Section 2

Preset control units

Match an activity or mood to the visual environment.

The benefits

Recall preset scenes with the touch of a button.
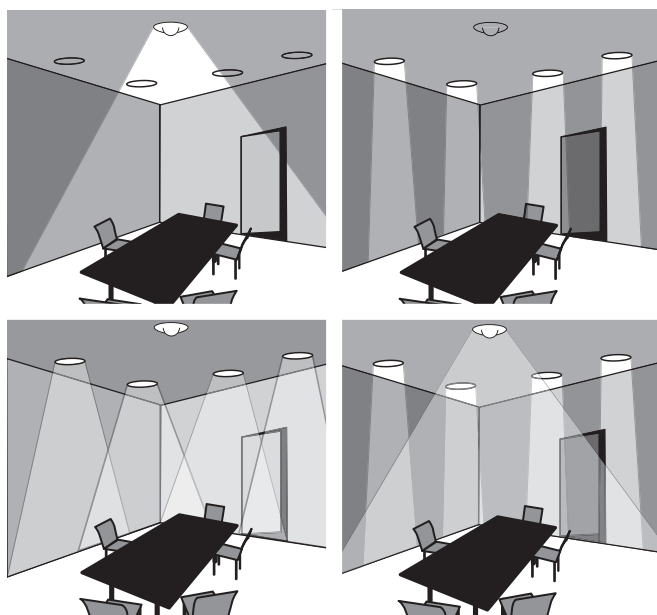
Products

GRAFIK Eye 3000, GRAFIK Integrale™, GRAFIK Eye 4000

Recommended specifications

GRAFIK Eye 3000: Control shall provide 4 preset lighting scenes and 'off' for up to 6 control zones. Control shall be capable of storing an additional 12 preset lighting scenes which can be accessed via wallstations and/or control interfaces. Up to 48 zones may be tied together in one system.

GRAFIK Integrale: Control shall provide 4 preset lighting scenes and 'off' for up to 4 control zones. Control shall be capable of storing an additional 12 preset lighting scenes which can be accessed via wallstations and/or control interfaces. Up to 32 zones may be tied together in one system.

GRAFIK Eye 4000: Control shall provide 4 preset lighting scenes and 'off' for up to 24 control zones. Control shall be capable of storing an additional 12 preset lighting scenes which can be accessed via wallstations and/or control interfaces. Up to 64 zones may be tied together in one system.

Real Time Illumination Stability System (RTISS™)

Dimmers compensate for incoming line voltage variations such as changes in RMS (Root Mean Square) voltage, frequency shifts, harmonics, and line noise. See application note on pg. 4.8.6 for more information.

The benefits

Flicker-free dimming.

Products

GRAFIK Eye 3000, GRAFIK Integrale, GRAFIK Eye 4000

Recommended specifications

Dimmers shall have no visible flicker under the following conditions:
±2% change in RMS voltage per cycle
±2% rate of change in frequency per second

No interfaces

Lutron® has eliminated the need to use interfaces when controlling different types of lighting loads.

The benefits

Fewer components means faster installation times and lower installation costs.

One control for these load types

💡	Incandescent
	Magnetic low voltage
	Electronic low voltage
=)▣	Fluorescent
	Neon/cold cathode

Products

GRAFIK Integrale

Recommended specifications

Preset dimming control shall be capable of operating the following sources/load types with a smooth continuous square law dimming curve without the requirement of an interface: electronic low voltage transformer, tungsten/halogen, magnetic low voltage, 0-10 V, DALI (broadcast only), and DSI signal-driven sources.

Air gap off

An air gap is provided in each control.

The benefits

Prevents leakage current of the dimmer from causing electrical shock when servicing lamps or starting a fire if a fixture or lamp source fails violently.

Products

GRAFIK Eye 3000, GRAFIK Integrale, GRAFIK Eye 4000

Recommended specifications

Preset dimming control shall incorporate an air gap switch relay that shall be accessible without removing the faceplate.

Surge protection

Special circuitry protects the electronics from surges.

The benefits

Protect your dimming equipment from power surges during a storm (or from within the building).

Products

GRAFIK Eye 3000, GRAFIK Integrale™, GRAFIK Eye 4000

Recommended specifications

Controls shall meet IEEE standard c62.41, tested to withstand voltage surges of up to 6,000 volts and 3,000 amps.

Partitioning

The lighting control system adapts to complex environments.

The benefits

Automatically modify functionality based on the state of a partition.
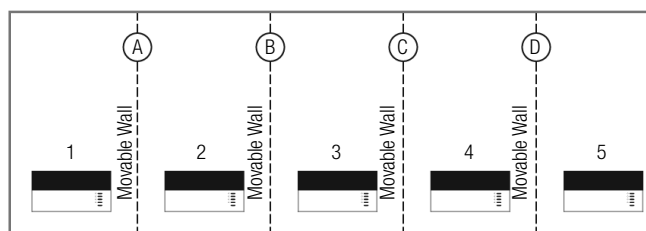
Products

GRAFIK Eye 3000, GRAFIK Integrale, GRAFIK Eye 4000

Recommended specifications

Lighting control system shall be capable of directing preset control units to operate independently or in concert to reflect partition status of moveable walls.

Sequencing

Automatically cycle preset lighting scenes.

The benefits

Create dynamic lighting effects.
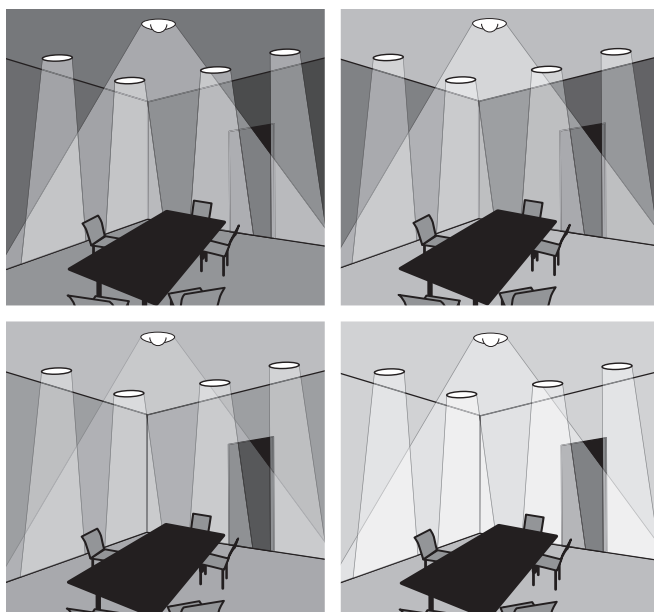
Products

GRAFIK Eye 3000, GRAFIK Integrale, GRAFIK Eye 4000

Recommended specifications

Lighting control system shall be capable of sequencing.

Power failure memory

Lights always return to the previous state when power is restored.

The benefits

Minimises the inconvenience of power service interruptions and keeps building lights as you left them once power is restored.

Products

GRAFIK Eye 3000, GRAFIK Integrale, GRAFIK Eye 4000

Recommended specifications

Controls shall provide power failure memory. Should power be interrupted and subsequently returned, the lights must come back on to the same levels set prior to the power interruption without requiring any actions on the part of the user. Restoration to some other default level is not acceptable.

Integration

A wide variety of options are available to interface a Lutron® system with other equipment.

The benefits

Integrate with A/V equipment, theatrical equipment, other legacy lighting equipment, etc.

Customer supplied equipment

Products

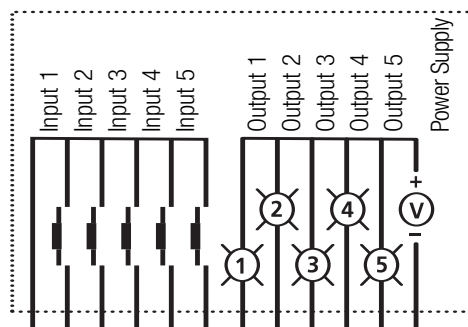GRAFIK Eye 3000, GRAFIK Integrale™, GRAFIK Eye 4000

Recommended specifications

- Control shall provide two-way interface between controls and dry contact closure devices.
- Control shall provide the ability to communicate via RS-232 serial communication.
- Control shall be capable of delivering up to 48 continuous DMX512 channels (64 channels with GRAFIK Eye 4000).
- Control shall automatically select preset light levels in response to ambient daylight.
- Control shall provide the ability to communicate via TCP/IP over Ethernet.

