

APPLICATION

The LMPS-Dimmer Controller and LMPS-Dimmer Extender (Henceforth Controller and Extender) are add-on products to the HEICO lighting™ Contactless LED System aimed to control the lighting intensity of compatible LED arrays. The Controller and Extender can reduce energy consumption at certain times of the day; create lighting ambiances or visual effects.

ELECTRICAL REQUIREMENTS

Controller: Powered by the Class 2 LMPS-350, the Controller stands between one (1) LMPS-350 and one (1) loop of HEICO lighting™ compatible LED arrays.

Extender: Powered by the Class 2 LMPS-350, the Extender stands between up to four (4) LMPS-350 and up to four (4) loops of HEICO lighting™ compatible LED arrays; additional Extenders can be daisy chained together. The Extender replicates the lighting pattern of the Controller to other channels; each Extender provides four (4) additional channels. Additional Extenders can be daisy chained with a RJ45 patch cable, as shown in the Installation diagram (figure 1).

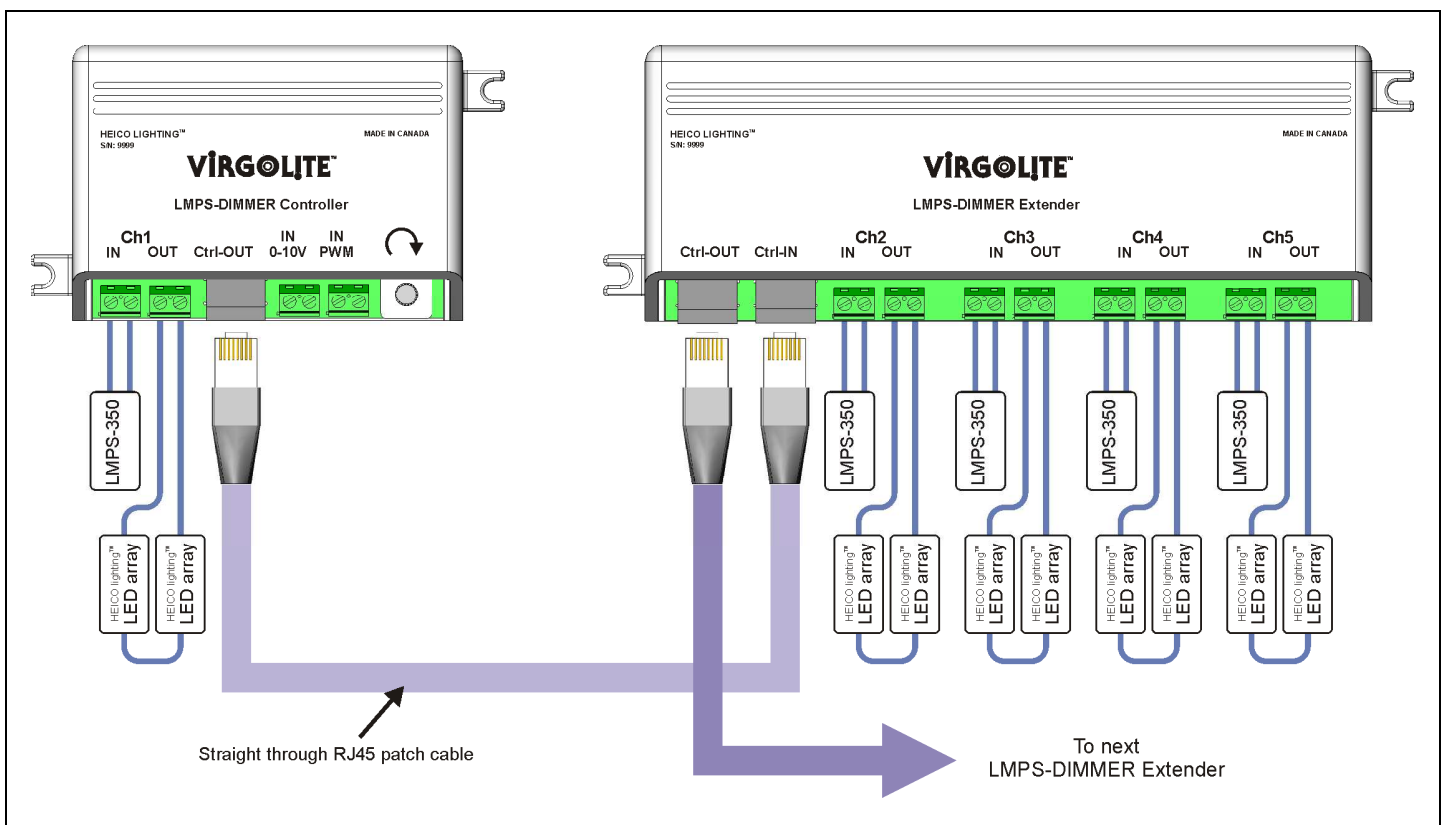


Figure 1: Electrical connection (manual dimming connections shown)



- The LMPS-Dimmer and LMPS-Controller must only be used with the LMPS-350 and HEICO lighting™ LED arrays.

MECHANICAL INSTALLATION

