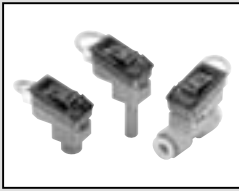


PPE Series



CAD DATA AVAILABLE.

Overview

Pressure switch PPE series is trimmer setting type semiconductor pressure switch developed for pneumatic / vacuum systems. Usage is flexible due to small shape and 3 types of connecting port (R1/8, 6 dia. plugs and 6 dia. push in joint).

Features

- Semiconductor pressure sensor
Used semiconductor sensor pressure detection, high precision and high reliability are achieved.
- 2 wire
Due to 2 wire type, wiring man-hours is reduced, and both PLC input formats (source and sink) can be used.
- High withstanding pressure
Withstanding pressure of negative pressure type (V01) is as high as 0.6MPa, so the product can withstand to vacuum break by pressurization.
- Reverse connection / over current protection circuit integrated
A protective circuit for improper wire connection (reverse connection, load short circuit) is integrated.
- Wide port sizes.
R1/8
6 dia. plug
6 dia. push in joint
- CE marking

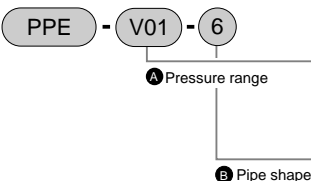
Specifications

Model no.	Vacuum		Positive pressure	
	PPE-V01- <input type="checkbox"/>	PPE-P01- <input type="checkbox"/>	PPE-P10- <input type="checkbox"/>	
Descriptions	Note 1		Note 1	
Pressure range	-101.3 to 0kPa	0 to 100kPa	0 to 1MPa	
Name plate color Note 2	Red	Green	Blue	
Pressure sensitive element	Carrier diffusion type semiconductor strain gauge			
Applicable fluid	Air / dry compressed air			
Withstanding pressure	0.6MPa	0.3MPa	1.5MPa	
Repeatability	± 1%F.S.			
Hysteresis	3%F.S. or less			
Temperature characteristics	± 3%F.S.			
Load voltage	DC10 to 30V			
Load current	5 to 50mA			
Internal voltage drop	4V or less			
Leakage current	1mA or less			
Light display	When power turns ON, yellow LED lights			
Lead wire length	Standard 3m (oil resistant vinyl cabtire code 2-conductor 0.15mm ²)			
Ambient temperature range	0 to 50 °C (to be unfrozen.)			
Protective structure	Equivalent to IEC standards IP65			
Pipe method	R1/8, 6 dia. plug and 6 dia. push in joint			

Note 1. section is matched to piping section. (Refer to how to order.)

Note 2. Name plate color is changed per pressure range. (To prevent improper use.)

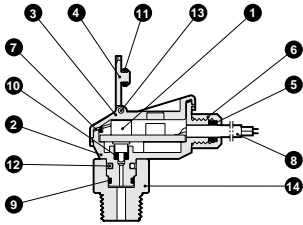
How to order



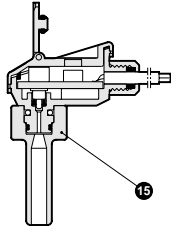
Symbol	Descriptions
A	Pressure range
V01	-101.3 to 0 kPa
P01	0 to 101 kPa
P10	0 to 1 MPa
B	Pipe shape
6	R1/8
H6-B	6mm plugs dia.
H6	Inline type for 6 dia. push in joint (2 pieces)

