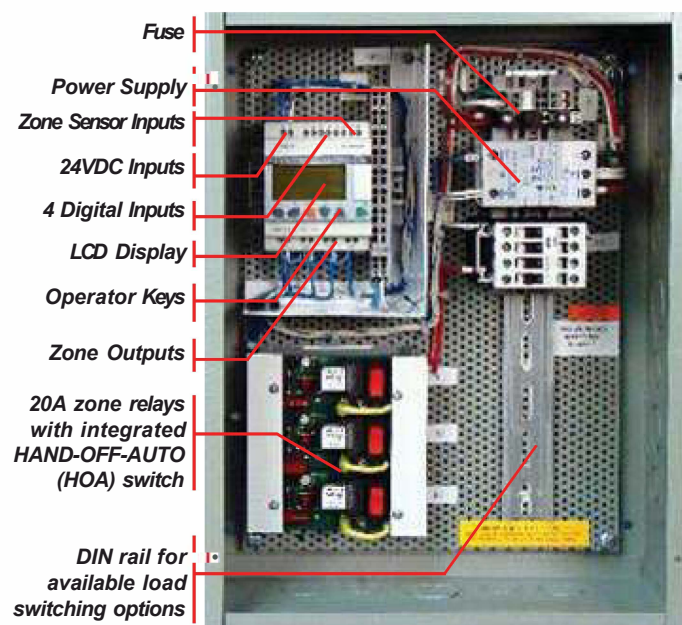


LCM-ASTRO

Exterior Astronomical Time Clock Lighting Control System

APPLICATIONS

- Canopy lighting
- Security lighting
- Exterior lighting
- Sign lighting



PROJECT

LOCATION

FEATURES

- 2 or 3 individual zones, each with available Photo Control, Time Clock Scheduling and Remote Switching
- Option for factory pre-program when data provided. Field configurable controller offers (8) configuration modes per zone
- Menu-driven LCD screens and front control buttons allow for easy adjustment of ON and OFF set points
- Accumulated run time hours are logged
- 20A zone relays include integrated HAND-OFF-AUTO (HOA) switches
- Load switching options are available with factory wired 4- or 8-pole 30A lighting contactors
- Base panel accommodates up to one photodiode sensor per zone, available in Indoor, Outdoor, Atrium and Skylight configurations
- Photo mode can be configured for setup (no timers) or auto (full program)
- Photo sensor input time delay prevents intermittent or false switching
- Adjustable hold-on timer prevents HID lighting from short-cycling
- Time Clock configurable as 7-day with two ON /OFF events per day; or astronomical sunrise, sunset sequence
- Can be used to meet Title 24 requirements
- 5-year warranty

DESCRIPTION

The LCM-ASTRO series control panel is a cost-effective and easily configurable stand-alone contactor-based lighting control system with programming specifically optimized for exterior applications. It is capable of supporting 2 or 3 zones with photo, astronomical time clock, remote switching and timed override.

A maximum of four (4) contactors can be accommodated in each 2- or 3-zone main panel. In addition, up to twelve (12) contactors are available in each expansion panel. Contactors are available in 4- and 8-pole configurations.

The four line LCD screen prompts the user to enter photo sensor set point limits and time schedules which are saved in flash memory. Adjustments to the settings and schedules can be made with pushbuttons on the controller face.

Timed functions are controlled by an internal real-time astronomical clock. The battery-backed clock is accurate to one second per month and can be adjusted for drift. Timed circuits are automatically adjusted for daylight savings time and leap year unless otherwise specified.

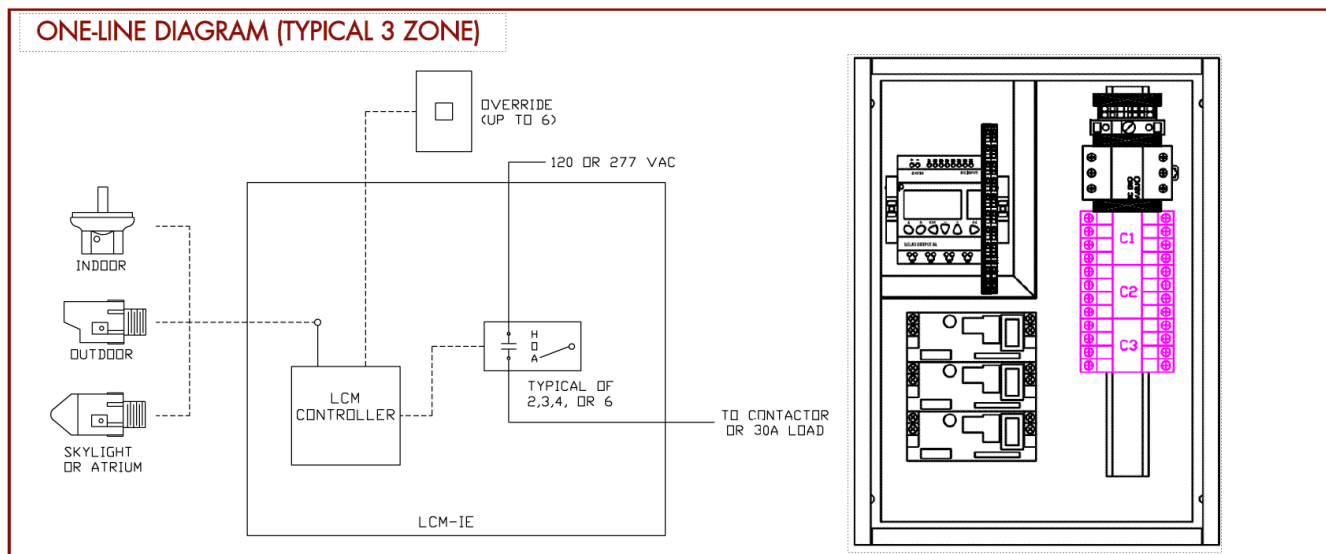
The LCM-ASTRO series advantages include stability, versatility, quality, accuracy and the ability to control exterior lighting without using a photosensor. Once mounted, the sensor, power, and lighting loads need only to be wired and the LCM is ready to operate. The system controller has specific application control strategies that are matched with the appropriate sensor to create optimal packaging and system efficiency.

