



WLRC-S20



Wireless Light Sensor

This commercial-grade indoor/outdoor wireless light sensor can detect the intensity of light in LuX of the environment. This can be used in many industries where the intensity of the light matters, like Greenhouse, Film Studios, and Professional sports stadiums. This device can be used with WLRI-P11M smart power outlet, to create an automated lighting system. Light sensors can be used as a part of automation for grow up operations where light intensity is vital.

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:

- Green house farming
- E-Farming
- Film Studio
- Movie Theatres
- Professional sports stadiums
- Simple automation

Schematic Diagram:



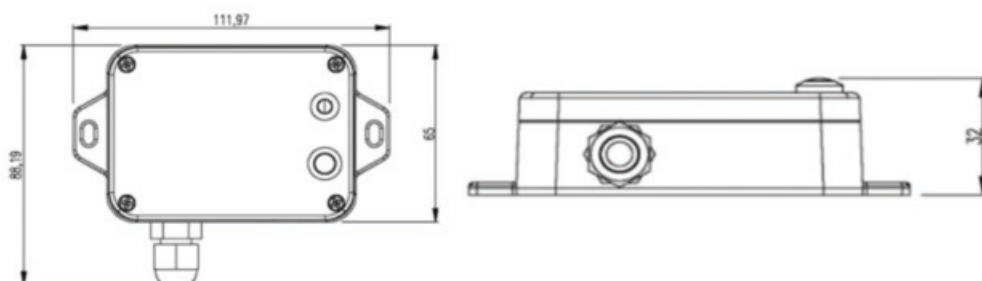
Technical Specifications

| Electrical | |
|---|---|
| Input Power | 2x 3.6V ER14505 AA lithium batteries (3.6V2400mah/section)* |
| Sleeping Mode | 18uA |
| Wake up Mode | 6.3mA@3.3V |
| Low Voltage Threshold | 3.2V |
| Transmitting current (max) | 120mA@3.3V |
| Receiving current (max) | 11mA @3.3V |
| Battery Measurement Accuracy | ±0.1V |
| <i>*Specific electrical characteristics may vary depending on the power supply voltage.</i> | |
| Light Sensor | |
| Supply Voltage Range | 2.3VDC-3.3VDC |
| Light Sensor Model | TSL45315 |
| Illuminance Range | 3LUX-220KLUX |
| Communication Method | I2C Communication |
| 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 | 150g / 0.33lb |
| 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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