

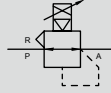


Digital electro pneumatic regulator

# EVD-1000 Series

IO-Link

JIS symbol



## Specifications

Item	EVD-1100-C [*2] [*3]	EVD-1500-C [*2] [*3]	EVD-1900-C [*2] [*3]	
Working fluid	Clean compressed air (ISO 1. 3. 2 or equivalent)			
Max. working pressure	160 kPa	700 kPa	1000 kPa	
Min. working pressure	Control pressure + 50 kPa			
Proof pressure	Inlet	240 kPa	1050 kPa	1500 kPa
	Output side	150 kPa	750 kPa	1350 kPa
Pressure control range *1	0 to 100 kPa	0 to 500 kPa	0 to 900 kPa	
Power supply voltage	24 VDC ± 10% (stabilized power supply with ripple rate 1% or less)			
Current consumption *2	0.15 A or less (0.6 A or less starting current when power is ON) (Port type A)			
Input signal	IO-Link			
Preset input	8-point (IO-Link)			
Pressure display	Display method	7-segment LED 3 digits, indicator accuracy: ± 2% F.S. or less		
	Display range	0 to 100 kPa	0 to 500 kPa	0 to 900 kPa
	Display resolution	1 kPa	1 kPa	1 kPa
Direct memory setting	1 to 100 kPa (Min. setting width 1 kPa / setting resolution 1 kPa)	5 to 500 kPa (Min. setting width 1 kPa / setting resolution 1 kPa)	9 to 900 kPa (Min. setting width 1 kPa / setting resolution 2 kPa)	
Hysteresis *3	0.5% F.S. or less			
Linearity *3	±0.3% F.S. or less			
Resolution *3	0.2% F.S. or less			
Repeatability *3	0.3% F.S. or less			
Temperature characteristics	Zero point fluctuation	±0.15% F.S./°C or less		
	Span fluctuation	±0.07% F.S./°C or less		
Max. flow rate (ANR) *4	60 L/min	400 L/min		
Step response *5	No load	0.2 sec. or less		
Vibration resistance	98 m/s <sup>2</sup> or less			
Ambient temperature	5 to 50 °C			
Fluid temperature	5 to 50 °C			
Port size [*2]	Rc1/4 when [*2] = 08 G1/4 when [*2] = 08G NPT1/4 when [*2] = 08N			
Unit change [*3] *6	Blank	No unit change function		
	KA	Unit change kPa / psi / bar (Accessory: Unit seal psi / bar)		
Mounting orientation	Free			
Weight (body)	250 g			
Protection circuit	Power supply reverse connection protection			

\*1: There is 1% F.S. or less residual pressure when the input signal is 0%. (EVD-1100: 1 kPa or less, EVD-1500: 5 kPa or less, EVD-1900: 9 kPa or less)

\*2: Ensure that the power supply capacity per IO-Link master port is sufficient.

\*3: The above characteristics apply in the control pressure 10 to 90% range with a 24 VDC ± 0.1 V power voltage and the working pressure set to maximum control pressure + 50 kPa (EVD-1100), or maximum control pressure + 100 kPa (EVD-1500, 1900). (No load, ambient temperature: 25 ± 3 °C)  
In addition, when the secondary side is a closed circuit, pressure fluctuations will occur if the product is used for blowing or for similar applications.

\*4: The characteristics where working pressure is maximum and control pressure is maximum are shown.

\*5: The value above is obtained at the max. working pressure and when the step amount changes from

}	50% F.S. → 100% F.S.
	50% F.S. → 60% F.S.
	50% F.S. → 40% F.S.

\*6: The unit change function KA type is available only outside Japan.

## How to order

EVD-1 (500) - (C) (08) (KA) - (MS) - (3)

Ⓐ Pressure control range

Ⓑ Input signal

Ⓒ Port size

Ⓓ Unit change

Ⓔ Option

● Discrete option (cable, bracket) model No.

**EVD-MS3**

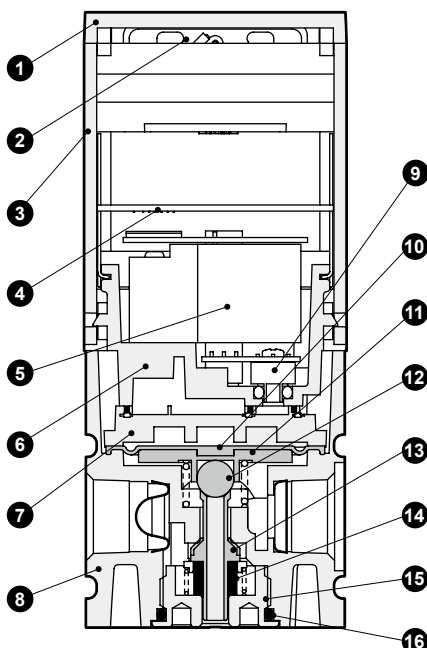
Code	Description
<b>Cable option</b>	
MS3	Straight (female), straight (male) 3 m
ML3	L type (female) / straight (male) 3 m
MM3	One side straight (female) 3 m
<b>Bracket option</b>	
B1	B-bracket, floor mounted
L1	L-bracket, wall mounted

