

**PLC  MULTIPOINT, INC.**

## FEATURES

- Easy adjustment of ON and OFF setpoints using intergrated pushbuttons
- Lifetime free factory phone support
- Four independent zones
- Each zones allows logic based on photo sensor, time clock or both
- Sensor Fc reading shown on screen
- Hold on timers prevent HID lamp short cycle-prolonging life of lamps
- 2-year product warranty
- Single sensor to control all four zones
- Up to 88 circuits available

**LCM-PL SERIES**

**Parking Lot Photo/TimeClock Lighting Controller**

# LCM-PL SERIES

## Parking Lot Photo/TimeClock Lighting Controller

The LCM-PL is a stand alone parking lot controller that automatically switches lights, within adjustable time schedules, in response to changes in natural daylighting. The LCM-PL consists of a microprocessor controller, a single photodiode outdoor photosensor, Hand/Off/Auto selector switches, terminal blocks and four controlling output zones.

Each out put zone is connected to a single pole 20-amps 120VAC interposing relay without the circuits per zone specified. Each single pole relay is landed to a terminal block. Each zone can switch a limited number of circuits in multiples of four. When circuits are called, the circuits operation will be provide by 600 VAC rated 20-amps lighting (30-amp resistive/ballast) lighting contactors.

Each zone has an internal Hand/Off/Auto selector switch. Each zone is independent of the others and can have its own set points and time settings from the common photosensor and time clock. Unused zones are simply not programmed and are used as spares.

**Example:** Zone 1 could have 16 circuits, Zone 2 could have 8 circuits, Zone 3 could have 32 circuits, and Zone 4 could have 1 circuit.

### APPLICATION

The **LCM-PL** is a complete system designed to operate multifunction outdoor lighting systems. Parking lot lighting, canopy lighting, security lighting and sign lighting can all be independently operated from one device by simply stating how many circuits are needed in each zone. System arrives complete with an ETL label and ready to connect the power wiring and a simple low-voltage section of the controller & photo sensor. Once the panel is installed, simple, prompted displays allow the end user or their contractor to tailor the panel to the needs of the facility.

### COMMUNICATION/OVERCURRENT DEVICES

Internal overcurrent protection, metering, and remote communications are not provided in this panel. If these are needed, please refer to **LCM-PK** and contact **PLC-Multipoint, Inc.**

### LCM-PL PANEL ASSEMBLY

**ORDERING MODEL** (Insert variables from numbered columns.)

**LCM-PL-A\_\_\_-B\_\_\_-C\_\_\_-D\_\_\_-E\_\_\_-F\_\_\_**      **EXAMPLE: LCM-PL 16-16-8-1-120V-N3R**

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
Zone A (Poles)	Zone B (Poles)	Zone C (Poles)	Zone D(Poles)	VOLTAGE	ENCLOSURE
4,8,12,16,20,24	4,8,12,16,20,24	4,8,12,16,20,24	4,8,12,16,20,24	120V	NEMA1 = N1
				277V	NEMA3R = N3R

Configures **LCM-PL** for a parking lot, with 1 sensor input, 3 outputs with each controlling 16, 16 and 8 poles. The control power is 120V in a NEMA3R Enclosure.

A maximum of 11. 4 or 8 contactors maybe mounted in the enclosures.

**PLC**  **MULTIPOINT, Inc.**

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## LCM-PL TECHNICAL DATA

**INPUT VOLTAGE:** 120/277 VAC standard

**DEADBAND:** Min 1 Footcandle, Max 20%

**INPUT DELAY:** Fixed at 3-minutes

**OUTPUT:** (Without completed matrix)  
Four at 120/277VAC 20 amps

**LOAD:** Incandescent, Fluorescent & HID

**ENCLOSURE:** NEMA1 or 3R  
24"H x 18"W x 6"D

**CONTROL MODES:** If entered, each zone controlled by 7-day time clock, photodiode sensor, or both.

**HOLD ON TIMER:** Preset at 30-minutes

**CONTROL INPUTS:** Photodiode (CES/O) Sensor

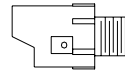
**OVERRIDE:** Internal Hand/Off/Auto selector switch for each zone.

**SENSOR ACCURACY:** +/-5% over sensor temperature range.

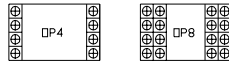
**SENSOR TEMP:** -13F. to 140F. (-11C to +60C)  
Contact factory for lower temperature operation.

