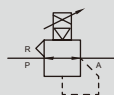




Digital electro pneumatic regulator

EVD-1000 Series

JIS symbol



Specifications

Descriptions		EVD-1100-*08 ☐ Analog (*...0/1/2)	EVD-1100-P08 ☐ Parallel	EVD-1500-*08 ☐ Analog (*...0/1/2)	EVD-1500-P08 ☐ Parallel	EVD-1900-*08 ☐ Analog (*...0/1/2)	EVD-1900-P08 ☐ Parallel
Working fluid		Clean compressed air (JIS B 8392-1: 2012 Grade 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		0.15 A or less (0.6 A or less rush current when the power is turned ON)					
Input signal (input impedance)		0 to 10 VDC(6.7 kΩ) 0 to 5 VDC(10 kΩ) 4 to 20 mADC(250 Ω)	10 bit	0 to 10 VDC(6.7 kΩ) 0 to 5 VDC(10 kΩ) 4 to 20 mADC(250 Ω)	10 bit	0 to 10 VDC(6.7 kΩ) 0 to 5 VDC(10 kΩ) 4 to 20 mADC(250 Ω)	10 bit
Preset input		8 points	No	8 points	No	8 points	No
Output signal		*2 Output accuracy: ±6% F.S. or less, analog output: 1 to 5 VDC (connecting load impedance 500 kΩ and over) Switch output: NPN or PNP open collector output, 30 V or less and 50 mA or less, voltage drop 2.4 V or less, PLC/relay compatible					
Error output signal		NPN or PNP open collector output, 30 V or less and 50 mA or less, voltage drop 2.4 V or less, PLC/relay compatible					
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)	
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	
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	Zero point fluctuation	0.15% F.S./°C or less					
characteristics	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		Rc1/4					
Mounting orientation		Free					
Weight		250 g					
Protection circuit		Power reverse connection protection, switch output reverse connection protection, switch output load short-circuit protection					

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

*2: Select the analog output or switch output.

*3: The condition of the values above is: 24 $\pm$ 0.1 VDC power supply voltage, 25 $\pm$ 3 $^{\circ}$ C ambient temperature, no load, working pressure of +50 kPa max. control pressure (EVD-1100)/+100 kPa (EVD-1500, 1900), and 10 to 90% control pressure.

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. $\rightarrow$ 100% F.S.
50% F.S. $\rightarrow$ 60% F.S.
50% F.S. $\rightarrow$ 40% F.S.

How to order

EVD-1 **500** - **0** **08** **AN** - **C1L11** - **3** - **P4**

A Pressure control range

B Input signal

C Port size

D Output signal

E Option

● Discrete option (cable, bracket) model No.

EVD- **C1**

E Option

Compatibility table by variation

	EVD-1100/1500/1900
Port size	Rc1/4
P4	●
P40	▲

Note: Bracket option for EVD-1500/1900-**P4** is blank or L11 (L type, wall mounting for exhaust fittings). Standard B1 and L1 types cannot be selected.

F Power supply voltage

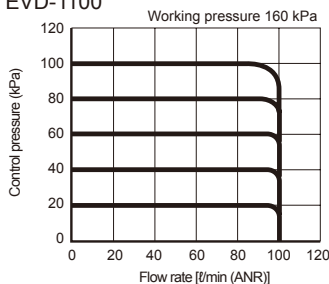
Code	Content
A Pressure control range *1	
100	0 to 100 kPa
500	0 to 500 kPa
900	0 to 900 kPa
B Input signal	
0	0 to 10 VDC
1	0 to 5 VDC
2	4 to 20 mADC
P	Parallel 10 bit
C Port size	
08	Rc1/4
D Output signal	
AN	1 to 5 V analog, error (NPN)
AP	1 to 5 V analog, error (PNP)
SN	Switch (NPN), error (NPN)
SP	Switch (PNP), error (PNP)
E Option	
Cable option	
Blank	No
C1	Analog 9-conductor, 1 m cable
C3	Analog 9-conductor, 3 m cable
P1	Parallel 15-conductor, 1 m cable
P3	Parallel 15-conductor, 3 m cable
Bracket option attached	
Blank	No
L11	L bracket, wall mounted for exhaust fitting
F Power supply voltage	
3	24 VDC

*1: There is 1% F.S. or less residual pressure when the input signal is 0%.

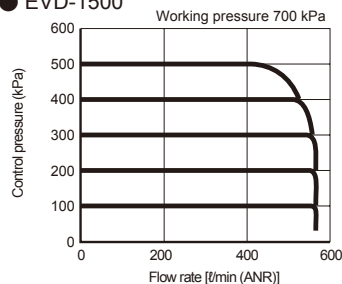
*2: Bracket option of EVD-1500/1900-**P4** is blank or L11 (L type, wall mounting for exhaust fittings). Standard B1 and L1 types cannot be selected.

