



Dimmable Solutions for LED Lighting

Xitanium® LED Dimming Controller for 12vdc and 24vdc LED Systems

Xitanium LED dimming controllers provide the required dim level for 12V and 24V LED lighting systems. Designed for ultimate flexibility, they allow users to easily add their own personal touch to illumination settings.

As with all of our Xitanium drivers, this LED dimming controller offers leaded design, inherent short circuit protection, high power factor, a rated life of 50,000+ hours and is backed by a full five-year warranty.

Pulse Width Modulation (PWM) Dimming

- Provides 0-10V dimming control

UL Class 2 Rated

- Designed for use with any 12V or 24V UL Class 2 devices

UL Outdoor Damp location rated, IP66

- Fully potted for moisture resistance

Outstanding temperature performance and versatility

- Extreme low temperatures down to -40°C
- Generous high temperature capability (+60°C ambient; 80°/90°C case rating)
- Suitable for any outdoor application

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LED Controller Specifications

Dimming Control: 0 - 10V
 Non-linear Control: 100k-ohm potentiometer
 Efficiency: > 98% typical
 UL and CL Recognized (file no. E220165)
 Overvoltage Protection: up to 30VDC
 EMI: FCC Class A
 For use with UL Class 2 LED Drivers only
 Humidity: 80% RH
 Lifetime: 50,000 hours

Installation Highlights

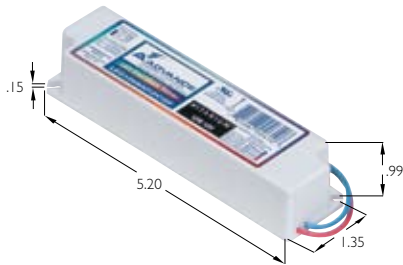
- LED Controller must be installed inside an electrical enclosure
- AC input wiring must be routed inside conduit
- A channel letter could be considered an electrical enclosure if certified by an external agency such as, UL
- Wiring to use inside electrical enclosure must meet UL Style 1316 (105°C, 600V) at minimum
- No conduit may be required on the UL Class 2 output outlet if wire used is PLTC type

LED Driver Data

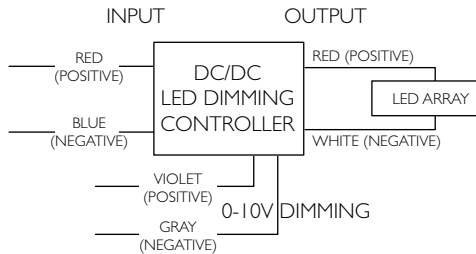
Output Power (W)		Output Voltage (V)	Output Current (Amps)	Min/Max Ambient Temp	Input Volts	Catalog #	Certifications		Input Current Max (A)	Input Power Max (W)	Env. Rating
Max	Min						CSA	UL			
60	0	12	5.000	-40°C/60°C	12VDC	913710830902	Y	Y	5.00	60	Dry, Damp
100	0	24	4.100	-40°C/60°C	24VDC	913710830902	Y	Y	4.10	100	Dry, Damp

For the most up-to-date data on LED drivers, visit www.philips.com/advance or consult your sales representative.

Mechanical Dimensions



Wiring Diagram



- AC input:** 6-inch, 18AWG solid Positive (RED), Negative (BLUE)
- Dimming:** 0-10 DIM, 6-inch, 22AWG solid Positive (PURPLE), Negative (GRAY)
- DC output:** 6-inch, 18AWG solid Positive (RED), Negative (WHITE)



Technical Requirements for Control Equipment

1. The light output of the LEDs operated by the dimmable driver is controlled by DC voltage applied to the control input leads (0-10V DIM purple and gray).
2. The control device must be capable of accepting, or sinking, the DC current flow from the driver. The maximum under any condition is 500 microamps per driver.
3. The control terminals of the driver are isolated from the power lines and are suitable for use as Class II terminals. As many drivers as desired for use with the particular control device may be connected in parallel in a bus configuration. The length of the bus, the wire size of the bus and the number of drivers connected on the bus must be configured so that the DC voltage drop as a function of the resistance of the wire and the control current flowing does not exceed 0.2 volts for dimming controls. For controls used as a minimum/maximum, or hi-lo 2-level application, the maximum DC voltage drop must not exceed 0.5 volt.
4. If the control bus is opened, or if the control device internally opens the control bus under some conditions, the voltage on the control bus will then be a function of the ballast, which is $10V \pm 0.5$ volt. Maximum light output will be delivered under this condition.
5. If the control bus is shorted either by a mechanical switch in the control or by the circuitry of the control device, or inadvertently in the wiring, the current on the control bus will be 500 microamps per driver maximum. All drivers on the control bus will then operate at minimum light level.
6. As can be determined from the two above items, simple two-level operation of the driver can be achieved by proper usage and application of a simple open/close switch on the control bus with maximum light being achieved when the switch is open and minimum light when the switch is closed.
7. The driver is intended for use with control voltages between 0 (zero) and 10 (ten) VDC. The control equipment must not impose a voltage greater than 11.0-volt peak maximum on the driver control terminals.
8. The DC control voltage should have a maximum peak to peak ripple (low and high frequency ripple) not exceeding 10% of the average VDC. Short-term transient voltage of the control devices must not exceed 14 volts.
9. Control equipment intended to control more than one driver must be capable of sinking the current supplied to the control bus by the maximum number of drivers specified for the control device. At any given level setting it must maintain control bus voltage constant within a range of $\pm 5\%$ as the number of drivers connected to the control bus varies from a minimum of one driver up to the maximum number specified for the control device.
10. Drivers of various ratings (120V, 230V...) may be mixed on the same control system.
11. Since the control bus is Class 2 wiring, all control devices that are connected to the power line must have proper isolation between the power line and the control leads. Any control devices that are connected to the power line must have UL approval/recognition as Class 2 equipment.

Please contact Philips Lighting Electronics at 800-372-3331 if technical assistance is required.



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