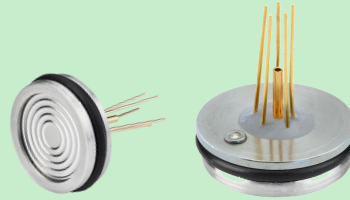


SS103 series piezoresistive pressure transducers

Features

- Standard size $\varnothing 19 \times 5.0\text{mm}$
- High accuracy and reliability
- Stainless steel 316L diaphragm
- 1.0mA, 1.5mA constant current supply
- 5VDC, 10VDC constant voltage supply
- Non-temperature compensated (SS103)
- External temperature compensation (SS103T)
- Isolated construction, able to test various media
- Absolute, vented gauge and sealed gauge pressure



Descriptions

The SS103 series piezoresistive pressure sensors are the most economic version for pressure ranges from 1bar to 100bar (100KPa to 10MPa). They have a height of only 5.0 mm without compromising performance and quality, the standard version is supplied with connecting pins. Same as SS100 and SS102 series, they have 19mm diameter and follow the working principle of piezo-resistance effect. Typical applications: aviation electronics, meteorology, servo controls, robotics, sanitary, etc.

Pressure ranges (typical)

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

Range	-1.0	1.0	2.5	4.0	6.0	10
	16	25				

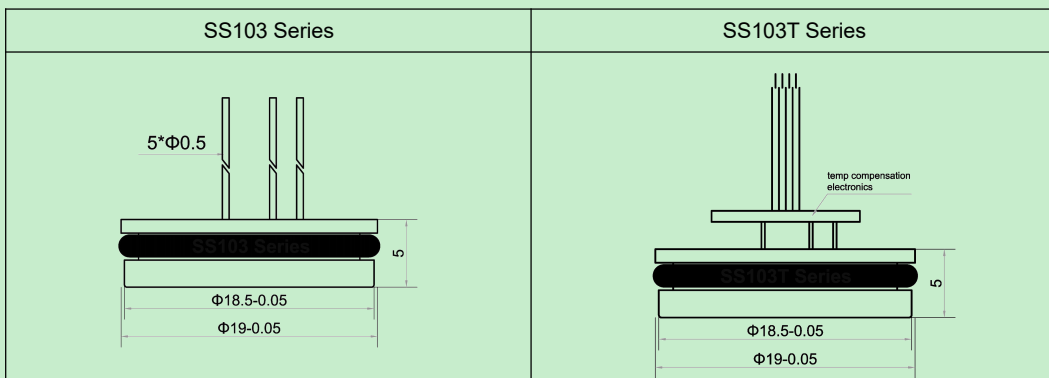
Absolute (defining absolute vacuum as zero) (Unit: bar)

Range	1.0	2.5	4.0	6.0	10	16
	25	40	60	100		

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

Range	10	16	25	40	60	100
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Dimensions



SS103 series piezoresistive pressure transducers

Technical data

Performance (EN 60770)

Power supply	1.5 mADC (typical)	5 VDC (optional)	10 VDC (optional)
Zero output	Not adjusted (SS103 series) ①		0 ± 2 mV (SS103T series) ②
Span output	100 ± 20 mV ②		
Accuracy (0...6bar to 25bar)	0.5% F.S. @ 25°C ②		
Overload range	2.0 × F.S.		
Compensated temp range	None (SS103 series)	0 → 70 °C (SS103T series)	
Operating temp range	-20 → 100 °C		
Storage temp range	-40 → 125 °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		

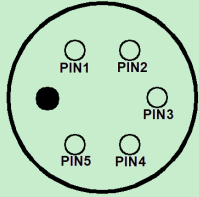
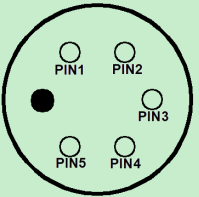
①: The zero output signal is not set by SENDO SENSOR, need to be adjusted by our clients.

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.

Mechanical characteristics

Diaphragm	Stainless steel 316L	More options see Page 3
Housing	Stainless steel 304	
Filling liquid	Silicone oil	
O-ring	FKM / Viton (typical) (Ø16 × 1.7 mm)	EPDM (optional)
Electrical connection	Kovar pins (SS103 series)	10cm silicone wires (SS103T series)
Diameter	Ø19 mm	
Height	5.0 mm	
Weight	9 g (SS103 series)	15 g (SS103T series)

Electrical connections

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

SS103 series piezoresistive pressure transducers

Part number chart (How to order)

PART NUMBER REQUIRED: **SS103.PL.01.A.01 (EXAMPLE)**

1	Pressure range(bar)	PL
	NA(-1...0) PF(0...1) PG(0...1.6) PH(0...2) PI(0...2.5) PJ(0...4) PK(0...6) L(0...10) PM(0...16) PN(0...25) PO(0...40) PP(0...60) PQ(0...100) 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 ④	A
	A(4Wires) B(5Wires) C(5Pins mode 1) D(5Pins mode 2)	
4	Power supply	01
	01(1.5mADC) 02(2mADC) 03(5VDC) 04(10VDC) 4Z(Other supply is on request)	

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

④: 5Wires and 5Pins connection: the zero signal can be set by clients.

④: Pins mode1 and mode2: please see the details in the Electrical connection in page 2.

NON- REQUIRED: **SS103.PL.01.A.01 - V4E (EXAMPLE)**

1	Material of diaphragm	V4E
	V4D(Titanium) V4E(Tantalum) V4F(Hastelloy-C)	
2	Material of housing	V3C
	V3C(Stainless steel 316L)	

Contact us

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