PRODUCT INFORMATION Micro Pressure EP Regulator

Micro Pressure EP Regulator PRV-700
Large flow type
with internal governor

Micro Pressure E/P Regulator PRV-700S
Direct-acting type
for small volume
(Booster required separately)

PRV-700
PRV-700S
Micro Pressure EP Regulator

■ Features

- Regulates micro low and low pressures with voltage input of 0 to 5 V
- High-speed regulation of micro low pressure
- High-accuracy regulation of micro low pressure
- Regulates pressure and vacuum

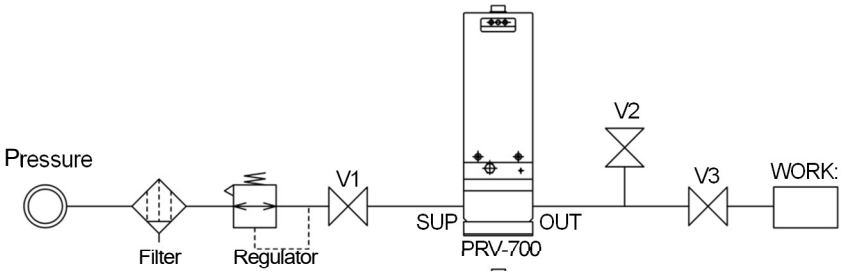
■ Ranges

Range	Max. Control Flow (PRV-700)	Max. Control Flow (PRV-700S)	Accuracy	Proof Pressure
2.5 kPa	130 L/min	-----	± 0.3% of F.S.	5 x F.S.
7 kPa	150 L/min		± 0.2% of F.S.	120 kPa
35 kPa	200 L/min			
100 kPa	330 L/min			300 kPa

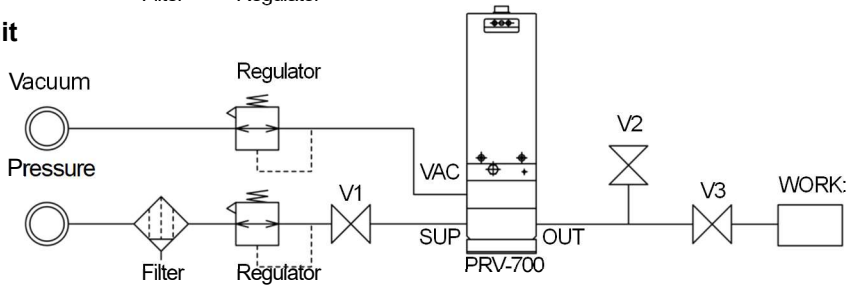
Control Pressure Range			Voltage for setting output pressure	Primary Pressure (Recommended Value)	Vacuum (Recommended Value)	Output voltage of the sensor that monitors controlled pressure
Pressure	M. Low	2.5 kPa	0 to 5 VDC	10 to 30 kPa (10 kPa)	-----	0 to 0.25 VDC
		7 kPa		40 to 80 kPa (50 kPa)		0 to 0.7 VDC
	Low	35 kPa		70 to 120 kPa (100 kPa)		0 to 0.35 VDC
		100 kPa		150 to 250 kPa (200 kPa)		0 to 1 VDC
Pressure/ Vacuum	M. Low	±2.5 kPa	-5 to 5 VDC	10 to 30 kPa (10 kPa)	-10 to -30 kPa (-10 kPa)	-0.25 to 0.25 VDC
		±7 kPa		40 to 80 kPa (50 kPa)	-50 to -90 kPa (-50 kPa)	-0.7 to 0.7 VDC
	Low	±35 kPa		70 to 120 kPa (100 kPa)	-50 to -90 kPa (-80 kPa)	-0.35 to 0.35 VDC
		-90 to 100 kPa	-4.5 to 5 VDC	150 to 250 kPa (200 kPa)	-90 kPa or higher (-95 kPa)	-0.9 to 1 VDC

■ Pneumatic Circuit (Reference Example)

