LOW-VOLTAGE OUTPUT STATION

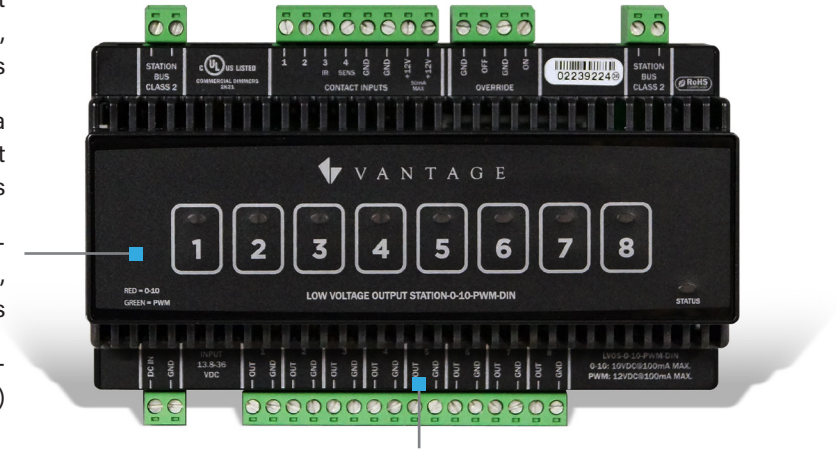
LVOS-0-10-PWM-DIN

Controls up to eight separate sets of LED, CFL, or CCFL lighting loads

Communication via Station Bus or Ethernet Bus

4 Analog, 0-10 low-voltage outputs 4 PWM, low-voltage outputs

4 High voltage relays (120-277VAC)



Ethernet port for Ethernet Bus connection

Override switch for ON and OFF states of all loads

Each dimming channel can be programmed with a unique power profile to match the dimming curve of the lighting load

UL and CE Listed

Allows for the addition of dry contact inputs to the automation network, including motion sensors, light sensor, IR input, pressure sensors, magnetic switches, and more for localized wiring or emergency override scenarios

DESCRIPTION

The DIN Rail mounted Low Voltage Output Station (LVOS) is used for the control and automation of LED and Fluorescent lighting loads requiring either 0-10V or pulse width modulation (PWM) for dimming control.

OPERATION

The DIN LVOS can control up to eight 0-10V loads. Unlike other LVOS products the DIN LVOS does not have relays on-board for switching. It relies on an external relay station (RS8-L-DIN) or module (MDR8CW301) to do high-voltage switching.

HIGHLIGHTS

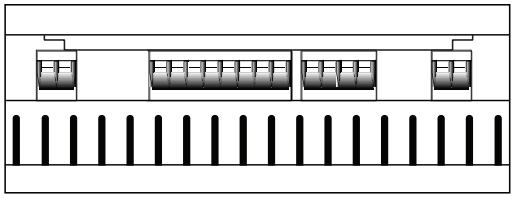
The dry contact inputs on the station can be used with motion sensors, light sensors, optical switches, magnetic switches, and more.

APPLICATIONS

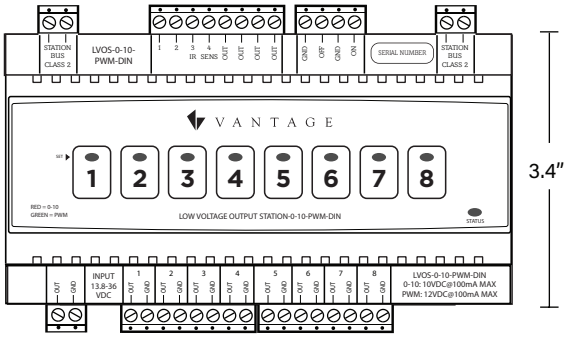
As part of the Legrand Architectural Dimming lighting solution, it provides control of lighting loads as well as inputs from dry contacts for lighting and automation