- The Controller and the Extender are suitable for dry locations installation only. In damp and wet environments the Controller and Extender shall be installed in an appropriate location and in a listed electrical enclosure approved for the purpose (examples: NEMA 3, 3R, 3S, 3X, 3RX, 3SX or 4).
- Use #8 fasteners to secure the Controller or the Extender.

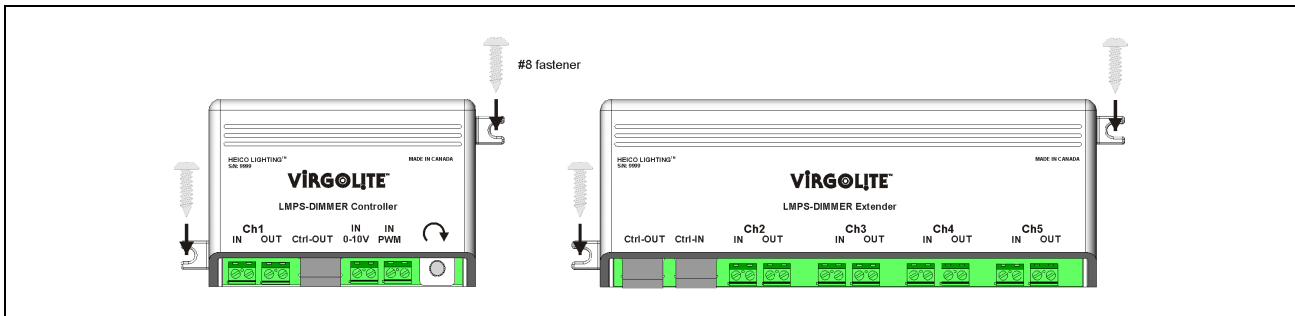


Figure 2: Mechanical installation



- **IMPORTANT:** The user is responsible for the safe electrical and mechanical installation of the power supply and of the suitability of the wiring system, mounting surfaces and any mounting hardware used. Failure to do so can lead to electrical and mechanical failure of the system and serious personal injury.
- The user is responsible for proper selection of the electrical conductor type that will be used for the specific application.
- The Class 2 circuit shall be physically separated from other circuit types.

INTERCONNECTION DISTANCES

The control circuits can cover great distances. The limits are as follow:

- Refer to the Distance Factor Calculator or the appropriate Installation Guide for maximum distances in between the LMPS-350 and the LED arrays.
- Up to 500 feet in between the Controller and the Extender.
- Up to 500 feet in between each Extender.
- Up to 250 feet from a third party decoder to the PWM input.
- Up to 250 feet from a third party decoder to the 0-10 volts input.
- The standard DMX512 limits apply to any third party controllers.

