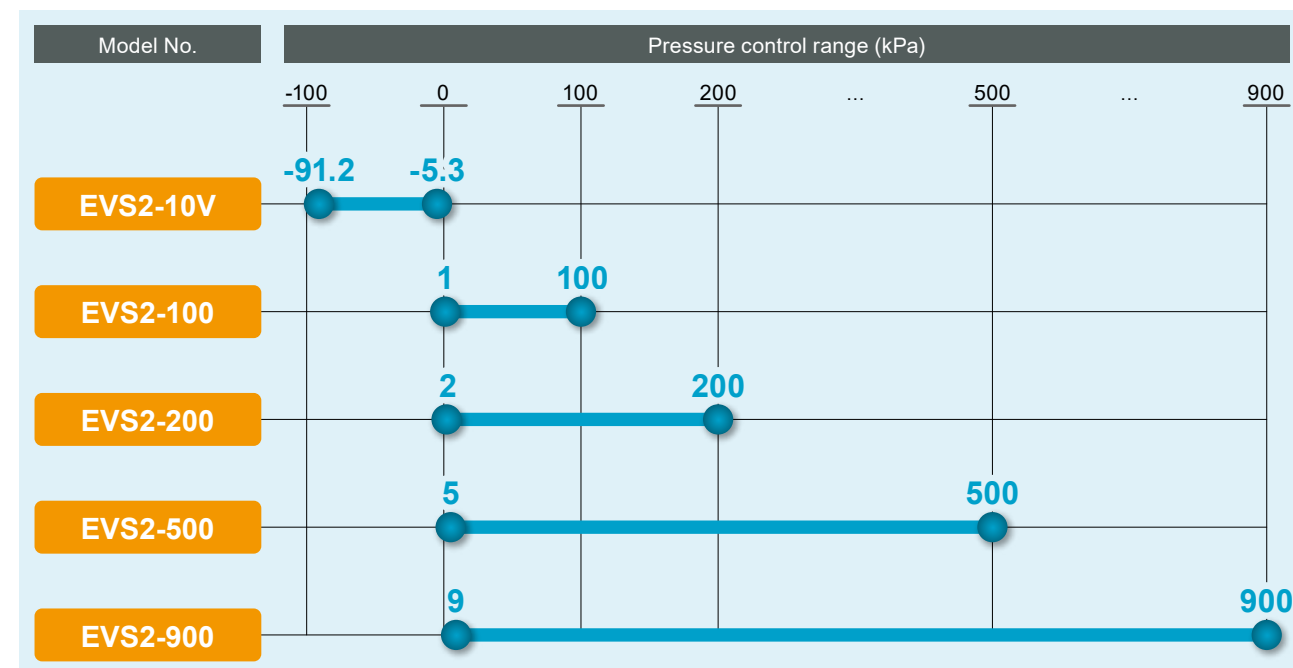


High precision / High response control from high pressure to negative pressure



Pressure variation



Compact and lightweight

Contributes to downsizing and weight reduction of equipment.



Volume
20% Down

Weight
35% Down

Long service life

3 times compared to Previous models (Compared to our products).

High precision/high-speed response

Controls fluid pressure with high precision and high speed response by electrical signal.

Repetitive accuracy : 0.3 % F.S.

Resolution : 0.05 % F.S.

Response time : 0.1 sec (No load) achieved.

2-color LED of the operational status

2-color display operation indicator displays green at set pressure, and red when out of setting or error.