Code	Description
<b>Ⓐ Pressure control range</b>	
100	100 kPa
500	500 kPa
900	900 kPa
<b>Ⓑ Input signal</b>	
C	IO-Link
<b>Ⓒ Port size</b>	
08	Rc1/4
08G	G1/4
08N	NPT1/4
<b>Ⓓ Unit change *1</b>	
Blank	Unit change: No
KA	Unit change: Yes
<b>Ⓔ Option</b>	
<b>Cable option</b>	
Blank	None
MS	IO-Link Straight (female), straight (male) 3 m
ML	IO-Link L type (female) / straight (male) 3 m
MM	IO-Link One side straight (female) 3 m
<b>Bracket option</b>	
Blank	None
B1	B-bracket, floor mounted
L1	L-bracket, wall mounted
<b>Ⓕ Power supply voltage</b>	
3	24 VDC

Ⓕ Power supply voltage

\*1: The unit change function KA type is available only for outside Japan.

## Internal structure and parts list

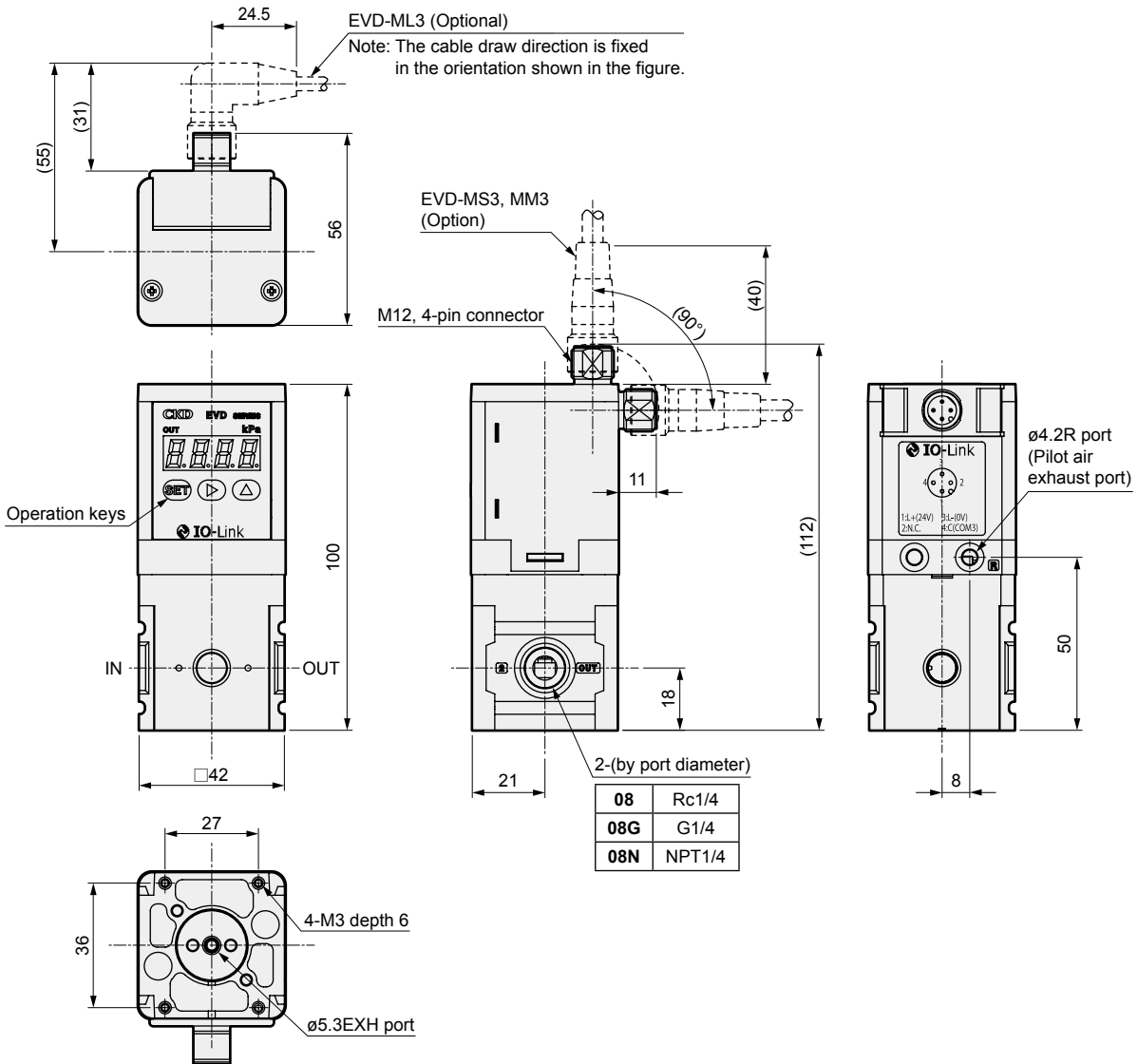


No.	Part name	Material
1	Lid	PBT resin
2	M12 connector	-
3	Housing	ABS resin
4	Controller board	-
5	3-way valve	-
