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GRX-PWM Pulse Width Modulation Interface



Description

- Provides capability for a GRAFIK Eye 3000 Series control unit, GP, or LP Panel to switch and dim fluorescent lights that have pulse width modulating (PWM) dimming ballasts.
- Switches and dims any PWM fluorescent dimming ballast powered by 100-277 V \sim that conforms to JISC8120-2.
- Switches up to 16 A of fluorescent, incandescent, low-voltage, metal halide neon/cold cathode load.
- Switches motors up to 1/4 HP @ 100/120 V \sim , 1/2 HP @ 200-277 V \sim
- Up to five PWM interfaces may be connected to one GRAFIK Eye 3000 control unit zone. This allows one zone to control up to five 16 A circuits of electronic dimming ballasts or five motors.
- Switches 100-277 V \sim 50/60 Hz power to loads.
- Requires 100/120 V \sim 50/60 Hz power for internal operations.

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Specifications

Standards

• UL listed

Power

- Load (output) power (phase independent of lighting): 100-277 V \sim
- Input voltage rating (phase independent of lighting control): 100/120 V~, 50/60 Hz
- Switched voltage rating: 100-277 V~, 50/60 Hz
- H₂ terminal input rating: 200 mA
- DH2 terminal input rating: 100 mA
- 12 V=== PWM output rating: 400 mA sources current only

Zone Capacity

• Up to five PWM interfaces per control unit zone.

Key Design Features

- Complies with Standard UL 508.
- Provides a PELV (Class 2: USA) isolated 12 V === at 1 kHz with 400 mA max drive capability PWM output signal that conforms to IEC60929 and JIS C8120-2.
- Accepts a phase-control constant-gate drive fluores-cent input signal (100-120 V \sim 50/60 Hz)

Physical Design

- Wall-mounted, NEMA-Type 1 enclosure, IP-20 protection; #16 U.S. Gauge Steel. Indoors only.
- Weight: 4.25 lbs (2 kg)

Mounting

• Surface mount between 16 in. (40 cm) studs

Environment

• 32-104 °F (0-40 °C). Relative humidity less than 90% non-condensing.

Source/L	_oad Type	Switched Hot Current 100-277 V \sim
Fluorescent		16 A
Incandescent		16 A
Low-Voltage		16 A
Metal Halide		16 A
Neon/Cold Cathode		16 A
Motors	1/4 HP @ 100-120 V∼ 1/2 HP @ 200-277 V∼	

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Dimensions and Mounting

- Mount only where ambient temperature is 32-104 °F (0-40 °C); less than 90% non-condensing relative humidity.
- Allow 4.5 in. (114 mm) between interfaces when mounting several in a vertical layout.
- Mount so that line (mains) voltage wiring is at least 6 feet (1.8 m) from sound or electronic equipment and wiring.
- Mount within 7° of true vertical.
- Internal relays click while in operation; mount where audible noise is acceptable.



All dimensions in inches (mm).

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Power Interfaces

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Wiring From Two Distribution Panels or Circuit Breakers

- Each terminal can accept up to two #12 AWG (2.5 mm²) conductors.
- H1 is the Hot feed to power the load.
- H₂ (on the control circuit terminals) supplies operating power for the PWM interface.
- Wire control circuit terminals correctly:
 - Leave second terminal empty.
 - Do not connect 200-277 V \sim to H₂ terminal.
 - Make sure H₂ is on the same phase as DH₂ (Dimmed Hot) from the lighting control.
- Run separate neutrals for load circuit no common neutrals.
- Panels can have different phases and/or voltages.

Wiring Diagram A: 100-277 V \sim GRX-PWM: 2 Distribution Panels



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GRX-PWM

Power Interfaces

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Wiring From One Distribution Panels or Circuit Breaker

- Each terminal can accept up to two #12 AWG (2.5 mm²) conductors.
- H1 is the Hot feed to power the load.
- H₂ (on the control circuit terminals) supplies operating power for the PWM interface.
- Wire control circuit terminals correctly:
 - Leave second terminal empty.
 - Do not connect 200-277 V \sim
- Run separate neutrals for load circuit no common neutrals.
- Use this wiring only if maximum circuit breaker/MCB rating will not be exceeded.

GRX-PWM Line Voltage: 100/120 V \sim H₂ is the Hot feed 63 PWM Control Signal Wires: DO NOT that powers the internal CONNECT TO LINE VOLTAGE. Lutron is not liable for damage due to 12 V=== circuitry of the GRX-PWM. Use PWM miswiring. H2 only if your line voltage is N2 DH2 H1 N1 N1 SH1 H₂ 100/120 V∼. 0 100/120 V~ Earth/Ground GRX-3000 Dimmed Hot Jeutral Neutral Ξ Но SH Farth/Ground 1 connections Earth/Ground Hot Use 20 A To additional ballasts (50 max.) maximum circuit Distribution Neutral breaker/MCB Panel Earth/Ground

H₁ is the Switched Hot feed to the load. Use a separate lead to H₁ if your line voltage is 100-277 V \sim .

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Wiring Diagram B: 100/120 V \sim GRX-PWM: 1 Distribution Panel