

PTC2-L



LoRaWAN® Operated Low Power Pressure Transmitter for Corrosive 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 corrosive liquids and gases



TECHNICAL SPECIFICATION

Sensor

• Range (bar)	Selectable between 0~0.5 to 0~200
• Accuracy (combined linearity, hysteresis, repeatability) (%Span)	±0.5 (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	Body: Hastelloy or PVDF, Diaphragm: Hastelloy or Ceramic (Al ₂ O ₃), Enclosure: PVDF/POM, O-ring: FKM/ FFKM
• Process Connection	G1/4 Male (or others on request)
• Weight (g)	550
• Protection Rate	IP66, UV Protected

PTC2-L

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 (Actility, 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



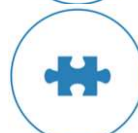
Dynamic alerting



Multi-tenant



Scalable


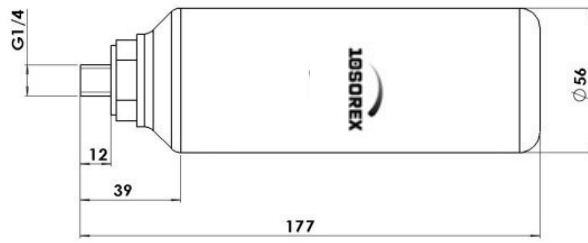

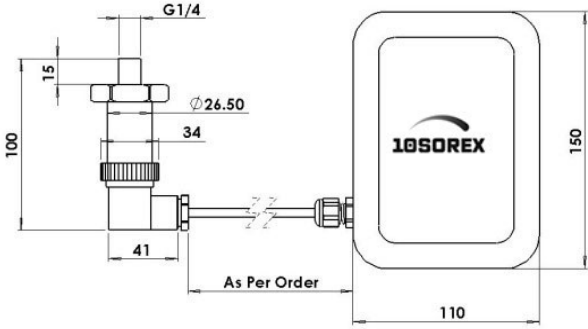


Composable & API first



PTC2-L

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 &
Wastewater



Agriculture &
Farming



Oil & Gas



Marine &
Oceanography



Mining &
Construction



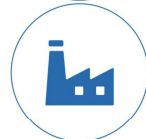
Smart Building &
HVAC



Transport &
Logistics



Food &
Beverage



Hydraulics and
Compressed Air
Systems

APPLICATIONS

- Wastewater Pump Performance Monitoring
- Corrosive Liquid Storage Pressure Monitoring
- Pressurized System Monitoring
- Corrosive Liquid Storage Level Monitoring
- Spraying System Monitoring
- Compressed Corrosive Gas Monitoring



PTC2-L

ORDERING CODE

PTC2-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, 200bar (or any other positive or negative ranges)										
Pressure Reference										
V (Vented Gauge)			S (Sealed Gauge)				A (Absolute)			
Process Port										
G1/4 (1/4" BSPP Male)					Other options available on request					
Sensor Head Material										
H: Hastelloy diaphragm and process connection					C: Ceramic diaphragm with PVDF process connection					
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										
PTC2-L	AS	A	1bar	V	G1/4	H	C5	S	E	

Sample Product Code:

- PTC2-L-AS-A-1bar-V-G1/4-H-C5-S-E

LoRaWAN® corrosion resistant pressure sensor, frequency of AS923, Over The Air Activated, range of 1bar vented, wetted material of Hastelloy, process connection of G1/4, with C5 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)

