PLC Multipoint

PROJECT

LOCATION

Indoor Sensor

Skylight Sensor

Outdoor Sensor

Atrium Sensor

CES

PHOTODIODE SENSOR
WITH MULTIPLE VOLTAGE OUTPUT
3-Wire, External Power, Multiple Voltage Output

DESCRIPTION

The CES is a three wire, analog photosensor which provides a light level input to lighting control and building automation systems. Four models are available for different parts of a building (Indoor, Atrium, Skylight and Outdoor). Four output ranges are available: 0-5VDC, 0-10VDC, 1-5VDC and 1-10VDC. This makes the CES well-suited for implementing daylight harvesting with most lighting control systems. Custom wire lengths, lens and housing modifications, and multi-point NIST calibration services are also available.

BASIC OPERATION

Sensors are powered by either 12 or 24VDC. Each sensor's 5 or 10VDC output is calibrated to a factory standard footcandle setting using NIST traceable equipment. All CES sensors are Class 2 wiring devices and are listed as UL916 accessory equipment.

APPLICATIONS

- Indoor sensors: interior spaces such as offices and classrooms
- Outdoor sensors: sign and site illumination control
- Atrium sensors: atrium lit spaces such as lobbies
- Skylight sensors: spaces illuminated via skylilghts such as warehouses
- Low range indoor: spaces requiring daytime contrast lighting control

FEATURES

- Compatible with nearly all lighting and building automation controllers
- Measuring range 0-7500fc (model dependent)
- Four output ranges: 0-5VDC, 1-5VDC, 0-10VDC or 1-10VDC
- Fixed response time
- Indoor sensor adhesive ceiling mount, all others 1/2" NPT mount
- NIST traceable calibration available
- 5 year warranty

SPECIFICATIONS

ELECTRICAL

Input Voltage:	12-24VDC
Power Consumption:	113mW
Output Voltage:	0-5VDC, 0-10VDC, 1-5VDC or 1-10VDC
Photodiode:	Blue Enhanced
Time Response:	10 sec full range
Operating Temp:	-4° to 167°F (-20° to 75°C)
IP Rating:	IP65 (Outdoor model only)

CODE COMPLIANCE

Sensors can be used to meet ASHRAE 90.1, IECC & Title 24 energy code requirements.

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CONFIGURATION INFO

PRODUCT	APPLICATION	LENS	MOUNTING	DEFAULT RANGE*	MIN RANGE (Custom Setting)	MAX RANGE (Custom Setting)
CES/I	Indoor	Clear Fresnel	Ceiling	0-100fc	0-70fc	0-750fc
CES/IL	Indoor	Clear-Dome	Ceiling	0-40fc	0-40fc	0-60fc
CES/ILD2	Indoor	Opaque-Dome	Ceiling	0-50fc	0-50fc	0-75fc
CES/ILF	Indoor	Clear Fresnel	Ceiling	0-60fc	0-40fc	0-65fc
CES/O	Outdoor	Clear-Flat	1/2" NPT	0-250fc	0-50fc	0-750fc
CES/OD	Outdoor	Dark-Flat	1/2" NPT	0-1,000fc	0-500fc	0-7,500fc
CES/A	Atrium	Opaque-Dome	1/2" NPT	0-1,000fc	0-200fc	0-2,000fc
CES/S	Sky Light	Dark-Dome	1/2" NPT	0-2,000fc	0-1,000fc	0-7,500fc

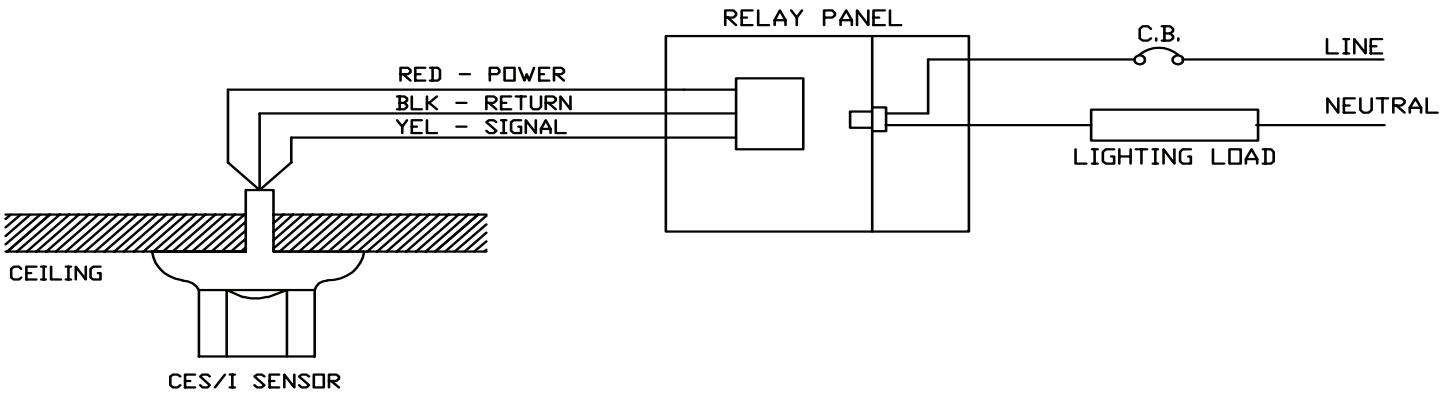
ORDERING INFO

MODEL	–	VOLTAGE*	–	MIN/MAX OUTPUT RANGE
CES/I		24		0-5
CES/IL				1-5
CES/ILD2				0-10
CES/ILF				1-10
CES/O				
CES/OD				
CES/A				
CES/S				

SAMPLE MODEL# CES/I-24-0-10

* Part number indicates 24V, but input power for all sensors rated at 12-24V.

WIRING



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