

ALTRAN MAGNETICS

PHOTO CONTROLS DIVISION

Manufacturers of Standard and Custom
Photocell Lighting Controls



ABOUT US

Altran Magnetics, LLC. is a solution provider of lighting controls. With over 30 models for controlling Incandescent, Compact Fluorescent, HID and LED sources, we are a leader in lighting photocell technology. Understanding that every light source has its own unique electrical, mechanical and thermal requirements, our global design team can customize products to meet your specific application requirements.

Our Corporate Headquarters in Sterling, IL offers centralized customer service, domestic engineering support, and warehousing opportunities. Our 30 years in photocell manufacturing and ISO-9001-2008/ISO14000 approved facilities provide premium quality at market competitive cost structures.

We are an industry-focused, solution oriented organization producing innovative products in a supportive and progressive environment for our customers, employees and suppliers. Continually seeking new and alternative methods of improving all facets of our business our goal is to become the preeminent supplier of standard and custom products to the leading markets we serve.



TABLE OF CONTENTS

AMI Series Photo Controls

- E7 Series 5
- E8 Series 6
- E9 Series 7
- P-101 Series 8
- P-102 Series 9
- P-102-01-AT 10
- P-102-01-CA 11
- P-103 Series 12
- P-104 Series 13
- P-105 Series 14
- P-106 Series 15

