

Introduction

PZP200 differential pressure sensor is based on a high-sensitivity silicon piezoresistive chip. The high and low pressure sides are protected by isolated diaphragm. It can be used for measuring corrosive and conductive flow media. The measured differential pressure is transmitted onto the chip through the diaphragm and filling silicon oil, so that the sensor could measure differential pressure precisely.

Its profile, installation dimension and sealing method make PZP200 be widely used for measuring pressure field.

Features

- Pressure range : 0~0.35bar, 0~0.7bar, ... , 0~20bar
- Pressure types: differential
- Accuracy up to 0. 25% fs
- 0~70°C standard compensated temperature range
- Excited by either current or voltage
- Isolated construction to measure various liquid or gas
- Integrated, high static pressure
- 316L stainless steel material

Applications

- Industrial process control
- Flow control
- Environmental control
- Hydraulic system
- Chemical products and chemical industry
- Gas, liquid differential pressure measurement

Environment Effect

- Position effect: deviate 90° from any orientation,

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zero change \leqslant~ 0.2%FS
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- Shock effect: no change at 10gRMS, 20 \sim 2000Hz
- Impact: 100g, for 10 ms

Proza Electronic Technology

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Dimensions



Notes: All dimensions are in mm.

Basic Condition

- Media temperature: 25 ± 1 ℃
- Environment temperature: 25 ± 1 °C
- Shock: 0.1g (1m/s/s) Max
- Humidity: 50%RH ± 10%RH
- Barometric pressure: 86~106 kPa
- Excitation: 1.5±0.0015mA

QiHangJiaYuan Plaza,Block A,12# Building, Room 704, FengDong New Town,Xi'an

PZP200 Differential Pressure Sensors



Specifications

| Parameter | Units | Data (*) | Notes |
|--|----------|---|-------|
| Pressure types and ranges | bar | Differential(D): 0~0.35, ~0.7, ~1, ~2, ~3.5, ~7, ~10, ~20 | [1] |
| system pressure | %fs | 1000 (max.100 bar) | |
| system pressure effect | mV/MPa | ≤0.5 | |
| Overload pressure | %fs | 200(positive end), 100(max.10bar, negative end) | [2] |
| Full scale output (fso) | mV | ≥ 70(typical) | |
| Zero offset | mV | \leq ±2 | |
| Excitation | mA | Current: 1.5 (max. 2) | |
| | V | Voltage: 5 (max. 10) | |
| Accuracy | %fs | \leq ±0.25 (standard), \leq ±0.5 | [3] |
| Long-term stability | %fs/year | \leq ±0.3 | |
| Input resistance | kΩ | 3~8 | |
| Output resistance | kΩ | 2.5~6 | |
| Insulation resistance | MΩ | 100 @ 100Vdc | |
| Compensated temperature range | °C | 0~70 (standard) | |
| Operating temperature range | °C | -40 ~ +125 | |
| Storage temperature range | °C | -40 ~ +125 | |
| Temperature coefficient of zero offset | %fso/°C | \leq ±0.03 | |
| Temperature coefficient of span | %fso/°C | \leq ±0.03 | |
| Response time (10% to 90%FS) | ms | ≤ 1 | |
| Process sealing | / | by Viton O-ring | |
| Electrical interface | / | 4 colored silicon rubber flying wires, 100mm (standard) | |
| Pressure diaphragm | / | 316L SS | |
| Wetted parts material | / | 316L SS | |
| Filling oil | / | silicon oil | |
| Pressure medium | / | compatible with pressure diaphragm and O-ring | |
| Life time | cycles | 10x10 ⁶ | |
| Net weight | gram | ~45 | |

Notes:

- (*). Testing at Basic Condition.
- [1]. For customized pressure ranges, please consult Proza.
- [2]. "fs" refers to full scale pressure or rated pressure.
- [3]. Accuracy = sqrt (non-linearity²+ hysteresis²+ repeatability²).

Electrical Connection

| | wire color | connection |
|---|------------|--------------|
| 4 colored silicon rubber flying wires(4W) | red | excitation + |
| | yellow | excitation - |
| | blue | signal + |
| | green | signal - |

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Ordering Guide



Examples of Ordering Code

model-pressure range-pressure type-accuracy-compensation-excitation-electrical interface-customized parameter

PZP200-10-D-0.25-T0-C-4W

Order Notes

- 1. For any critical working environment or pressure media, please inform me before order.
- 2. Please pay attention to protect the diaphragm. Do not touch the diaphragm by fingers and other hard objects, or it may be damaged.

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