

SS109 series piezoresistive pressure transducers

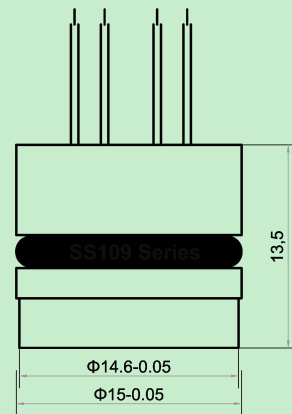
- Standard size $\varnothing 15 \times 13.5\text{mm}$
- High accuracy and reliability
- All stainless steel 316L structure
- 1.0mA, 1.5mA constant current supply
- 5VDC, 10VDC constant voltage supply
- 0-70°C temperature compensation range
- Isolated construction, able to test various media
- Absolute,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

Absolute(defining absolute vacuum as zero) (Unit: Bar)

Range	4.0	6.0	10	16	25
	40	60	100	160	250
	400	600	1000		

Sealed gauge(defining standard atmospheric pressure as zero) (Unit: Bar)

Range	10	16	25	40	60
	100	160	250	400	600
	1000				

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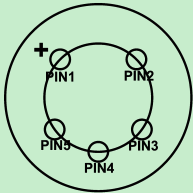
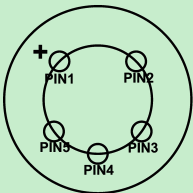
Technical data

Power supply	1.5mADC (typical)	5VDC, 10VDC is on request
Zero output	±2mV	
Span output	100±20mV (typical)	
Accuracy	0.25%F.S. (typical)	
Overload	2.0*F.S. (<250Bar)	
	1.5*F.S. (≥250Bar)	
Temperature compensation	0~70°C	
Operating temperature	-20~100°C	
Storage temperature	-40~125°C	
Zero thermal error	≤0.02 %F.S./°C	
Sensitivity thermal error	≤0.02 %F.S./°C	
Bridge resistance	2.3KΩ~4KΩ	
Insulation	100MΩ/250VDC	
Vibration	20g/(20~5000Hz)	
Endurance	>100 x 10 ⁶ F.S. cycles	
Stability	≤0.2% F.S./Year	

Constructions

O-ring	Viton(Ø12*1.5mm)	
Wetted parts	Stainless steel 316L	
Housing	Stainless steel 316L	
Filling liquid	Silicone oil	
Electrical connection	10cm silicone sheathed wires	Kovar pins is on request
Diameter	Ø15mm	
Height	13.5mm	
Weight	15g	

Electrical connections

wires		Pins(1)		Pins(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: [SS109 C 01 B 01](#)

1	Pressure range(Bar)	C
	A(4.0) B(6.0) C(10) D(16) E(25) F(40) G(60) H(100) I(160) J(250) K(400) L(600) M(1000) N(Other range or unit is on request)	
2	Pressure type	01
	01 Vented gauge 02 Absolute 03 Sealed gauge	
3	Electrical connection	B
	A 4Kovar pins(1) B 4Wires C 5Kovar pins(1) D 5Wires E 4Kovar pins(2) F 5Kovar pins(2)	
4	Power supply	01
	01 1.5mADC 02 5VDC 03 10VDC 04 Other supply is on request	

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