



Sunrise Technologies, Inc.

An Affiliate of ELECTRO SWITCH

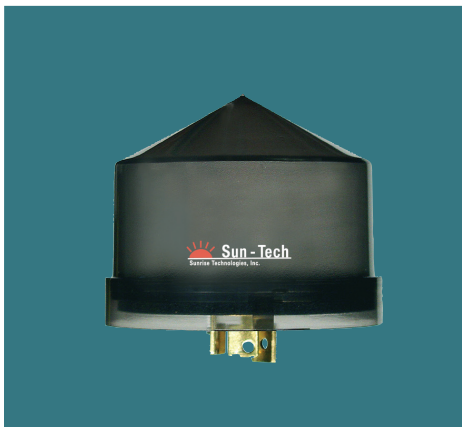
FP *Outdoor Lighting Controls*
Quality Electrical Products



Sun - Tech

Sunrise Technologies, Inc.

Outdoor Lighting Controls and Accessories



www.fpolc.com

Choose the lighting control that fits your needs...



PHOTOCONTROLS

- Reliable Dusk to Dawn control
- Both **LED and HID** options
- Multiple voltages available
- Rugged long life construction



POWERTAPS

- Power auxiliary devices
- Provides AC or DC voltage
- Use with any C136 receptacle
- Both 3-pin and 7-pin available



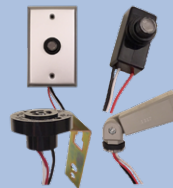
DIMULATOR

- Dusk to Dawn with Dimming
- Stand-alone, no wireless
- Multiple dimming schedules
- Just Twist, Lock and Dim



WALI WIRELESS

- Wireless Parking Lot Lighting
- Multiple zone control
- Schedule for On-Off-Dimming
- Manual mobile control



WIRE-IN

- Ideal for landscape lighting
- Dusk to Dawn operations
- Swivel, directional and button
- Flush mount photocontrols



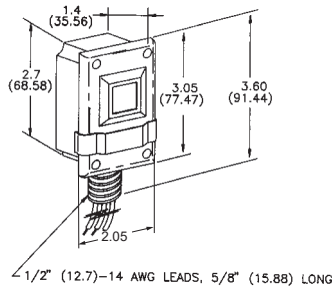
CONTACTORS

- Control multiple LED's / HID's
- Pole mount and pedestal
- Small to large (30A - 100A)
- Customize with many options

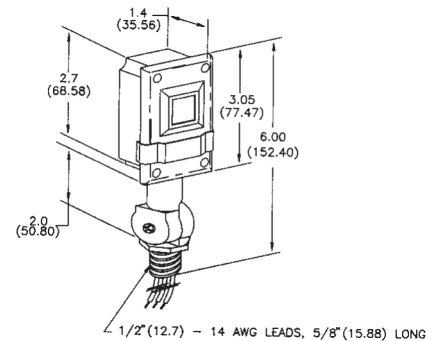
*High-Performance Lighting Controls from the
Company You've Trusted for Decades*

Wire-In Photoelectric Controls and Accessories	
FPFT/FPSFT Contractor Grade Photocontrols	2
FPFL Series Directional Photocontrols	3
FPFA Series Wall Plate Photocontrols	3
B Series Flush Mount Photocontrols	4
FPFA Series Button Control	4
FPN7840 Astrodome Replacement	5
FPSI200 Series Screw in Controls	5
FPS476 Series 3-Pin Mounting Receptacle	6
FPAT902 Series 7-Pin Dimming Receptacle	6
Standard (HID) Photoelectric Controls	
FP7700 Locking Type Photocontrols (HID)	7
FP Thermal Photocontrols	8
ES-1 Energy SuperStar Photocontrols	9
FPN1038 and S1039 Open and Shorting Caps	10
MT Series Mid-Night Tracker Series	11
LK- 2 Light Keeper	11
Long Life (LED) Photoelectric Controls	
ELL Series Long Life LED Photocontrol	12
TRS Series Long Life LED Photocontrol	13
Dimulator Stand-Alone Dimming Photocontrol	14-15
Advanced Wireless Controls	
WALI - Wireless Outdoor Lighting Control	16-17
Contactors and High Capacity Controls	
Lighting Contactors	18
FP63300 Series Socket-Mounted Controls	19
Lighting Relays N250 & N270 Series	20
Power Tap Auxiliary Adapters	
FP283A Continuous Auxiliary Power Tap Series	21
FP280 Owl Series Converted Power	22-23
Timed/Switched Power Tap Adapters	24

FPFT / FPSFT Contractor Grade Photocontrols



FPFT Series



FPSFT Series



FPFT/FPSFT Contractor Grade Controls

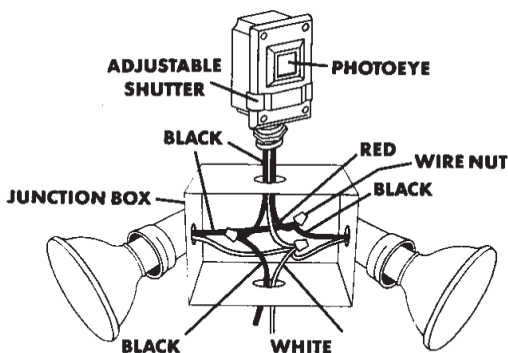
The FPFT Series photoelectric control is enclosed in a UV-resistant rain tight polycarbonate housing with a 1/2" threaded nipple. All controls are factory calibrated to a 1.0 footcandle (fc) turn-on. The shutter allows field adjustment of turn-on.

The FPSFT Series photoelectric control incorporates a swivel mounting for positioning flexibility. All other design features and ratings are identical to the FPFT Series control described above.

Application

The FPFT/FPSFT Series spec-grade, conduit-mounted controls are designed for safety and security lighting of walkways, entrances, parking lots, farm yards, recreational and public areas. These highly reliable controls are ideal for protective lighting in schools, malls, commercial and industrial buildings. To ensure proper operation, the FPSFT swivel unit permits adjustment away from highly lit areas where the control might 'see' light from adjacent fixtures.

FPFT/FPSFT Series Wiring Diagram



Specifications

Photocell:	Conformally coated cadmium sulfide photocell
Switch Type:	SPST-NC (single-pole, single-throw, normally closed) bimetallic switch
Nipple:	1/2" - 14 thread; 5/8" long; fits 1/2" knockout
Leads:	15" long; color coded; 105 C wire, 1/2"stripped, 16 AWG
Turn-On:	1 to 5 footcandles (fc). Field adjustable using the sliding shutter
Turn-Off:	3 to 15 footcandles (fc)
Time Delay:	30 seconds minimum
Rated Life:	5,000 operations minimum at rated load
Temperature Range:	- 40° to + 70°C - 40° to +158°F
Dimensions:	FPFT Series: 3.60" L; 2.05" W; 1.4" D FPSFT Series: 6.00" L; 2.05" W; 1.4" D

Ordering Information

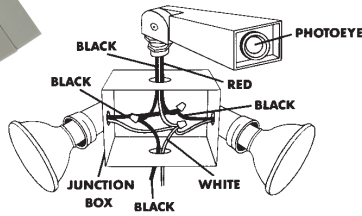
Model	Line Voltage	Load Rating	
		Tungsten	HID Ballast
FPFT15	120	2000W	1000VA
FPFT168	208-277	2000W	1000VA
FPSFT15	120	2000W	1000VA
FPSFT168	208-277	2000W	1000VA
FPFT305	105-305	1000W	1800VA
*FPSFT305	105-305	1000W	1800VA
**FPFT30	120	2000W	2000VA

*Not UL/CSA certified
**Diecast - not UL/CSA certified

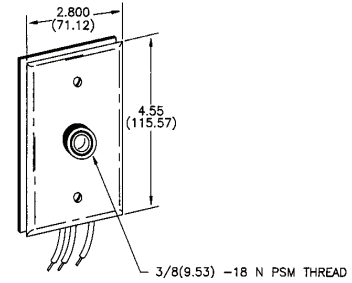
FPFL Directional Photocontrols and Wall Plate Series



FPFL Series



FPFA Wall Series



Swivel Directional Control

The compact, all weather construction of the FPFL Series photo-control provides the ultimate in application flexibility. Its small size and swivel head allow placement and positioning for mounting where space is at a premium. The 1/2" threaded nipple mounts easily in a 1/2" conduit knockout.

