

# CDT-EN-01 0-10V Dimming Transmitter

Convert 0-10V lighting control voltages to EnOcean central command telegrams for setting dimming levels and OFF switching.



## Specifications

### Electrical

Power Input: 100-277 VAC 50 or 60 Hz  
Standby power: <0.5W @ 120VAC  
Max Power consumption @ 120VAC: <0.5W

### Output

EnOcean Central Command - Transmit link packet w/ MENU button EEP: A53808

### Input

0-10V input 0.1mA source

### Wireless

Range: 50-150 feet (typical)  
Frequency: 902 MHz

### Mechanical

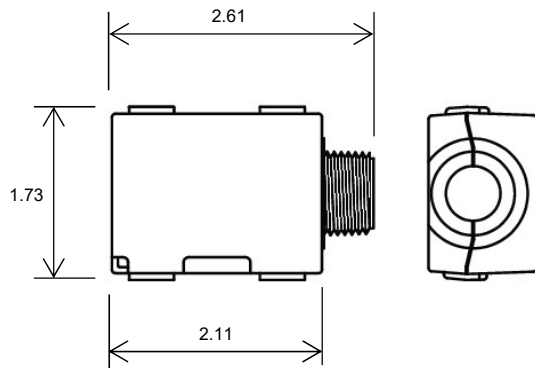
Dimensions 2.11 x 1.73 x 1.09 inches (54 x 44 x 28 mm)

### Operating Specifications

Operating Temp: 32° to +122°F (0° to +50°C)  
Storage Temp: 4° to +176°F (20° to +80°C)  
Humidity: 10-90% non-condensing  
Power up state: Auto

### Certifications

ETL: UL 60730 (U.S.)  
ETL: CSAc22.2#1405 (Canada)  
CE: IEC 60730  
ETL: UL 2043 (Plenum)  
IEC6100045 (Surge)  
FCC: SZVSTM300U (United States)  
IC: 5713ASTM300U (Canada)



## Installation Guide

### Package Contents

- (1) 0-10V Transmitter
- (1) Instruction Sheet

### Equipment Needed for Installation

- Wire Nuts/connectors
- Electrical Tape

### CAUTION:

- This product is intended only for use indoors and in dry locations.
- It may be more convenient to link the wireless controls to the Controller prior to final installation.
- To be installed by a qualified electrician and used in accordance with these instructions and applicable electrical codes and regulations.
- If unsure about any part of these instructions, consult Factory.

### CHOOSE THE OPTIMAL MOUNTING LOCATION

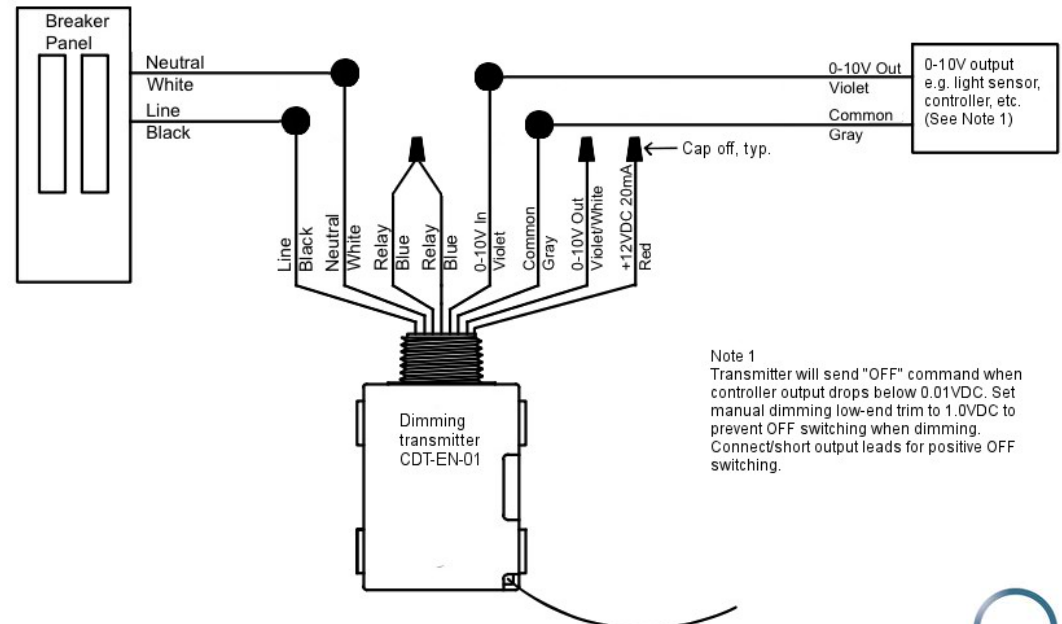
The long term reliability and wireless performance of the Transmitter is strongly influenced by the mounting location.