6	Valve base	Polyphenylene sulfide resin
7	Pilot chamber	Polyphenylene sulfide resin
8	Body	Aluminum alloy die-casting
9	Pressure sensor	-
10	Diaphragm	Special nitrile rubber
11	Relief seat	Aluminum alloy
12	Steel ball (exhaust valve)	Stainless steel
13	Valve	Special nitrile rubber, stainless steel
14	Bottom rubber	Silicone rubber
15	Bottom plug	Copper alloy, electroless nickeling
16	O-ring	Fluoro rubber

**Cannot be disassembled**

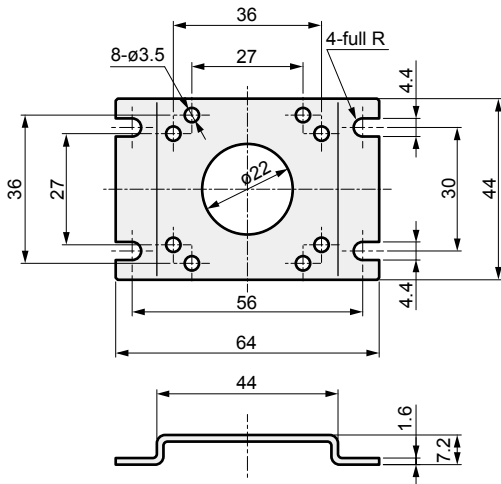
# EVD-1000 Series

## Dimensions



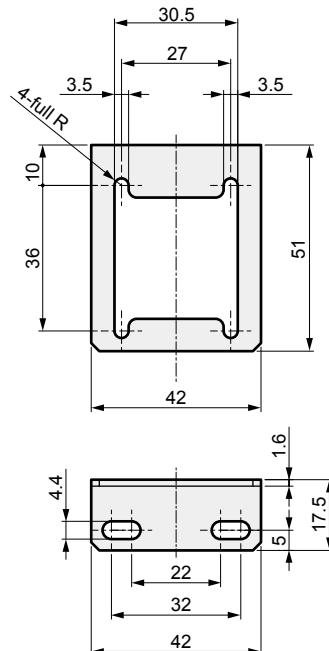
## Optional dimensions

● B-bracket (-B1): Floor mounted



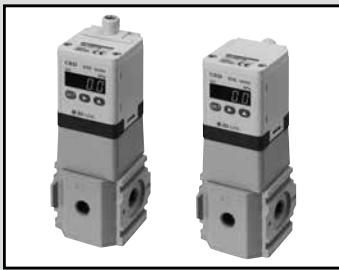
Material: SPCC  
 Ni plated  
 Weight: 32 g

● L-bracket (-L1): Wall mounted



Material: SPCC  
 Ni plated  
 Weight: 21 g

\* Refer to page 9 for details of cable option dimensions.

