

SS105 series piezoresistive pressure transducers

Features

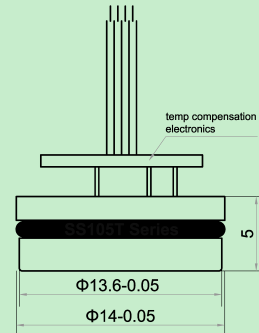
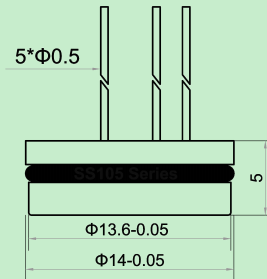
- Standard size Ø14*5.0mm
- High accuracy and reliability
- Stainless steel 316L diaphragm
- 1.0mA, 1.5mA constant current supply
- 5VDC, 10VDC constant voltage supply
- Non-temperature compensated(SS105)
- External temperature compensation(SS105T)
- Isolated construction, able to test various media
- Absolute, vented gauge and sealed gauge pressure



Descriptions

SS105 series OEM piezoresistive pressure transducers are piezoresistive pressure sensor with ultra-thin structure, the core sensing part is made of a high performance silicon chip protected by oil and stainless steel 316L. when the medium pressure act on the diaphragm, the pressure is transmitted to the silicon chip through the silicone oil, and then shape changed, the resistance is converted into electrical signal output by Wheatstone electric circuit. Suitable to measure all stainless steel compatible gas or liquid.

SS105 series have the height only 5.0mm, and 14mm diameter is suitable for many industrial applications. Without temp compensation, but this does not affect the excellent performance, available from the pressure range 4 to 25bar(400KPa to 2.5MPa). Ultra-thin design makes the SS105 series high in the ratio of performance to price, especially suitable for the those in mass production but also price sensitive.



Pressure ranges (typical)

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

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

Range	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

Power supply	1.5mADC	5VDC(optional)	10VDC(optional)
Zero output	Not adjusted (SS105 series)①		0±2mV (SS105T series)②
Span output	100±20mV②		
Accuracy(0~6bar...25bar)	0.5%F.S. @25°C②		
Overload range	2.0 × F.S.		
Temperature compensation	None(SS105 series)		0 → 70°C (SS105T series)
Operating temperature	-20°C → 100°C		
Storage temperature	-40°C → 125°C		
Stability	≤0.2% F.S./Year		
Input impedance	2.3KΩ → 4KΩ		
Insulation resistance	>100 MΩ at 250 V		
Vibration	20g/(20~5000Hz)		
Endurance	>100 x 10 ⁶ F.S. cycles		

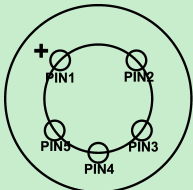
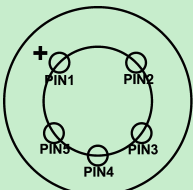
①: The zero output signal is not set by SENDO SENSOR, need to be adjusted by our clients.

②: 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.

Constructions

Diaphragm	Stainless steel 316L	More options see Page 3
Housing	Stainless steel 304	More options see Page 3
Filling liquid	Silicone oil	
O-ring	Viton(Ø12*1.0mm)	
Electrical connection	Kovar pins (SS105 series)	10cm silicone wires (SS105T series)
Diameter	Ø14mm	
Height	5.0mm	
Weight	8g (SS105 series)	15g (SS105T series)

Electrical connections

wires		Pins connection mode 1		Pins 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 -		PIN4: Supply -
Blue	Output -		PIN5: Output +		PIN5: Output -

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Ordering information

EXAMPLE: **SS105 PB 01 A 01**

1	Pressure range(bar)	PB
	PA(6.0) PB(10) PC(16) PD(25) CA(-1...5) CB(-1...9) CC(-1...15) CD(-1...24) X(Other pressure range or unit is on request)	
2	Pressure type	01
	01(Vented gauge) 02(Absolute) 03(Sealed gauge)	
3	Electrical connection ^③	A
	A(4Wires) B(5Wires) C(5Pins mode 1) D(5Pins mode 2)	
4	Power supply	01
	01(1.5mADC) 02(5VDC) 03(10VDC) 04(Other supply is on request)	

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.

Optional(please contact us for more details)

1	Integrate the MCP9700 temp sensor
	A(YES) B(NO)
2	Material of diaphragm
	01(Titanium) 02(Tantalum) 03(Hastelloy-C)
3	Material of housing
	A(Titanium) B(Tantalum) C(Hastelloy-C)

Contact us

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