



Low Differential Pressure Sensor

Series **PSE550**

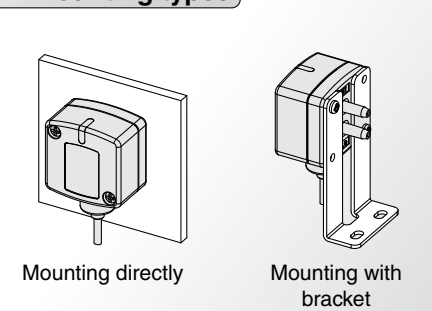


Series	Rated pressure range		
	0	1 kPa	2 kPa
PSE550	0		2 kPa

Power LED status indicator



2 mounting types

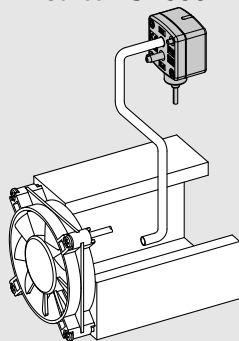


Accuracy
±1% F.S.

Proof pressure
65 kPa

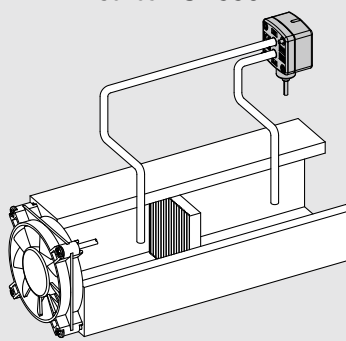
Application examples

Flow control Series PSE550



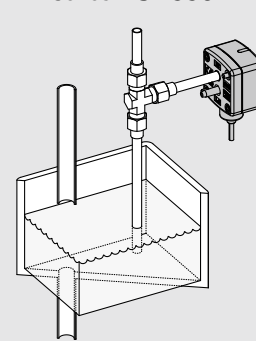
Can control air flow by monitoring the flow rate inside the duct.

Filter clogging monitoring Series PSE550



Can control filtration and replacement periods by monitoring the clogging of the filter.

Liquid level detection Series PSE550



Can detect the liquid level through changes in the purge pressure.

Applications

Low Differential Pressure Sensor

Series PSE550



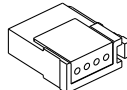
How to Order

PSE550-□-□-□

Output specifications

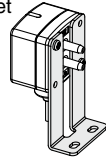
Nil	Voltage output type 1 to 5 V
28	Current output type 4 to 20 mA

Option 2 (Connector)

Nil	None
C2	Connector for pressure sensor controller (1 pc.) 

Note 1) Current output type cannot be connected to the PSE 200 series.
Note 2) The connector is not attached to the cable, but is included with the shipment.

Option 1 (Bracket)

Nil	None
A	Bracket 

Note) The bracket is not attached to the product, but is included with the shipment.

Option/Part No.

Description	Part no.	Note
Bracket	ZS-30-A	With M3 x 5L (2 pcs.)
Connector for pressure sensor controller	ZS-28-C	1 pc.

Specifications

For Pressure Switch Precautions and Specific Product Precautions, refer to “Handling Precautions for SMC Products” and the Operation Manual on SMC website.

Model		PSE550	PSE550-28
Rated differential pressure range		0 to 2 kPa	
Operating pressure range		-50 to 50 kPa ^{Note)}	
Extension analog output range		-0.2 to 0 kPa	—
Proof pressure		65 kPa	
Applicable fluid		Air/Non-corrosive gas/Non-flammable gas	
Power supply voltage		12 to 24 VDC ±10%, Ripple (p-p) 10% or less (with reverse connection protection)	
Current consumption		15 mA or less	—
Output specifications		Analog output: 1 to 5 VDC (within rated differential pressure range) 0.6 to 1 VDC (within extension analog output range) Output impedance: Approx. 1 kΩ	Analog output: 4 to 20 mA DC (within rated differential pressure range) Maximum load impedance: 500 Ω or less (at 24 VDC) 100 Ω or less (at 12 VDC)
Accuracy (Operating temperature at 25°C)		±1% F.S. (within rated differential pressure range), ±3% F.S. (within extension analog output range)	
Linearity		±0.5% F.S.	
Repeatability		±0.3% F.S.	
Indicator light		Orange light is turned on. (When energized)	
Environment	Enclosure	IP40	
	Operating temperature range	Operating: 0 to 50°C, Stored: -20 to 70°C (No freezing or condensation)	
	Operating humidity range	Operating/Stored: 35 to 85% RH (No condensation)	
	Withstand voltage	1000 VAC (in 50/60 Hz) for 1 minute between terminals and housing	
	Insulation resistance	50 MΩ or more (500 VDC measured via megohmmeter) between terminals and housing	
Temperature characteristics		±3% F.S. (25°C reference)	
Port size		ø4.8 (ø4.4 in the end) resin piping (Applicable to I.D. ø4 air tubing)	
Materials of parts in contact with fluid		Resin pipe: Nylon, Piston area of sensor: Silicon	
Sensor cable		Oilproof heavy-duty vinyl cable (ellipse), 3 cores, 2.7 x 3.2, 3 m Conductor area: 0.15 mm ² , Insulator O.D.: 0.9 mm	Oilproof heavy-duty vinyl cable (ellipse), 2 cores, 2.7 x 3.2, 3 m Conductor area: 0.15 mm ² , Insulator O.D.: 0.9 mm
Weight	With sensor cable	75 g	
	Without sensor cable	35 g	
Standards		CE, UL/CSA (E216656), RoHS	