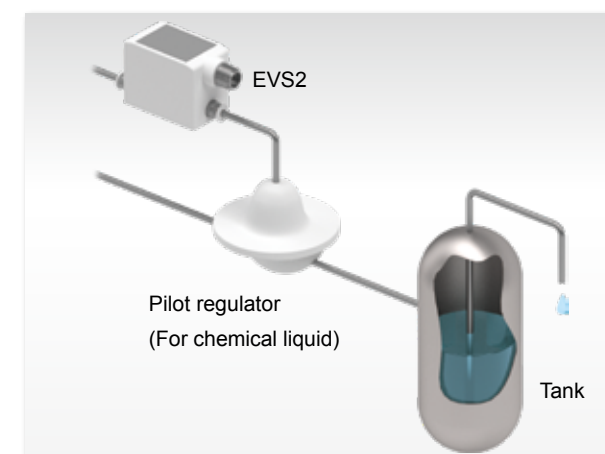


Easy to pipe/wire

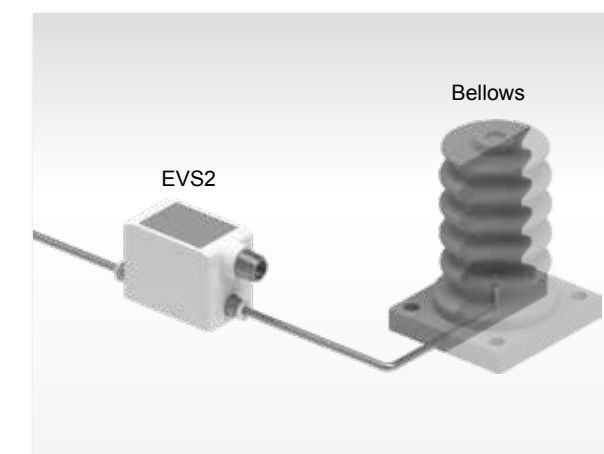
Uses Push-in cartridge fitting and M12 connector to improve workability.

Application examples

Chemical liquid discharge amount control



Micro position control

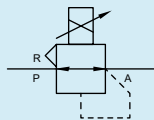




Parect electro-pneumatic regulator (Solenoid valve type compact)

EVS2 Series

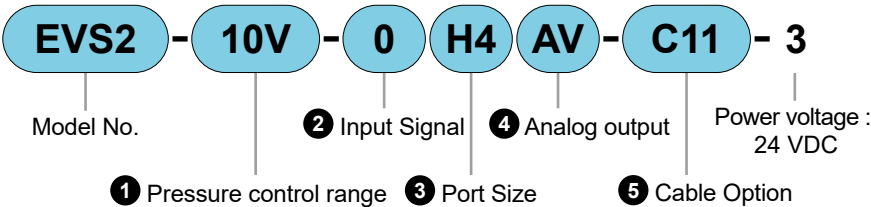
Circuit Diagram
Symbol



For compatible detailed model numbers, please see our website.

EVS2 Series Specifications

Model No. Notation



1 Pressure control range

Code	Content
10 V	-5.3 to -91.2 kPa
100	1 to 100 kPa
200	2 to 200 kPa
500	5 to 500 kPa
900	9 to 900 kPa

2 Input Signal

Code	Content
0	0 to 10 VDC
1	0 to 5 VDC
2	4 to 20 mADC
3	0 to 20 mADC
4	1 to 5 VDC

