

Lighting Controls

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

LightGRID+ SERIES

LightGRID+ WIRELESS EXTERNAL PHOTOCELL MODULE

LIGHTGRID+

FEATURES

- On/Off photocell
- NEMA 4X enclosure with integrated ANSI C136-41 7-pin twist lock receptacle
- Pre-programmed for out-of-the-box photocell operation
- On/Off lighting circuit control with 0-10V full-range dimming
- Military grade AES-128 (or AES-256) communication encryption
- Adjustable minimum and maximum dimming levels
- 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.¹ 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

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 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

Lighting Controls

LightGRID+ SERIES

LightGRID+ WIRELESS EXTERNAL PHOTOCELL MODULE

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.²

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