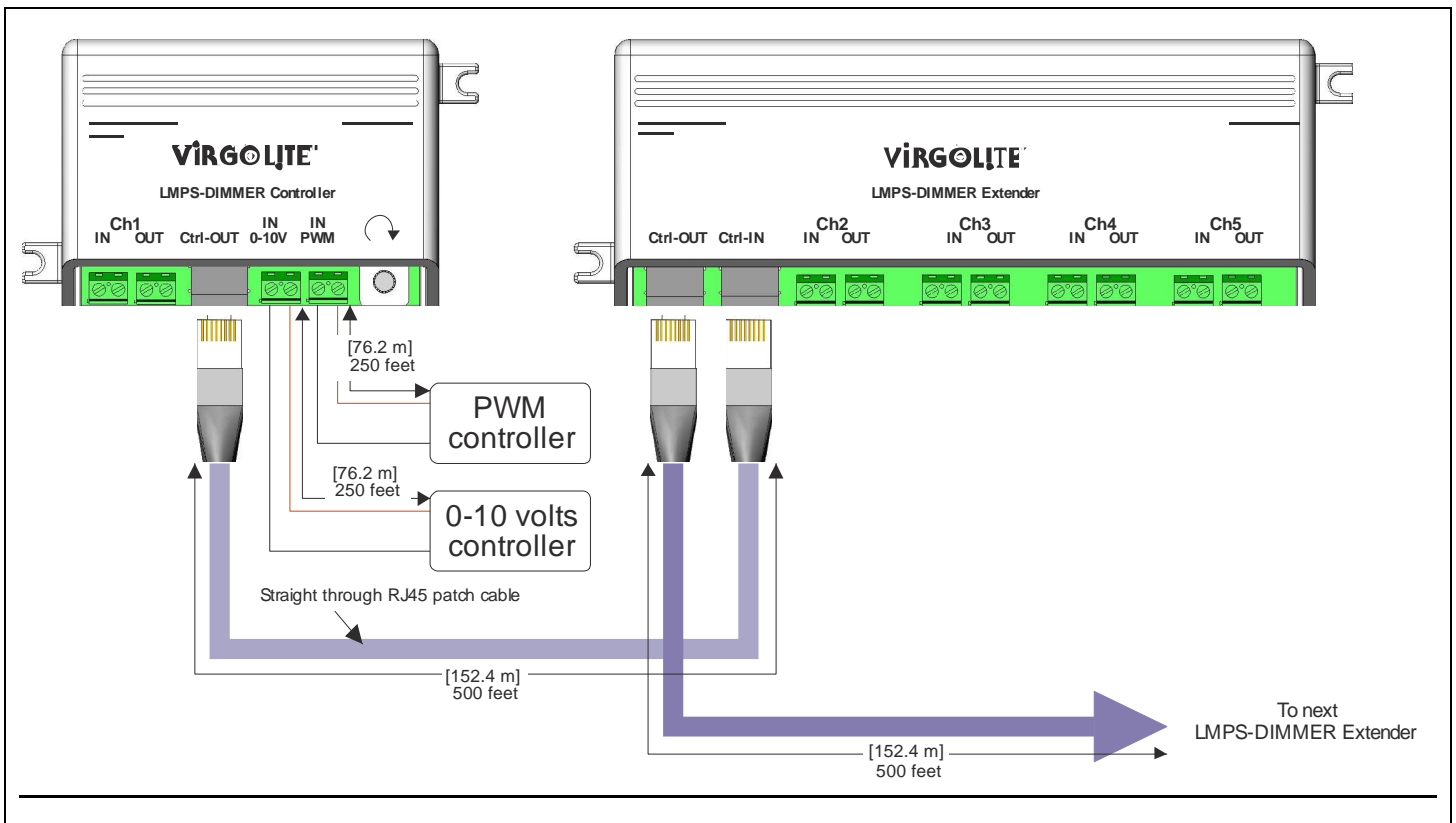


Figure 3: Interconnection distances



- The maximum limit could be affected if the wires pass near fluorescent ballast or other electrically noisy circuits. Further testing might be required.

CONTROL FEATURES

ON BOARD DIMMING

On-Board dimming is included with the unit. Turn the knob clockwise for 100% light output and counterclockwise for 0% light output.

0-10V INPUT

- ⚠ To use the 0-10V input the on board control must be set to 0.
 - The 0-10 volts input is compatible with any 0-10 volts (**voltage source**) decoders that comply with ESTA E 1.3.
 - 0 volts = 0% light output.
 - 10 volts = 100% light output.

