Pressure Sensor, 0-10kPa, Gauge, 3.3VDC, I2C signal

PS8808 Series
IOT Pressure Sensors Technical Data Sheet

PS8808-10k3CBNG

Features

- Pressure range 0-10kPa
- Gauge pressure sensor
- Constant current / Constant Voltage power supply
- Output in I²C interface and protocol
- Stainless Steel 316L

Applications

- Industrial process control
- Gas, liquid pressure measurement
- Pressure checking meter
- Pressure calibrator
- Cooling equipment and air conditioning system
- Aviation and navigation inspection

Description

PS8808-10k3CBNG Digital Output Pressure Transducer is a piezoresistive pressure sensor with 316L stainless steel corrugated diaphragm and isolated oil-filling construction. The sensing package utilizes silicone oil to transfer pressure from the 316L stainless steel diaphragm to the sensing die. The pressure is transformed to an analog electrical signal. With an integrated circuit for temperature compensation and nonlinear correction, it provides output data conforming to I²C interface protocol. It is widely used for various liquid pressure measurements compatible with stainless steel and viton.

Product Configuration

Application:	Pressure Sensor
Pressure Type:	Gauge
Electrical Connector:	5-pin PH2.0

General Specifications

Description	Minimum	Typical	Maximum	Unit
Pressure Range	0		10	kPa
Accuracy (Pressure)		±0.5		%Full Scale
Accuracy (Temperature)		±1.5		°C
Long Term Stability		±0.3		%Full Scale/year
Overpressure		1.5		xFull Scale

Electrical Specifications

Description	Minimum	Typical	Maximum	Unit
Output Signal		5%-95%		
Power Supply/Excitation Level		3.3±0.1		VDC
Power Supply Current		2.5		mA
Sampling Interval			1.5	msec

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Material Specifications

Description	Material
Diaphragm	Stainless Steel 316L
Plug Housing	Stainless Steel 316L

Mechanical Specifications

Electrical Connection

Wire Color	(I²C) Standard Mode
Black	-IN
Red	+IN
Blue	SCL
White	SDA
Yellow	NULL

Environmental Specifications

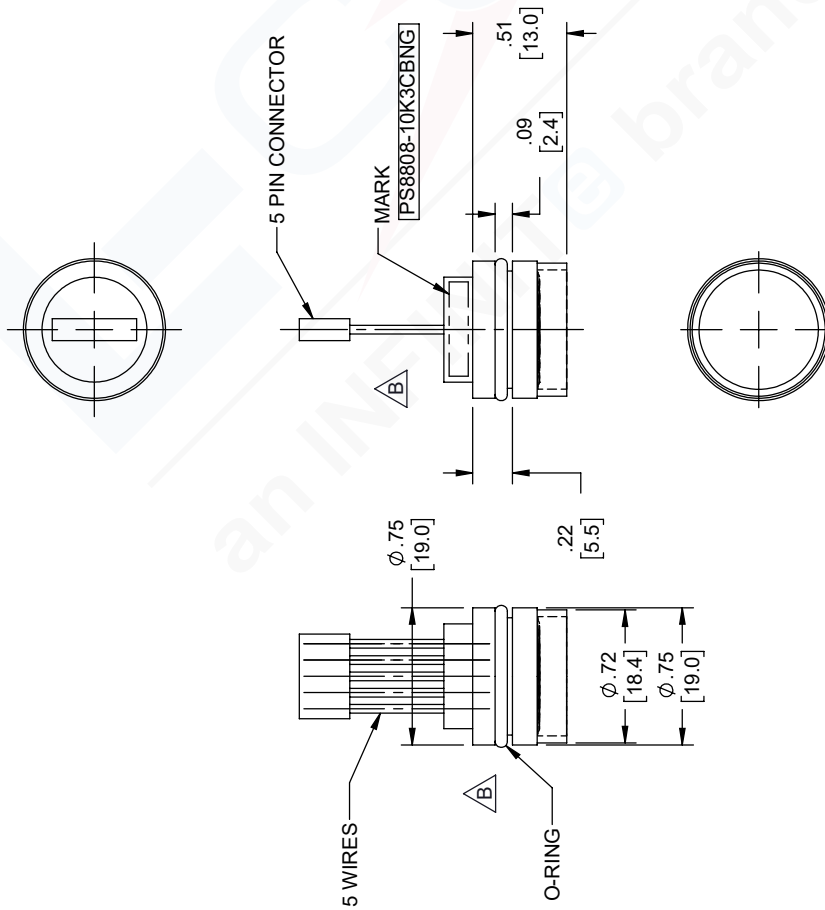|	
Temperature (Operating)	-10ºC to 80ºC
Temperature (Storage)	-40ºC to 125ºC
Shock	10g, 20Hz-2000Hz
Impact	100g, 11ms
Certifications	ROHS Compliant
	CE Compliant

The Infinite Electronics portfolio includes coaxial cable assemblies, connectors, adapters and custom products, as well as our wireless product line which includes antennas, RF amplifiers, lightning and surge protectors, and NEMA rated enclosures.

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PS8808-10k3CBNG CAD Drawing
Pressure Sensor, 0-10kPa, Gauge, 3.3VDC, I2C signal

5 PIN CONNECTOR

MARK PS8808-10K3CBNG

.51 [13.0]

.09 [2.4]

B

Ø .75 [19.0]

.22 [5.5]

Ø .72 [18.4]

Ø .75 [19.0]

5 WIRES

O-RING

B

PS8808-10k3CBNG REV 1.0