# Performance Controls



### Universal Fluorescent Dimmer

#### Features

- Simple, Durable Design **Rugged Construction**
- **Overheat and Overcurrent Protected**
- **Dims All Major Ballast Types**
- **Programmable Profiles**
- Selectable Control Voltages



#### Description

Built to the exacting standards set by our demanding engineering staff, the Universal Fluorescent Dimmer has an all aluminum chassis. The standard model will power all major ballasts. Each 20 amp dimmer will control a full 32 ballasts. The dimmer profile can be programmed by the user. This feature may allow matching color rendering, apparent luminosity and other aspects of lamp output.

Standard dimmer modules provide one LED indicator per dimming circuit for visual confirmation of dimmer activity, in addition to a single LED to warn of dimmer fault conditions. Dynamic Information System (DIS) feedback technology is available as an option. The MX Dimmer Module's state-of the-art engineering provides the user with real-time dimmer information.

#### Ballast Types

- Lutron Hi-Lume<sup>™</sup> & Eco10<sup>™</sup>
- Advance Mk10<sup>™</sup> &Mk7<sup>™</sup>
- Motorola ballasts
- Prescolite Intellect<sup>™</sup>

#### Component Information

Model No.	Dimmers	kW	Primary	Amps	Dimensions   UFD Module: 1.5" H x 16.125" L x 7.5" D (3.8 cm x 40.1cm x 19.0 cm)
MX-Dual 2.4	2	2.4	2	20	

#### **Order Information**

**Dimming Modules** 

Options

Universal Fluorescent Module

Sources Dynamic Information System (DIS)

Fluorescent Neon

Cold-Cathode Other 



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"Universal Fluorescent Dimmer

#### **Specifications**

- Dimmer Module chassis shall be constructed of heavy-gauge (.063) sheet aluminum, formed so to integrate all sections without exposing any electrical components to the exterior. Modules of plastic construction are not equivalent and are not acceptable.
- Module dimensions shall be: 16.25" W x 1.126"H x 6.880"D Construction shall be such that no line nor low voltage connections are within 5 inches of the front of the module. Input and output connections shall be flush mounted.
- The modules shall be entirely painted o the exterior with non-lead grey polyurethane enamel. Nomenclature shall be black, permanent paint, applied via silk-screen.
- 4. The front panel shall indicate manufacture, model, and the number and capacity of the module dimmer(s). This panel shall allow monitoring of dimmer status via lighted display. This display shall include a separate indicator of Fault status.
- The dimmer shall be protected against overcurrents, and withstand inrush currents, hot-patches, and short circuits of 0.02 ohms or more without damage. The dimmer shall employ fully magnetic primary circuit breaker, UL listed, rated at 100% capacity, with must trip capacity @ 125%.
- 6. Except for circuit breakers, the module shall contain no moving parts. The module shall employ a heatsink with thermal sensor, and silicon-controlled rectifiers The SCRs shall be configured in inverse parallel.
- 7. The solid state switch devices shall be mounted in substrate designed for maximum heat dissipation. The devices so mounted shall include an optical isolator, a snubbing network, and necessary gating circuitry on the highvoltage side of a integral, optically coupled control voltage isolator providing a minimum of 2500V RMS isolation between line and control in the switch device.
- The solid state module shall be thermally protected independent of the control module. There shall be a shut down circuit shall activate when the heatsink temperature exceeds 85 degrees centigrade. This circuit shall restart auto-

matically when temperature drops to safe levels.

- All load circuit wiring shall be constructed of tin-coated, stranded copper wire, encased in insulation, in compliance with the National Electrical Code in all applicable specification. The module shall be recognized by Underwriters Laboratories.
- 10. The module shall carry two dimmers circuits of 20 amps each. Each circuit shall carry a maximum of 32 ballasts.
- 11. The dimmer shall operate over an input range of 90 –140 VAC, 50/60 Hz, unless otherwise specified at the time of manufacture.
- 12. The standard dimmer shall have an insertion voltage drop of no more than 3.4 volts RMS with the maximum rated load with 120 VAC input. The 2.4Kw rated SCR heat loss shall not be greater than 100 BTU per hour per kilowatt of connected load.
- The dimmer control voltage shall be internally switchable 0-10 VDC and/or 0 120 VAC. The dimmer shall be designed for use with digital memory controllers employing USITT standard DM-512 protocol.
- 14. The module control connectors shall be constructed such that a module of a greater capacity cannot be substituted nor operated in that position.
- 15. The dimmer curve shall be any one of the following: conform to the Square Law, Linear curve, or such a profile as is digitally programmed by the user. Any given control setting shall give the same dimmer output regardless the direction of control movement. The dimmer shall also function as a non-dim or dimmer for incandescent and inductive loads.
- 16. The MX Universal Fluorescent Dimming Module shall be manufactured by Electronics Diversified, Inc., Hillsboro, Or 97124, USA.



#### Electronics Diversified, Inc.

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