Application

The FPFL Series compact, directional, conduit-mounted controls are designed for perimeter and building security lighting, Par spot-light and decorative porch lighting. Ideal for use under awnings, porch roofs - wherever reflective lighting is a problem.

Specifications

Photocell:	Conformally coated cadmium sulfide photocell
Switch Type:	SPST-NC (single-pole, single-throw, normally closed) bimetallic switch
Housing:	Polycarbonate. (Gray)
Nipple:	1/2" - 14 thread; 5/8" long; fits 1/2" knockout
Leads:	Color coded 15" standard, 14 AWG
Turn-On:	1 to 5 footcandles (fc)
Turn-Off:	3 to 15 footcandles (fc)
Time Delay:	30 seconds minimum
Rated Life:	5,000 operations minimum at rated load
Temperature Range:	- 40° to + 70°C - 40° to + 158°F
Dimensions:	4.00"L; 1.5"W; 1.75"D

FPFL Series Ordering Information

Model	Line Voltage	Load Rating	
		Tungsten	HID Ballast
FPFL115	120	2000W	1000VA

Wall Plate

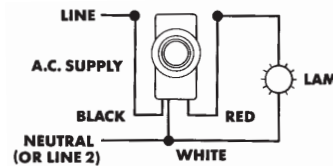
The wall plate package is constructed of a photocontrol mounted to a painted gray aluminum wall plate, which will fit standard outlet boxes. Complete with gasket and mounting screws.

Application

The FPFA Series wall plate/control fits a standard single-gang outlet box and is ideal for entrance, porch and open public areas where unobtrusive flush-mounting is required (pools, parking lots, marinas, etc).

Specifications

Photocell:	Conformally coated Cadmium sulfide cell
Switch Type:	SPST-NC (single-pole, single-throw, normally closed) bimetallic switch
Housing:	UV-resistant polycarbonate (Black)
Window:	Clear, UV-stabilized Polycarbonate
Nipple:	3/8" - 18 thread; 3/4" long; fits 3/8" knockout; 11/16" opening
Leads:	15" long, color coded; 105°C wire, 1/2" stripped, 18 AWG
Turn-On:	1 to 4 footcandles (fc)
Turn-Off:	3 to 12 footcandles (fc)
Time Delay:	30 seconds, minimum
Rated Life:	5,000 operations minimum at rated load
Temperature Range:	- 40° to +70°C - 40° to +158°F



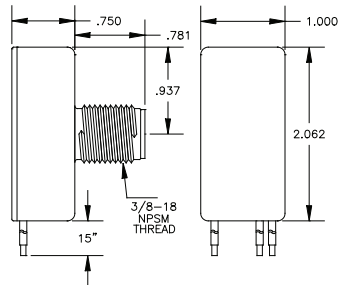
FPFA Wall Series Ordering Information

Model	Line Voltage	Load Rating	
		Tungsten	HID Ballast
FPFA105W	120	2000W	1000VA
FPFA1068W	208-277	2000W	1000VA

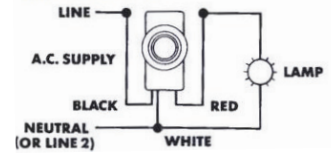
FPFA Flush Mount Photocontrols



FPFA Series



B Series



Flush-Mount Controls

The FPFA Series wire-in flush-mount photocontrols provide superior performance for internal mounting requirements. All Series FPFA controls utilize a rugged, SPST bimetallic switch. Durable, polycarbonate housing with a clear UV-stabilized window ultrasonically welded in place to prevent moisture ingress.

Application

The FPFA Series are compact, flush-mounted, high-temperature resistant controls designed for industrial, commercial, and decorative lighting fixtures. The versatility and reliability of these controls allow them to be used as replacement units in a wide range of HID outdoor lighting fixtures.

Specifications

Photocell:	Conformally coated cadmium sulfide cell
Switch Type:	SPST-NC (single-pole, single-throw, normally closed) bimetallic switch
Housing:	UV-resistant Polycarbonate (Black)
Window:	Clear, UV-stabilized Polycarbonate
Nipple:	3/8" – 18 thread; 3/4" long; fits 3/8" knockout; 11/16" opening
Leads:	15" long, color coded; 105°C wire, 1/2" stripped, 18 AWG
Turn-On:	1 to 4 footcandles (fc)
Turn-Off:	3 to 12 footcandles (fc)
Time Delay:	30 seconds, minimum
Rated Life:	5,000 operations minimum at rated load
Temperature Range:	- 40° to +70°C - 40° to +158°F
Dimensions:	2.062"L; 1.00"W; 1.53"D

Ordering Information

Model	Line Voltage	Load Rating	
		Tungsten	HID Ballast
FPFA-105	120	2000W	1000VA
FPFA-1068	208-277	2000W	1000VA

Electronic Flush Mount Control

B Series electronic "button type" photocontrols have the same features and performance of electronic twist-lock photocontrols. Energy efficiency is maintained with tight On/Off ratios and "non-drift operation". Maintenance costs are reduced through a cool-running DC circuit.

The B Series uses the same field proven electronic circuit design as is used in Sun-Tech high performance twist-lock photocontrols.

Application

The B Series Electronic wire in controls are compact, flush-mounted, high temperature resistant controls designed for industrial, commercial, and decorative lighting fixtures. The B Series Electronic wire-in control is designed to work with LED and HID fixtures.

Specifications

Photocell:	Conformally coated cadmium sulfide cell
Switch Type:	SPST-NC (single-pole, single-throw, normally closed) bimetallic switch
Housing:	UV-resistant Polycarbonate (Black)
Window:	Clear, UV-stabilized Polycarbonate
Nipple:	3/8" – 18 thread; 3/4" long; fits 3/8" knockout; 11/16" opening
Leads:	15" long, color coded; 105°C wire, 1/2" stripped, 18 AWG
Turn-On:	1 to 4 footcandles (fc)
Turn-Off:	3 to 12 footcandles (fc)
Rated Life:	5,000 operations minimum at rated load
Temperature Range:	- 40° to +70°C - 40° to +158°F

Ordering Information

Model	Line Voltage	Load Rating	
		Tungsten	HID Ballast
B120-1.5-PTM	120	2000W	1000VA
B124-1.5-PTM	105-305	2000W	1000VA

FPN7840 & FPSI200 Photocontrols



FPN7840 Series



FPSI201



FPSI202

FPN7840 GE Astrodome® Replacement Controls

Direct replacement for use in Astrodome-type lighting fixtures.

Specifications

Photocell:	Silicon Sensor
Switch Type:	SPST-NC (single-pole, single-throw, normally closed) electromagnetic relay
Housing:	UV-resistant, high-impact, polypropylene with clear UV-stabilized window
Turn-On:	1 footcandle (fc)
Turn-On/Off ratio:	1.5:1
Rated Life:	5,000 operations minimum at rated load
Temperature Range:	- 40° to + 70°C - 40° to + 158°F
Dimensions:	3.25" Dia.; 2.0" H
Wire Length:	24" cable

Ordering Information

Model	Line Voltage	Load Rating HID Ballast
FPN7841	105-130	1800VA
FPN7842	105-305	1800VA

© Registered trademark of General Electric Company

SI200 Series Screw In Controls

Specifications

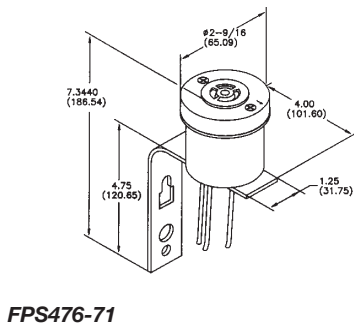
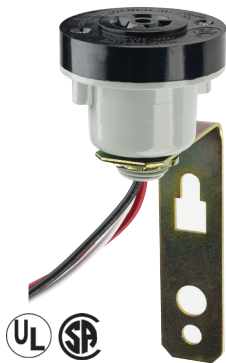
Photocell:	Silicon Sensor
Housing:	Polycarbonate
Operating Level:	3 to 10 footcandles (fc)
Temperature Range:	- 40° to + 70°C - 40° to + 158°F
Power Consumption:	0.5Watts
Screw Shell:	Medium base

