



# UNIVERSAL DIMMING MODULE

*load controls*

**UDM08-EM**

Module design eliminates the need for field wiring to the module

Each dimming channel can be programmable to match the dimming curve of the lighting load

Supports control of up to 8 forward or reverse phase loads



Protection built in

Offers load by load selectable load type (Forward/reverse phase control)

4 Line feeds supporting up to 32 amps per module, 10 amps maximum output for any of the 8 loads

## *product overview*

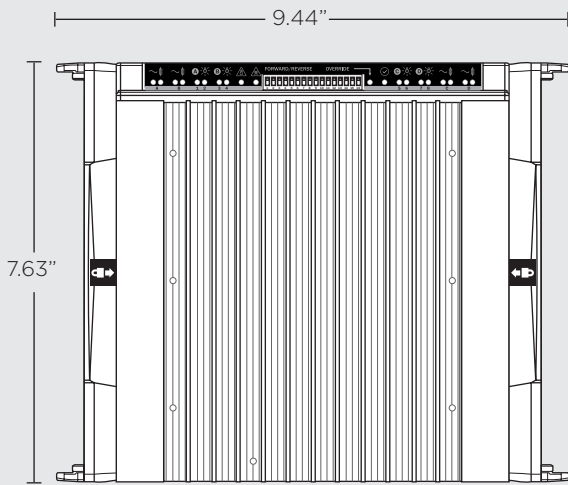
### **description**

The InFusion Universal Dimming Module (UDM08-EM) provides load agnostic phase control as a component of Vantage's centralized lighting control system. It can be mounted in a main or secondary power enclosure and supports control of up to 8 dimmable, forward and reverse phase type loads with up to four line feeds supporting up to 32 amps of total load per module. The module is designed to automatically detect load type, forward or reverse phase. In addition, with current sensing built in, the UDM supports enhanced conditional programming in Design Center for increased support of energy management scenarios.

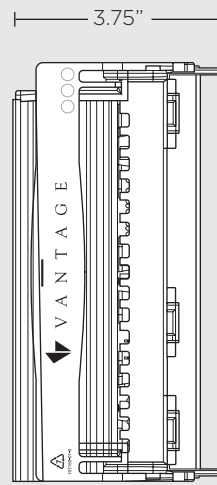
### **operation**

The UDM08-EM is designed for 120-277 VAC and 50/60Hz electrical specifications providing global electrical system compatibility. The module provides exceptional support of both low and high wattage LED and CFL lighting loads between 2-1200W@120VAC and 5-2770W@277VAC. The UDM08-EM module is compatible with new and old enclosures using new AC terminal boards.

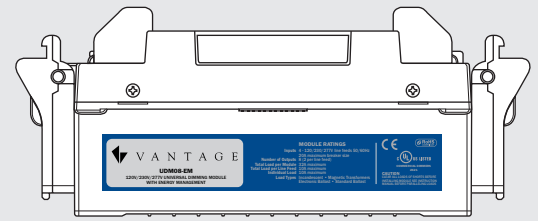
PROJECT	
LOCATION/TYPE	



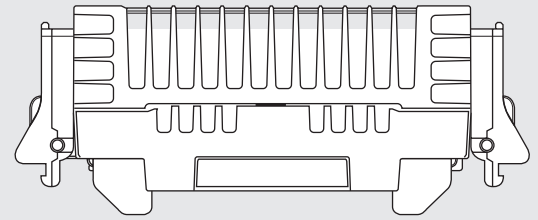
FRONT VIEW



SIDE VIEW



TOP VIEW



BOTTOM VIEW

## highlights

The UDM08-EM module ships in manual mode with load-by-load selectable phase control type (forward or reverse phase). Auto-load switching can be enabled per load through Design Center software. In addition, the module is designed with improved module locking mechanisms for simple in-field installation and service, allowing modules to be quickly replaced without affecting load connections to the system. Field Serviceability is enhanced with field service alerts sent via email to installers for their convenience. Programming, installing, and replacement have been made easier with these added features.