Robust data link protocol

Lutron's data link is designed specifically for lighting needs.

The benefits

Faster response times, longer distances between processor and controls, and no data collisions.
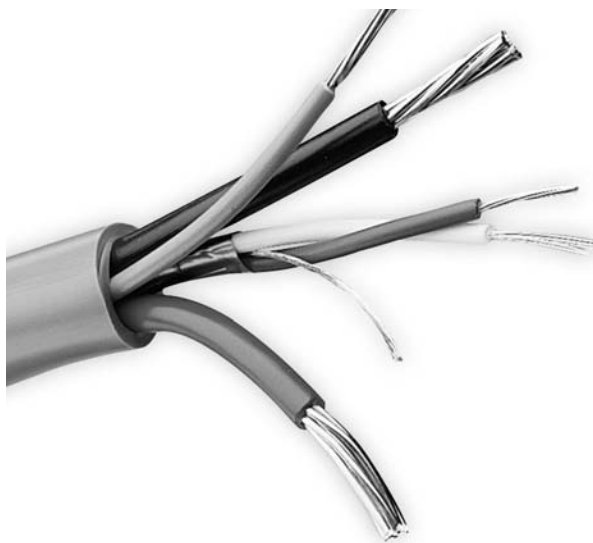
Products

GRAFIK Eye 3000, GRAFIK Integrale, GRAFIK Eye 4000

Recommended specifications

- Data link shall have a maximum length of 610 metres (2,000').
- Data link shall operate on an RS-485 bus.
- Data link shall operate at 32 kbaud.

Note

GRAFIK Eye 4000 is capable of extending to 2,400 metres (8,000') with repeaters.

Intuitive controls

Operate a sophisticated lighting control system with minimal training.

The benefits

Easy to program and operate.
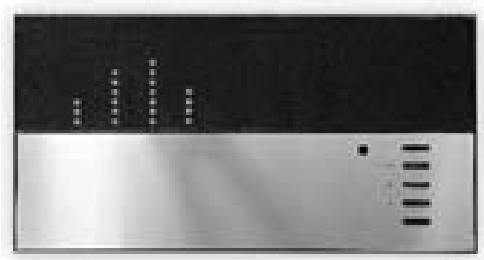
Products

GRAFIK Eye 3000, GRAFIK Integrale, GRAFIK Eye 4000

Recommended specifications

Programming of preset scenes shall be accomplished without the use of an ENTER or STORE button.

World-class quality process

For over 40 years, Lutron has designed, manufactured, and delivered quality lighting control products.

The benefits

Reliable product quality, dependable service, and continual innovation.

Innovative product design

Customer feedback

Rigorous lab and field testing

Dependable sales and customer service

Quality suppliers selected

Incoming component inspection

Finished goods quality audits

In-process inspecting

100% End-of-line product testing

Ongoing process improvements
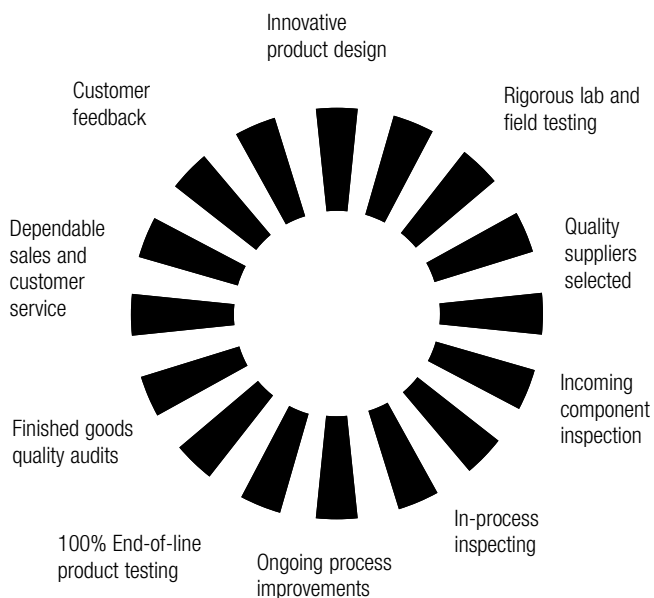
Products

All

Recommended specifications

Manufacturer shall be at least ISO 9001:2000 registered.

Step 1

Determine number of zones and sources

A zone is a group of lights or shades that are always controlled together. GRAFIK Eye 3000 control units have the ability to dim most popular sources and to control several zones at one time from one button press. Important factors to consider when creating zones are flexibility of control and aesthetics.

Conference room reflected ceiling plan

ZONE 1   ZONE 3   ZONE 4

ZONE 2

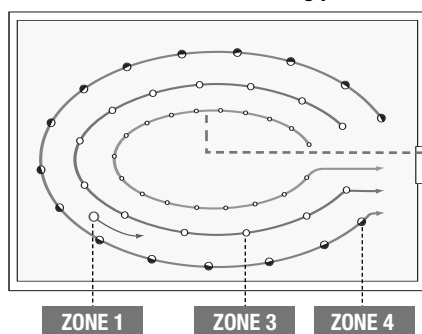| Zone	Description	Voltage	Feed Type (N,E)	Load Type	Fixture Load	No. of Fixtures	Watts/Volt-amps
1	Podium	230	N	INC	75	1	75
2	Table	230	N	ELV	50	13	650
3	Perimeter	230	N	MLV	50	8	400*
4	Accent	230	N	0-10	26	16	416

Key: N Normal; E Emergency; INC Incandescent; MLV Magnetic Low Voltage; ELV Electronic Low Voltage; 0-10, 0-10 Ballast

* Includes transformer losses

Design tips

☐ Dimming ballasts are required to dim fluorescent sources.

☐ Transformer loss: ballasts and transformers draw additional current beyond the lamp rating. For example, magnetic low voltage transformers typically draw an additional 20% of the lamp wattage.

☐ If integrating controllable window treatments with the lighting controls, dedicate a zone for each group of treatments.

☐ Blank load schedules are available. See pg. 3.17.2.

Step 2

Select GRAFIK Eye 3000 Series control units

Using the number of zones and load types determined in Step 1, select the appropriate type and size of control unit. GRAFIK Integrale™ control units are available with 4 zones and can control most lighting loads without interfaces. GRAFIK Eye 3000 series control units are available in 2-, 3-, 4-, and 6-zone configurations. Choose a 3500 model control unit if programming the system from a PC or saving light levels at 1% increments is required.

See section 2.4.

This project contains four zones, therefore a GRX-3104 is selected.

Design tips

☐ If your space requires more than 6 zones, link up to eight GRAFIK Eye 3000 Series control units together for control of up to 48 zones in one system.

For example, for 10 zones in one room:

4-Zone Control Unit + 6-Zone Control Unit = 10 total zones

☐ Use a separate GRAFIK Eye 3000 control unit for each distinct room/space in a project.

Step 3

Select power boosters/interfaces

Specific zones require power boosters if load wattage exceeds maximum capacity per zone (max. capacity per zone found in section 2.4). GRAFIK Eye 3000 Series controls units can control incandescent, magnetic low voltage, neon/cold cathode, and Lutron® electronic low voltage transformer loads directly. When electronic low voltage or fluorescent loads need to be controlled, a load-specific power interface is required.

See section 2.5.

Design tips

☐ For incandescent, magnetic low voltage, and neon/cold cathode use up to two NGRX-PB power boosters to increase individual zone wattage capability (see pg. 2.5.2).

☐ Dimming electronic low voltage loads? Use an NGRX-ELVI electronic low voltage interface (see pg. 2.5.2) for GRAFIK Eye 3000 and to increase the zone capacity of a GRAFIK Integrale.

☐ Dimming 0-10 V fluorescent dimming ballasts? Use GRX-TVI, zero to ten volt interface (see pg. 2.5.2) for GRAFIK EYE 3000 and to increase the zone capacity of a GRAFIK Integrale.

☐ Switching non-dim loads? Use GRX-TVI (see pg. 2.5.2).

