

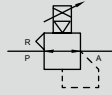


Digital electro pneumatic regulator

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			Set pressure + 50 kPa	Set pressure + 100 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 ² or less		
Ambient temperature			5 to 50 °C		
Fluid temperature			5 to 50 °C		
Port size [*2]			Port size option 08…Rc1/4, 08G…G1/4, 08N…N1/4		
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 $\pm$ 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 $\pm$ 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-1000 Series

How to order/Internal structure

How to order

EVD-1 500 - 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

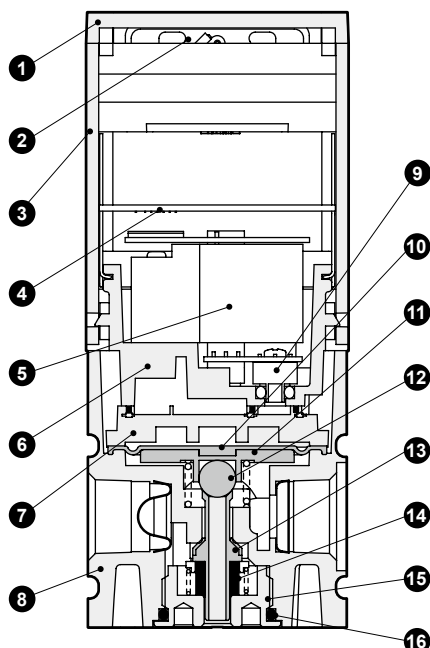
Code	Description
Cable option	
MS3	Straight (female), straight (male) 3 m
ML3	L type (female) / straight (male) 3 m
MM3	One side straight (female) 3 m
Bracket option	
B1	B-bracket, floor mounted
L1	L-bracket, wall mounted

Code	Description
A Pressure control range	
100	0-100 kPa
500	0-500 kPa
900	0-900 kPa
B Input signal	
C	IO-Link
C Port size	
08	Rc1/4
08G	G1/4
08N	NPT1/4
D Unit change *1	
Blank	Unit change: No
KA	Unit change: Yes
E Option	
Cable option	
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
Bracket option	
Blank	None
B1	B-bracket, floor mounted
L1	L-bracket, wall mounted
F Power supply voltage	
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



