



LC8

Single Level Lighting Controller

DESCRIPTION

The **LC8** lighting controller automatically switches a dry contact in response to changes in natural daylight. The **LC8** provides a maintained single pole, double throw "form C" relay output to drive electrically held contactors or relays, or inputs to Energy Management Systems (EMS). The **LC8** can control incandescent, fluorescent or HID lighting.

The low voltage controller requires a remotely mounted Blue-enhanced (**CES**) sensor. An optional "Hold On" timer may be added to prevent the short cycling of HID lamps. The timer keeps lights on for a minimum 1/2 hour period.

For direct switching capability of 120 VAC and 277 VAC circuits, **PLC-MULTIPOINT** UL listed **PCS/120** or **PCS/277** may be used.

ADJUSTABILITY/OPERATION

The dual setpoint **LC8** precisely switches loads according to the selected light level configuration. LOW and HIGH light levels are calibrated to their setpoints at the control board.

As the sensor detects a diminishing light level that corresponds with the LOW setpoint, the control board matches the two signals and the lights are switched ON. As the sensor detects an increased light level, the control board's HIGH setpoint switches the lights OFF. The LOW and HIGH setpoints are separated by a "deadband". This prevents the sensor from switching light levels between the setpoints, thus eliminating nuisance or intermittent changes.

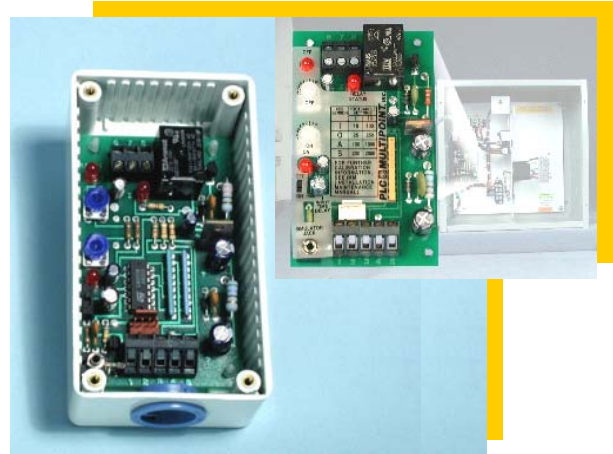
CONSTRUCTION

To assure optimum performance and highest standards, all electronic components are of computer grade quality and assembled onto a fiberglass epoxy circuit board. Sensor housing meets flame retardant requirements of UL standard 94V-0. All products are factory tested to assure maximum reliability.

APPLICATION

The **LC8** is an ideal system for indoor, outdoor or skylight control of single circuits. Typical uses include:

Motel Lobbies	Convenience Markets
Parking lots	Restaurant Waiting Areas
Playgrounds	Perimeter Lighting
Storage Areas	



FEATURES

The advantages of using the **LC8** lighting control system are found in stability, versatility, quality and accuracy.

The **LC8** offers: precision light measurement setpoints that are stable once set, the flexibility to be applied to many different lighting environments. Other advantages are:

- **Adjustable ON/OFF setpoints at the control unit for convenient, flexible, low maintenance lighting control.**
- **Dual power input: 24VAC or VDC.**
- **Low voltage controls provide safety and easy installation.**
- **Choice of sensor styles—indoor, outdoor or skylight photoconductive sensors.**
- **Interfaces with time clocks, EMS systems, manual switches, relays, contactors, occupancy sensors.**
- **Input time delay prevents switching due to temporary light conditions.**
- **Indoor sensor is equipped with flat Fresnel lens, which through a precise 60 degree cone of response, reduces light measurement errors.**
- **Product pays for itself in energy saved! Qualifies for many utility rebate programs.**
- **A 2 Year Warranty assures the user of the highest standards of manufac-**



PLC MULTIPOINT, INC.

