

LoRaWAN Ex d Approved Pt100 Sensor



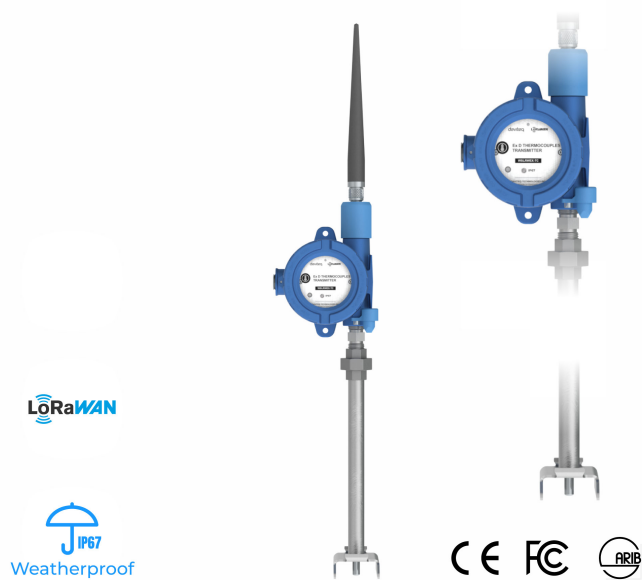
Smart Facility, Smart Factory

SKU: WSLRWEX-PT100

☐ Safe Zone

☒ Hazardous Zones

LORAWAN EX D PT100 SENSOR WSLRWEX-PT100



WSLRWEX-PT100 is an Ex d approved LoRaWAN Pt100 sensor, it integrates the Pt100 sensor with various process connection and size. The device is used in Hazardous Zone 1-2. With Ultra-low-power design and smart firmware allow the complete Wireless and Sensor package to run on a single battery for 5 years or more with 15 minutes update. It supports global frequency bands EU868, IN865, RU864, KR920, AS923, AS923-2, AU915, US915. The sensor can work perfectly with any LoRaWAN Gateway and any Network Server on the market.

Applications

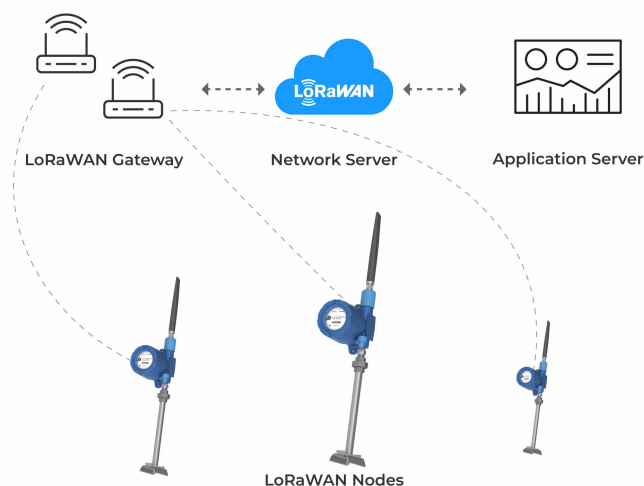
Temperature Monitoring, Process Monitoring

Notes For Applications

- Temperature Range: Identify the needed measurement range.
- Chemical Resistance: Check Pt100 wire compatibility with the environment.
- Abrasion/Vibration Resistance: Select a transmitter that can handle abrasion and vibration.
- Installation Requirements: Match probe diameter with existing equipment and probe hole sizes.

- ☒ **LoRaWAN communication**
Support LoRaWAN Class A, connect to any LoRaWAN gateway on the market
- ☒ **High Accuracy Pt100 Sensor**
High Accuracy Class A and Class B Pt100 Sensor
- ☒ **5-10 years Battery life**
Ultra low power sensor technology allow 5-10 years battery life with a single battery
- ☒ **Ex d Zones 1-2-21-22**
Ex d approved for Hazardous Zones 1-2-21-22

