

LoRaWAN Digital Input Node



Smart Agriculture, Smart Building, Smart City, Smart Facility, Smart Farm, Smart Factory

SKU: WSLRW-DI

LoRaWAN NODE WITH DIGITAL INPUTS WSLRW-DI

LoRaWAN



WSLRW-DI-H1.JPG



WSLRW-DI is a LoRaWAN node with digital inputs to detect logic status 0/1 OR counting pulses from the water meter, gas meter, power meter, proximity sensor, limit switch, machine output, pressure switch... Ultra-low-power design and smart firmware allow the sensor to run on a 2 x AA battery 1.5V for 10 years with one update per day. It can support all frequency regions in over the World. The sensor will transmit data in kilo-meters distance to the LoRaWAN gateway, any brand on the market.

Applications

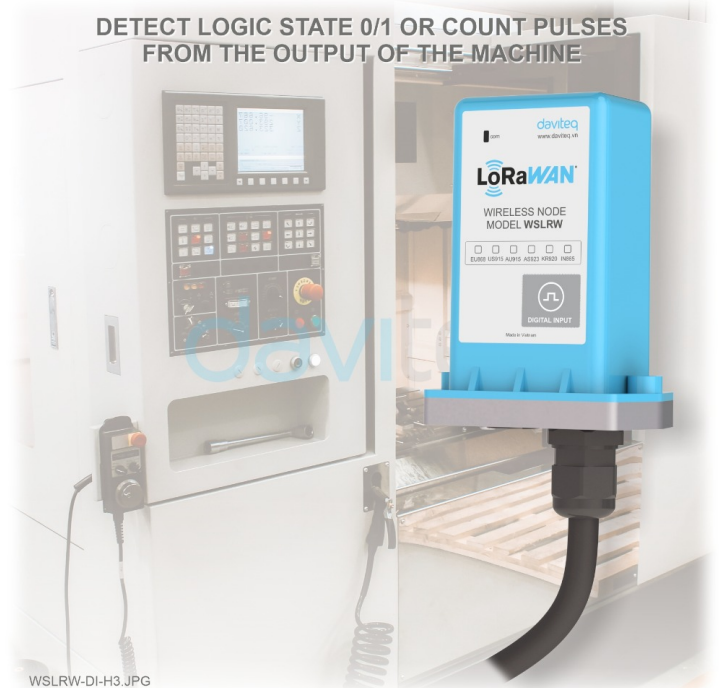
Electric Meter Reading, Gas Meter Reading, Water Meter Reading, Production Monitoring, Facility Monitoring, Flood Monitoring, Level Monitoring, Machine Health Monitoring, Safety Monitoring

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**
LoRaWAN communication standard to allow sensor connect to any LoRaWAN Gateway on the market.
- Logic detecting or Pulse counting**
One device for multiple applications
- 10-Year battery**
Ultra-low power sensing technology from Daviteq with Ultra-low power wireless technology allow the sensor can last up to 10 years with 02 x Type AA batteries.
- IP68**
For both indoor and outdoor applications

DETECT LOGIC STATE 0/1 OR COUNT PULSES FROM THE OUTPUT OF THE MACHINE



WSLRW-DI-H3.JPG

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1/4


Specification

Digital Inputs	2-channel dry contact or low voltage ($\leq 3.3V$)
Operation	Detecting status or Pulse counting (max 1 kHz)
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 200 μ S, counter is uint32 type.
COMMUNICATION	
SF Factors	SF7~SF12
Antenna	Internal Antenna 2.0 dbi
Electrical connection	Shielded cable 2m length with PG9 cable gland
Power Supply	Primary batteries 02 x AA size 1.5VDC (battery not included)
RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Protocol	LoRaWAN Class A V1.0.3
Data sending modes	interval time, alarm and manually triggering by magnetic key
RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Working temperature	-40~60°C (with AA L91 Energizer®)
Dimensions	H106xW73xD42
Net-weight	190g
Housing	Aluminum + Polycarbonate plastic, IP68

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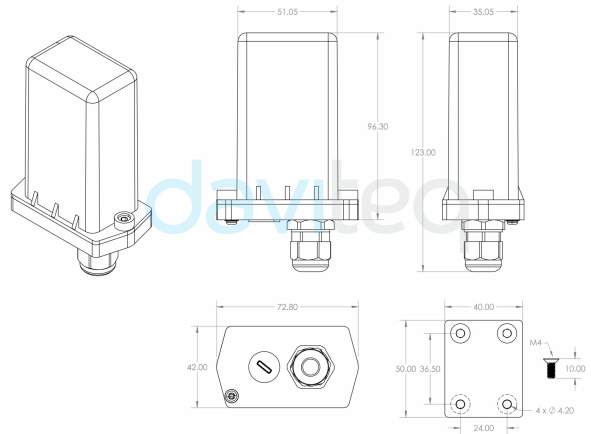
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2/4

LoRaWAN NETWORK



DIMENSION DRAWING OF SENSOR NODE
(Unit: mm)



RECOMMENDED BATTERIES FOR LoRaWAN SENSOR

E91 AA Alkaline battery



-18 .. + 60 oC working temperature
10-year shelf life
3000 mAh Capacity
Price: 1X

L91 AA Lithium battery



-40 .. + 60 oC working temperature
20-year shelf life
3500 mAh Capacity
Price: 3.5X

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10-year shelf life
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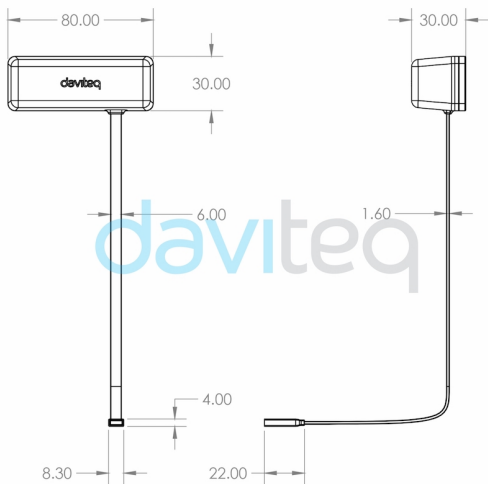
L91 AA Lithium battery



-40 .. + 60 oC working temperature
20-year shelf life
3500 mAh Capacity
Price: 3.5X

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DIMENSION DRAWING OF SENSOR NODE



RECOMMENDED BATTERIES FOR LoRaWAN SENSOR

LS 14500 Lithium battery



-60°C..+85°C working temperature
Low self-discharge rate
2.6 Ah Capacity

WSLRW-S-ATE-H8.PNG

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Ordering Information

ITEM CODE	DESCRIPTIONS
WSLRW-DI-12	LoRaWAN node with digital inputs, 2-channel, shielded cable 2m length with PG9 cable gland, internal antenna, type AA battery 1.5VDC, IP68.
WSLRW-DI-12H	LoRaWAN node with digital inputs, high speed 2-channel, shielded cable 2m length with PG9 cable gland, internal antenna, type AA battery 1.5VDC, IP68.

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4/4