

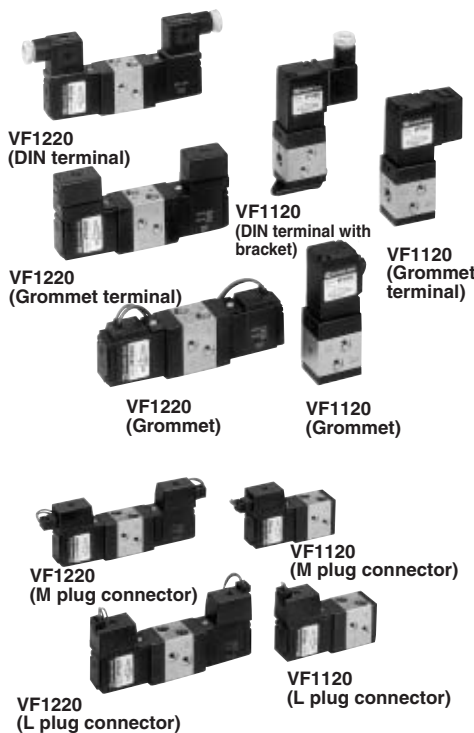
# 5 Port Pilot Operated Solenoid Valve Rubber Seal

## Series VF1000

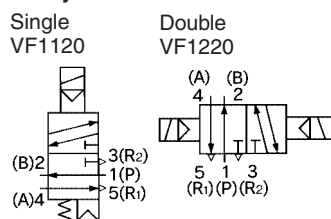
Compact and lightweight:  
26.4 mm width

Compact yet provides a  
large flow capacity:  
Sonic conductance  
C: 0.53 dm<sup>3</sup>/(s·bar)  
{4/2 → 5/3 (A/B → EA/EB)}

Low power consumption:  
1.8 W (DC)



### JIS Symbol



### Specifications

Fluid	Air	
Operating pressure range	2 position single	0.15 to 0.9 MPa
	2 position double	0.1 to 0.9 MPa
Ambient and fluid temperature	-10 to 50°C (No freezing. Refer to page 3-13-4.)	
Response time <sup>(1)</sup>	20 ms or less (at the pressure of 0.5 MPa)	
Max. operating frequency	10 Hz	
Lubrication	Not required	
Manual override	Non-locking push, Locking slotted, Locking knob	
Mounting orientation	Unrestricted	
Shock/Vibration resistance <sup>(2)</sup>	300/50 m/s <sup>2</sup>	
Enclosure	Dustproof	
Pilot valve EXH	Individual exhaust, Common exhaust for main valve and pilot valve	

Note 1) Based on dynamic performance test, JIS B 8375-1981. (Coil temperature: 20°C, at rated voltage, without surge suppressor)

Note 2) Impact resistance: No malfunction occurred when it is tested with a drop tester in the axial direction and at the right angles to the main valve and armature in both energized and de-energized states every once for each condition. (Values at the initial period)

Vibration resistance: No malfunction occurred in a one-sweep test between 45 and 2000 Hz. Test was performed at both energized and de-energized states in the axial direction and at the right angles to the main valve and armature. (Values at the initial period)

Electrical entry	Grommet, Grommet terminal, Conduit terminal DIN terminal, L plug connector, M plug connector		
Coil rated voltage (V)	AC 50/60 Hz	100, 200, 12*, 24*, 48*, 110*, 220*, 240*	
	DC	24, 6*, 12*, 48*, 100*, 110*	
Allowable voltage fluctuation	-15 to +10% of rated voltage		
Apparent power <sup>Note)</sup>	AC	Inrush	5.6 VA (50 Hz), 5.0 VA (60 Hz)
		Holding	3.4 VA (50 Hz), 2.3 VA (60 Hz)
Power consumption <sup>Note)</sup>	DC	1.8 W, 2 W (With indicator light)	
Light/Surge voltage suppressor	AC	ZNR (Varistor), Neon bulb (LED100 V or less)	
	DC	ZNR (Varistor), LED (Neon bulb100 V or more)	

\* Option Note) At rated voltage

### Option

Description	Part no.	Note
Bracket	DXT144-8-1A	For VF1220
	DXT144-8-3A	For VF1120
Silencer	AN120-M5	M5 x 0.8
Throttle valve	DXT154-34-1A	With element