Flow characteristics

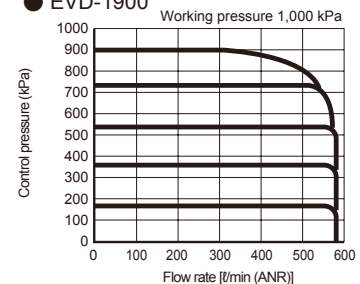
● EVD-1100



● EVD-1500

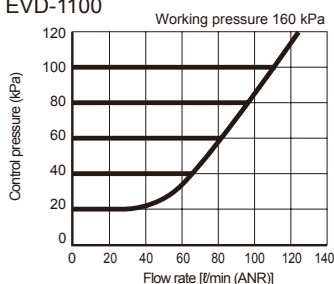


● EVD-1900

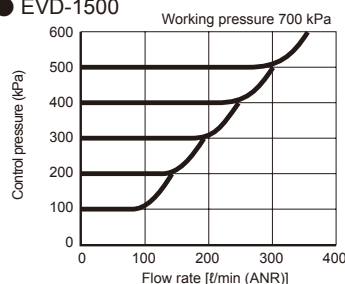


Relief characteristics

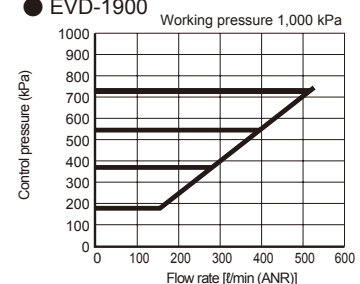
● EVD-1100



● EVD-1500



● EVD-1900

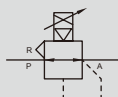




Digital electro pneumatic regulator

EVD-3000 Series

JIS symbol



Specifications

Descriptions		EVD-3100-*08 ☐ EVD-3100-*10 ☐ Analog (*...0/1/2)	EVD-3100-P08 ☐ EVD-3100-P10 ☐ Parallel	EVD-3500-*08 ☐ EVD-3500-*10 ☐ Analog (*...0/1/2)	EVD-3500-P08 ☐ EVD-3500-P10 ☐ Parallel	EVD-3900-*08 ☐ EVD-3900-*10 ☐ Analog (*...0/1/2)	EVD-3900-P08 ☐ EVD-3900-P10 ☐ Parallel
Working fluid		Clean compressed air (JIS B 8392-1:2012 Grade 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		0.15 A or less (0.6 A or less rush current when the power is turned ON)					
Input signal (input impedance)		0 to 10 VDC(6.7 kΩ) 0 to 5 VDC(10 kΩ) 4 to 20 mADC(250 Ω)	10 bit	0 to 10 VDC(6.7 kΩ) 0 to 5 VDC(10 kΩ) 4 to 20 mADC(250 Ω)	10 bit	0 to 10 VDC(6.7 kΩ) 0 to 5 VDC(10 kΩ) 4 to 20 mADC(250 Ω)	10 bit
Preset input		8 points	No	8 points	No	8 points	No
Output signal		*2 Output accuracy: ±6% F.S. or less, analog output: 1 to 5 VDC (connecting load impedance 500 kΩ and over) Switch output: NPN or PNP open collector output, 30 V or less and 50 mA or less, voltage drop 2.4 V or less, PLC/relay compatible					
Error output signal		NPN or PNP open collector output, 30 V or less and 50 mA or less, voltage drop 2.4 V or less, PLC/relay compatible					
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)	
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	
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	Zero point fluctuation	0.15% F.S./°C or less					
characteristics	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	IN, OUT port	Port size option 08: Rc1/4, 10: Rc3/8					
	EXH port	Rc3/8					
Mounting orientation		Free					
Weight		450 g					
Protection circuit		Power reverse connection protection, switch output reverse connection protection, switch output load short-circuit protection					

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

*2: Select the analog output or switch output.

*3: The condition of the values above is: 24 $\pm$ 0.1 VDC power supply voltage, 25 $\pm$ 3 $^{\circ}$ C ambient temperature, no load, working pressure of +50 kPa max. control pressure (EVD-3100)/+100 kPa (EVD-3500, 3900), and 10 to 90% control pressure. 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. $\rightarrow$ 100% F.S.
50% F.S. $\rightarrow$ 60% F.S.
50% F.S. $\rightarrow$ 40% F.S.

Compatibility table by variation

	EVD-3100/3500/3900
Port size	Rc1/4, Rc3/8
P4	▲
P40	▲

How to order

EVD-3 **500** - **0** **08** **AN** - **C1B3** - **3** - **P4**

A Pressure control range

B Input signal

C Port size (IN, OUT)

D Output signal

E Option

F Power supply voltage

● Discrete option (cable, bracket) model No.

