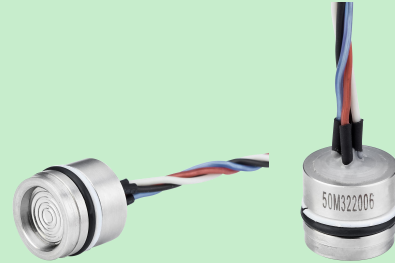


SS109 series piezoresistive pressure transducers

Features

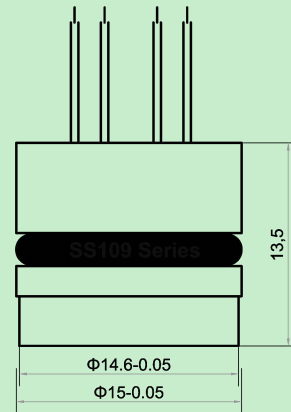
- Standard size $\varnothing 15 \times 13.5 \text{mm}$
- High accuracy and reliability
- Stainless steel 316L housing
- Stainless steel 316L diaphragm
- 1.0mA, 1.5mA constant current supply
- 5VDC, 10VDC constant voltage supply
- 0-70°C temperature compensation range
- Isolated construction, able to test various media
- Absolute, vented gauge and sealed gauge pressure



Descriptions

SS109 series piezoresistive capsule has the diameter 15mm and height 13.5mm, apply pressure from 2bar to 1000bar(200KPa to 100Mpa), three pressure type: vented gauge, sealed gauge, absolute is optional. Thanks to the piezoresistive technology, the typical full signal output for the measuring ranges is about 100 mV with a constant current supply of 1.5 mA.

Each piezoresistive pressure capsule is tested for pressure properties carefully, and is supplied together with an individual calibration sheet including zero and span output. Main fields of applications: pneumatics, level technology, hydraulics, avionics, 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	40	60
	100	160	250	400	600
	1000				

SS109 series piezoresistive pressure transducers

Technical data

Power supply	1.5mADC	5VDC(optional)	10VDC(optional)
Zero output	0±2mV①		
Span output	100±20mV①		
Accuracy	0.25%F.S.①		
Overload range	2.0 × F.S.(<25MPa)		
	1.5 × F.S.(≥25MPa)		
Compensated temp range	0°C → 70°C		
Operating temp range	-20°C → 100°C		
Storage temp range	-40°C → 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	2.3KΩ → 4KΩ		
Insulation resistance	>100 MΩ at 250 V		
Vibration	20g/(20~5000Hz)		
Endurance	>100 x 10 ⁶ F.S. cycles		

①: The zero output, 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 316L	More options see Page 3
Filling liquid	Silicone oil	
O-ring	Viton(Ø12*1.5mm)	
Electrical connection	10cm silicone sheathed wires	Kovar pins(optional)
Diameter	Ø15mm	
Height	13.5mm	
Weight	15g	

Electrical connections

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

SS109 series piezoresistive pressure transducers

Ordering information

EXAMPLE: [SS109 PC 01 A 01](#)

1	Pressure range(Bar)	PC
	PA(4.0) PB(6.0) PC(10) PD(16) PE(25) PF(40) PG(60) PH(100) PI(160) PJ(200) PK(250) PL(400) PM(600) PN(1000) CA(-1...3) CB(-1...5) CC(-1...9) CD(-1...15) CE(-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 connection②	A
	A(4Wires) B(5Wires) C(4Pins mode 1) D(4Pins mode 2) E(5Pins mode 1) F(5Pins mode 2)	
4	Power supply	01
	01(1.5mADC) 02(5VDC) 03(10VDC) 04(Other supply is on request)	

②: 4Wires and 4Pins connection: the zero signal is set by SENDO SENSOR before leave factory.

②: 5Wires and 5Pins connection: the zero signal can be set by clients.

②: 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