LoRaWAN Ex d Digital Input Node

Smart Agriculture, Smart Building, Smart City, Smart Energy, Smart Facility, Smart Factory, Smart Farm, Smart Retail, Smart Utilities

SKU: WSLRWEX-DI

daviteq

◯ Safe Zone   ✓ Hazardous Zones

WSLRWEX-DI is a LoRaWAN Node with Ex d explosion-proof approval and comes with 02 digital inputs for detecting the status of the pump, valve...or counting pulses from the flow meter, energy meter... Ultra-low-power design and smart firmware allow the device to run on a single battery type C for 5 years or more with 10 minutes update. It supports global frequency bands EU868, IN865, RU864, KR920, AS923, AS923-2, AU915, and US915. The sensor can work perfectly with any LoRaWAN Gateway on the market. Typical applications: detecting the status of the pump, valve...or counting pulses from the flow meter, energy meter...

LoRaWAN NODE WITH DIGITAL INPUTS WSLRWEX-DI

LoRaWAN

10-Year

IP66 WEATHERPROOF

WSLRWEX-DI-H1.JPG

Applications
Process Monitoring, Safety Monitoring, Energy Monitoring, Oil & Gas Pipeline Monitor, Electric Meter Reading, Gas Meter Reading, Water Meter Reading, Production Monitoring

Notes For Applications

- Accept the dry-contact output or voltage output with a max of 3.3V;
- Consider the shortest signal cable to avoid noise, especially for high-speed pulse applications;
- Recommend using the shielded cable with twisted pairs;
- Take note of the signal's duty cycle to meet this device's requirement.

✓ **LoRaWAN communication**
Support LoRaWAN Class A, connect to any LoRaWAN gateway on the market

✓ **For hazardous Zone 1-2-21-22**
ATEX approval for Ex d IIC

✓ **5-10 years battery**
Ultra-low power technology allows 5-year battery life with a single size C battery

✓ **Plug & Play**
The sensor is tested and pre-configured in factory before shipping.

WIRELESS NODE CONNECTED WITH ExD LIMIT SWITCH

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Specification

Digital Inputs	2-channel dry contact or low voltage (≤3.3V)
Operation	Detecting status or Pulse counting (max 1kHz)
VERSION	DI-12 (Low-speed digital input)
Input	2-Digital channel inputs with dry-contact or voltage input (max 3.3VDC)
Functions	Logic Detecting or Pulse Counting
	Logic Detecting: 2 channels, recommended minimum interval time between 02 statuses is 5 seconds.
	Pulse Counting: 1 channel only, max frequency 2Hz, minimum Pulse width (low or high) is 200mS, counter is uint32 type.
VERSION	DI-12H (High-speed digital input)
Input	2-Digital channel inputs with dry-contact or voltage input (max 3.3VDC)
Functions	Logic Detecting or Pulse Counting
	Logic Detecting: 2 channels, recommended minimum interval time between 02 statuses is 5 seconds.
	Pulse Counting: 2 channels, max frequency 1kHz, minimum Pulse width (low or high) is 200µS, counter is uint32 type.
COMMUNICATION	
Communication	LoRaWAN® Class A, V1.0.3
SF Factors	SF7~SF12
Antenna	External Antenna
RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AS923-2, AU915, US915
Data sending modes	interval time, or when status changes, or manually triggered by a magnetic key.
Configuration	via Downlink or offline USB cable (PC software is supplied for free)
Battery	01 x C type LiSOCl$_2$ 3.6V battery, not included (recommend SAFT LS26500)
Housing	Cast aluminum, IP66
Ex Certification	IMQ 14 ATEX 005 X, TÜV CY 18 ATEX 0206158 X and IECEx DEK 15.0048X
Hazardous Protection Marking	ATEX II 2G Ex db IIC T4 Gb and ATEX II 2D Ex tb IIIC T135℃ Db
Standards	IEC EN 60079-0, IEC EN 60079-7 and IEC EN 60079-31
Applicable Zones	Zone 1 & 2 gas hazardous areas
	Zone 21 & 22 hazardous areas which contain conductive combustible dust
Ambient working temperature	-40~85℃ (use with SAFT LS26500)
Dimensions	H100xW100xD80 (excluded antenna)
Net-weight	≈1500g (without battery)
Mounting	Wall mount bracket

WIRELESS NODE WITH INTEGRATED ExD PRESSURE SWITCH

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WIRELESS NODE WITH ExD TEMPERATURE SWITCH

Integrated Type   Remote Type

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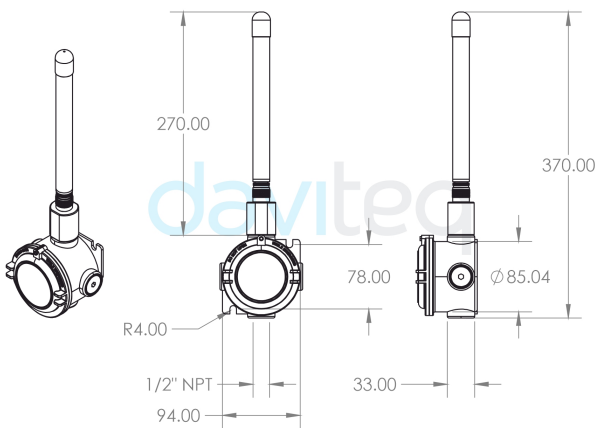## WIRELESS NODE WITH ExD MAGNETIC PROXIMITY SENSOR

WSLRWEX-DI-H5.JPG

WIRELESS NODE WITH ExD FLOW SWITCH

WSLRWEX-DI-H6.JPG

DIMENSION DRAWING OF WSLRWEX-DI
(Unit: mm)

270.00
370.00
78.00
$\varnothing$ 85.04
R4.00
1/2" NPT
33.00
94.00

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RECOMMENDED BATTERIES FOR LoRaWAN SENSOR

LS 26500 Lithium battery

-60°C..+85°C working temperature

Low self-discharge rate

7.7 Ah Capacity

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Ordering Information

ITEM CODE	DESCRIPTIONS
WSLRWEX-DI-12	LORAWAN NODE WITH DIGITAL INPUTS, EX D APPROVED ZONES 1-2-21-22, BATTERY 3.6V, IP66, 2-CHANNEL DRY-CONTACT OR VOLTAGE INPUT MAX 3.3VDC, LOGIC DETECTING OR PULSE COUNTING MAX 2HZ