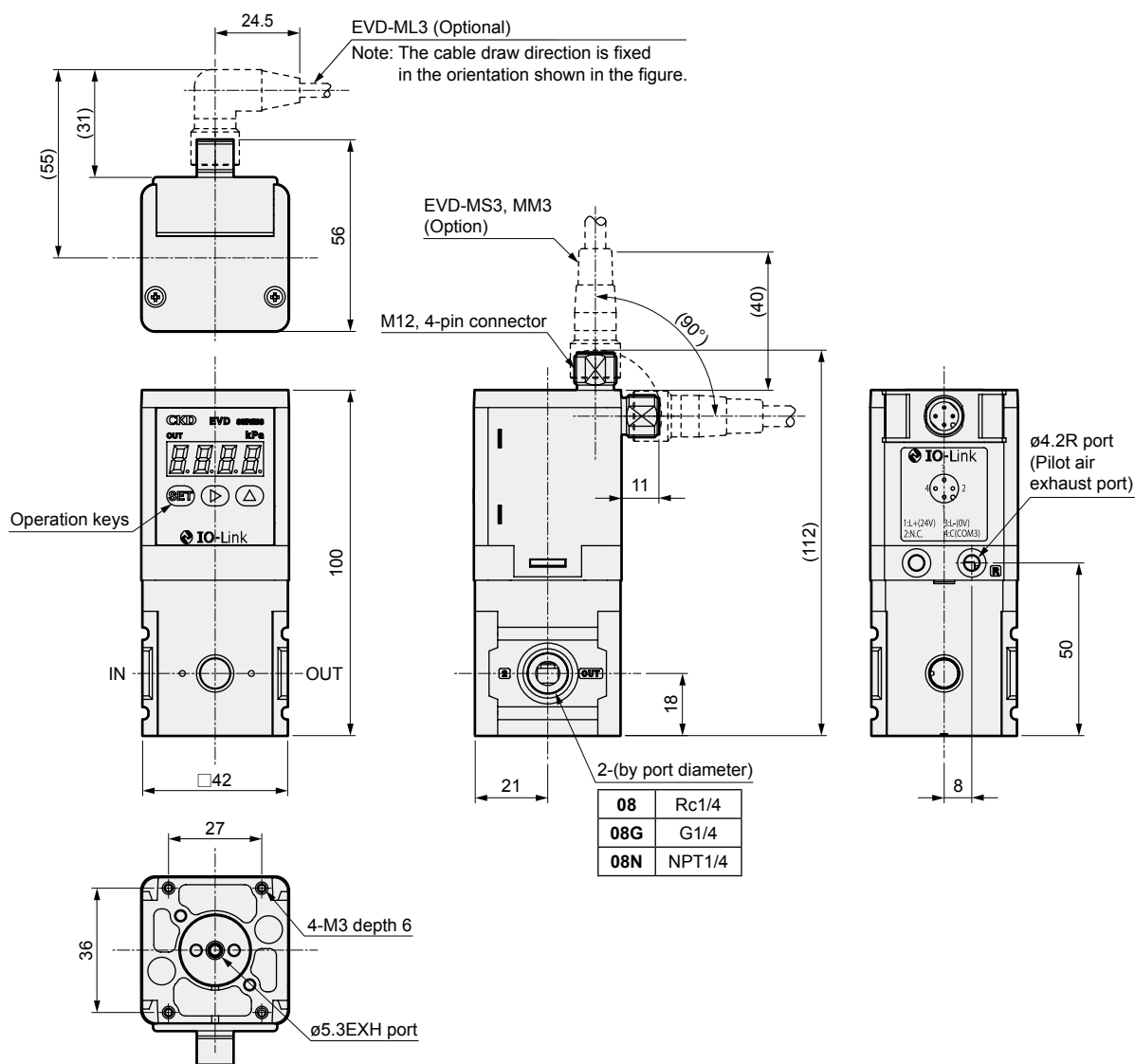
No.	Part name	Material
1	Lid	PBT resin
2	M12 connector	-
3	Housing	ABS resin
4	Controller board	-
5	3-way valve	-
6	Valve base	Polyphenylene sulfide resin
7	Pilot chamber	Polyphenylene sulfide resin
8	Body	Aluminum alloy die-casting
9	Pressure sensor	-
10	Diaphragm	Special nitrile rubber
11	Relief seat	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

CKD

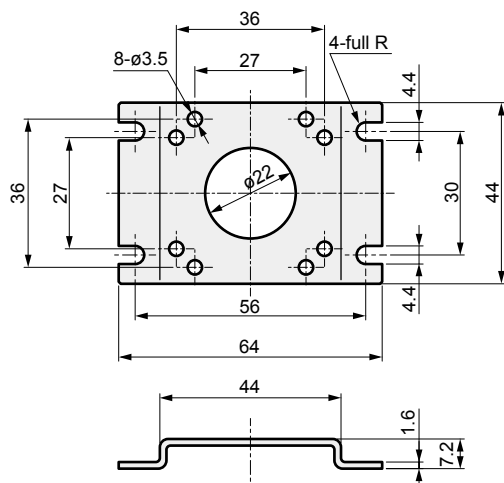
EVD-1000 Series

Dimensions



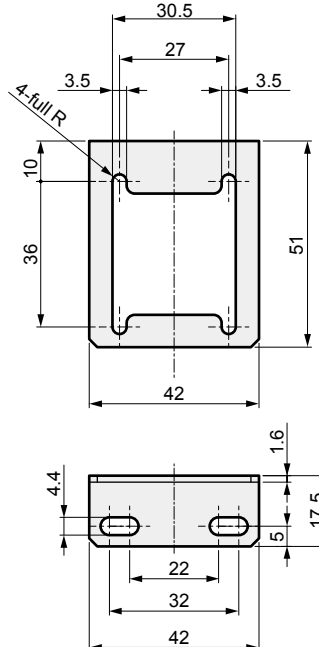
Optional dimensions

● 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.