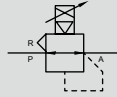


Digital electro pneumatic regulator

# EVD-3000 Series

IO-Link

JIS symbol



## Specifications

Item	EVD-3100-C [*2] [*3]	EVD-3500-C [*2] [*3]	EVD-3900-C [*2] [*3]	
Working fluid	Clean compressed air (ISO 1. 3. 2 or equivalent)			
Max. working pressure	160 kPa	700 kPa	1000 kPa	
Min. working pressure	Control pressure + 50 kPa			
Proof pressure	Inlet	240 kPa	1050 kPa	1500 kPa
	Output side	150 kPa	750 kPa	1350 kPa
Pressure control range *1	0 to 100 kPa	0 to 500 kPa	0 to 900 kPa	
Power supply voltage	24 VDC ±10% (stabilized power supply with ripple rate 1% or less)			
Current consumption *2	0.15 A or less (0.6 A or less starting current when power is ON) (Port type A)			
Input signal	IO-Link			
Preset input	8-point (IO-Link)			
Pressure display	Display method	7-segment LED 3 digits, indicator accuracy: ± 2% F.S. or less		
	Display range	0 to 100 kPa	0 to 500 kPa	0 to 900 kPa
	Display resolution	1 kPa	1 kPa	1 kPa
Direct memory setting	1 to 100 kPa (Min. setting width 1 kPa / setting resolution 1 kPa)	5 to 500 kPa (Min. setting width 1 kPa / setting resolution 1 kPa)	9 to 900 kPa (Min. setting width 1 kPa / setting resolution 2 kPa)	
Hysteresis *3	0.5% F.S. or less			
Linearity *3	±0.3% F.S. or less			
Resolution *3	0.2% F.S. or less			
Repeatability *3	0.3% F.S. or less			
Temperature characteristics	Zero point fluctuation	±0.15% F.S./°C or less		
	Span fluctuation	±0.07% F.S./°C or less		
Max. flow rate (ANR) *4	700 L/min	1500 L/min		
Step response *5	No load	0.2 sec. or less		
Vibration resistance	98 m/s <sup>2</sup> or less			
Ambient temperature	5 to 50 °C			
Fluid temperature	5 to 50 °C			
Port size [*2]	Rc1/4 when [*2] = 08, Rc3/8 when [*2] = 10 G1/4 when [*2] = 08G, G3/8 when [*2] = 10G NPT1/4 when [*2] = 08N, NPT3/8 when [*2] = 10N			
Unit change [*3] *6	Blank	No unit change function		
	KA	Unit change kPa / psi / bar (Accessory: Unit seal psi / bar)		
Mounting orientation	Free			
Weight (body)	470 g			
Protection circuit	Power supply reverse connection protection			

\*1: There is 1% F.S. or less residual pressure when the input signal is 0%. (EVD-3100: 1 kPa or less, EVD-3500: 5 kPa or less, EVD-3900: 9 kPa or less)

\*2: Ensure that the power supply capacity per IO-Link master port is sufficient.

\*3: The above characteristics apply in the control pressure 10 to 90% range with a 24 VDC ± 0.1 V power voltage and the working pressure set to maximum control pressure + 50 kPa (EVD-3100), or maximum control pressure + 100 kPa (EVD-3500, 3900). (No load, ambient temperature: 25 ± 3 °C)  
In addition, when the secondary side is a closed circuit, pressure fluctuations will occur if the product is used for blowing or for similar applications.

\*4: The characteristics where working pressure is maximum and control pressure is maximum are shown.

\*5: The value above is obtained at the max. working pressure and when the step amount changes from

}	50% F.S. → 100% F.S.
	50% F.S. → 60% F.S.
	50% F.S. → 40% F.S.

\*6: The unit change function KA type is available only outside Japan.

# EVD-3000 Series

How to order

EVD-3 **500** - **C** **08** **KA** - **MS** - **3**

**A** Pressure control range

**B** Input signal

**C** Port size

**D** Unit change

**E** Option

● Discrete option (cable, bracket) model No.

EVD- **MS3**

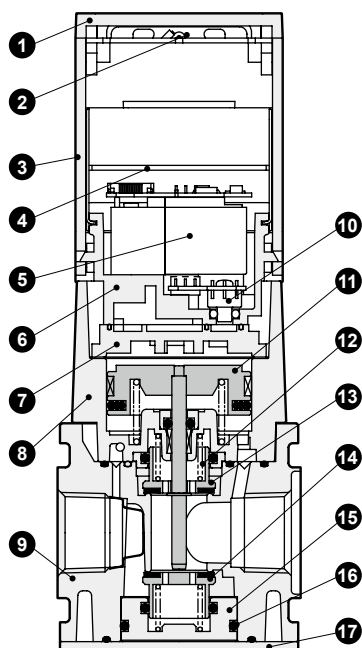
Code	Description
<b>Cable option</b>	
MS3	Straight (female), straight (male) 3 m
ML3	L type (female) / straight (male) 3 m
MM3	One side straight (female) 3 m
<b>Bracket option</b>	
B3	B-bracket, floor mounted
L3	L-bracket, wall mounted

Code	Description
<b>A Pressure control range</b>	
100	100 kPa
500	500 kPa
900	900 kPa
<b>B Input signal</b>	
C	IO-Link
<b>C Port size</b>	
08	Rc1/4
10	Rc3/8
08G	G1/4
10G	G3/8
08N	NPT1/4
10N	NPT3/8
<b>D Unit change *1</b>	
Blank	Unit change: No
KA	Unit change: Yes
<b>E Option</b>	
<b>Cable option</b>	
Blank	None
MS	IO-Link Straight (female), straight (male) 3 m
ML	IO-Link L type (female) / straight (male) 3 m
MM	IO-Link One side straight (female) 3 m
<b>Bracket option</b>	
Blank	None
B3	B-bracket, floor mounted
L3	L-bracket, wall mounted
<b>F Power supply voltage</b>	
3	24 VDC

**F** Power supply voltage

\*1: The unit change function KA type is available only for outside Japan.

