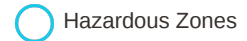# LoRaWAN Node with RS485 Modbus Master Port

Smart Building, Smart City

SKU: WSLRW-MB485

daviteq

LoRaWAN RS485 MODBUS MASTER
WSLRW-MB485

✓ Safe Zone   ○ Hazardous Zones

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.
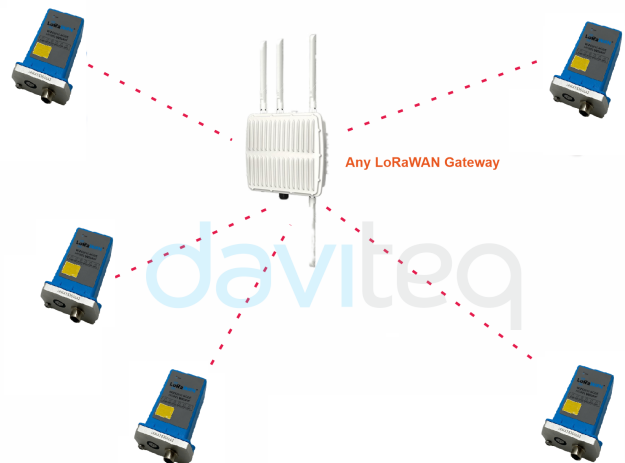- Noise Immunity: Evaluate for performance in noisy environments.

✓ **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

LoRaWAN NETWORK

Any LoRaWAN Gateway

Specification

Input port	1 x RS485 master port
Cable length	2m, shielded cable with marking A & B wires
Protocol	Modbus RTU
Fault protected RS-485 bus pins	up to ±40V
HBM ESD protection on RS-485 bus pins	±15kV
Extened common mode range	±15V (larger than required for RS-485)
High transient over voltage tolerance	±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℃ (with AA L91 Energizer®)
Dimensions	H180xW50xD40
Net-weight	250g
Housing	Polycarbonate & POM plastic, IP68
Mounting	Wall mount

Connect via RS485 Modbus RTU

Schneider PM5100

Schneider PM810

Acuvim II Series

Selec MFM384-C

Connect via RS485 Modbus RTU

GAS METER

Connect via RS485 Modbus RTU

WATER METER

DIMENSION DRAWING OF WIRELESS SENSOR
(Unit: mm)

50.29

36.00

97.00

24.00

42.00

72.80
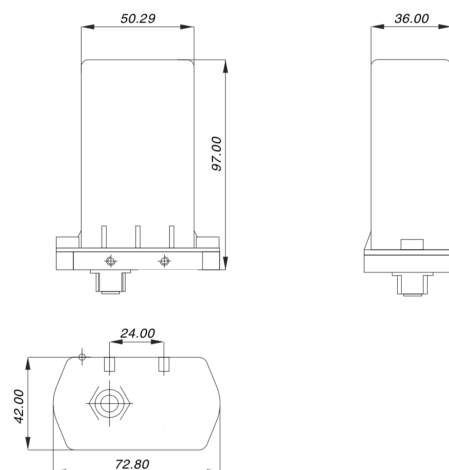
RECOMMENDED BATTERIES

E91 AA Alkaline battery

L91 AA Lithium battery

-18 .. + 60 oC working temperature

10-year shelf life

3000 mAH Capacity

Price: 1X

-40 .. + 60 oC working temperature

20-year shelf life

3500 mAH Capacity

Price: 3.5X

WHAT'S IN THE PACKAGE?

Main Device

Parts kit

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