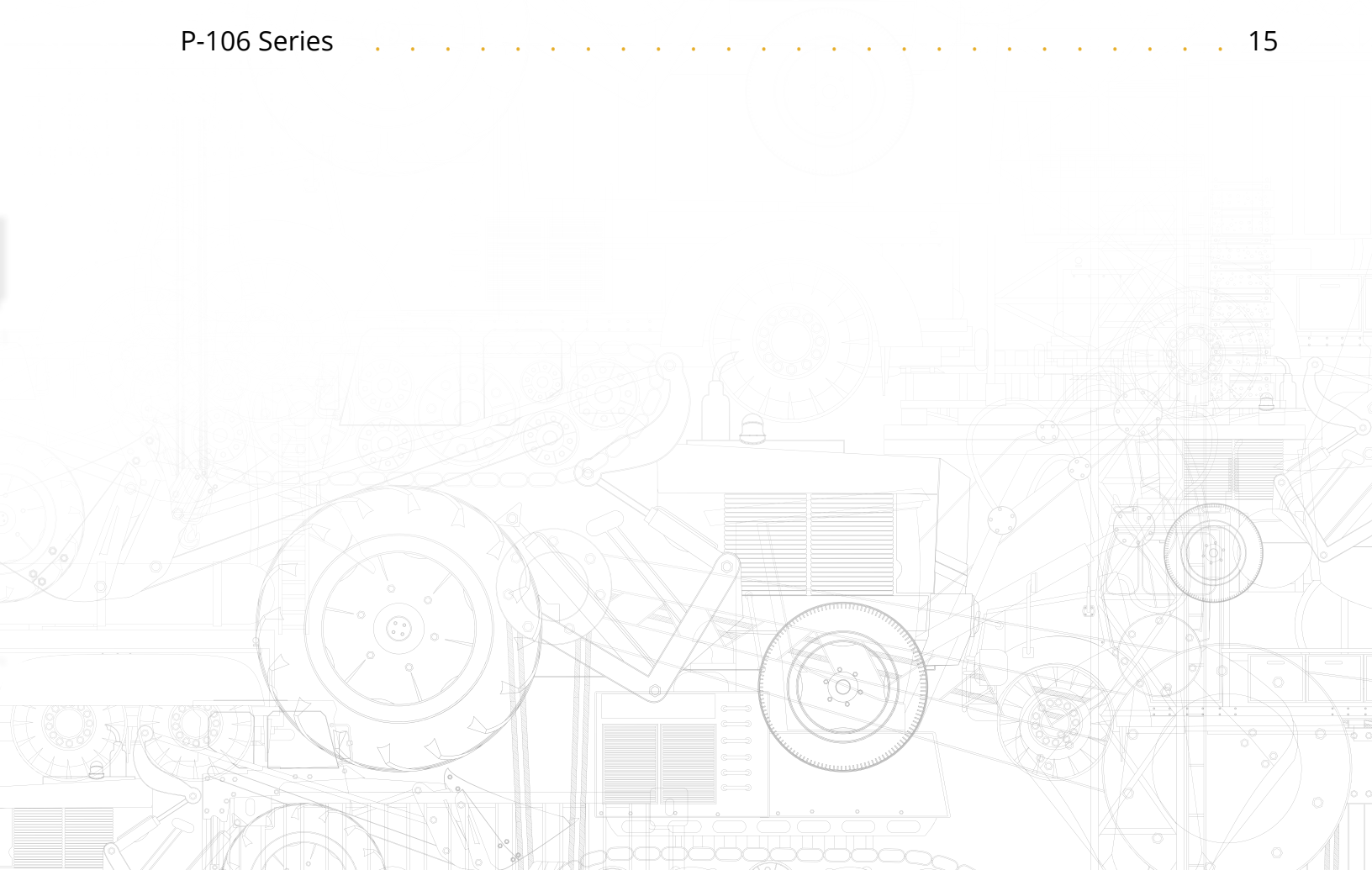
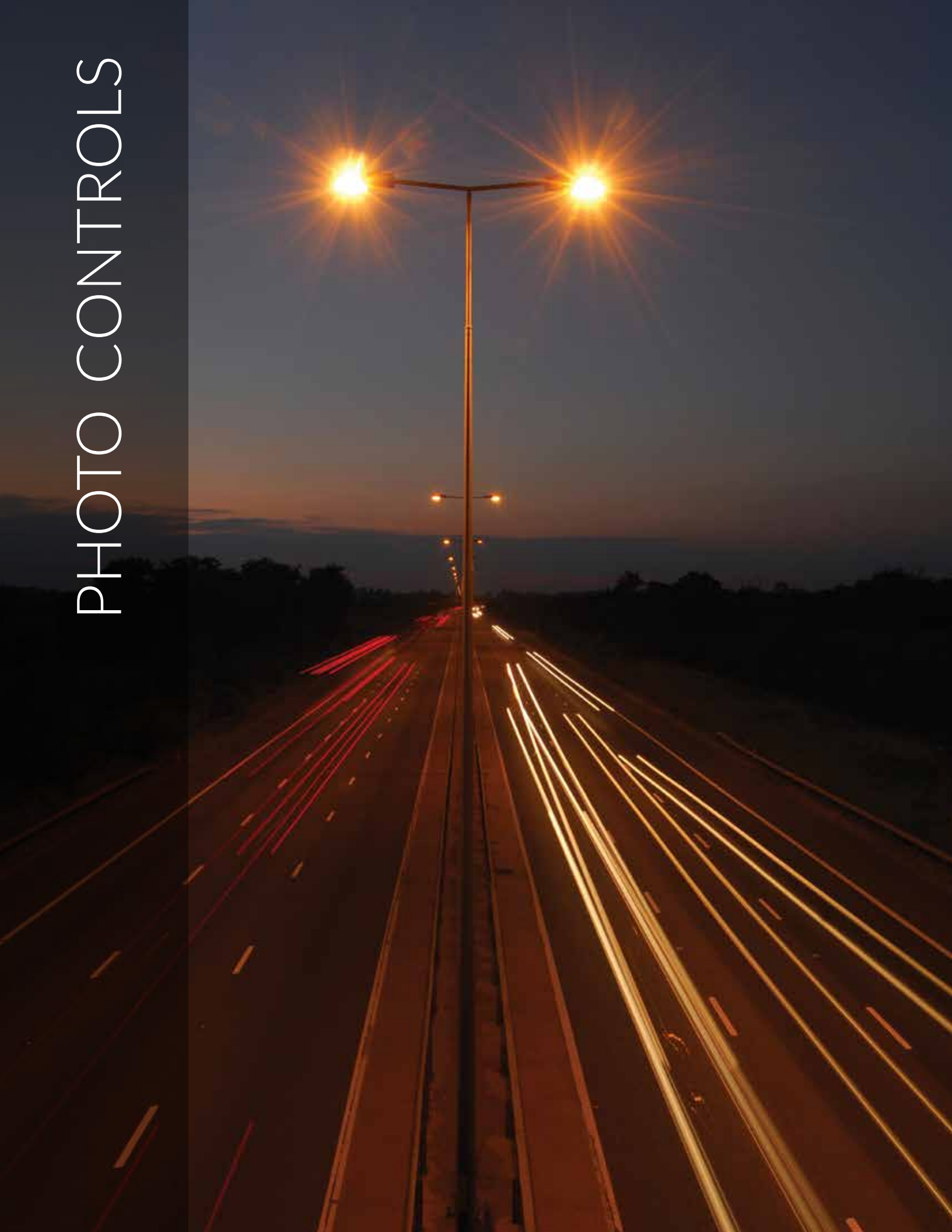


PHOTO CONTROLS

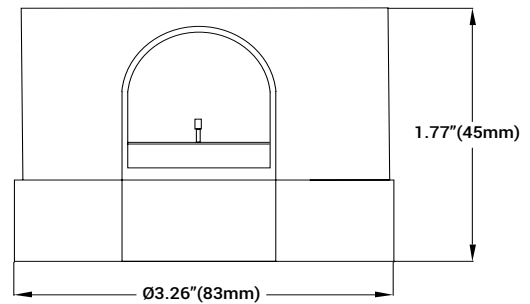


E7 SERIES PHOTOCELL - LED LIGHTING COMPATIBLE

E7 series photocells are ideal for roadway and street lighting applications requiring multi-volt operation, durability, endurance, and low cost. Average expected life of E7 controls is twenty plus years with a 20,000 On/Off operation relay life.

