

PDS2-L



LoRaWAN Operated Low Power Differential Pressure Transmitter for Liquid and Gas Media

- Compatible with all LoRaWAN frequencies
- Wide range of industrial applications
- High accuracy
- Designed to meet outdoor applications
- Long-term durable performance in harsh environment
- Ultra-low power
- Suitable for liquids and gases compatible with SS



TECHNICAL SPECIFICATION

Sensor

• Range (bar)	Selectable between 0~0.1 to 25
• Accuracy (combined linearity, hysteresis, repeatability) (%Span)	±0.25 (typ.)
• Resolution (%Span)	±0.01
• Pressure Reference	Differential
• Temperature Coefficient of Zero (%FS/°C)	≤±0.02(range > 1bar), ≤±0.04(range < 1bar)
• Temperature Coefficient of Span (%FS/°C)	≤±0.02(range > 1bar), ≤±0.04(range < 1bar)
• Long Term Stability (1 year) (%Span)	≤ 0.3
• Pressure Overload (%FS)	200 (positive side); 100 (negative side, max 10bar)
• Pressure Cycles (Zero to Full Scale) (Million)	10+
• Compensated Temperature (°C)	0 ~ +60

Power

• Power Supply	Built-in Replaceable Lithium Battery, External Power (option)
• Rated Voltage (V)	3.6
• Battery Lifetime	100,000+ readings and 20,000+ transmission (More than 10 years for most applications)

Physical

• Materials	O-ring: Viton, Body: SS304, Diaphragm: SS316, Oil: Silicon / Olive, Enclosure: ASA/POM
• Process Connection	G1/4 Male (or others on request)
• Weight (g)	550
• Protection Rate	IP66, UV Protected



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Communication

• LoRaWAN® Version, Class	1.0.2revB, Class A (Class C on request)
• LoRaWAN® Frequency Zone	AS923, EU868, US902-928, AU915-928 (other zones available on request)
• LoRaWAN® Activation Type	OTA (default), ABP
• Sampling Type	Periodic (default), Event triggered
• Sampling Period	Configurable via downlink (default 4 hours)
• Transmission Type	Per sample (default), Event triggered, Conditional
• Parameter Configuration	Over-the-air via LoRaWAN® downlinks Locally via wireless connectivity
• Firmware Update	Locally via Wireless Connectivity, Over The Air

NETWORK CONNECTION AND VISUALIZATION

Network Integration

- Integratable to all main networks (Activity, Alibaba, Cisco, Digita, Everynet, Helium, Kerlink, kpn, Lorient, machine-Q, Objenious, Orange, Orbiwise, Proximus, Senet, Sens, Swisscom, TATA, The Things Network (TTN), TTI and any other network)

Visualization And Data Management

- 10Sorex white label microservice platform, and Integratable to all main IIoT platforms directly or through the api (AWS, Azure, PTC ThingWorx, Bosch IoT, Cisco Jasper & Kinetic, Sierra Numerex, MathWorks, ThingSpeak, GE Digital Predix, LandisGyr, Siemens MindSphere, Cumulocity, myDevices, Ubidots, TagoIO, ALSO AllThingsTalk, HPE IoT and any other major IoT platform).

10Sorex Platform Main Features

- Encrypted ultra-low power communication protocol
- Advanced device inventory
- Integration APIs for enterprise systems
- Multi-tenant role-based access control
- Data export and import
- White-label platform for enterprise runs on private account
- Variable alarm setting for high and low thresholds and multi-channel alerting
- Sampling and transmission interval configuration
- Transmission condition configuration
- Other configurations and customization available on request



Encrypted &
ultra-low power



Integratable



Dynamic alerting



Multi-tenant



Scalable


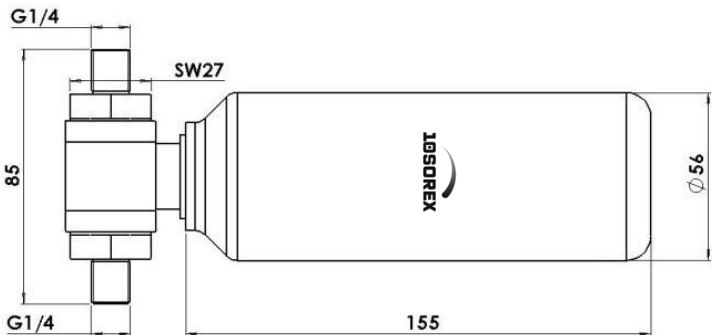


Composable &
API first



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MODEL GUIDE

Model	Option / Schematic
C Model 	

INDUSTRIES



Water &
Environment



Agriculture &
Farming



Oil & Gas



Marine &
Oceanography



Mining &
Construction



Smart Building &
HVAC



Transport &
Logistics



Food &
Beverage



Hydraulics and
Compressed Air
Systems

APPLICATIONS

- Pump Performance Monitoring
- Water Pipeline Pressure Monitoring
- Pressurized System Monitoring
- Chiller and Cooling System Monitoring
- Hydraulic and Pneumatic Systems Monitoring
- Closed Liquid Storage Level Monitoring
- Spraying System Monitoring
- Air Compressor Monitoring



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ORDERING CODE

PDS2-L									
LoRaWAN Frequency Zone									
AS (AS923)		AUx (AU915-928) (Sub Band x)		EU (EU868)		USx (US902-928) (Sub Band x)			
LoRaWAN Activation									
A (Over The Air Activation - OTAA)					P (Activation By Personalization - ABP)				
Pressure Range									
0.1, 0.35, 0.5, 1, 2, 4, 6, 10, 15, 20, 25bar (or any other non-standard ranges)									
Process Port									
G1/4: 1/4" BSPP Male			G1/2: 1/2" BSPP Male			NPT1/4: 1/4" NPT Male			
Other options available on request									
Enclosure									
C5: Cylindrical					Other options available on request				
Device Activation									
S: With On/Off Switch					X: No Switch (Always On)				
Antenna Option									
E: External					I: Internal				
Options (On request)									
PDS2-L	AS	A	1bar	G1/4	C5	X	E		

Sample Product Code:

- PDS2-L-AS-A-1bar-G1/4-C5-S-E**

LoRaWAN® differential Pressure sensor operated, frequency of AS923, Over The Air Activated, measurement range of 1bar, process connection of G1/4, without on-off switch (always on) and external antenna

