

GRX-AV Control Interface



Description

- Integrates a GRAFIK Eye Lighting Control System with equipment that has contact-closure I/O, including:
 - Motion and occupant sensors.
 - Timerclocks and push buttons.
 - Motorized projection screens, skylights, window shades, and movable walls.
 - AV equipment.
 - Security systems.
- May be programmed to control any combination of one to eight GRAFIK Eye 3000 or 4000 Series Control Units.

Inputs/Outputs

- Provides five inputs and five outputs.
- Using the inputs, contact closures in other equipment can operate Control Units to:
 - Select scenes.
 - Run sequences (loop through scenes).
 - Lock Control Units.
 - Activate panic mode (lights go full on).
 - Adjust scenes to reflect status of movable walls.
 - Turn lights on or off based on room occupancy.
- Using the outputs, scene changes in Control Units can:
 - Trigger outputs to control other equipment.
 - Provide status feedback to other equipment.

Job Name:	Model Numbers:
Job Number:	

Specifications

Power

- Low-voltage Class 2 (PELV).
Operating Voltage: 12/24 V Direct Current.
- Provides 2-way interface between preset lighting controls and dry contact closure devices.
- Provides 5 inputs and 5 outputs. Outputs can control other manufacturers' equipment.

Operating Modes

- Scene selection
- Special functions
- Partitioning
- Occupant sensor

Five Input Terminals

- Accept maintained inputs and momentary inputs with 40msec minimum pulse times.
- Inputs must be dry contact closure or open collector (NPN).
- On-state saturation voltage must be less than 2.0VDC.
- Off-state leakage current must be less than 10µA.
- Open circuit voltage: 36V maximum.
- Short circuit current: 4.0µA maximum.

Five Output Terminals

- Provide solid-state maintained or momentary (1-second) outputs.
- Outputs require an external relay and power supply (30VDC max., Class 2/PELV) by others for contact closure devices.
- Maximum voltage: 38V
- Maximum current: 200mA
- Open collector (NPN) output: On-state saturation voltage 1.0V maximum, off state leakage current 0.1µA maximum.

Status LEDs

Five Status LEDs light when associated output is active (on).

System Communications and Capacity

Low-voltage type Class 2 (PELV) wiring connects GRX-AV Interface to Control Units and other components. Counts toward system maximum of 16 Wallstations/Control Interfaces.


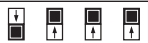







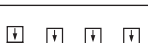
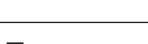

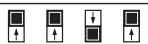



Environment

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

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Operating Modes and DIP Switch Settings

- Operating mode can be selected by setting DIP switches 5 through 8. Inputs and outputs may be maintained or momentary as indicated.
- May be programmed to control any combination of one to eight GRAFIK Eye 3000 or 4000 Series Control Units.
- For scene selection and special function modes, one Control Unit or a group of Control Units may be assigned to be operated by the GRX-AV.
- With partitioning and occupant sensor modes, a different Control Unit or group of Control Units may be assigned for each I/O closure.

Mode	DIP Switches 5 6 7 8	Contact closures invoke:					Inputs:	Outputs:
		Input 1	Input 2	Input 3	Input 4	Input 5		
Scene Selection		Scene 1	Scene 2	Scene 3	Scene 4	Off	Maintained or momentary	Maintained
		Scene 5	Scene 6	Scene 7	Scene 8	Off		
		Scene 9	Scene 10	Scene 11	Scene 12	Off		
		Scene 13	Scene 14	Scene 15	Scene 16	Off		
		Scene 1	Scene 2	Scene 3	Scene 4	Off	Maintained or momentary	Momentary ¹
		Scene 5	Scene 6	Scene 7	Scene 8	Off		
		Scene 9	Scene 10	Scene 11	Scene 12	Off		
		Scene 13	Scene 14	Scene 15	Scene 16	Off		
Special Functions		Sequence scenes 1-4	Zone lockout allows temporary adjustments. No changes to preset scenes.	Scene lockout disables scene buttons.	"Panic" mode turns lights full on (to scene 16), locks Control Units.	Not used	Maintained only	Maintained
		Sequence scenes 5-16					Momentary only	Maintained
		Sequence scenes 1-4						
		Sequence scenes 5-16						
Partitioning ²		Wall 1	Wall 2	Wall 3	Wall 4	Wall 5	Momentary only	Maintained
		Wall 1	Wall 2	Wall 3	Wall 4	Wall 5	Maintained only	Maintained
Occupant Sensor		Sensor input toggles Control Units between scene 1 and off.					Maintained only ³	Maintained
		Sensor input turns Control Units off. Occupant must turn lights on.					Maintained only ³	Maintained

¹ Scenes trigger the position of motorized window shades or projection screens.

