

# DETAILS ON DIMMING

INCANDESCENT, MLV, ELV

**Each dimmable fixture has certain technology within it that determines the type of dimmer to use.** It's important that the dimmer matches up to the fixture technology in order for it to work properly. Applications include residential and light commercial use. Maximum 300W per configuration.



INCANDESCENT



DVSC-600P-WH



(MLV) MAGNETIC  
LOW VOLTAGE



DVLV-600P-WH



(ELV) ELECTRIC  
LOW VOLTAGE



DVELV-303P-WH

Not all lighting products are dimmable, and not all dimmers work with all lighting products. To check compatibility with a specific combination of dimmers and lighting fixtures, consult the factory at [design@puregelighting.com](mailto:design@puregelighting.com).

## KEY POINTS WHEN SELECTING A DIMMER

- How much of a load you will be putting on the dimmer.
- You must also consider if the fixtures can be controlled by one or more locations (single pole dimmer or 3-way, etc.).
- When you put multiple dimmers in the same box, you de-rate the dimmers. Refer to the dimmer manufacture for de-rating guidelines.
  - If the dimmer is located on the end of the box, your 600-watt dimmer may only be suitable to handle 500-watts
  - If located in the middle with other devices on either side, a 600-watt dimmer could become a 400-watt dimmer.

## WHAT ARE THE ADVANTAGES OF USING DIMMERS?

- Create the mood and atmosphere of a room.
- Save energy.

**Dimming a fixture 20% saves 20% in energy**

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0-10V

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**. The control signal is a DC voltage that varies between zero and ten volts. The controlled lighting should scale its output so that at 10V, the controlled light should be at 100% of its potential output, and at 0V it should be at the lowest possible dimming level. Applications include architectural and larger capacity systems. Maximum 1800W for typical configurations.



LUTRON  
NTSTV-DV-WH



LUTRON  
DTVV-WH



LEVITON  
IP710-DLX

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## UNDERSTANDING DIMMING RANGE

### Some power supplies don't dim all the way to 0%

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 (included in suggestions above).

- 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.

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