



BP9325 Silicon Piezoresistive Pressure Sensor

Introduction :

BP9325 silicon piezoresistive pressure sensor is a highly stable diffused silicon element. The differential pressure of the measured medium is transmitted to the silicon diaphragm through a 316L isolation diaphragm and silicone oil. By utilizing the piezoresistive effect of the diffused silicon, it achieves the purpose of measuring the pressure of liquids and gases

Product Features:

- Utilizes advanced technology and 316L stainless steel casing, with materials such as full titanium and Hastelloy diaphragm
- Employs thick-film circuits for temperature compensation and zero-point correction
- High reliability, repeatability, and stability

Applications:

- Suitable for measuring the pressure of non-corrosive gases and liquids with 316L stainless steel
- Applied in industrial on-site processes such as petroleum, chemical, metallurgy, power generation, and hydrology
- Used in the marine and aviation industries
- Hydraulic and pneumatic control systems
- Process control

Basic Condition :

- Power Supply: $\leq 2\text{mADC}$ (typical value 1.5mADC)
- Input Impedance: $2.5\text{K}\Omega \sim 6\text{K}\Omega$
- Output Impedance : $2.5\text{K}\Omega \sim 6\text{K}\Omega$
- Electrical Connection: Gold-plated Kovar pins or 100mm high-temperature wires



Caution: :

1. Do not touch the isolation diaphragm with hard objects.
2. Follow the specified wiring method to avoid causing safety incidents.

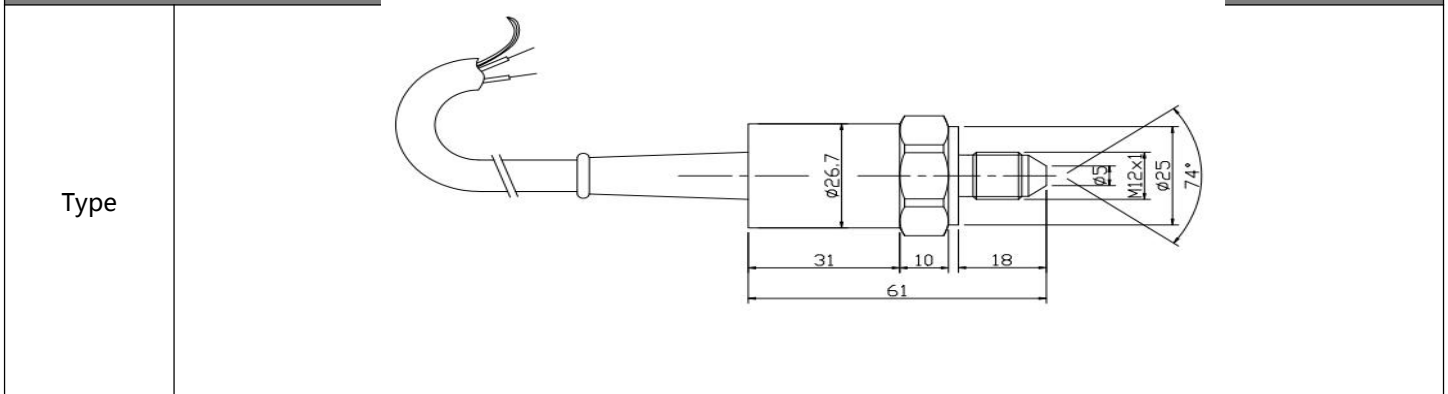


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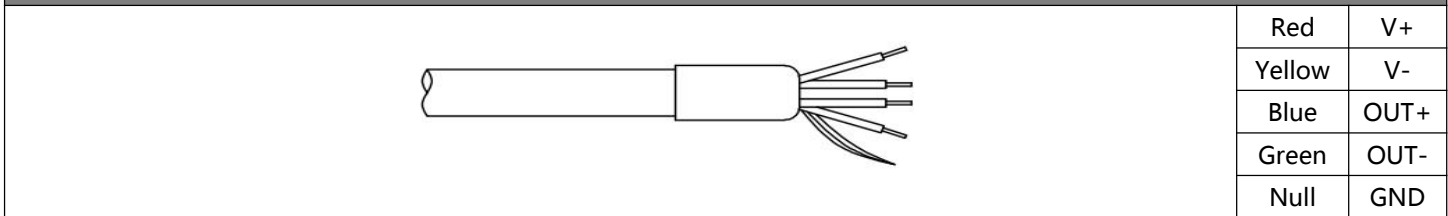
BP9325 Pressure Sensor

Performance Parameters:				
Measurement Range	Gauge (G)	10KPa, 20KPa, 35KPa, 100KPa, 200KPa, 350KPa, 1000KPa, 2000Kpa		
	Absolute (A)	100KPaA, 200KPaA, 350KPaA, 700KPaA, 1000KPaA, 2000KPaA		
	Sealed (S)	3500KPa, 7MPa, 10MPa, 20MPa, 40MPa, 60MPa, 100MPa		
		Typ	Max	Unit
Linearity		±0.15	±0.3	%F.S
Repeatability		0.05	0.1	%F.S
Hysteresis		0.05	0.1	%F.S
Zero Offset Output		0±1	0±2	mV
Full Scale Output	≤20KPa	50±10	50±30	mV
	≥35kPa	100±10	100±30	mV
Zero Offset Temp. Drift	≤20KPa	±1	±2	%F.S
	≥35kPa	±0.5	±1	%F.S
Full Scale Temp. Drift	≤20KPa	±1	±2	%F.S
	≥35kPa	±0.5	±1	%F.S
Compensated Temp.	≤20KPa	0 ~ 50		°C
	≥35kPa	0 ~ 70		°C
Operating Temperature		-20 ~ 80		°C
Storage Temperature		-40 ~ 125		°C
Allowable Overload		Take the smaller value between 3 times the full scale or 120MPa		
Burst Pressure		5X the full scale		
Long-term Stability		0.2 %		F.S/Year
Diaphragm Material		316L		
Insulation Resistance		≥200MΩ 100VDC		
O-ring Seal		Nitrile rubber or Fluoro rubber		
Vibration		No change under conditions of 10gRMS, 20Hz to 2000Hz		
Shock		100g , 11ms		
Response Time		≤1ms		
Filling Medium		Silicon Oil		
Weight		~0.1kg		
The parameters are tested under the following conditions: Constant current of 1.5mA and ambient temperature of 25°C				

Outline Construction



Electrical Connection



Ordering tips

1. During assembly, pay attention to the fit between the size of the sensing element and the transmitter housing to achieve the required air-tightness
2. During assembly, ensure the sensor is aligned vertically and press it down evenly to prevent jamming or damaging the compensation plate
3. The measured medium must be compatible with the material of the sensing element diaphragm and casing (316L). If not, special instructions should be provided when placing an order
4. Do not use sharp objects to press the sensor diaphragm, as it may cause deformation or puncture of the diaphragm and damage the sensing element
5. The pressure sensor's vent tube must be kept open to the atmosphere
6. If there are changes in the pin leads, follow the label carried by the sensing element for accuracy

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