

LoRaWAN Node with RS485 Modbus Master Port



Smart Building, Smart City

SKU: WSLRW-MB485

OBSOLETE, replaced by [WSLRWEX-G4](#)

Safe Zone

Hazardous Zones

LORAWAN RS485 MODBUS MASTER NODE WSLRW-MB485



WSLRW-MB485 is a LoRaWAN node with an RS485 master port to connect to any sensor, water meter, power meter, gas meter, or flow computer with an RS485 slave port. The device supports fieldbus protocols of Modbus RTU. The device is configurable via offline software and downlink messages. 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. The sensor will transmit data over kilometers to the LoRaWAN gateway, any brand on the market. It supports all LoRaWAN frequency bands.

Applications

Electric Meter Reading, Gas Meter Reading, Water Meter Reading, Production Monitoring, Facility Monitoring

Notes For Applications

Data Rate and Distance: Ensure it supports the required data rate and distance for your application. Power Supply Voltage: Check compatibility with your system's power supply. ESD Protection: Look for built-in protection against voltage spikes. Operating Temperature Range: Ensure it suits your application's environment. Unit Load: Lower unit loads allow more devices on the bus. Package Type: Ensure it fits your design's space constraints. Noise Immunity: Evaluate for performance in noisy environments.

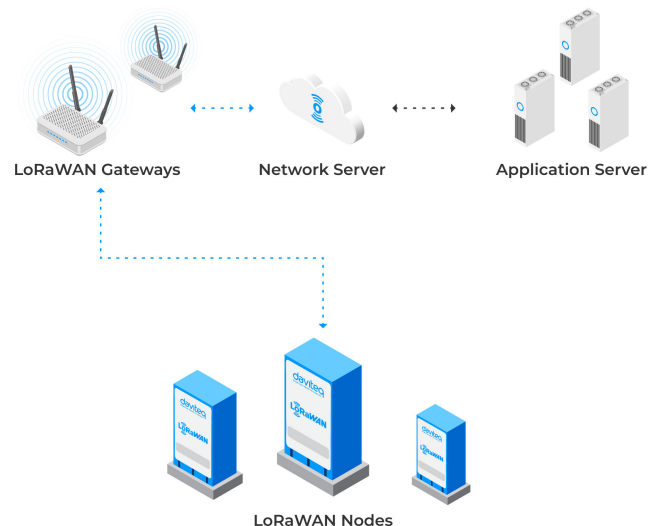
LoRaWAN Compliance
Compliance with any LoRaWAN gateway and Network Server

Connection to any RS485 Modbus slave device
Support any Modbus slave device

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

SYSTEM ARCHITECTURE LoRaWAN



DAVITEQ TECHNOLOGIES INC

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www.iot.daviteq.com


Created date: Dec-04-2023


Updated date: Nov-08-2025


Specification

Input port	1 x RS485 master port
Cable length	Shielded cable with marking A & B wires
Protocol	Modbus RTU
Fault protected RS-485 bus pins	up to $\pm 40V$
HBM ESD protection on RS-485 bus pins	$\pm 15kV$
Extended common mode range	$\pm 15V$ (larger than required for RS-485)
High transient over voltage tolerance	$\pm 60V$
Full fail-safe RS-485 receivers	open, short, terminated
COMMUNICATION	
SF Factors	SF7~SF12
Antenna	Internal Antenna 2.0 dBi
Battery	02 x AA size 1.5VDC (battery not included)
RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Protocol	LoRaWAN, class A
Data sending modes	Interval time and when alarm occurred
Certification	CE, FCC
Working temperature	-40~60°C (with AA L91 Energizer®)
Dimensions	H180xW50xD40
Net-weight	250g
Housing	Polycarbonate & POM plastic, IP68
Mounting	Wall mount

