

PC10D(WTD19) Differential Pressure Sensor



- Piezoresistive silicon chip employed
- Perfect long term stability
- MEMS technology
- CE certificate
- Sensor diameter: 19mm

PC10D(WTD19) differential pressure sensor is a standard and most popular sensor applied in air and liquid pressure measuring. A high sensitivity silicon pressure chip is employed in the sensor. The housing is filled with oil for pressure transmission. The most important specification for industry application is long term stability. PC10D(WTD19) sensor is designed for industry application with perfect long term stability.

Diaphragm and pressure range

The diaphragm diameter has tight relation with pressure measured. Low pressure requires large diameter and high pressure needs small diameter. This is caused by oil expansion during temperature changing. It creates internal pressure due to the resistance of the diaphragm. The smaller diaphragm will create large internal pressure, and it is difficult to make zero compensation.

Caution

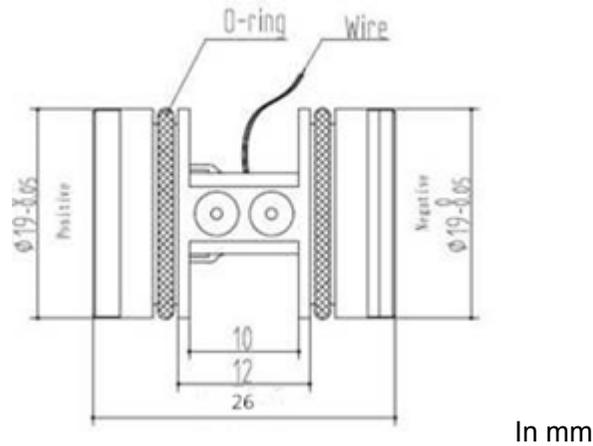
Please do not touch the diaphragm by finger and other hard objects, or it may be damaged.

| Pressure range | | | |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|
| Pressure range | 10kPa, 35kPa, 70kPa, 100kPa, 250kPa, 400kPa, 600kPa, 1MPa, 1.6MPa, 2.5MPa(bar and psi unit available) | | |
| Pressure reference | Differential pressure | | |
| Overpressure | Range | Positive Overpressure | Negative Overpressure |
| | 35kPa | 70kPa | 35kPa |
| | 70kPa | 150kPa | 70kPa |
| | 100kPa | 200kPa | 100kPa |
| | 250kPa | 500kPa | 250kPa |
| | 400kPa | 800kPa | 400kPa |
| | 600kPa | 1200kPa | 600kPa |
| | 1MPa | 2MPa | 1MPa |
| | 1.6MPa | 3.2MPa | 1MPa |
| 2.5MPa | 5MPa | 1MPa | |
| Output signal | | | |
| Zero output | ±2mV | | |
| Span output | 100mV(Typical) 60mV(<100kPa) | | |
| Specification | | | |
| Accuracy (linearity, repeatability and hysteresis) | ±0.25%F.S. (Typical) | | |
| Excitation | 1.5mA (Typical) | | |
| Compensated temp. | 0-60°C(Typical) | | |
| Operating temp. | -40-125°C | | |
| Storage temp. | -40-125°C | | |
| Zero temp. coefficient | 0.02%F.S./°C (≥100kPa) 0.04%F.S./°C (<100kPa) | | |
| Span temp. coefficient | 0.02%F.S./°C (≥100kPa) 0.04%F.S./°C (<100kPa) | | |
| Insulation resistance | >200Mohm/250VDC | | |
| Bridge resistance | Min. | Max. | Unit |
| | 2600 | 5500 | ohm |
| Long term stability | ≤0.3%F.S.S/year | | |
| Vibration | 20g (20-5000HZ) | | |
| Wire connection | 4 wire (typical) 5 wire (available) 39×φ0.015, Silicon shielded, 200°C bearing | | |

Weight

40g(approx)

Wire connection



| Wire | Connection |
|--------|-------------|
| red | excitation+ |
| blue | excitation- |
| yellow | output+ |
| white | output- |

How to order

PC10D(WTD19) XX—XX—XX

Pressure range

Please write directly

Pressure reference

D: differential pressure

Excitation

C1: 1.5mA

C2: others (please specify)

Wotian reserves the right to make any change in this publication without notice. The information provided is believed to be accurate and reliable as of this product sheet.

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