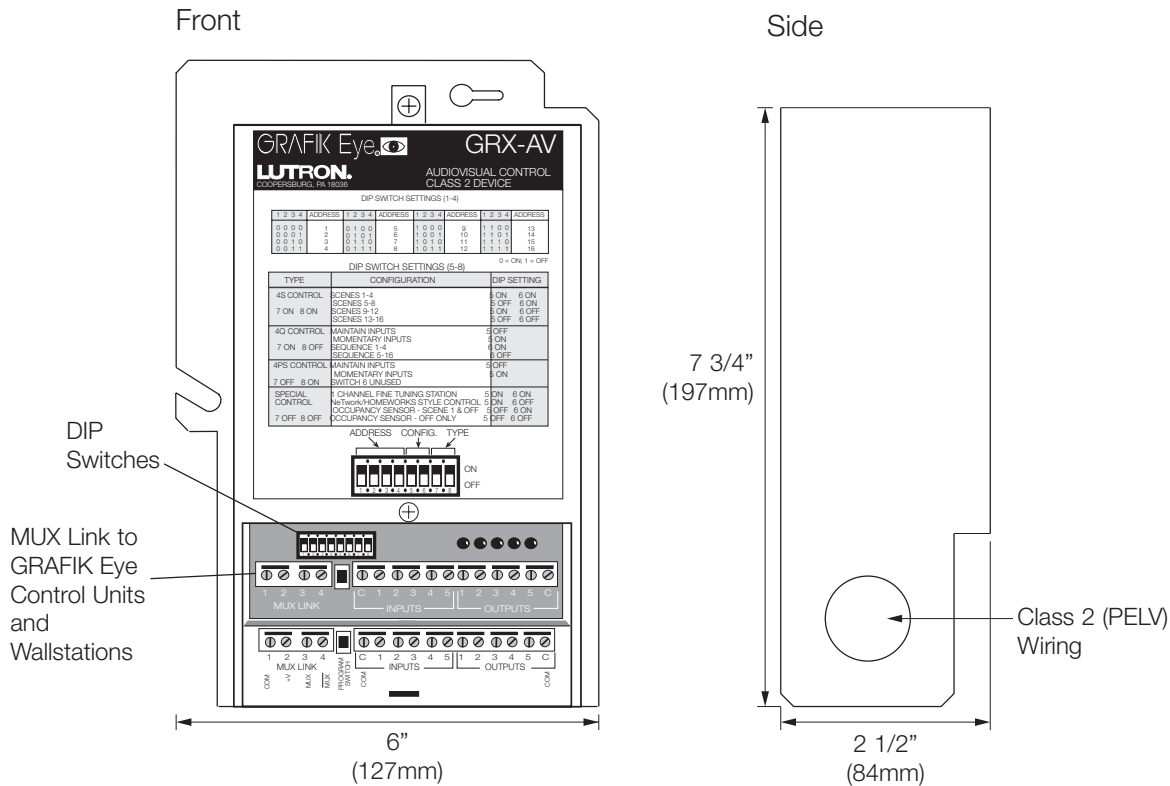
² Movable walls toggle Control Units between "in combination" and "independent" modes of operation. Each input is setup to operate the Control Units associated with a movable wall (or walls).

- When a motorized wall opens, the wall's switch contact closes. The Control Units now work "in combination." Scene changes at one Control Unit occur on all the associated Control Units.
- When a wall closes, the switch contact opens. The Control Units return to independent operation.

³ If an occupant sensor input provides momentary closure, use scene selection mode.