Ordering Information

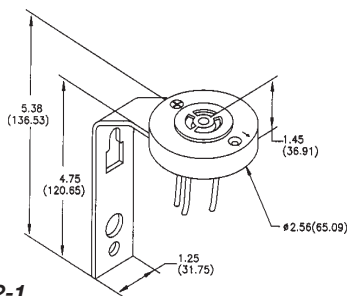
Model	Line Voltage	Load Rating
FPSI201	120V	150W incandescent
FPSI202	120V	150W incandescent

Not recommended for LED installations

Mounting and Dimming Receptacles

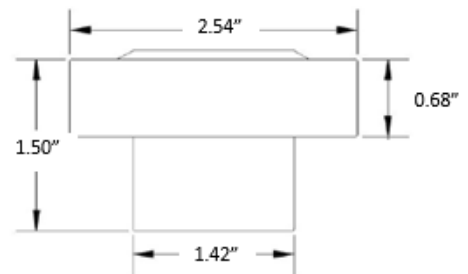
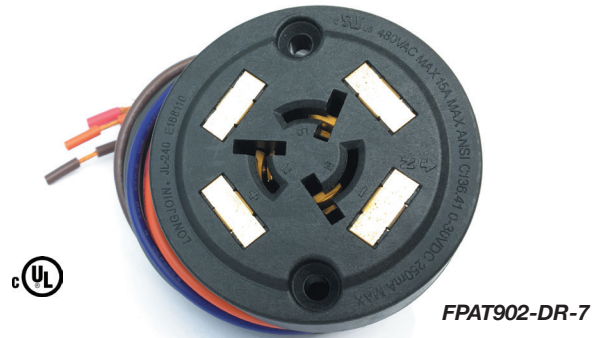


FPS476-71



FPAT902-1

ANSI C136.41 Compliant



FPAT902-DR-7

3-Pin Mounting Receptacles

A variety of locking-type receptacles are available to meet specific application needs. Receptacles are UL recognized and CSA certified, feature 18" No. 14 AWG color coded leads, and are rated for use up to 480V and 1800VA.

Model FPS476-71

Three pole locking-type receptacle with polycarbonate housing and wall mounting bracket 1/2"- 14 thread.

Dimensions:

- Socket: 2-11/16" H; 2-5/8" Dia.
- Nipple: 1/2" - threaded; 5/ 8" L
- Bracket: 4-3/4" H; 1-1/4" W

FPAT902-1

Receptacle assembly only.

Dimensions:

- Socket: 1-9/16" H; 2-9/16" Dia.

Ordering Information (3-pin receptacle)

Model	Line Voltage	Load Rating		Bracket
		Tungsten	HID Ballast	
FPS476-71	up to 480V	15A max.	15A max	Includes Bracket
FPS476-81	up to 480V	15A max.	15A max	Includes Bracket
FPAT902-1	Receptacle assembly only.			No Bracket

7-Pin Dimming Receptacle

FPAT902-DR Series is ANSI C136.41 compliant dimming receptacle.

The receptacles have electrical and mechanical interconnection between an ANSI C136.41-2013 photocontrol and dimmable LED lighting fixture.

7-pin receptacle required for all LED Dimming applications (see Dimulator on pages 14-15)

Specifications

Power Lead Gauge:	AWG#14
Lead Length:	12"
Certification:	cUL

See page 14-18 for Dimming Photocontrols

Ordering Information (7-pin receptacle)

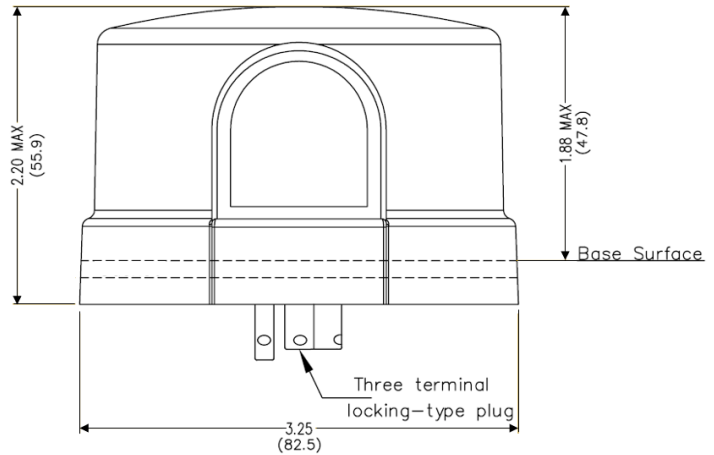
Model	Line Voltage	Number of Contacts	Power Lead Grade	Load Rating	
				Tungsten	HD Ballast
FPAT902-DR-7	Up to 480VAC	7-Pin	AWM1015 600V 105C	15Amp Max	15Amp Max

Units include rubber gasket

UL recognized. CSA certified.



FP7700 Locking Type Photocontrols (HID)



FP7700 Series locking-type photoelectric control

The FP7700 Series locking-type photoelectric controls are designed to meet stringent electric utility requirements for roadway lighting.

These photoelectric controls have provided more hours of dependable operation than any other photocontrol. Conservatively rated for 5,000 operations (13 years) on loads of 1800VA, the FP7700 Series is the industry standard.

The FP7700 Series is a highly reliable control. A wide, crosslinked polyethylene gasket assures weatherproof sealing with the luminaire socket.

Application

Series FP7700 state-of-the-art, controls are designed for industrial, commercial, street and highway luminaires equipped with locking-type receptacles. The control's "easy-to-test" instant ON feature makes it ideal for HID lighting in hard to reach locations.

Specifications

Photocell:	Silicone Sensor
Housing:	UV-resistant, high-impact, polypropylene cover with clear UV-stabilized high impact Polycarbonate window. Meets ANSI / cUL color-coded standards
Turn-On:	1 footcandle (fc) nominal
Turn-On/Off Ratio:	1.5:1
Rated Life:	5,000 operations minimum at rated load
Temperature Range:	- 40° to + 70°C - 40° to + 158°F
Dimensions:	3.078" Dia.; 2.219"H
Surge Protection	190 MOV joule rating

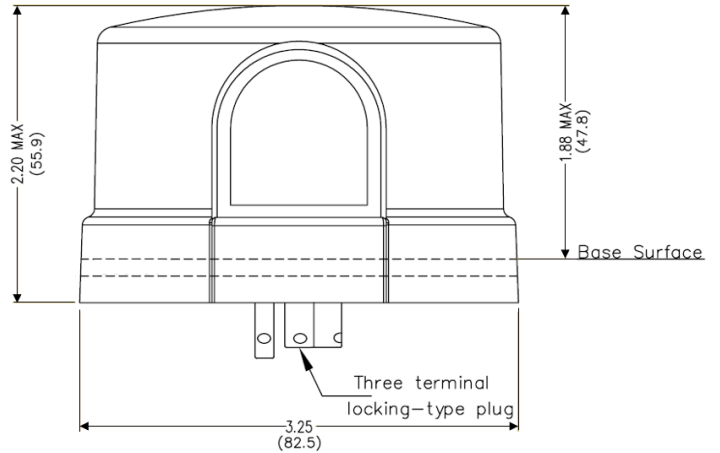
Ordering Information

Model	Line Voltage	HID Load Rating	Tungsten Load Rating
FP7760-SSS (FPN7760 = cUL Listed)	105-130 V	1800VA	1000W
FP7772-SSS (FPN7772 = cUL Listed)	195-305 V	1800VA	1000W
FP7790B-SSS (FPN7790B = cUL Listed)	105-305 V	1800VA	1000W
FPN7794	315-530 V	1800VA	1000W
FP7790B-RA (Reverse Acting photocontrol)	105-305 V	1800VA	1000W

Not recommended for LED installations

FP Thermal Photocontrols

Locking-Type Photoelectric Controls (HID)



FP Series Thermal Control

The FP Series thermal, delayed turn on/turn off response locking-type, photoelectric controls are designed to meet commercial and industrial requirements. A wide, cross-linked polyethylene gasket assures moisture proof sealing with the luminaire socket.

