

# Pressure Sensors

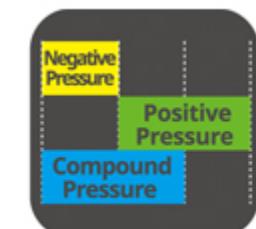
## Compact Analog Pressure Sensors

The PSS series analog pressure sensors feature rectangular design with compact sizes (W 11.8 mm x H 29.3 mm x L 24.8 mm, including pressure port). The sensors are capable of analog voltage or analog current outputs (depending on model) and can be connected directly to HMIs, PC, and PLCs from various brands. With a wide rated pressure range, the PSS sensors can be applied across various applications.



## Features

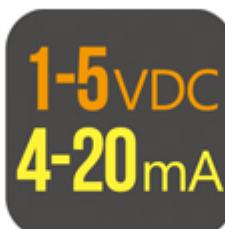
- \* Rated pressure: negative pressure (0 kPa to -101.3 kPa)  
positive pressure (0 kPa to 100.0 kPa / 0 kPa to 1000 kPa)  
compound pressure (-101.3 kPa to 100 kPa)
- \* Compact design: W 11.8 mm x H 29.3 mm x D 24.8 mm (with pressure port)
- \* Output: analog voltage (1-5 VDC) / analog current (DC 4-20 mA)
- \* Power supply: 12-24 VDC ±10%



Wide Pressure Range



Compact Size



Analog Output



Reverse Polarity Protection

## PSS Features

### 1 Compact Sized Sensors

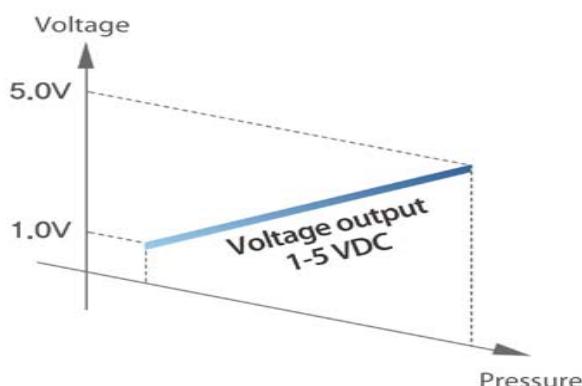
The compact-sized sensors (W 11.8 mm x H 29.3 mm x L 24.8 mm, including pressure port) can be installed in limited spaces.



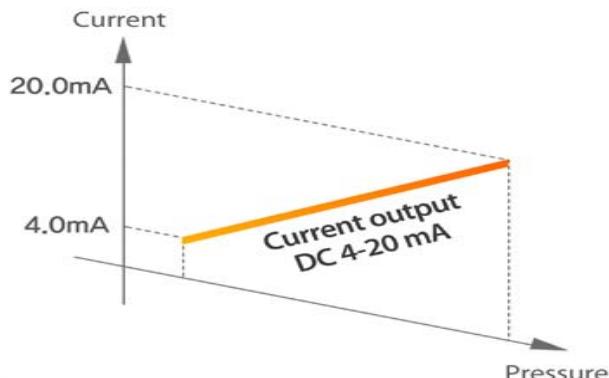
### 2 Analog Outputs

The series is available in DC 4-20 mA current output and 1-5 VDC voltage output models.

- Voltage output



- Current output



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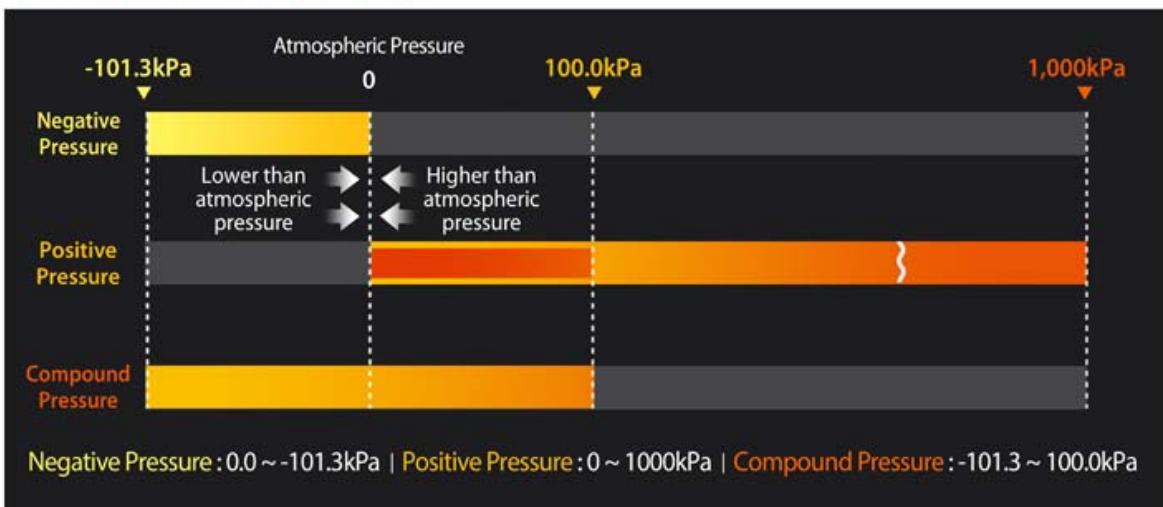
**FLUKE** networks™