### Flow Characteristics/Weight

Valve model	Type of actuation	Port size	Flow characteristics						Weight <sup>Note)</sup> (kg)	
			1 → 4/2 (P → A/B)			4/2 → 5/3 (A/B → EA/EB)				
			C [dm <sup>3</sup> /(s·bar)]	b	Cv	C [dm <sup>3</sup> /(s·bar)]	b	Cv		
Body ported	VF1120	2 position single	1/8	0.76	0.22	0.17	0.53	0.28	0.13	0.16
	VF1220	2 position double	1/8	0.76	0.22	0.17	0.53	0.28	0.13	0.25

Note) Weight stands for grommet type.

### Manifold

Model <sup>Note)</sup>	Applicable manifold type		
	Type	Exhaust	A, B port
VF1□30-□□-01	B mount	Type 30	Common Valve
		Type 31	Individual Valve

Note) For common exhaust type for main and pilot valve, model number will be VF113□□, VF123□□.

VK

VZ

VF

VFR

VP4

VZS

VFS

VS4

VQ7

EVS

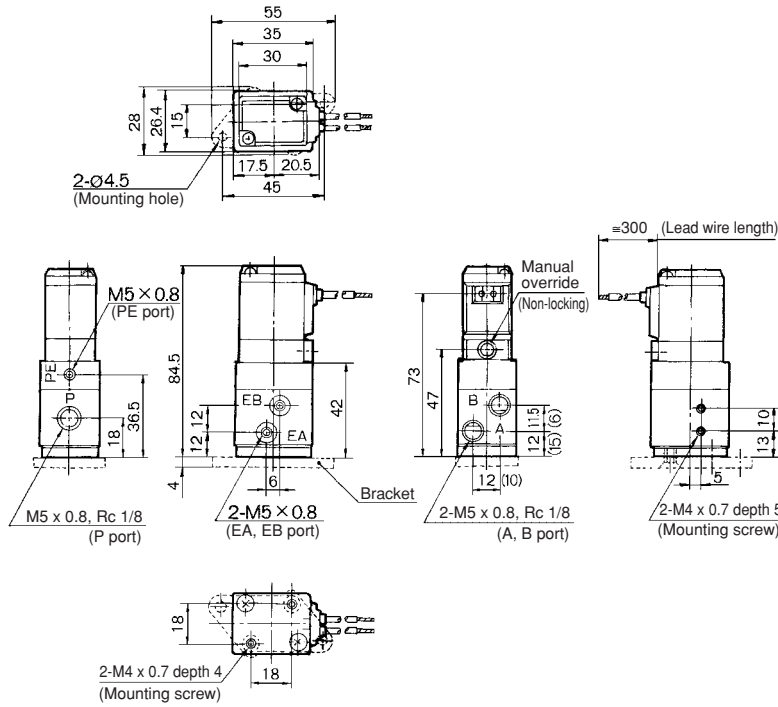
VFN



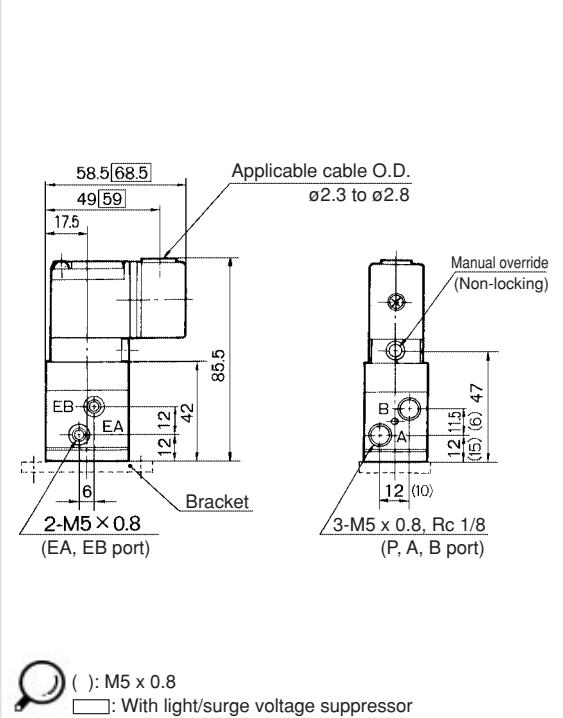
# 5 Port Pilot Operated Solenoid Valve Rubber Seal Series VF1000

