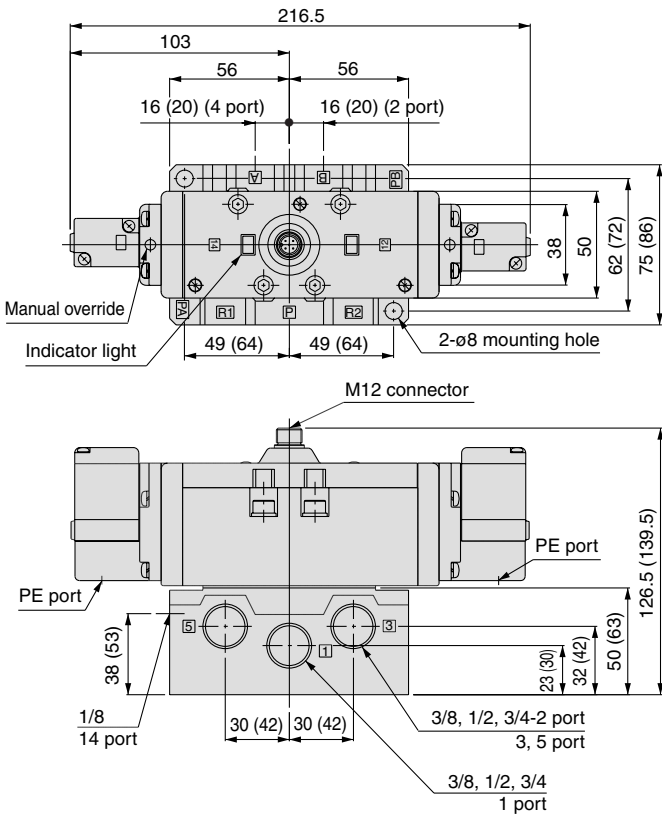
Series EVS7-□

Dimensions

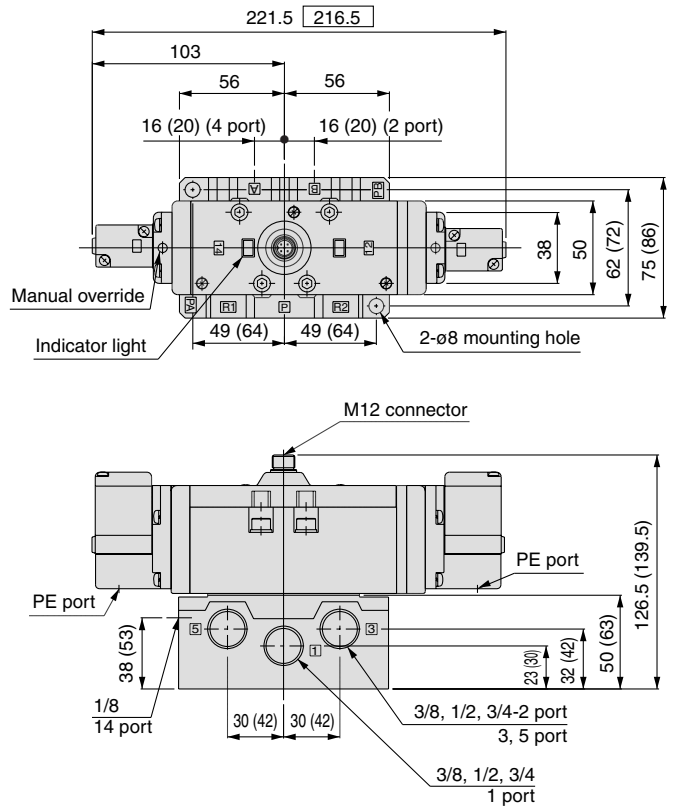
EVS7-8-FG-S-□□M0



EVS7-8-FG-D-□□M0



EVS7-8-F^HJ_IG-D-□□M0

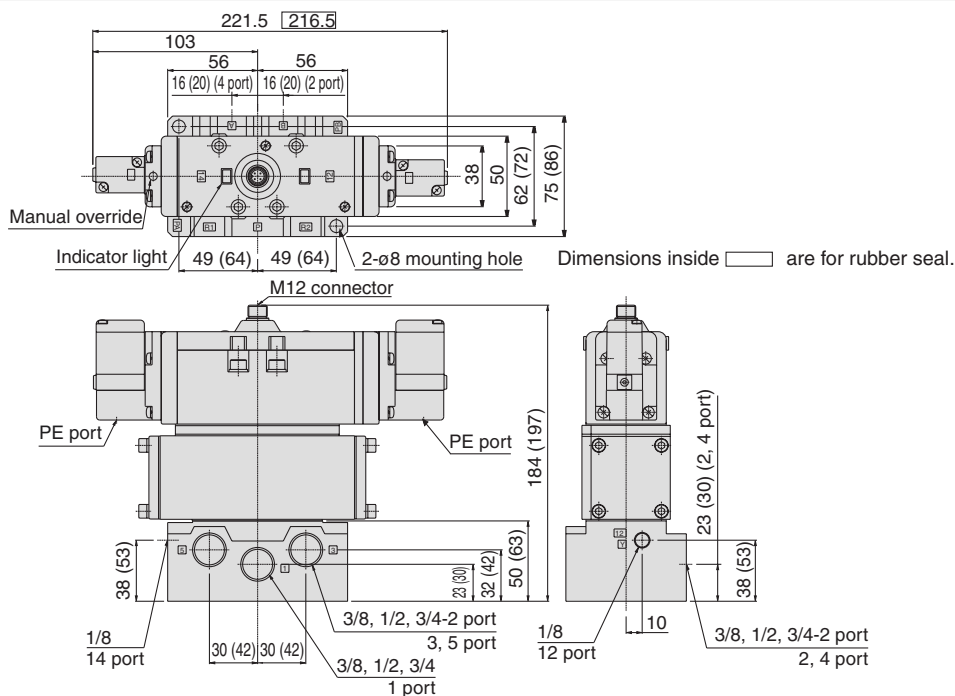


Dimension inside is for rubber seal.
Dimensions inside () are for Sub-plate.