Internal structure and parts list

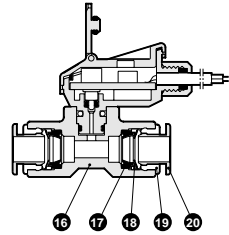
PPE-*-6



PPE-*-H6-B



PPE-*-H6

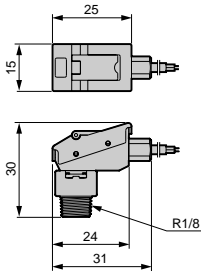


No.	Parts name	Material	No.	Parts name	Material
	Pressure sensor	Carrier diffusion type semiconductor strain gauge		O ring	Nitrile rubber
	Body	PBT (glass fiber 30%)		Stopper	Stainless steel
	Cover	Polycarbonate		Spring pin	Stainless steel
	Trimmer cover	Polycarbonate		R1/8	PBT (glass fiber 30%)
	Bush	Nitrile rubber		Plug	PBT (glass fiber 30%)
	Bush	Holder aluminum		Push-in joint	PBT
	Cover gasket	Silicon rubber		Packing seal	Nitrile rubber
	Lead wire (3m)	Polyvinyl chloride		Chuck	Brass (electroless nickeling)
	O ring	Nitrile rubber		Outer ring	Brass (electroless nickeling)
	O ring	Nitrile rubber		Push ring	Polyacetal

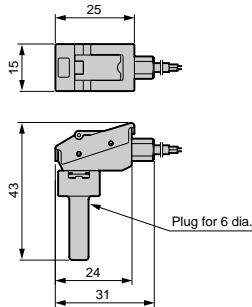
Dimensions



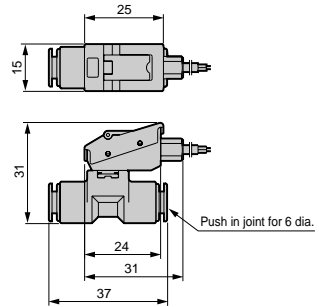
PPE-*-6

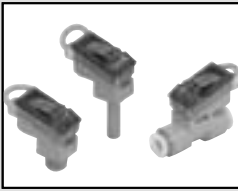


PPE-*-H6-B



PPE-*-H6





Electronic small pressure sensor
Analog output type

PPE-*A Series



CAD DATA AVAILABLE.

Overview

Pressure sensor PPE-A series is semiconductor pressure sensor developed for pneumatic and vacuum systems.

Output promotional to impressed voltage; 1 to 5V (analog output).

Usage is flexible due to a small shape and 3 types of connecting ports (R1/8, 6 dia. plug and 6 dia. push in joint) .

Features

- Semiconductor pressure sensor
Used semiconductor sensor pressure detection, high precision and high reliability are realized.
- Analog output
Analog output proportional to impressed voltage (1 to 5V).
- Power supply indicator light
When power is energized, green LED lights to show operational state at energized.
- Integrating protective circuit to prevent power supply reverse connection / load short circuit
A protective circuit for improper wire connection (power supply reverse connection, load short circuit) is integrated.
- Wide port size
R1/8
6 dia. plug
6 dia. push in joint

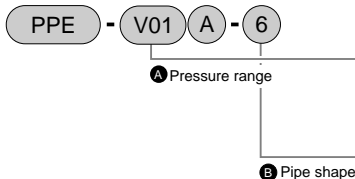
Specifications

Model no.	Vacuum		Positive pressure	
	PPE-V01A-□ Note 1	PPE-P01A-□ Note 1	PPE-P10A-□ Note 1	
Descriptions				
Pressure range	0 to -100kPa	0 to 100kPa	0 to 1MPa	
Name plate line color Note 2	Red	Green	Blue	
Pressure sensitive element	Carrier diffusion type semiconductor strain gauge			
Applicable fluid	Air / dry compressed air			
Withstanding pressure MPa	0.3	0.3	1.5	
Accuracy	± 1%F.S. or less			
Linearity	± 0.3%F.S. or less			
Analog output	V 1 to 5 (output impedance 1KΩ)			
Power voltage	V DC12 to 24 ± 10% (ripple ratio 1% or less)			
Current consumption	mA 10 or less			
Light display	When power supply turns on, green LED lights.			
Lead wire length	Standard 3m (oil resistant vinyl cable code, 3-conductor and 0.15mm ²)			
Protective circuit	Power supply reverse connection protection, load phase fault protection			
Ambient temperature	°C 0 to 50 (to be unfrozen.)			
Temperature characteristics	± 0.12%F.S. / °C or less			
Insulation resistance	20MΩ and over at DC500V			
Withstanding voltage	AC1000V for 1 min.			
Vibration resistance	10 to 55Hz compound amplitude 1.5mm 4 hours per XYZ directions			
Protective structure	Equivalent to IEC standards IP65			
Pipe method	R1/8, 6 dia. plug and 6 dia. push in joint			