Step 4

Calculate total wattage for all zones; and verify that total wattage does not exceed total unit capacity

If total load for all zones added together is larger than maximum capacity for the GRAFIK Eye 3000 control unit (max. capacity per control unit is found in section 2.4), add additional power boosters/interfaces to higher wattage zones and recalculate total load. Repeat Step 3 until total load is less than or equal to maximum capacity for the control unit selected.

Compare total load to maximum capacity for control unit. For this example, total load is 525 W/VA. Zone 1 (75 W) + Zone 2 (power booster load = 25 W) + Zone 3 (400 W) + Zone 4 (power booster load = 25 W) = 525 W. Maximum capacity for a GRX-3104 at 230 V is 2,300 W/VA; therefore, no additional boosting is needed.

Design tips

☐ When a power booster/interface is added to a zone, the power booster/interface handles all of the wattage for that zone. Therefore, the load on the GRAFIK Eye 3000 control unit for that zone becomes 25 W/VA.

Step 5

Select and implement design elements

Identify additional control elements for the project (e.g. DMX integration, event scheduling, wireless control) and add appropriate control station devices to achieve strategies.

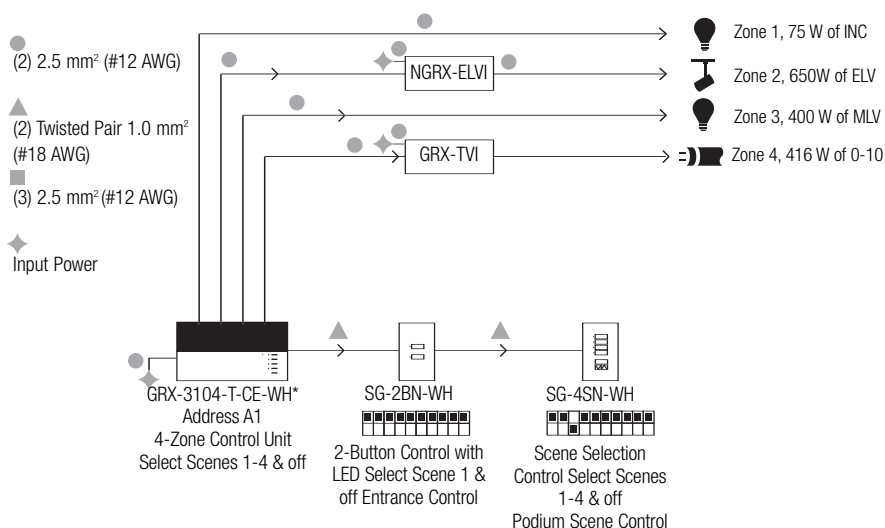For design elements available, see section 1.2.

For this project, use an SG-2BN entrance control (see pg. 2.10.2) at the door and an SG-4SN scene control (see pg. 2.10.3), at the podium. For control from a touchscreen, integrate with the audio visual system using a GRX-CI-NWK-E (see pg. 2.12.3).

Design tips

☐ Up to three control station devices can be powered from a single GRAFIK Eye 3000 series or GRAFIK Integrale control unit. If additional control station devices (up to 16 total) a TU240-15DC-9-BL or TE240-15DC-9-BL (see pg. 2.13.1) 15 VDC power supply must be added.

Step 6

Support the design with one-line diagrams and written product specifications

(2) 2.5 mm² (#12 AWG)

(2) Twisted Pair 1.0 mm² (#18 AWG)

(3) 2.5 mm² (#12 AWG)

Input Power

NGRX-ELVI

GRX-TVI

Zone 1, 75 W of INC
Zone 2, 650W of ELV
Zone 3, 400 W of MLV
Zone 4, 416 W of 0-10

GRX-3104-T-CE-WH*
Address A1
4-Zone Control Unit
Select Scenes 1-4 & off

SG-2BN-WH
2-Button Control with LED Select Scene 1 & off Entrance Control

SG-4SN-WH
Scene Selection Control Select Scenes 1-4 & off Podium Scene Control

*No interfaces/power boosters would have been required if a GRAFIK Integrale were used.
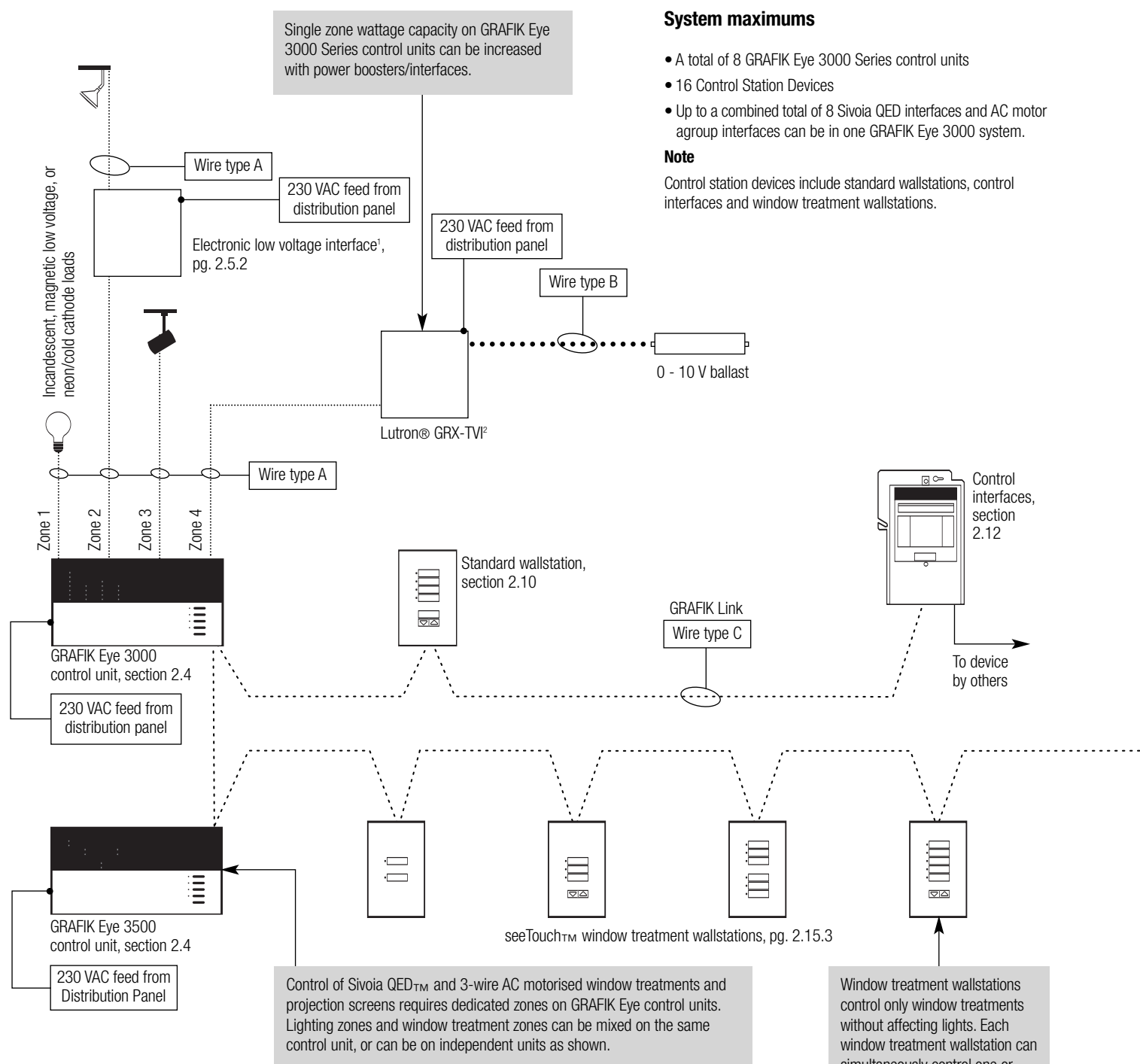
Design tips

☐ Complete product specifications are available at www.lutron.com.

GRAFIK Eye Designer software

Lutron's GRAFIK Eye Designer software allows faster system design by automatically assigning the types of power boosters/interfaces required from zone load type and wattage information. The software generates a complete bill of materials, including wallstations and control interfaces, with DIP switch settings, and a one-line diagram that can be saved and exported as a .dxf file. GRAFIK Eye Designer software is available at www.lutron.com/designer.