Choose a mounting location carefully. For best radio performance:

- Straighten antenna out and away from metal.
- Create separation distance away from interfering electronics such as fluorescent tube ends, electronic transformers/power supplies, motors, etc.
- Avoid mounting inside metal enclosures.
- Obstructions of metal, concrete and dense building materials will reduce the range. Mount higher and away from obstructions to maximize the range.
- Confirm operating environment does not exceed temp. or humidity specs.

### INSTALLATION

1. **PLAN** Identify best mounting location transmitter. Perform range test to confirm operation prior to installation. Switch OFF breaker before making connections.
2. **CONNECT** the Transmitter to circuit following wiring diagram and local electrical codes. Restore power.
3. **RECORD** radio ID and location on project as-built drawings for use during system commissioning/start-up.



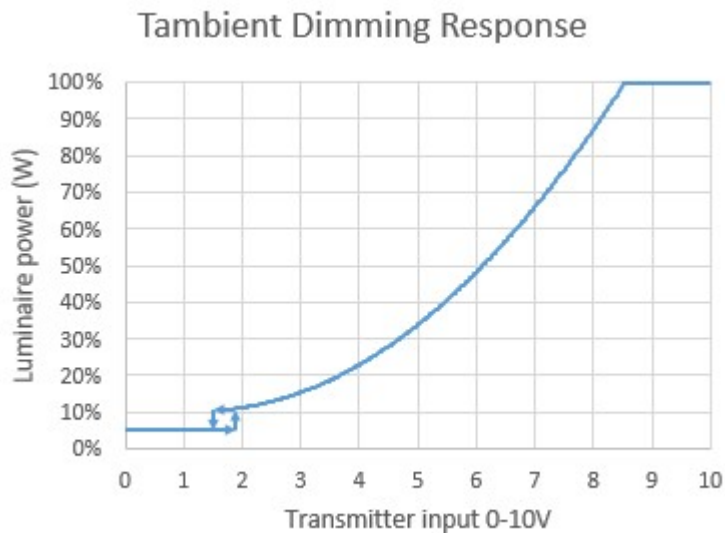
Note 1  
Transmitter will send "OFF" command when controller output drops below 0.01VDC. Set manual dimming low-end trim to 1.0VDC to prevent OFF switching when dimming. Connect/short output leads for positive OFF switching.



## Tambient “E1” Wireless Dimming Response via CDT-EN-01 Dimming Transmitters

The following describes tambient lighting response to control voltages applied to tambient CDT-EN-01 dimming transmitters by 3<sup>rd</sup>-party lighting controls. This applies to tambient luminaires with integral “E1” wireless receivers linked to the transmitter(s).

1. Applying a control voltage of 2.0VDC or greater will turn tambient uplights ON.
2. Applying a control voltage of 8.5VDC or greater will cause the tambient uplights to operate at full output.
3. Applying a control voltage between 2.0VDC and 8.5VDC will cause the tambient uplights to operate between 10% and 100% power according to the chart below.



4. Applying a control voltage less than 1.6VDC will turn the tambient uplights OFF. (Note: When the uplights turn OFF, the task lights dim to OFF as well. However, the task lights can be operated with the uplights OFF by tapping the pushbutton on the tambient luminaire.)
5. Where manual control stations are provided for multi-level control/dimming, a low-end “trim” or minimum dimming level of 2.0VDC is recommended to avoid low end “drop-out” when dimming manually.