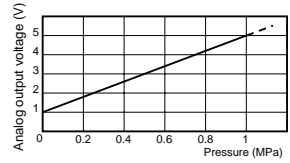
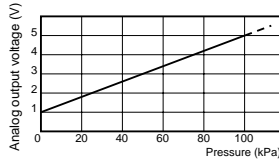
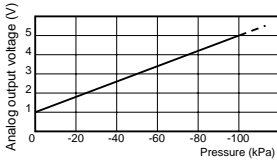
Note 1: □ section is matched to piping section. (Refer to how to order.)

Note 2: Name plate line color is changed per pressure range. (To prevent improper use.)

How to order

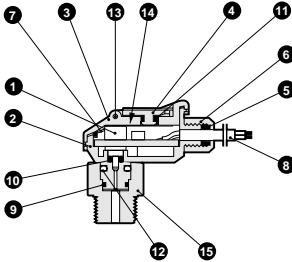


Symbol	Descriptions
A	Pressure range
V01	0 to -100kPa
P01	0 to 100kPa
P10	0 to 1MPa
B	Pipe shape
6	R1/8
H6-B	6mm plug dia.
H6	Inline type for 6 dia. push in joint (2 pieces)

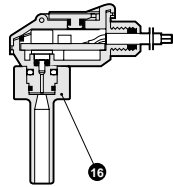


Internal structure and parts list

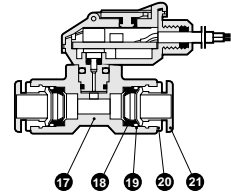
• PPE-* A-6



• PPE-* A-H6-B



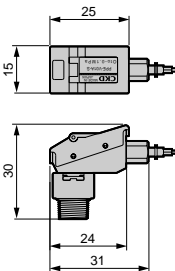
• PPE-* A-H6



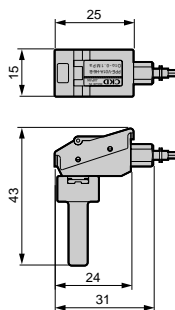
No.	Parts name	Material	No.	Parts name	Material
1	Pressure sensor	Carrier diffusion type semiconductor strain gauge	12	Stopper	Stainless steel
2	Body	PBT (glass fiber 30%)	13	Spring pin	Stainless steel
3	Cover	Polycarbonate	14	Shield seat	Aluminum
4	Trimmer cover	Polycarbonate	15	R1/8	PBT (glass fiber 30%)
5	Bush	Nitrile rubber	16	Plug	PBT (glass fiber 30%)
6	Bush holder	Aluminum	17	Push-in joint	PBT
7	Cover gasket	Silicon rubber	18	Packing seal	Nitrile rubber
8	Lead wire (3m)	Polyvinyl chloride	19	Chuck	Brass (electroless nickeling)
9	O ring	Nitrile rubber	20	Outer ring	Brass (electroless nickeling)
10	O ring	Nitrile rubber	21	Push ring	Polycetal
11	O ring	Nitrile rubber			

Dimensions (File name: Page 900 or Ending 27)

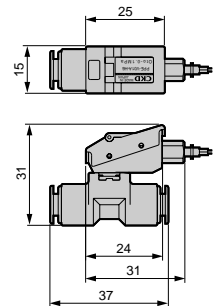
• PPE-* A-6



• PPE-* A-H6-B



• PPE-* A-H6



Cautions

- Analog output accuracy is also affected by self exoergic at energized other than temperature characteristics. Provide enough stand-by time (5 min. and over after energizing) before starting operation.
- Refer to precautions in PPE-*A series section (Page 853 and 854) for detailed cautions for wiring methods.