Architectural Controls

Lighting Management System (LMS)





DUAL 10 AMP RISER

Features

- Daylight harvesting via photo sensor for reduced energy consumption
- Load shedding via occupancy sensors, time clocks, photocells, and Building Management Systems (BMS)
- Remote operation of presets
- ON/OFF controls from multiple input devices
- Stand-alone 20 Amp unit controls up to 64 dimmable fluorescent ballasts without the need for a secondary dimmer rack
- Compatible with all EDI permanent installation dimmer racks & relay cabinets to include: Versa Pak[™], Prolite[™], MVP[™], MX[™], Notebook[™], and 20 Amp Relays
- Relay closures for HID and fluorescent stepper ballasts
- Works with 2-wire, 3,-wire, and 4-wire dimmable fluorescent ballasts
- Conforms to California Title 24 (automatic daylighting control device) and ASHRE 90.1 as well as most state and local energy codes.

Description

Designed with today's "green" standards in mind, EDI's Light Management System (LMS) allows automatic regulation of facilities lighting for increased energy efficiency. This system interfaces seamlessly with building management systems, photocells (daylight harvesting), occupancy sensors, time clocks (load shedding) and more.

With an incredible degree of flexibility and versatility, The LMS can be used independently to control up to 32 dimmable fluorescent ballasts per 2circuit card. It can be combined with any of EDI's full range of UL listed 100% duty cycle dimmers and relays. Combinations of 2, 6, or 12 control channels may be selected, depending upon the total number of dimmers, relays, and non-dims in your particular application.

With the LMS, it is possible to control most types of lighting, including incandescent (line voltage/low voltage), fluorescent (2-wire, 3-wire, or 4-wire standard/dimming ballast), neon ballast, cold cathode, and the new Dynavision™ HID dimming ballast from Advance Transformer.

Option Information

LMS Standalone Unit Dual 10 Amp Dual Fluorescent Incandescent

LMS Dimmer/Relay Controller

- 2 circuit
- 6 circuit
- 12 circuit

Control Inputs

- ☐ Motion Detector
- Photocell
- Analog
- Take-control analog option
- □ Remote Device Interface
- Remote ON/OFF
- DMX inputs

tions

Voltage Options 120VAC 240VAC 277VAC

Physical Data

Incandescent 16.900" x 8.690" x 5.000" 7.50 lbs.

Fluorescent 13.000" x 8.750" x 2.750" 5.00 lbs.



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Full Feature Riser Diagram

Specifications

1. The Light Management System (LMS) is an inexpensive energy management device that can integrate into current EDI dimmers or as a standalone unit in smaller installations.

2. The LMS shall provide connections for: 2 photocells, 2 occupancy sensor channels, 2 relay devices, 4 remote manual override control with variable output, and 0-10V analog sources. Optional source connections include 2 DMX-512 sources.

3. The system shall interface to occupancy and photo sensors. The occupancy sensor can toggle between any of the following presets: OFF, FULL, settable presets, or photocell preset. The dimmed circuit(s) shall be "hard" started to allow for proper energizing of the lamps before fading to the preset levels.

4. The system shall provide a power supply that operates motion and photocells sensors. Motion and photocell sensors shall be manufactured by SensorSwitch[™]. Motion and photocell sensors other than Sensor Switch[™] shall be subject to evaluation by Electronics Diversified, Inc. LMS provides 24 VDC+/- 6% at 0.24A.

5. The system has a four position function switch with run, service, low and high settings. Run indicates automatic operation as dictated by the photocell. Service brings both channels to full. High brings the dimmer to maximum output set by the potentiometers. Low brings the minimum output set by the potentiometers.

6. The system shall have a photocell controlled preset. The preset shall have a concealed adjustment screw for setpoint calibration. The system shall automatically adjust the dimmer to compensate for changes in the ambient light level to maintain constant lighting intensity. A lighting bandwidth control shall determine the amount of lumen change to affect the system. It shall be adjustable from 2.5 to 40 lumens. The module shall contain three LEDs to indicate below setpoint, at setpoint , or above setpoint status. The preset shall have a fade rate adjustment between five seconds and one hour to adjust for temporary ambient light level fluctuations. The dimmer shall be factory set to approximately one minute. The dimmer shall also have a built-in control-voltage LED bar graph to facilitate matched settings from circuit to circuit.

7. Width, Preset A, Preset B, and fade rate controls shall be concealed behind a screw-mounted plate to restrict access to authorized personnel. The status LEDs and bar graph display shall be visible at all times.

8. The system shall have the option of being controlled by a 0-10VDC Analog or USITT DMX-512 device. All control inputs shall be electrically isolated from the incoming line and control electronics.

9. The system shall have an analog output 0-10V, a SCR dimmer output, and

relay control to interface with 4-wire ballasts, be integrated into dimming products, or interface with remote device interfaces.

10. Any circuits may be switched off manually at a remote location by means of a low-voltage switch or by occupancy sensor.

11. Two settable presets shall be available on the system. Each preset shall feature a hidden rotary knob for intensity and the slide switch for activation. Remote activation shall be offered by means of a low voltage switch, photocell, and/or by occupancy sensor.

12. Dimming range shall be 100% to 0% of actual light output, without degrading lamp life or performance. Actual dimming range may vary due to type and age of lamps and ballasts, and physical placement of photocell.

13. The system shall be retrofittable to EDI current product line. It shall have the capacity to control any current dimmer products.

14. The standalone unit shall have the option to contain two 10 Amp dimmers, for a total of 64 ballasts per dual LMS standalone unit.

15. The dimmers shall be convection-cooled and shall include a thermal sensor to shut down the dimmer if the heatsink temperature exceeds 185° F. (85° C).

16. The dimmer shall use an encapsulated pair of silicon-controlled rectifiers to provide symmetrical alternating current output to the load at any output level from OFF to FULL intensity. The entire load of the dimmer shall be carried solely by the silicon-controlled rectifiers. The Silicon Controlled Rectifier shall inherently be designed in such a manner so that it is impossible for any spurious voltage to be transferred to the control wires and damage low-voltage electronics. In addition to the optical isolation provided internally in the power cube device, the protection design shall employ a combination of Metal Oxide Varistors (MOV's), pico fuses, and/or transzorbs to provide complete protection. Dimmer modules without an individual thermal sensor shall not be acceptable.

17. The standard incandescent dimmer shall have a rise time of 350μ S. All risetime measurements shall be between 10%-90% with dimmer output at 50%. Alternate manufacturers must supply either high performance chokes or certified test data ensuring compliance with the above specification.

18. The standard dimmer shall have an insertion voltage drop of no more than 3.4V RMS at the maximum rated load with 120VAC input.

19. The dimmer shall be U.L. Listed.

20. The LMS System shall be manufactured by Electronics Diversified, Inc., Hillsboro, Oregon, 97124.