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### 3 Pressure Measurement Range (Negative, Standard, Compound)

#### Pressure Measurement Range



### 4 Applications

Detect vacuum pressure of glass panel transport during display manufacturing process



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

Pressure type		Gauge pressure Negative pressure	Standard pressure	Compound pressure			
Model	Voltage output	PSS-V01V-R1/8	PSS-01V-R1/8	PSS-1V-R1/8			
	Current output	PSS-V01A-R1/8	PSS-01A-R1/8	PSS-1A-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-YG) <sup>※1</sup>						
Approval	<b>CE</b>						
Weight <sup>※2</sup>	Approx. 60g (approx. 26g)						

※1: For more information about sensor connector wire mount plug, refer to '(G) Connector/Socket'.

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

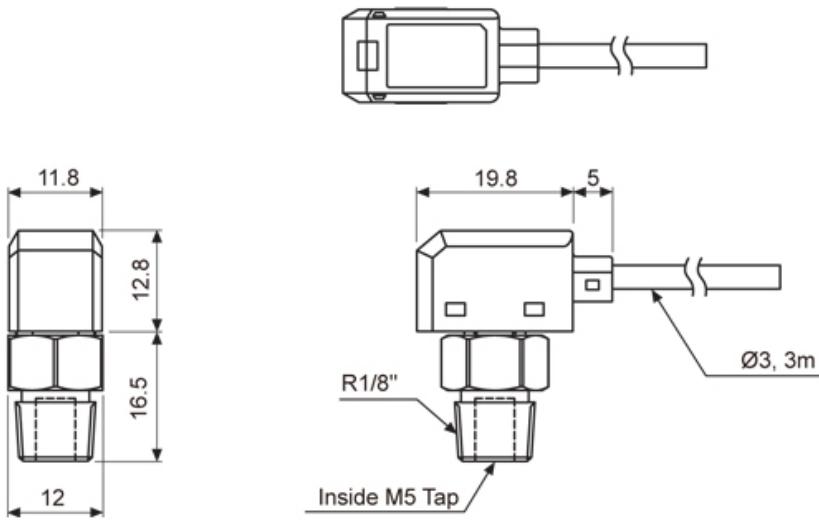
※F.S.: Rated pressure.

※Environment resistance is rated at no freezing or condensation.

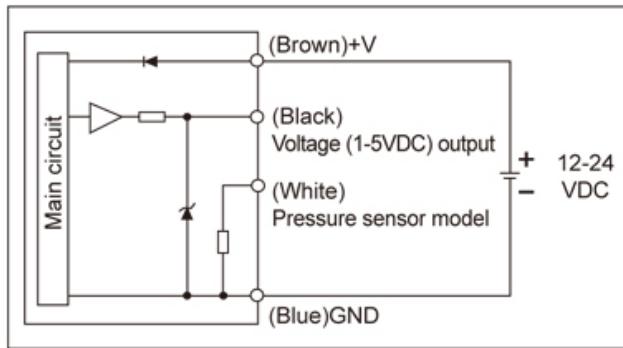
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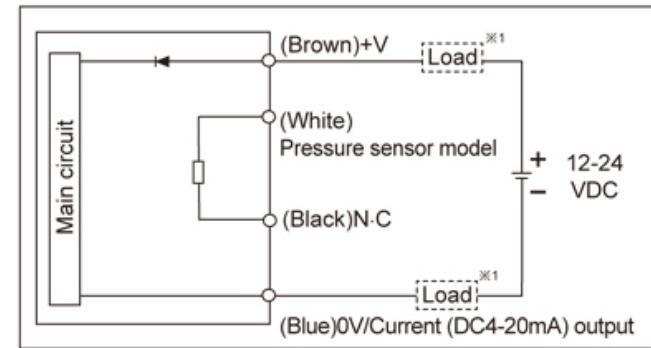
(unit : mm)



• Voltage (1-5VDC) output type



• Current (DC4-20mA) output type



※1 : Load can be connected any directions.

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

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