LIGHTGRID+

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) 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) twist-lock receptacles[1]

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
- 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)
- Receiver Sensitivity:
  - 2.4GHz: -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
- Tilt sensor measuring the earth's gravity angle changes

OPERATION (CONTINUED)
- 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

Current

CUSTOMER NAME

PROJECT NAME

DATE   TYPE

CATALOG NUMBER

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

CERTIFICATIONS (CONTINUED)

- IP66

- IK09

- 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

- 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.
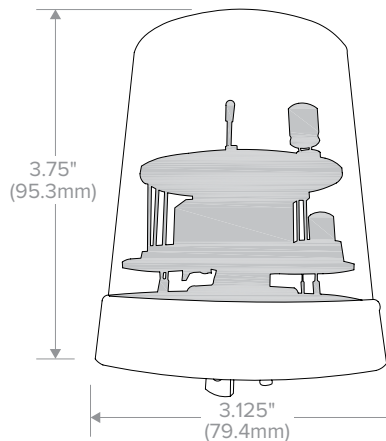3   Position photocell facing either North or South.

ORDERING GUIDE

Example: WIR-RME-L

CATALOG #

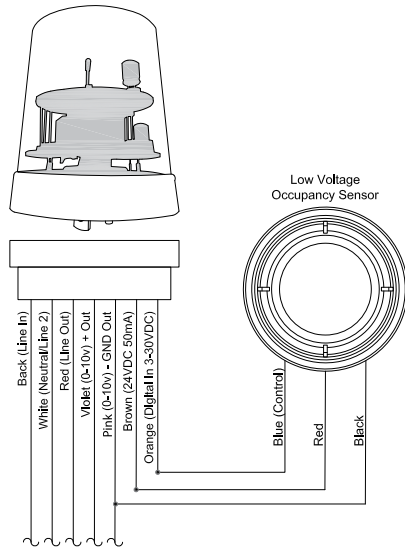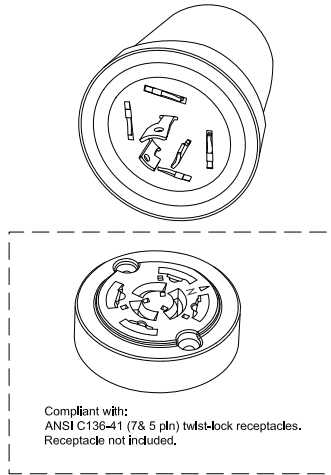| Model	
WIR-RME-L	LightGRID+ Wireless External Fixture Module, 2.4GHz, 1000' Range, 110-480VAC
WIR-RME-GPS	LightGRID+ Wireless External Fixture Module with GPS, 2.4GHz, 1000' Range, 110-480VAC

DIMENSIONS

3.75"
(95.3mm)

3.125"
(79.4mm)

Current

LG-Plus_GLI_WIR-RME_SPEC_R01

LIGHTGRID+

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LightGRID+ Wireless External Fixture Module

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WIRING DIAGRAMS

Bottom View

Compliant with:
ANSI C136-41 (7& 5 pin) twist-lock receptacles.
Receptacle not included.

Low Voltage
Occupancy Sensor

Back (Line In)
White (Neutral/Line 2)
Red (Line Out)
Violet (0-10v) + Out
Pink (0-10v) - GND Out
Brown (24VDC 50mA)
Orange (Digital In 3-30VDC)

Blue (Control)
Red
Black

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.

LightGRID+ External Fixture Module with Low Voltage Occupancy Sensor

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