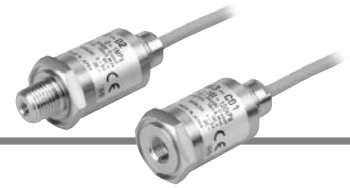


# Pressure Sensor For General Fluids

# Series PSE560



## How to Order

### Sensor range

0	Positive pressure [0 to 1 MPa]
1	Vacuum [0 to -101 kPa]
3	Compound pressure [-100 to 100 kPa]
4	Positive pressure [0 to 500 kPa]

### Option (Connector)

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

Note 1) Current output type cannot be connected to the PSE200 series.

Note 2) At the factory, the connector is not attached to the cable, but packed together with it for shipment.

PSE56 0 - 01 - - -

### Port size

01	R 1/8 (with M5 female thread)
02	R 1/4 (with M5 female thread)
C01	Rc 1/8
N01	NPT 1/8 (with M5 female thread)
N02	NPT 1/4 (with M5 female thread)
A2	URJ 1/4
B2	TSJ 1/4

### Output specifications

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

## Option

Description	Part no.	Note
Connector for pressure sensor controller	ZS-28-C	1 pc.
Adapter with throttle Rc 1/4	ZS-31-X175	1 pc.
Adapter with throttle NPT 1/4	ZS-31-X186	1 pc.
Adapter with throttle Rc 1/8	ZS-31-X188	1 pc.
Adapter with throttle NPT 1/8	ZS-31-X189	1 pc.

## Specifications

Model	PSE560 (Positive pressure)	PSE561 (Vacuum)	PSE563 (Compound pressure)	PSE564 (Positive pressure)
Rated pressure range	0 to 1 MPa	0 to -101 kPa	-100 to 100 kPa	0 to 500 kPa
Extension analog output range	-0.1 to 0 MPa	10.1 to 0 kPa	—	-50 to 0 kPa
Proof pressure	1.5 MPa	500 kPa	500 kPa	750 kPa

Model	PSE56□-□	PSE56□-□-28
Applicable fluid	Liquid or gas that will not corrode stainless steel 316L	
Power supply voltage	12 to 24 VDC ±10%, Ripple (p-p) 10% or less (with power supply polarity protection)	
Current consumption	10 mA or less	—
Output specification	Analog output: 1 to 5 V (within rated differential pressure range) 0.6 to 1 V (with extension analog output range) Output impedance: Approx. 1 kΩ	Analog output: 4 to 20 mADC (within rated differential pressure range) Allowable load impedance: 500 Ω or less (at 24 VDC) 100 Ω or less (at 12 VDC)
Accuracy (Ambient temperature at 25°C)	±1% F.S. or less (with rated pressure range), ±3% F.S. or less (with extension analog output range)	
Linearity	±0.5% F.S. or less	
Repeatability	±0.2% F.S. or less	
Power supply voltage effect	±0.3% F.S. or less	
Environmental resistance	Enclosure	IP65
	Operating temperature range	Operating: -10 to 60°C, Stored: -20 to 70°C (No freezing or condensation)
	Operating humidity range	Operating/Stored: 35 to 85% RH (No condensation)
	Withstand voltage	250 VAC for 1 minute between live parts and case
	Insulation resistance	50 MΩ or more between live parts and case (at 50 VDC Mega)
	Vibration resistance	10 to 150 Hz at whichever is smaller of 1.5 mm amplitude or 20 m/s <sup>2</sup> acceleration, in X, Y, Z directions, for 2 hours each (De-energized)
Temperature characteristics	500 m/s <sup>2</sup> in X, Y, Z directions, 3 times each (De-energized)	
	±2% F.S. or less (0 to 50°C: Based on 25°C), ±3% F.S. or less (-10 to 60°C: Based on 25°C)	
Standards	Compliant with CE marking, UL (CSA)	

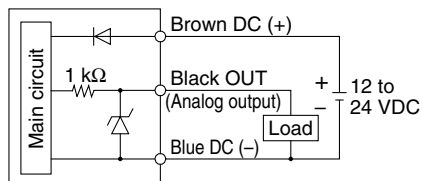
## Piping Specifications

Model	01	02	N01	N02	C01	A2	B2
Port size	R 1/8 M5 x 0.8	R 1/4 M5 x 0.8	NPT 1/8 M5 x 0.8	NPT 1/4 M5 x 0.8	Rc 1/8	URJ 1/4	TSJ 1/4
Material	Case: C3604 + nickel plated, Piping port/pressure sensor: Stainless steel 316L						
Sensor cable	PSE56□-□: Oil proof heavy-duty vinyl cable with air tube, 3 cores, ø5.1, 3 m, Conductor area: 0.2 mm <sup>2</sup> , Insulator O.D.: 1.12 mm PSE56□-□-28: Oil proof heavy-duty vinyl cable with air tube, 2 cores, ø5.1, 3 m, Conductor area: 0.2 mm <sup>2</sup> , Insulator O.D.: 1.12 mm						
Mass	With sensor cable	193 g	200 g	194 g	201 g	187 g	203 g
	Without sensor cable	101 g	108 g	102 g	109 g	95 g	101 g