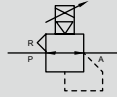


Digital electro pneumatic regulator

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		Set pressure + 50 kPa	Set pressure + 100 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 ² or less		
Ambient temperature		5 to 50 °C		
Fluid temperature		5 to 50 °C		
Port size [*2]	IN, OUT port	Port size option 08…Rc1/4, 10…Rc3/8, 08G…G1/4, 10G…G3/8, 08N…NPT1/4, 10N…NPT3/8		
	EXH port	Rc3/8, G3/8, NPT3/8		
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 $\pm$ 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

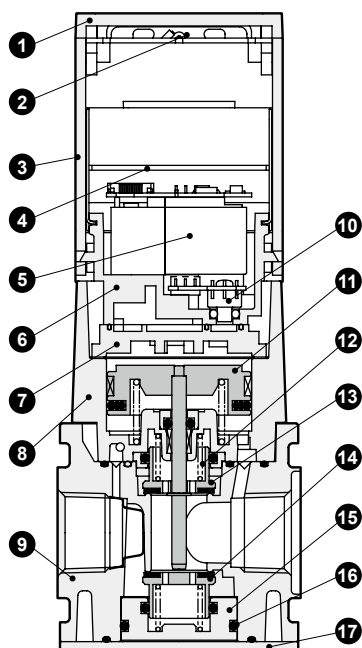
Code	Description
Cable option	
MS3	Straight (female), straight (male) 3 m
ML3	L type (female) / straight (male) 3 m
MM3	One side straight (female) 3 m
Bracket option	
B3	B-bracket, floor mounted
L3	L-bracket, wall mounted

Code	Description
A Pressure control range	
100	0-100 kPa
500	0-500 kPa
900	0-900 kPa
B Input signal	
C	IO-Link
C Port size	
08	Rc1/4
10	Rc3/8
08G	G1/4
10G	G3/8
08N	NPT1/4
10N	NPT3/8
D Unit change *1	
Blank	Unit change: No
KA	Unit change: Yes
E Option	
Cable option	
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
Bracket option	
Blank	None
B3	B-bracket, floor mounted
L3	L-bracket, wall mounted
F Power supply voltage	
3	24 VDC

