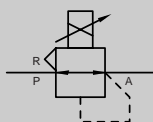


EVS Series

JIS symbol



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) Downsized
Redesigned the internal structure, the volume is reduced by approx. 50% comparing to CKD conventional model (EV0000 Series). (Excluding cable outlet)
- (2) Light 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 raw, and contributes to reduce the device size.
- (4) Non-bleeding
Our 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) Precise/quick 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 side	300kPa
	Output side	150kPa
Control pressure range	0 to 98kPa	0 to 0.49MPa
Power voltage	24 VDC $\pm 10\%$ (safety power supply with ripple ratio 1% or less)	
Current consumption	0.1A or less (power supply rush current 0.6A when power turned ON)	
Input signal (input impedance)	0-10 VDC (6.6k Ω)	
	0-5 VDC (3.3k Ω)	
	20mA 05 4-or 1-5 VDC (250 Ω)	
How to wire	Shield cable connector or applicable connectors and shield wire	
Insulation resistance	100M Ω (500 VDC mega) and over	
Withstand voltage	1500 VAC for one minute	
Hysteresis	Note 1	1%F.S. or less
Linearity	Note 1	$\pm 0.5\%$ F.S. or less
Resolution	Note 1	0.5%F.S. or less
Repeatability	Note 1	0.5%F.S. or less
Temperature characteristics	Zero point variation	0.15%F.S./ $^{\circ}\text{C}$ or less
	Span variation	0.07%F.S./ $^{\circ}\text{C}$ or less
Maximum flow rate (ANR)	Note 2	2 ℓ /min
Step response	Loadless	0.2s or less
	Note 3 15cm ³ load	0.5s or less
Ambient temperature	5 to 50 $^{\circ}\text{C}$	
Fluid temperature	5 to 50 $^{\circ}\text{C}$	
Lubrication	Not available	
Mounting attitude	Free	
Protective structure	IP60 (without protective structure for water)	
Main dimensions	W30 x D50 x H50	
Port size	M5	
Weight (body)	140g	

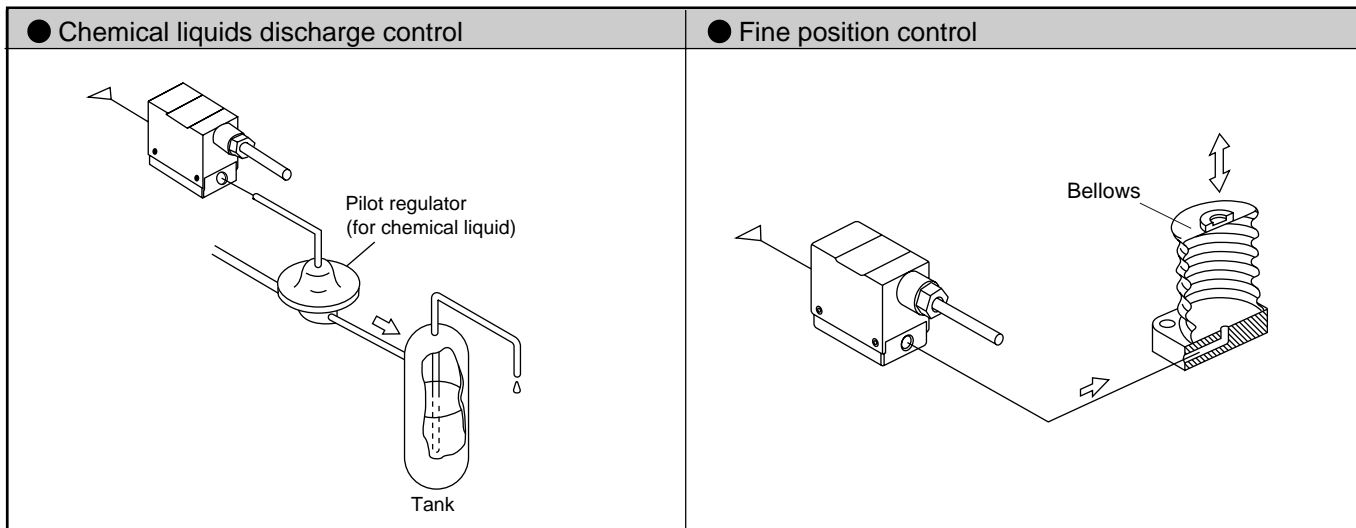
Note 1: The above apply for a 10 to 100% control pressure at 24 VDC power voltage, with working pressure between maximum control pressure x 1.1 (EVS100: 110kPa, EVS500: 0.54MPa) and maximum working pressure. Limited to a closed circuit in the secondary side, the pressure may fluctuate if used air blow, etc.
 Note 2: Working pressure: Maximum working pressure, Control pressure: Maximum control pressure
 Note 3: Working pressure: Maximum working pressure, step amount
 [50%F.S. \rightarrow 100%F.S.
 50%F.S. \rightarrow 60%F.S.
 50%F.S. \rightarrow 40%F.S.]

