

# Dark To Light Photocontrols



Throughout the United States and around the world Dark to Light (DTL) is known as the industry leader in providing high quality, cost effective electronic photocontrols to utility, commercial and municipal customers.

More utilities specify Dark to Light than any other brand of photocontrol for their superior performance and reliability.

Dark to Light's patented designs meet or exceed all existing and proposed ANSI standards.

Reliable electronic circuitry technology reduces day burners, which saves energy during peak periods and helps to reduce overall maintenance costs.

DTL photocontrols also run cool, increasing the life of the control and photosensor.



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There is a difference in electronic photocontrols.

Explore the difference with Dark to Light.

Dark to Light is an established market leader with breadth of product to cover all applications including roadway, area lighting, floodlights, security, and residential areas using decorative post top fixtures.

*DE photocontrol on an ACP compact flood*



*DP photocontrol on a Corvus (CVM) architectural roadway fixture*



## DTL PHOTOCONTROL FEATURES:

High impact resistant UV stabilized polypropylene covers

High surge capacity  
MOV protection

Instantaneous turn on,  
allowing quick glove tests  
during installation

Hi-temp rated components

2-5 second off only time  
delay to avoid turn-off from  
extraneous light

Cool running, reliable circuit  
technology

Sealed relay



*DD photocontrol on a Valiant (AVP) decorative post top fixture*



*DX photocontrol on an ASA area light*

For literature on the American Electric Lighting fixtures listed in this brochure, please contact your local sales representative and ask for the following information: ASA brochure # 1315.32, ACP brochure # 1315.33, Valiant brochure # 1315.34, and Corvus brochure # 1315.36.

### DP / DE Shared Features:

- Complies with ANSI C136.10-1996
- MOV surge protection
- Long life
- Energy efficient
- Six-year warranty
- Available in job packs of J12 or J50



### DP Features:

- Silicon light sensor
- Inverse ratio (DPR) and fail off (DPF) options available.

**Inverse Ratio Controls** are ideal for areas where it is important to turn on lights early but energy costs are a concern. Turn-off level is lower than turn-on levels. Model DPR124-2.6-TJBK J50 is most commonly ordered. Various other models available. Contact your local sales representative for details and specifications.

**Fail Off Controls** Occasionally used for leased lighting. Model DPF124-1.5-TJ is most commonly ordered. Various other models available. Contact your local sales representative or factor for details and specifications.

### DE Features:

- Filtered silicon light sensor
- Human eye spectral response
- Silicon sensor with infrared blocking filter
- Polypropylene cover, Neoprene gasket, brass legs, acrylic window
- Base rated for 120°C
- Power consumption: 0.5W
- Load rating: 1000W, 1800 VA ballast
- Sealed relay rated for 5000 operations at full load
- Turn OFF light level is 1.5 times turn ON.
- 3.4 ounces each
- 40 to +70°C ambient, Up to 90° interface per ANSI
- Dielectric strength: 5000V per ANSI

### Ordering Information

**Example:** D E 1 2 4 - 1 . 5 - T J J 5 0

| Voltage                       |                                         | Turn-on Level (ftc) <sup>1</sup> |                       | Time Delay (seconds) <sup>1</sup> |                                      | Surge Protector |                                 | Cover Color <sup>1</sup> |                            | Job Packs  |          |
|-------------------------------|-----------------------------------------|----------------------------------|-----------------------|-----------------------------------|--------------------------------------|-----------------|---------------------------------|--------------------------|----------------------------|------------|----------|
| <i>DE Series</i> <sup>5</sup> |                                         | <b>1.0</b>                       | Energy saver          | <b>T</b>                          | 2-5 second turn-off delay (standard) | <b>J</b>        | 320 J/10,000 amp MOV (standard) | <b>blank</b>             | ANSI standard color        | <b>J12</b> | 12 Units |
| <b>DE124</b>                  | 120/240/277 volts (105–305)             | <b>1.5</b>                       | ANSI standard         |                                   |                                      |                 |                                 | <b>BK</b>                | Black                      | <b>J50</b> | 50 Units |
| <b>DE347</b>                  | 347 volts (300–400)                     | <b>2.6</b>                       | IES recommendation    |                                   |                                      |                 |                                 | <b>BR</b>                | Brown                      |            |          |
| <b>DE480</b>                  | 480 volts (420–530)                     | <b>8.0</b>                       | Automile <sup>2</sup> |                                   |                                      |                 |                                 | <b>MR</b>                | Maroon                     |            |          |
|                               |                                         | <b>35</b>                        | FAA <sup>3</sup>      |                                   |                                      |                 |                                 | <b>GR</b>                | Green                      |            |          |
| <i>DP Series</i> <sup>5</sup> |                                         |                                  |                       |                                   |                                      |                 |                                 | <b>GY</b>                | Gray                       |            |          |
| <b>DP124</b>                  | 120/240/277 volts (105–305)             |                                  |                       |                                   |                                      |                 |                                 | <b>P</b>                 | Upward facing <sup>2</sup> |            |          |
| <b>DP347</b>                  | 347 volts (300–400)                     |                                  |                       |                                   |                                      |                 |                                 |                          |                            |            |          |
| <b>DP480</b>                  | 480 volts (420–530)                     |                                  |                       |                                   |                                      |                 |                                 |                          |                            |            |          |
| <b>DPR124</b>                 | Multi-volt inverse ratio <sup>3,4</sup> |                                  |                       |                                   |                                      |                 |                                 |                          |                            |            |          |
| <b>DPF124</b>                 | Multi-volt fail off                     |                                  |                       |                                   |                                      |                 |                                 |                          |                            |            |          |