PROJECT		LOCATION/ TYPE	

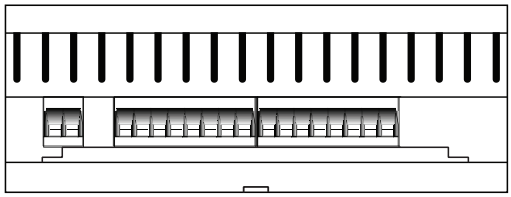
MULTI-VIEW LINE DRAWING



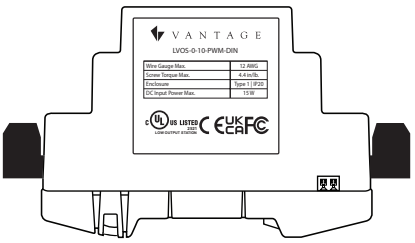
TOP VIEW



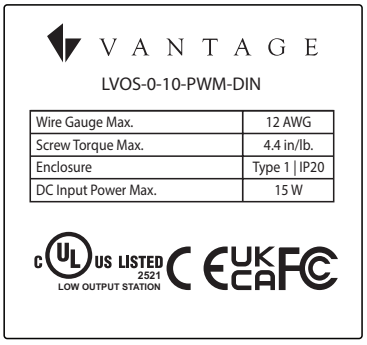
FRONT VIEW



BOTTOM VIEW



SIDE VIEW



SIDE LABEL ENLARGED

FEATURES

- 8, independent 0-10V low-voltage outputs
- Outputs 1-4 can be configured as PWM or 0-10V
- Manual control and LED status for all 8 LV outputs on front
- High resolution performance when dimming
- Communicates via Station Bus
- Assembled in a 9 unit DIN case
- Override switch for ON and OFF states of all loads
- UKCA, CE, FCC, UL, cUL, EN 55032, EN 55035, EN 61000-3-2, EN 61000-3-3

SPECIFICATIONS

GENERAL

Dimensions (HWD):	85.7mm x 157.2mm x 61.9mm (3.38" x 6.19" x 2.44")
Model:	LVOS-0-10-PWM-1 / LVOS-0-10-PWM-P-1
Weight:	237 g (8.36oz)
Mounting:	Panel Mount
Ambient Operating Humidity:	Maximum 90%, non-condensing
Ambient Operating Temperature:	0-40°C (32-104°F)
Cooling:	Convection
Firmware:	Upgradeable via Station Bus
LED Indicators:	Microprocessor status, configuration, loads, LED on loads 1-4: Red = 0-10 / GREEN = PWM
Manual Control:	Overlay with control / status for each output
Certifications:	UKCA, CE, FCC, UL, cUL, EN 55032, EN 55035, EN 61000-3-2, EN 61000-3-3

DC INPUT - POWER SUPPLY

Input Voltage:	13.8 - 36VDC
Input Power Draw:	<15W
Connection Type:	0.20" Pitch removable plug
Connection Rating:	300V 10A
Relative Humidity:	Maximum 90%, non-condensing

INPUT / OUTPUT CONNECTIONS (Low-voltage)

Station Bus Connection:	24V / 36V Station Bus
Station Bus Wiring Specification:	2C, 16AWG / 1.31mm2, twisted, non-shielded, <30pF per foot. Separate a minimum of 12" / 30.5cm from other parallel communication and/or high-voltage runs
Station Wiring:	Daisy-chain, star, branch
Station Count:	0.35W on IC-24, 0.55W on IC-36
Auxiliary Inputs:	4 Dry contact (3 or 4 may be used for an IR receiver and light sensor respectively
Override Inputs:	Yes - All ON or All OFF contacts

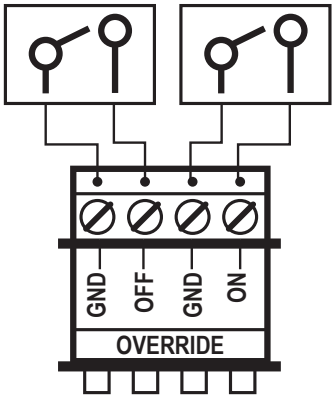
LOW-VOLTAGE OUTPUT (0-10V / PWM)

Specification:	IEC 60929 Annex E
Number of Outputs:	8 (0-10V), 4 (PWM)
Output:	0-10V @ 100mA sink or source
External Source Voltage:	Typical 10V / Maximum 20V
Loads per Output:	50 @ 2.0mA per load (typical)
Resolution:	>1024 Steps
Connection Type:	0.20" Pitch removable plug (0-10V)
Connection Rating:	300V 10A
Duty Cycle:	Variable 0% to 99.9% (PWM)

PROTECTION

DC Input, Over-Current Protection:	PTC Fuse (Self-resetting)
Low-voltage 0-10V Output Over Current Protection:	PTC Fuse (Self-resetting)
Low-voltage PWM Output Over Current Protection:	PTC Fuse (Self-resetting)

OVERRIDE WIRING EXAMPLE



LED DIMMING NOTE

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

ORDERING INFORMATION

Catalog #		Description	Misc.
☐	LVOS-0-10-PWM-DIN	DIN Low-voltage Output Station	

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