**OUTPUT CONTACTOR:** 8 to 4 Circuits 20 amp fluorescent 30 amp resistive/ballast.  
Electrical 600V 50/60Hz.

## LCM-PL ASSEMBLY



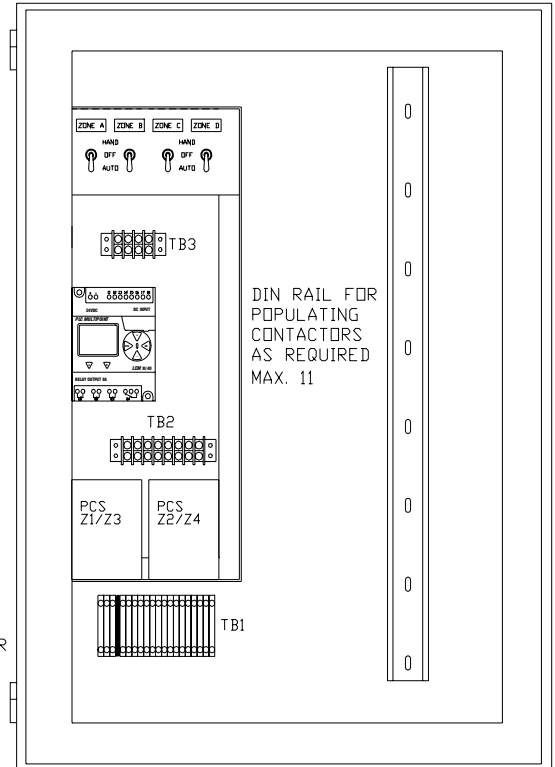
CES/O-1-10  
OUTDOOR  
SENSOR



DP4 AS DP8 AS  
NEEDED\* NEEDED\*

ZONE A= ---- CIRCUITS\*  
ZONE B= ---- CIRCUITS\*  
ZONE C= ---- CIRCUITS\*  
ZONE D= ---- CIRCUITS\*

\* INSERT NUMBER OF CIRCUITS PER ZONE FROM CONTRACTOR TAKE-OFF SHEET.



## ADJUSTABILITY/OPERATION

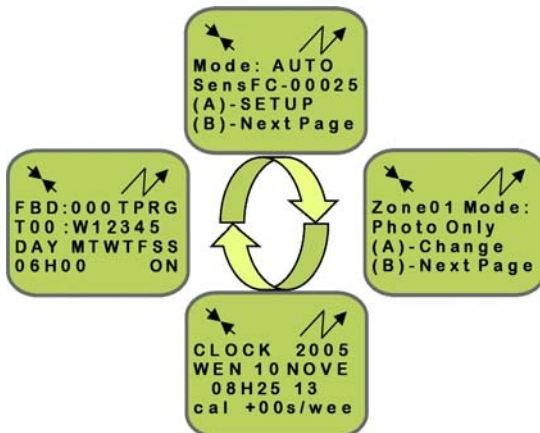
The **LCM-PL** is easily configured for the appropriate lighting level and time schedule to optimize energy savings while maintaining a safe operating environment. The four line LCD screen prompts the user to enter photo sensor setpoint limits and time schedules which are saved in battery backed memory.

Adjustment to the settings and schedules can be made with pushbuttons on the controller face. (The controller inside the locked enclosure door, so that no program adjustments may be made by unauthorized personnel.)

The Controller shall be **PLC-Multipoint, Inc. LCM-PL** Series. The Photo-electric sensor device shall be a **PLC-Multipoint, Inc. CES/O**. Entire assembly shall be factory assembled and tested to UL508A standards and attested to by an independent testing agency label.

All automatic operation logic that includes photo sensing includes a hold on timer for HID circuits that is factory set at 30 minutes, a time delay before activation that is factory set at 5 minutes, and an adjustable time delay before deactivation that is factory set for 3 minutes.

Each zone can be field configured for one of three different logics.