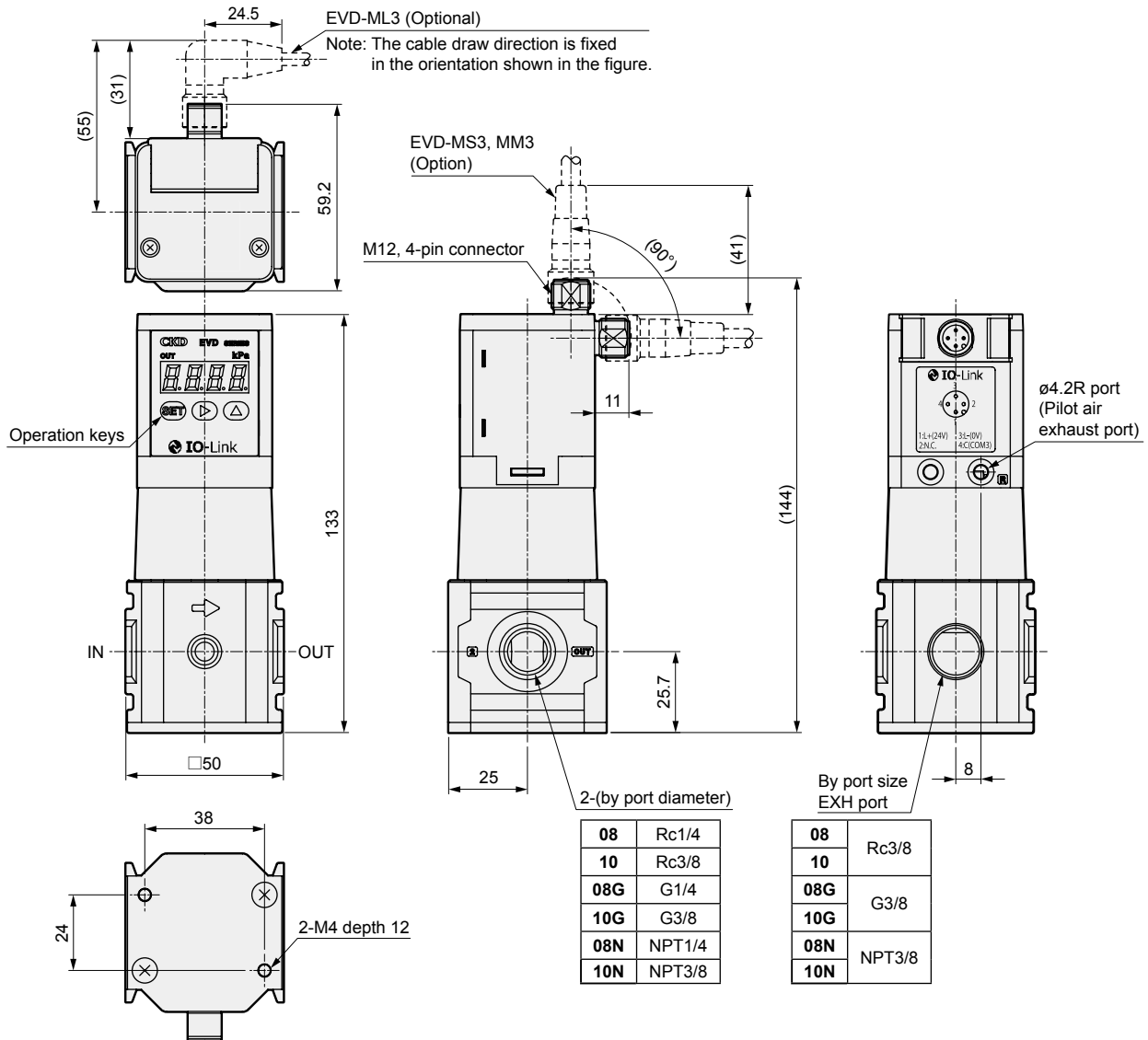
## Internal structure and parts list



No.	Part name	Material
1	Lid	PBT resin
2	M12 connector	-
3	Housing	ABS resin
4	Controller board	-
5	3-way valve	-
6	Valve base	Polyphenylene sulfide resin
7	Pilot chamber	Polyphenylene sulfide resin
8	Piston body assembly	Aluminum alloy die-casting, etc.
9	Body	Aluminum alloy die-casting
10	Pressure sensor	-
11	Piston assembly	Aluminum alloy, stainless steel, etc.
12	Spring	Stainless steel
13	Top valve	Copper alloy, special nitrile rubber
14	Bottom valve	Copper alloy, special nitrile rubber
15	Bottom cap	Copper alloy
16	O-ring	Nitrile rubber
17	Base plate	Steel plate

