

0-10V Dimming Driver Option

History

0-10V Dimmers have been used in commercial applications for fluorescent lighting and occupancy and daylight sensor systems for years and are now becoming popular with LED products. One reason this standard is widely established is that it is defined in the IEC standard number 60929 Annex E, making it acceptable to most engineers.

Where Used?

LITON offers 0-10V drivers in its 5" and 6" General Purpose Recessed Housings, Architectural Recessed Housings, 24V Linkaled products and are specified as "-D10" when ordering. Please see specification sheets for further details.

Synonymous Terms:

0-10V, Fluorescent Dimming, 5-Wire Dimming.

Benefits

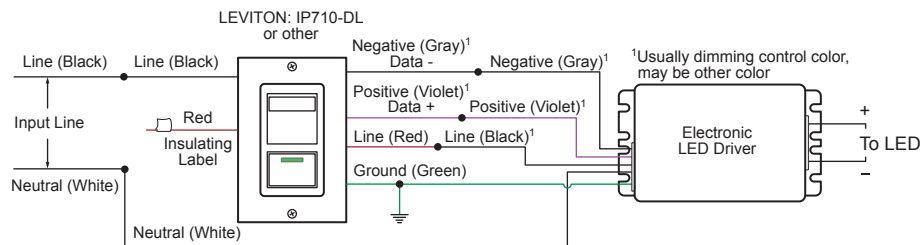
- Use existing 0-10V systems in retrofit applications.
- Liton's -D10 LED Driver is compatible with most 0-10V control systems.
- Large 0-10V install base in commercial applications due to IEC standards.
- Allows smooth dimming down to 5% depending upon the dimmer's limitations.
- Compatible with many daylight harvesting controls.

Limitations

- Some manufacturers do not follow the IES standard. This leads to LED drivers and lamps that claim 0-10V compatibility but drop out or pop on, or dim backwards with the lowest output at the top and the highest output at the bottom.
- The control signal is a small analog voltage and long wire runs can cause a signal level drop that can produce different light levels from different drivers on the same control circuit.

0-10V Dimmer Wiring Diagram

-D10: 0-10V Fluorescent Dimming



Example 1:

Manufacturer	Style
Leviton	IP710-DLX
Lutron	NTFTV-WH*
Lightolier	V2000FAMU
Synergy	Mark VII ISD 120/277 WH-M10

*requires separate power pack, not supplied