Product Features:

- High Temperature Resistant Housing
- Interlock Design
- Multi-Volt Operation
- IR Filtered Photo Transistor
- Meets or exceeds ANSI C136.10
- Design Life at Rated Load: 20,000 Cycles (20+ years)
- High Performance
- Low Cost
- UL/CSA Listed (CUL)
- RoHS Compliant



Specifications:

Physical

Enclosure: Designed to meet ANSI C136.10
Power Consumption: Less than 0.5 Watts (avg.) at 120VAC

Temperature Range

-40°F to 158°F (-40°C to +70°C) at 96% RH

Light Sensor

Non-drifting photo sensor

Relay Rating

30 Amp general purpose relay

Load Rating

1000 Watt Tungsten, 1800 VA Ballast

Cover

High impact polypropylene with UV stabilized polycarbonate window

Base

High temperature polyester (PBT)

Connection

3-pole locking type with solid brass blades

Gasket

Cross-linked polyethylene

E7 Series Product Selection Information

XXX - Denotes Optional Customer Number

Model	AMI-E7-101-GR-XXX	AMI-E7-102-BL-XXX	AMI-E7-103-MR-XXX
Rated Volts (VAC)	120	120/208/240/277	208/240/277
Voltage Range (Volts)	105-130	105-305	185-305
Color	Gray	Blue	Maroon

E7 Series Technical Data

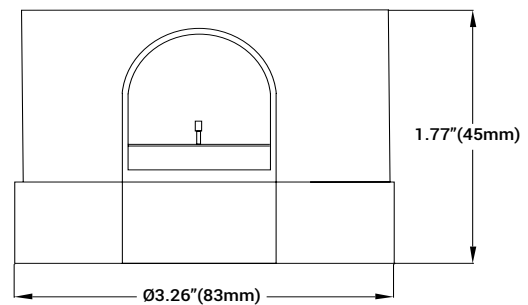
Voltage Range	Frequency	ON/OFF Ratio	Time Delay ON/OFF	Operating Light Levels	Fail Mode	Surge Protection
105-305 VAC	50/60Hz	1.5:1	Instant ON, 2-5 second delay OFF	Standard 1.5 Fc ON (optional 1-3 Fc)	ON	480J / 15kA

E8 SERIES PHOTOCELL - LED LIGHTING COMPATIBLE

E8 series photocells are specifically designed for 20 years operation, withstanding heat and weather conditions with a multi-volt operation. FR4 glass epoxy, which forms the primary insulating backbone of printed circuit boards, ensures higher levels of ON/OFF operation cycles.

Product Features:

- High Temperature Resistant Housing
- Double-Sided Glass Epoxy FR4 Circuit Board
- 5000 Hours at 105°C.
- Interlock Design
- Design Life at Rated Load: 20,000 Cycles (20+ years)
- Multi-Volt Operation
- Meets or Exceeds ANSI C136.10
- Improved Durability
- UL/CSA Listed (CUL)
- RoHS Compliant



Specifications:

Physical

Enclosure: Designed to meet ANSI C136.10.
Power Consumption: Less than 0.5 Watts (avg.) at 120VAC

Temperature Range

-40°F to 158°F (-40°C to +70°C) at 96% RH

Light Sensor

Non-drifting photo transistor

Relay Rating

30 Amp general purpose relay.

Load Rating

1000 Watt Tungsten, 1800 VA Ballast

Cover

High impact polypropylene with UV stabilized polycarbonate window

Base

High temperature polyester (PBT)

Connection

3-pole locking type with solid brass blades

Gasket

Cross-linked polyethylene

E8 Series Product Selection Information

IR - Denotes IR Filtered Phototransistor
XXX - Denotes Optional Customer Number

Model	AMI-E8-102-BL-XXX (IR)	AMI-E8F-102-BL-XXX (IR)
Rated Volts (VAC)	120/208/240/277	120/208/240/277
Voltage Range (Volts)	105-305	105-305

