

PCD-S-XXX



ADVANTAGES

- High-precision measurement and long-term stability
- With ambient pressure compensation
- Large overload range
- With flow or diaphragm sensor technology
- Compatible with RMS logger, RMS On-premises software and SaaS solutions

APPLICATIONS

- HVAC
- Cleanroom



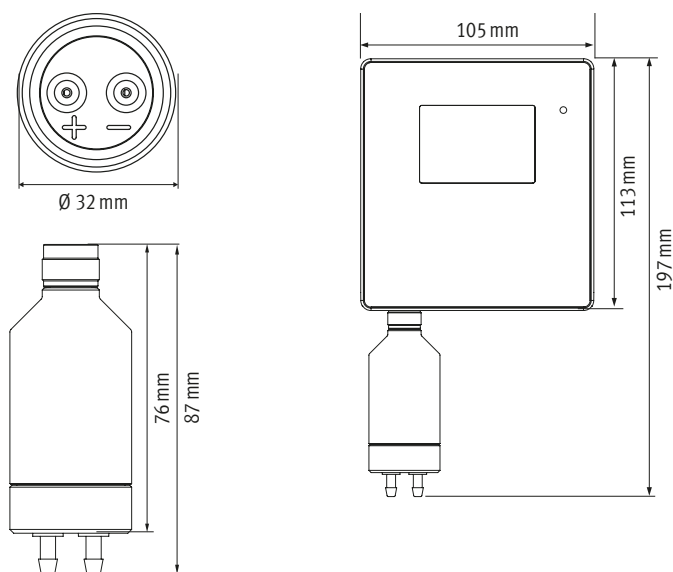
TECHNICAL INFORMATION

The Rotronic differential pressure probes are ideal for clean rooms, operating theaters and applications where even minor differences in pressure can have a big effect. Thanks to our two different measurement methods (thermal mass flow measurement and diaphragm measurement), we offer the perfect solution for every requirement. Together with other measurement parameters, these probes can be integrated in RMS perfectly.

Compatible with

- RMS-LOG: Wireless \geq V1.5/LAN data loggers \geq V1.4

Dimensions



TECHNICAL INFORMATION

General specifications

| Sensor type | Flow | Membrane |
|--------------------------------------|--|---|
| Parameter | Differential pressure | |
| Accuracy ¹ at 23 °C ±3 K | ±1% FS | ±1% FS ² |
| Long-term stability ³ | ±0.1% FSS/year | ±2% FSS/year for ±25Pa probe ±1% FSS/year for ±50Pa probe ±0.5% FSS/year for ±100Pa probe ±0.25% FSS/year for ±250Pa und ±500Pa probes |
| Zero point compensation ⁴ | Automatic, 1x per measurement interval | Manual, with external tube; via RMS software ⁵ |
| Medium | Air | Air & non-aggressive gases |
| Ambient pressure compensation | Automatic | Not necessary |
| Adjustment and calibration | Factory adjustment/calibration: 5 points Customer adjustment: max. 9 points | |
| Measurement range | -25...+25 Pa / -50...+50 Pa / -100...+100 Pa / -250...+250 Pa / -500...+500 Pa | |
| Pressure resistance (burst pressure) | 5 bar | 0.7 bar |
| Leak rate | <180 µl/min. | 0 µl/min. |
| Startup time | <0.5 s | |
| Measurement interval | 1 s probe ≥10s RMS / 1s Modbus | |
| Response time τ_{63} | <1 s | |
| Range of application | -20...+80°C (0...+70°C temp.-comp.) 0...95% RH non-condensing | |
| Voltage | 3.3 – 5.5 V | |
| Current consumption | 30 mA (avg.) | 12 mA (avg.) |
| Battery life RMS wireless logger | 60d @ 10s interval 350d @ 60s interval | 130d @ 10s interval 650d @ 60s interval |
| Battery life LAN logger | 70d @ 10s interval 395d @ 60s interval | 180d @ 10s interval 840d @ 60s interval |
| Protocols | Modbus RTU | |

¹ Please see the device manual for detailed considerations.

² For maximum accuracy, Rotronic recommends strongly to perform a zero point compensation after the installation and initial operation and to repeat it annually. For aggressive environments / gas media, a more frequent zero point compensation is advised. Please see the device manual for detailed considerations.

³ Highly reducible by a zero point compensation of the PCD-S-Mxx (membrane sensor).

⁴ A zero point adjustment is recommended for every installation or position change.

⁵ Please see the device manual for detailed considerations.

FDA & GAMP compatibility

| | |
|-----------------------|---------------------------|
| FDA / GAMP directives | FDA CFR21 Part 11 / GAMP5 |
|-----------------------|---------------------------|

Housing / Mechanical parts

| | |
|-----------------------|--|
| Housing material | Polycarbonate (housing) Stainless steel DIN 1.4305 (nuts, connectors) |
| Fire protection class | Corresponds to UL94-HB |
| Dimensions | Ø 32 mm x 87 mm |
| Pressure connections | Tubing connector internal Ø 4 mm x 10 mm |
| Weight | 60 g |
| IP protection class | IP65 |