PWM INPUT

- To use the PWM input, the on board control must be set to 0.
- The PWM input is compatible with any PWM decoder that follows TTL (5 volts) level up to a frequency of 1 khz.
- The PWM input follows inverted TTL logic:
 - 100% of signal width = 0% light output
 - 0% of signal width = 100% light output

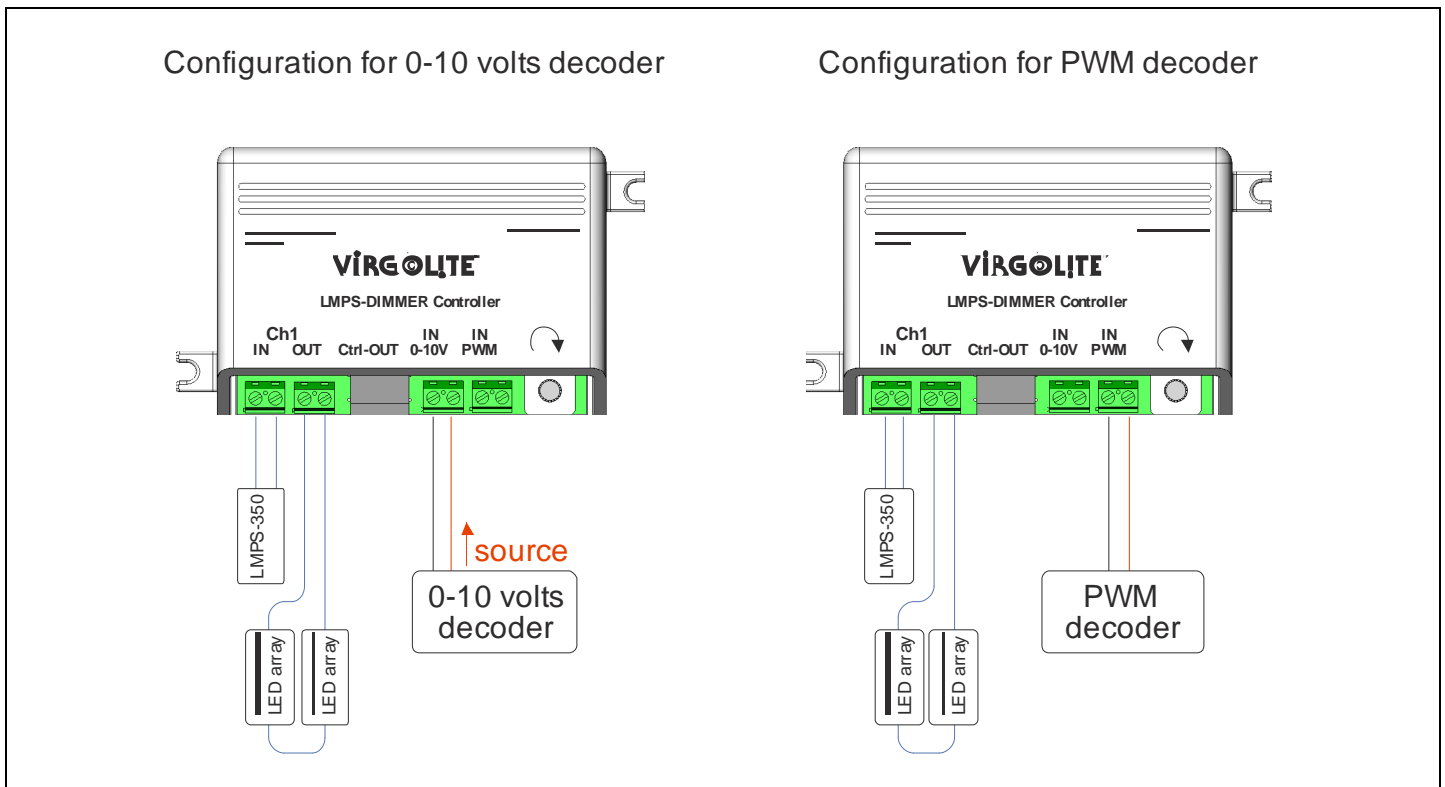


Figure 4: 0-10 volts and PWM input connections

Extender

- Use a RJ45 to RJ45 straight through cable to interconnect the controller to the extender (figure 1). Category 5 networking cable is the most common cable to use for this purpose.
- There is no limit to the number of extenders that can be used.
- The lighting pattern generated by the Controller will be replicated to all connected Extenders

DMX 512 COMPATIBILITY

The Controller is compatible with third party DMX controllers. Both (0-10 volts and PWM) external inputs are DMX512 compatible with the proper decoder.