Application

The On at Dusk and Off at dawn, delayed-response FP Series controls are designed for industrial and commercial HID luminaires equipped with locking-type receptacles and meets UL and ANSI standards. (i.e. color coding, UL approval, etc.).



Specifications

Photocell:	Conformally coated cadmium sulfide photocell
Switch Type:	SPST-NC (single-pole, single-throw, normally closed) bimetallic switch
Housing:	UV-resistant, high-impact
Turn-On:	1 footcandle (fc) nominal
Turn-On/Off Ratio:	1:3
Time Delay:	30 seconds, minimum
Rated Life:	5,000 operations minimum at rated load
Temperature Range:	- 40° to + 70°C - 40° to + 158°F
Dimensions:	3.078" Dia.; 2.219"H

Ordering Information

Model	Line Voltage	265J MOV	Standard Photocell	Tungsten Load Rating	HID Load Rating
FP120 *	105-130V	√	√	2000W	1800VA
FP240 *	208-277V	√	√	2000W	1800VA
FP208 - 277 *	208-277V	√	√	2000W	1800VA

* NOTE: Available in standard carton sizes of 12, 50 and 72 piece counts. Consult factory for details.

Not recommended for LED installations

ES-1 Energy SuperStar Photocontrol



Energy SuperStar

Super Energy Efficient Electronic Sensing Circuit and Innovative Application Specification keeps parking lot lights off when they are not needed. State-of-the-art light analysis provides pinpoint control of light operation. Safety is not compromised and wasted burning time is eliminated.

Point Unit EAST and Save up to **30 Minutes** Wasted Burning Time Per Day over Standard Thermal Relay Designs

Ideal for all areas where energy efficiency is a priority



Specification

105-305 VAC
1,000 watt/1,800 VA

Ordering Information

Model	Description
ES-1	105-305 VAC 1000W, 1800VA

See page 12-15 for LED Controls

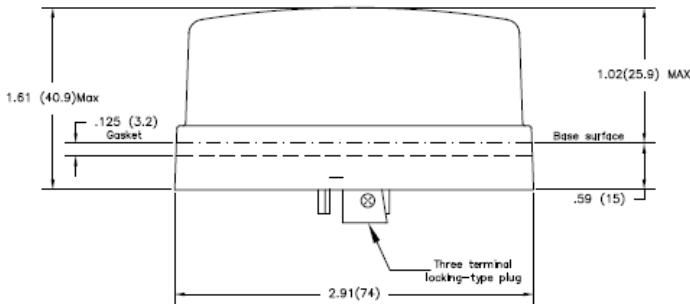
Not recommended for LED installations

Locking-Type Photoelectric Controls (HID)

FPN1038 Series Shorting Cap



S1039



Specifications (S1039)

Temperature Range: - 40° to + 70°C
- 40° to + 158°F

Housing: UV-resistant high-impact polypropylene

Dimensions: 2.91" Dia.; 1.61" H

Shorting Caps

Locking-type caps that have the physical appearance of photoelectric controls and meet ANSI C136.10 mounting specifications for roadway lighting equipment but provide a normally closed contact (fixture always ON). All caps are rated for a maximum of 15 Amps FLA.

Application

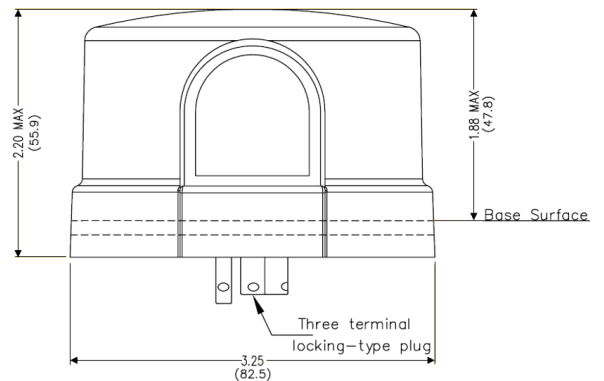
Shorting caps are used on industrial, commercial, street and highway luminaires equipped with locking-type receptacles. Shorting caps save wiring time by providing a constant ON. Several luminaires wired to the same line breaker may be controlled from a central point using a contactor or relay, as well as weatherproof protection for the socket.

Normally-Open caps (fixture always OFF) for temporary disabling of a lighting fixture are also available.



FPN1038-1

FPS / FPN1038



Specifications (FPS / FPN1038)

Temperature Range: - 40° to + 70°C
- 40° to + 158°F

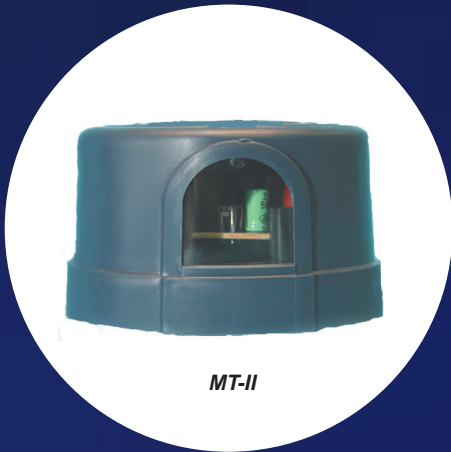
Housing: UV-resistant high-impact polypropylene

Dimensions: 3.25" Dia.; 2.20" H

Ordering Information

Model	Line Voltage	Contacts	Description
FPN1038-1	Up to 530V	N.C.	Shorting cap
FPN1038-3	Up to 530V	N.O.	Open Cap
FPS1038-1-MOV	Up to 530V	N.O.	Shorting Cap with MOV
S1039	Up to 480V	N.C.	Low Profile Shorting Cap

Energy Saving HID Lighting Photocontrols



MT-II

Midnight Tracker Series

High performance electronic photocontrol that turns the light on at sunset and turns the light off at the mid point of the night. It tracks the mid point in the night on a daily basis and automatically adjusts for the seasonal changes in sunrise and sunset.

Mid-Night turn off saves
50% in Energy Costs
 Addresses Light Trespass Issues
Ideal for all areas where lights do not need to be on all night

Specifications

Three prong locking type electronic photocontrol with silicon sensor photocell

Voltage:	105-305 VAC 1,000 watt/1,800 VA
Surge Protection:	640 Joule MOV

Meets or exceeds ANSI C136

Ordering Information

Model	Function
MT-II	Turn on at Sunset, Turn off at Midnight Turn on Before 6:00 AM, Turn off at sunrise



LK-2

Light Keeper

A unique light sensing, multi-voltage, three prong locking type photocontrol for dusk to dawn control of roadway, area and security lighting fixtures.

The Light Keeper II is designed to protect streetlights and floodlights from artificial light causing unwanted operation while keeping secure areas well-lit.

Specifications

Three prong locking type electronic photocontrol with projectile resistant housing, silicon sensor photocell

Voltage:	105-305 VAC 1,000 watt/1,800 VA
Surge Protection:	380 Joule MOV

Meets or exceeds ANSI C136

Ordering Information

Model	Description
LK-2	Anti-Crime photocontrol

Not recommended for LED installations

Locking-Type Photoelectric Controls (HID)

ELL Series Long Life LED Photocontrol



Specifications

Load Rating:	6.5 Amps - LED applications 1,000W/1,800VA 15A - HID applications Relay tested to 15,000 operations
Operating Temperature:	-40°C to +70°C (-40°F to +158°)
Surge Protection:	ELL-124 40K Amps, 1520J MOV ELL-124-CUL 50K Amps, 1600J MOV ELL-347 60K Amps, 265J MOV ELL-480 40K Amps, 1020J MOV
Power Consumption:	<0.5 Watts @ 120 V
Dielectric Strength:	5,000 Volts Between current carrying parts
Photocell:	Proprietary Bat Eye Technology circuit eliminates unintentional operation of LED fixtures, only reacts to sunlight, avoiding fixture cycling, reducing services calls. The sensor has no drift and is consistent over the service life.
Printed Circuit Board:	Plated Thru-hole Glass Epoxy
Cover:	Polypropylene; Long Life Green Cover Formula with UV Inhibitor and Antioxidant Additives
Base & Window:	Polycarbonate; 140°C, UL94HB Flame Class Rating
Gasket:	Neoprene; ASTM D 1056
Operating Light Levels:	Turn-on: 1.5 FC, 1.5:1 Off/On Ratio; +/- .25 FC, 3-5 Sec Turn-off Delay

Long Life LED Photoelectric Controls

Extra Long Life Photocontrol

Designed to meet or exceed the life expectancy of LED fixtures. Numerous feature upgrades extend the life expectancy of the already long life twistlock product line. Features exceed those of competitive long life designs. The ELL is an excellent choice when an extended life expectancy is desired.