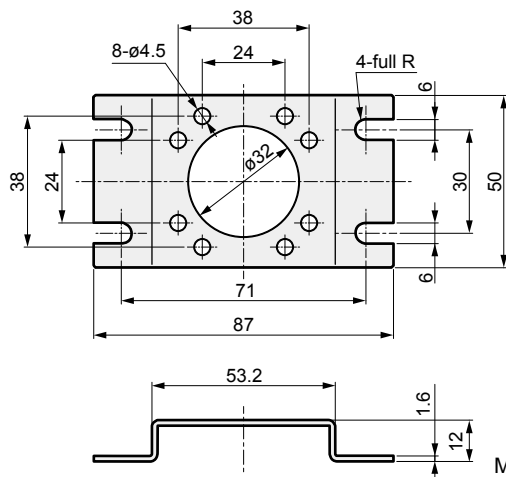
**Cannot be disassembled**

## Dimensions



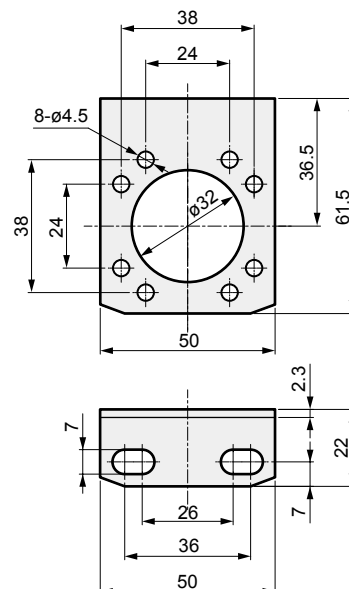
## Optional dimensions

● B-bracket (-B3): Floor mounted



Material: SPCC  
 Ni plated  
 Weight: 48 g

● L-bracket (-L3): Wall mounted

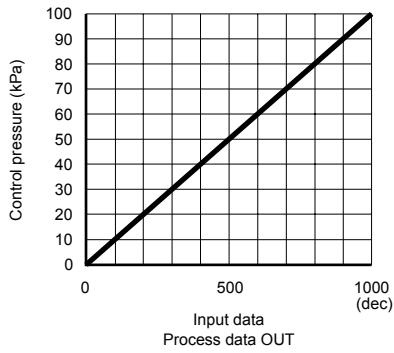


Material: SPCC  
 Ni plated  
 Weight: 51 g

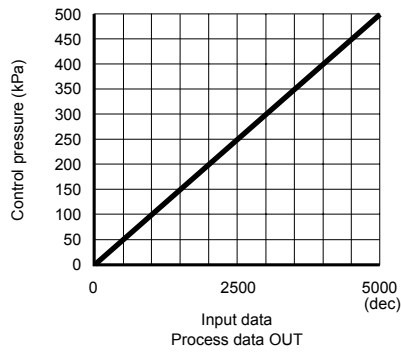
\* Refer to page 9 for details of cable option dimensions.