F Power supply voltage

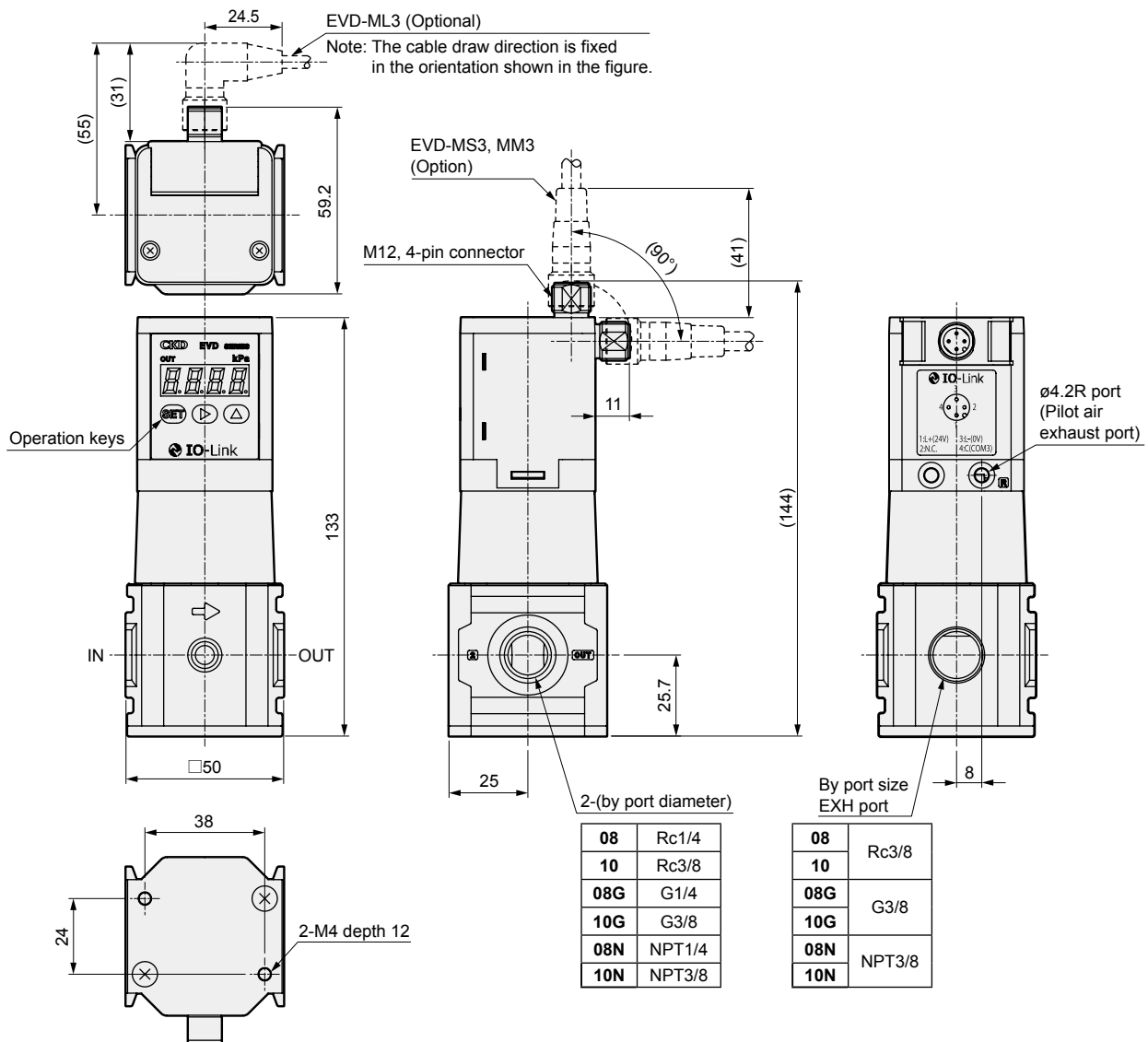
*1: The unit change function KA type is available only for outside Japan.

Internal structure and parts list



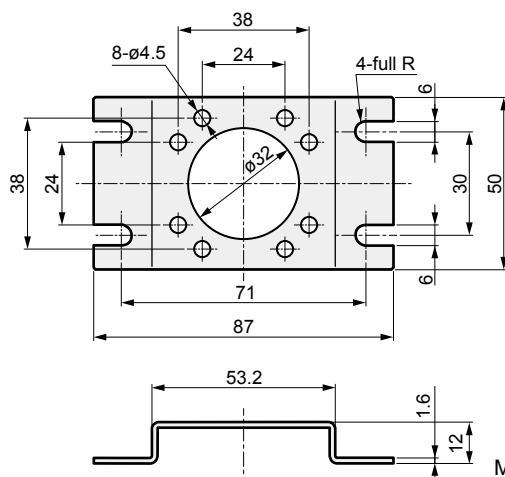
No.	Part name	Material
1	Lid	PBT resin
2	M12 connector	-
3	Housing	ABS resin
4	Controller board	-
5	3-way valve	-
6	Valve base	Polyphenylene sulfide resin
7	Pilot chamber	Polyphenylene sulfide resin
8	Piston body assembly	Aluminum alloy die-casting, etc.
9	Body	Aluminum alloy die-casting
10	Pressure 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