#### Notes:

- Other options available, please contact your local sales representative
- DP Series only
- 2.6 Turn on only
- Black cover only
- Some models available with CSA Listing, please consult factory before ordering

### 1704 Series Silicon Features:

Special components provide superior reliability for large wattage fixtures or other applications that overheat ordinary photocontrols

Silicon photocell provides long-term drift-free light sensing at elevated temperatures

Heat stabilized polymers are used in the base, enabling the control to withstand the high temperatures found on 400 and 1,000 watt HID floodlights

ANSI standard 1.5 footcandle turn on

Fast delivery from stock

Eight-year warranty

Brown cover for identification

Multi-volt, 120/208/240/277 VAC

MOV surge protection, 320 Joule, 10,000 AMP

“Best of Everything” control



### Ordering Information

**Example:** DP124-1.5 1704 J50

**DP124**  
Voltage

**DP124** 120/208/240/277 volts (105–305)

**1.5**  
Turn-on Level (ftc)

**1.5** ANSI standard

**-1704**

**J50**  
Job Packs

**J50** 50 Units

## DD / DPN Shared Features:

Complies with ANSI C136.10-1996

Six-year warranty

Available in job packs of J12 or J50

Polypropylene cover, Neoprene gasket, brass legs, acrylic window base rated for 120°C

Sealed relay rated for 5000 operations at full load

-40 to +70°C ambient, Up to 90° interface per ANSI

Dielectric strength: 5000V per ANSI

DD Series



DPN Series



## DD Features:

Regular dusk to dawn operation

Diagnostic feature detects and disables cycling

HPS lamps and lamps that fail to start

Extends starting aids life

Flashing or steady LED alerts line crew of problem

Filtered silicon light sensor

2-5 second off delay

MOV surge protection

Not for use on incandescent fixtures

Power consumption: 1.0 watts

Load rating: 70-400 watt HPS

3.8 ounces each

## DPN Features:

Control turns on at dusk and off halfway through the night. Automatically self-adjusts to seasonal time changes, reducing maintenance

Reduces light pollution and light trespass concerns

Filtered silicon photocell provides long-term, drift-free light sensing. The infrared blocking polymer filter gives human eye response.

A 2-5 second off-only time delay is provided to avoid turn-off from extraneous light.

Energy Savings

Star Friendly™

Power consumption: 0.8 watts

Load rating: 1000 watts, 1800 VA ballast

Turn OFF is at middle of the night.

3.6 ounces each

## Ordering Information

**Examples:** DPN124-2.6-TJGN J50  
DD124-1.5-TJBK J12

| Voltage           |                                 | Turn-on Level (ftc) |                            | T<br>Time Delay (seconds) |                                      | J<br>Surge Protector |                          | A<br>Cycle Detection |          | Job Packs |  |
|-------------------|---------------------------------|---------------------|----------------------------|---------------------------|--------------------------------------|----------------------|--------------------------|----------------------|----------|-----------|--|
| <b>DD Series</b>  |                                 | <b>1.5</b>          | ANSI standard <sup>1</sup> | <b>T</b>                  | 2-5 second turn-off delay (standard) | <b>BK</b>            | Black (DD) <sup>1</sup>  | <b>J12</b>           | 12 Units |           |  |
| <b>DD124</b>      | 120/208/240/277 volts (105-305) | <b>2.6</b>          | Standard <sup>2</sup>      |                           |                                      | <b>GN</b>            | Green (DPN) <sup>2</sup> | <b>J50</b>           | 50 Units |           |  |
| <b>DPN Series</b> |                                 |                     |                            |                           |                                      |                      |                          | <b>A</b>             |          |           |  |
| <b>DPN124</b>     | 120/240/277 volts (105-305)     |                     |                            |                           |                                      |                      |                          | <b>A</b>             |          |           |  |
| <b>DPN347</b>     | 347 volts (300-400)             |                     |                            |                           |                                      |                      |                          | <b>A</b>             |          |           |  |