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

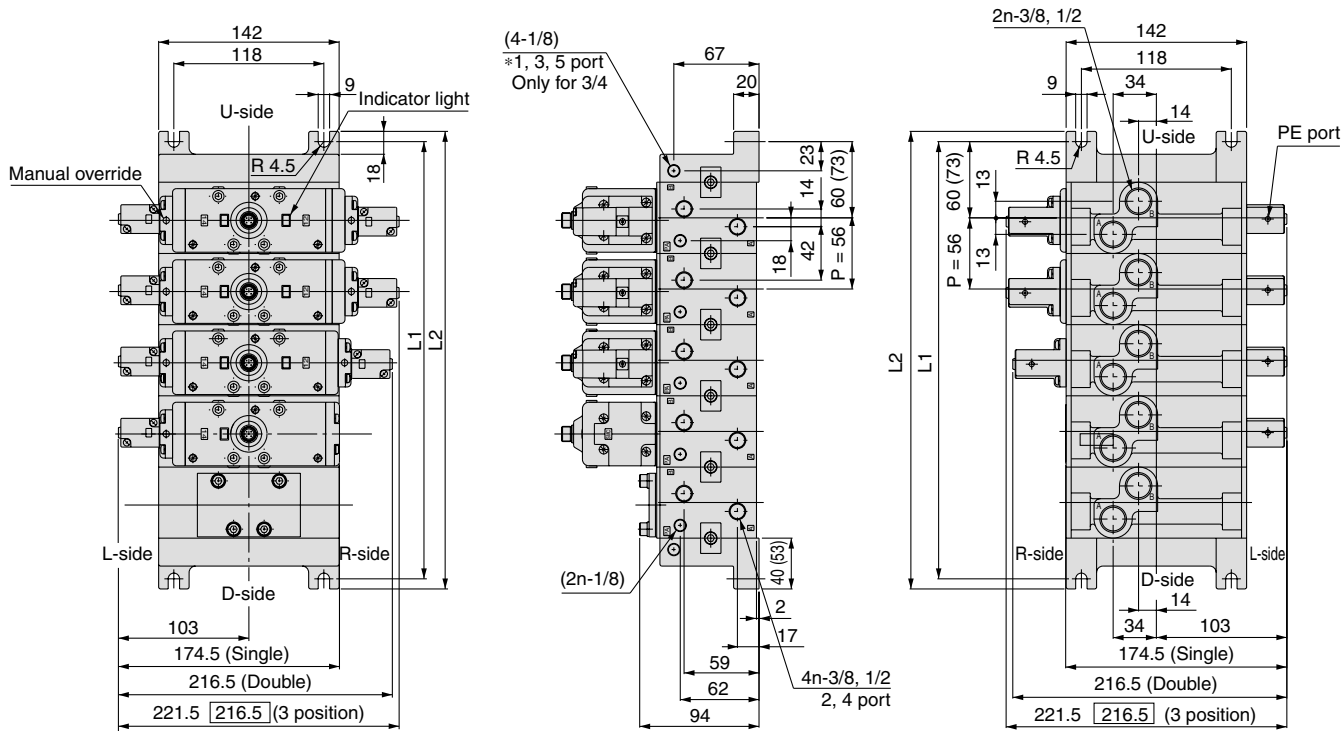
Dimensions

EVS7-8-FPG-D-□□M0



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

**VV72□-□-□□□
(M connector type)**



Bottom ported

L: Dimensions

n: Stations

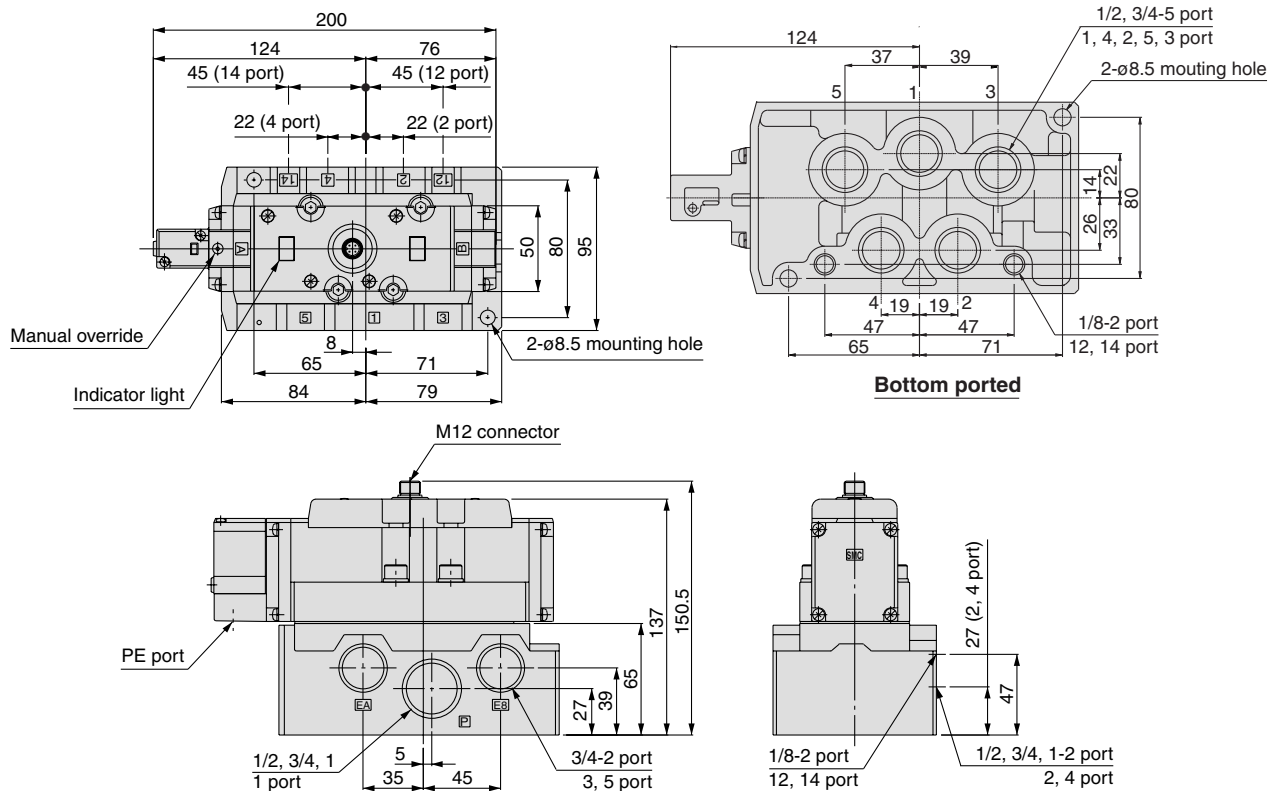
P, R1, R2 port	L	n										Formulas
		1	2	3	4	5	6	7	8	9	10	
Rc 1/2	L1	120	176	232	288	344	400	456	512	568	624	L1 = 56n + 64 L2 = 56n + 80
	L2	136	192	248	304	360	416	472	528	584	640	
Rc 3/4	L1	146	202	258	314	370	426	482	538	594	650	L1 = 56n + 90 L2 = 56n + 106
	L2	162	218	274	330	386	442	498	554	610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

