



CUSTOMER NAME	
PROJECT NAME	
DATE	TYPE
CATALOG NUMBER	

LightGRID+ SERIES

LightGRID+ Wireless External Fixture Module

- On/Off lighting control with 0-10V full-range dimming with internal On/Off photocell
- Compatible with ANSI C136.41 (7 & 5 pin) and Zhaga Book 18 twist-lock receptacles
- Military grade AES-128 (or AES-256) communication encryption
- Integrated GPS (Optional)
- Revenue-grade metering (+/- 0.5% accuracy) with multiple user-configurable alarms
- Complete integration with LightGRID+ software

SPECIFICATIONS

CONSTRUCTION

- Black
- Plastic housing
- UL94V-0 Flame Retardant
- 3.75" (95.3mm) H x 3.125" (79.4mm) DIA

MOUNTING

- Compatible with ANSI C136.41 (7 & 5 pin) and Zhaga Book 18 twist-lock receptacles¹

ELECTRICAL

- Voltage:
 - 110-480VAC (+/- 10%); 50/60Hz
 - Less than 1-watt node consumption (may vary according to specific configuration)
 - Auto-calibrated for more precise metering and fewer false alarms
- Maximum Load Amperage:
 - 120-240VAC: 7 Amps
 - 277-347VAC: 5 Amps
 - 480VAC: 2 Amps
- Power metering: amperage, voltage, power (+/- 0.5% accuracy), power factor, energy, burn-time and cycles counters - ANSI C12.20 metering power compliance
- Meets standards IEC61000-4-3 and EN61000-4-3: Immunity to radiated electromagnetic fields
- Surge Protection: Protects against surges and transients per ANSI 62.41-2002 category C low (6kV, 1.2/50µS & 3kA, 8/20µS) standard Combo waves and (6kV, 100kHz) Ring wave

ELECTRICAL (CONTINUED)

- Multi-purpose input/output: analogic input 0-30V or digital output 24VDC for sensor boards (e.g. CO detector)
- 0-10V Dimming: For all types of 2-wire 0-10V drivers & ballasts requiring either sourced (up to 20mA) or sunk (up to 5mA)
- Sensor output: 24VDC - max: 50mA (total)

RADIO COMMUNICATIONS

- Radio Frequency Options: 2.4GHz ISM Band and 900MHz ISM Band
- Recommended Range: Up to 300m / 1,000 ft between modules.² Communication range based on clear line of site. Range may vary widely depending on environmental factors.
- Transmit Power:
 - 2.4GHz: 63mW (+18 dBm)
 - 900MHz: Up to 250mW (+24 dBm)
- Receiver Sensitivity:
 - 2.4GHz: -101 dBm
 - 900MHz: -101 dBm

NETWORK AND SECURITY

- Secure Encrypted Communications: Military Grade AES-128 encryption (AES-256 encryption also supported)

OPERATION

- On/Off switching and flexible dimming, adjustable minimum and maximum levels with 1% steps
- Real-Time Operating System (RTOS) that can run multiple simultaneous tasks with minimal latency

OPERATION (CONTINUED)

- Tilt sensor measuring the earth's gravity angle changes
- Dynamic level adjustment for daylight harvesting, RP-8 optimal roadway lighting design and similar applications
- Programmable delay and dimming level when power is restored following a power outage for peak shaving
- Built-in demand response (load shedding) feature
- Lumen depreciation compensation over time
- Compatible with low-voltage occupancy and lux sensors (daylight harvesting), external photocells and switches enabling energy conservation
- Any node with a sensor can be set as a master and control several nodes
- Each node can be part of 14 different groups and 30 separate scenarios
- Generic timers enable execution of a series of instructions at set intervals
- Energy consumption data collection
- Multiple Configurable Alarms/Alerts: Overload, Over Voltage, Under Voltage, Power Factor, Temperature, 0-10V, Fault When On, Fault When Off, Last Gasp, Restore Power On
- Mobile Scanning App:
 - Enables quick, simple and economical commissioning
 - Upon installation, performs both an instant function test and geolocation



LIGHTGRID⁺

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OPERATION (CONTINUED)

- GPS Accuracy: +/- 4m in clear open sky (Optional GPS available in select models)
- Integrated Photocell: Default configuration - operates immediately upon installation; no need for a network connection. Orientation arrow located on top of housing.³

