

# PTS2-N



## NB IoT – Cat-M1 Operated Low Power Pressure Transmitter for Liquid and Gas Media

- Compatible with most standard communication Protocols (UDP, LwM2M, MQTT, NIDD, etc.)
- 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:	50,000+ readings and 10,000+ transmission (With UDP protocol/ More than 10 years for most applications)

### Physical Specification

• 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

• SIM Card Type	4FF Nano-SIM, from any Network Provider
• Firmware Update:	Over The Air, Locally via Wireless Connectivity
• Sampling Period:	Configurable via downlink (default 4 hours)
• Power Consumption:	Power Saving: < 5uA, Transmission: < 220mA
• Communication Standards (option of back support by GPRS)	Cat-NB1 (NB-IoT) Cat-M1
• Communication Bands	B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B26/B28 and B39
• Data Rates:	Cat-M1: 375Kbps (DL)/375Kbps (UL) NB-IoT: 32Kbps (DL)/70Kbps (UL)
• TX Power:	23dBm
• Min Receiver Sensitivity:	Cat-M1: -107dBm NB-IoT: -113dBm
• Antenna:	Internal (Default)/ External (customised options available)
• Optional Features:	<ul style="list-style-type: none"> <li>• Attach without PDN (Packet Data Network)</li> <li>• Support for IPV6</li> <li>• SMS communication</li> <li>• Mobility support (Cat-M1 only)</li> </ul>

## NETWORK CONNECTION AND VISUALIZATION

### Network Integration

Pre-configured or configurable to all main narrow band networks (3, A1, AT&T, China Mobile, DU, Etisalat, KPN, M1 Singapore, Optus, Orange, Proximus, Spark, Sprint, Swisscom, Telefonica, Telstra, T-Mobile, Verizon, Vodafone, 1NCE, Emnify 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, AllThingsTalk Maker, HPE IoT and any other major IoT platform).

### 10Sorex Platform Main Features

- Encrypted ultra-low power communication protocol
- Integration APIs for enterprise systems
- Data export and import
- Multi-channel, rule-based alerting
- Transmission condition configuration
- Advanced device inventory
- Multi-tenant role-based access control
- White-label platform for enterprises on private account
- Sampling and transmission interval 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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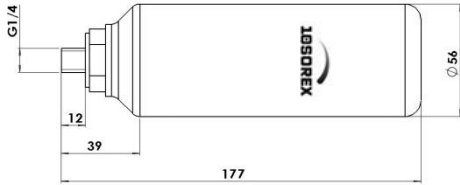

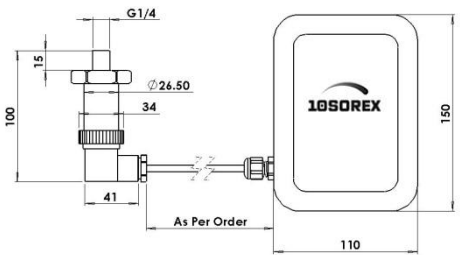
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## MODEL GUIDE

Model	Options:
<b>C Model:</b> 	 <p><b>C5:</b> IP65 vented gauge sensor, compact, POM enclosure with on/off switch</p>
<b>E Model:</b> 	 <p><b>E5:</b> 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



# PTS2-N

## ORDERING CODE

PTS2-N									
Communication Type									
B: NB-IoT					C: Cat-M1				
Pressure Range									
0.5, 1, 2, 5, 10, 20, 50, 100, 200, 400, 700, 1000bar (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)					G1/2 (1/2" BSPP male)				
NPT1/4 (1/4" NPT male)					Others as specified				
Enclosure									
C5					E5				
Compact					With extended cable. Standard cable length: 3m (or other options on request)				
Device Activation									
S: on/off switch					X: No switch (always on)				
Antenna									
I: Internal					E: External (on request)				
Options									
(On request) <sup>1</sup>									
PTS2-N	B	0.5bar	V	G1/4	C5	S	I		

### Sample Product Code:

- PTS2-N-B-0.5bar-V-G1/4-C5-S-I

NB IoT pressure sensor, range of 0.5bar vented, process connection of G1/4, with C5 housing (compact and IP65 rated), activated by on-off switch and internal 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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