LoRaWAN Ex d RS485 Master Node

Smart Facility, Smart Factory, Smart Utility

SKU: WSLRWEX-RS485

daviteq

○ Safe Zone   ✓ Hazardous Zones

WSLRWEX-RS485 is an Exd 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 different fieldbus protocols like Modbus RTU, Modbus ASCII, DLMS Cosem, and Mbus...The device is configurable via offline software and downlink messages. Ultra-low-power design and smart firmware allow the sensor to run on a C type battery 3.6V 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, including EU868, IN865, RU864, KR920, AS923, AS923-2, AU915, and US915.

Applications
Utility Monitoring, Energy Monitoring, Process Monitoring, Facility Monitoring

Notes For Applications

✓ **LoRaWAN Communication**
LoRaWAN Specification V1.0.3

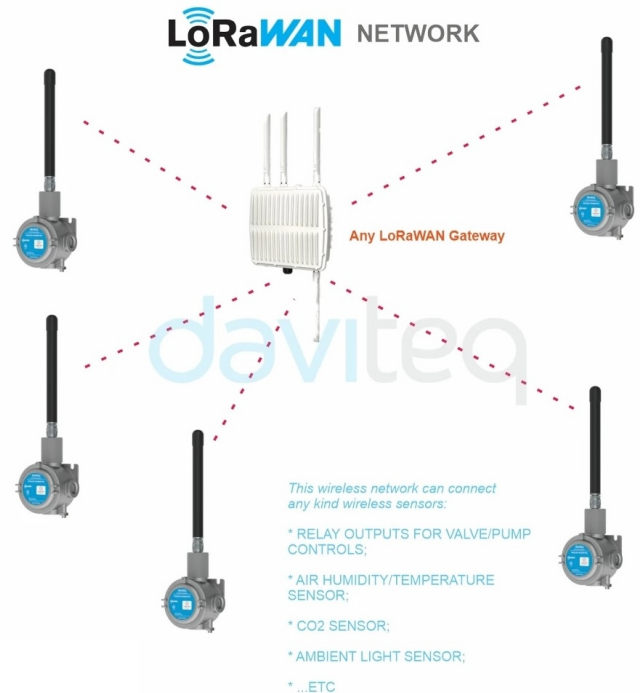✓ **Support various Fieldbus Protocols**
Support Modbus RTU, Modbus ASCII, DLMS Cosem...

✓ **10-Year battery**
Ultra-low power sensing technology from Daviteq with Ultra-low power wireless technology allow the device can last up to 10 years with a single battery

✓ **Ex d Zones 1-2-21-22**
Ex d approval for installation in Zone 1, Zone 2 or Safe Zone

DAVITEQ TECHNOLOGIES INC
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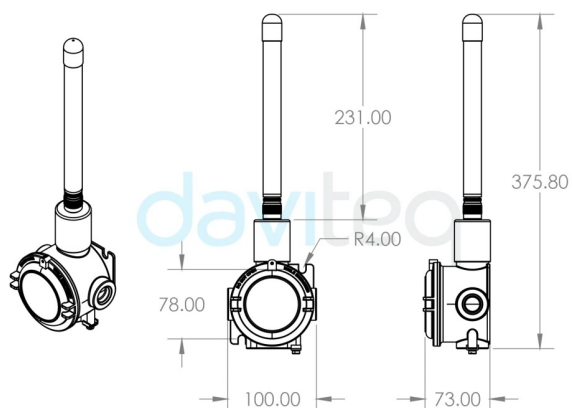✉ info@daviteq.com   **www.iot.daviteq.com**   Created date: Jan-03-2025 | Updated date: Jan-03-2025

Specification

Input	1 x RS485 Master port
Protocol	Select Modbus RTU, Modbus ASCII, DLMS Cosem, Mbus etc. (Contact us before ordering)
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
Wiring Conduit	1/2" NPT-F (does not include Exd approved cable gland)
COMMUNICATION	
SF Factors	SF7~SF12
Antenna	External antenna
Power Supply	C type Battery 3.6V or 12-24VDC, max 40mA
RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Protocol	LoRaWAN Class A/C V1.0.3
Data sending modes	interval time, alarm and manually triggering by magnetic key
Housing	Cast aluminum, IP66
Ex Certification	IMQ 14 ATEX 005 X, TÜV CY 18 ATEX 0206158 X
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)
Size | Net weight	H145xW100xD73 (not including antenna)/ ≈1100g
Mounting type	Wall mount

DIMENSION DRAWING OF SENSOR NODE
(Unit: mm)

231.00

375.80

R4.00

78.00

100.00   73.00

Ordering Information

ITEM CODE	DESCRIPTIONS
WSLRWEX-RS485-01	LoRaWAN Exd RS485 Master Node, ModbusRTU, IP66, 1/2" NPT Conduit, External Power 12-24VDC
WSLRWEX-RS485-01B	LoRaWAN Exd RS485 Master Node, ModbusRTU, IP66, 1/2" NPT Conduit, Battery Powered

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