

Compact, Non-indicating Pressure Sensors

■ Features

- Rated pressure
 - negative pressure (-101.3 to 0.0kPa)
 - standard pressure (0 to 100.0kPa, 0 to 1,000kPa)
 - compound pressure (-101.3 to 100.0kPa)
- Compact design: W11.8×H29.3×L24.8mm (including pressure port)
- Analog output: Voltage (1-5VDC), current (DC4-20mA)
- Power supply: 12-24VDC ±10%



⚠ Please read "Safety Considerations" in the instruction manual before using.



■ Ordering Information

PS	S	-	V	01	V	-	R1/8
Item	Size		Pressure type	Pressure range	Output	Pressure port	
						R1/8	Standard
					V		Voltage (1-5VDC) output
					A		Current (DC4-20mA) output
				01			100kPa
				1			1,000kPa
			No-mark				Standard pressure type
			V				Negative pressure type
			C				Compound pressure type
			S				Small (W11.8×H29.3×L24.8mm)
			PS				Pressure Sensor

■ Specifications

Pressure type		Gauge pressure			
		Negative pressure		Standard pressure	
Model	Voltage output	PSS-V01V-R1/8	PSS-01V-R1/8	PSS-1V-R1/8	PSS-C01V-R1/8
	Current output	PSS-V01A-R1/8	PSS-01A-R1/8	PSS-1A-R1/8	PSS-C01A-R1/8
Rated pressure range		0.0 to -101.3kPa	0.0 to 100.0kPa	0 to 1,000kPa	-101.3 to 100.0kPa
Analog output range		5.0 to -101.3kPa	-5.0 to 110.0kPa	-50 to 1,100kPa	-101.3 to 110.0kPa
Max. pressure range		2 times of rated pressure	2 times of rated pressure	1.5 times of rated pressure	2 times of rated pressure
Applied fluid		Air, non-corrosive gas			
Power supply		12-24VDC ±10% (ripple P-P: Max. 10%)			
Current consumption		Voltage output type: Max. 15mA, Current output type: —			
Effect by power supply		Max. ±0.3% F.S.			
Protection circuit		Reverse polarity protection circuit			
Analog output	Voltage output	•Output voltage: 1-5VDC ±2% F.S.		•Linear: Max. ±1% F.S.	•Output impedance: 1kΩ
	Current output	•Output current: DC4-20mA ±2% F.S.		•Linear: Max. ±1% F.S.	
Temp. characteristics of analog output		Max. ±2% F.S. of output voltage/current at 25°C within temperature range 0 to 50°C			
Insulation resistance		Over 50MΩ (at 500VDC megger)			
Dielectric strength		2000VAC 50/60Hz for 1 minute			
Vibration		1.5mm amplitude at frequency of 10 to 55Hz in each X, Y, Z direction for 2 hours			
Environment	Ambient temp.	0 to 50°C, storage: -10 to 60°C			
	Ambient humi.	35 to 85%RH, storage: 35 to 85%RH			
Protection structure		IP40 (IEC standard)			
Material		Front, Rear case: Polycarbonate, Pressure port: Nickel plated brass			
Cable		Ø3, 4-wire, 3m (AWG28, Core diameter: 0.08mm, Number of cores: 19, Insulator out diameter: Ø0.88mm)			
Sold separately		Sensor connector wire mount plug (CNE-P04-□)※1			
Approval		CE			
Weight※2		Approx. 60g (approx. 26g)			

※1: For more information about sensor connector wire mount plug, refer to 'Connectors' and 'Sockets' chapters.

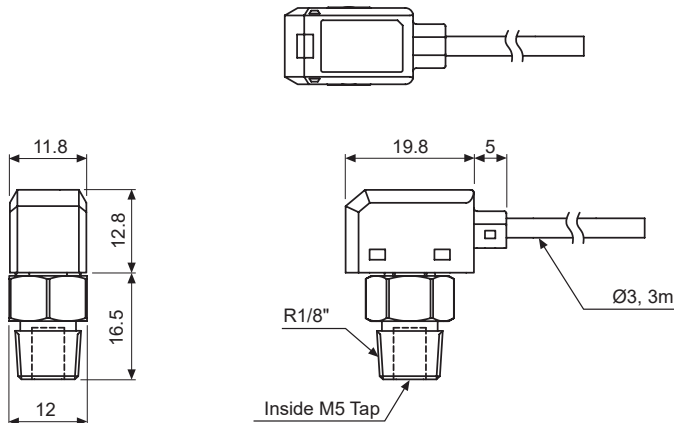
※2: The weight includes packaging. The weight in parenthesis is for unit only.

