

Low Voltage Controls, Dim-to-Off, Auxiliary Voltage, What Does It All Mean?

Low Voltage Controls

Controls is often an all-encompassing term for any device that sends commands to the driver. Controls that are powered off 12-24V are commonly referred to as Low Voltage Controls, as opposed to controls that are powered directly off AC mains.

Low Voltage controls can include:

*Occupancy Sensors • Photocells, or daylight harvesting
Complex network controls (like DMX, DALI, or wireless systems)*

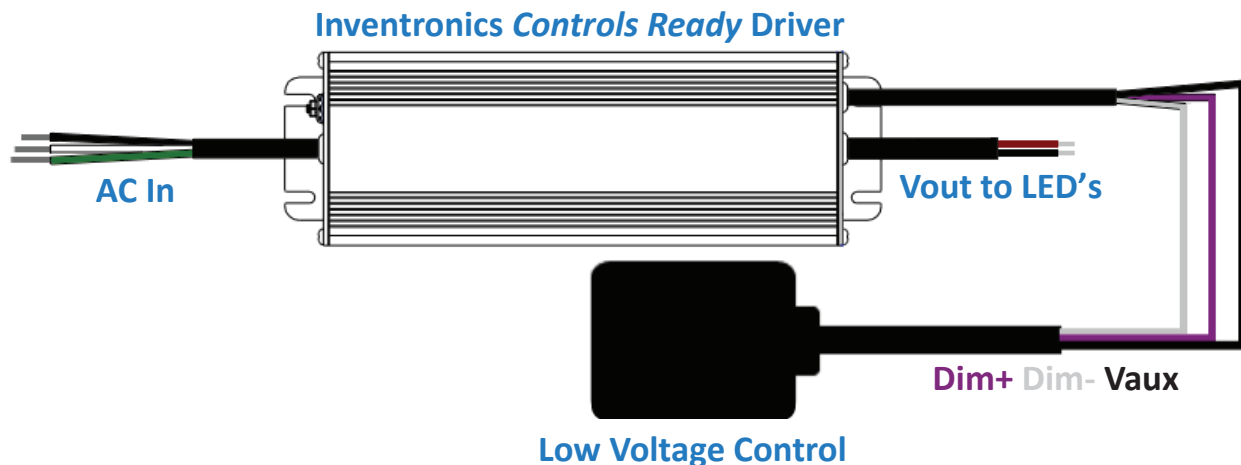
INVENTRONICS ADVANTAGE

With Inventronics Controls Ready drivers, Low Voltage controls are made straightforward. Wiring is simplified to a 3 wire connection:

Dim+
Dim-
Vaux

BENEFIT

This ease of wiring helps eliminate additional wiring compartments for low voltage dimming lines in high voltage applications, allowing for a cost optimized fixture design ready for any input.



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Dim-to-Off

This describes the driver's ability to dim to the minimum specified dimming level and then to "OFF." In the dim-to-off state, the driver will be ON as AC power will still be applied, but no output current will flow from the driver, causing the LEDs to be OFF. This is also known as standby mode, as the driver is actively waiting to receive its next command. Inventronics standby power is typically < 0.5W.

Auxiliary Voltage

All LED drivers provide an output to the LEDs; however, the auxiliary voltage line is an additional output provided to help support other small devices that require power. Inventronics Controls Ready drivers provide a 12V auxiliary line that supports up to 200mA. In the dim-to-off state, the auxiliary supply will stay on, even though the LED output is turned off.

BENEFIT

Eliminate Relays

Relays are sensitive to inrush current and have a maximum power rating. By eliminating relays, the installation has fewer points of failure and more design flexibility as zones are not limited by the amount of power flowing through the controller.

Eliminate Power Packs

Power packs are an additional cost required to power controls. By eliminating power packs, the price is reduced, reliability increased, and voltage/power constraints removed.

Common to Any Line Voltage or Power Rating

Since the low voltage control is powered from the auxiliary supply, the same controls may be used for any installation, anywhere from 120Vac- 480Vac, and any power level (even +600W). This allows for maximum design flexibility, reduced cost on specialized controls, purchasing controls in volume, and simplified installation to reduce errors. Whether connecting several low-power or several high-power luminaires, the same controller may be used for all applications.

Controls-Ready Drivers

VIN_AC (VRMS)	POUT (W)	DRIVER SERIES	PART NO. SUFFIX	MODELS (×10 = MA)	IP RATING	FULL PWR TO X% IO_MAX
90 ~ 305	40	LUD-040S	DSF	075, 150	IP20	50%
90 ~ 305	60	LUD-060S	DS2	055, 078, 110, 150, 210	IP20	70%
90 ~ 305	75	EUD-075S	DT, DV	070, 105, 175, 280	IP67	70%
90 ~ 305	96	EUD-096S	DTA, DVA	070, 105, 210, 350	IP67	70%
90 ~ 305	150	EUD-150S	DTA, , DVA	105, 210, 350, 560	IP67	70%
90 ~ 305	200	EUD-200S	DTA, DVA	105, 210, 350, 560	IP67	70%
90 ~ 305	240	EUD-240S	DTA, DVA	105, 210, 420, 670	IP67	70%
90 ~ 305	320	EUD-320S	DT, DV	150, 220, 320, 460, 670	IP67	70%
90 ~ 305	600	EUD-600S	DT, DV	280, 420, 560, 740, 980	IP67	80%
249 ~ 528	96	ESD-096S	DT, DV	090, 180, 360	IP67	50%
249 ~ 528	150	ESD-150S	DT, DV	105, 210, 350, 560	IP67	70%
249 ~ 528	240	ESD-240S	DT, DV	100, 150, 220, 320, 460, 660	IP67	70%
249 ~ 528	320	ESD-320S	DT, DV	150, 220, 310, 440, 620	IP67	70%
249 ~ 528	600	ESD-600S	DT, DV	280, 420, 560, 740, 980	IP67	80%

**Drivers are always being added to this list. Please contact Inventronics for assistance with your specific application or if you wish to know about a driver not on this list.