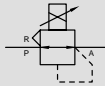


Electro pneumatic regulator (solenoid valve type small)

EVS Series

JIS symbol



CAD DATA AVAILABLE.

Overview

For electro pneumatic regulator EVS series, feedback control with semiconductor pressure sensor and electronic control circuit is used to enable continuous and precise controlling pneumatics with electric signals. Smaller than EV0000, body extending cable is used to achieve ultimate convenience and space saving.

Features

(1) Small body

Redesigned the internal structure, the volume is reduced by approx. 50% comparing to CKD conventional model (EV0000 series) (cable outlet excluded)

(2) Light in weight

Minimized body, the weight is reduced by approx. 20% comparing to CKD conventional model (EV0000 series).

(3) Space saving

Footprint is reduced by 40% comparing to CKD conventional model (EV0000 series). This enables installation in a narrow space, or in a row, and contributes to reduce the device size.

(4) Non-bleeding

Oar poppet structure and PWM control are used to eliminate constant bleeding. This can be used not only for energy saving, also for the case that air source has no surplus.

(5) High precision / high speed response

Precision / high speed response of EV series is completely succeeded. New model can be directly replaced from old one if the input signal type is matched (when monitor output signal is not used.)

(6) Easy wiring

A body extending cable connector is used to reduce man-hours for wiring, installation and maintenance. Shield type is used for cable connector.

Specifications

Descriptions		EVS100	EVS500
Working fluid		Clean compressed air	
Max. working pressure		200kPa	0.7MPa
Min. working pressure		Control pressure + max. control pressure X 0.1	
Withstanding pressure	Inlet	300kPa	1.05MPa
	Output side	150kPa	0.75MPa
Control pressure range		0 to 98kPa	0 to 0.49MPa
Power voltage		DC24V ± 10% (ripple ratio 1 % or less, safety power supply)	
Current consumption		0.1A or less (rush current 0.6A at power ON)	
Input signal (input impedance)		0-10VDC (6.6kΩ)	
		0-5VDC (3.3kΩ)	
		4- 20mA or 1-5VDC (250Ω)	
How to wire		Shield cable connector, applicable connectors or shield wire	
Insulation resistance		100MΩ (DC500V megger) and over	
Withstand voltage		AC1500V for 1 min.	
Hysteresis	Note 1	1%F.S. or less	
Linearity	Note 1	± 0.5%F.S. or less	
Resolution	Note 1	0.5%F.S. or less	
Repeatability	Note 1	0.5%F.S. or less	
Temperature characteristics	0-point varia.	0.15%F.S./°C or less	
	Span variation	0.07%F.S./°C or less	
Max. flow rate (ANR)	Note 2	2 ℓ/min	6 ℓ/min
Step response	Loadless	0.2s or less	
	Note 3 15cm ³ load	0.5s or less	
Ambient temperature		5 to 50 °C	
Fluid temperature		5 to 50 °C	
Lubrication		Must be oilfree	
Installation attitude		Free	
Protection structure		IP60 (no water protective structure)	
Main dimensions		W30 X D50 X H50	
Port size		M5	
Mass (main body)		140g	

Note 1: Above characteristics are values where power voltage is 24V DC, and working pressure is max. control pressure X 1.1 (EVS100: 110kPa and EVS500: 0.54MPa) to max. working pressure. Also, limited to a closed circuit in the secondary side, and the pressure may vary if used as air blow, etc.

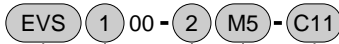
Note 2: Working pressure: Max. working pressure, control pressure: Max. control pressure

Note 3: Working pressure: Max. working pressure, step rate:
 50%F.S. → 100%F.S.
 50%F.S. → 60%F.S.
 50%F.S. → 40%F.S.