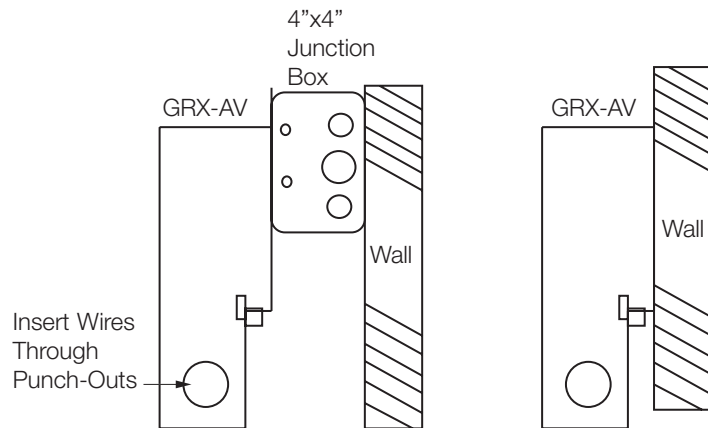
Job Name:	Model Numbers:
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Dimensions



Mounting

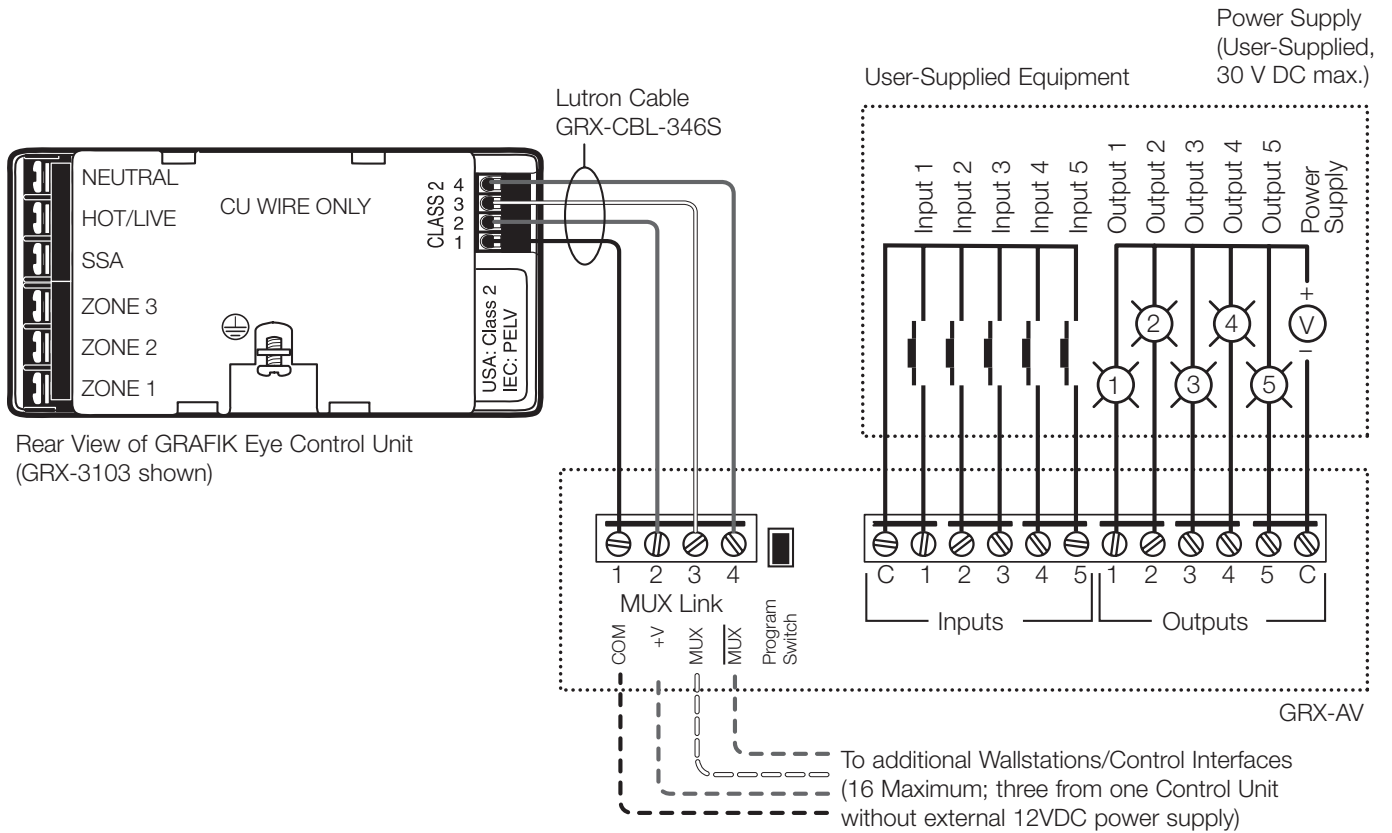
- Mount on a 4" (10.2mm) square junction box.
- May also mount directly to the wall.
- Ensure that the metal casing is grounded. Connect a ground wire to the ground screw.
- Note that wires do not feed through the back of the unit.



