LoRaWAN Current Input Node
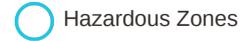
Smart Agriculture, Smart Building, Smart City, Smart Energy, Smart Facility, Smart Factory, Smart Farm, Smart Retail, Smart Utilities

SKU: WSLRW-MA

✓ Safe Zone   ◯ Hazardous Zones

LoRaWAN 0-20mA CURRENT INPUT SENSOR WSLRW-MA

WSLRW-MA-H1.PNG

WSLRW-MA is the LoRaWAN wireless node with one channel to measure 0-20mA DC current from Process instruments like Pressure transmitter, Temperature transmitter, Level transmitter, Flow meters, Analyzers... at very low voltage drop. With Ultra-low-power design and smart firmware allow the sensor can last up to 10 years with 2 x AA batteries (depends on configuration). The sensor will transmit data in the kilo-meters distance to LoRaWAN gateway, any brand on the market.

Applications
Process Monitoring, Safety Monitoring

Notes For Applications
mA sensor power supply: Check transmitter output of 15 VDC to match mA sensor if sensor power source is from transmitter Accuracy and resolutions: Check whether those meet the requirements Environmental Conditions: Account for temperature, humidity, and other environmental factors. Mounting and Enclosure: Determine the mounting method and enclosure type. Compatibility: Ensure compatibility with your existing system or sensors.

✓ **LoRaWAN communication**
LoRaWAN communication standard to allow sensor connect to any LoRaWAN Gateway on the market.

✓ **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 a 2 x AA Type battery.

✓ **Pre-calibrated**
Sensors are pre-calibrated at factory to deliver high accuracy and quick installation

✓ **IP67/IP68**
For both indoor and outdoor applications

LoRaWAN NETWORK

Any LoRaWAN Gateway

WSLRW-MA-H5.PNG

Specification

Measuring range	0~20mA
Accuracy	0.05% of span
Resolution	1/3000
Permissible input current	Max 60 mA
Permissible voltage	Max 2.5V (between AI+ and AI-)
Power supply output	15VDC max (Configurable via offline tool)
Temperature drift	< 50ppm
Sensor port connector	M12-Male, 4-pin A-coding (IP67 version) or 2m cable (IP68 version)
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
Configuration	via Downlink or Offline tool (free software)
Data sending modes	Interval time and when alarm occurred
Certification	CE mark, FCC
Working temperature	-40~60℃ (with AA L91 Energizer®)
Dimensions	H180xW50xD40
Net-weight	250g
Housing	Polycarbonate & POM plastic, IP67/IP68

LoRaWAN SENSOR CURRENT INPUT
CONNECT WITH 4-20mA SOIL MOISTURE SENSOR

4-20mA
Loop powered

WSLRW-MA-H3.PNG

LoRaWAN SENSOR CURRENT INPUT
CONNECT WITH 4-20mA LEVEL SENSOR

4-20mA
Loop powered

WSLRW-MA-H2.PNG

LoRaWAN SENSOR CURRENT INPUT
CONNECT WITH 4-20mA PRESSURE SENSOR

4-20mA
Loop powered

WSLRW-MA-H4.PNG

WIRING FOR LoRaWAN SENSOR WITH CURRENT INPUT

CASE 1 - WORK WITH LOOP POWERED SENSOR

LoRaWAN   SENSOR
PWR+
AI-   AI+

SENSOR IS POWERED
BY LoRaWAN SENSOR

LoRaWAN   SENSOR
PWR+
AI-   AI+
GND

SENSOR IS POWERED
BY EXTERNAL POWER SUPPLY
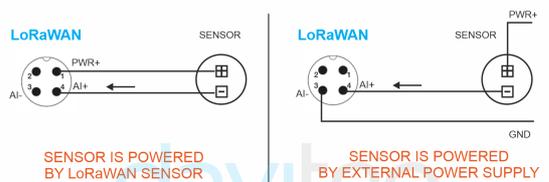
CASE 2 - WORK WITH NON - LOOP POWERED SENSOR

LoRaWAN   SENSOR
PWR+
AI-   AI+

SENSOR OUTPUT:
0 - 20maDC
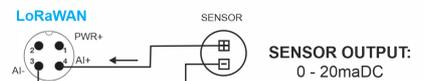
WSLRW-MA-H7.PNG

DIMENSION DRAWING OF WIRELESS SENSOR
(Unit: mm)

50.29
36.00
97.00
24.00
24.00
Ø0.00
42.00
50.00
36.50
72.80
M4
4xØ4.20
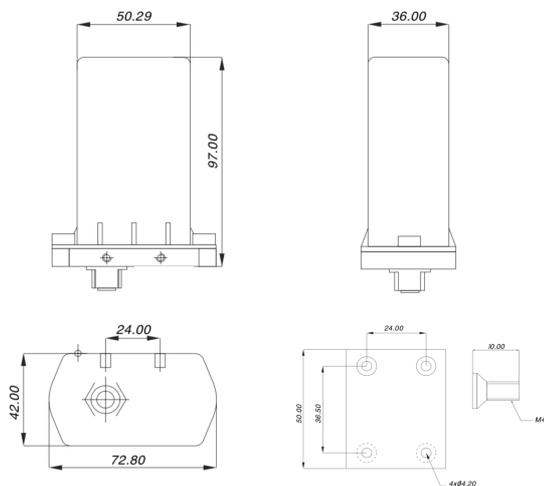
WSLRW-MA-H6.PNG

RECOMMENDED BATTERIES

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

WSLRW-MA-H8.PNG

WHAT'S IN THE PACKAGE?

Main Device

WIRELESS NODE
MODEL WSLRW

LoRaWAN

LRMA24000042

Parts kit

Ordering Information

ITEM CODE	DESCRIPTIONS
WSLRW-MA-11	LoRaWAN Node with Single channel 0-20mA current input, with 15VDC power output to sensor, internal antenna, accuracy 0.05%, 2m shielded cable, Type AA battery 1.5VDC, IP68, 860-930MHz for all regions
WSLRW-MA-21	LoRaWAN Node with Single channel 0-20mA current input, with 15VDC power output to sensor, internal antenna, accuracy 0.05%, M12 female connector, Type AA battery 1.5VDC, IP67, 860-930MHz for all regions
WSLRW-MA-22	LoRaWAN Node with Single channel 0-20mA current input, with 15VDC power output to sensor, external antenna, accuracy 0.05%, M12 female connector, Type AA battery 1.5VDC, IP67, 860-930MHz for all regions
ACCESSORIES	
2M-MM12CAB4x0.25	M12 4pin Male assembly connector with Soldering terminals and coding A and Control Cable Cu/PVC/OS/PVC 4x0.25mm², L=2m, RoHS, Shield 80%
5M-MM12CAB4x0.25	M12 4pin Male assembly connector with Soldering terminals and coding A and Control Cable Cu/PVC/OS/PVC 4x0.25mm², L=5m, RoHS, Shield 80%
10M-MM12CAB4x0.25	M12 4pin Male assembly connector with Soldering terminals and coding A and Control Cable Cu/PVC/OS/PVC 4x0.25mm², L=10m, RoHS, Shield 80%