## I/O characteristics

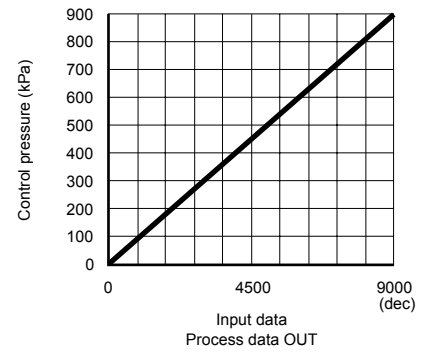
● EVD-1100/3100



● EVD-1500/3500

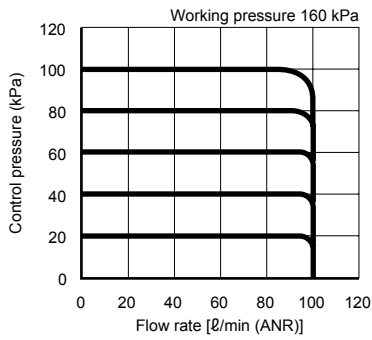


● EVD-1900/3900

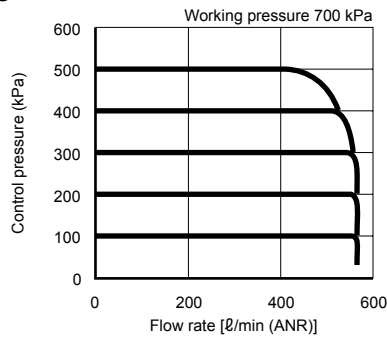


## Flow characteristics

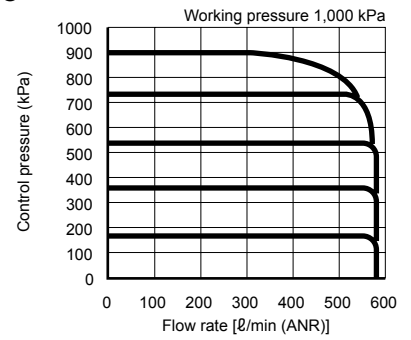
● EVD-1100



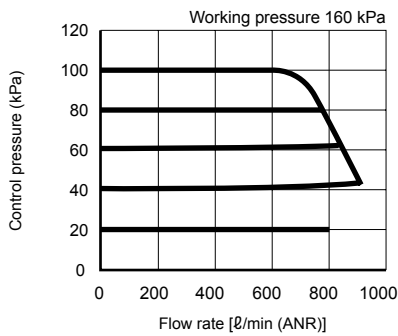
● EVD-1500



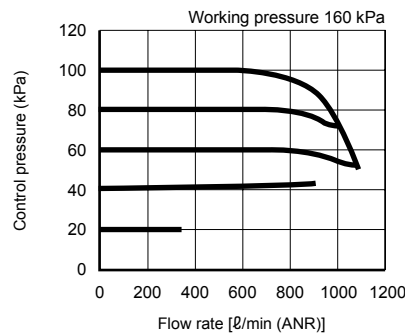
● EVD-1900



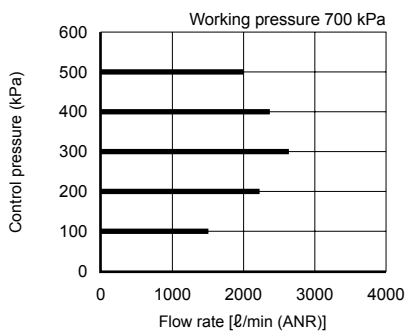
● EVD-3100-□08



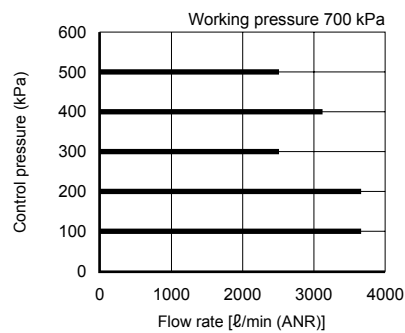
● EVD-3100-□10



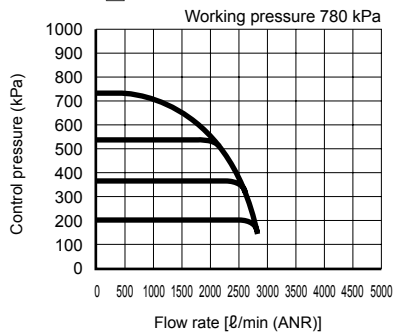
● EVD-3500-□08



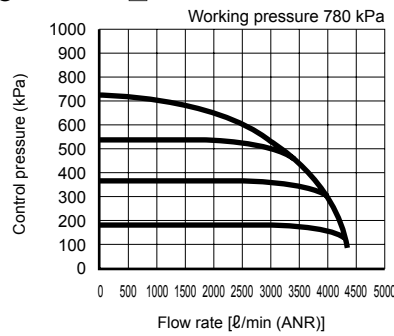
● EVD-3500-□10



● EVD-3900-□08

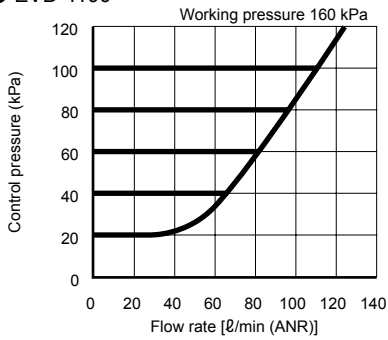


● EVD-3900-□10

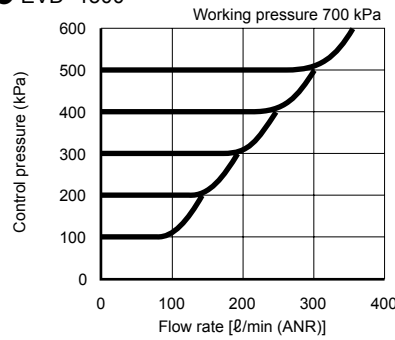


### Relief characteristics

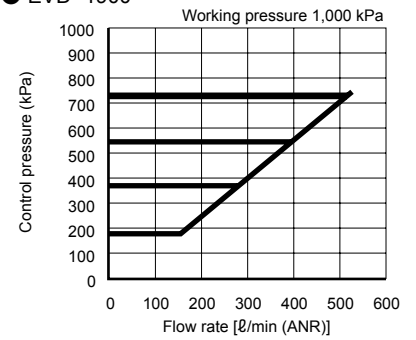
