

Sigfox Node with RS485 Master Port



Smart Building, Smart City

SKU: WSSFC-MB485

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

Safe Zone

Hazardous Zones

SIGFOX RS485 MODBUS NODE WSSFC-MB485



WSSFC-MB is a Sigfox-ready 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 2 x AA battery 1.5V for 10 years with one update per day. It can support Sigfox Zones RC1, RC2, RC3, RC4, RC5, RC6, and RC7.

Applications

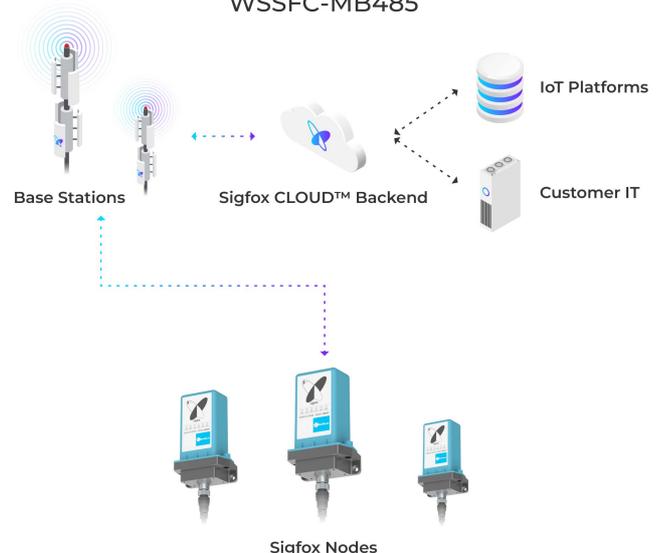
Electric Meter Reading, Gas Meter Reading, Water Meter Reading, Production Monitoring, Facility Monitoring

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.

- Sigfox Ready**
Device are best operating performance on the SIGFOX network
- 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 sensor can last up to 10 years with 02 x Type AA batteries.
- IP68**
For both indoor and outdoor applications

SIGFOX RS485 MODBUS NODE WSSFC-MB485



SYSTEM ARCHITECTURE

DAVITEQ TECHNOLOGIES INC

Ho Chi Minh City, VN | Koblenz, DE | Melbourne, AU | Zurich, CH

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info@daviteq.com

www.iot.daviteq.com

Created date: Apr-17-2023

Updated date: Nov-08-2025

Specification

Input port	1 x RS485 master port
Cable length	2m, shielded cable with marking A & B wires
Protocol	Select Modbus RTU, Modbus ASCII, DLMS Cosem, Mbus etc. (Contact us before ordering)
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	
Sigfox zones	configurable RC1-RC2-RC3a-RC3c-RC4-RC5-RC6-RC7
Sigfox Class	1u
Functions	Sending data in interval or when alarms occur
Antenna	Internal Antenna 2 dbi
Configuration	via Downlink of offline USB cable (PC software is supplied at free)
Electrical connection	Shielded cable 2m length with PG9 cable gland
Power Supply	Primary batteries 02 x AA size 1.5VDC (battery not included) for Battery-powered version, 7-48VDC for external DC powered version.
RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Device Certification	CE, FCC (on demand)
Working temperature	-40~60°C (with AA L91 Energizer®)
Dimensions	H106xW73xD42
Net-weight	<180g
Housing	Polycarbonate plastic, IP68
Mounting	Wall mount