TECHNICAL DATA

Input_Voltage:	120VAC or 277VAC
Output_Zones:	Two or Three - zone relays controlling optional 30 A 14 or 8 pole) lighting contactors
Control Modes:	Displayed on LCD mode screen: SETUP: Photo set point control - No timers AUTO: Photo sensor control with timers (ON at low, OFF at high set points)
Input Time Delay:	Photo sensor: 60-seconds (setup mode override)
Hold-On-Timer:	Photo sensor: 30-minutes (setup mode override)
Override Switch:	Internal Hand - Off - Auto (HOA), integrated in zone relay
Control Inputs:	CES Style 1-1 0V Photosensor; low voltage momentary ON/OFF Remote Switch(s)
Contactor Rating:	30 A/600 V
Enclosure Dimensions:	16"H x 12"W x 6"D (NEMA-1 Surface Mount Enclosure)
Temperature Range:	32° to 104° F (0° to 40° ()
Approvals:	Compliant with Title 24; UL508A

ZONE PROGRAMMING CONFIGURATION MODES

Code	Description	Key Application(s)
1	Astronomical Time - Astronomical Clock	Security lighting
2	Exterior - Time Schedule	Canopy lighting
3	Exterior - Astronomical+ Time Schedule	Sign lighting
4	Exterior HID - Time Schedule + Remote Switch	General lighting; suitable for HID applications
5	Exterior HID - Astro + Time Schedule+ Remote Switch	General lighting; suitable for Morning and Evening exterior lighting
6	Astronomical Time - Astronomical Morning/Evening Offset	Morning and Evening event lighting based around sunrise & sunset astronomical times. Timed general lighting prior to and after sunrise & sunset
7	Exterior - Photo Control	Security lighting (photo sensor only)
8	Exterior - Photo Control + Time Schedule	Canopy lighting (photo sensor and time only)



ORDERING INFORMATION - STANDARD CONFIGURATIONS

	# OF ZONES	UNIV. P.S.	NEMA 1 ENCL.	#/TYPE OF CONTACTOR/COIL VOLTAGE
LCM-AS	-2Z	-U	-1	-2OP41 (2 N.O., 4-POLE, 120VAC)
				-2OP42 (2 N.O., 4-POLE, 277VAC)
	-3Z			-3OP41 (3 N.O., 4-POLE, 120VAC)
				-3OP42 (3 N.O., 4-POLE, 277VAC)

Note: Maximum of 4 contactors for 2 and 3 zone

SAMPLE MODEL #s:

LCM-AS-3Z-U-1-3OP41 (LCM panel, 3 Zone, 3 N.O., 4-pole, 120V contactors)

LCM-AS-2Z-U-1-2OP42 (LCM panel, 2 Zone, 2 N.O., 4-pole, 277V contactors)

ORDERING INFORMATION - UNBUNDLED CONFIGURATIONS (CONTACTORS ORDERED SEPARATELY)

	# OF ZONES	UNIV. P.S.	NEMA 1 ENCL.
LCM-AS	-2Z-	-U	-1
	-3Z		

SAMPLE MODEL #: LCM-AS-3Z-U-1

ORDERING INFORMATION -CONTACTORS

P/N	DESCRIPTION
OP41	4-POLE, NORMALLY OPEN CONTACTOR, 30A, 120V
OP42	4-POLE, NORMALLY OPEN CONTACTOR, 30A, 277V
OP81	8-POLE, NORMALLY OPEN CONTACTOR, 30A, 120V
CP41	4-POLE, NORMALLY CLOSED CONTACTOR, 30A, 120V
CP42	4-POLE, NORMALLY CLOSED CONTACTOR, 30A, 277V