E8 Series Technical Data

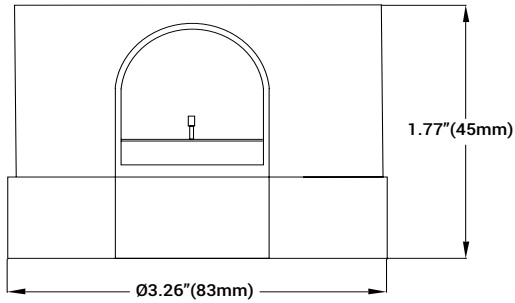
Voltage Range	Frequency	ON/OFF Ratio	Time Delay ON/OFF	Operating Light Levels	Fail Mode	Surge Protection
105-305 VAC	50/60Hz	1.5:1	Instant ON, 2-5 second delay OFF	Standard 1.5 Fc ON (optional 1-3 Fc)	E8: ON E8F: OFF	300J / 20kA

E9 SERIES PHOTOCELL - LED LIGHTING COMPATIBLE

E9 Series offers cost and energy efficient solutions for variable lighting applications. E9 photocells are designed with an inverse OFF/ON ratio, thereby minimizing total operation hours. Extended time delay eliminates undesirable luminaire surge caused by lighting or other sudden changes in ambient light. AMI-E9-102-GR-IES has been specifically engineered to comply with I.E.S. recommendations.

Product Features:

- DC electromagnetic switch
- Non-drifting phototransistor
- Inverse OFF/ON ratio
- 20-40 second ON and OFF time delay
- Meets or Exceeds ANSI C136.10
- Design Life at Rated Load: 20,000 Cycles (20+ years)
- Complies with I.E.S. Recommendation
- Cost Effective & Energy Saving
- UL/CSA Listed (CUL)
- RoHS Compliant



Specifications:

Physical

Enclosure: Designed to meet ANSI C136.10.
 Dimensions: Approx. 3.26" (83mm) dia x 2.08" (53mm) height
 Power Consumption: Less than 1.1 Watts (max.) at 120VAC

Temperature Range

-40°F to 158°F (-40°C to +70°C) at 96% RH

Light Sensor

Non-drifting phototransistor

Relay Rating

30 Amp rated general purpose relay

Load Rating

1000 Watt Tungsten, 1800 VA Ballast

Cover

High impact polypropylene with UV stabilized polycarbonate window

Base

High temperature polyester (PBT)

Connection

3-pole locking type with solid brass blades

Gasket

Cross-linked polyethylene

E9 Series Product Selection Information

XXX - Denotes Optional Customer Number

Model	AMI-E9-102-BL-XXX	AMI-E9-102-BL-IES-XXX	AMI-E9F-102-BL-IES-XXX
Rated Volts (VAC)	120/208/240/277	120/208/240/277	120/208/240/277
Voltage Range (Volts)	105-305	105-305	105-305
Turn ON (Fc)	1.5+/-0.5	3.0+/-0.5	1.5+/-0.5

E9 Series Technical Data

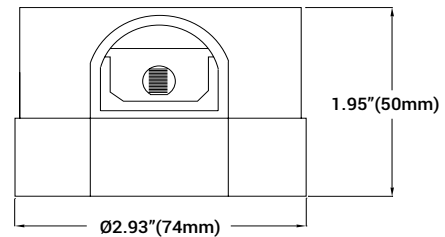
Voltage Range	Frequency	ON/OFF Ratio	Time Delay ON/OFF	Operating Light Levels	Fail Mode	Surge Protection
105-305 VAC	50/60Hz	0.6:1	20-40 Second ON and OFF delay	Standard 1.5 Fc or 3 Fc	E9: ON E9F: OFF	180J or 545J

P-101 SERIES PHOTOCELL

P-101 Series photocells integrate the most affordable robust weather-protected thermal bi-metal switch with a lock design applicable for commercial and industrial functionality use in street lighting, parking lot lighting and security lighting. Our 30-45 second time delay prevents undesirable OFF/ON operations from sudden outdoor light levels for an energy saving feature dusk to dawn.

Product Features:

- Locking Control Mechanism
- Heavy Duty Thermal Bi-Metal Switch
- 30-45 Second Time Delay
- Turn On Fc : 1.5
- Off/On Ratio 4:1
- Fail Safe
- ANSI C136.10 Compliant
- Surge Protection 180 Joules
- UL/CSA Listed (CUL)
- Design Life at Rated Load: 7,500 Cycles (20 years)



Specifications:

Physical

Enclosure: Designed to meet ANSI C136.10.