MOV Surge Suppression

High quality MOV (Metal Oxide Varistors) are used to protect the ELL electronic photocontrol components and the LED light fixture from transients and voltage spikes. The clamping voltage is rated just above the operating line voltage to provide a high level of protection against spikes and surges over a 20 year period.

TRIAC Assisted Relay with Zero Cross Switching

In addition to our long life robust relay, we offer an advanced TRIAC option with additional solid-state switching operating in parallel with the relay contact. This device removes all electrical arcing on both open and closure of the relay. Zero Cross Switching is utilized to trigger the TRIAC, which greatly minimizes the inrush current typically seen in many LED light fixture loads.

Ordering Information

ELL - 124 - *

Model

ELL - 124 (105-305V)
ELL - 347 (312-382V)
ELL - 480 (420-530V)
ELL - 124 - CUL
(105-305V cUL Version)

* Surge Protection

_ 1520 Joule MOV,
40,000 Amps
(no code) standard
4 1520 Joule MOV,
40,000 Amps

* Relay Option

_ 15 Amp - 15,000
operations
(no code) standard
I Triac Assisted Relay

* Fail Mode

_ Fail ON
(no code) standard
FO Fail OFF

* Color

_ Green
(no code) standard
_ cUL Cover Blue
(no code) standard

Other Colors Available
upon Request

Other configurations available-Please contact Customer Service at 508-821-1597

Note: No substitution for cUL units



TRS Series Long Life LED Photocontrol



The Real Score LED Photocontrol

Designed to meet or exceed the life expectancy of LED fixtures. The Real Score (TRS) control has the same proven electronic circuit as our highly reliable electronic photocontrols. Upgraded materials and environmental protections were added to the TRS product to achieve a 20 year expected life.

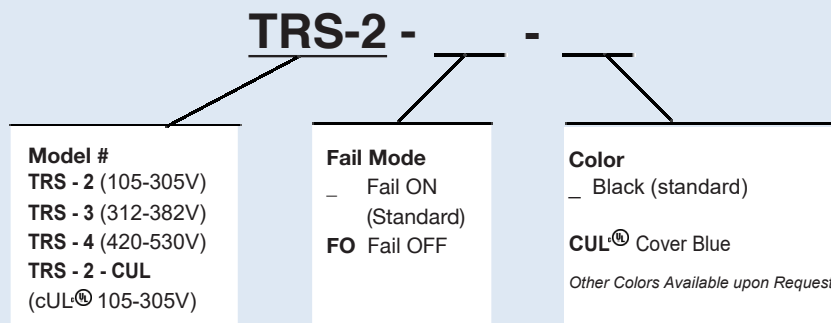
MOV Surge Suppression

High quality MOV (Metal Oxide Varistors) are used to protect the TRS electronic photocontrol components and the LED light fixture from transients and voltage spikes. The clamping voltage is rated just above the operating line voltage to provide a high level of protection against spikes and surges over a 20 year period.

Unsurpassed Features for Ultra Long Life

Unsurpassed construction, electrical, process, and environmental protections make the TRS Series the highest grade twistlock photocontrol on the market today. No aspect of design was overlooked, thus eliminating any potential weak point. It is designed to meet or exceed the life expectancy of LED and Induction lights. The TRS is the best value photocontrol available.

Ordering Information



Note: No substitution for cUL units

Other configurations available-Please contact Customer Service at 508-821-1597



Specifications

Load Rating:	1,000W/1,800 VA 15 Amp relay tested to 15,000 operations at 1,000 watts. AIR GAP load break has no voltage leakage
Operating Temperature:	-40°C to +70°C (-40°F to +158°)
Surge Protection:	TRS-2: 50K Amps, 1200J MOV TRS-3 & TRS-4: 20K Amps, 1020J MOV TRS-2-CUL: 50K Amps, 1600J MOV
Power Consumption:	<0.5 Watts @ 120 V
Dielectric Strength:	5,000 Volts Between current carrying parts

Operating Voltage

Load Rating:	1000 Watt tungsten, 1800 VA
Moisture Resistance:	100% RH
Operating Light Levels:	+/- 0.1 fc. from specified turn-on level 1:1.5 Average turn-on to turn-off ratio
Photosensor:	Proprietary Encapsulated Bat Eye Technology circuit eliminates unintentional operation of LED fixtures, only reacts to sunlight, avoiding fixture cycling, reducing service calls. The sensor has no drift and is consistent over the service life.
Dielectric Strength:	5,000 Volts between any current carrying part
Ambient Temperature Range:	-40°C to +70°C (-40°F to + 158°F)
Cover:	Long Life Black Cover Formula with UV Inhibitor and Antioxidant Additives

Long Life LED Photoelectric Controls



Dimulator™ Stand-Alone Dimming Photocontrol

Long Life LED Photoelectric Controls



The Stand-Alone LED Dimming Solution



No Wireless Network Required

Simple, Easy to Deploy

- Saves power, saves money, quickly pays for itself
- Extends fixture life
- Advanced time/date algorithm auto-adjusts for daylight savings
- Just Twist, Lock and Dim - no wiring required!

Bat Eye Technology



- Advanced light sensor, only reacts to sunlight
- Immune to LED and other artificial light
- No false activations (no cycling)
- May be oriented in any direction

Patented Technology

- The only stand-alone dimming (non-wireless) photocontrol available in the market today.
- Patent #9210746

Optional Features

- Standard part-night scheduled dimming available
- Constant all night dimming option available
- Standard voltage for 120, 208, 240 & 277 VAC applications
- High voltage for 347 and 480 VAC applications
- 0-10 Vdc dimming
- DALI - D2 dimming with or without powered DALI bus

Unsurpassed construction, electrical, process, and environmental protections make this **Dimming Control** the highest grade twistlock photocontrol on the market today.

The stand-alone unit is made to work with the **ANSI C136.41** receptacle and will provide dimming of LED fixtures.



Reduce Light Trespassing
with the Dimulator



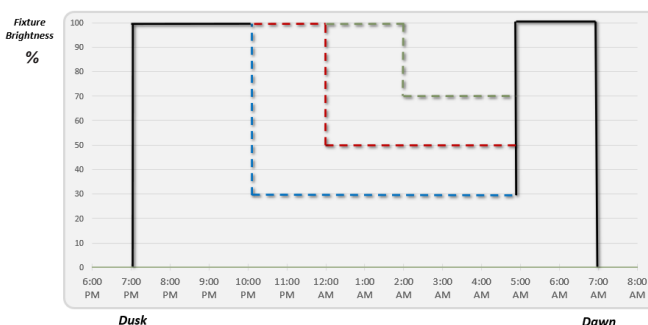
Dimulator™ Stand-Alone Dimming Photocontrol



Patent #9210746



Standard 7-day Dimming Schedules Available



Multiple Options Available:

- Standard version: Start dimming at 10pm, Midnight or 2am, at 30%, 50% or 70%
- Or, dim from Dusk to Dawn at 10% - 90% dimming level (Constant Dim version)
- Dim using 0-10Vdc dimming or DALI - D2 powered or non powered DALI bus