**A** After five lamp cycles, control turns lamp off. At the next dusk, the control turns the lamp on and cycle detection circuit restarts<sup>1</sup>

### Notes:

- 1 Available with DD Series, black cover only. Cycle Detection Program is set at factory; program cannot be altered in the field
- 2 DPN Series only

**DX / DUX Shared Features:**

- DUX is UL Listed
- Silicon light sensor
- Complies with ANSI C136.10-1996
- MOV surge protection
- Long life
- Energy efficient
- Economical
- Six-year warranty
- Available in job packs of J12 or J50
- Standard 160 joule, 6500 amp MOV rated for multiple surges
- Polypropylene cover, Neoprene gasket, brass legs, acrylic window base rated for 120°C
- Power consumption: 0.5W
- Load rating: 1000W, 1800 VA ballast
- Sealed relay rated for 5000 operations at full load
- 3.4 ounces each
- 40 to +70°C ambient, up to 90° interface per ANSI
- Dielectric strength: 5000V per ANSI



**Ordering Information**

**Example:** D U X 1 2 4 - 1 2 A J 5 0

| Voltage                                                                                                                                                                                                                                                                                                                                                                                  | 1<br>Turn-on Level (ftc)                     | 2<br>Sensor                                              | Cover Color                                                           | Job Packs                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------|
| <p><b>DX Series</b></p> <p><b>DX120</b> 120 volts (105–130)<br/> <b>DX124</b> 120/240/277 volts (105–305)<br/> <b>DX347</b> 347 volts (300–400)<br/> <b>DX480</b> 480 volts (420–530)</p> <p><b>DUX Series</b></p> <p><b>DUX120</b> 120 volts (105–130)<br/> <b>DUX124</b> 120/240/277 volts (105–305)<br/> <b>DUX347</b> 347 volts (300–400)<br/> <b>DUX480</b> 480 volts (420–530)</p> | <p><b>1</b> 1.2–3 ftc turn-on (standard)</p> | <p><b>2</b> Silicon sensor, time delay (2-5 seconds)</p> | <p><b>A</b> ANSI Standard<br/> <b>P</b> Upward facing<sup>1</sup></p> | <p><b>J12</b> 12 Units<br/> <b>J50</b> 50 Units</p> |

Notes:  
 1 DX Series only

### D Series Classic Features:

- Cadmium sulfide light sensor
- Exceeds ANSI C136.10-1996
- MOV surge protection
- Long life
- Energy efficient
- Six-year warranty
- Available in job packs of J12 or J50
- Polypropylene cover, Neoprene gasket, brass legs, acrylic window
- Base rated for 120°C
- Power consumption: 0.5W
- Load rating: 1000W, 1800 VA ballast
- Sealed relay rated for 5000 operations at full load
- Turn OFF light level is 1.5 times turn ON
- 3.4 ounces each
- 40 to +70°C ambient, Up to 90° interface per ANSI
- Dielectric strength: 5000 V per ANSI



### Ordering Information

**Example:** D 1 2 4 - 1 . 5 - S T J G Y J 5 0

| Voltage             |                                | Turn-on Level (ftc) <sup>1</sup> |                    | S            | T        |                                         | J        | Cover Color <sup>1</sup>           |              |                        |
|---------------------|--------------------------------|----------------------------------|--------------------|--------------|----------|-----------------------------------------|----------|------------------------------------|--------------|------------------------|
| <b>D124</b>         | 120/240/277 volts<br>(105–305) | <b>1.0</b>                       | Energy saver       | Light Sensor | <b>T</b> | 2-5 second turn-off<br>delay (standard) | <b>J</b> | 320 J/10,000 amp<br>MOV (standard) | <b>blank</b> | ANSI standard<br>color |
|                     |                                | <b>1.5</b>                       | ANSI standard      |              | <b>S</b> | Cadmium Sulfide<br>(standard)           |          |                                    | <b>BK</b>    | Black                  |
|                     |                                | <b>2.6</b>                       | IES recommendation |              |          |                                         |          |                                    | <b>BR</b>    | Brown                  |
|                     |                                |                                  |                    |              |          |                                         |          |                                    | <b>MR</b>    | Maroon                 |
|                     |                                |                                  |                    |              |          |                                         |          |                                    | <b>GR</b>    | Green                  |
|                     |                                |                                  |                    |              |          |                                         |          |                                    | <b>GY</b>    | Gray                   |
|                     |                                |                                  |                    |              |          |                                         |          |                                    | <b>P</b>     | Upward facing          |
| <b>Job Packs</b>    |                                |                                  |                    |              |          |                                         |          |                                    |              |                        |
| <b>J12</b> 12 Units |                                |                                  |                    |              |          |                                         |          |                                    |              |                        |
| <b>J50</b> 50 Units |                                |                                  |                    |              |          |                                         |          |                                    |              |                        |

