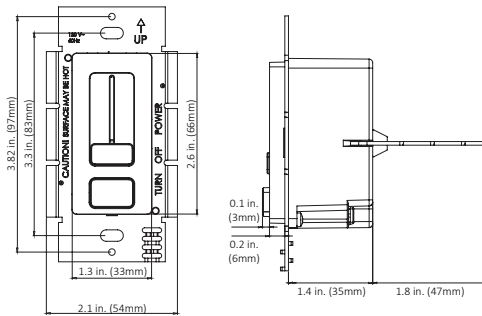


# LED DIMMER & DRIVER

All-in-One Wall Unit

# WAC LIGHTING

Responsible Lighting®



Fixture Type:

Catalog Number:

Project:

Location:

## PRODUCT DESCRIPTION

WAC Dimmer & Driver simplifies LED array lighting systems by combining an in-wall LED dimmer switch and power supply into a single integrated unit. Mounts in a standard in-wall switch box, accepts 120V AC and converts to low voltage DC. WAC Dimmer & Driver is compatible with most solid color 24VDC tape lights and fixtures.

## FEATURES

- LED Driver & In-Wall Dimmer Switch in one unit, fits in a standard recessed electrical box.
- 100% - 1% smooth dimming.
- No minimum load.
- Single Pole preset dimmer with on/off push switch.
- Adjustable voltage output dial to address voltage drop.
- Includes voltage barrier partition to install high and low voltage circuit in same switch box.
- No derating required when ganging units.
- Power failure memory: If power is interrupted, WAC Dimmer + Driver will return to setting prior to interruption.
- Three face plates included: Glossy Dark Brown, Glossy Light Almond, and Glossy White (trim plates not included).

## SPECIFICATIONS

### INPUT

**Input Voltage:** 120VAC (108 ~ 132VAC), 50/60Hz (47 ~ 63Hz)

**Input Current:** <1.0A @ 120VAC max load

**In-Rush Current:** Meets NEMA-410 requirement at any nominal input full sine wave voltage and maximum load at 25°C

**Leakage Current:** <500µA @ 120VAC

**Power Factor:** >0.9 @ 120VAC 60Hz max load

**Total Harmonic Distortion (THD):** ≤20% @ 120VAC 60Hz max load. Tested to comply in accordance with IEC 61000-3-2.

**Stand-by-power:** ≤0.5W

**Efficiency:** ≥91% @ 120VAC max load

### OUTPUT

**Dimming:** Output voltage is adjustable via sliding lever

**Voltage Adjustment Dial:** Increases output +1V to compensate for voltage drop from control to luminaire.

**Startup Time:** The main supply output voltages remain within the regulation limit of +/- 3%

**Standards:** UL & cUL Listed for dry locations Low Voltage Lighting System #E469769; FCC Approved; Complies with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules; RoHS Certified; CE Certified; Conforms to NEC Code 725.136 (See Mechanical Diagram): Class 1 and Class 2 circuit in same enclosure must be separated by a barrier (partition) unless Class 2 circuit conductors are install in accordance with 725.41 Class 1 Circuits. Surge/Transient: Tested to meet transients defined in IEC 6100-4-4, level 3 & IEC 6100-4-5, level 3. Protections: Short circuit, thermal runaway, and over voltage.

Model	Input Voltage	Output Voltage	Max Load	Color
EN-D24100-120-R	120VAC	24VDC	100W, 4.2A	Glossy Dark Brown Glossy Light Almond Glossy White

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### VOLTAGE DROP CHARTS

For best performance and lumen output, ensure proper wire gauge is installed to compensate for voltage drop of low voltage circuits.

1. Determine load size. Let's assume load is 55 W. Round up to nearest load.
2. Determine distance from WAC Dimmer + Driver to load. Let's assume the distance is 20 ft.

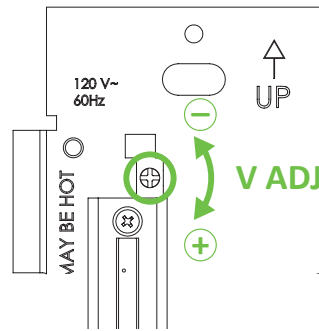
### 24V VOLTAGE DROP & WIRE LENGTH DISTANCE CHART

Wire Gauge	10 W .42 A	20 W .83 A	30 W 1.3 A	40 W 1.7 A	50 W 2.1 A	60 W 2.5 A	70 W 2.9 A	80 W 3.3 A	100 W 4.2 A
18 AWG	134 ft.	68 ft.	45 ft.	33 ft.	27 ft.	22 ft.	19 ft.	17 ft.	14 ft.
16 AWG	215 ft.	109 ft.	72 ft.	54 ft.	43 ft.	36 ft.	31 ft.	27 ft.	22 ft.
14 AWG	345 ft.	174 ft.	115 ft.	86 ft.	69 ft.	57 ft.	49 ft.	43 ft.	36 ft.
12 AWG	539 ft.	272 ft.	181 ft.	135 ft.	108 ft.	90 ft.	77 ft.	68 ft.	56 ft.
10 AWG	784 ft.	397 ft.	263 ft.	197 ft.	158 ft.	131 ft.	112 ft.	98 ft.	82 ft.

### VOLTAGE ADJUSTMENT

WAC Dimmer + Driver can provide a 1V boost if the fixture is receiving noticeable light degradation.

- a. Pop off face plate.
- b. Use a small screwdriver to adjust output voltage by turning adjustment dial clockwise.



### SAFETY / WARNINGS / DISCLOSURES

1. UNLIKE TRADITIONAL DIMMING CONTROLS, WAC Dimmer + Driver REQUIRES UNIQUE WIRING STEPS. READ ALL WARNINGS AND INSTALLATION INSTRUCTIONS THOROUGHLY.
2. Install in accordance with national and local electrical code regulations.
3. This product is intended to be installed and serviced by a qualified, licensed electrician.
4. NEC Code 725.136: Class 1 and Class 2 circuits in same enclosure must be separated by a barrier unless Class 2 circuit conductors are installed in accordance with 725.41 Class 1 Circuits. For example, Non-Metallic (NM) cable is considered a Class 1 circuit conductor. Therefore, if both high voltage and low voltage circuits are installed with NM cable then the voltage barrier is not required for installation.
5. Only install compatible 24 V Constant Voltage DC fixtures or warranty will be void.
6. Suitable for indoor / dry installation.
7. To compensate for voltage drop, ensure applicable gauge in-wall rated wire is installed between control and fixture.
8. Do not modify product beyond instructions or warranty will be void.

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