Single zone wattage capacity on GRAFIK Eye 3000 Series control units can be increased with power boosters/interfaces.

System maximums

• A total of 8 GRAFIK Eye 3000 Series control units
• 16 Control Station Devices
• Up to a combined total of 8 Sivoia QED interfaces and AC motor agroup interfaces can be in one GRAFIK Eye 3000 system.

Note

Control station devices include standard wallstations, control interfaces and window treatment wallstations.
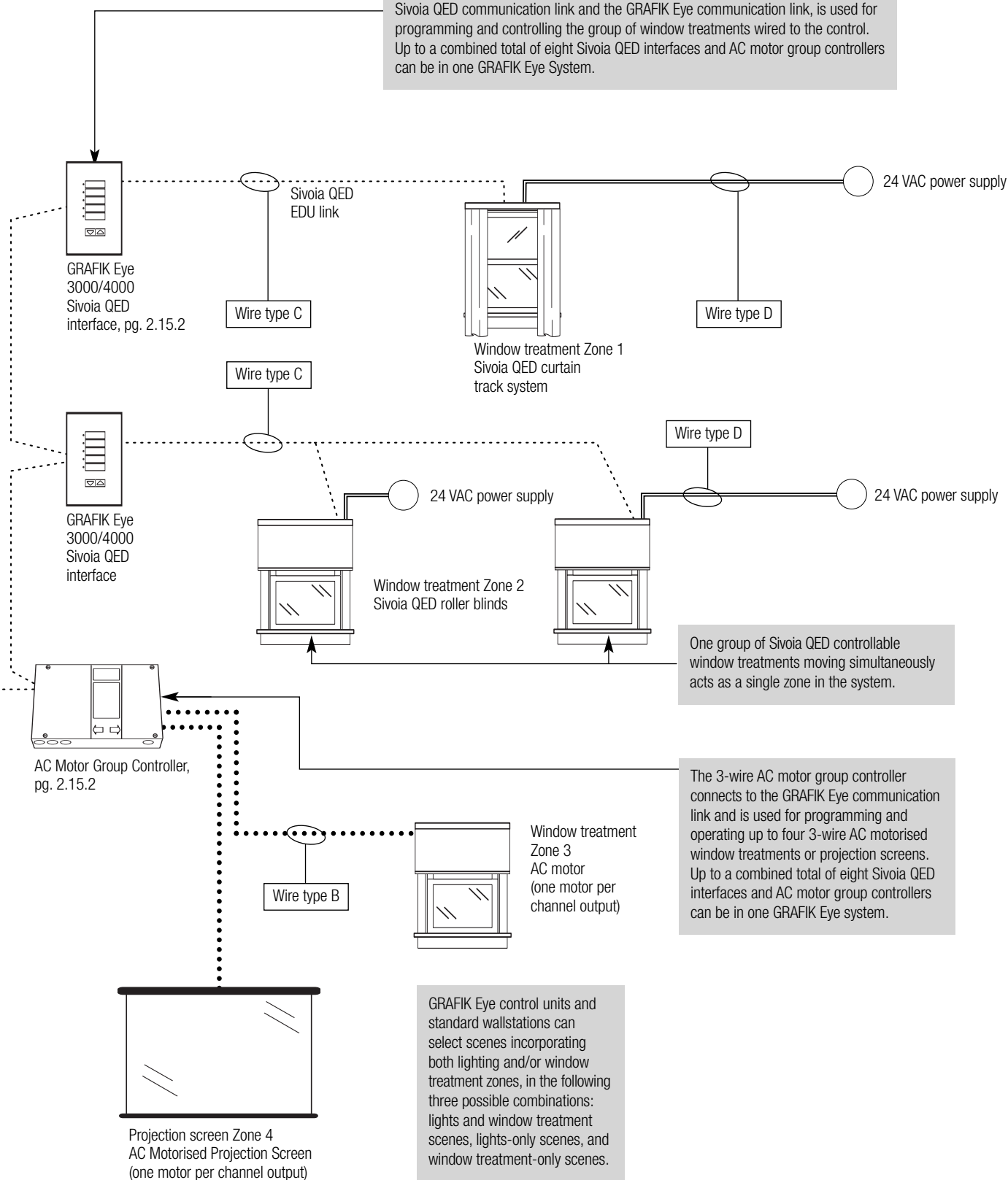
Incandescent, magnetic low voltage, or neon/cold cathode loads

Wire type A

230 VAC feed from distribution panel

Electronic low voltage interface[1], pg. 2.5.2

230 VAC feed from distribution panel

Wire type B

0 - 10 V ballast

Lutron® GRX-TVI[2]

Wire type A

Zone 1
Zone 2
Zone 3
Zone 4

Standard wallstation, section 2.10

Control interfaces, section 2.12

GRAFIK Link

Wire type C

To device by others

GRAFIK Eye 3000 control unit, section 2.4

230 VAC feed from distribution panel

GRAFIK Eye 3500 control unit, section 2.4

230 VAC feed from Distribution Panel

seeTouch™ window treatment wallstations, pg. 2.15.3

Control of Sivoia QED™ and 3-wire AC motorised window treatments and projection screens requires dedicated zones on GRAFIK Eye control units. Lighting zones and window treatment zones can be mixed on the same control unit, or can be on independent units as shown.

Window treatment wallstations control only window treatments without affecting lights. Each window treatment wallstation can simultaneously control one or more window treatments, up to the maximum number of window treatments in the system.

Wiring type key

··················	Type A	1.5 mm² (#12 AWG) wires (230/240 V)
••••••••••	Type B	1.5 mm² (#12 AWG) wires (230/240 V)
- - - - - - - -	Type C	Four PELV (Class 2) conductors: (2) 1.0 mm² (#18 AWG) for power wires; plus (1) twisted, shielded 1.0 mm² (#22 AWG) pair for control wires (Available from Lutron®, GRX-CBL-346S-500, see pg. 2.13.1)
————	Type D	(3) 1.5 mm² (#16 AWG) wires (24 VAC, plus earth ground)

Footnotes, pg. 2.3.1

1 If using a GRAFIK Integrale™ or Lutron ELV transformers, no interface required.
2 If using a GRAFIK Integrale, no interface required.

The GRAFIK Eye 3000/4000 Sivoia QED interface, which connects to both the Sivoia QED communication link and the GRAFIK Eye communication link, is used for programming and controlling the group of window treatments wired to the control. Up to a combined total of eight Sivoia QED interfaces and AC motor group controllers can be in one GRAFIK Eye System.
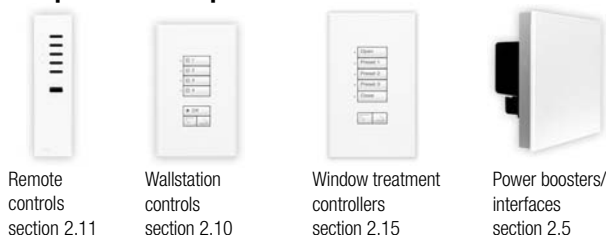
Sivoia QED EDU link

24 VAC power supply

GRAFIK Eye 3000/4000 Sivoia QED interface, pg. 2.15.2

Wire type C

Wire type D

Window treatment Zone 1 Sivoia QED curtain track system

Wire type C

Wire type D

GRAFIK Eye 3000/4000 Sivoia QED interface

24 VAC power supply

24 VAC power supply

Window treatment Zone 2 Sivoia QED roller blinds

One group of Sivoia QED controllable window treatments moving simultaneously acts as a single zone in the system.

AC Motor Group Controller, pg. 2.15.2

The 3-wire AC motor group controller connects to the GRAFIK Eye communication link and is used for programming and operating up to four 3-wire AC motorised window treatments or projection screens. Up to a combined total of eight Sivoia QED interfaces and AC motor group controllers can be in one GRAFIK Eye system.

Window treatment Zone 3 AC motor (one motor per channel output)

Wire type B

GRAFIK Eye control units and standard wallstations can select scenes incorporating both lighting and/or window treatment zones, in the following three possible combinations: lights and window treatment scenes, lights-only scenes, and window treatment-only scenes.

