

# SS107 series piezoresistive pressure transducers

## Features

- Standard size Ø15 × 10mm
- High accuracy and reliability
- Stainless steel 316L diaphragm
- 1.0mA, 1.5mA constant current supply
- 5VDC, 10VDC constant voltage supply
- 0-70°C temperature compensation range
- Isolated construction, able to test various media
- Absolute, vented gauge and sealed gauge pressure

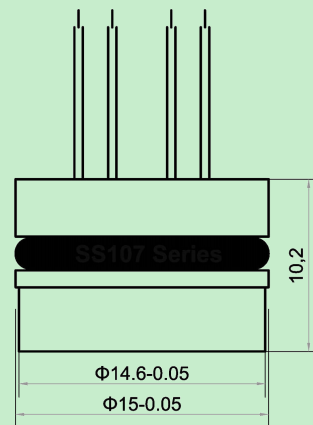


## Descriptions

SS107 series OEM pressure transducers cover the pressure range from 4 to 25bar (400KPa to 2.5MPa), have compact size Ø15 × 10mm, a high performance piezoresistive silicon chip is built inside as the pressure-sensing element. When the pressure act on the 316L stainless steel diaphragm, it is transmitted by the silicone oil inside to the chip. The transducer works following the principle of piezoresistive effect, the signal is linear to the pressure.

SS107 series use constant current excitation 1.5mA, the typical full signal output for the measuring ranges is about 100 mV, zero output signal adjusted and 0-70°C wider temperature compensated.

Typical applications: Industrial automation, process control, chemical industry, liquid pressure system and switch, etc.



## Pressure ranges (typical)

Vented gauge (defining atmospheric pressure as zero) (Unit: bar)

Range	4.0	6.0	10	16	25	
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Absolute (defining absolute vacuum as zero) (Unit: bar)

Range	4.0	6.0	10	16	25	
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Sealed gauge (defining standard atmospheric pressure as zero) (Unit: bar)

Range	10	16	25			
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## Technical data

Performance (EN 60770)

Power supply	1.5 mADC (typical)	1 mADC (optional)
Zero output	0 ± 2 mV ①	
Span output	100 ± 20 mV ①	
Accuracy	0.25% F.S. ①	
Overload range	2.0 × F.S.	
Compensated temp range	0 → 70 °C	
Operating temp range	-20 → 100 °C	
Storage temp range	-40 → 125 °C	
Zero thermal error	≤ 0.02% F.S./°C	
Sensitivity thermal error	≤ 0.02% F.S./°C	
Stability	≤ 0.2% F.S./Year	
Input impedance	2.3 → 4 KΩ	
Insulation resistance	> 100 MΩ at 250 V	
Vibration	20g / (20 to 5000 Hz)	
Endurance	> 100 × 10 <sup>6</sup> F.S. cycles	

①: The zero output, span output and accuracy may different if the supply power, measuring range and pressure type is different, please contact us if you need more details.

Mechanical characteristics

Diaphragm	Stainless steel 316L	
Housing	Stainless steel 304	
Filling liquid	Silicone oil	
O-ring	FKM / Viton (Ø12 × 1.5 mm)	
Electrical connection	10 cm silicone sheathed wires	Kovar pins (optional)
Diameter	Ø15 mm	
Height	10.2 mm	
Weight	8 g	

Electrical connections

wires		5Pins connection mode 1		5Pins connection mode 2	
Color	Function		PIN1: Supply +		PIN1: Supply +
Red	Supply +		PIN2: Output -		PIN2: Output +
Black	Supply -		PIN3: Supply -		PIN3: Supply -
White	Output +		PIN4: Supply - ②		PIN4: Supply - ②
Blue	Output -		PIN5: Output +		PIN5: Output -

②: PIN4 is not used for 4Pins connection

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## Part number chart (How to order)

PART NUMBER REQUIRED: **SS107.PL.01.B.01 (EXAMPLE)**

1	Pressure range(bar) PJ(0...4) PK(0...6) PL(0...10) PM(0...16) PN(0...25) PO(0...40) PP(0...60) PQ(0...100) CC(-1...3) CD(-1...5) CE(-1...9) CF(-1...15) CG(-1...24) 1Z(Other pressure range or unit is on request)	PL
2	Pressure type 01(Vented gauge) 02(Absolute) 03(Sealed gauge)	01
3	Electrical connection ③ A(4Wires) B(5Wires) C(4Pins mode 1) D(4Pins mode 2) E(5Pins mode 1) F(5Pins mode 2)	B
4	Power supply 01(1.5mADC) 02(2mADC)	01

③: 4Wires connection: the zero signal is set by SENDO SENSOR before leave factory.

③: 5Wires and 5Pins connection: the zero signal can be set by clients.

③: Pins mode1 and mode2: please see the details in the Electrical connection in page 2.

## Contact us

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\*Specifications subject to change without notice, the latest date sheet please contact: sales@sendo-sensor.com