Switch

SPST thermal bi-metallic switch

Temperature Range

-40°F to 158°F (-40°C to +70°C) at 96% RH

Light Sensor

1/2" Cadmium Sulfide Cell

Load Rating

1000 Watt Tungsten, 1800VA Ballast

Cover

High impact Noryl with UV stabilized acrylic window

Base

High temperature polyester (PBT)

Connection

3-pole locking-type with solid brass blades

Gasket

Cross-linked polyethylene

P-101 Series Product Selection Information

XXX - Denotes Optional Customer Number

Model	AMI P-101-01-XXX	AMI P-101-02-XXX	AMI P-101-03-XXX
Rated Volts (VAC)	120	120/208/240/277	208/240/277
Voltage Range (Volts)	105-130	105-305	185-305

P-101 Series Technical Data

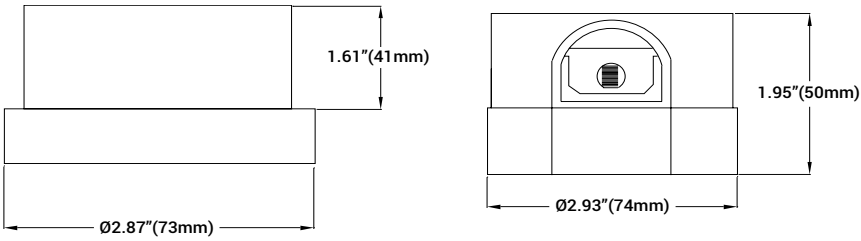
Voltage Range	Frequency	ON/OFF Ratio	Time Delay ON/OFF	Operating Light Levels	Fail Mode	Surge Protection
105-305 VAC	50/60Hz	4:1	30-45 second delay ON and OFF	Standard 1.5 Fc ON	ON	180J

P-102 SERIES PHOTOCELL

P-102 Series photocells integrate the most affordable robust weather-protected thermal bi-metal switch with a lock design applicable for residential functionality use in patios, decks, driveway lighting, entryways and security lighting. Our 30-45 second time delay prevents undesirable OFF/ON operations from sudden outdoor light levels dusk to dawn.

Product Features:

- Locking Control Mechanism
- Heavy Duty Thermal Bi-Metal Switch
- 30-45 Second Time Delay
- Turn On Fc : 1.5
- Off/On Ratio 4:1
- Fail Safe
- ANSI C136.10 Compliant
- UL/CSA Listed (CUL)
- Design Life at Rated Load: 7,500 Cycles (20 years)



Specifications:

- Physical**
Enclosure: Designed to meet ANSI C136.10
Power Consumption: Less than 0.9Watts (avg.) at 120VAC
- Switch**
SPST thermal bi-metallic switch
- Temperature Range**
-40°F to 158°F (-40°C to +70°C) at 96% RH
- Light Sensor**
1/2" Cadmium Sulfide Cell
- Load Rating**
1000 Watt Tungsten, 1800VA Ballast

- Cover**
High impact Noryl with UV stabilized acrylic window
- Base**
High temperature polyester (PBT)
- Connection**
3-pole locking type with solid brass blades
- Gasket**
Cross-linked polyethylene

P-102 Series Product Selection Information

XXX - Denotes Optional Customer Number

Model	AMI P-102-01-XXX	AMI P-102-03-XXX
Rated Volts	120	208/240/277
Voltage Range (Volts)	105-130	185-305

P-102 Series Technical Data

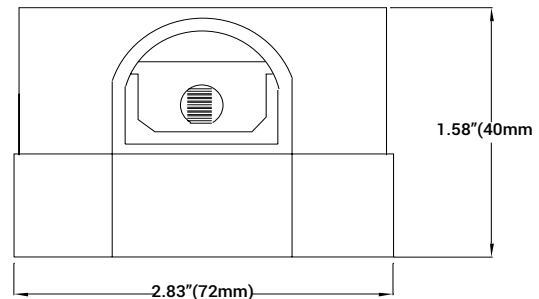
Voltage Range	Frequency	ON/OFF Ratio	Time Delay ON/OFF	Operating Light Levels	Fail Mode
105-305 VAC	50/60Hz	4:1	30 – 45 second delay ON and OFF	Standard 1.5 Fc ON	ON

P-102-01-AT SERIES PHOTOCELL

AMI P-102-01-AT is suitable for controlling street lighting, garden lighting, path lighting doorway lighting to turn ON or OFF automatically according to the ambient natural lighting level. Advantages include ergonomic design, special protection in colder areas, durable power and long service life.

Product Features:

- Locking Control Mechanism
- Heavy Duty Thermal Bi-Metal Switch
- Delay Function
- Turn On Light Level: 10~20Lux
- Long Service Life
- UL/CSA Listed (CUL)
- ANSI C136.10 Compliant
- Design Life at Rated Load: 5,300 Cycles (10+ years)



Specifications:

Physical

Enclosure: Designed to meet ANSI C136.10
Dimensions: Approx. 2.83"(72mm) dia x 1.58" (40mm)

Control

SPST Thermal Bi-metal Switch

Temperature Range

-40°F to 158°F (-40°C to +70°C) at 96% RH

Light Sensor

Cadmium Sulfide cell (Cds)

Load Rating

1800 Watt Tungsten, 1000 VA Ballast

Cover

High impact polycarbonate (PC)