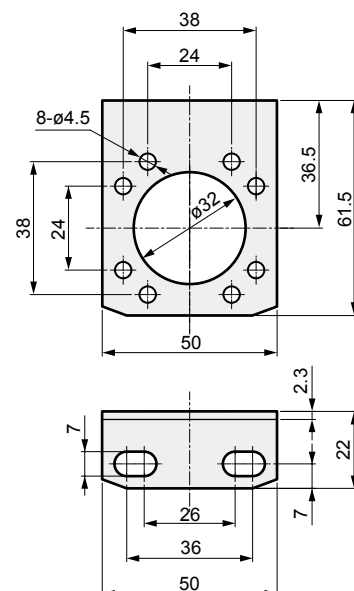
Optional dimensions

● B-bracket (-B3): Floor mounted



Material: SPCC
Ni plated
Weight: 48 g

● L-bracket (-L3): Wall mounted

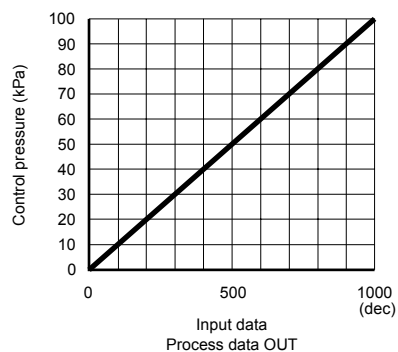


Material: SPCC
Ni plated
Weight: 51 g

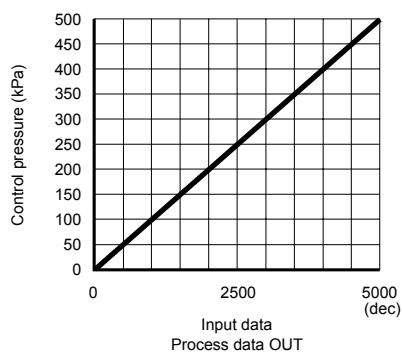
* Refer to page 9 for details of cable option dimensions.

