

DHADC Continuous Dimming Control Sensor Installation Instructions



Description

- The DHADC sensor is designed to work directly with an electronic 0-10VDC dimming ballast/LED driver. It is ideal for daylight control or task tuning and to compensate for lumen depreciation. The sensor is available in an indoor version only and is intended to be ceiling mounted. Refer to **Figures 1 and 2** for wiring diagram, mounting locations and recommendations. **READ AND FOLLOW ALL SAFETY INSTRUCTIONS. SAVE THESE INSTRUCTIONS.**

Pre-installation

- **CAUTION: RISK OF ELECTRICAL SHOCK.** Turn power off at service panel before beginning installation. Never wire energized electrical components.
- **CAUTION: USE COPPER CONDUCTOR ONLY.**
- **CAUTION: For indoor use only.**
- **NOTICE: For installation by a licensed electrician in accordance with National and/or local Electrical Codes and the following instructions.**
- **NOTICE: Confirm that device ratings are suitable for application prior to installation. Do not install if any damage to product is noticed.**

Installation

Mount the sensor in a 3/8" hole in a ceiling tile using adhesive backing. For most general applications the sensor should be mounted between 6 to 8 feet of the window area, central to the area illuminated by the lighting that will be controlled. For controlling lighting in a task area, mount the sensor directly over task area. In all cases the sensor must be mounted so that it looks at reflected light only and not at any direct light. See **Figure 1**.

Connection

To prevent electrical shock, disconnect power to the electronic dimming ballasts before connecting the sensor. Do not run the wires with or near power wiring. For long wire runs or where there is excessive electrical noise, shielded cable or conduit is required. Maximum wire length is 100 feet. Butt splices are recommended, however wire nuts are acceptable. Each DHADC sensor can control a maximum of 50 ballasts/drivers. Use a 20 or 22 AWG wire and observe the following wire scheme:

Grey: To grey wire from electronic dimming ballast/driver.

Violet: To violet wire from electronic dimming ballast/driver.

Blue: Not used, cap off.

Black: Not used, cap off.

White/Green: This wire loop controls the sensor response delay. Leave this wire intact for an 8 second delay or cut the wire for a 3 second delay.

Calibration

For daylight control the calibration should be performed at night or with the blinds shut. For task tuning or lumen depreciation maintenance the calibration can be done at any time.

The DHADC sensor comes equipped with a built in amplifier and a 20 turn potentiometer to adjust the limits of the sensor. Plug the adjustment tool (tube screwdriver) through the hole in the sensor with slight inward pressure and twist to engage the potentiometer screw head.

NOTE: BE CAREFUL NOT TO SHIELD THE SENSOR WHEN PERFORMING ADJUSTMENTS.



1. Calibration for daylight control - At night or with the blinds closed, rotate the adjustment tool counterclockwise (looking at the adjustment hole) until the lights begin to dim. Slowly rotate the tube back clockwise just until the lighting comes back up to full output. The lights are now set to begin dimming as the light level from the outside increases.
2. Calibration for task tuning or lumen depreciation - Slowly rotate the adjustment counterclockwise (to dim) or clockwise (to brighten) until the desired light level is present.

When calibration is complete remove the calibration tool and inserts the plastic screw to seal the hole.

Operation

The DHADC sensor operates when the electronic dimming ballast are switched ON. Once calibrated the sensor needs no further attention. Except for the calibration hole, there are no switches or other user controls on the sensor.

Maintenance

Wipe the lens clean with a non-scratching clean cloth and ensure that no foreign debris remains. Check the housing for damage such as cracks, burns or other deformations. Check that no moisture has penetrated the sensor, as this will likely render it inoperable.

Figure 1: Sensor Location

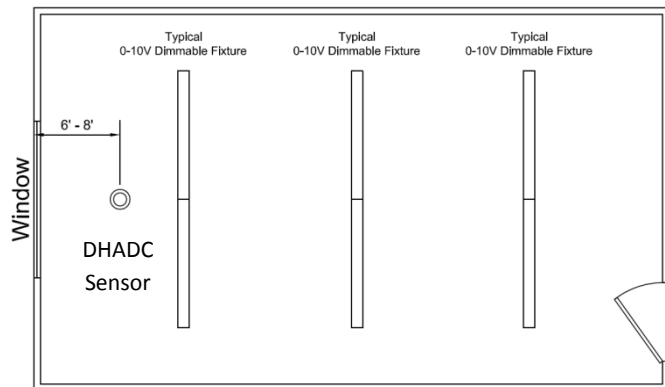


Figure 2: Wiring Diagram