## 2 Position Single Solenoid

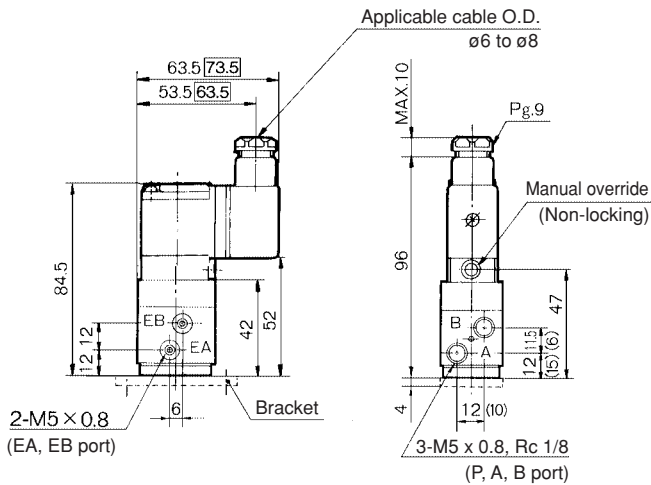
Grommet: VF1120-□G-M<sup>5</sup><sub>01</sub>



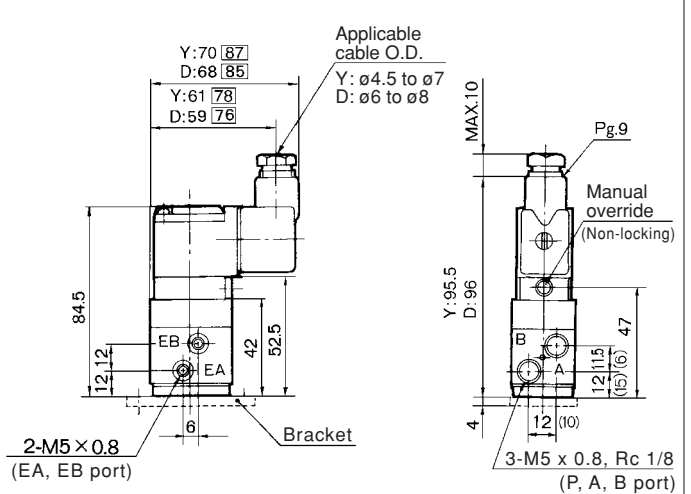
Grommet terminal: VF1120-□E-M<sup>5</sup><sub>01</sub>



Conduit terminal: VF1120-□T-M<sup>5</sup><sub>01</sub>



DIN terminal: VF1120-□D-M<sup>5</sup><sub>01</sub>  
VF1120-□Y-M<sup>5</sup><sub>01</sub>