Notes:

- 1 Other options available, please contact your local sales representative



### D7790 Series Features:

- Silicon light sensor
- Complies with ANSI C136.10-1996
- Two-year warranty
- Standard 190 joule, 4500 amp MOV
- Polypropylene cover, Neoprene gasket, brass legs, acrylic window
- Base rated for 120°C
- Power consumption: 0.5W at 120 VAC
- Load rating: 1000W, 1800 VA ballast
- Sealed relay rated for 5000 operations at full load
- Instant turn on and off
- Turn on is  $1.5 \pm 0.5$  ftc, turn off is 1.5 times turn on
- 3.4 ounces each
- Available in job packs of J50 only
- 40 to +70°C ambient, Up to 90° interface per ANSI
- Dielectric strength: 5000 V per ANSI
- D7790 is a replacement for many industry standard photocontrols



### Ordering Information

| D7790                                |                                            |
|--------------------------------------|--------------------------------------------|
| Voltage                              | Job Packs                                  |
| <b>D7790</b> 120/208/<br>240/277 VAC | <b>J12</b> 12 Units<br><b>J50</b> 50 Units |

**Example:** D 7 7 9 0 J 5 0

**DBE Features:**

- Electronic wire-in button photocontrol
- Instant turn-on, standard 5-10 second turn-off time delay
- Filtered silicon light sensor
- UL and CSA Listed models available
- Voltages 120–347
- Complies with ANSI C136.24
- Long life
- Low maintenance
- Six-year warranty
- Available in job packs of J12 only



**Ordering Information**

|               | Voltage                        |
|---------------|--------------------------------|
| <b>DBE120</b> | 120 volts (105–130)            |
| <b>DBE240</b> | 208/240/277 volts<br>(200–305) |
| <b>DBE347</b> | 347 volts (300–400)            |

|            | 1.5                 |
|------------|---------------------|
|            | Turn-on Level (ftc) |
| <b>1.5</b> | ANSI<br>(standard)  |

|          | T                                           |
|----------|---------------------------------------------|
|          | Time Delay                                  |
| <b>T</b> | 5-10 second<br>turn-off delay<br>(standard) |

|            | J12       |
|------------|-----------|
|            | Job Packs |
| <b>J12</b> | 12 Units  |

**Example:** D B E 1 2 0 - 1 . 5 - T J 1 2

Notes:  
1 Other options available,  
please contact your local  
sales representative

**DUR Features:**

Mounting adapter for photocontrol  
 DUR103 is for use with pole, wall or frame mounting, and is rotatable  
 Available in job packs of J6 only  
 Meets NEMA and ANSI Standards  
 Comes standard with mounting bracket, and cup and locknut.  
 Replaces M2A, AM2A, S476-71  
 DUR103 is UL Listed

| Mechanical       |                                                                            |
|------------------|----------------------------------------------------------------------------|
| Mounting Bracket | Hot galvanized steel or aluminum                                           |
| Leads            | 14" gauge, 14" long. Red = load, Black = line. White = common. Rated 105°C |
| Cup              | Rotating polycarbonate cup with locknut                                    |
| Electrical       |                                                                            |
| Rating           | 15 amp                                                                     |

**Example:** D U R - 1 0 3 J 6



**Shorting and Open Caps**

For luminaires where lights are to be on continuously (shorting cap) or left off (open cap). Exceeds ANSI C136.10-1996

| Description                             | Cover Color | Catalog Number        |
|-----------------------------------------|-------------|-----------------------|
| Shorting cap                            | Black       | <b>D-SHORT-SBK J6</b> |
| Shorting cap 320J, MOV surge protection | Black       | <b>D-SHORT-VBK J6</b> |
| Open cap                                | Red         | <b>D-OPEN-SRD J6</b>  |



# Frequently Ordered Numbers

## DP Series

DP124-1.5-TJ J50  
DP124-1.5-TJGY J50  
DP124-1.5-TJBK J50  
DP124-1.5-1704 J50  
DP124-1.5-TJ J50  
DP124-8.0-1790 J50

## DE Series

DE124-1.5-TJBK J50  
DE124-1.5-TJBR J50  
DE124-1.5-TJGY J50  
DE124-1.5-TJU J50  
DE480-1.5-TJ J50

## DX Series

DX120-12A J50  
DX124-12A J50

## D Series

D7790 J50  
D124-1.5-STJ J50

## DBE Series

DBE120-1.5-T J12

## DUR Series

DUR-103 J6

## Shorting Cap

D-SHORT-SBK J50  
D-OPEN-SRD J50