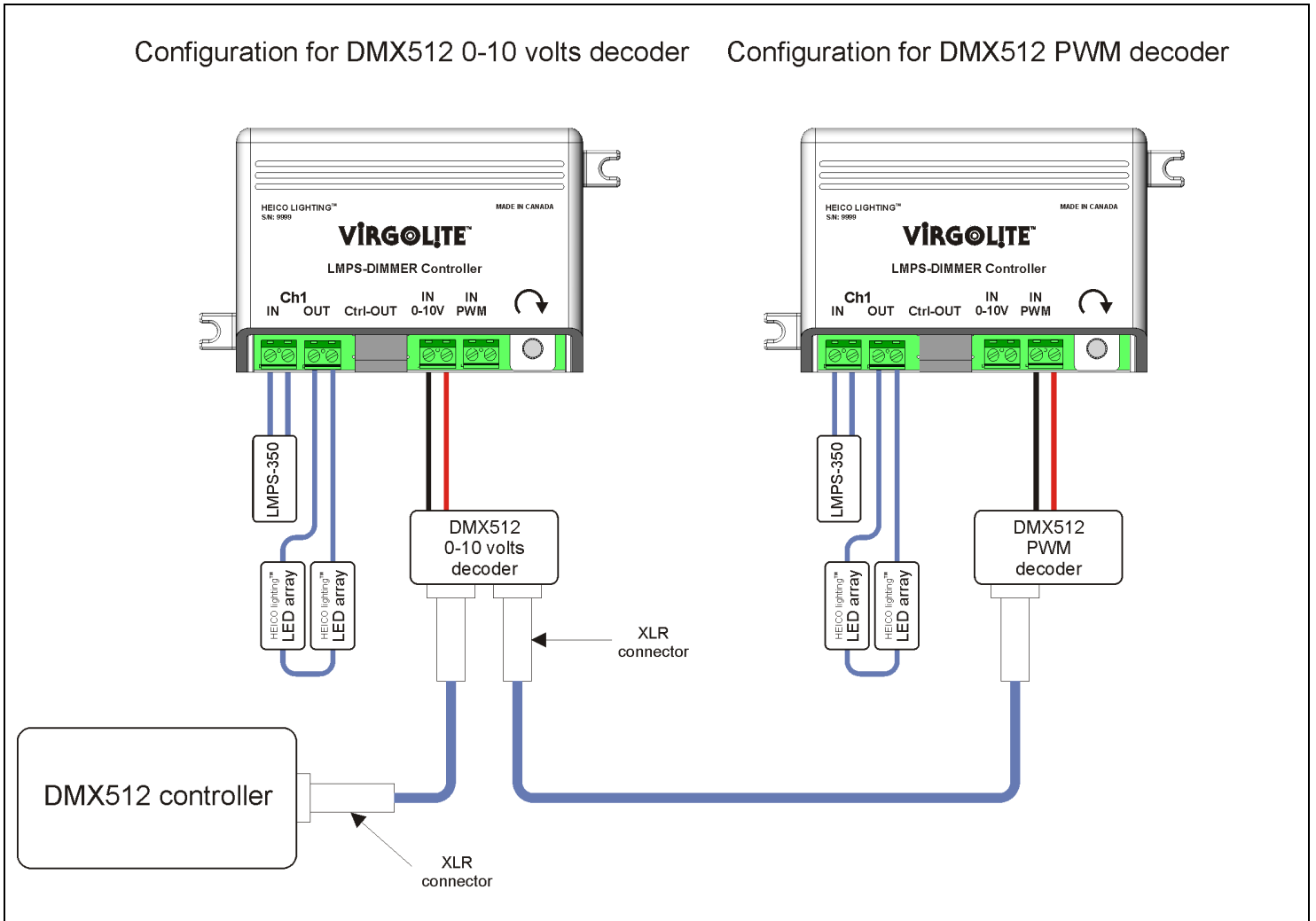


Figure 5: DMX512 connection

SINK Adapter

The Controller cannot be controlled directly from a wall dimmer control. Most of the wall dimmer controls sink the current from the target control device. The HEICO lighting™ Sink Adapter will adapt the sink/source signal to be compatible.