3 Port Size

Code	Content	
H4	Cartridge fitting	ø4
H6		ø6

4 Analog output

Code	Content
AV	1 to 5 VDC
AA	4 to 20 mADC

5 Cable Option

Code	Content		
Blank	None		
C11	Straight	1 m	
C13		3 m	
CL1	L-type	1 m	
CL3		3 m	

Option model No. Notation

EVR-S1

1 Cable Option

1 Cable Option

Code	Content		
S1	Straight	1 m	
S3		3 m	
L1	L-type	1 m	
L3		3 m	

Specifications

Item		EVS2-10V	EVS2-100	EVS2-200	EVS2-500	EVS2-900
Operating Fluid		Clean compressed air (ISO 8573-1 : 2010 [1.3.2])				
Max. Operating pressure kPa		-101.3	200	350	700	1,000
Min. Operating pressure kPa		-96.0	Set pressure + 10	Set pressure + 50		
Proof	Supply side	150	300	525	1050	1,500
pressure kPa	Output side	150	150	300	750	1,350
Pressure control range *1 kPa		-5.3 to -91.2	1 to 100	2 to 200	5 to 500	9 to 900
Power supply voltage		24 VDC ±10 %(Stabilized power supply with ripple factor 1 % or less)				
Current Consumption		0.1 A or less (Inrush current at power ON : 0.6 A)				
Input Signal (Input impedance)	0	0-10 VDC (6.7 kΩ)				
	1	0-5 VDC(10 kΩ)				
	2	4-20 mADC (250 Ω)				
	3	0-20 mADC (250 Ω)				
	4	1-5 VDC (10 kΩ)				
Analog output (Load impedance)	AV	1-5 VDC (50 kΩ or more)				
	AA	4-20 mADC (300 Ω or less)				
Accuracy *2	Hysteresis	0.3 % F.S. or less				
	Linearity	±0.5 % F.S. or less				
	Resolution	0.05 % F.S. or less				
	Repeatability	0.3 % F.S. or less				
Temperature characteristics	Zero point fluctuation	±0.06 % F.S./°C or less				
	Span fluctuation	±0.06 % F.S./°C or less				
Max. flow rate *3		0.3 L/min (ANR)	2 L/min (ANR)		8 L/min (ANR)	
Step	No load	0.6 s or less	0.1 s or less			
response (*4)	15 cm³ load	-	0.5 s or less			
Ambient temperature		0 to 50 °C				
Ambient humidity		45 to 90 % RH (No condensation)				
Mounting orientation		Free				
Enclosure		Equivalent to IP64				
Weight (body)		90 g				

*1 : The range up to 1 % F.S. input signal is uncontrollable.

*2 : The above characteristics are at power supply voltage : 24.0 ±0.1 VDC, Ambient temperature : 25 ±3 °C, no load, Operating pressure within the following range and control pressure from 10 %.

Operating Pressure

EVS2-10V (-101.3 to -96.0 kPa)

EVS2-100 (110 to 200 kPa)

EVS2-200 (250 to 350 kPa)

EVS2-500 (550 to 700 kPa)

EVS2-900 (950 to 1,000 kPa)

*3 : Operating pressure : Max. Operating pressure, control pressure : Characteristics at max. control pressure (20 % F.S. for EVS2-10V only).

*4 : Operating pressure : Max. Operating pressure

Step Amount : EVS2-10V

50 % F.S. → 90 % F.S.

50 % F.S. → 60 % F.S.

50 % F.S. → 40 % F.S.