Use example

• Chemical liquids discharge controls	• Fine small position control
<p>Pilot regulator (for chemicals)</p> <p>Tank</p>	<p>Bellows</p>

How to order



Model

A Control pressure range

B Input signal for control

C Port size

D Cable option

Symbol	Descriptions
A Control pressure range	
1	0 to 98kPa
5	0 to 0.49kPa
B Input signal for control	
0	0 to 10V DC
1	0 to 5V DC
2	4 to 20mA DC or 1 to 5V DC (Input impedance 250 Ω)
C Port size	
M5	M5
D Cable option	
Blank	None
C11	1m (straight type)
C13	3m (straight type)

Note on selection guide

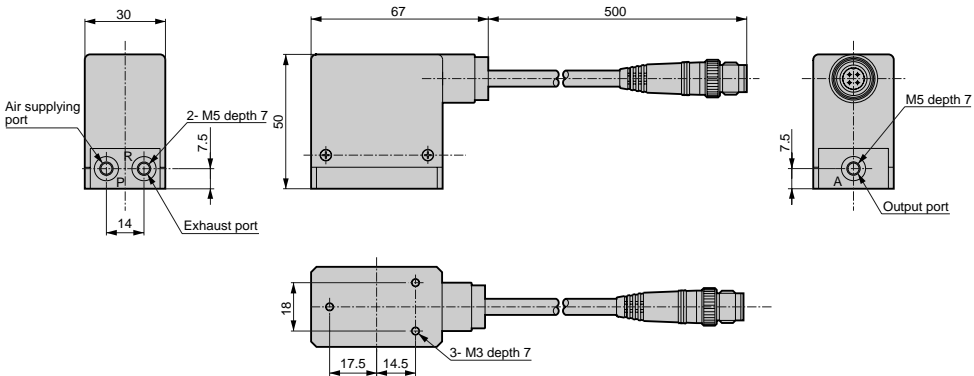
Note: Part no. for option is

EV2000- Cable option symbol

Dimensions



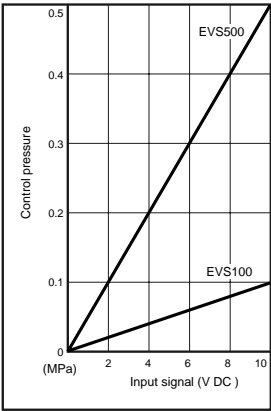
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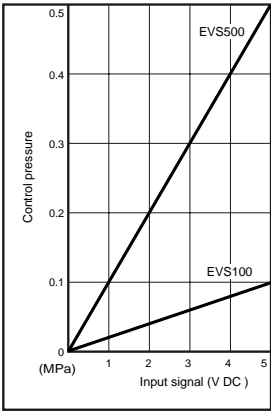
Refrigerating type dryer
Desiccant type dryer
High polymer membrane dryer
Air filter
Automatic drain other
F.R.L. (Module)
F.R.L. (Separate)
Small F.R.
Precise R.
Electro pneumatic R.
Auxiliary
Flow control valve
Silencer
Check valve / others
Joint / tube
Vacuum F.
Vacuum R.
Vacuum generator
Vacuum auxiliary / pad
Mechanical pressure SW
Electronic pressure SW
Electronic dif. pres. SW
Sealing / close contact conf. SW
Pressure SW for coolant
Flow sensor for air
Total air system
Water cooling refrigerator
Flow sensor for water
F.R.L. unit
Electro pneumatic regulator

I/O characteristics

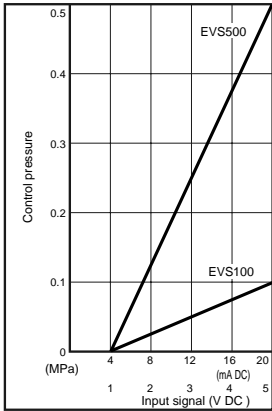
• Input signal 0-10V DC



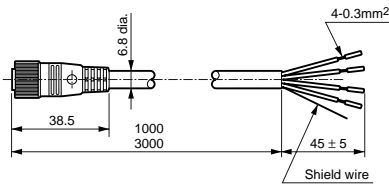
• Input signal 0-5V DC



• Input signal 4-20mA DC or 1-5V DC



Cable option



-C1 * shield / cable / connector

*Pin No.	Isolator color	Applications
1	Red	Power supply⊕
2	Green	Main body cable shield wire
3	Black	Common
4	White	Input signal

If a cable connector is not used, following recommended cable sockets can be used. Anyway, use a shield wire cable.

- Set screw type ELW1KA4012 CORRENS (HIRSHMAN)
- Straight type (soldering) XS2C-D421 OMRON
- L type (soldering) XS2C-D422 OMRON