RMS-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

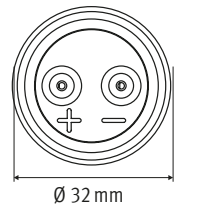
TECHNICAL INFORMATION

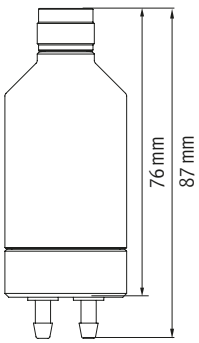
The Rotronic differential pressure probes are ideal for clean rooms, operating theaters and applications where even minor differences in pressure can have a big effect. Thanks to our two different measurement methods (thermal mass flow measurement and diaphragm measurement), we offer the perfect solution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

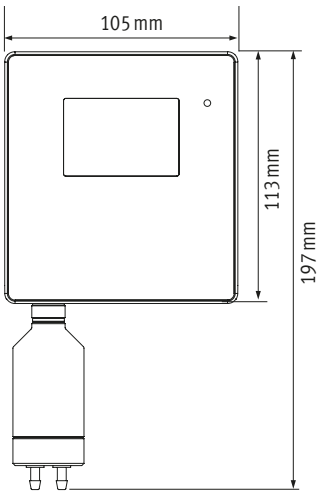
Compatible with

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

Dimensions







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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 measure-ment 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	130d @ 10s interval
	350d @ 60s interval	650d @ 60s interval
Battery life LAN logger	70d @ 10s interval	180d @ 10s interval
	395d @ 60s 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 RMS-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

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