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Low-Voltage Class 2 (PELV) Wiring

- Make daisy-chain connections to the low-voltage Class 2 (PELV) MUX Link terminals on front of GRX-AV Interface.
- Do not use T-taps. Run all wires in and out of the terminal block.
- Each terminal accepts up to two #18 AWG (1.0mm²) wires.



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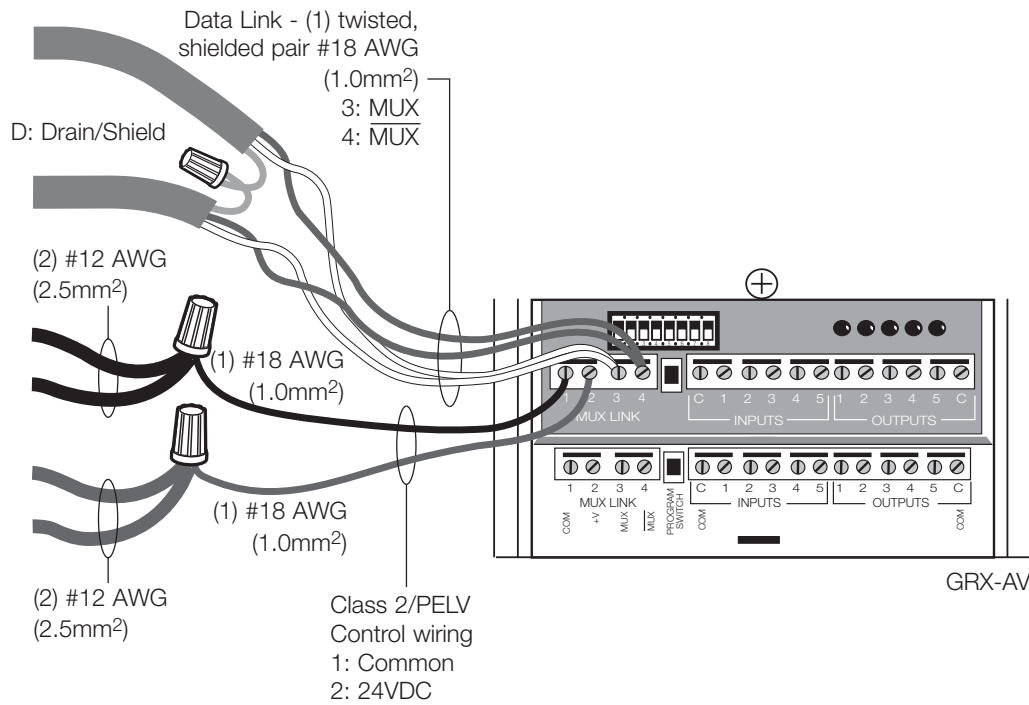
Class 2 (PELV) Terminal Connections

When used with GRX-3000 Control Units

- Two #18 AWG (1.0mm²) conductors for common (terminal 1) and 12VDC (terminal 2). Ensure that the terminal 2 connection is wired correctly. Refer to GRX-3000 Specification Submittal for additional details.
- One shielded, twisted pair of #18 AWG (1.0mm²) for data link (terminals 3 and 4).

When used with GRX-4000 Control Units

- Two #12 AWG (2.5mm²) conductors for common (terminal 1) and 24VDC (terminal 2). These will not fit in terminals. Connect as shown.
- One shielded, twisted pair #18 AWG (1.0mm²) 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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