## Internal Circuit

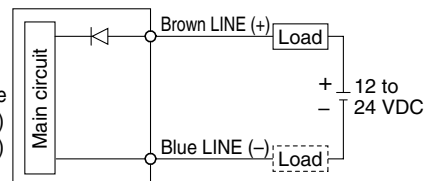
### PSE56□-□

Voltage output type  
1 to 5 V  
Output impedance  
Approx. 1 kΩ



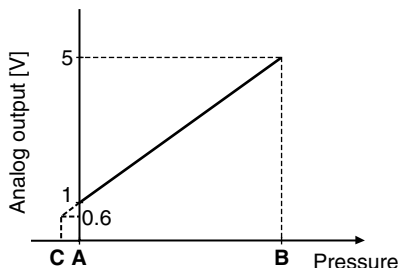
### PSE56□-□-28

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

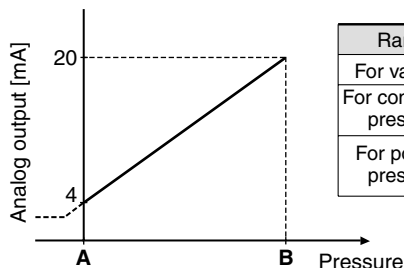


\* Install the load either on the LINE (+) or LINE (-) side.

### 1 to 5 VDC



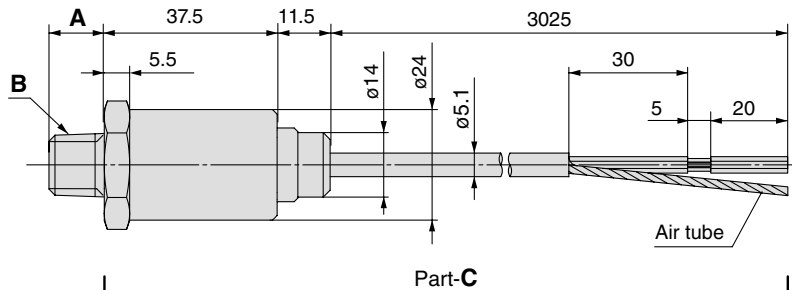
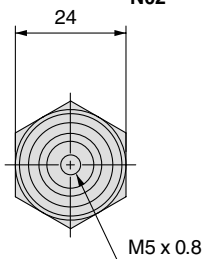
### 4 to 20 mADC



Range	Rated pressure range	A	B	C
For vacuum	0 to -101 kPa	0	-101 kPa	10.1 kPa
For compound pressure	-100 kPa to 100 kPa	-100 kPa	100 kPa	—
For positive pressure	0 to 1 MPa	0	1 MPa	-0.1 MPa
	0 to 500 kPa	0	500 kPa	-50 kPa

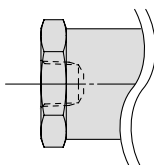
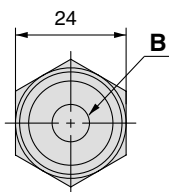
## Dimensions

### PSE56□-01, PSE56□-N01

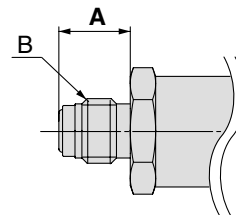
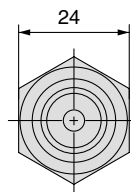


\* The dimensions of part C are common to all PSE56□ models.

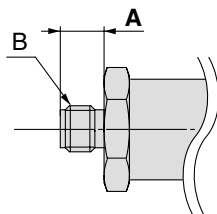
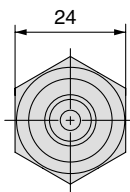
### PSE56□-C01



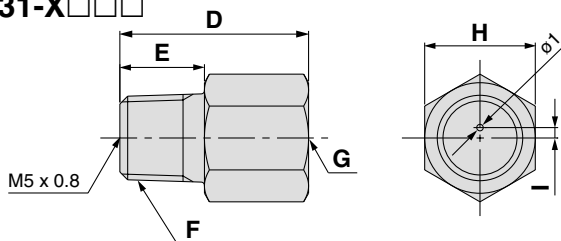
### PSE56□-A2



### PSE56□-B2



### ZS-31-X□□□



Model	A	B
PSE56□-01	8.2	R 1/8
PSE56□-02	12	R 1/4
PSE56□-N01	9.2	NPT 1/8
PSE56□-N02	12.2	NPT 1/4
PSE56□-C01	—	Rc 1/8
PSE56□-A2	15.5	URJ 1/4
PSE56□-B2	9.5	TSJ 1/4

Model	D	E	F	G	H	I
ZS-31-X188	20	9	R 1/8	Rc 1/8	14	1.5
ZS-31-X189	20	9	NPT 1/8	NPT 1/8	14	1.5
ZS-31-X175	29	13	R 1/4	Rc 1/4	17	1.6
ZS-31-X186	29	13	NPT 1/4	NPT 1/4	17	1.6