

BS12P Piezoresistive OEM Pressure Sensor

Feature

- 0.5~4.5V Output signal
- 5V Voltage power supply
- Flush diaphragm construction, ease to cleaning
- Φ 19mm OEM pressure element
- 316L stainless steel material



Application

·Industrial process control ·level measurement ·Gas, liquid pressure measurement ·Pressure meter
 ·Pressure calibrator ·Liquid pressure system & switch ·Refrigeration equipment & air conditioner
 ·Aviation and navigation inspection

Introduction

BS12 series piezoresistive pressure transducers adopt high-sensitivity piezoresistive silicon chip inside 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 silicon oil for the transfer of the pressure from the diaphragm to the sensing component. Exchanging the pressure into analog output signal.

The transducers are designed for floating O-ring seal mounting for avoiding housing induced stress, this also can guarantees the performance over pressure. All metal parts in contact with the pressure media are made of stainless steel 316L.

Different with the universal BS12 series pressure transducers,BS12P has a amplify circuit inside the transducers which exchanges the pressure into 0.5V~4.5V output signal directly. Its flush diaphragm design makes its diaphragm cleaning easily.

They are delivered with engraved serial number. Once any problem happen on any transducer, all testing records during the whole process from raw material to the finished products is ready for tracing.

Specifications

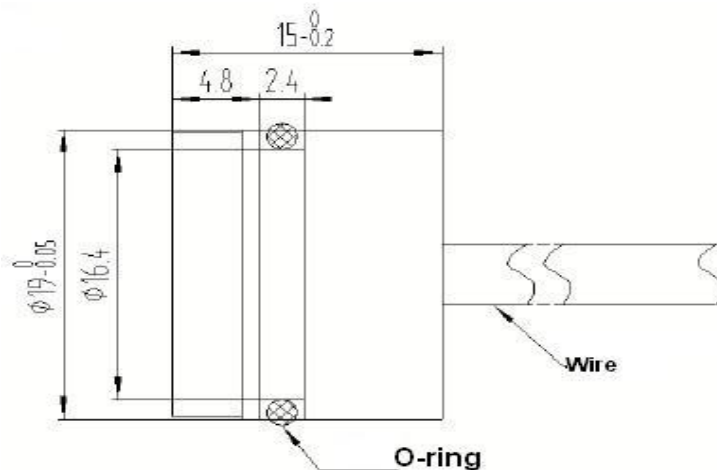
PARAMETERS	MIN	TYP	MAX	UNITS
Span		4.0		V
Zero Pressure Output		0.5		V
Pressure Non-linearity	-0.25		0.25	%Span
Pressure Hysteresis	-0.15		0.15	%Span
Repeatability		± 0.05		%Span
Temperature Error-Span	-1.0		1.0	%Span

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Temperature Error-Offset	-1.0		1.0	%Span
Accuracy (Combined linearity, hysteresis & repeatability)	-0.5		0.5	%Span
Total Error Band (Includes calibration errors above & temperature effects over the compensated range)		5psi: 5%Max >5psi: 3%Max		%Span
Long Term Stability		±0.1		%Span
Supply Voltage	4.75	5.00	5.25	V
Insulation Resistance(50Vdc)	50			MΩ
Pressure Overload			2.5X	Rated
Pressure Burst			5X	Rated
Compensated Temperature	0		+105	°C
Operating Temperature	-40		+125	°C
Storage Temperature	-40		+150	°C
Media-Pressure Port	Liquids and gases compatible with 316L stainless steel and EPDM(O-Ring)			

Outline Construction (Unit:mm)

Order Guide

BS12	OEM Piezoresistive Pressure transducers					
	Code	Type				
	P	Flush Diaphragm Piezoresistive Pressure Transducers				
	19	Diameter: 19mm				
		Code	Pressure range	Gauge (G)	Absolute (A)	Sealed gauge (SG)
		0.017	17kpa	√		
		0.035	35kPa	√		
		0.07	70kPa	√		
		0.1	100kPa	√	√	
		0.2	200kPa	√	√	

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OEM Pressure Sensor

			0.35	350kPa	√	√	
			0.7	700kPa	√	√	
			1.4	1.4MPa	√	√	√
BS12	P	19	0.35	G			

Order Note

1. It is recommended that the transducers should be installed as Suspended Mode to avoid face tight press and avoid affecting transducers stability.
2. Please pay attention to protect the diaphragm to prevent any damage or bad performance.
3. If the working temperature of Viton rubber exceeds the temperature of the rubber specification or be applied in critical environment, please contact us.
4. The material of measuring medium should be compatible with the stainless steel. If it is corrosive, pls specify its material in detail.
5. Please note in the order if you need zero pressure as negative pressure.
6. All specifications are subject to change and just for reference. Contact Gaohua for specifications and engineering drawings that are critical to your application. Drawings contained in this document are for reference only.

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