Typical LCM-PL Display Screen

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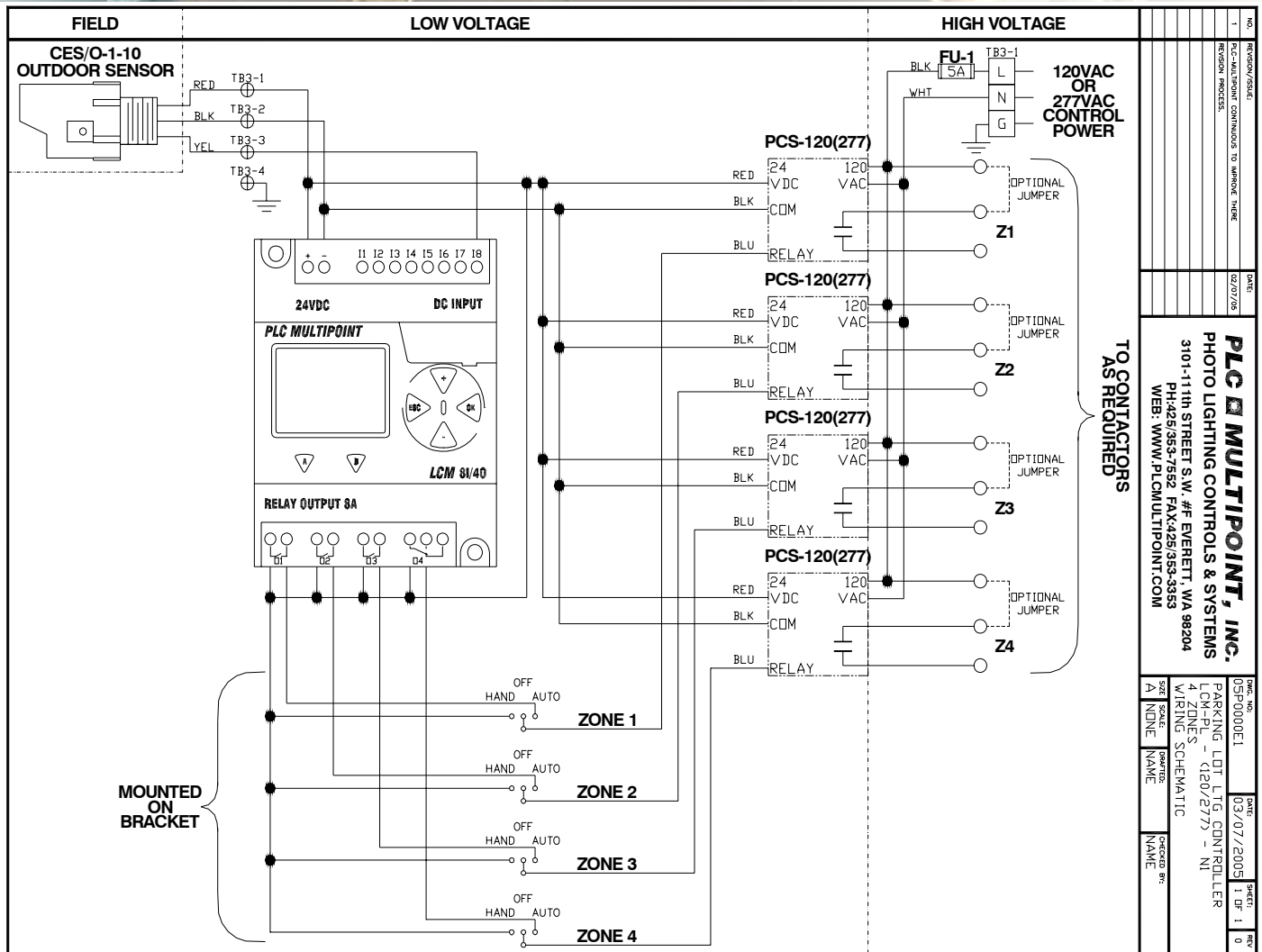
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# SPECIFICATION

The **LCM-PL** controller is housed in a surface mount NEMA TYPE1 (NEMA 3R optional), hinged door, gray painted steel enclosure with a locking mechanism and powered from either a 120VAC or 277VAC source. All control power leads are to be connected to terminal blocks mounted in the high voltage section of the controller and protected by a fuse. High and Low voltage components are separated by NEC/NFPA mandated voltage barriers.

The Photo sensor provided is the industry standard **CES/O** photodiode sensor from **PLC-Multipoint, Inc.** which is factory calibrated and tested with the system it will be used with. The sensor is housed in a UL standard 94 V-0 weatherproof visored housing and operates at 24VDC. Inputting the zone's parameters shall energize controlling methods.



## LCM-PL WIRING SCHEMATIC

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