

## GRX-CI-NWK-E Control Interface

### Description

- Integrates a GRAFIK Eye Lighting and Shade Control System with a touchscreen, PC, or other digital equipment that supports TCP/IP communication over Ethernet.
- TCP/IP provides fast reliable two-way communication.
- Provides monitoring commands that allow a touchscreen or PC to query GRAFIK Eye Control Units to:
  - Determine which scene is selected.
  - Read individual zone's intensity.
  - Keep track of buttons pressed.
- Provides control commands that allow a touchscreen or PC to operate GRAFIK Eye Control Units to:
  - Select or sequence lighting scenes.
  - Raise or Lower one or more zones.
  - Lock GRAFIK Eye Control Units.
  - Set Zone Intensity on GRAFIK Eye 3500 or 4500 Series Control Units, which allows users to set intensities on zones of light and to raise and lower an individual shade zone (Sivoia QED shades also allow the selection of individual shade zone presets).
- Functionality is set using DIP switches.
- May be programmed to control any combination of one to eight GRAFIK Eye 3000 or 4000 Series Control Units.



Job Name:	Model Numbers:
Job Number:	

## Specifications

### Regulatory Approvals

- For commercial use, Class A only
- cULus Listed

### Power

- IEC PELV/NEC® Class 2
- Operating Voltage: 12 V<sub>DC</sub> 125 mA  
24 V<sub>DC</sub> 65 mA

### Uses RS232 Command Set for GRAFIK Eye 3000/4000

- Monitoring: Scene selection, scene status updates, read zone intensity.
- Control: Scene selection, scene lockout, sequencing, zone lockout, zone raise/lower.
- Additional control with GRAFIK Eye 3500 or 4500 Series Control Units: Set zone intensity.



### System Communications and Capacity

- Low-voltage IEC PELV/NEC® Class 2 wiring connects the Control Interface to GRAFIK Eye Control Units.
- Standard CAT5 cable, 328 ft (100 m) maximum, connects GRX-CI-NWK-E Interface to PC or other Ethernet source.
- Supports MDI/MDIX auto-crossover (no crossover cable needed).
- Auto-negotiation of 10 or 100 Mbps speed and full- or half-duplex operation.
- Multiple Control Interfaces may be used in a single system.