Clean room specifications (catalog No. CB-033SA)

- Dust generation preventing structure for use in cleanrooms

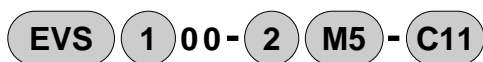
EVS P70

Example of use



Refrigerating type dryer
 Desiccant type dryer
 High polymer membrane dryer
 Air filter
 Auto. drain / others
 F.R.L (Module unit)
 F.R.L (Separate)
 Compact F.R.
 Precise regulator
 F.R.L (Related products)
 Clean F.R.
 Electro pneumatic regulator
 Air booster
 Speed control valve
 Silencer
 Check valve / others
 Joint / tube
 Vacuum filter
 Vacuum regulator
 Suction plate
 Magnetic spring buffer
 Mechanical pressure SW
 Electronic pressure SW
 Contact / close contact conf. SW
 Air sensor
 Pressure SW for coolant
 Small flow sensor
 Small flow controller
 Flow sensor for air
 Flow sensor for water
 Total air system
 Total air system (Gamma)
 Ending

How to order



Model no. **A** Control pressure range

B Input control signal

C Port size

D Cable option

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

⚠ Note on selection guide

Note: Model no. for option is

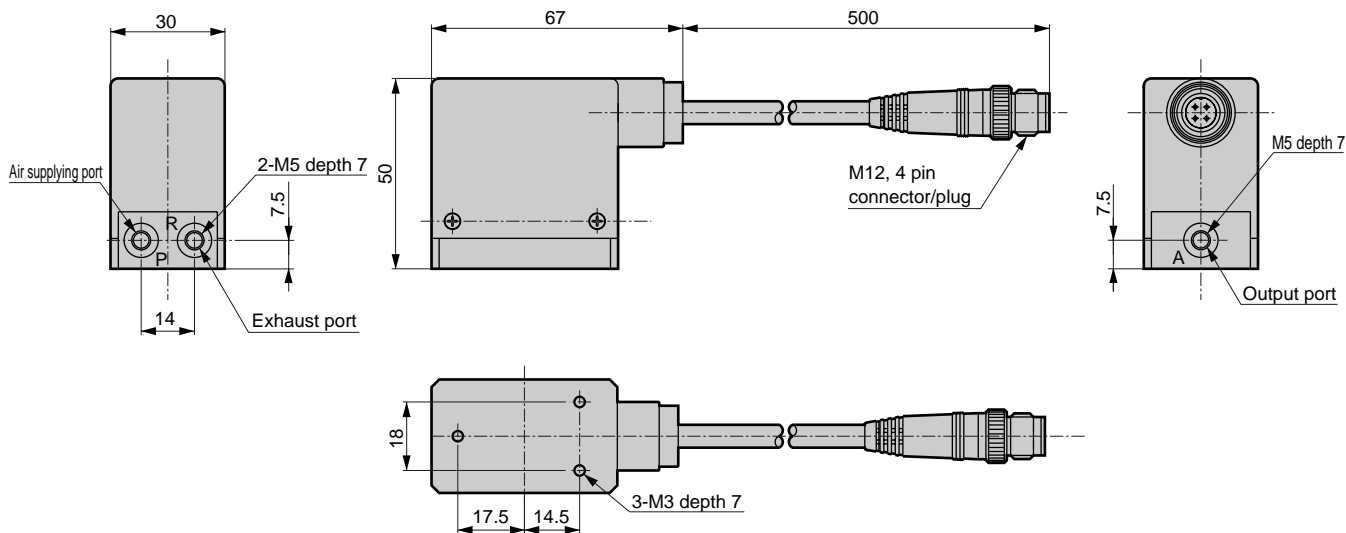
EV2000 - Cable option symbol .