Projection screen Zone 4 AC Motorised Projection Screen (one motor per channel output)

Cover (shown open)

Base   Zone

Control unit

Infrared receiver
Scene selection buttons

GRAFIK Eye 3000 system map

- Use the map at right to identify system component being reviewed in each section.
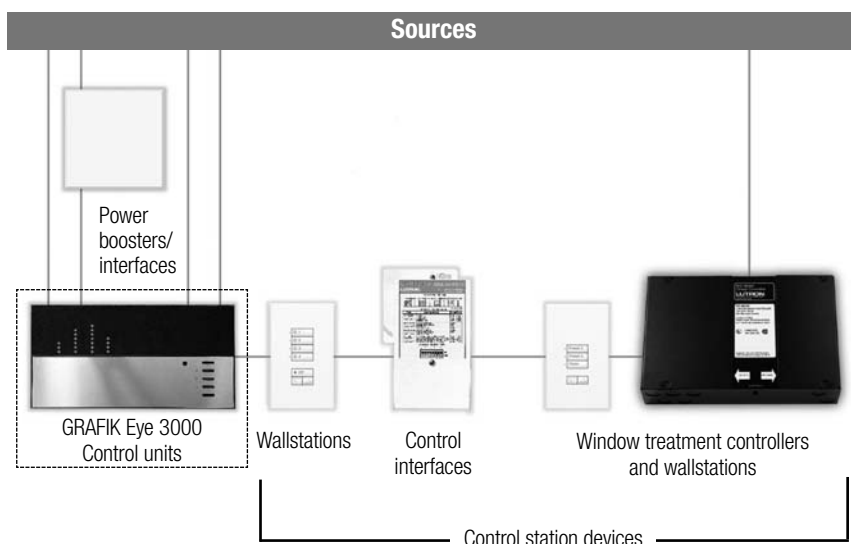- For overall wiring information, see section 2.3.

Sources

	Incandescent
	Magnetic low voltage
	Electronic low voltage*
	Neon/cold cathode
	Fluorescent*
	High-intensity discharge (non-dim only)
	Controllable window treatments*

   * Interface required to dim/control. Consult product pages for specifics.

Standards

Standards listed below apply to one or more products in the Lutron product line. Consult Lutron for specific information.

LUTRON
Quality Systems
registered
to ISO 9001

Architectural-grade

- Provides continuously smooth, square law dimming of all lighting zones
- Controls incandescent, magnetic low voltage, neon/cold cathode, and Lutron® electronic low voltage transformers
- Contains Lutron's patented powerline stability circuitry (RTISS™ — Real-Time Illumination Stability System) capable of maintaining constant light levels with no visible flicker under changing powerline conditions
- Provides positive air gap off for dimmers in each control unit
- Lightning surge protected to 6,000 V, 3,000 A
- Up to 8 GRAFIK Eye 3000 series control units can be linked for up to 48 zones
- Built-in infrared receiver/optional wireless remote control
- User-defined lockout options integral; locking covers available, pg. 2.13.1
- Offers simple programming for presets; no "store" button required

Compatible Lutron products

Remote controls section 2.11	Wallstation controls section 2.10	Window treatment controllers section 2.15	Power boosters/ interfaces section 2.5

Sources

Power boosters/ interfaces

GRAFIK Eye 3000 Control units

Wallstations   Control interfaces   Window treatment controllers and wallstations

Control station devices

Specifications

- Control unit requires a single feed
- Single zone capacity can be increased with power boosters/interfaces
- Load types controlled directly by control unit:
  - Incandescent, magnetic low voltage, neon/cold cathode, Lutron electronic low voltage transformers
- Load types controlled through power interfaces:
  - For control of fluorescent and electronic low voltage, use power boosters/interfaces, see section 2.5
  - For control of Sivoia QED™ window treatments, use SG-SVCN Sivoia QED interface, see section 2.15
  - For control of AC motorised window treatments, use GRX-4M-GC-CE AC motor group controller, see section 2.15
- Mounting:
  - 89 mm (3.50") depth strongly recommended, 69.9 mm (2.75") minimum
- Up to total of 8 Sivoia QED interfaces plus AC motor group controllers can be in one system with 8 GRAFIK Eye 3000 control units and 16 control station devices

Source	Product	Model	Options

2-Zone Control Units[3,5] **230 V (CE)**

GRX-3102-_-CE-_
GRX-3502-_-CE-_[2]

- Directly control incandescent, magnetic low voltage, neon/cold cathode, Lutron ELV transformer[4]
- Directly switch HID
- 800 W/VA per zone, 1,600 W/VA per control unit

Dimensions 230 V

W: 227 mm (8.94")
H: 116 mm (4.56")
D: 57 mm (2.25")[1]

Wallbox
P/N 241400

W: 200 mm (8.00")
H: 95 mm (3.75")
D: 75 mm (3.00")

3-Zone Control Units[3,5] **230 V (CE)**

GRX-3103-_-CE-_
GRX-3503-_-CE-_[2]

- Directly control incandescent, magnetic low voltage, neon/cold cathode, Lutron ELV transformer[4]
- Directly switch HID
- 800 W/VA per zone, 2,300 W/VA per control unit

4-Zone Control Units[3,5] **230 V (CE)**

GRX-3104-_-CE-_
GRX-3504-_-CE-_[2]

- Directly control incandescent, magnetic low voltage, neon/cold cathode, Lutron ELV transformer[4]
- Directly switch HID
- 800 W/VA per zone, 2,300 W/VA per control unit

6-Zone Control Units[3,5] **230 V (CE)**

GRX-3106-_-CE-_
GRX-3506-_-CE-_[2]

- Directly control incandescent, magnetic low voltage, neon/cold cathode, Lutron ELV transformer[4]
- Directly switch HID
- 800 W/VA per zone, 2,300 W/VA per control unit

Electronic low voltage, fluorescent
Electronic low voltage and flourescent sources require an interface, see pg. 2.5.2. Interface is not required if using Lutron's ELV transformer[4].

Controllable window treatments
Sivoia QED and 3-wire AC motorised window treatments require controllers, see pg. 2.15.2 and dedicated zones on control units.

Ordering example

GRX-3104-T-**CE**-WH

Add cover option and colour/finish suffix to model #

Cover options

Opaque	A

Cover and base will match

Translucent black	T

Black translucent cover with base colour from below

Base colours

Matt finishes
Standard, ships in 48 hrs.
- Matt cover options: A or T
- See pg. 1.3.1 for complete colour offering and suffixes.

Gloss (NEMA) finishes
Ships in 4-6 weeks.
- Gloss cover option: A only
- See pg. 1.3.1 for complete colour offering and suffixes.

Metal finishes
Ships in 4-6 weeks.
- Metal cover option: T only
- See pg. 1.3.1 for complete colour offering and suffixes.

Satin finishes
Ships in 4-6 weeks.
- Satin cover option: A or T
- See pg. 1.3.1 for complete colour offering and suffixes.

Customisation
Ships in 4-6 weeks.
- See pg. 1.4.1 for multi-gang wallplates, colour matching, engraving/silk screening, and custom controls.
- See pg. 3.17.5 for engraving schedules.

Locking covers
- See pg. 2.13.1 for more information.