I/O characteristics

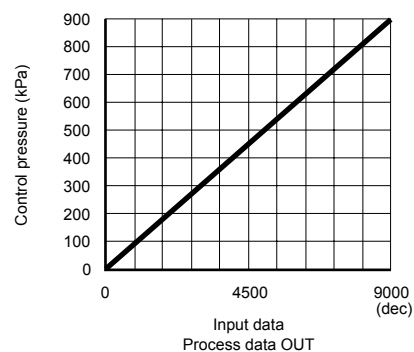
● EVD-1100/3100



● EVD-1500/3500

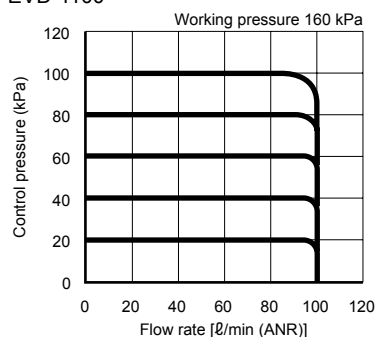


● EVD-1900/3900

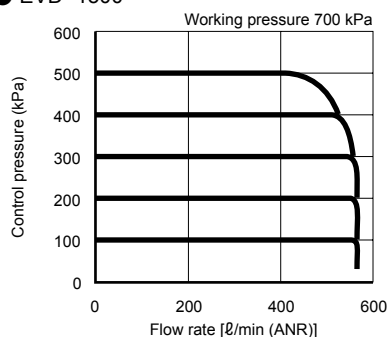


Flow characteristics

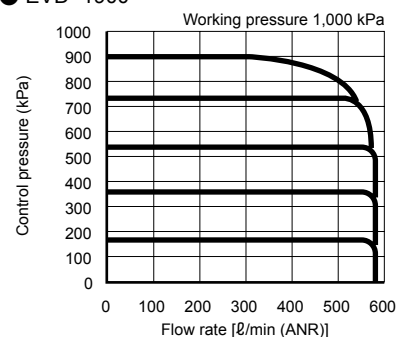
● EVD-1100



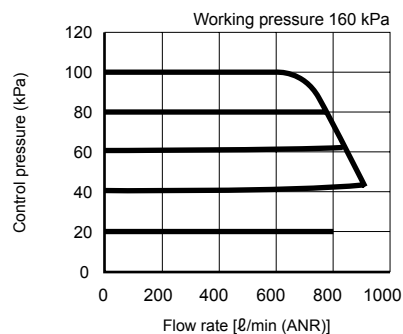
● EVD-1500



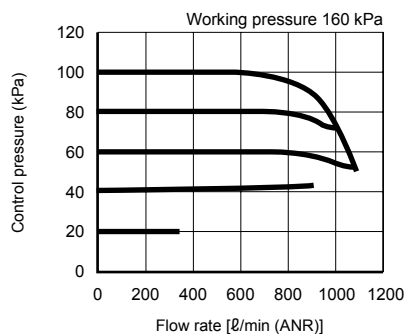
● EVD-1900



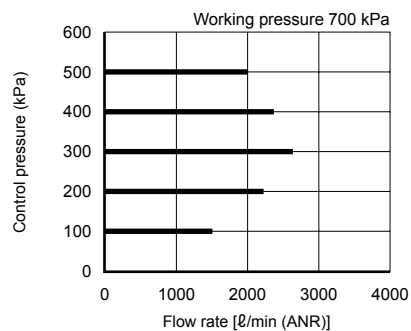
● EVD-3100-□08



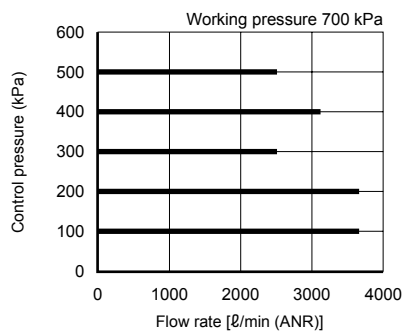
● EVD-3100-□10



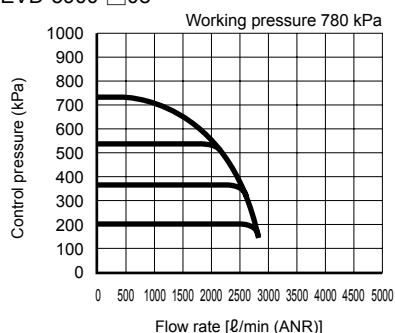
● EVD-3500-□08



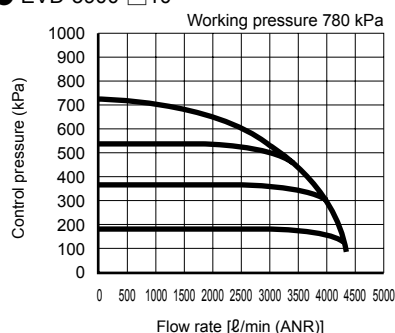
● EVD-3500-□10



● EVD-3900-□08

