



CUSTOMER NAME	
PROJECT NAME	
DATE	TYPE
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## LightGRID+ Series

### LightGRID+ WIRELESS EXTERNAL PHOTOCELL MODULE

- Pre-programmed for out-of-the-box On/Off photocell operation
- NEMA 4X enclosure with integrated ANSI C136-41 7-pin twist lock receptacle
- On/Off lighting circuit control with 0-10V full-range dimming
- Military grade AES-128 communication encryption
- Revenue-grade metering (+/- 0.5% accuracy)
- Complete integration with LightGRID+ software

## SPECIFICATIONS

### CONSTRUCTION

- Photocell Module
  - Black
  - Plastic Housing
  - UL94V-0 Flame Retardant
- Enclosure
  - NEMA 4X
  - Polycarbonate RAL-7035
  - ANSI C136-41 (7 pin) twist lock receptacle (pre-mounted on enclosure)
- Photocell Module + Enclosure
  - 7.5" L x 3.5" W x 8.0" H

### MOUNTING

- Mounts outside junction box via 1/2" EMT threaded nipple

### 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

### ELECTRICAL (CONTINUED)

- Surge protection (6kV/3kA)
- Sensor 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.<sup>1</sup> 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
- Dynamic level adjustment for daylight harvesting, RP-8 optimal roadway lighting design and similar applications

### OPERATION (CONTINUED)

- 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 interval
- 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



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### SPECIFICATIONS (CONTINUED)

#### OPERATION (CONTINUED)

- Integrated Photocell: Default configuration - operates immediately upon installation; no need for a network connection. Orientation arrow located on top of housing.<sup>2</sup>

#### 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
- 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

#### CERTIFICATIONS (CONTINUED)

- 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 Device must be mounted vertically up or down.
- 2 Position photocell facing either North or South.

### ORDERING GUIDE

Example: WIR-PHOTOCELL

CATALOG #

Housing	
WIR-PHOTOCELL	LightGRID+ Photocell, On/Off Control, 2.4GHz Radio, NEMA 4X Enclosure, 120-480VAC

### DIMENSIONS