### Environment

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

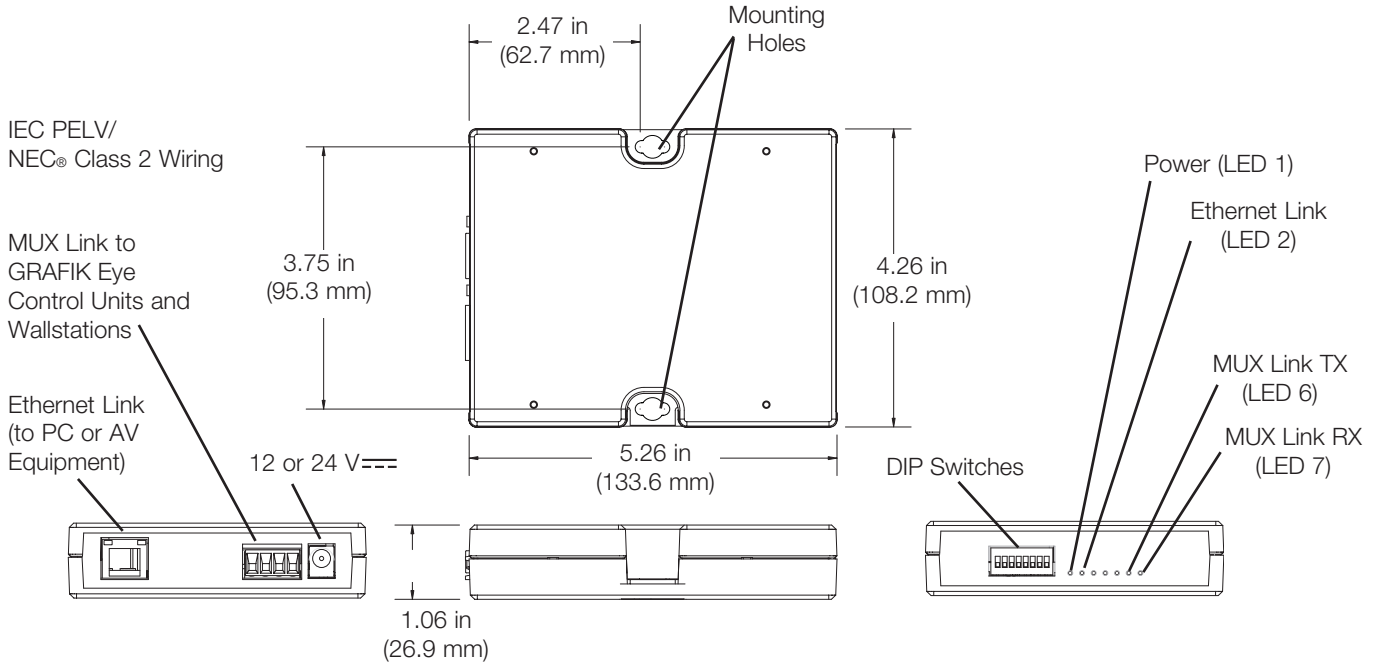
## Functions

DIP Switch	Function	When set to ON 	When set to OFF 
1	Zone Lock Retain	If power goes out, locked zones stay locked when power returns.	Power cycling unlocks locked zones.
2	Scene Lock Retain	If power goes out, locked scenes stay locked when power returns.	Power cycling unlocks locked scenes.
3	Sequence Retain	If power goes out, sequencing resumes when power returns.	Power cycling stops sequencing.
4	Sequencing Scene Range	Sequencing loops through scenes 5 to 16.	Sequencing loops through scenes 1 to 4.
5	Multiple Addresses <sup>1</sup>	DIP Switches 1-4 used to set address, not function.	DIP Switches 1-4 operate as specified above.
6	Button Feedback	Interface reports Control Unit and Wallstation button presses.	No reporting of button presses.
7	Scene Status	Interface reports scene changes.	No reporting of scene changes.
8	Not Used		

<sup>1</sup> Only for projects with more than one Control Interface that use RS232 or Ethernet communications (GRX-CI-PRG, GRX-CI-RS232, or GRX-CI-NWK-E). One Interface in the project automatically assumes address 16 – DIP switches do not need to be set to give it an address. (If a GRX-CI-PRG is present, it must assume address 16.) Every other RS232 or Ethernet Interface in the project must have a unique address: Set DIP switch 5 to on and then use DIP switches 1-4 to assign a unique address.

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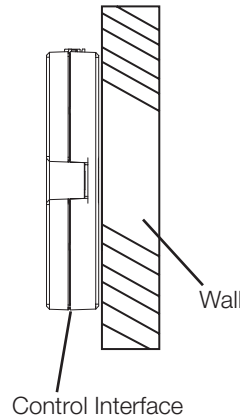
### Dimensions



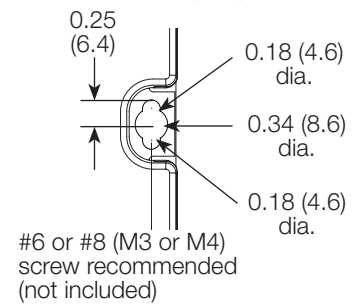
### Mounting

1. Mount the control interface directly on a wall, as shown in the Mounting Diagram, using screws (not included). When mounting, provide sufficient space for connecting cables. The unit can also be placed in the LUT-19AV-1U AV rack using the screws provided with the unit. The LUT-19AV-1U will hold up to four units. If conduit is desired for wiring, the LUT-5x10-ENC can be used to mount one unit.
2. Strip 3/8 in (10 mm) of insulation from wires. Each data link terminal will accept up to two 18 AWG (1.0 mm<sup>2</sup>) wires.
3. Connect wiring as shown in the Wiring Diagram (next page). LED 1 lights continuously (Power) and LED 7 blinks rapidly (Data Link RX) when the IEC PELV/NEC® Class 2 Data Link is installed correctly.

