



Performance Controls

Features

- Low-cost alternative
- Breakered convenience outlet
- Rear power cable entry location
- Single or three-phase input power
- Front-access fuses for control unit
- Dimmer output test buttons and status indicators
- Twelve 2.4KW or twenty-four 1.2Kw dimmer models
- Saf-T-Qube equipped, fully magnetic circuit breakers
- Simultaneous operation of digital and analog control signals
- Supports USITT AMX 192, USITT DMX 512, and 0-10 volt analog signals

Dimmex Multi-Link™ Dimmer Packs



DXM 12-2, twelve 2.4Kw dimmers



DXM 24-1, twenty-four 1.2Kw dimmers

Description

The Dimmex with Multi-Link brings a new dimension to budget dimming systems. The ability to operate from a wide variety of control formats makes the Dimmex with Multi-Link one of the most versatile dimmers on the market today.

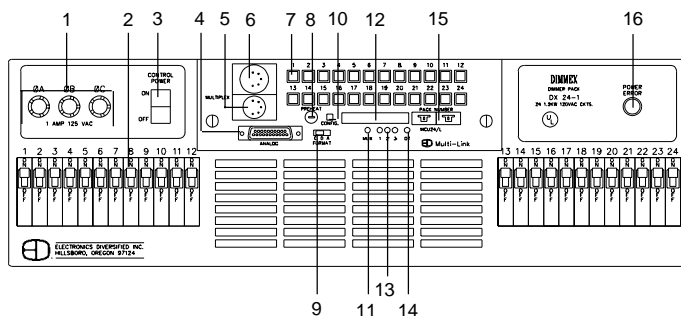
Built-in diagnostics and switch/indicator lights allow for simple verification of operation without a console.

Saf-T-Qube equipped, Dimmex protects low-voltage electronics from high voltage potential in the event of a power cube failure.

The Dimmex is available in either portable or wall-mount models with internal terminal strips and conduit knockout configurations.

Component Information

DXM 24-1 Front View



1. Front access fuses.
2. Primary circuit protection.
3. Control Power Switch.
4. Analog Control Input.
5. Multiplex Control Input.
6. Multiplex Control Output.
7. Dimmer Output Test Buttons & Status Indicators.
8. Preheat Level: (Adjustable).
9. Multiplex Signal Format Switch.
10. Configure Button: Enters changes in data.
11. Multiplex Signal Presence Indicator.
12. Calibration Access Plate.
13. Power Indicators: Green indicators light when power is applied.
14. Dimmer Overtemp Indicator: Red indicator warns of dimmer shutdown.
15. Dimmer Pack Number.
16. Input Power Error Indicator.



Ordering Information:

- | | |
|--|--|
| Digital w/Analog Control: | Analog Only: |
| <input type="checkbox"/> DXM 12-2: MCU-12L | <input type="checkbox"/> DXM 12-2: ACU-12L |
| <input type="checkbox"/> DXM 24-1: MCU-24L | <input type="checkbox"/> DXM 24-1: ACU-24L |

- Connectors:**
- | | |
|------------------------------|--|
| <input type="checkbox"/> PBG | <input type="checkbox"/> GSP |
| <input type="checkbox"/> GTL | <input type="checkbox"/> Terminal strips |

- Options:**
- | |
|---|
| <input type="checkbox"/> Wall-mount brackets (vertical) |
| <input type="checkbox"/> 24" Rack-mount brackets (horizontal) |

JOB NUMBER:

APPROVAL STAMP

JOB NAME:

CUSTOMER:

P. O. #

Electronics Diversified, Inc.

PRODUCT DATA SHEET
P200

1675 N.W. Cornelius Pass Road ● Hillsboro, Oregon 97124 U.S.A.
Phone: (503) 645-5533 ● FAX: (503) 629-9877 ● Web Site: www.EDIOne.com

Electrical Characteristics

Input Power:	Single phase, 120/240VAC, 50/60Hz, or three-phase, 120/208VAC, 50/60 Hz. Available in 220-240 VAC, 50Hz configurations.
Circuit Breakers:	Fully magnetic, 10,000 AIC, U.L. listed
Filtering:	Heavy-duty, iron-core, copper-wound, toroidal chokes assure minimum lamp filibration.
Over-current:	Withstands cold in-rush currents, over-currents, hot patches, and dead shorts. No silver sand fuses are used.
Overheat:	Dimmer output turns off when heatsink temperature exceeds 185° F. (85° C.). Normal operation automatically resumes when the temperature returns to a safe level.
Cooling:	Two 55 CFM fans per unit.
Environment:	Temperature range: 32° F. (0° C.) to 104° F. (40° C.). Humidity range: 0% - 90% non-condensing.
Dimming Curve:	Square Law.

Interaction:	No interaction between dimmers.
No Load Loss:	Less than 1 watt.
Load Range:	10 watts to rated capacity for each dimmer.
Load Regulation:	2% from 100-130VAC over the entire load range.
SCR Rating:	DXM 24-1: 25A rms, 600V, Tungsten rated. DXM 12-2: 40A rms, 600V, Tungsten rated.

