

PTS2-L



LoRaWAN® Operated Low Power 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 0~0.5 to 0~1000
• Accuracy (combined linearity, hysteresis, repeatability) (%Span)	±0.25 (typ.)
• Resolution (%Span)	±0.01
• Pressure Reference	Vented Gauge, Sealed Gauge, Absolute
• Temperature Coefficient of Zero (%FS/°C)	≤±0.02
• Temperature Coefficient of Span (%FS/°C)	≤±0.02
• Long Term Stability (1 year) (%Span)	≤ 0.2
• Pressure Overload (%FS)	300 (range <1bar); 150 (higher range)
• Pressure Cycles (Zero to Full Scale) (Million)	10+
• Compensated Temperature (°C)	-10 ~ +70

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

physical

• 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, Netmore, 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


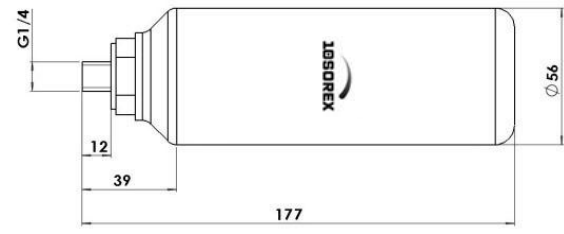

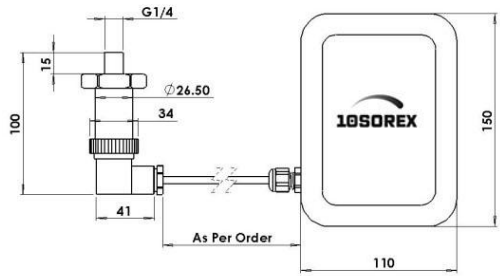


Composable &
API first



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MODEL GUIDE

Model	Option / Schematic
C Model 	 <p>C5: IP65 vented gauge sensor, compact, POM enclosure with on/off switch</p>
E Model 	 <p>E5: IP65 sensor (vented gauge), wired, IP66 ASA enclosure and on/off switch</p>

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
- Liquid Storage Level Monitoring
- Spraying System Monitoring
- Air Compressor Monitoring



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ORDERING CODE

PTS2-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									
0.5, 1, 2, 5, 10, 20, 50, 100, 200, 400, 700, 1000bar (or any other values)									
Pressure Reference									
V (Vented Gauge)			S (Sealed Gauge)			A (Absolute)			
Process Port									
G1/4 (¼" BSPP Male) (Standard Option for the ranges less than 200bar)				G1/2 (½" BSPP Male) (Standard Option for the ranges more than 200bar)			NPT1/4 (¼" NPT Male)		
Other options available on request									
Enclosure									
C5: Cylindrical			E5: Sensor head connected to housing with 3m cable						
Device Activation									
S: With On/Off Switch					X: No Switch (Always On)				
Antenna Option									
E: External					I: Internal				
Options									
(On request) ¹									
PTS2-L	AS	A	1bar	V	G1/4	C5	S	E	

Sample Product Code:

- PTS2-L-AS-A-1bar-V-G1/4-C5-S-E

LoRaWAN® pressure sensor, frequency of AS923, Over The Air Activated, pressure range of 1bar vented, process connection of G1/4 with cylindrical housing (compact and IP65 rated), activated by on-off switch and equipped with external antenna.

¹) Product Options:

- EP:** sensor with external power supply connector for 12V supply (only for E type enclosure, adaptor is not included)
- EPB:** connector for 12V supply with internal battery backup (only for E type enclosure)
- HG:** high-gain external antenna
- WF:** Active WiFi module on device for communication/ firmware update through Mobile phone NFC module (only for E type enclosure)
- HCB:** high-capacity battery (only for E type enclosure)



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