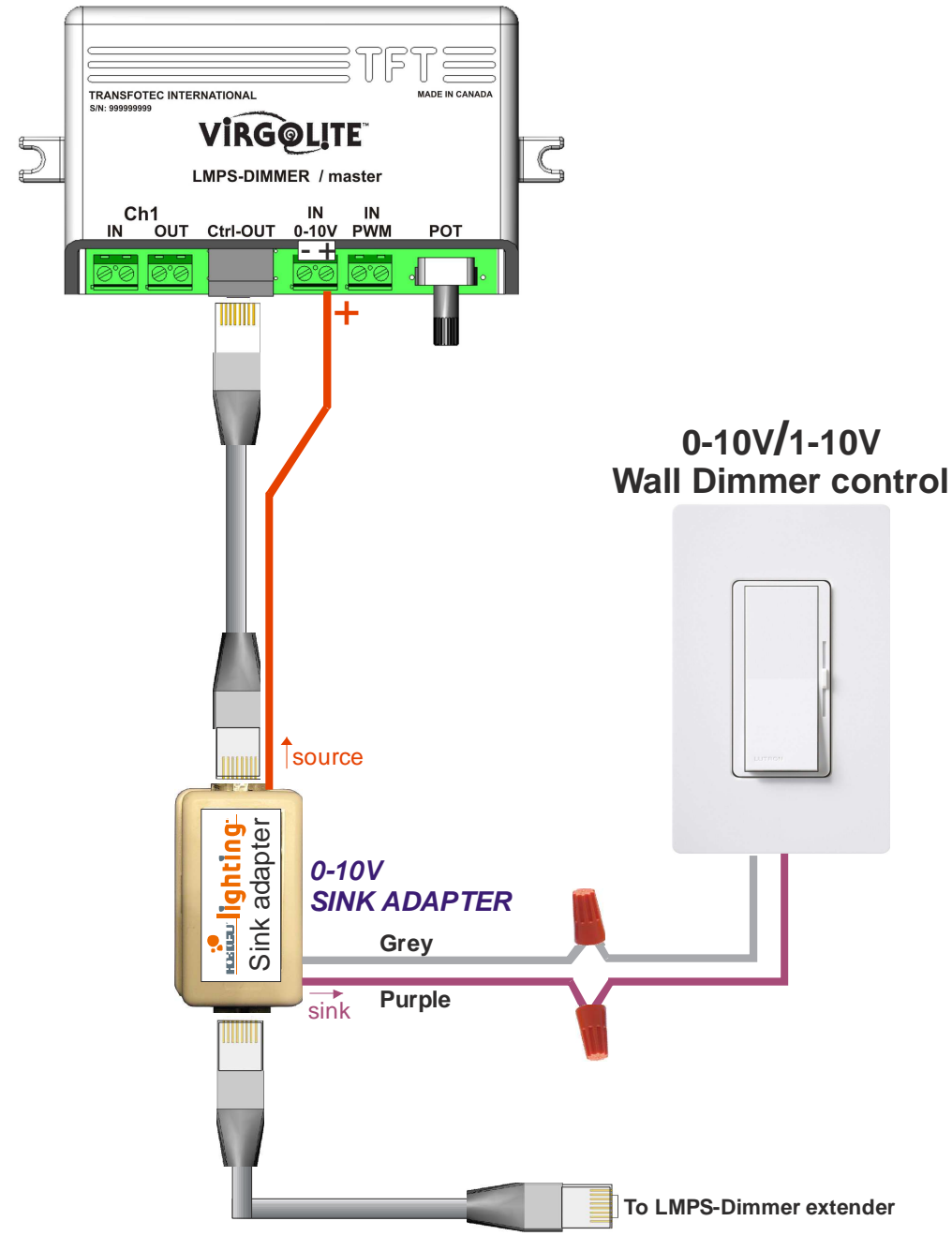


Figure 6: Sink adapter connection

**Please contact the agent of your area to order this product on special order.*

ANIMATIONS

- Animations can be created by using multiple Controllers.
- There is no limit to the number of points of animation.
- Each point of animation will require a Controller.
- If the point of animation needs more than one power supply Extenders can be added.
- Dimming and flashing can be used at the same time to create many effects.