## features

- Offers load-by-load selectable load type (Forward/reverse phase control)
- Auto load-type detection
- Capable of custom load linerization profiles
- Supports control of up to 8 universal loads
- Firmware is field upgradeable
- Plug-and-play design eliminates the need for field wiring to the module
- Alarms to the controller can notify dealer or end user of problem by email
- Includes built-in thermal, current, load type, and irregular load protection
- Module is UL, CUL, and CE listed

## applications

The InFusion Universal Dimming Module is ideal for all lighting automation projects. Vantage's InFusion systems are fully compliant with 2013 Title 24 requirements for both residential and non-residential buildings. Additionally, the UDM08-EM is UL, CUL, and CE listed. The InFusion Universal Dimming Module is a component of Vantage's complete lighting control system.

- Current sensing for energy management applications
- 8000 dimming steps for smooth ramping and dimming
- Displays the operating and fuse status with LED indicators at the top of the module
- Self-powered design for uninterrupted lighting during servicing
- Allows manual overrides to be programmed to any dim level
- Programmable relay mode for added control flexibility

## specifications

### Dimensions (HWD)

7.63" x 9.44" x 3.75"  
194mm x 240mm x 95mm

### General Specifications

Model	UDM08-EM		
Voltage	120V-277V - 60/50Hz		
Maximum Amperage per Module	32A (3840W@120V)	32A (7360W@230V)	32A (8864W@277V)
Maximum Individual Load Amperage	10A (1200W @ 120V)	10A (2300W@230V)	10A(2770W@277V)
Maximum Transformer Load	1000VA@120V	1916VA@230V	2300VA@277V
Maximum Individual LED Load*	6A (720W@120V)	6A (1380W@230V)	6A (1662W@277V)
Weight	5.7 lbs (2.6 kg)		
Ambient Operating Humidity	5 - 95% non-condensing		
Ambient Operating Temperature	32 - 104°F (0 - 40°C)		
Built-in Protection	Fuse protection per line, MOV surge, thermal shutdown, short circuit		
Cooling	Convection, 36" front clearance required		
Lightning Surge Protection High-voltage	IEEE C62.41; (6000V & 3000A)		
Lightning Surge Protection Low-voltage	ITU-T K.20		
Loads	8		
Manual Override	Load-by-load selectable		
Maximum Line Feeds	4 @ 20A (Maximum) breakers		
Minimum Load	2W@120V	4W@240V	5W@ 277V
Status Indicators	Line Power, Fuse Status, Load Power, Over Temp, Microprocessor Status, Manual Override, Overload		
UL, CUL, and CE Listed	Yes		
SCCR Rating	5KA		

### Load Types

- Incandescent
- LED\*
- Fluorescent
- Halogen
- Constant Speed Motors
- Standard Ballast
- Magnetic Low-voltage
- Magnetic Transformers
- Electronic Ballast

### System Compatibility

InFusion

### Ordering Information

CATALOG NO.	DESCRIPTION	VOLTAGE	MISC.
<input type="radio"/> UDM08-EM	InFusion Universal Dimming Module	120-240V, 50/60Hz	Up to 8 loads
<input type="radio"/> TUDM-KIT	12 Load Terminal Board Kit		
<input type="radio"/> TUDM-L	Left AC Terminal Board		
<input type="radio"/> TUDM-R	Right AC Terminal Board		

## LED Dimming

Vantage is leading the way in LED lighting control through innovations of new hardware and software products; however, industry standards are still undefined for dimming LED lamps and fixtures. Dimming performance of LED lighting cannot be guaranteed, even when applying the correct dimming technology specified by the LED manufacturer. While Vantage may be consulted when performance issues are present, Vantage will not be liable for on-site performance issues. Vantage recommends the following to assist installers and lighting specifiers:

- Check Vantage's online library of LED product test reports prior to installing LED products to be dimmed by Vantage dimmers
- Utilize our [on-demand product testing](#) of untested LED products
  - Please contact Vantage for details regarding this service
- Selecting a tested product greatly increases the likelihood of successful dimming; however, LED product tests are performed under laboratory conditions with a set number of samples and a quality power source
- There are many factors that may contribute to unsatisfactory results within a specific installation, including, but not limited to:
  - line noise originating from electrical equipment within the premises
  - line noise from the source (particularly with local generators or inverters)
  - interference between dimmed LED products
  - wiring conditions (i.e. shared neutrals, loose neutrals, incorrectly bonded neutral, or grounding issues)
  - LED product variances, including:
    - unintended batch-related variances
    - product revisions

## terminal boards for the Universal Dimming Module