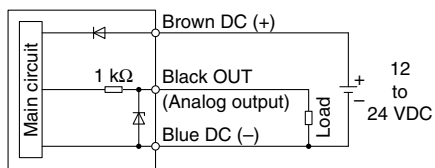
Note) Can detect differential pressure from 0 to 2 kPa within the range of -50 to 50 kPa.

Series PSE550

Internal Circuit and Wiring Example

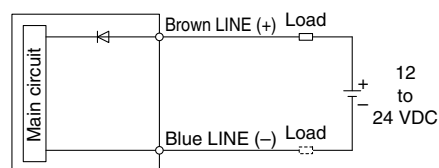
PSE550

Voltage output type
1 to 5 V
Output impedance
Approx. 1 k Ω



PSE550-28

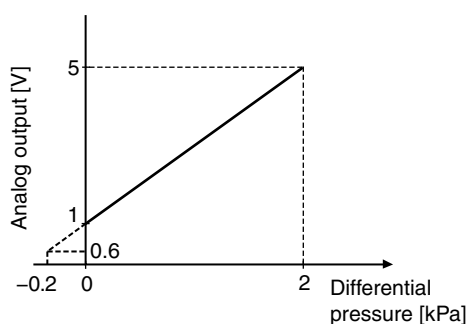
Current output type
4 to 20 mA
Allowable load impedance
500 Ω or less (at 24 VDC)
100 Ω or less (at 12 VDC)



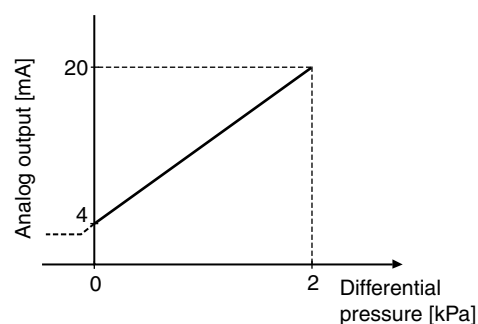
* Install the load either on the LINE (+) or LINE (-) side.

Analog Output

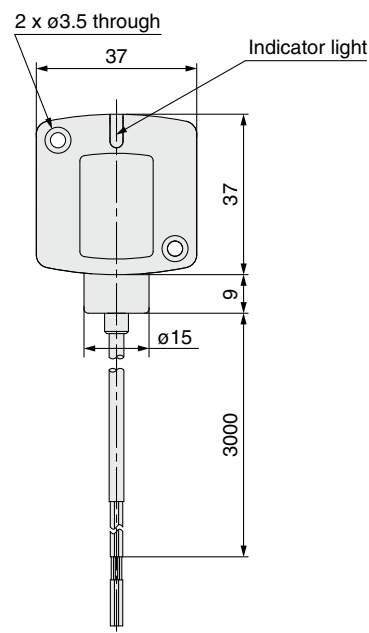
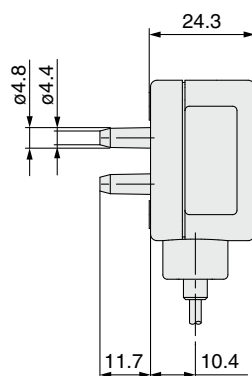
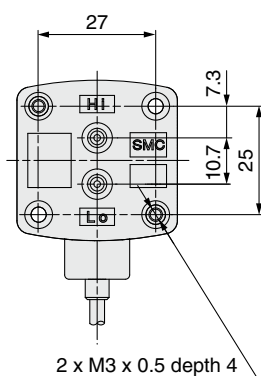
1 to 5 VDC



4 to 20 mA DC



Dimensions



With bracket