EVD- **C1**

E Option

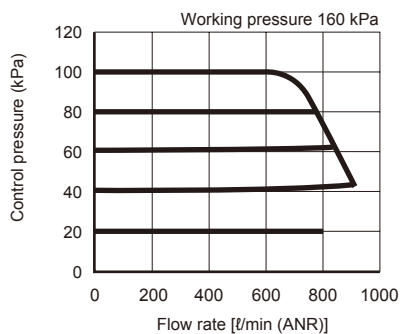
Code	Content
A Pressure control range *1	
100	0 to 100 kPa
500	0 to 500 kPa
900	0 to 900 kPa
B Input signal	
0	0 to 10 VDC
1	0 to 5 VDC
2	4 to 20 mADC
P	Parallel 10 bit
C Port size (IN, OUT)	
08	Rc1/4
10	Rc3/8
D Output signal	
AN	1 to 5 V analog, error (NPN)
AP	1 to 5 V analog, error (PNP)
SN	Switch (NPN), error (NPN)
SP	Switch (PNP), error (PNP)
E Option	
Cable option	
Blank	No
C1	Analog 9-conductor, 1 m cable
C3	Analog 9-conductor, 3 m cable
P1	Parallel 15-conductor, 1 m cable
P3	Parallel 15-conductor, 3 m cable
Bracket option attached	
Blank	No
B3	B bracket, floor mounted
L3	L bracket, wall mounted
F Power supply voltage	
3	24 VDC

*1: There is 1% F.S. or less residual pressure when the input signal is 0%.

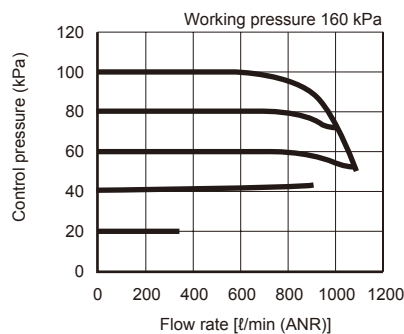
*2: Custom order. Contact CKD for details.

Flow characteristics

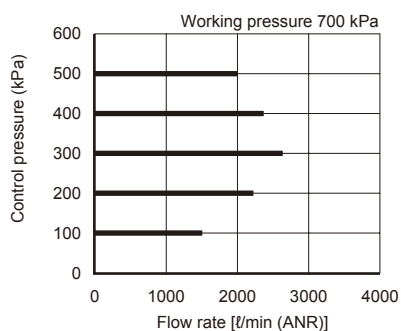
● EVD-3100-□08



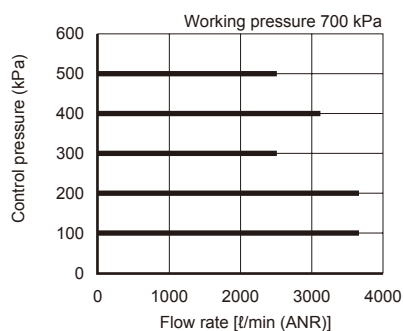
● EVD-3100-□10



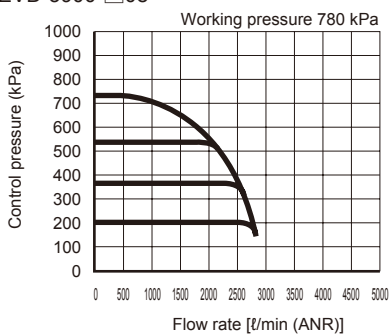
● EVD-3500-□08



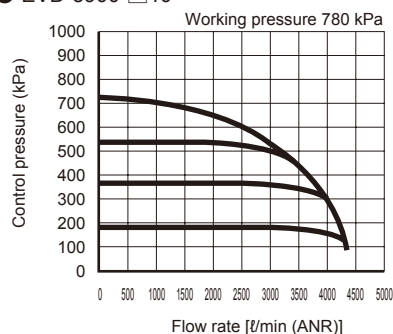
● EVD-3500-□10



● EVD-3900-□08

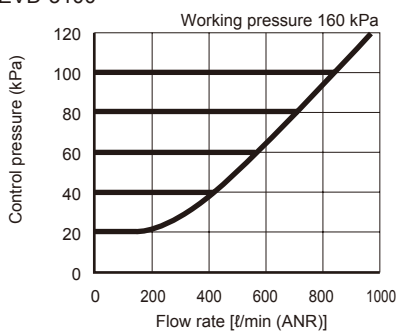


● EVD-3900-□10

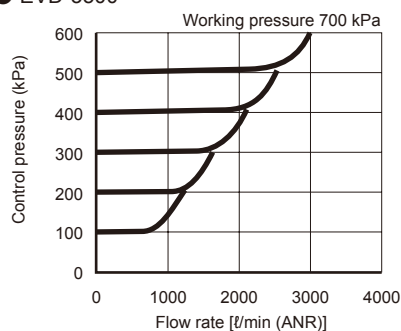


Relief characteristics

● EVD-3100



● EVD-3500



● EVD-3900