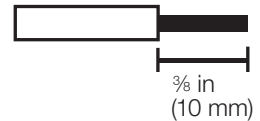
#### Mounting Diagram



#### Mounting Hole Detail



#### Wire Strip Length



<b>Job Name:</b>	<b>Model Numbers:</b>
<b>Job Number:</b>	

## Ethernet Link Wiring

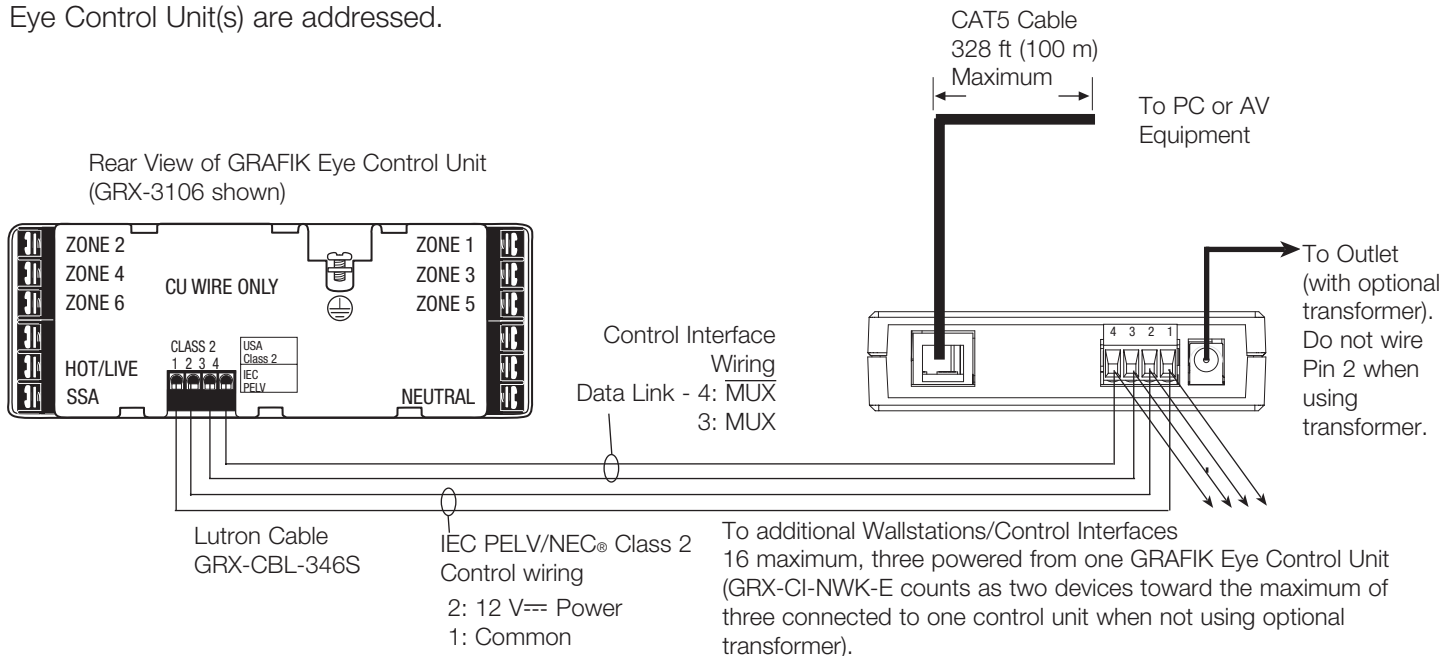
- Standard CAT5 cable connects GRX-CI-NWK-E Interface to PC, router, or other Ethernet source.
- No crossover cable needed.
- Must be 328 ft (100 m) or less.
- Ethernet network and cable provided by others.

## Power Options

- Power for one GRX-CI-NWK-E counts as two devices toward the maximum of three devices per GRAFIK Eye Control Unit when powered off of Pin 2 of the MUX Link.
- To Power separately from the MUX Link order the following transformer model numbers.
  - 120 V~ T120-15DC-9-BL
  - 240 V~ TE240-15DC-9-BL
  - 240 V~ (UK) TU240-15DC-9-BL
- Do not connect Pin 2 of the MUX Link to the GRX-CI-NWK-E when using optional transformer.