Base

High temperature polyester (PBT)

Connection

3-pole locking type with solid brass blades

Gasket

Cross-linked polyethylene

P-102-01-AT Series Product Selection Information

XXX - Denotes Optional Customer Number

Model	AMI P-101-01-AT-XXX
Rated Volts	120
Voltage Range (Volts)	105-130

P-102-01-AT Series Technical Data

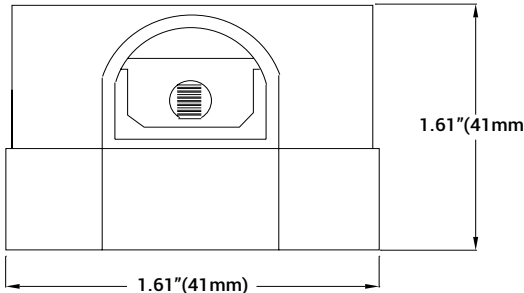
Rated Volts	Frequency	ON/OFF Light Levels	Fail Mode
120 VAC	50/60Hz	10~20 LUX ON 30~60 LUX OFF	ON

P-102-01-CA SERIES PHOTOCELL

AMI P-102-01-CA is suitable for controlling street lighting, garden lighting, path lighting or doorway lighting to turn ON or OFF automatically according to the ambient natural lighting level. Advantages include relay switching and wide voltage range 120 or 208/240/277 volts.

Product Features:

- Locking Control Mechanism
- Electromagnetic Relay Switch
- MOV Surge Protection Function
- Turn On Light Level: 10~20Lux
- Long Service Life
- UL/CSA Listed (CUL)
- ANSI C136.10 Compliant
- Design Life at Rated Load: 5,300 Cycles (10+ years)



Specifications:

- Physical**
Enclosure: Designed to meet ANSI C136.10
Dimensions: Approx. 3.15"(80mm) dia x 2.13" (54mm) height
- Switch**
SPST Relay
- Temperature Range**
-40°F to 158°F (-40°C to +70°C) at 96% RH
- Light Sensor**
Cadmium Sulfide cell (Cds)

- Load Rating**
1000 Watt Tungsten, 1800VA Ballast
- Cover**
High impact Noryl with UV stabilized acrylic window
- Base**
Polycarbonate (PC)
- Connection**
3-pole locking type with solid brass blades
- Gasket**
Cross-linked polyethylene

P-102-01-CA Series Product Selection Information

XXX - Denotes Optional Customer Number

Model	AMI P-102-01-CA-XXX
Rated Volts	120 or 208/240/277 VAC

P-102-01-CA Series Technical Data

Voltage Range	Frequency	ON/OFF Light Levels	Fail Mode	Surge Protection
120 or 208/240/277 VAC	50/60Hz	10~20 LUX ON 30~60 LUX OFF	ON	102J

P-103 SERIES PHOTOCELLS

P-103 Series features a durable polycarbonate housing photocell available in fixed or adjustable swivel base for installation flexibility as well as adjustable slide bar allowing for on-site field adjustment. Our 30-45 second time delay prevents undesirable OFF/ON operations from sudden outdoor light levels including headlights and lightning strikes and energy saving dusk to dawn sensors.

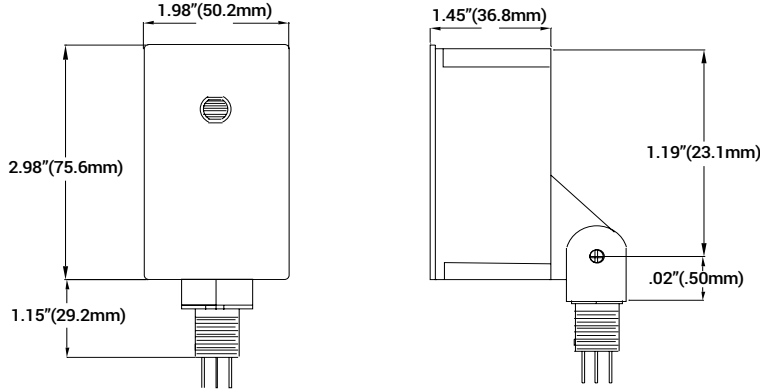
Product Features:

- Heavy Duty Thermal Bi-Metal Switch
- Economical Non-Metal Housing
- Factory Preset Turn-On with Adjustable Slide Bar
- 30-45 Second Time Delay
- Turn On Fc : 1.5
- Off/On Ratio 4:1
- Fail Safe
- ANSI C136.10 Compliant
- UL/CSA Listed (CUL)
- Design Life at Rated Load: 5,300 Cycles (10+ years)



Specifications:

