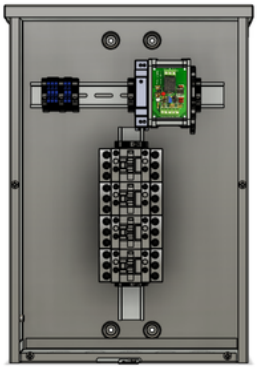
Project		Catalog #		Type	
Prepared by		Notes		Date	

0-10V Contactor Panel

P/N: CTRL-ECO-12POLE-NEMA3R-010V

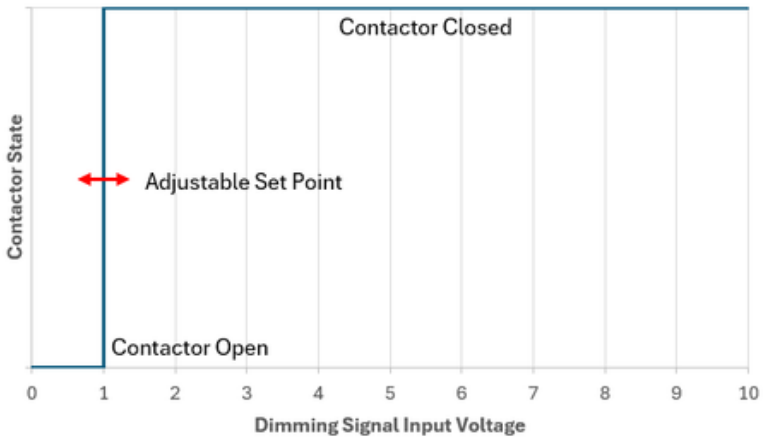
Product Features

- Pre-fabricated lighting contactor panel
- Eliminates light fixture nuisance problems such as ghosting, flicker, chatter, etc.
- Contactor opens circuit when dimming signal is below setpoint (typically 1V)
- Contactor closes circuit when dimming signal is above setpoint (typically 1V)
- Setpoint is field adjustable to match installation needs
- Controls hardware installed and prewired with grounding point



Specifications

- 0-10V dimmer control input
  - Compatible with both current sourcing and sinking controllers
  - Adjustable on/off voltage set point
  - Included power source: 120V, 10W
- Contactors
  - 600V rated
  - 30A per pole
  - 3 poles
- Enclosure
  - Nominal 18x12x6 inch
  - Powder Coated Steel
  - Conduit knockouts
  - Screw cover with lock hasp



Installation Instructions

- Secure the TYPE3R enclosure to a suitable surface such as a wall with appropriate mounting hardware. Refer the the dimensional diagram on the last page for reference for a 12 x 12 enclosure.
- Connect a **120 VAC** power source to terminal block inside the enclosure. Refer to images on last page.
  - L1 = Hot, Line, or Phase connection
  - N = Neutral connection
  - ⏚ = Earth ground connection
  - 1 = 0-10V dimming signal positive (+) connection
  - 2 = 0-10V dimming signal negative (-) connection
- Connect the line and load sides of the lighting circuit
  - L1, L2, L3 = unswitched power source from panelboard (circuit breaker)
  - T1, T2, T3 = switched output to lighting loads (light fixtures)
  - All three poles on each contactor are switched simultaneously
  - Connect poles as needed, it is OK if some poles are not utilized
  - If multiple contactors are present, they are connected together such that all poles will switch simultaneously

Tuning/Setup Instructions

- Ensure that the lighting circuits are not energized (the circuit breakers are off).
- Set the 0-10V control signal to the the minimum output at which the lights should be in their “off” state. In most control systems you simply dim the zone to 0%.
- Energize the 120VAC power source to the panel. DO NOT energize the lighting circuit yet.
- The contactor should be in the “open” state and the red LED on the control board should not be illuminated. Refer to images on the last page.
- If the red LED is illuminated then the “turn off” setpoint should be adjusted downward. If the red LED is not illuminated, then skip these initial adjustment steps and proceed to initial testing.
  - This is accomplished by turning the small brass set screw on the blue plastic potentiometer on the control board counterclockwise with a small flat head screwdriver.
  - The potentiometer is a multiturn precision devise so you may have turn turn it many times to make adjustments.
  - Turn this potentiometer counterclockwise until the red LED turns off.
  - Energize the lighting circuit at the panelboard. The red LED should remain off and the luminaires should not be illuminated.
- Perform initial testing by ramping the dimming signal up and down from the controller. The contactor should close (energize), and the red LED will illuminate, just after beginning to increase the dimming signal from 0% upwards. The lighting should be on and dimming as expected.
- Dim the control zone back down to 0%. The contactor should “open” and the red LED should turn off just before reaching the 0% setpoint.
- Adjust the setpoint as needed by turning the setscrew clockwise to increase the on/off setpoint and counterclockwise to decrease the on/off setpoint.
- Be careful not to turn too slowly when close to the setpoint transition as it may cause the contactors to “chatter” or “buzz” if the setpoint is just right at the threshold of the setpoint.

