



DISRUPTIVE
TECHNOLOGIES



Product Datasheet

Wireless Differential Pressure Sensor

Wireless Differential Pressure Sensor

Description

The Wireless Differential Pressure Sensor measures the pressure difference between two spaces using a thermal mass flow principle. The resulting mass flow signal is converted into a calibrated differential pressure measurement using a validated model developed by Sensirion.

Measurements are wirelessly transmitted via SecureDataShot™ to a Cloud Connector (Gateway), which relays the data to a cloud service. Differential pressure can be measured as frequently as every 30 seconds, with data reported as often as every 60 seconds.

Data can be viewed directly in DT Studio or accessed through a REST API and webhooks for integration with compliance, BMS, and CMMS platforms. The sensor also supports up to 30 days of offline data backfill, helping ensure continuity in compliance records if connectivity is interrupted.

Features

- Thermal mass flow measurement principle offering high accuracy and reliability, and zero offset drift
- Highly accurate measurement of low differential pressure between two spaces
- Measurement interval as low as 30 seconds
- Data reporting interval as low as every 60 seconds
- Configurable cloud-based alerting on heartbeat data
- 30-day offline data backfill — no compliance gaps
- Wireless installation via SecureDataShot™ protocol
- DT Studio web app and REST API access

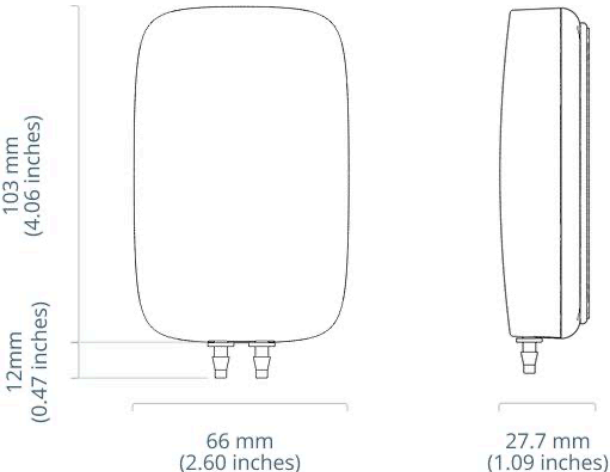
Product Name	Product Number	Region	Order Code
Wireless Differential Pressure Sensor EU	103021	Europe	103025
Wireless Differential Pressure Sensor US	103022	North America	103030

Measurement

Range	–500 to +500 Pa (-2 to +2 inH2O)	
Accuracy	Zero point: 0.1 Pa (0.0004 inH2O)	Span: ±3% of reading
	Accuracy specified for clean dry air at 25 °C, within the recommended operating range. The sensor is automatically compensated for altitude and temperature.	
Resolution	0.02 Pa (0.00008 inH2O)	
Measurement interval	From 30 s, configurable	
Heartbeat interval	From 60 s, configurable	
Offline backfill	Up to 30 days	

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Construction

Material	Polycarbonate (PC)
Dimensions	<p>Body Size: 103 x 66 x 27.7 mm (4.06 x 2.60 x 1.09 inch)</p> <p>Size including ports: 115 x 66 x 27.7 mm (4.53 x 2.60 x 1.09 inch)</p>  <p>The technical drawing shows two views of the sensor. The front view on the left is a rounded rectangle with a height dimension of 103 mm (4.06 inches) and a width dimension of 66 mm (2.60 inches). A small detail at the bottom indicates a 12 mm (0.47 inches) depth for the port area. The side view on the right shows the sensor's profile with a depth dimension of 27.7 mm (1.09 inches).</p>
Weight	124 g (4.37 oz)
Mounting	Adhesive or screw
Connections	2 × air hose ports (hoses and fixtures sold separately)
IP Rating	IP20

Operating Conditions

Operating Conditions	Temperature: 0 to 50 °C (32 to 122 °F)	Humidity: 0 to 95% RH non-condensing
Storage Conditions	Cool and dry, near room temperature	
Media Compatibility	Air, N2, O2, non-condensing	

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Radio & Communication

Radio Protocol	SecureDataShot™			
Radio Frequency	EU: 868 MHz SRD/ISM band		US: 915 MHz ISM band	
Radio Range	Product	Indoor		Free Space
	CCONv1	160 m	525 ft	5 km 16404 ft
	CCONv2	250 m	820 ft	10km 32808 ft
Based on ITU-R P.1238 (indoor) and ITU-R P.525 (free-space).				
Platform Access	DT Studio, REST API, webhooks			
Encryption	End-to-end, sensor to cloud			

Certification & Compliance

Certification	EU: CE, WEEE	US/Canada: FCC, ISED
Product contains FCC ID: 2ATFX-102540 IC: 25087-102540		

Battery & Power

Battery	Type: 2 x AA (Alkaline)	Lifetime: Up to 10 years	Replaceable: Yes
The battery life is limited by the shelf life of AA batteries used, Heartbeat Interval and ambient temperature. The estimated lifetime is based on 5 min Heartbeat Interval at 25°C using the batteries supplied with the unit.			

Disclaimer

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Revision History

Revision 1.1	Change: Added IP rating specification and Certification & Compliance information Date: 2026-09-15
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Revision 1.0	Change: Initial release Date: 2026-05-19
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