Dimming Photocontrol Electrical Information

Load Rating	1,000W/1,800 VA	15 Amp relay tested to 15,000 operations on maximum available LED or Induction load
Operating Temperature	-40°C to +70°C	(-40°F to +158°F)
Surge Protection	40,000 Amps	1520 Joule MOV protection
Power Consumption	<0.5 Watts	@ 120 V
Dimming Circuit	0-10 Vdc Class 1, or DALI - D2	Must be used with Dimmable LED Fixture
Dielectric Strength	5,000 Volts	Between current carrying parts

Dimming Photocontrol Mechanical Data

Bat Eye Technology	Light Sensor immune to artificial light	<0.5% Drift over 10 Years
Printed Circuit Board	Moisture Repellant Glass Epoxy	0.35 Maximum Moisture
Cover	Durable Polypropylene	Field Proven Optimal Solution for Ultra Long Life
Base	Polycarbonate 140°C	UL94HB Flame Class Rating
Gasket	Neoprene	ASTM D 1056
Operating Light Levels	Turn-on: 1.5 FC, 1.5:1 Off/On Ratio	+/- .25 FC, 3-5 Sec Turn-off Delay
Daylight Savings	Default = enabled	Daylight Savings can be disabled <i>please consult factory</i>

Model Numbers

DIM4 *	105-305 VAC, 50/60 Hz with 10 position field adjustable selector switch
DIM4-HV *	High Voltage 312-530 VAC, 50/60 Hz
DIM4-CD *	Constant all-night Dimming
DIM4-CUL *	120 VAC, 50/60 Hz, cUL certified version with gray cover
DIM3-XX *	Factory set dimming schedule (10 position selector switch not available)

* Add "-D" to the end of the part number for DALI with non powered DALI bus in luminaire (Dimulator will supply power to the DALI bus)
 Add "-D-NP" to the end of the part number for DALI with powered DALI bus in luminaire (Dimulator will not supply power to the DALI bus)

Note: All Dimulators (except for CD versions) have three selectable dimming levels (30%, 50%, 70%) with three different start times (10:00 pm, Midnight or 2:00 am) which are settable through the ten-position selector switch located on the bottom of the base. All dimming schedules will return to full brightness at 5:00 am.

Long Life LED Photoelectric Controls

Wireless Outdoor Lighting Control

Advanced Wireless Lighting Control



OCC Sensor Option

INTEGRATES WITH EXISTING OCCUPANCY SENSORS FOR DIM-TO-BRIGHT ON MOTION



WALI Twistlock

WIRELESS NODE
3-PIN & 7-PIN MODELS



WALI Wall Pack

WIRELESS NODE FOR WALL MOUNT LIGHTING



Gateway Controller

MANAGES THE COMMUNICATIONS, SCHEDULING AND CONTROL OF ALL WALI NODES



WALI Wireless Control System Options

WALI XT

- Will accommodate hundreds of WALI nodes per site
- Advanced web based system with energy management
- Integrates with Building Management Systems via BACnet
- On / Off / Dim / Control / Monitoring of WALI nodes
- Advanced 365-Day Zone Scheduling with holidays
- Remote access with mobile devices and browsers
- Manage multiple sites with one Executive Dashboard



WALI EZ

- Will accommodate up to 100 WALI nodes per site
- Simple, mobile (only) access and control
- Both iPhone and Android mobile devices supported
- On / Off / Dim Control of WALI Twistlocks and Wall Packs
- Basic 7-Day Zone Scheduling
- Plug & Play System, easy deployment

Wireless Outdoor Lighting Control



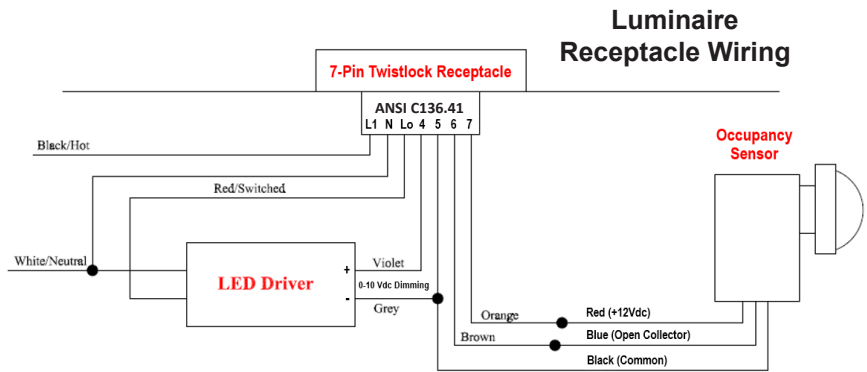
WALI Twistlock Node

- ANSI C136.41 twistlock
- 3-Pin for On-Off only control
- 5 & 7-Pin for On-Off-Dimming



WALI Wall-Pack Node

- Ideal - wall mounted light fixtures
- Outdoor single gang round box
- Hard wiring for On-Off-Dimming



Electrical Information

Load Rating	1,000W Max Across all Voltages	Tested to 15,000 operations on LED and HID Induction loads
Dimming Circuit	0-10 Vdc Dimming Class 1	5mA max Sinking current, 20mA max Sourcing current
Surge Protection	20,000 Amps	760 Joule MOV protection
Power Consumption	< 2.0 Watts @ 105-305 VAC	< 3.6 Watts @ 312-530 VAC
In-rush Current Limit	250 Amps max	Total In-rush current per LED fixture shall not exceed 250A
TRIAC Assist	Increased Relay Life with TRIAC assist	TRIAC with Zero Cross Switching minimizes inrush current
Occupancy Sensor Option	12Vdc (30mA max) supplied from WALI	WALI input connects to dry contact or open collector Occ sensor output
Dusk to Dawn Controls	In the event of communications loss to ZigBee® gateway, node will switch to dusk to dawn operation	
Firmware Upgrades	OTA (Over The Air) upgrades	Upgrades can be deployed wireless through WALI mesh network
FCC Listings	FCC PART 15, Class B	Canadian ICES-003, Class B
Certifications	Conforms to UL STD 773	Certified to CSA STD C22.2 #55

Mechanical Data

Photosensor	Bat Eye Circuit, immune to artificial light	Eliminates fixture cycling, north window facing orientation not required
Operating Temperature	-40°C to +70°C	-40°F to +158°F
Cover	Conforms to IP65, Polycarbonate	Smoked Grey = 105-305 VAC, Smoked Brown = 312-530 VAC
Base	Polycarbonate 140°C	UL94HB Flame Class Rating
Gasket	Neoprene	ASTM D 1056
Operating Light Levels	Turn-on: 1.5 FC, 1.5:1 Off/On Ratio	+/- .25 FC, 3-5 Sec Turn-off Delay

Model Numbers

WALI-124-M*	105 - 305 VAC, 50/60 Hz	Twistlock, standard voltage, installs on ANSI C136 twistlock receptacle
WALI-124-1-WP-M*	105 - 305 VAC, 50/60 Hz	Wall Pack, standard voltage in a single gang round box for hard wire connections
WALI-480-M*	312 - 530 VAC, 50/60 Hz	Twistlock, high voltage, installs on ANSI C136 twistlock receptacle
WALI-480-1-WP-M*	312 - 530 VAC, 50/60 Hz	Wall Pack, high voltage in a single gang round box for hard wire connections

* Note: Use 'M' when integrating a Motion (Occ) Sensor - Leave blank when not using a Motion (Occ) Sensor

Lighting Contactors

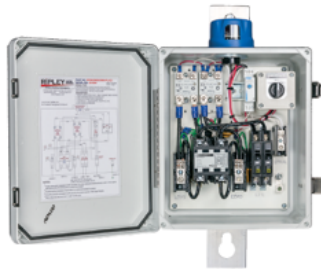
Next Generation Contactors - Ideal for LED Control

Typically used in applications such as parking lots, intersections and entrance ramps where group light control is required. These industrial hardened contactors are available in multiple voltage and current configurations and can be controlled by either a twistlock photocontrol or with an external signal.