Footnotes, pg. 2.4.2

1. Depth includes wallplate and backbox. Wallplate depth is 9 mm (0.35").
2. 3500 Series control units can be programmed manually or from a PC and offer the precision of setting light levels in 1% increments.
3. Counts as one of eight total control units per system.
4. For more information about Lutron's ELV transformers, see application note on page 2.16.2.
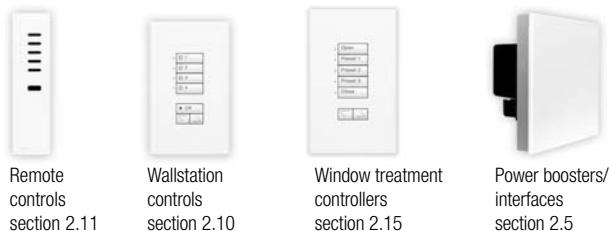5. Minimum load is 40 W/VA

Cover (shown open)

Control unit

Base | Zone | Infrared receiver | Scene selection buttons

Architectural-grade

- Provides continuously smooth, square law dimming of all lighting zones
- Controls incandescent; magnetic low voltage; electronic low voltage; neon/cold cathode; 0-10 V, DSI, and DALI (broadcast only) dimmable ballasts
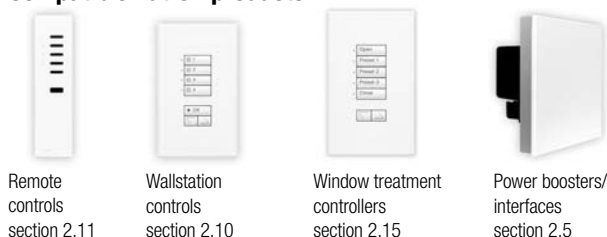- Contains Lutron's patented powerline stability circuitry (RTISS™−Real-Time Illumination Stability System) capable of maintaining constant light levels with no visible flicker under changing powerline conditions
- Provides positive air gap off for dimmers in each control unit
- Lightning surge protected to 6,000 V, 3,000 A
- Up to 8 GRAFIK Integrale control units can be linked for up to 32 zones
- Built-in infrared receiver/optional wireless remote control
- User-defined lockout options integral; locking covers available, pg. 2.13.1
- Offers simple programming for presets; no "store" button required

Compatible Lutron® products

Remote controls
section 2.11

Wallstation controls
section 2.10

Window treatment controllers
section 2.15

Power boosters/ interfaces
section 2.5

GRAFIK Integrale mystem map

- Use the map at right to identify system component being reviewed in each section.
- For overall wiring information, section 2.3.

Sources

	Incandescent
	Magnetic low voltage
	Electronic low voltage
	Neon/cold cathode
	Fluorescent

Sources

GRAFIK Integrale control units | Wallstations | Control interfaces

Control station devices
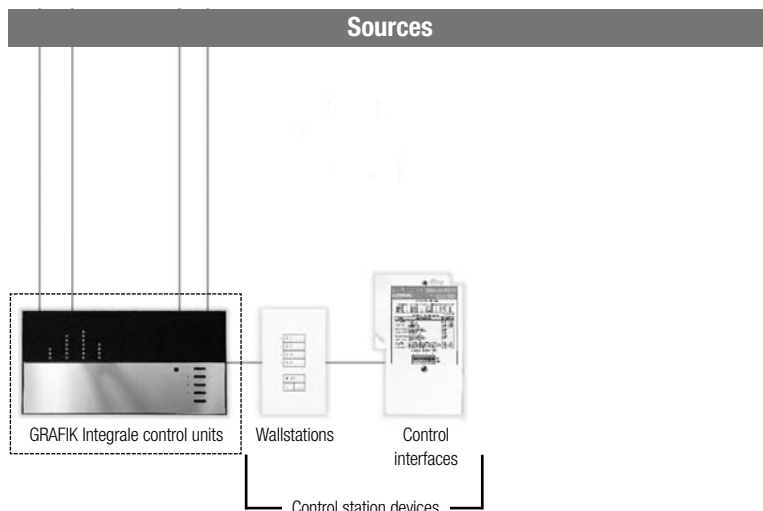
Specifications

- Control unit requires a single feed
- Single zone capacity can be increased with power boosters/interfaces
- Load types controlled directly by control unit:
  - Incandescent; magnetic low voltage; electronic low voltage; neon/cold cathode; 0-10 V, DSI, and DALI (broadcast only) dimmable ballasts
- Mounting:
  - 89 mm (3.50") depth strongly recommended, 69.9 mm (2.75") minimum

Standards

Standards listed below apply to one or more products in the GRAFIK Integrale product line. Consult Lutron for specific information.

LUTRON
Quality Systems
registered
to ISO 9001

CE (UL) (SP) NOM V ∇

emc △ BAUART GEPRÜFT TYPE APPROVED (D) KEMA KEUR DVE

	Source	Product	Model	Options

Dimensions 230 V
W: 227 mm (8.94")
H: 116 mm (4.56")
D: 57 mm (2.25")[1]

Wallbox
P/N 241400

W: 200 mm (8.00")
H: 95 mm (3.75")
D: 75 mm (3.00")

4-Zone Control Units[3,4]
230 V (CE)

GXI-3104-_-CE-_
GXI-3504-_-CE-_[2]

- Directly control incandescent; magnetic low voltage; electronic low voltage; neon/cold cathode; 0-10 V, DSI, and DALI (broadcast only) dimmable ballasts.
- Switching HID loads requires the use of an interface, see pg. 2.5.2
- 800 W/VA per zone, 2300 W/VA per control unit.
- If operating at 120 V, 400 W/VA per zone, 1200 W/VA per control unit.

Ordering example
GXI-3104-T-**CE**-WH
Add cover option and colour/finish suffix to model #

Cover options
Opaque   A
Cover and base will match
Translucent Black   T
Black translucent cover with base colour from below

Base colours

Matt finishes
Standard, ships in 48 hrs.
- Matt cover options: A or T
- See pg. 1.3.1 for complete colour offering and suffixes.

Gloss (NEMA) finishes
Ships in 4-6 weeks.
- Gloss cover option: A only
- See pg. 1.3.1 for complete colour offering and suffixes.

Metal finishes
Ships in 4-6 weeks.
- Metal cover option: T only
- See pg. 1.3.1 for complete colour offering and suffixes.

Satin finishes
Ships in 4-6 weeks.
- Satin cover option: A or T
- See pg. 1.3.1 for complete colour offering and suffixes.

Customisation
Ships in 4-6 weeks.
- See pg. 1.4.1 for multi-gang wallplates, colour matching, engraving/silk screening, and custom controls.
- See pg. 3.17.5 for engraving schedules.

Locking covers
- See pg. 2.13.1 for more information.

Footnotes, pg. 2.4.4

1 Depth includes wallplate and backbox. Wallplate depth is 9 mm (0.35").
2 3500 series control units can be programmed manually or from a PC and offer the precision of setting light levels in 1% increments.
3 Counts as one of eight total control units per system.
4 Minimum load is 10 W/VA

Cover (shown open)

Base   Zone

Infrared receiver

Control unit   Scene selection buttons

Architectural-grade

- Provides continuously smooth, square law dimming of all lighting zones
- Controls incandescent, magnetic low voltage, neon/cold cathode, and Lutron® electronic low voltage transformers
- Contains Lutron's patented powerline stability circuitry (RTISS™ – Real-Time Illumination Stability System) capable of maintaining constant light levels with no visible flicker under changing powerline conditions
- Provides positive air gap off for dimmers in each control unit
- Lightning surge protected to 6,000 V, 3,000 A
- Up to 8 GRAFIK Eye 3000 series control units can be linked for up to 48 zones
- Built-in infrared receiver/optional wireless remote control
- User-defined lockout options integral; locking covers available, pg. 2.13.1
- Offers simple programming for presets; no "store" button required

Compatible Lutron products

Remote controls section 2.11

Wallstation controls section 2.10

Window treatment controllers section 2.15

Power boosters/ interfaces section 2.5

GRAFIK Eye 3000 system map

- Use the map at right to identify system component being reviewed in each section.
- For overall wiring information, see section 2.3.

Sources

Incandescent	
Magnetic low voltage	
Electronic low voltage*	
Neon/cold cathode	
Fluorescent*	
High-intensity discharge (non-dim only)	
Controllable window treatments*	

* Interface required to dim/control. Consult product pages for specifics.

Sources

Power boosters/ interfaces

GRAFIK Eye 3000 control units

Wallstations

Control interfaces

Window treatment controllers and wallstations

Control station devices

Specifications

- Control unit requires a single feed
- Single zone capacity can be increased with power boosters/interfaces
- Load types controlled directly by control unit:
  - Incandescent, magnetic low voltage, neon/cold cathode, Lutron electronic low voltage transformers
- Load types controlled through power interfaces:
  - For control of fluorescent and electronic low voltage, use power boosters/interfaces, see section 2.5
  - For control of Sivoia QED™ window treatments, use SG-SVCN Sivoia QED interface, see section 2.15
  - For control of AC motorised window treatments, use GRX-4M-GC-CE AC Motor group controller, see section 2.15
- Mounting:
  - 89 mm (3.50") depth strongly recommended, 69.9 mm (2.75") minimum
- Up to total of 8 Sivoia QED Interfaces plus AC motor group controllers can be in one system with 8 GRAFIK Eye 3000 control units and 16 control station devices

Standards

Standards listed below apply to one or more products in the Lutron product line. Consult Lutron for specific information.