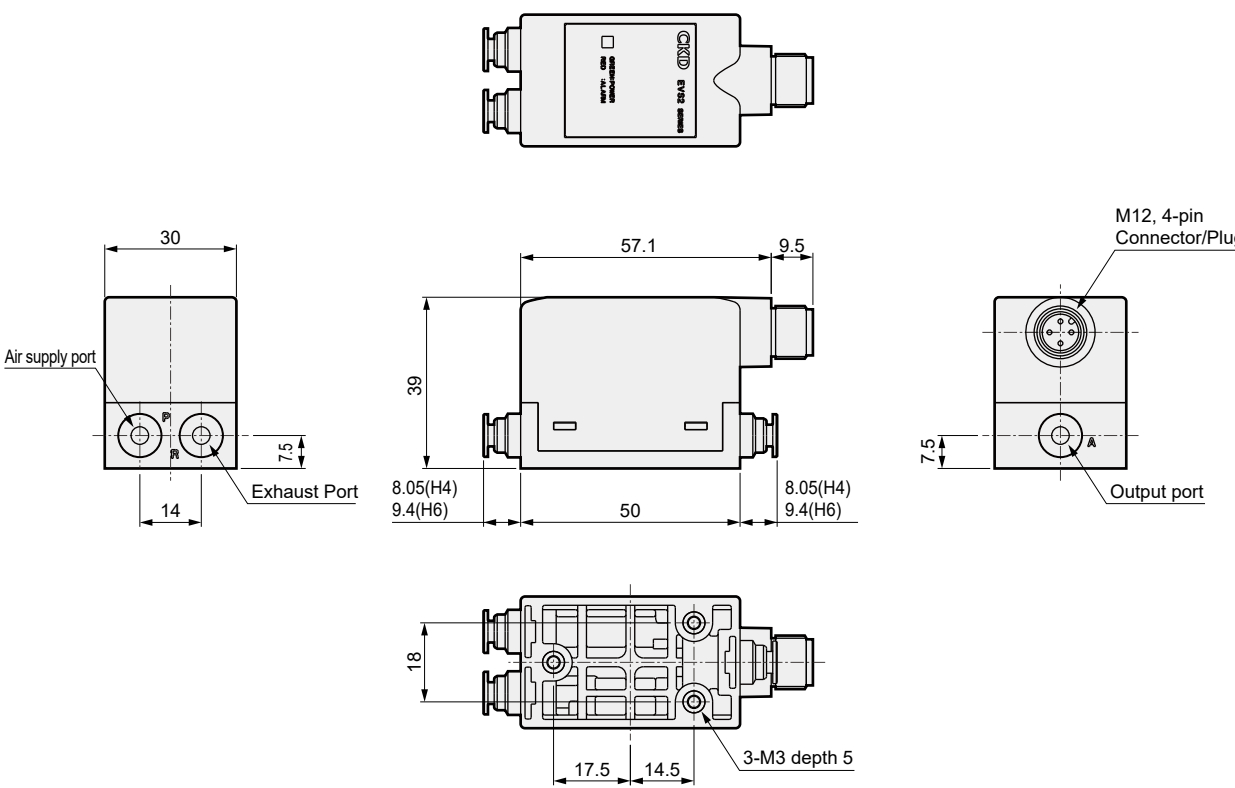
EVS2-100/200/500/900

50 % F.S. → 100 % F.S.

50 % F.S. → 60 % F.S.

50 % F.S. → 40 % F.S.

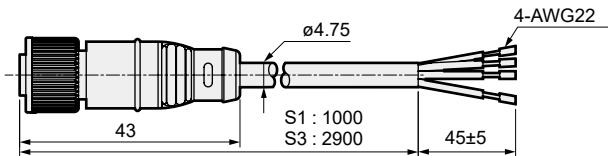
*5 : The characteristics of this specification are limited to static conditions, and control pressure may fluctuate when air is consumed on the output side.



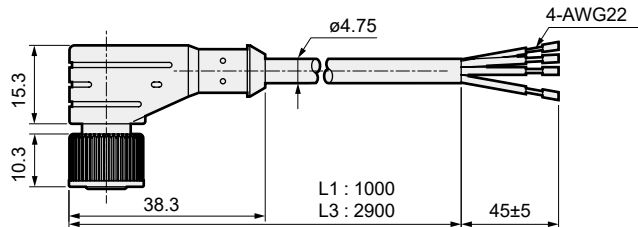
Option Outline Dimension Drawing

Cable Option

- Straight type (-C11, -C13)



- L-type (-CL1, -CL3)

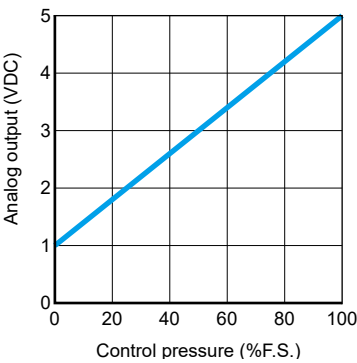


-C1* Cable/Connector

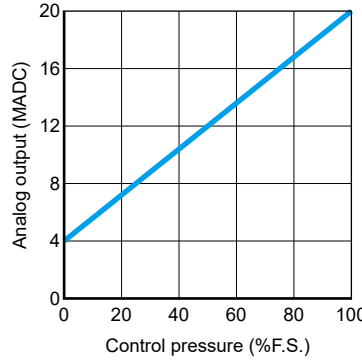
Pin No.	Insulation Color	Application	Input signal type					Weight g
			0-10 V	0-5 V	4-20 mA	0-20 mA	1-5 V	
1	Brown	Power Supply ⊕	24 V					C11 : 50 C13 : 135 CL1 : 55 CL3 : 140
2	Black	Analog output	Analog output					
3	Blue	Common	0 V					
4	White	Input Signal	0-10 V	0-5 V	4-20 mA	0-20 mA	1-5 V	