Mechanical Characteristics

Enclosure:	Heavy-gauge aluminum, finished with black polyurethane enamel paint. Nomenclature permanently silk-screened.
Circuit cards:	Plug-in type, double sided, through-hole plated, U. L. recognized with G-10 fiberglass, rated FR-4.
Dimensions:	7" H x 22.5" D x 22.5" W (17.8cm x 57.15cm x 57.15cm)
Shipping Weight:	76 lbs. (34.47kg)

Specifications

Dimmer Pack:

- The unit shall be constructed of code gauge materials, finished with black polyurethane enamel paint. All nomenclature shall be permanently silk-screened in white. The unit shall measure 7" high x 22½" wide x 22½" deep. The unit shall be designed to be mountable in an NEMA standard 24" relay rack.
- All load wiring shall be stranded, tinned, copper wire with silicon rubber insulation covered with coated glass braid, rated at 200° C. and sized in accordance with the National Electric Code.
- The unit shall be forced-air cooled by two continuous duty, low-noise fans, and be capable of continuous full-load operation in ambient temperatures up to 104° F. (40° C.). Thermal sensors shall be employed to shut off all the dimmers if safe operating temperatures are exceeded. Air intake shall be from the front of the unit and exhausted through the rear.
- The dimmer shall operate from single phase, two-wire, 120 VAC, 50/60 Hz; single-phase, three-wire 120/240 VAC, 50/60Hz; or three-phase, four-wire, 120/208 VAC, 50/60 Hz input power. The dimmer shall properly operate over an input voltage range of 90-140VAC. There shall be pressure-type terminals for input power and ground. The input power terminals shall accommodate wire sized up to #0 AWG.
- The unit shall provide a control connector for connection to a remote control unit, and specification grade commercial output connectors. Terminal strip models shall provide internal terminals for input power, dimmer output, and control connections.
- The solid-state switch devices shall be mounted in a substrate material for maximum heat dissipation. The substrate shall be encapsulated in an epoxy filled high-impact plastic case along with an optical isolator, a snubbing network and all required gating circuitry on the high voltage side of an integral opto-coupled control voltage isolator providing a minimum of 2500V RMS isolation between line and control in the switch device. A 2.4 Kw module shall have a minimum capacity of 40 Amps, with a rating of 500 Amp peak single cycle surge current and 600V transient capacity.
- In addition to the optical isolation provided internally in the power cube device, additional protection shall employ a combination of Metal Oxide Varistors (MOV's), Pico fuses and/or transzorbis to provide the highest level of protection to control inputs. Dimmers using Triacs or power cube isolation systems external to the dimmer module shall not be acceptable.
- The dimmer shall be protected against overcurrents and shall withstand in-rush currents, hot patches, and short circuits of 0.02 Ohms or less without damage. Dimmers using fuses for circuit protection shall not be acceptable.
- The unit shall be thermally protected and shut down the dimmer pack when heatsink temperature exceeds 185° F. Dimmers shall restart automatically when the temperature returns to safe levels. An indicator

- on the front panel shall light when the dimmer is in an overheat condition.
- The front panel shall have indicators for input power, overtemp, and incorrect input power wiring.
- The unit shall be listed by Underwriters Laboratories, and bear the U.L. label.
- The dimmer pack shall be the Dimmex Multi-Link series as manufactured by Electronics Diversified, Inc.

Control Module:

- The control module shall plug into the front of the dimmer chassis and held by two thumb screws. It shall be possible to remove the module without tools.
- The control module shall properly receive USITT AMX-192 analog multiplex, USITT DMX-512 digital multiplex via a five-pin XLR-type connector. The multiplex format may be changed by a single front-mounted switch.
- Upon receipt of a valid multiplex signal, a yellow indicator shall light. Up to a two-second pause in any portion of the multiplex transmission shall be tolerated without adversely affecting the dimmer output.
- The dimming system must be able to operate simultaneously on a multiplex signal and analog 0-10 volt signal. The dimmer control voltage shall be 0 to +10VDC at one milliampere or less per dimmer. Electrical isolation between the power circuit and the control circuit shall be complete. No phase relation or reference voltage shall be required between the power circuit and the control voltage. The control range shall be adjustable to allow for other control voltages. Any given control setting shall result in the same dimmer output regardless of direction of the control movement. Response time shall the 100 milliseconds.
- The control module shall have a pilot lamp for each power phase.
- The module shall automatically distinguish between single and three-phase power.
- It shall be possible to manually override any dimmer and force its output to full. An indicator for each dimmer channel shall show the current dimmer intensity.
- All dimmer control electronics shall be contained on a double-sided, through-hole plated fiberglass circuit board.
- Built-in lamp test patterns shall be included in the module to allow operation without a controller.
- The control module shall be a recognized component of Underwriters Laboratories and so labeled.
- The unit shall be the Multi-Link™ Series, as manufactured by Electronics Diversified, Inc., Hillsboro, Oregon U.S.A.

Specifications subject to change without notice. Specification applicable to standard products only.
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