



WLRC-S33

Wireless Activity Detection Sensor

The WLRC-S33 sensor detects the sudden movement or vibration of the device and sends an alarm signal to the gateway for processing. This device can be used for monitoring unattended devices or equipment for sudden movement or vibration.

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



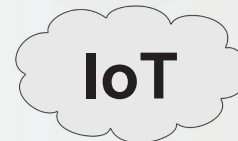
Applications:

- Monitor unattended traps
- Sudden force or glass break detection
- Outdoor parked vehicle monitoring
- Other movements and vibrations

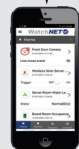
Schematic Diagram:



Glass break / Force entry



Animal trap



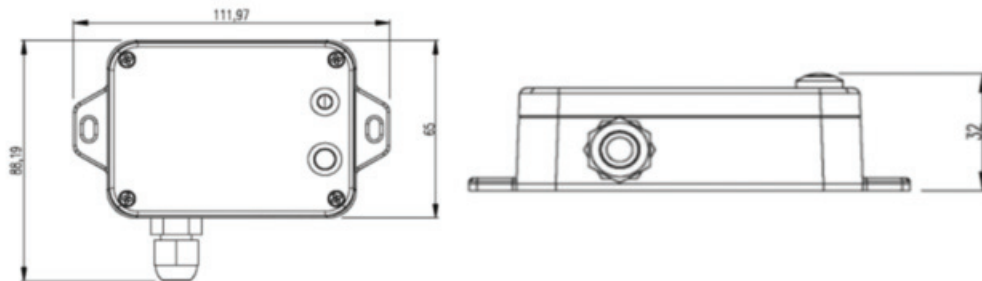
Technical Specifications

Electrical	
Input Power	2x 3.6V ER14505 AA lithium batteries (3.6V2400mah/section)*
Sleeping Mode	76uA
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 500m/0.310miles, 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

** 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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