Refrigerating type dryer
Desiccant type dryer
High polymer membrane dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact conf. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)

Ending

Electro pneumatic regulator
F.R.L. unit

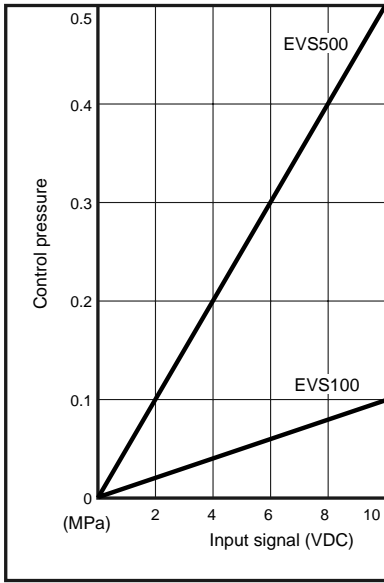
Dimensions



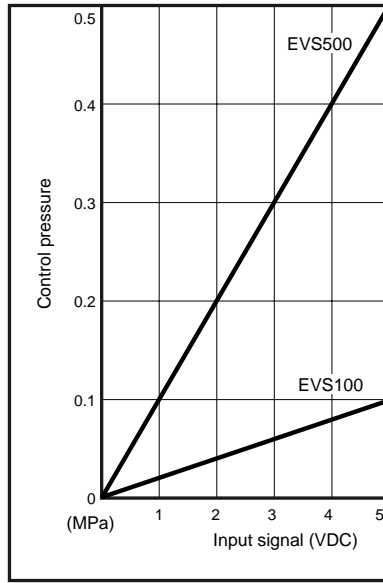
I/O characteristics

- Refrigerating type dryer
- Desiccant type dryer
- High polymer membrane dryer
- Air filter
- Auto. drain / others
- F.R.L (Module unit)
- F.R.L (Separate)
- Compact F.R.
- Precise regulator
- F.R.L (Related products)
- Clean F.R.
- Electro pneumatic regulator
- Air booster
- Speed control valve
- Silencer
- Check valve / others
- Joint / tube
- Vacuum filter
- Vacuum regulator
- Suction plate
- Magnetic spring buffer
- Mechanical pressure SW
- Electronic pressure SW
- Contact / close contact conf. SW
- Air sensor
- Pressure SW for coolant
- Small flow sensor
- Small flow controller
- Flow sensor for air
- Flow sensor for water
- Total air system
- Total air system (Gamma)
- Ending

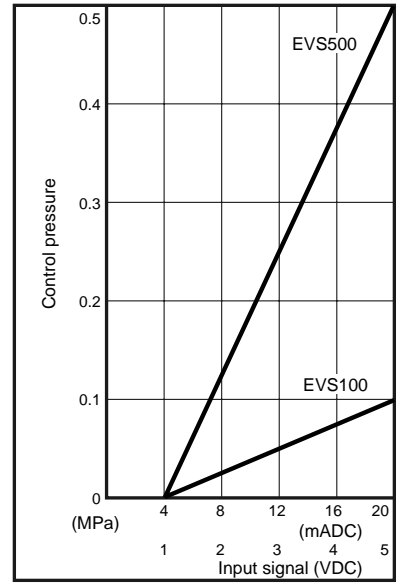
● Input signal 0-10 VDC



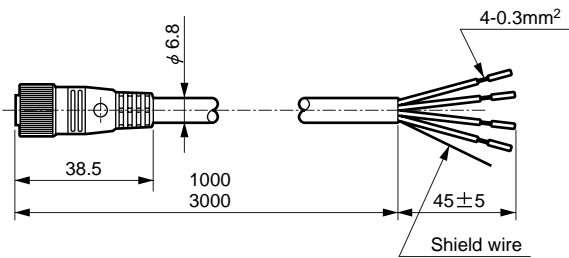
● Input signal 0-5 VDC



● Input signal 4-20mA DC or 1-5 VDC



Cable option



-C1* shield/cable/connector

* Pin No.	Isolator color	Applications	Type of input signal		
			0-10V	0-5V	4-20mA 1-5V
1	Red	Power supply ⊕	24V		
2	Green	-	Vacant		
3	Black	Common	0V		
4	White	Input signal	0-10V	0-5V	4-20mA 1-5V

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)
- Axial type (solder) XS2C-D421 OMRON
- L type (solder) XS2C-D422 OMRON