The challenge with controlling multiple outdoor LED light fixtures is properly dealing with much greater inrush current demands that are seen, versus HID light fixtures. So, when controlling multiple LED's, our Zero Cross Switching (ZCS) option is an ideal way of reducing the inrush current when turning on the lights, which will extend the life of the contactor as well as the light fixtures that are being controlled. The ZCS option is available in both the Pole Mount and Pedestal Contactors.



Pole Mount Contactors



Pedestal Contactors

Example - CR 60 2 NO E I S W P M1* LV* CV*

CR

Control Type
CC = Standard Contactor
CR = Zero Cross Switching

60

Load AMPS
30
40
60
100

2

Poles
1
2
3
4

NO

Contact Type
NO = Normally Open
NC = Normally Close

E

Enclosure type
C = NEMA 3R Pedestal
D = NEMA 3R Steel
E = NEMA 4X Fiberglass

I

Receptacle
I = includes receptacle

S

Circuit Protection
S = Supply Side Breaker

W

Surge Protection
T = Lighting Arrestor
W = MOV Surge Protection

P

Additional Options
H = Hand/Off/Auto Switch
P = Pole Mount Bracket

*** M1**

* Multivoltage Selector Switch
M1= 120/240 & 277/480 with 120 VAC Control

*** V**

Line Voltage
L1 = 120/240 VAC
L5 = 277/480 VAC

*** CV**

Control Voltage
C1 = 120 VAC
C5 = 277 VAC

* Leave LV and CV blank if using the M1 (Multivoltage) option

* Leave M1 blank if using LV and CV option

Lighting Relays N250 & N270 Series



FPN250 Series

FPN250 Series

The FPN250 Series is a flat-surface mounting relay which provides a combination of reliable contactor and sturdy internal lightning arrester and high dielectric strength for substantial protection against surges and overloads.

The FPN270 Series is a relay/receptacle/mounting bracket assembly for flat-surface or pole mounting. In addition to surge protection, this lightning relay offers the flexibility of easy installation and replacement of photoelectric controls through a receptacle/relay combination for outdoor mounting.

Application

Weatherproof NEMA 3R Lighting Relays. Two mounting options to raise the switching capacity of photoelectric controls or other switching devices. These relays are used for centralized switching of several lighting an/or luminaires from a single point while providing additional surge and overload protection. Ideal for commercial and industrial applications where there is a need to control multiple fixtures wired to a 30 amp lighting contactor.

Ordering Information

Model	Line Voltage	SPST Contacts	Load Rating	
			Tungsten	Ballast
FPN251A	120	N.O.	3000W	2400VA
FPN252A	120	N.C.	3000W	2400VA
FPN271	120	N.O.	3000W	2400VA
FPN272	120	N.C.	3000W	2400VA



FPN270 Series

Model FPN251A

Outdoor relay for flat, vertical surface mounting with lightning arrester, normally open contacts.

Dimensions: 4.5" H: 3" W: 3" D

Model FPN252A

Same as Model FPN251A, except reverse contacts, normally closed contacts.

Dimensions: Same as Model FPN251A

Model FPN271

Receptacle and relay combination for outdoor weatherproof mounting. Flat surface, normally open contacts.

Dimensions: 7"H: 3"W: 3"D

Model FPN272

Same as Model FPN271 except reverse contacts, normally closed contacts.

Dimensions: Same as Model FPN271

FP63300 Socket Mounted Controls



Series FP63300



Model FPN4AFA
4-Jaw Meter Socket

Outdoor Socket-Mounted Photoelectric Controls

Reliable controls with high switching capacity and built-in surge protection specifically designed to fit standard 4-jaw meter sockets. These spec-grade units include a deluxe surge protection as well as a 4 second time delay.

Models include a built-in 30A fuse for protection in high isokeuronic areas.

Model FP63364DE2 operates at 240Vac and has a double-pole, single-throw switching configuration for breaking both hot wires of a 208-240 system.

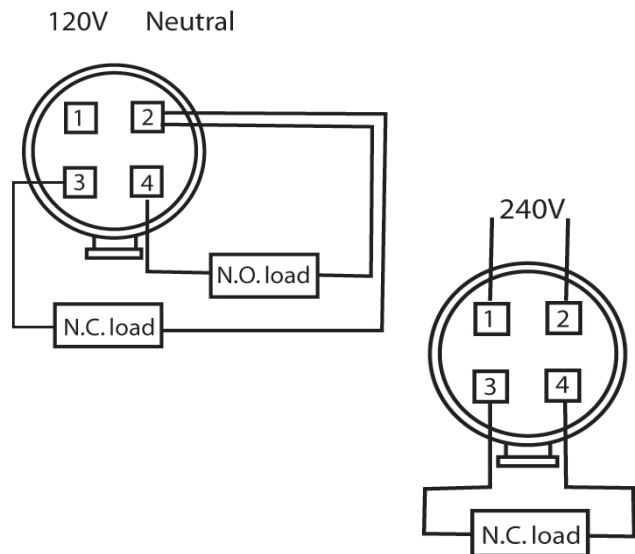
Application

Ideal for multiple lighting applications such as parking lots, parks, marinas, malls, institutional buildings, industrial parks, etc. Model FP63305DE2 units which are FAA approved for hi-level turn-on are frequently used to control building and tower obstruction warning lights near airports (15 mile radius).

Specifications

Photocell:	Cadmium sulfide (CdS)
Housing:	Polycarbonate
Base:	4-jaw black phenolic
Surge Arrester:	Incorporates a 190J MOV + 380J MOV + Zener
Turn-On:	Factory set per model number
Turn-On/Turn-Off Ratio:	1:1.5 nominal
Time Delay:	4 seconds nominal
Rated Life:	5000 On-Off operations
Temperature Range:	- 40° to + 70°C - 40° to +158°F
Line Frequency:	50/60 Hz
Switching Capacity:	30A per pole 3000W tungsten 3000VA HID ballast
Load Fusing:	30A cartridge

Wiring Diagrams



Ordering Information

Model Numbers With 5-amp. Line Fuse	Supply Voltage (50/60Hz)	Load Rating (watts)	Load Contactor	Turn-on Foot Candles (factory setting)	Turn-off Foot Candles (maximum foot candle)	Inter-changeable with Model Number
FP63300DE2	105-130	3000	SPDT DB	1.0 ± .25	3.0	63300C 63300D 63320 63300DA2 63300DE2 N6330E N6330A
*FP63305DE2	105-130	3000	SPSTNC DB	35 ± 5.0 * FAA approved for hi-level turn-on: 35± 5fc.	65	63305 63305C 633050 63305DA2 N6335A
FP63303DE2	105-130	3000	SPST DB	1.0 ± .25	3.0	63303DA2 63303DE2
FP63364DE2	210-250	3000	DPST	1.0 ± .25	3.0	63304C 63364C 63364D 63364DA2 N6364A 63364DE2

FP283A Continuous Auxiliary Power Tap Series

Streetlight Power Tap Adapter

The Series 283A Power Tap Adapter works with any luminaire that utilizes a photocontrol and locking type receptacle. The Series 283 installs between the photocontrol or shorting cap and the receptacle providing constant AC power.

Feature/Benefits

- Constant AC power
- Eliminates special wiring
- No electrician required - Simple twistlock installation
- Does not interfere with normal Photocontrol operation
- 7-Pin allows pass thru communication
- Output voltage is same as input voltage

Specifications

Voltage/Current:	Receptacle input voltage equals cable output voltage
Current:	10 Amps AC continuous
Housing:	UV stabilized impact resistant polypropylene
Cable Type:	2 SEOOW Conductor 16 AWG
Base:	High temperature ABS
Blades:	Solid brass, three prong, locking type
Gasket:	Cross linked polyethylene
Packaging:	Individual units are sealed in water resistant plastic



FP283 with 3-Pin configuration



FP283 with 7-pin configuration

Ordering Information

FP283A - X - XXX - NNN

Receptacle and Base Configuration
1= 3-Pin Configuration
7= 7-Pin Configuration

Cable Length (inches)
XXX = Output Cable length (inches)

Standard Cable Output
NNN= Output Cable Pig Tail - No cable connector

To Step-Down from higher voltage input - Please refer to OWL Power Tap Brochure on page 22
Output Voltage is not grounded. Ground lug option available - please contact factory

FP280 Owl Series Converted Power



Photocontrol
sold separately



Patent #7723862

Overview

Tap into your streetlights to power a variety of devices such as cameras, cell modems, sensors, etc. With the OWL Series you can step down your voltage to 120 VAC or convert AC to DC to power virtually any ancillary device.