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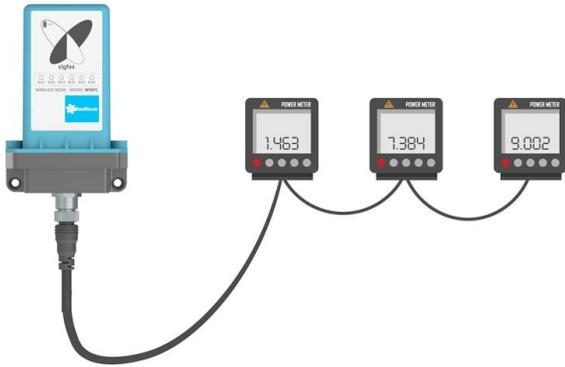
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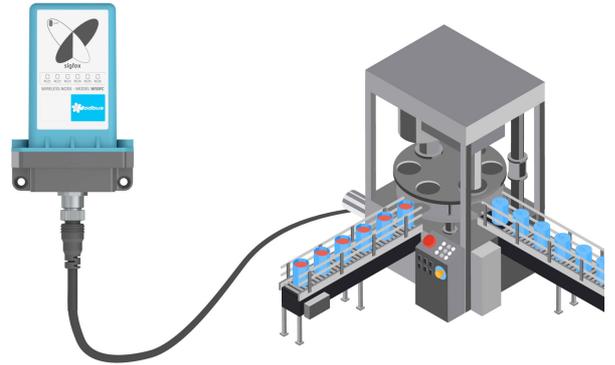
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WSSFC-MB485



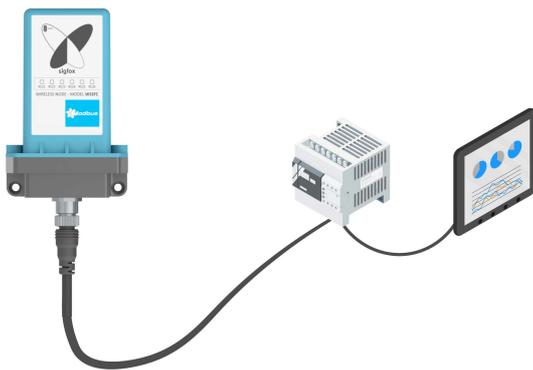
APPLICATION OF METER MONITORING

SIGFOX RS485 MODBUS NODE
WSSFC-MB485



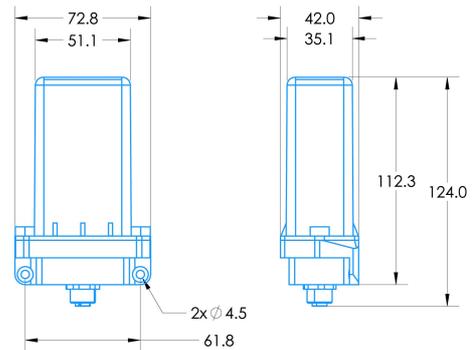
APPLICATION OF MACHINE MONITORING

SIGFOX RS485 MODBUS NODE
WSSFC-MB485



APPLICATION OF PLC & HMI MONITORING

SIGFOX RS485 MODBUS NODE
WSSFC-MB485



DIMENSION DRAWING OF WIRELESS NODE (Unit: mm)

SIGFOX RS485 MODBUS NODE
WSSFC-MB485



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

RECOMMENDED BATTERIES
POWERED BY PRIMARY BATTERY

SIGFOX RS485 MODBUS NODE
WSSFC-MB485



PRODUCT PACKAGE
FOR SIGFOX NODE WITH M12-F CONNECTOR

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Ordering Information

ITEM CODE	DESCRIPTIONS
WSSFC-MB485-01	Sigfox-Ready Node with RS485 Master port, DLMS Cosem protocol, IP68, 2m shielded cable, internal antenna, battery powered, all RC zones
WSSFC-MB485-01-DC	Sigfox-Ready Node with RS485 Master port, ModbusRTU protocol, IP68, 2m shielded cable, internal antenna, external DC powered, all RC zones
WSSFC-MB485-02	Sigfox-Ready Node with RS485 Master port, Modbus RTU protocol, IP68, 2m shielded cable, internal antenna, battery powered, all RC zones
WSSFC-MB485-03	Sigfox-Ready Node with RS485 Master port, Modbus ASCII protocol, IP68, 2m shielded cable, internal antenna, battery powered, all RC zones

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