VK

VZ

VF

VFR

VP4

VZS

VFS

VS4

VQ7

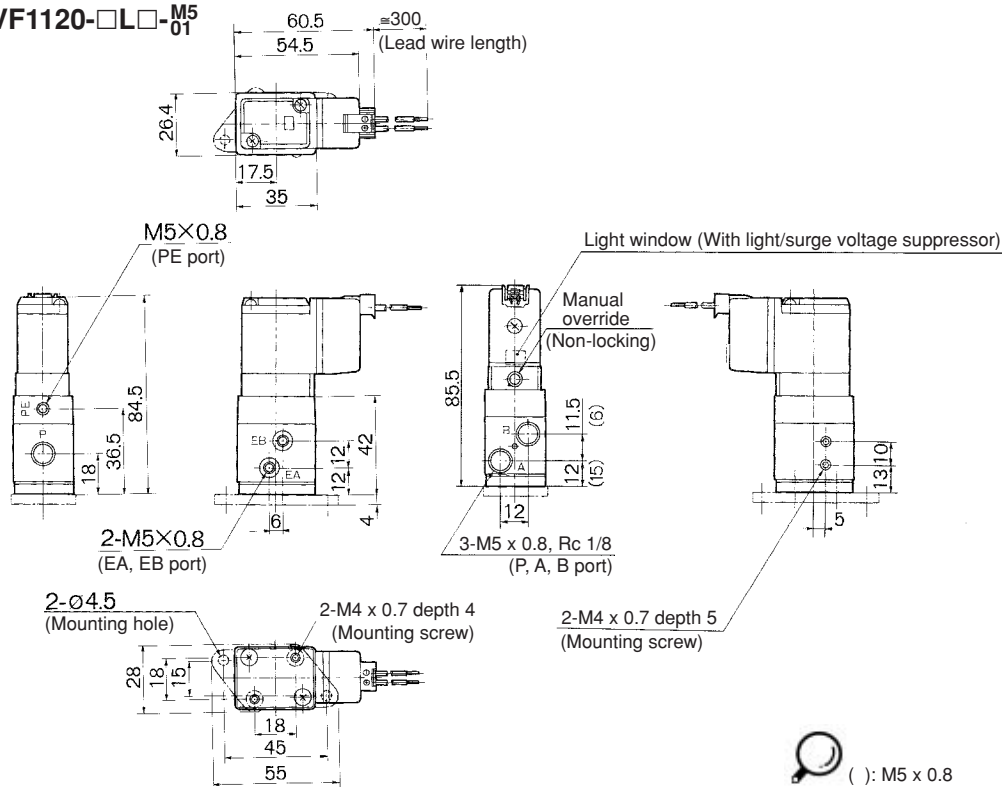
EVS

VFN

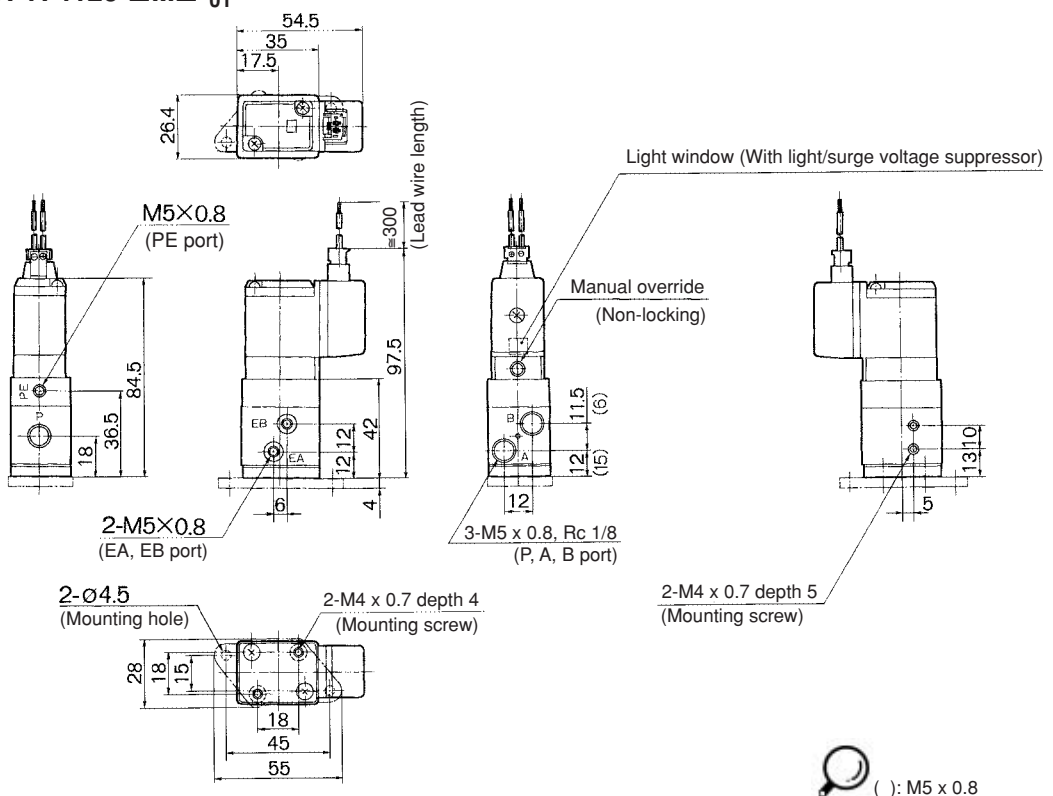
# Series VF1000

## 2 Position Single Solenoid

L plug connector: VF1120-□L□-M5<sub>01</sub>