● EVD-1100



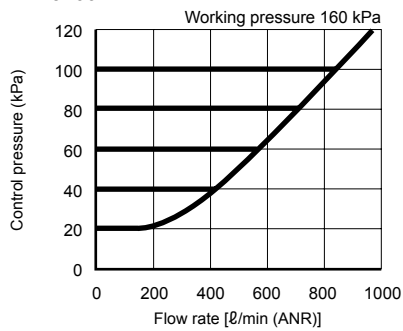
● EVD-1500



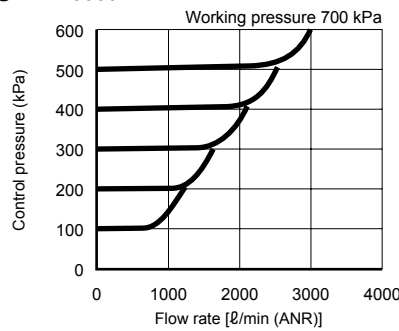
● EVD-1900



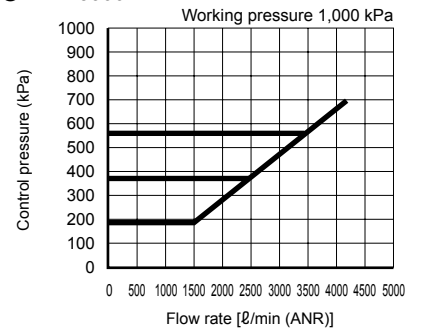
● EVD-3100



● EVD-3500



● EVD-3900



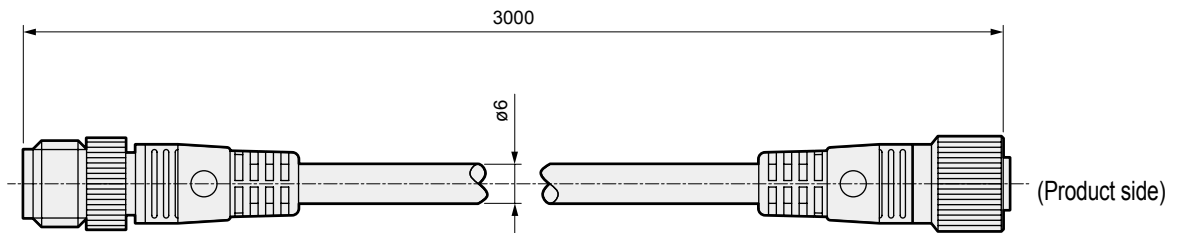


## Cable optional dimensions

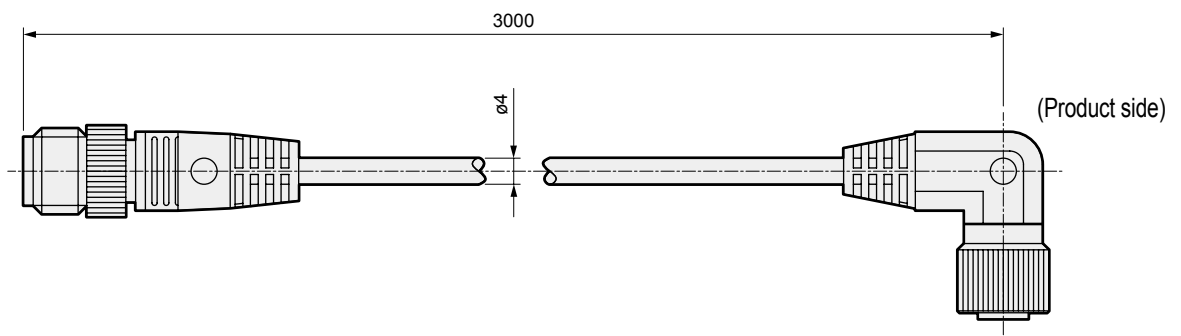
### EVD-MS3

Code	Description
<b>Cable option</b>	
<b>MS3</b>	IO-Link Straight (female), straight (male) 3 m
<b>ML3</b>	IO-Link L type (female) / straight (male) 3 m
<b>MM3</b>	IO-Link One side straight (female) 3 m

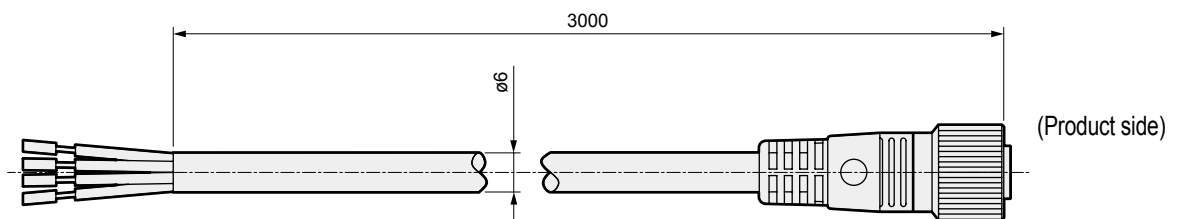
#### ● EVD-MS3



#### ● EVD-ML3



#### ● EVD-MM3



Cable color	Applications
Brown	L + (24 VDC)
White	N.C. *
Blue	L- (GND)
Black	C (IO-Link)

\* Insulate wires so that they do not contact other wires.