Analog output

- When Voltage Output (AV) is selected

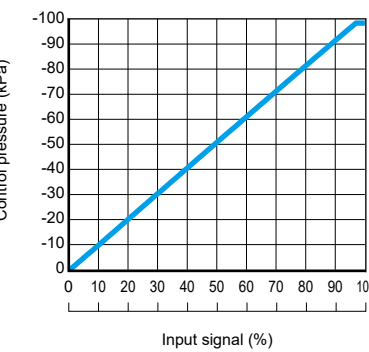


- When Current Output (AA) is selected

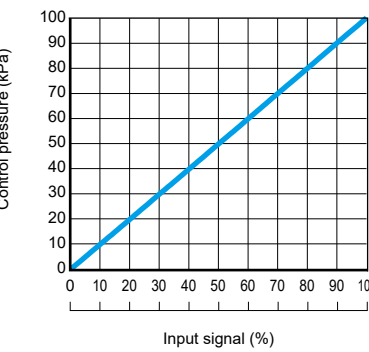


Input/Output characteristics

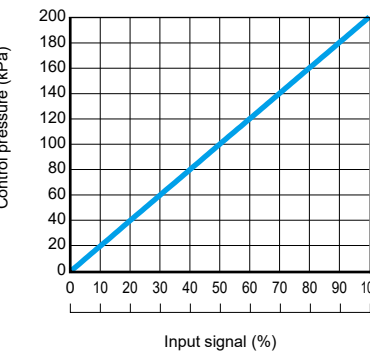
- EVS2-10V



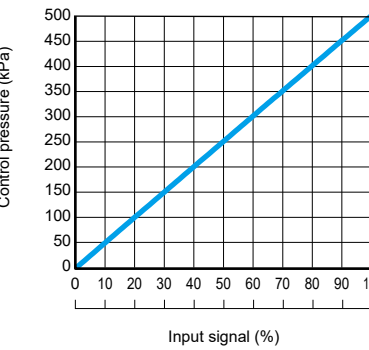
- EVS2-100



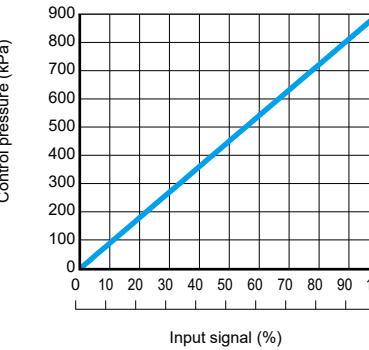
- EVS2-200



- EVS2-500



- EVS2-900



- Input signal specifications table

		Input Signal		
		0 %	50 %	100 %
Input signal specifications	0	0.0 VDC	5.0 VDC	10.0 VDC
	1	0.0 VDC	2.5 VDC	5.0 VDC
	2	4.0 mADC	12.0 mADC	20.0 mADC
	3	0.0 mADC	10.0 mADC	20.0 mADC
2	4	1.0 VDC	3.0 VDC	5.0 VDC



To Use This Product Safely

Be sure to read this before use. Refer to Intro 27 for general precautions.

Precautions for Use : Parect Electro-Pneumatic Regulator EVS2 Series

Design / Selection

CAUTION

■ Responsiveness is affected by the Operating pressure and load volume. Also, if the Operating pressure fluctuates, the secondary control pressure will be affected. If stable reproducibility is required, stabilize the Operating pressure by installing a regulator in the preceding stage.

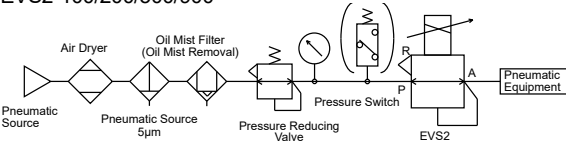
■ Take the following measures to avoid malfunction due to noise.