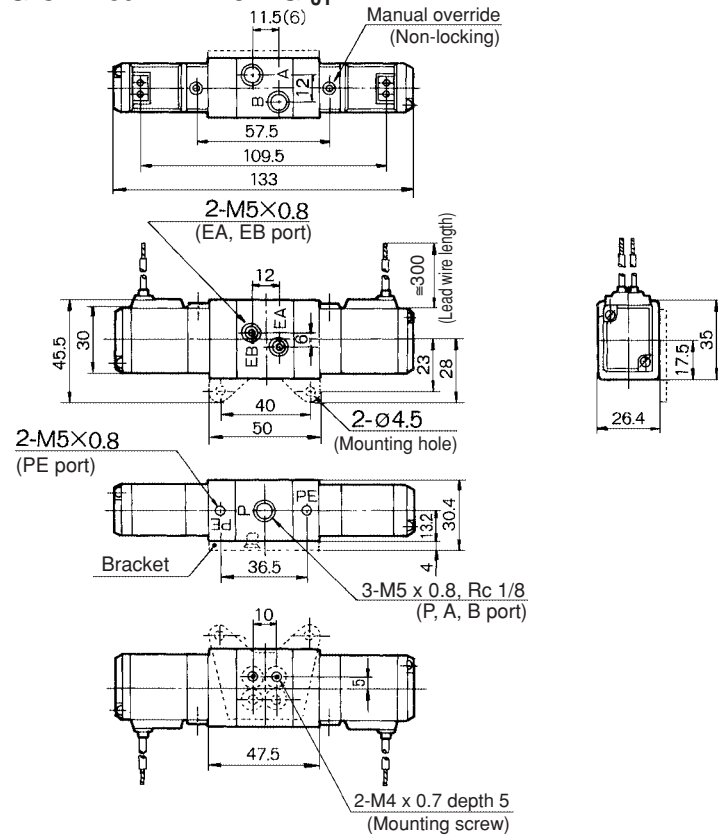
M plug connector: VF1120-□M□-M5<sub>01</sub>



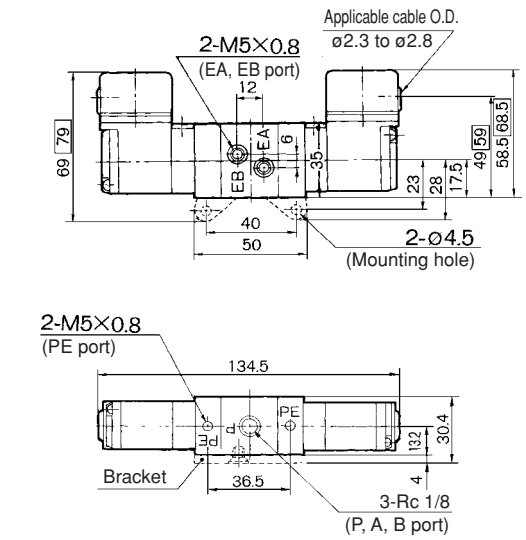
# 5 Port Pilot Operated Solenoid Valve Rubber Seal Series VF1000

