



WLRC-112 / WLRC-1122



Wireless 0-10V ADC Sampling Interface

The device is designed for a variety of resistive bridge-sensing applications like pressure, temperature, and level-sensing applications. It can also support other applications, weight scale and force-sensing applications that use strain gauge load cells, and other general resistive bridge signal-conditioning applications.

Features:

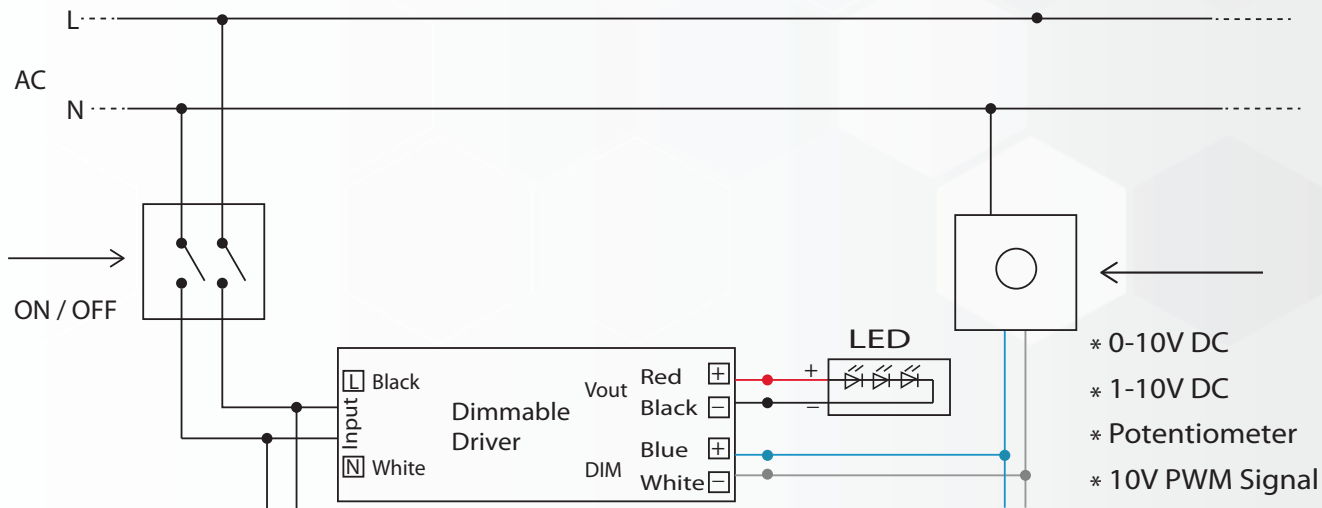
- Super Long Range Signal Penetration
- 5 years plus Battery Life*
- Easy Installation
- Frequency Hopping Spread Spectrum (FHSS)
- Improved interference immunity
- Encrypt-RF™ Security (Diffie-Hellman Key Exchange + AES-128 CBC for sensor data messages)
- Over-the-air updates
- Interactive WatchNET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



Applications:

- Battery Health
- Voltage Measurement
- Transducer Measurement
- Machinery
- Electrical Motors
- Weight Scale and Force-sensing
- Pressure, Temperature, Level-sensing Applications

Schematic Diagram:



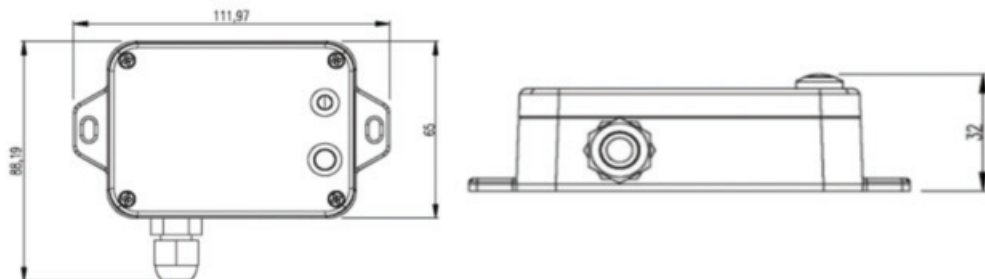
Technical Specifications

Electrical	WLRC-I12	WLRC-I122
Input Power	2x 3.6V ER14505 AA lithium batteries (3.6V2400mah/section)*	
Sleeping Mode	22uA	27uA
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	
ADC Sampling Characteristic		
ADC Sampling Voltage Range	0-10V	
Digit	12 digits	
ADC Conversion Rate	1.14 Msps	
External CableLength	1m / 39.37"	
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	150g / 0.33lb
Protection class	Main Part IP65 / External Sensor IP	
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	

* Actual signal range may vary depending on the environment.

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

Dimensions



* All product names, logos and brands are property of their respective owners. All company products and service names used on this box/website/brochure are for identification purposes only. Use of these names, logos and brands does not imply endorsement. 2019 WatchNET Inc. © All Rights Reserved. All product specifications are subject to change without notice.

CANADA:

351 Ferrier Street, Unit 5
Markham, ON L3R 5Z2
Toll Free: 1-866-843-6865
Tel: 416-410-6865

USA:

171 Cooper Ave. Suite 110
Tonawanda, NY 14150 USA
Toll Free: 1-866-843-6865
Local: 1-716-877-7277

UAE:

PO Box No 126312
Office Suite 703, Oxford Towers
Business Bay, Dubai, UAE
Tel: + 971 4 2767117

www.watchnetiot.com
info@watchnetiot.com