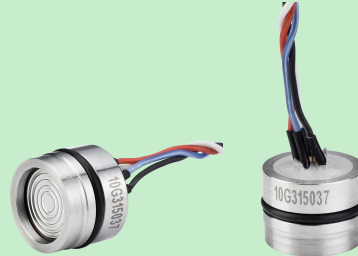


SS100 series piezoresistive pressure transducers

Features

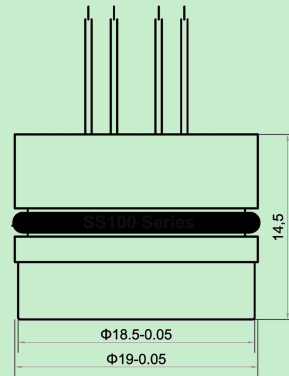
- Standard size Ø19 × 15mm
- High accuracy and reliability
- Stainless steel 316L housing
- Stainless steel 316L diaphragm
- 1.0mA, 1.5mA constant current supply
- 5VDC, 10VDC constant voltage supply
- 0-70°C temperature compensation range
- Isolated construction, able to test various media
- Absolute, vented gauge and sealed gauge pressure



Descriptions

SS100 series piezoresistive pressure transducers cover all pressure ranges from 100mbar to 1000bar (10KPa to 100MPa). A high-sensitivity piezoresistive silicon chip is used for pressure sensing. The chip is protected against ambient influences by a stainless steel housing sealed with a concentrically corrugated diaphragm. The housing is filled with silicone oil so as to ensure the transfer of the pressure from the diaphragm to the sensing component.

Several millions of these pressure transducers are in use world-wide in a variety of different applications. Main fields of applications are: level technology, pneumatic, hydraulics, avionics, etc.



Pressure ranges (typical)

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

Range	-1.0	-0.7	-0.35	-0.2	-0.1	0.1
	0.2	0.35	0.7	1.0	2.5	4.0
	6.0	10	16	25		

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

Range	1.0	2.5	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	

SS100 series piezoresistive pressure transducers

Technical data

Performance (EN 60770)

Power supply	1.5 mADC (typical)	5 VDC (optional)	10 VDC (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. (≤ 250 bar)		
	1.5 × F.S. (> 250 bar), 1.2 × F.S. (1000bar)		
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 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.

Mechanical characteristics

Diaphragm	Stainless steel 316L	More options see Page 3
Housing	Stainless steel 316L	
Filling liquid	Silicone oil	
O-ring	FKM / Viton (typical) (Ø16 × 1.7 mm)	EPDM (optional)
Electrical connection	10 cm silicone sheathed wires	Kovar pins (optional)
Diameter	Ø19 mm	
Height	14.5 mm	
Weight	15 g	

Electrical connections

wires		4-Pins / 5-Pins connection mode	
Color	Function		PIN1: Supply +
Red	Supply +		PIN2: Output -
Black	Supply -		PIN3: Supply -
White	Output +		PIN4: Supply - ②
Blue	Output -		PIN5: Output +

②: PIN4 is not used for 4-Pins connection

SS100 series piezoresistive pressure transducers

Part number chart (How to order)

PART NUMBER REQUIRED: **SS100.PL.01.A.01 (EXAMPLE)**

1	Pressure range(bar)	PL
	NA(-1...0) NB(-0.7...0) NC(-0.5...0) ND(-0.35...0) NE(-0.2...0) NF(-0.1...0) PA(0...0.1) PB(0...0.2) PC(0...0.35) PD(0...0.5) PE(0...0.7) PF(0...1) PG(0...1.6) PH(0...2) PI(0...2.5) PJ(0...4) PK(0...6) PL(0...10) PM(0...16) PN(0...25) PO(0...40) PP(0...60) PQ(0...100) PR(0...160) PS(0...200) PT(0...250) PU(0...300) PV(0...350) PW(0...400) PX(0...500) PY(0...600) PZ(0...1000) CA(-1...0.6) CB(-1...1.5) CC(-1...3) CD(-1...5) CE(-1...9) CF(-1...15) CG(-1...24) 1Z(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(4-Wires) B(5-Wires) C(4-Pins) D(5-Pins)	
4	Power supply	01
	01(1.5mADC) 02(2mADC) 03(5VDC) 04(10VDC) 4Z(Other supply is on request)	

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

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

NON- REQUIRED: **SS100.PL.01.A.01 - V4E (EXAMPLE)**

1	Material of diaphragm	V4E
	V4D(Titanium) V4E(Tantalum) V4F(Hastelloy-C)	

Contact us

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