## 2 Position Double Solenoid

### Grommet: VF1220-□G-M<sup>5</sup><sub>01</sub>

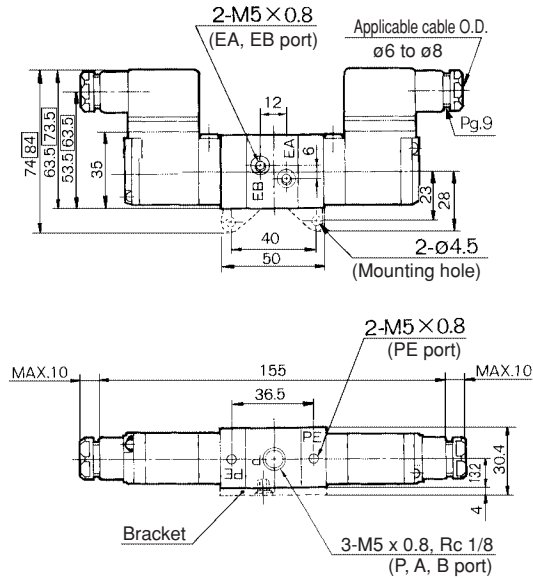


### Grommet terminal: VF1220-□E-M<sup>5</sup><sub>01</sub>



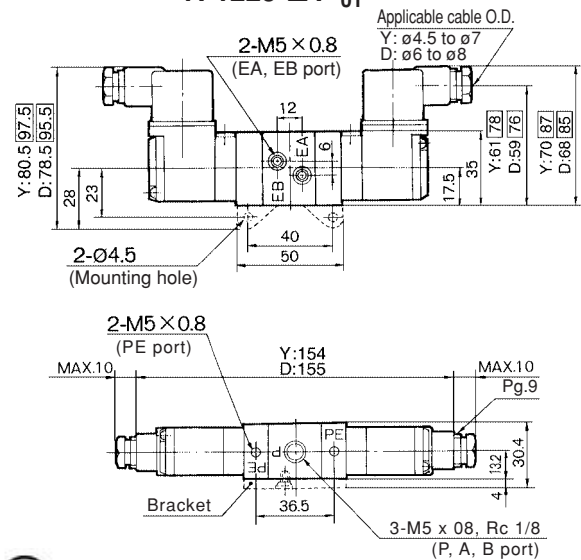
⊙ ( ) : M5 x 0.8  
 □ : With light/surge voltage suppressor