※F.S.: Rated pressure.

※Environment resistance is rated at no freezing or condensation.

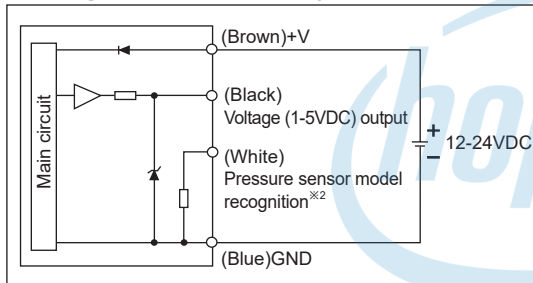
■ Dimensions

(unit: mm)

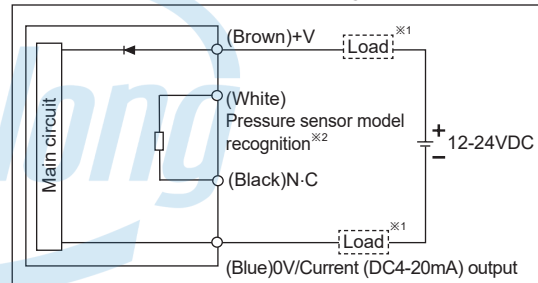


■ Connections

• Voltage (1-5VDC) output type



• Current (DC4-20mA) output type



※1 : Load can be connected any directions.

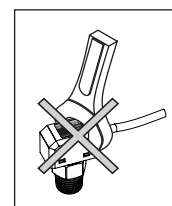
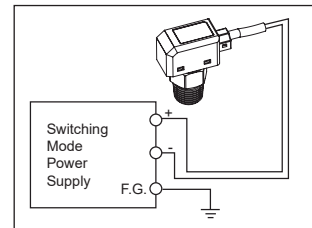
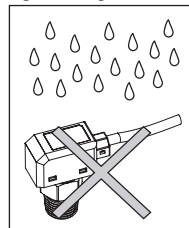
※2 : Pressure sensor model is automatically recognized only by Autonics PSM Series, Multi-CH Pressure and Sensor indicator.

※Allowable load impedance: Max. 100Ω for 12VDC power, Max. 500Ω for 24VDC power

※The product is not equipped with the output short over current protection circuit. If short-circuit the control output terminal or supply current over the rated specification, it may result in product damage.

■ Proper Usage

- Do not insert any sharp or pointed object into pressure port.
- Failure to follow this instruction may result in malfunction and damage the sensor.
- Be sure that this unit must avoid direct touch with water, oil, thinner etc.
- It is ready to operate 3 sec after it is turned ON. Be sure not to use the product within 3 sec.
- When using switching mode power supply, frame ground (F.G.) terminal of power supply should be grounded.
- To avoid inductive noise, keep the wiring away from power line, high voltage line.
- Failure to follow this instruction may result in malfunction.
- When moving this unit from warm place to cold place, please remove the humidity on the cover then use it.
- Do not use spanner to mounting this unit.
- Tightening torque for one touch fitting should be below 10N·m.
- Do not apply a tensile strength in excess of 30N to the cables or connector.
- This product may be used in the following environments.
 - Indoors
 - Altitude max. 2,000m
 - Pollution degree 3
 - Installation category II



SENSORS

CONTROLLERS

MOTION DEVICES

SOFTWARE

(A) Photoelectric Sensors

(B) Fiber Optic Sensors

(C) LIDAR

(D) Door/Area Sensors

(E) Vision Sensors

(F) Proximity Sensors

(G) Pressure Sensors

(H) Rotary Encoders

(I) Connectors/
Connector Cables/
Sensor Distribution
Boxes/ Sockets