LUTRON Quality Systems registered to ISO 9001

CE · UL · SA · NOM · V · TÜV

emc · TÜV Rheinland BAUART GEPRÜFT TYPE APPROVED · D · KEMA EUR · VDE

	Source	Product	Model	Options

Dimensions 220-240 V
W: 141 mm (5.56")
H: 116 mm (4.56")
D: 57 mm (2.25")[1]

Wallbox
P/N 2 X 241218
W: 100 mm (4.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

2-Zone Control Units[3,5]
220-240 V (non CE)

GRX-3102-_-AU-_
GRX-3502-_-AU-_[2]

- Directly control incandescent, magnetic low voltage, neon/cold cathode, Lutron ELV transformer[4]
- Directly switch HID
- 1,200 W/VA per zone, 1,600 W/VA per control unit

Dimensions 220-240 V
W: 184 mm (7.25")
H: 116 mm (4.56")
D: 57 mm (2.25")[1]

Wallbox
P/N 3 X 241218
W: 150 mm (6.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

3-Zone Control Units[3,5]
220-240 V (non CE)

GRX-3103-_-AU-_
GRX-3503-_-AU-_[2]

- Directly control incandescent, magnetic low voltage, neon/cold cathode, Lutron ELV transformer[4]
- Directly switch HID
- 1,200 W/VA per zone, 2,400 W/VA per control unit

Dimensions 220-240 V
W: 227 mm (8.94")
H: 116 mm (4.56")
D: 57 mm (2.25")[1]

Wallbox
P/N 241400
W: 200 mm (8.00")
H: 95 mm (3.75")
D: 75 mm (3.00")

4-Zone Control Units[3,5]
220-240 V (non CE)

GRX-3104-_-AU-_
GRX-3504-_-AU-_[2]

- Directly control incandescent, magnetic low voltage, neon/cold cathode, Lutron ELV transformer[4]
- Directly switch HID
- 1,200 W/VA per zone, 3,000 W/VA per control unit

Dimensions 220-240 V
W: 227 mm (8.94")
H: 116 mm (4.56")
D: 57 mm (2.25")[1]

Wallbox
P/N 241400
W: 200 mm (8.00")
H: 95 mm (3.75")
D: 75 mm (3.00")

6-Zone Control Units[3,5]
220-240 V (non CE)

GRX-3106-_-AU-_
GRX-3506-_-AU-_[2]

- Directly control incandescent, magnetic low voltage, neon/cold cathode, Lutron ELV transformer[4]
- Directly switch HID
- 1,200 W/VA per zone, 3,000 W/VA per control unit

Electronic low voltage, fluorescent

Electronic low voltage and flourescent sources require an interface, see pg. 2.5.2. Interface is not required if using Lutron's ELV transformer[4].

Controllable window treatments

Sivoia QED and 3-wire AC motorised window treatments require controllers, see pg. 2.15.2 and dedicated zones on control units.

Footnotes, pg. 2.4.6

1. Depth includes wallplate and backbox. Wallplate depth is 9 mm (0.35").
2. 3500 Series control units can be programmed manually or from a PC and offer the precision of setting light levels in 1% increments.
3. Counts as one of eight total control units per system.
4. For more information about Lutron's ELV transformers, see application note on pg. 2.16.2.
5. Minimum load is 40 W/VA

Options

Ordering example

GRX-3102-T- AU-WH

Add cover option and colour/finish suffix to model #

Cover options

Opaque — A

Cover and base will match

Translucent Black — T

Black translucent cover with base colour from below

Base colours

Matt finishes

Standard, ships in 48 hrs.
- Matte cover options: A or T
- See pg. 1.3.1 for complete colour offering and suffixes.

Gloss (NEMA) finishes

Ships in 4-6 weeks.
- Gloss cover option: A only
- See pg. 1.3.1 for complete colour offering and suffixes.

Metal finishes

Ships in 4-6 weeks.
- Metal cover option: T only
- See pg. 1.3.1 for complete colour offering and suffixes.

Satin finishes

Ships in 4-6 weeks.
- Satin Cover Option: A or T
- See pg. 1.3.1 for complete colour offering and suffixes.

Customisation

Ships in 4-6 weeks.
- See pg. 1.4.1 for multi-gang wallplates, colour matching, engraving/silk screening, and custom controls.
- See pg. 3.17.5 for engraving schedules.

Locking covers
- See pg. 2.13.1 for more information.

Power booster

Load interfaces

- Increases single-zone load capacity (as required)
- Models available to control fluorescent and electronic low voltage loads
- Switching relay provides 16 A switching capacity for non-dim loads

Compatible Lutron® products
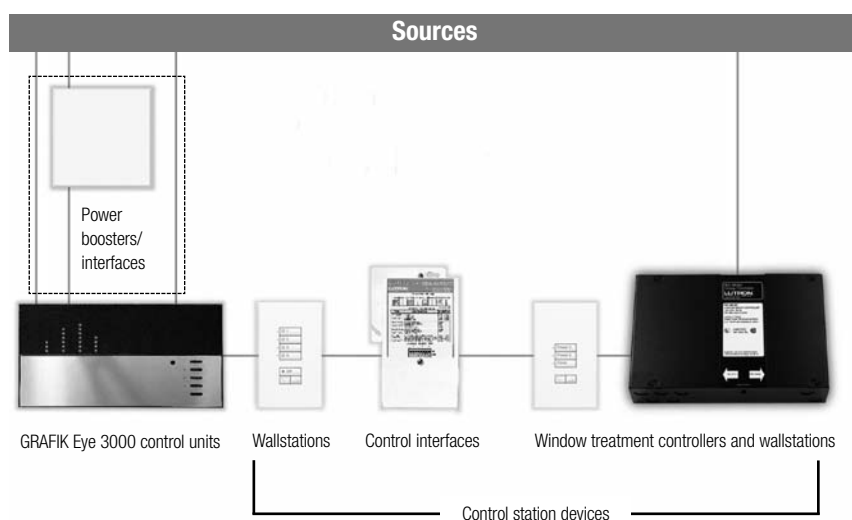
GRAFIK Eye 3000
control units pg. 2.4.1 and 2.4.5

GRAFIK Integrale™
pg. 2.4.3

GRAFIK Eye 3000 system map

- Use the map at right to identify system component being reviewed in each section.
- For overall wiring information, see section 2.3.

Sources

	Incandescent
	Magnetic low voltage
	Electronic low voltage
	Fluorescent
	Neon/cold cathode
	High-intensity discharge (non-dim only)

Sources

Power boosters/interfaces

GRAFIK Eye 3000 control units   Wallstations   Control interfaces   Window treatment controllers and wallstations

Control station devices

Specifications

- All voltages indicated are phase-to-neutral and will operate on 50 or 60 Hz power
- Require a circuit feed; load circuit feed is phase independent of control circuit from dimmer
- Are not plenum-rated; for indoor use only
- When mounting several units in vertical layout, allow 114 mm (4.5") between units for heat dissipation
- Must be mounted within 7° of true vertical
- Generate heat; mount only where ambient temperature will be 0-40°C (32°-104°F) with a non-condensing relative humidity <90%
- Common neutrals are not permitted; run separate neutrals for each load circuit
- Up to two power boosters/interfaces can be wired to a single zone for greater capacity

UP

-7° -7°
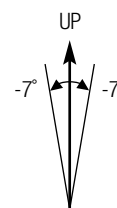
Mount booster/interface
vertically

Standards

Standards listed below apply to one or more products in the GRAFIK Eye 3000 product line. Consult Lutron for specific information.