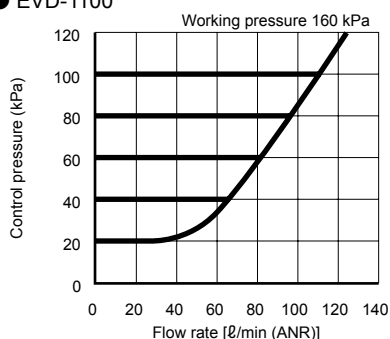


● EVD-3900-□10

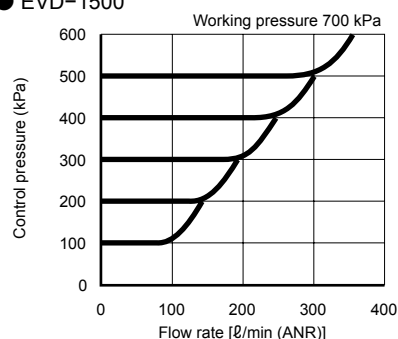


Relief characteristics

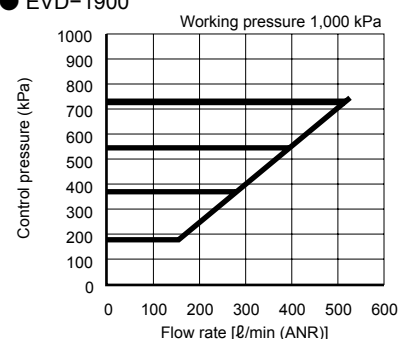
● EVD-1100



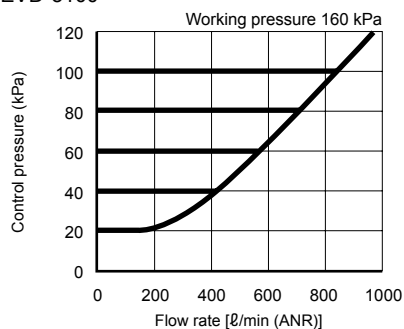
● EVD-1500



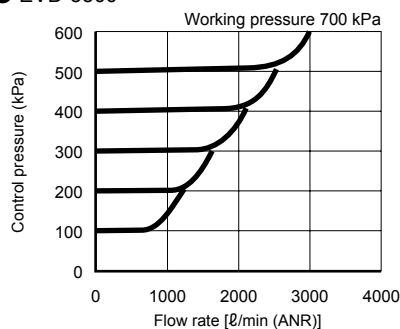
● EVD-1900



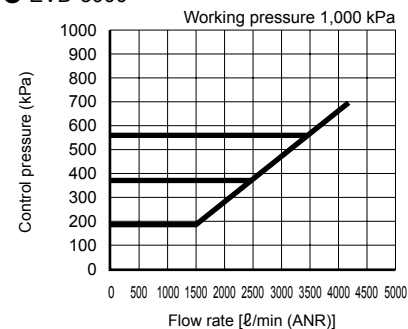
● EVD-3100



● EVD-3500



● EVD-3900

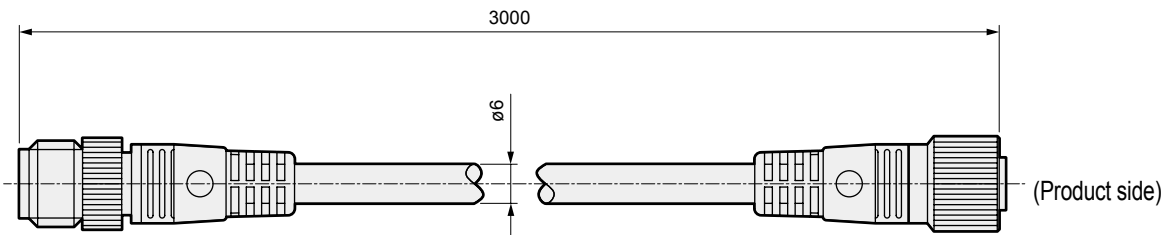


Cable optional dimensions

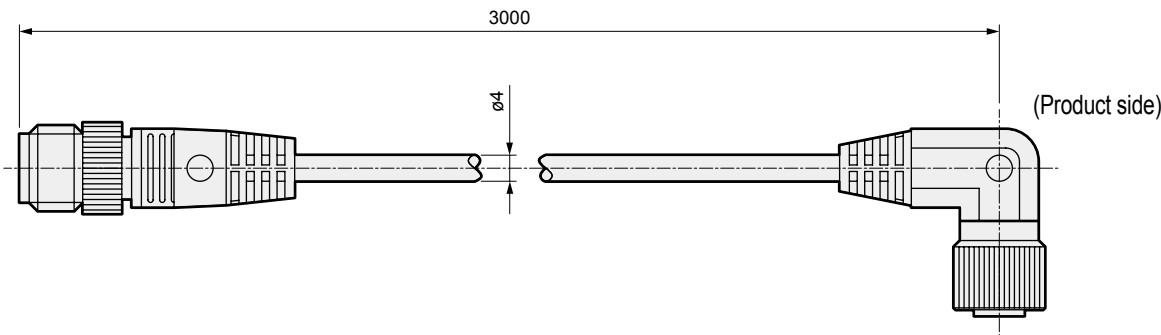
EVD-MS3

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

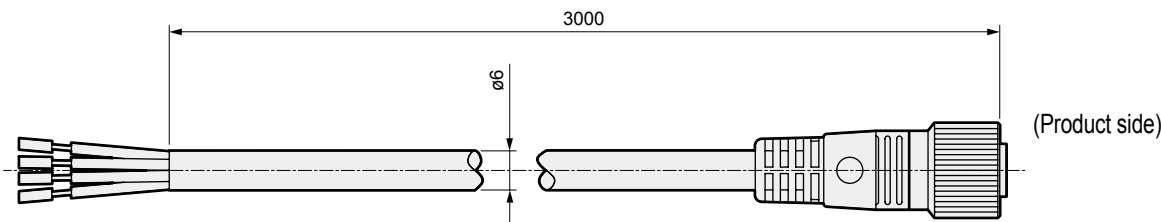
● EVD-MS3



● 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.