



## LoRaWAN® Operated IP68 Rated 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	Selectable between 0~0.5 to 0~1000	bar
• Accuracy (combined linearity, hysteresis, repeatability)	±0.25 (typ.)	%Span
• Resolution	±0.01	%Span
• Pressure Reference	Vented Gauge, Sealed Gauge, Absolute	
• Temperature Coefficient of Zero	≤±0.02	%FS/°C
• Temperature Coefficient of Span	≤±0.02	%FS/°C
• Long Term Stability (1 year)	≤ 0.2	%Span
• Pressure Overload	300 (range <1bar); 150 (higher range)	%FS
• Pressure Cycles (Zero to Full Scale)	10+	Million
• Compensated Temperature	-10 ~ +70	°C

### Power

• Power Supply	Built-in Replaceable Lithium Battery, External Power (option)	
• Rated Voltage	3.6	V
• 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	550	g
• Protection Rate	IP68, UV Protected	

### 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

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- Parameter Configuration Over-the-air via LoRaWAN® downlinks  
Locally via wireless connectivity
  - Firmware Update Locally via Wireless Connectivity, Over The Air
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## NETWORK CONNECTION AND VISUALISATION

### Network Integration

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- 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)

### Visualisation And Data Management

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- Ellenex 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 AllThingTalk, HPE IoT and any other major IoT platform).

### Ellenex Platform Main Features

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- 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 customisation available on request



Encrypted & ultra-low power



Integratable



Dynamic alerting



Multi-tenant

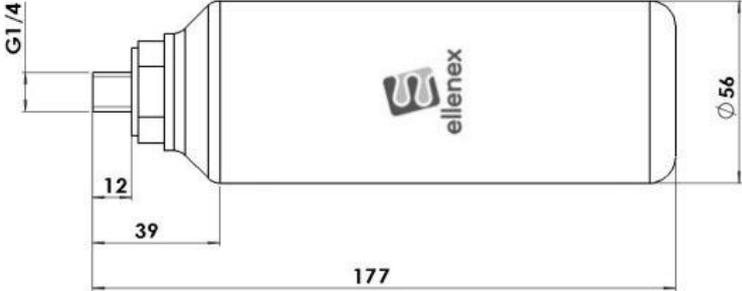
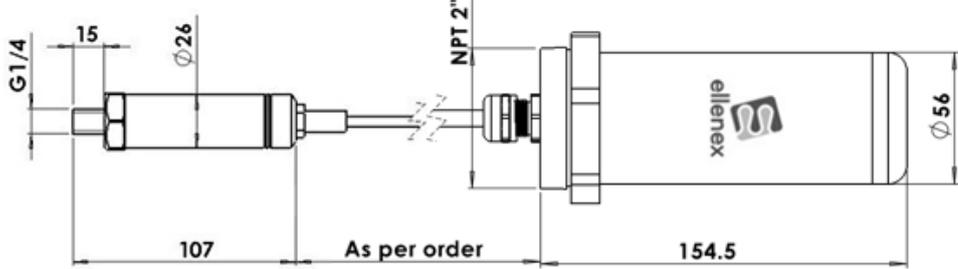


Scalable



Composable & API first

## MODEL GUIDE

Model	Option / Schematic
<p><b>C Model</b></p> 	 <p>C8: IP68 sealed gauge sensor, compact, POM enclosure without on/off switch (recommended for the range of more than 20bar with Sealed gauge sensor head)</p>
<p><b>Extended Cable Model</b></p> 	 <p>C83: IP68 sensor head, wired with IP68 POM enclosure without on/off switch (Available for the range of more than 20bar with Sealed gauge sensor head)</p> <p>C63: IP68 sensor head, wired with IP66 POM enclosure with on/off switch (Available for all ranges of pressure)</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
- Pressurised System Monitoring
- Chiller and Cooling System Monitoring
- Hydraulic and Pneumatic Systems Monitoring
- Liquid Storage Level Monitoring
- Spraying System Monitoring
- Air Compressor Monitoring

# PTS3-L Spec-sheet



## ORDERING CODE

PTS3-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 positive or negative 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										
C8: Compact			C63: IP66 enclosure with IP68 sensor extended using a 3m cable				C83: IP68 enclosure with sensor extended using a 3m cable			
Device Activation										
X: No Switch (always on)										
Antenna Option										
E: External					I: Internal					
Options (On request)										
PTS3-L	AS	A	1bar	S	G1/4	C8	X	I		

### Sample Product Code:

- **PTS3-L-AS-A-1bar-S-G1/4-C8-X-I**

LoRaWAN® pressure sensor, frequency of AS923, Over The Air Activated, measurement range of 1bar sealed, process connection of G1/4 with cylindrical housing (compact and IP68 rated), always on and equipped with internal antenna.

All details are subject to change without prior notice  
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Integrated IoT Solutions

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