

Control type: 3-wire

3-wire control is a line-voltage phase-control dimming method. Along with hot and neutral, the dimming signal is communicated via a third wire called dimmed hot. All three wires are rated Class 1 and can be run within the same conduit. Three-wire control is stable over long wire runs, allows for maximum circuit loading, and is very easy to wire.

3-Wire Basics

3-wire control is an analog control method that is primarily used to control Lutron fluorescent ballasts. It allows dimmers to set the intensity of ballasts by providing a line-voltage phase-control signal from the dimmer to the ballast on a dimmed hot wire. The dimmer separately switches the power to the ballast over a dimmed hot wire. All ballasts connected to a single dimmed hot wire must be on the same circuit and will be controlled together. The number of ballasts that can be connected to a single circuit is limited by the dimmer being used.

Control Type Applications

- Basic Applications
 - Use a single wallbox dimmer in a conference room to simultaneously control multiple fixtures with 3-wire ballasts
 - Connect 3-wire ballasts to an EcoSystem interface to allow for a single zone of control from EcoSystem sensors or controls
 - Complex Applications
 - Connect 3-wire ballasts to centralized panels to allow for control of multiple zones using SeeTouch keypads

Product Solutions

- Basic Applications
 - Eco-10
 - Hi-lume
 - Compact SE

Control a single zone of ballasts using any one of various wallbox dimmer styles: Vierti, Lyneo Lx, Maestro, Nova T*, Nova, Vareo, Diva, Ariadni, or Skylark. For more information, see www.lutron.com/wallbox

- Complex Applications
 - Grafik Eye 3000/4000 systems with 3-Wire Fluorescent Power Module (PHPM-3F) Interface
 - Grafik QS with 3-Wire Fluorescent Power Module (PHPM-3F) Interface

A Grafik main unit allows control over multiple zones of 3-wire ballasts. Multiple scenes can be programmed with zones set at different intensity levels and fade rates.

- Quantum with Power Panels or Grafik QS with 3-wire Fluorescent Power Module (PHPM-3F) Interface

Quantum manages both electric light and daylight throughout a building, not only to save energy and simplify operations, but also to improve the comfort and productivity of the building occupants. Quantum automatically dims or switches all electric lighting, and controls daylight using automated window shades. It manages, monitors, and reports on all the lighting usage in a building for optimal energy performance and productivity, while minimizing maintenance and operating costs. For more information, see www.lutron.com/quantum