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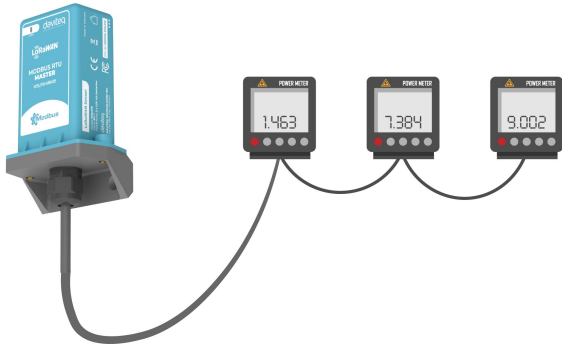
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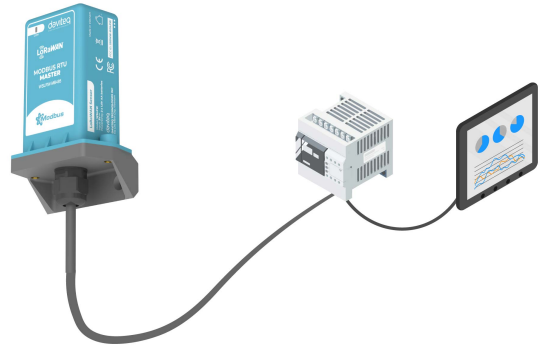
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WSLRW-MB485



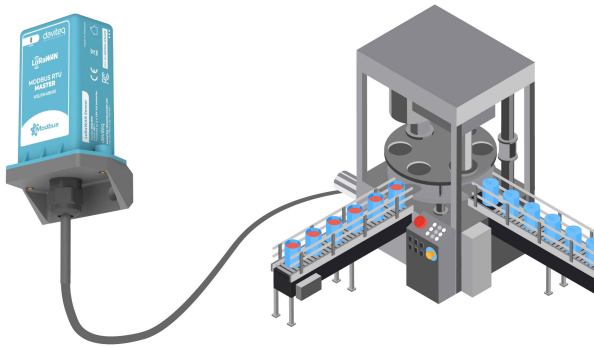
APPLICATION OF METER MONITORING

LORAWAN RS485 MODBUS MASTER NODE
WSLRW-MB485



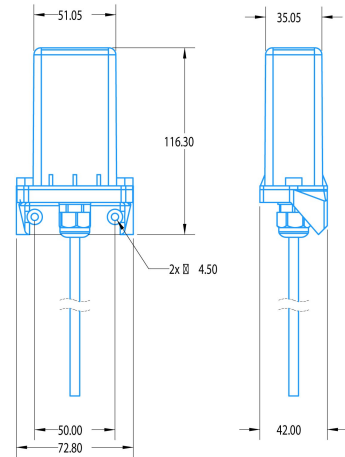
APPLICATION OF PLC & HMI MONITORING

LORAWAN RS485 MODBUS MASTER NODE
WSLRW-MB485



APPLICATION OF MACHINE MONITORING

LORAWAN RS485 MODBUS MASTER NODE
WSLRW-MB485



DIMENSION DRAWING (Unit: mm)

RECOMMENDED BATTERIES



E91 AA
Alkaline battery

-18~60°C working temperature
10-year shelf life
3000 mAh capacity
Price: 1X

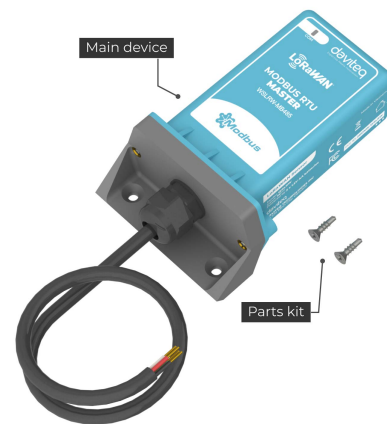


L91 AA
Lithium battery

-40~60°C working temperature
20-year shelf life
3500 mAh capacity
Price: 3.5X

POWERED BY PRIMARY BATTERY

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STANDARD PRODUCT PACKAGE

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Ordering Information

ITEM CODE	DESCRIPTIONS
WSLRW-MB485-01	LoRaWAN Node with RS485 Master port, Modbus RTU protocol, internal antenna, 860~930 MHz
WSLRW-MB485-04	LoRaWAN Node with RS485 Master port, Modbus RTU protocol, IP65 Internal Antenna, Battery Powered, Plastic Case, 2m-cable

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