## IEC PELV/NEC® Class 2 Wiring

- Make daisy-chain connections to the IEC PELV/NEC® Class 2 MUX Link terminals on the back of the Control Interface.
- Do not use T-taps. Run all wires in and out of terminal block.
- Each terminal accepts up to two 18 AWG (1.0 mm<sup>2</sup>) wires.
- LED 1 lights (power) and LED 7 blinks rapidly (MUX Link RX) when the IEC PELV/NEC® Class 2 MUX Link is installed correctly and GRAFIK Eye Control Unit(s) are addressed.



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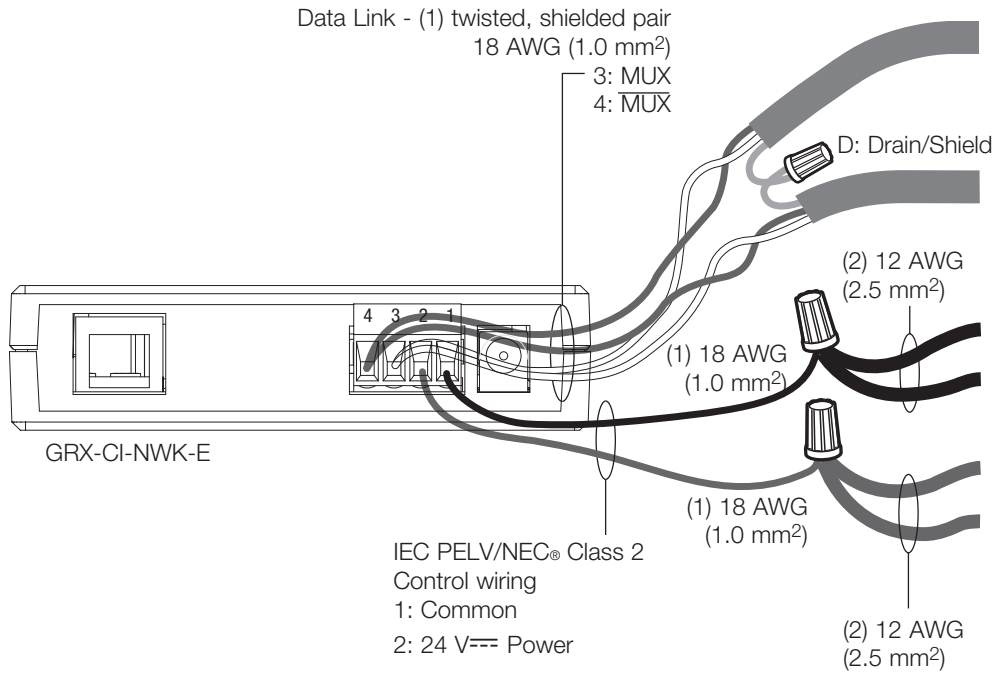
## IEC PELV/NEC® Class 2 Terminal Connections

### When used with GRX-3000 Control Units

- Two 18 AWG (1.0 mm<sup>2</sup>) conductors for Common (terminal 1) and 12 V<sub>DC</sub> (terminal 2). Refer to GRX-3000 Specification Submittal for more details. Ensure that the terminal 2 connection is wired when not using optional transformer.
- One shielded, twisted pair 18 AWG (1.0 mm<sup>2</sup>) for data link (terminals 3 and 4).

### When used with GRX-4000 Control Units (See Wiring Diagram Below)

- Two 12 AWG (2.5 mm<sup>2</sup>) conductors for Common (terminal 1) and 24 V<sub>DC</sub> (terminal 2). These will not fit in terminals. Connect as shown. Ensure that the terminal 2 connection is wired when not using optional transformer.
- One shielded, twisted pair 18 AWG (1.0 mm<sup>2</sup>) for data link (terminals 3 and 4).
- Connect Drain/Shield as shown. Do not connect to Ground (Earth) or Wallstation/Control Interfaces. Connect the bare drain wires and cut off the outside shield.



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