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

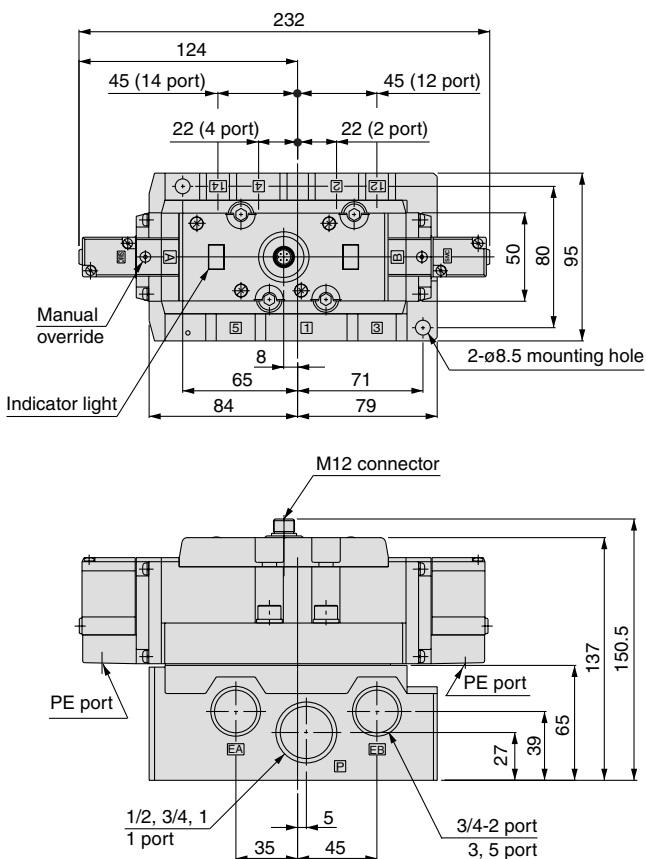
Series EVS7-□

Dimensions

EVS7-10-FG-S-□□M0



EVS7-10-FG-D-□□M0



EVS7-10-F^HJ^G-D-□□M0