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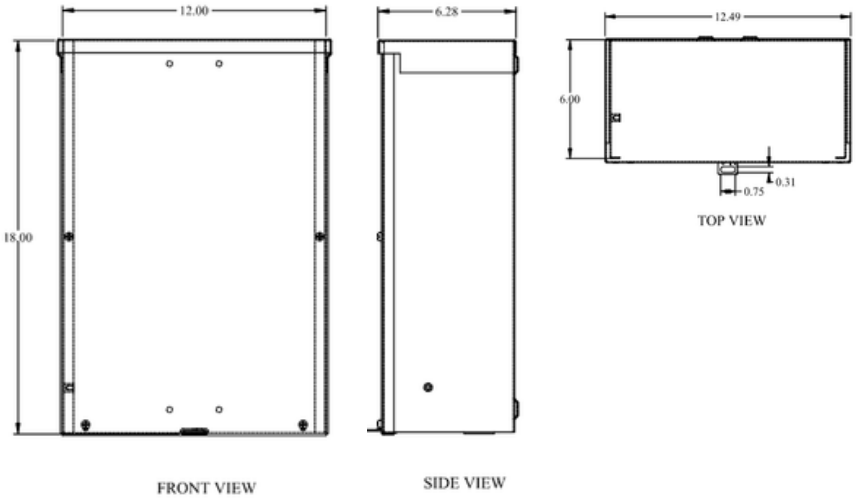
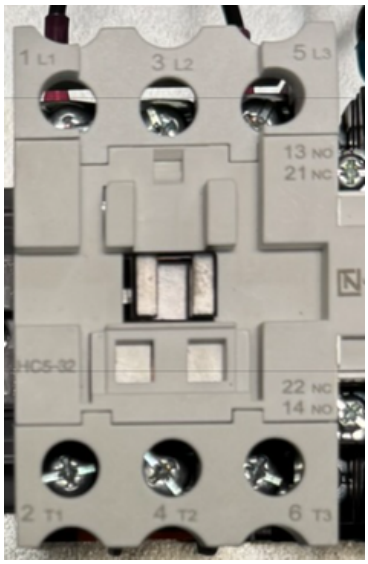


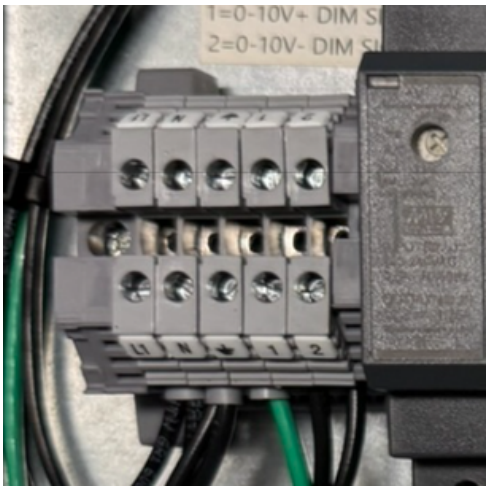
Dimensions

L1, L2, L3 Contactor connections

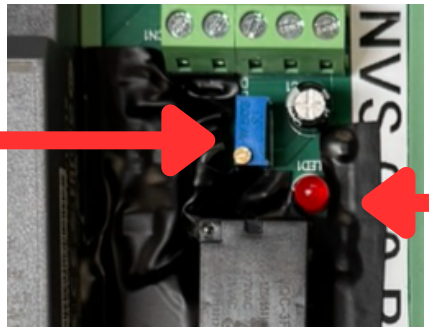


T1, T2, T3 Contactor connections

120 VAC terminal block connections



Setpoint adjustment screw



Red LED indicator