- Install a line filter in the AC power supply line.
- Use a surge suppressor such as a CR or diode on the inductive load (solenoid valve, relay, etc.) and remove noise from the source.
- Keep wiring to components separate from strong magnetic fields.

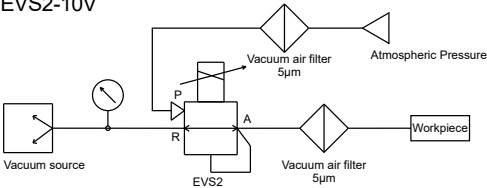
■ Poor quality air will deteriorate characteristics and adversely affect durability.

- The pneumatic source should use clean compressed air obtained by removing solid particles, moisture and oil from the fluid using air dryers, filters and oil mist filters. ISO8573-1 : 2010 [1 : 3 : 2]

• EVS2-100/200/500/900



• EVS2-10V



If the control pressure is reduced, air on the secondary side will pass through inside the product and exit from the exhaust port (port R). Contamination on the secondary piping and on the inside of the load will have an adverse effect on the characteristics, etc.,. Thus, keep the inside of the piping as clean as possible.

■ If the regulator is left with the power OFF and the supply pressure applied, the secondary pressure could rise to the primary pressure level. If this poses a safety hazard, take system safety measures by reducing the primary side pressure to 0 or installing a valve on the primary side to shut the supply source.

■ If power is turned OFF under pressure, control pressure is held is attached.

- To discharge pressure, lower set pressure and turn power OFF, or use a residual pressure exhaust valve, etc. Also, this holding state does not guarantee long-term holding.

■ The Operating pressure is applied to supply the specified pressure for the control pressure. Ensure that the Operating pressure stays within the specified range.

- Especially when the control pressure has been set from 0 % F.S. to 12 % F.S. and the Operating pressure is not supplied. If the Operating pressure becomes near or lower than the control pressure, unnecessary operation of the solenoid valve will occur resulting in a shorter service life.

■ This regulator cannot be used with a cylinder having a large leakage rate, such as an air bearing cylinder.

- When using for blowing applications or when back pressure is applied on the secondary side, it is not possible to maintain the set pressure. A loud thrumming sound will be generated and service life will be shortened. Avoid this kind of usage.

■ When selecting a dryer, air filter, oil mist filter, or regulator, select one with a flow rate higher than the flow rate to be used.

■ Control of this product will not be possible if the input signal range is only set from 0 % F.S. to 1 % F.S.

■ Applying an input signal outside the specifications will cause unnecessary operation of the solenoid valve, resulting in a shorter service life and deteriorated performance. Keep the signal within the specifications.

■ This product has moving parts in its operation structure, and characteristics such as accuracy will change over time. Before use, evaluate as a system, and depending on operation frequency, take measures such as using it as a regular maintenance part.

■ Conditions for CE compliance

This product is a CE compliant product adapted to the EMC Directive. The harmonized standard regarding immunity applied to this product is EN61000-6-2, but the following conditions are mandatory for compliance with this standard.

Condition

- The evaluation of this product is performed by using a cable that has a power supply line and a signal line paired to assess the product's performance.
- This product is not equipped with surge protection. Implement surge protection measures on the system side.

■ For this product, the warranty period is 1 year or 3 million repetitive operations, whichever comes first, so please use this as a guide for inspection.

* The conditions for 3 million operations defined in the warranty period are as follows. When repeatedly applying a step input signal where the control pressure goes from zero to the maximum control pressure. The air quality must be clean compressed air from the recommended air circuit and the secondary side payload is to be 15 cm³ for the EVS2 Series.

For precautions regarding mounting, installation, adjustment, operation, and maintenance, please refer to the CKD Components Product Site (<https://www.ckd.co.jp/kiki/en/>) → 'model No.' → [Instruction Manual.](#)