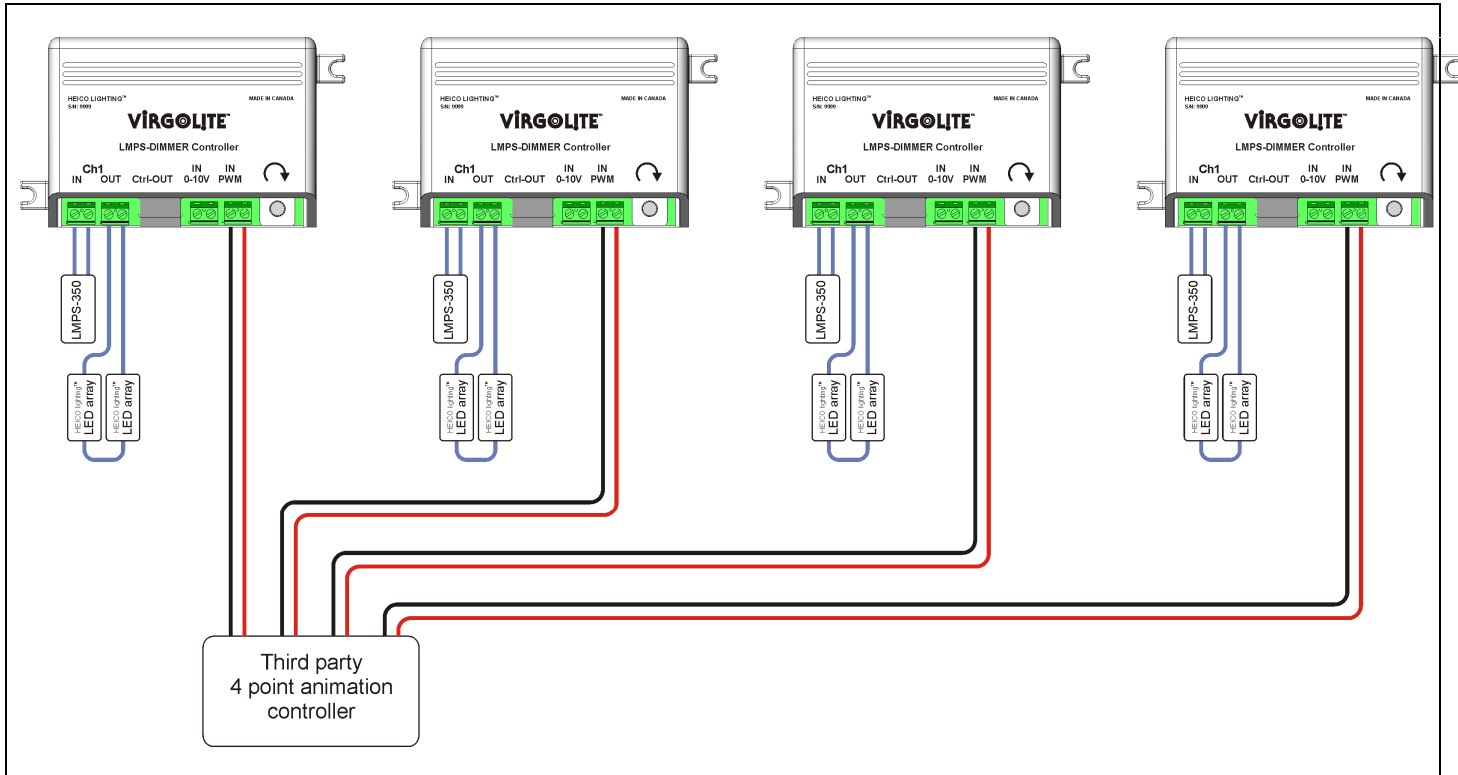


Figure 6: Example of a 4 point animation (PWM input shown 0-10V connection is similar)



- All technical data in this technical bulletin is based on test results and is believed to be correct. However since the end use of HEICO lighting™ products, usage application and installation, is beyond our control, HEICO lighting™ makes no warranty expressed or implied as to the fitness of use. Their use shall be solely by the judgment and at the risk of the user notwithstanding any statement in this technical bulletin.
- For other configurations and general information please contact HEICO lighting™
- Refer to the product sheet for more information about the LMPS-350, LMPS-750 power supplies, the LMPS-Dimmer Controller / LMPS-Dimmer Extender and the HEICO lighting™ LED arrays.