LORAWAN EX D PT100 SENSOR WSLRWEX-PT100



SYSTEM ARCHITECTURE

DAVITEQ TECHNOLOGIES INC

Ho Chi Minh City, VN | Koblenz, DE | Melbourne, AU | Zurich, CH

+84.28.6268.2523 / 6268.2524

info@daviteq.com

www.iot.daviteq.com

Created date: Sep-09-2024

Updated date: Mar-31-2025

Specification

Measurement technology	Ultra-low-power Pt100 measurement
Integrated Sensor	4-wire Class B or Class A
Measurement Range	-200 .. + 593°C
Process connection	1/2"NPT male as standard, others as request
Sensor material	316SST
Sensor diameter	6mm
Sensor length	200mm as standard
Accessories	External mounting clamp, thermowells
COMMUNICATION	
SF Factors	SF7~SF12
Antenna	External Antenna 2.0dbi
RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AS923-2, AU915, US915
Protocol	LoRaWAN® Class A
Data sending modes	interval time, an alarm occurred and manually triggered by a magnetic key. Recommend max 24 messages per day
Configuration	via Downlink or offline USB cable (PC software is supplied for free)
Battery	01 type D 3.6V LiSOCl ₂ battery (recommended SAFT LS33600)
Equipment housing	Aluminum alloy, powder coated, IP66, Wall mount installation
Certified Ex d	IMQ 14 ATEX 005 X, TÜV CY 18 ATEX 0206158 X and IECEx DEK 15.0048X
Hazard Protection Label	ATEX II 2G Ex db IIC T5/T6 Gb and ATEX II 2D Ex tb IIIC T100/T85°C Db
Compatible	ATEX 2014/34/EU/ Standard IEC-EN60079-0 IEC-EN60079-1 IEC-EN60079-31
Areas of application	Zones 1 & 2 gas hazardous areas, Zones 21 & 22 hazardous areas containing flammable dust
Working temperature	-40 ~ 85°C
Size Net weight	H202xW126xD128 (not including antenna)/ ≈1500g (without battery)
Mounting	Sensor direct mount and Wall/Pioe mounting bracket

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TEMPERATURE MONITORING IN
OIL AND GAS INDUSTRY



LORAWAN EX D PT100 SENSOR WSLRWEX-PT100



TEMPERATURE MONITORING IN
MINING INDUSTRY

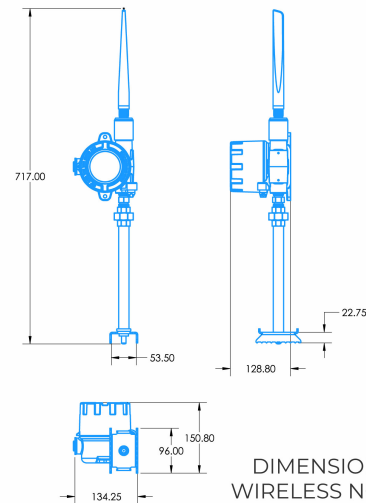


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INSTALLATION ON THE PIPELINE

LORAWAN EX D PT100 SENSOR WSLRWEX-PT100



DIMENSION DRAWING OF
WIRELESS NODE (Unit: mm)

LORAWAN EX D PT100 SENSOR WSLRWEX-PT100

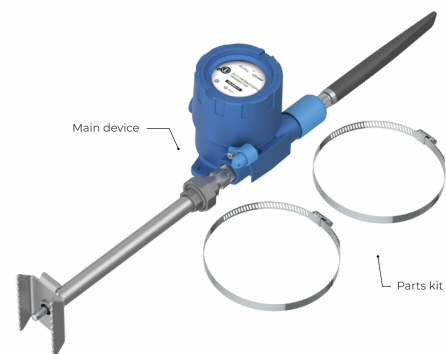


LS 33600
Lithium battery

-60~85°C working temperature
Low self-discharge rate
17000 mAh capacity

RECOMMENDED BATTERIES

LORAWAN EX D PT100 SENSOR WSLRWEX-PT100



PRODUCT PACKAGE

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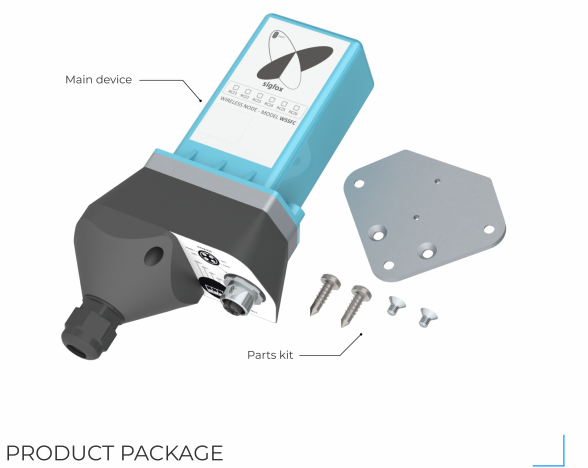
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SIGFOX LOADCELL TRANSMITTER

WSSFC-LC



Ordering Information

ITEM CODE	DESCRIPTIONS
WSLRWEX-PT100-02	LORAWAN PT100 SENSOR, CLASS A, EX D APPROVED ZONES 1-2-21-22, BATTERY 3.6V, IP67, INCLUDED PIPE MOUNT CLAMP 3" TO 8", ALL FREQUENCY BANDS 860-930MHZ