

What is 0-10V Dimming?

Used as an early fluorescent dimming system and still used today, 0-10V dimming has been adapted to become a reliable LED dimming control protocol.

0-10 V is one of the earliest and simplest electronic lighting control signaling systems; simply put, the control signal is a DC voltage that varies between zero and ten volts. The controlled lighting should scale its output so that at 10 V, the controlled light should be at 100% of its potential output, and at 0 V it should be at the lowest possible dimming level.

What should I look for when picking a 0-10V controller?

Often, dimming ballasts and dimming LED power supplies use 0-10V control signals to control dimming functions. In many cases, the dimming range of the power supply or ballast is limited. If the light output can only be dimmed from 100% down to 10%, there must be a switch or relay available to kill power to the system and turn the light completely off.

Most 0-10V controllers offer either a built-in line voltage relay or an external line voltage relay. Depending on the application, these options should be considered.

Which manufactures sell 0-10V compatible controllers?

Most manufactures of lighting controls offer a 0-10V option. Here are a few popular examples.

Lutron: **DVTV-WH**
Lutron: **PP-20**

Diva 0-10V controller (module sold separately)
Line voltage relay module

Lightolier: **ZP600FAM120-W**

Sunrise preset 0-10V controller
with integral line voltage relay

Leviton: **IP710-DLX**

Illumatech preset 0-10V controller
with integral line voltage relay

Wiring example for 0-10V dimming application.