Features

- Eliminates additional wiring
- Simple plug-in installation
- NEMA 3-pin and 7-pin available
- Pass-through photocontrol operations
- Input voltage: 120 / 208 / 240 / 277 / 480 Vac
- Output voltage: 12 / 24 / 48 Vdc or 120 Vac

Specifications

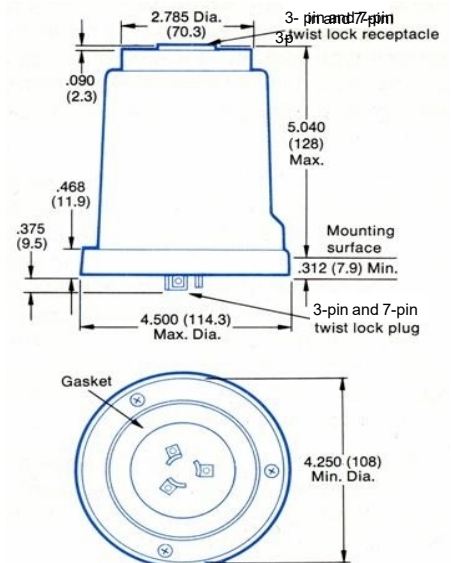
IEEE Standards:	Conforms to ANSI C136.10 for Street and Area Lighting
Housing:	UV stabilized impact resistant polypropylene, color gray
Temperature: AC	-40° to +70° C, -40° F to +158° F
Power Cable: * DC	SEOOW, 600V, 16/2 AWG
Power Cable: *	PoE Cat5e +Vdc pins 4&5, -Vdc pins 7&8
Power Output:	Output power is subject to De-Rating over higher temperatures

* Custom cables and connectors are available upon request

Power Devices from Any Street Light

- Security Cameras
- Wireless access points and gateways
- 5G Hotspots and WiFi AP's
- Air quality sensors, wind, temp
- Humidity, rain, snow detection
- Gunshot detection
- Traffic counting
- People counting
- Digital Signs
- Smart Parking
- Vehicle charge stations

Dimensions



ORDERING GUIDE

PoE Series

Power over Ethernet

FP287A - 120* - ACN - A** (Part Number Example)

Series	Length *	Code	Luminaire Voltage	Output Power ***	Cable & Connector
FP287A	XXX	ACN	100-265 VAC	48Vdc 13W (PoE 802.3af)	Cat5e with RJ45 connector
↓	↓	BCN	↓	↓	↓

AC to DC Series

Convert 120/208/240 VAC to 12/15/24/48 Vdc

FP288A - 120* - BAN - A** (Part Number Example)

Series	Length *	Code	Luminaire Voltage	Output Power ***	Cable & Connector
FP288A	XXX	BAN	100-265 VAC	12Vdc - 25W	Cat5e with RJ45 connector
↓	↓	BLN	↓	12Vdc - 100W	↓
↓	↓	BHN	↓	15Vdc - 25W	↓
↓	↓	BBN	↓	24Vdc - 25W	↓
↓	↓	BGN	↓	24Vdc - 100W	↓
↓	↓	BDN	↓	48Vdc - 25W	↓
↓	↓	BPN	↓	48Vdc - 60W	↓
↓	↓	BQN	↓	48Vdc - 100W	↓

NOTE: for Luminaire Voltages of 100 - 305 VAC, please contact factory

AC to AC Step Down Series

Convert 208/240/277/480 VAC to 120 VAC

FP289A - 120* - ENL - A** (Part Number Example)

Series	Length *	Code	Luminaire Voltage	Output Power ***	Cable & Connector
FP289A	XXX	FNG	208 VAC	120 VAC - 50W	16 AWG (2) wire pigtail
↓	↓	FNH	↓	120 VAC - 100W	↓
↓	↓	CNB	240 VAC	120 VAC - 50W	↓
↓	↓	CNK	↓	120 VAC - 100W	↓
↓	↓	END	277 VAC	120 VAC - 50W	↓
↓	↓	ENL	↓	120 VAC - 100W	↓
↓	↓	DNC	480 VAC	120 VAC - 50W	↓
↓	↓	DNF	↓	120 VAC - 100W	↓

* Cable length is in inches (example: XXX = 120 inches = 10 feet)

** To upgrade any OWL from 3-pin to 7-pin, add '-A' to end of the part number

*** Output power is subject to De-Rating over higher temperatures

Timed/Switched Power Tap Adapters



CL120 Switched Dusk-to-Dawn Auxiliary Power

The Series CL120 Auxiliary Power Adapter works with any fixture that utilizes a photocontrol and twist-lock type receptacle. The CL120 turns the luminaire and the auxiliary power on at dusk and off at dawn.

This Power Adapter is ideal for holiday lighting by easily providing power without the need for any additional wiring.

The standard model works well with HID luminaires while our enhanced version is designed for the newer LED streetlights.

Ordering Information

Model	Line Voltage	Load
CL120	105-130 VAC	1800VA for HID Luminaires
CL120-ELL	105-130 VAC	6.5A for LED Luminaires
Note: 2 ft. lead length standard with 3 prong female connection at the cable end		
Note: Output voltage not grounded		



FP285A Timed & Switched Dusk to Dawn Auxiliary Power Adapters

The Series FP285A Auxiliary Power Adapter works with any luminaire that utilizes a photocontrol and twist-lock type receptacle. The FP285A turns the luminaire and the auxiliary power on at dusk. It then turns the auxiliary power off at midnight and turns the luminaire off at dawn. The FP285A provides a convenient weatherproof outlet with cover.

Ordering Information

Model	Line Voltage	Load
FP285A	105-130 VAC	8.3A / 1000W (timed power)
FP285A-7 (7-pin)	105-130 VAC	8.3A / 1000W (timed power)
FP285A-CP	105-130 VAC	8.3A / 1000W (constant power)
FP285A-CP-7 (7-pin)	105-130 VAC	8.3A / 1000W (constant power)
Note: Output voltage not grounded		

Pass Through Spacer for Decorative Fixtures

When you need to add height to your photocontrol, the FPS284 Spacer is ideal for raising the bar. This spacer will add around 2.5" and is available in both a 3-pin and 7-pin version.

Ordering Information

Model	Line Voltage	Load
FPS284	120-480VAC	3 Pin Spacer
FPS284-7	120-480VAC	7 Pin Spacer



Please visit our other Electro Switch companies
the recognized innovators for switching, monitoring and control

www.electroswitchcorp.com



About Electro Switch

For 75-plus years and counting. The Electro Switch story began in 1946 as an unassuming startup with only six employees. During the next seven decades, the company grew through a series of product development cycles and acquisitions. Over those years Electro Switch has maintained an unwavering dedication to quality, excellence in engineering and service as its foundation. Today we manage an exceptional family of brands all striving to provide the absolute highest quality, most reliable and safest products available in the world.



Sunrise Technologies, Inc.

An Affiliate of ELECTRO SWITCH

FP *Outdoor Lighting Controls*
Quality Electrical Products



Sun - Tech
Sunrise Technologies, Inc.

About Sunrise Technologies, Inc / FP Outdoor Lighting Controls

Sunrise Technologies, Inc., with many decades of industry experience assimilated through product development and acquisition, is the world's largest manufacturer of Outdoor Roadway Lighting Solutions, including Long Life, Dimming and Wireless Programmable Lighting Controls, Contactors and Power Taps for Utility, Commercial and Industrial applications.

FP Outdoor Lighting Controls

370 Paramount Drive, Unit 2
Raynham MA 02767

Phone: 508-884-9732 | Fax: 508-802-6596

Copyright 2023 by Sunrise Technologies, Inc. All rights reserved.

Doc: V100523.1-CAT

"The information in this document is provided for informational use only and is subject to change without notice."

www.fpolc.com