- Physical**
 Enclosure: Designed to meet UL 773A
 Power Consumption: Less than 0.9Watts (avg.) at 120VAC
- Temperature Range**
 -40°F to 158°F (-40°C to +70°C) at 96% RH
- Light Sensor**
 Cadmium Sulfide Cell
- Load Rating**
 2000 Watt Tungsten, 1900VA Ballast
- Control**
 SPST Thermal Bi-metal Switch



P-103 Series Product Selection Information

XXX - Denotes Optional Customer Number

Model	AMI P-103-01-6-XXX	AMI P-103-01-6S-XXX	AMI P-103-02-6-XXX	AMI P-103-03-6-XXX	AMI P-103-03-6S-XXX
Type	Fixed	Swivel	Fixed	Fixed	Swivel
Rated Volts	120	120	120/208/240/277	208/240/277	208/240/277
Voltage Range (Volts)	105-130	105-130	105-305	185-305	185-305

P-103 Series Technical Data

Voltage Range	Fail Mode	Housing	Lead Wires	Nipple	Nut
120 or 208/240/277 or 120/208/240/277 VAC	ON (contacts normally closed)	Polycarbonate with UV stabilized window	6", #14 AWG, 105°C	½" pipe	½" pipe, die-cast

P-104 SERIES PHOTOCELLS

P-104 Series is heavy duty die-cast aluminum housing photocell design ideal for many outdoor installation applications. Our 30-45 second time delay prevents undesirable OFF/ON operations from sudden outdoor light levels including headlights and lightning strikes and energy saving dusk to dawn sensors.

Product Features:

- Heavy Duty Thermal Bi-Metal Switch
- Durable Die-Cast Aluminum Housing
- 30-45 Second Time Delay
- Turn On Fc : 1.5
- Off/On Ratio 4:1
- Fail Safe
- 2000 and 3000 W Rating
- ANSI C136.10 Compliant
- UL/CSA Listed (CUL)
- Design Life at Rated Load: 5,300 Cycles (10+ years)



Specifications:

Physical

Enclosure: Designed to meet UL 773A
Power Consumption: Less than 0.9Watts (avg.) at 120VAC

Temperature Range

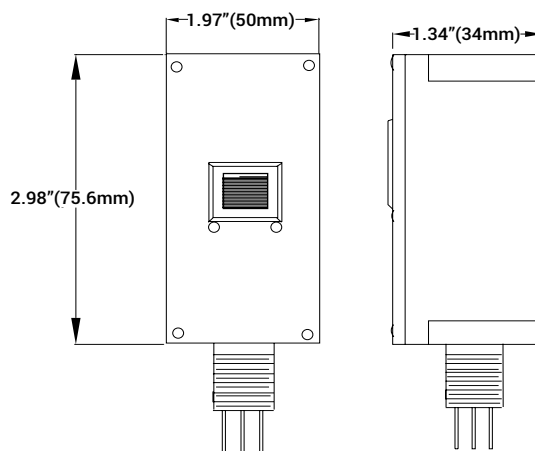
-40°F to 158°F (-40°C to +70°C) at 96% RH

Light Sensor

Cadmium Sulfide Cell

Load Rating

2000/3000 Watt Tungsten, 1900/2900VA Ballast



P-104 Series Product Selection Information

XXX - Denotes Optional Customer Number

Model	AMI P-104-01-6-XXX	AMI P-104-03-6-XXX	AMI P-104-02-6-XXX	AMI P-104-01-6-BT-XXX	AMI P-104-03-6-BT-XXX
Type	Fixed	Fixed	Fixed	Fixed	Fixed
Rated Volts (VAC)	120	208/240/277	120/208/240/277	120	208/240/277
Voltage Range (Volts)	105-130	185-305	105-305	105-130	185-305
Load Rating Tungsten (Watts)	2000	2000	2000	3000	3000
Load Rating Ballast (VA)	1900	1900	1900	2900	2900

P-104 Series Technical Data

Voltage Range	Fail Mode	Housing	Lead Wires	Nipple	Nut
120 or 208/240/277 or 120/208/240/277 VAC	ON (contacts normally closed)	Die-cast aluminum with UV polycarbonate	6", #14 AWG, 105°C	½" pipe	½" pipe, die-cast

P-105 SERIES PHOTOCELL

P-105 Series is a button photocell design primarily used for mounting and internal post applications. Ideal for wall mounting and decorative lighting for both commercial and residential applications. All 105 series are constructed from high impact weather resistant UV stabilized polycarbonate housing with some models available with wall mounting options, 180 Joule MOV for transient surge protection as well as a high ambient temperature photo control option for running in HID luminaires.