### Conduit terminal: VF1220-□T-M<sup>5</sup><sub>01</sub>



⊙ □ : With light/surge voltage suppressor

### DIN terminal: VF1220-□D-M<sup>5</sup><sub>01</sub> VF1220-□Y-M<sup>5</sup><sub>01</sub>



⊙ □ : With light/surge voltage suppressor

VK

VZ

VF

VFR

VP4

VZS

VFS

VS4

VQ7

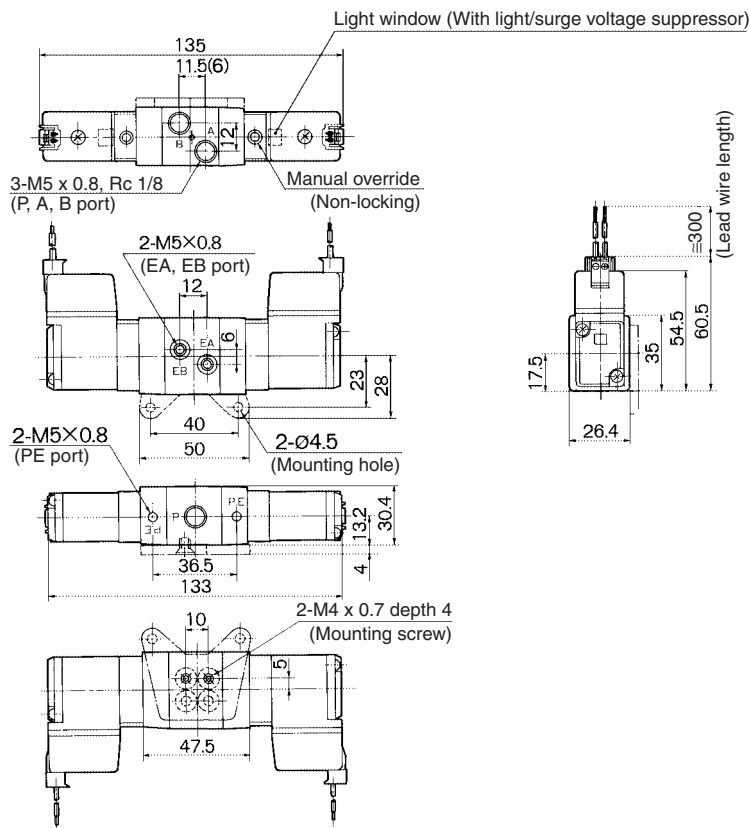
EVS

VFN

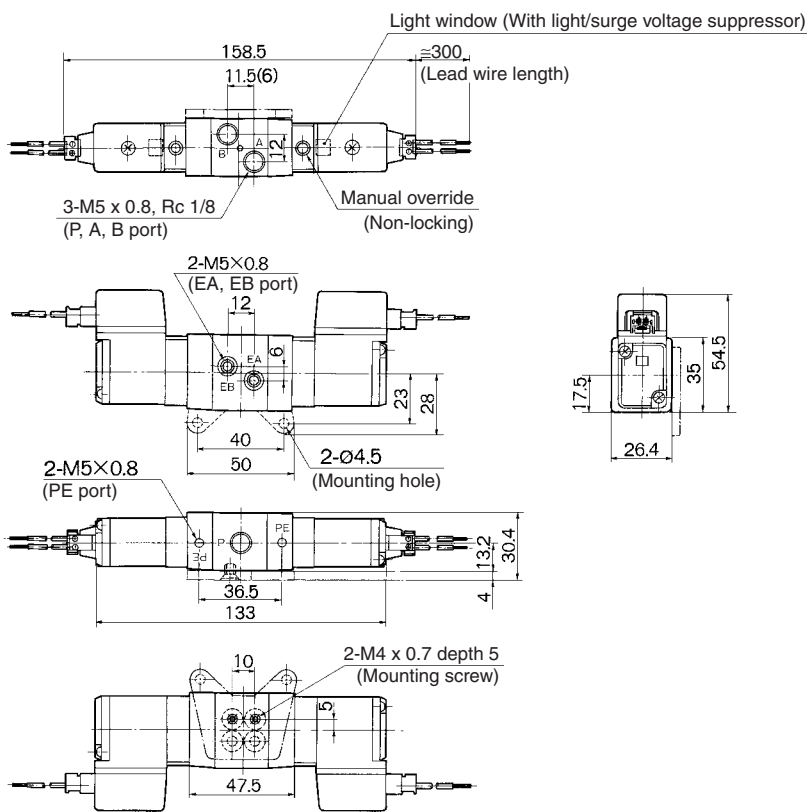
# Series VF1000

## 2 Position Double Solenoid

L plug connector: VF1220-□L□-M5<sub>01</sub>



M plug connector: VF1220-□M□-M5<sub>01</sub>



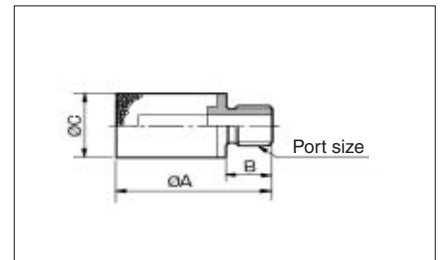
### Option

#### Specifications: Silencer

Model	AN120-M5	AN110-01
Maximum operating pressure	1.0 MPa	1.0 MPa
Fluid temperature	5 to 60°C	5 to 60°C
Noise reduction*	18 dB or more	21 dB or more
Effective area	5 mm <sup>2</sup>	35 mm <sup>2</sup>
Port size	M5 x 0.8	R 1/8
Material	Body BC-6	BC-6
Weight	3.3 g	20 g
Application	Single unit, Manifold (Individual EXH type)	Manifold (Common EXH type)

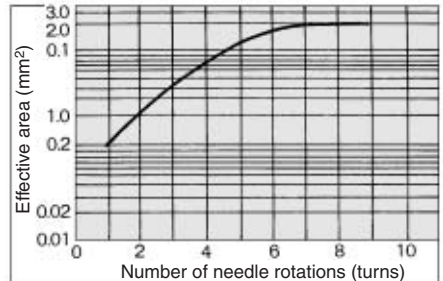
\* At 0.5 MPa

#### Dimensions: Silencer



Type	AN120-M5	AN110-01
Dimensions		
A	17	38
B	5	6
C	8	13

#### Flow Characteristics: Throttle Valve DXT154-34-1A



Effective area:  $S = 2.2 \text{ mm}^2$ ,  $C_v = 0.12$   
Air passage: A port → EA port (Throttle valve)

#### Dimensions: Throttle Valve DXT154-34-1A

