Photodiode

Catalog#	Prepared by
Project	Date
Comments	Type

Daylight Control

Intertek

Overview

The Photodiode sensor is a system accessory for Greengate Lighting Control Systems. It allows control of lighting levels based on how much natural light is present.

Features

- Selectable dimming rate for three or eight seconds providing a fast response or stable signal
- Adjustable light levels from 7-140 FC on the Photodiode Sensor allows for flexibility in work area illumination
- Continuous dimming permits implementation of a lumen maintenance strategy
- Flat Fresnel lens provides a narrow cone of response
- Combine with occupancy sensors for added savings

COOPER Lighting Solutions

Specifications

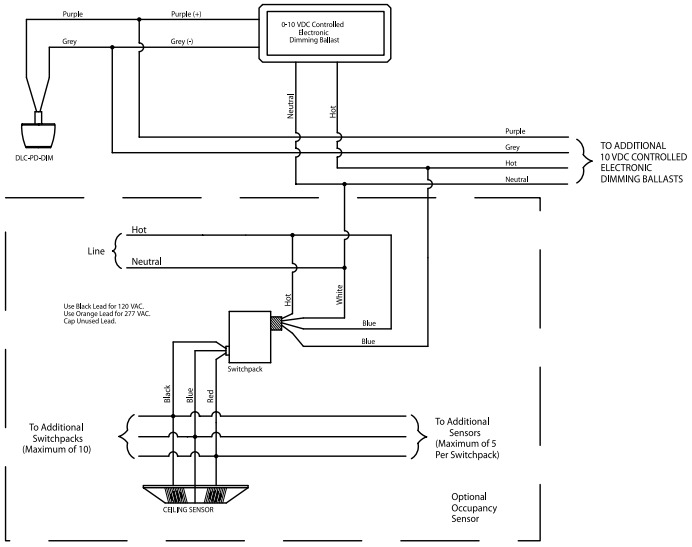
Operating Environment	Temperature: -13°F to 140°F (-25°C to 60°C)
	Relative humidity: less than 95%, non-condensing
	For indoor use only
Sensor Type	Blue-enhanced photodiode
Sensor Range	60 degree field of view at ranges 0 to 500 foot-candles
Input Voltage	10 VDC from electronic dimming ballast only
Mounting	The sensor mounts through a 3/8" hole in the ceiling tile and is secured with double-sided adhesive foam (provided)
Output	1 VDC when ambient light is brightest and 10 VDC in darkest. Up to 50 ballasts may be connected to one Photodiode sensor
Wiring	Photodiode Sensors are provided with insulated pigtails. Sensors and ballasts are interconnected by 18 AWG Class 2 wiring per NEC 725. Use UL-recognized Teflon-insulated wire approved for plenum areas per NEC 725-2(b) where required
Housing	GE Cycolac T ABS stabilized housing meets UL 94HB flame-retardant requirements
Size	1.23"L x 2"D. Lens = 1.29"D

Description/Operation

The Photodiode Sensor measures the actual amount of illumination within a work area or monitored zone. It compares the light level to a preset footcandle (FC) calibration and sends a voltage signal to a dimming ballast to either increase or decrease the lighting in fluorescent lamps. This ensures that there is a constant level of illumination within the controlled area. A potentiometer adjustment on the Photodiode Sensor is calibrated to preset the light level.

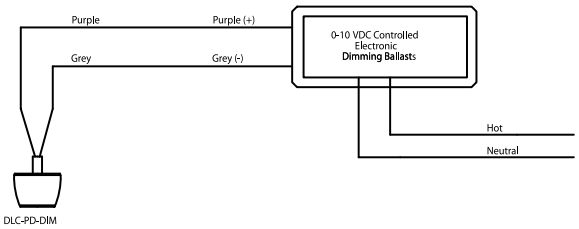
Wiring Diagrams

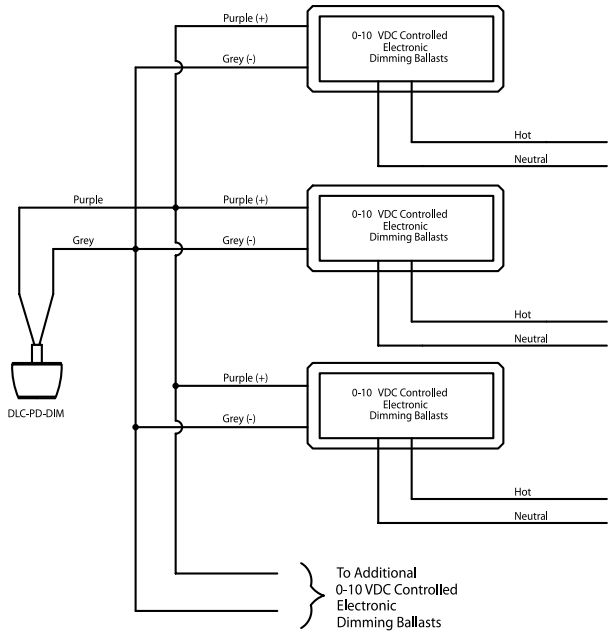
Continuous Dimming with Occupancy and Full lights-OFF with Occupancy



Continuous Dimming with Occupancy and Full lights-OFF Without Occupancy

Photodiode Controlling 0-10 VDC Dimming Ballast





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Ordering

Cat #	Orientation	Field of View	Technology	Mounting	Input	Output
DLC-PD-DIM	Downward	60°	Photodiode	Ceiling 8-15 ft	12 VDC	0-9 VDC

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Specifications and dimensions subject to change without notice.