Pressure Circuit



Pressure/Vacuum Circuit



■ Specifications

START/STOP Signal	Photocoupler input
PASS signal (Output when the pressure reaches the specified pressure)	NPN open collector output 5 to 24 VDC 20 mA
Mounting Hole Position Dimensions W x B	40 x 76 mm
Overall Accuracy	±1.0% of F.S. (Sensor accuracy included)
Response	≤ 1 second (99% response, Volume: PRV-700, 2 L PRV-700S, 50 mL *1) ≤ 0.5 seconds (20% step response)
Weight	Approx. 1.0 kg
Port Size	Rc1/4

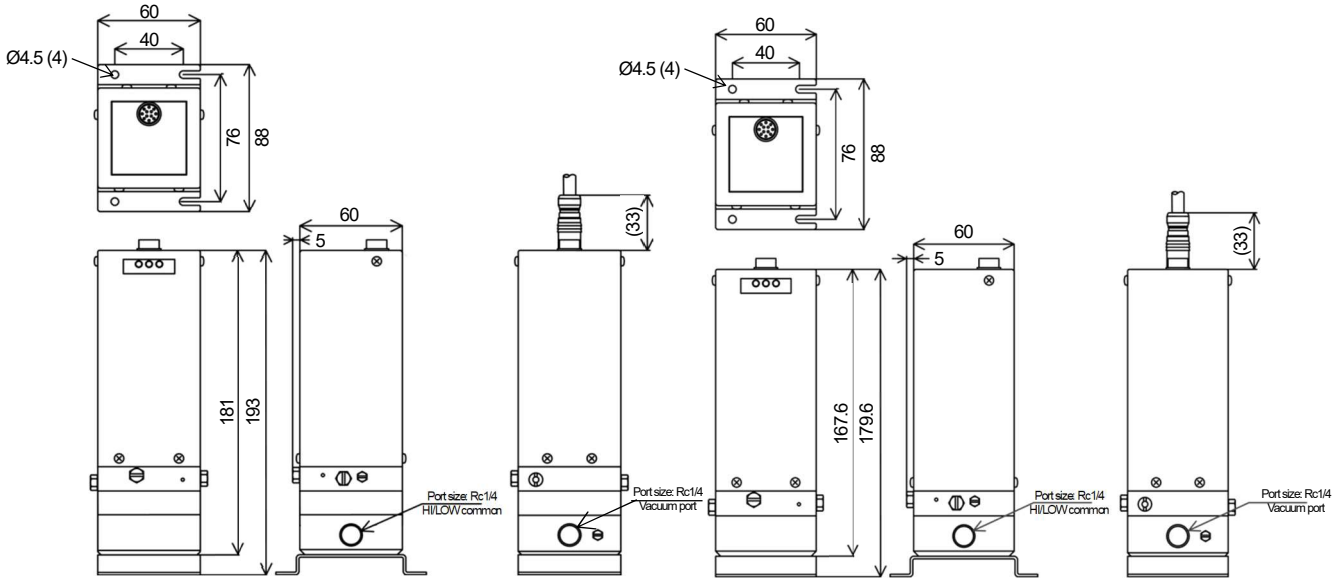
Operation Power Source	24 VDC ± 2 V 0.7 A (1.5 A Max.)
Air Consumption (Internal Vacuum Generator)	For PRV-700: Range 2.5 kPa: Approx. 2.5 L/min Range 7 kPa: Approx. 4 L/min Range 35 kPa: Approx. 6 L/min Range 100 kPa: Approx. 7 L/min
Body Dimensions W x B x H	PRV-700: 60 x 60 x 200 mm PRV-700S: 60 x 60 x 180 mm *1
Accuracy	±0.2% of F.S. / ±0.3% of F.S. (2.5 kPa)
Option	Pressure/Vacuum, Control Voltage Change
Signal Connector	HR10-10P-12P (Hirose)

*1 Use PRV-700S when the internal volume of the target for pressure control is 50 mL or less, or when using a booster.

■ External Appearance

PRV-700
Large flow type with internal governor

PRV-700S
Direct-acting type for small volume
(Booster required separately)



* The contents of this Product Information are as of August 2021. The specifications are subject to change without prior notice.

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