



WLRC-M11 / WLRC-M112

Wireless mA Current Meter Interface, 4~20mA

This interface completes a 4~20mA current loop. The sensor measures a process variable, the transmitter translates that measurement into a current signal, the receiver displays or performs an action with that signal. It can be used to read field instrumentation sensors such as pressure sensors, temperature sensors, level or flow sensors, pH sensors, and gas sensors implement a 4~20mA connection to their outputs. Also, there are several actuators, such as valves, which can be controlled via a 4~20mA loop.

Features:

- Frequency Hopping Spread Spectrum (FHSS)
- Improved interference immunity
- Encrypt-RF™ Security (Diffie-Hellman Key Exchange + AES-128 CBC for sensor data messages)
- Over-the-air updates
- Interactive WatchNET IoT platform with dashboard, search and notification settings
- * Magnetized ABS enclosure for easy installation

Applications:

- Sensing
- Measuring equipment
- Instrumentation
- Convert analog to the digital readout

Schematic Diagram:



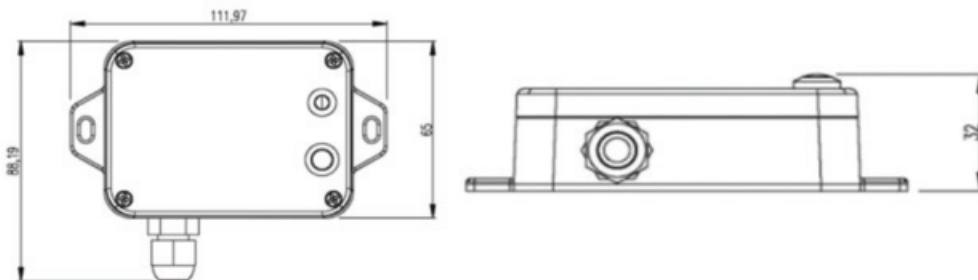
Technical Specifications

Electrical	
Input Power	2x 3.6V ER14505 AA lithium batteries (3.6V2400mah/section)*
Sleeping Mode	21uA
Wake up Mode	6.3mA@3.3V
Transmitting current (max)	120mA@3.3V
Receiving current (max)	11mA @3.3V
Battery Measurement Accuracy	±0.1V
Low Voltage Threshold	3.2V
<i>*Specific electrical characteristics may vary depending on the power supply voltage.</i>	
Frequency	
TX Power	19dBm±1dBm
Rx Sensitivity	-136dBm (LoRa, Spreading Factor=12, Bit Rate=293bps) -121dBm (FSK, Frequency deviation=5kHz, Bit Rate=1.2kbps)
Antenna Type	Built-in antenna
Communication Range	Up to 5km/3.11miles, the actual transmission distance depends on the environment*
Data Transfer Rate	0.3kbps ~ 50kbps
Spread Technique	LoRa/FSK
Available Frequency	EU863-870, US902-928, Configured before shipment
Physical	
Dimension	L:112mm x W:65mm x H:32mm / L:4.41" x W:2.6" x H:1.26"
Weight	141g / 0.31lb
Protection class	Main Part IP65
Environment Temperature Range	-20°C ~ 55°C / -4°F ~ 131°F
Environment Humidity Range	<90%RH (No condensation)
Storage Temperature	-40°C ~ 85°C / -40°F ~ 185°F
External CableLength	1m / 39.37"

** Actual signal range may vary depending on the environment.*

** Battery life is determined by sensor reporting frequency and other variables.*

Dimensions



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