OPERATING ENVIRONMENT

- Relative Humidity: 0% to 99% non-condensing
- Ambient Temperature Range: -40°C to +70°C

CERTIFICATIONS

- ANSI/UL 773, CSA 22.2 No. 182.2
- UL 94 V-0
- IP66
- IK09

CERTIFICATIONS (CONTINUED)

- 2.4GHz Version: U.S. FCC (Digi XBee PRO 2.4GHz) Part 15.247 Class A: MCQ-PS2CTH, Canada IC: 1846A-PS2CTH, Europe CE: ETSI, Australia: C-TICK, Japan: TELEC
- 900MHz Version: U.S. FCC (Digi XBee PRO 900MHz) Part 15.247 Class A: MCQ-XB900HP
- DLC and RoHS compliant
- This product qualifies as "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 5/27/2020

WARRANTY

- 5 year limited (Up to 10 year extended available)

Notes:

- 1 Receptacles not included. Please order with luminaire.
- 2 Device must be mounted vertically up or down.
- 3 Position photocell facing either North or South.

ORDERING GUIDE

Example: WIR-RME-L

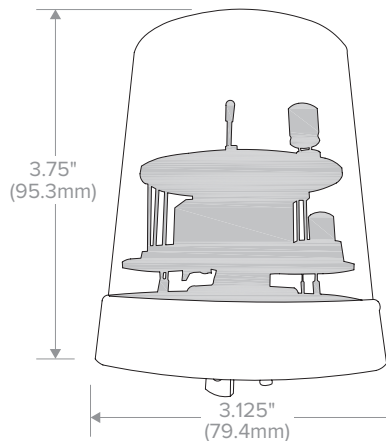
CATALOG #

Model	
WIR-RME-L	LightGRID+ Wireless External Fixture Module, 2.4GHz, 1000' Range, 110-480VAC
WIR-RME-L-1000	LightGRID+ Wireless External Fixture Module, 2.4GHz, 1000' Range, 110-480VAC (QTY: 1000)
WIR-RME-GPS	LightGRID+ Wireless External Fixture Module with GPS, 2.4GHz, 1000' Range, 110-480VAC
WIR-RME-GPS-1000	LightGRID+ Wireless External Fixture Module with GPS, 2.4GHz, 1000' Range, 110-480VAC (QTY: 1000)
WIR-RME9 ¹	LightGRID+ Wireless External Fixture Module, 900MHz, 1000' Range, 110-480VAC
WIR-RME9-GPS ¹	LightGRID+ Wireless External Fixture Module with GPS, 900MHz, 1000' Range, 110-480VAC
WIR-RME9-GPS-1000 ¹	LightGRID+ Wireless External Fixture Module with GPS, 900MHz, 1000' Range, 110-480VAC (QTY: 1000)

Notes:

- 1 900 MHz Devices are MTO (Made-To-Order) - Contact Customer Service for Availability

DIMENSIONS



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PROJECT NAME _____

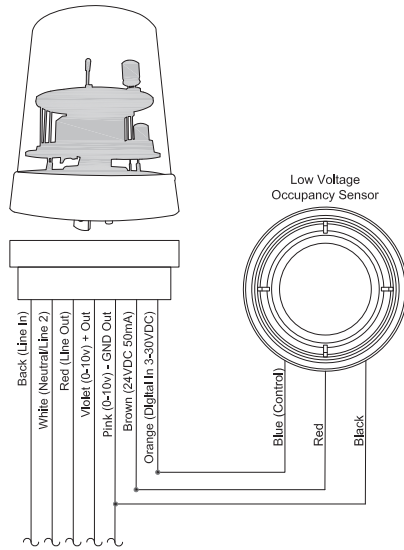
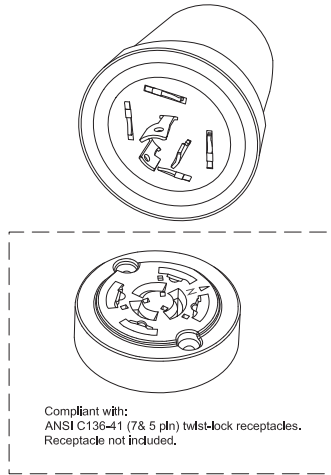
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WIRING DIAGRAMS

Bottom View



LightGRID+ External Fixture Module with Low Voltage Occupancy Sensor

Pink wire replaces previous gray wire. Units with a gray instead of pink wire should be wired as the pink wire shown in the diagram.