PHOTO LIGHTING CONTROL & SYSTEMS

DATA SHEET

LC8 TECHNICAL DATA

Accuracy:	+/-1% at 70 F (21 C) Derated to +/-5% above 120 F or below 0 F. (49 C/-18 C)
Operating Temp:	-13 F to +140 F. (-11C to 60C)
Sensor Type:	Blue-enhanced CES sensor
Input Voltage:	24 VAC or 24 VDC standard
Dead Band:	Adjustable - 5-95%
Input Delay:	Standard - 30 second Sensor (removable for adjustment)
Output:	Standard - Form C SPDT Relay 10A resistive
Circuit Board:	3.75"H x 2.25"W x 1"D
Plastic Box Dim.:	4.75"H x 2.25"W x 1.5"D
Control Inputs:	CES Sensor Calibration/Simulator (for optional PC-SIM). Optional 1/2 Hour HOLD ON timer with override switch
Indicator:	Red High and Low LEDs Red Circuit ON LED
Options:	- 8/T Hold On 1/2 hour timer module - E/120 Hinged NEMA 1 Enclosure (12Hx12Wx4D) with 120v transformer - E/277 Hinged NEMA 1 Enclosure (12Hx12Wx4D) with 277v transformer

SPECIFICATION

Photodiode Sensor

The photoelectric device shall be a Class 2, low voltage, ambient light sensor designed to interfacedirectly with the analog input of the Energy Management System. The sensor shall supply an analog signal to the EMS system proportional to the light measured.

The sensor output shall provide for zero or offset based signal. The sensor shall be capable of a fully adjustable response in the range between 0 and 10,000 footcandles with a +/-1% accuracy at 70 degrees F (21 deg.C). The sensitivity adjustment shall be at the sensor body, and outside of the sensor's viewing angle. The sensor housing shall be constructed from GE Cyclocac (R) ABS, shall be flame retardant and meet UL 94 HB standards.

Controller

Each Controller shall be powered by 24VAC or 24VDC, and have separate high and low fully adjustable setpoints. Signal/setpoint and relay status indication shall be provided along with calibration input for adjustment. The controller shall be enclosed in a plastic enclosure for surface mounting installation. The controller shall provide a 10A low voltage Form C relay output. The controller shall be **PLCMULTIPOINT LC8**.

ORDERING EXAMPLE

LC8	-8/T	CES/A
MODEL	OPTIONS	SENSOR
	8/T	CES/I
	-E/120	CES/O
	-E/277	CES/A
		CES/S
		CES/IL

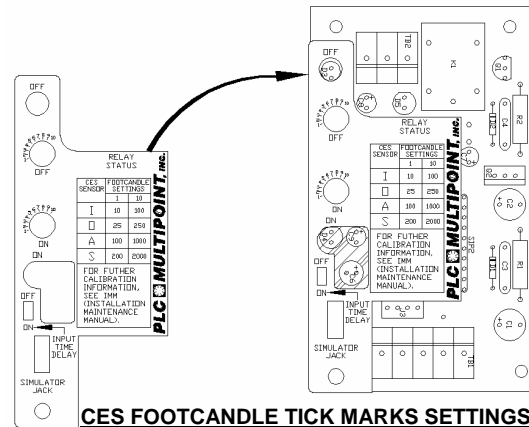


Photo Diode Sensor Selection

SENSOR	STYLE	LENS	FILTER	MOUNTING	ORIENTATION	MINIMUM - Fc	ADJUSTABLE MAX.- Fc
CES/I	Indoor	Fresnel	Clear	Ceiling	Down	0 Fc	50 - 750 Fc
CES/O	Outdoor	Flat	Clear	1/2" IPT	Horizontal	0 Fc	50 - 750 Fc
CES/A	Atrium	Dome	Opaque	1/2" IPT	Horizontal	2 Fc	200 - 2,500 Fc
CES/S	Skylight	Dome	Dark	1/2" IPT	Up	10 Fc	1,000 - 7,500 Fc
CES/IL	Indoor/low	Fresnel	Clear	Ceiling	Down	0 Fc	20/30 Fc