Product Features:

- Turn ON Fc : 1.5
- Rear Wire Leads
- 3/4" Long Threaded Nipple
- Ideal for Compact Spaces
- 30-45 Second Time Delay
- 1200 and 1800 W Load Rating
- Wall Plate Design Option Available
- Fail Safe
- High Ambient Option Available
- ANSI C136.10 Compliant
- OFF/ON Ratio 4:1
- UL/CSA Listed (CUL)
- Design Life at Rated Load: 7,500 Cycles (20 years)



Specifications:

Physical

Enclosure: Designed to meet ANSI C136.24 & UL 773A
Power Consumption: Less than 0.9Watts (avg.) at 120VAC

Control

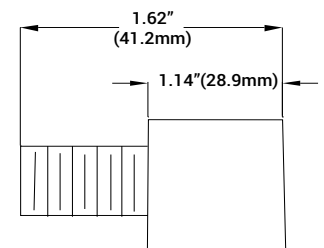
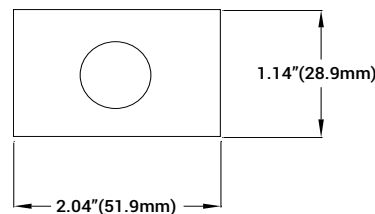
SPST Thermal Bi-metal Switch

Temperature Range

-40°F to 158°F (-40°C to +70°C) at 96% RH

Light Sensor

Cadmium Sulfide Cell



P-105 Series Product Selection Information

XXX - Denotes Optional Customer Number

Model	AMI P-105-01-6-XXX	AMI P-105-03-6-XXX	AMI P-105-01-6-WP-XXX	AMI P-105-03-6-WP-XXX	AMI P-105-03-15-XXX	AMI P-105-01-6-HA-XXX	AMI P-105-01-15-XXX
Rated Volts (VAC)	120	208/240/277	120	208/240/277	208/240/277	120	120
Voltage Range (Volts)	105-130	185-305	105-130	185-305	185-305	105-130	105-130
Load Rating Tungsten (Watts)	1800	1200	1800	1200	1200	1800	1800
Load Rating Ballast (VA)	1100	1100	1100	1100	1100	1100	1100

P-105 Series Technical Data

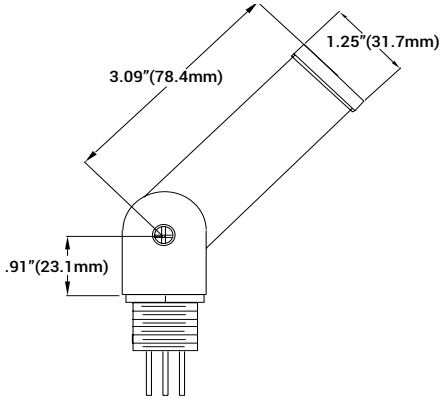
Voltage Range	Fail Mode	Housing	Lead Wires	Nipple	Nut	Surge Protection
105 - 305 VAC	ON (contacts normally closed)	Polycarbonate with UV stabilized window	6", #18 AWG, 105°C or 6", #18 AWG, 150°C or 15" or #18 AWG, 105°C (depending on model)	3/8" pipe	3/8" pipe, thermoplastic	180J

P-106 SERIES PHOTOCELLS

P-106 Series photocells highlight a tubular design with an onsite adjustable pivoted base perfect for compact spaces with a high impact weather resistant UV stabilized polycarbonate housing. Our 30-45 second time delay prevents undesirable OFF/ON operations from sudden outdoor light levels including headlights and lightning strikes with energy saving dusk to dawn sensors.

Product Features:

- On-site Adjustable Pivot Base
- Ideal for Compact Spaces
- 30-45 Second Time Delay
- Fail Safe
- ANSI C136.10 Compliant
- UL/CSA Listed (CUL)
- Design Life at Rated Load: 5,300 Cycles (10+ years)



Specifications:

- Physical**
 Enclosure: Designed to meet UL 773A
 Power Consumption: Less than 0.9Watts (avg.) at 120VAC
- Temperature Range**
 -40°F to 158°F (-40°C to +70°C) at 96% RH
- Light Sensor**
 Cadmium Sulfide Cell
- Control**
 SPST Thermal Bi-metal Switch

P-106 Series Product Selection Information

XXX - Denotes Optional Customer Number

Model	AMI P-106-01-6-XXX	AMI P-106-03-6-XXX
Rated Volts (VAC)	120	208/240/277
Voltage Range (Volts)	105-130	185-305
Load Rating Tungsten (Watts)	1800	1200
Load Rating Ballast (VA)	1100	1100

P-106 Series Technical Data

Voltage Range	Fail Mode	Housing	Lead Wires	Nipple	Nut
105 - 305 VAC	ON (contacts normally closed)	Polycarbonate with UV stabilized window	6", #18 AWG, 105°C	½" pipe	½" pipe, die-cast



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