LUTRON
Quality Systems
registered
to ISO 9001

Source	Product	Model	Options

Dimensions

W: 116 mm (4.56")
H: 116 mm (4.56")
D: 18 mm (0.69")[3]

Wallbox

P/N 241496

W: 105 mm (4.13")
H: 105 mm (4.13")
D: 40 mm (1.57")

Power Booster **220-240 V (non-CE)** NGRX-PB-AU-WH[1,2]
2,400 W/VA
230 V (CE) NGRX-PB-CE-WH[1,2]
1,200 W/VA (with Wallplate)
1,840 W/VA (without Wallplate)

- Increases single GRAFIK Eye 3000 or GRAFIK Integrale zone wattage capacity
- Dims incandescent, magnetic low voltage and neon/cold cathode loads
- Can also be used to switch (non-dim) all of the sources mentioned above
- Up to two power boosters can be wired to a single zone
- Minimum load is 40 W/VA

Ordering example

NGRX-PB-CE-WH
Ships in 48 hours

Dimensions

W: 116 mm (4.56")
H: 116 mm (4.56")
D: 18 mm (0.69")[3]

Wallbox

P/N 241496

W: 105 mm (4.13")
H: 105 mm (4.13")
D: 40 mm (1.57")

Electronic Low Voltage Interface
220-240 V (non-CE) NGRX-ELVI-AU-WH[1,2]
230 V (CE) NGRX-ELVI-CE-WH[1,2]

- 1,200 W
- Allows dimming of electronic transformer-supplied low voltage lighting requiring reverse phase-control dimming
- Increases single GRAFIK Integrale zone wattage capacity
- Up to two interfaces can be wired to a single zone
- Minimum load is 40 W/VA

Dimensions

W: 116 mm (4.56")
H: 116 mm (4.56")
D: 18 mm (0.69")[3]

Wallbox

P/N 241496

W: 105 mm (4.13")
H: 105 mm (4.13")
D: 40 mm (1.57")

Lutron Fluorescent Dimming Ballast Interface
220-240 V (non-CE) NGRX-FDBI-AU-WH[1,2]

- 10 A
- Allows dimming of Lutron® Hi-Lume™ /Eco-10™ (ECO-Series) line voltage control electronic dimming ballasts only
- Not to be used for switching
- Up to two interfaces can be wired to a single zone

Dimensions

W: 155 mm (6.10")
H: 318 mm (12.50")
D: 84 mm (3.30")

Surface Mount

Zero to Ten Volt Interface
220-240 V, 230 V (CE) GRX-TVI[1,2]

- 16 A (same model number for all voltages)
- 0-10 V output rating: 10 µA-300 mA; sinks current only
- Up to five interfaces can be wired to a single zone

Dimensions

W: 155 mm (6.10")
H: 318 mm (12.50")
D: 84 mm (3.30")

Surface Mount

Switching Relay **220-240 V, 230 V (CE)** GRX-TVI[1,2]

- 16 A (same model number for all voltages)
- Switching relay (non-dim) ratings for all voltages
16 A: incandescent, low voltage, neon/cold cathode, metal halide, fluorescent (capacitive), non-capacitive
1/2 hp: 240 V–motor

Footnotes, pg. 2.5.2
1 All voltages indicated are phase-to-neutral.
2 Load circuit feed is phase independent of control circuit from dimmer.
3 Depth is from wallplate to wall. Wallplate depth is 9 mm (0.35").

Step 1

Determine number of zones and sources

A zone is a group of lights or shades that are always controlled together. GRAFIK Eye 4000 controls have the ability to dim most popular light sources through power panels and to control several zones at one time from one button press. Important factors to consider when creating zones are flexibility of control and aesthetics.

Conference room reflected ceiling plan
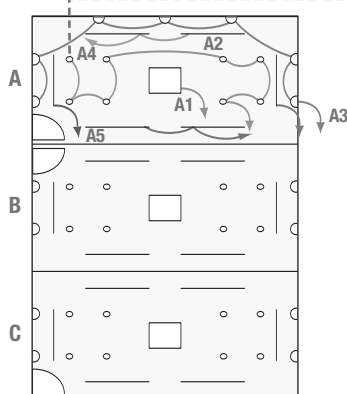
Zone	Description	No. of Circuits	Voltage	Feed Type (N,E)	Load Type	Fixture Load	No. of Fixtures	Watts/Volt-amps
A-1	Chandelier	1	230 V	N	INC	1200	1	1200
A-2	North Track	1	230 V	N	ELV	20	4	88*
A-3	East Track	1	230 V	N	ELV	20	6	132*
A-4	West Track	1	230 V	N	ELV	20	6	132*
A-5	South Track	1	230 V	N	ELV	20	4	88*

Notes:
1. Chart is typical for each room: A, B, and C. Room A is shown.

Key: N Normal; E Emergency; INC Incandescent; MLV Magnetic Low Voltage; ELV Electronic Low Voltage; 0-10 0-10 V Dimming ballast

* Includes transformer losses

Design tips

☐ Multiple circuits can be controlled by one zone.

☐ Dimming ballasts are required to dim fluorescent sources.

☐ Transformer loss: ballasts and transformers draw additional current beyond the lamp rating. For example, magnetic low voltage transformers typically draw an additional 20% of the lamp wattage.

☐ If integrating controllable window treatments with the lighting controls, dedicate a zone for each group of treatments to be controlled on control units.

☐ Blank load schedules are available. See pg. 3.17.2.

Step 2

Select GRAFIK Eye 4000 Series control units

Using the number of zones determined in Step 1, select the appropriate size of control Unit. GRAFIK Eye 4000 series control units are available in 2-, 3-, 4-, 6-, 8-, 16-, and 24-zone configurations. Choose a 4500 model control unit if programming the system from a PC or saving light levels at 1% increments is required.

See section 2.8.

This project requires seven zones per room, therefore three GRX-4108 are selected.

Design tips

☐ If your space requires more than eight zones, link up to 8 GRAFIK Eye 4000 Series control units (addresses) together for control of up to 64 zones in one system.

☐ A 16-zone control unit counts as two control units and a 24-zone unit counts as three control units toward the eight control units maximum.

☐ Use a separate GRAFIK Eye control unit for each distinct room/space in a project that may be controlled separately.

For example, for 10 zones:

4-Zone Control Unit + 6-Zone Control Unit = 10 total zones
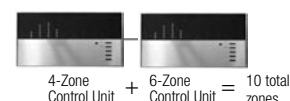
Step 3

Fill out dimming/switching panel schedule(s)

Separate circuits into power panel schedules by common voltages and feed type (N, N/E, E). Power panels can be located throughout a project close to the loads they are serving, then linked together through a low voltage communication link for seamless operation.

Design tips

☐ A separate panel or section is required for each voltage type and feed type (normal or emergency).

☐ Where emergency circuits are required, selected circuits should be placed in a separate panel schedule. Selected emergency circuits in Lutron® panels immediately go to a "full-on" condition when normal power fails. For more information, see pg. 4.8.5.

☐ Consider adding circuits into panel capacity for spare circuits if future growth is expected.

☐ In large projects, if more than 15% of project circuits are non-dim only, consider using an XP Softswitch™ panel (see section 4.7)

Step 4

Select power panels

Choose the power panel to support the number of circuits required by the project in the dimming/switching panel schedule(s) from Step 3.

Example shown in project for rooms A, B, and C. Process is similar for other voltages and feed types.

See section 4.

Normal – 230 V Dimming Panel Circuit Number	Zone	Load Type	Total Load Watts/Voltage
1	A-1	INC	1200
2	A-4	ELV	88
3	A-5	ELV	132
4	A-6	ELV	132
5	A-7	ELV	88
6	B-1	INC	1200
7	B-4	ELV	88
8	B-5	ELV	132
9	B-6	ELV	132
10	B-7	ELV	88
11	C-1	INC	1200
12	C-4	ELV	88
13	C-5	ELV	132
14	C-6	ELV	132
15	C-7	ELV	88
16	SPARE		

Note: This project requires one GP16-2304 IS-10CE dimming panel

Design tip

☐ Verify building system voltage/feed type (3Ø,4 W) and branch circuit size (where applicable).

Step 5

Select and implement design elements

Identify additional control elements for the project (e.g. DMX integration, time scheduling, wireless control) and add appropriate control station devices to achieve strategies.

See design elements, see section 1.2.

For this project, two elements are chosen – an SG-4SIRN infrared control (see pg. 2.10.3), and an SG-4PSN partitioning control (see pg. 2.10.4).

Design tips

☐ Up to 16 total control station devices can be added in one GRAFIK Eye 4000 series system.

☐ Coordinate partitioning function with audio visual system requirements.

Step 6

Support the design with one-line diagrams and written product specifications

Complete product specifications are available at www.lutron.com.
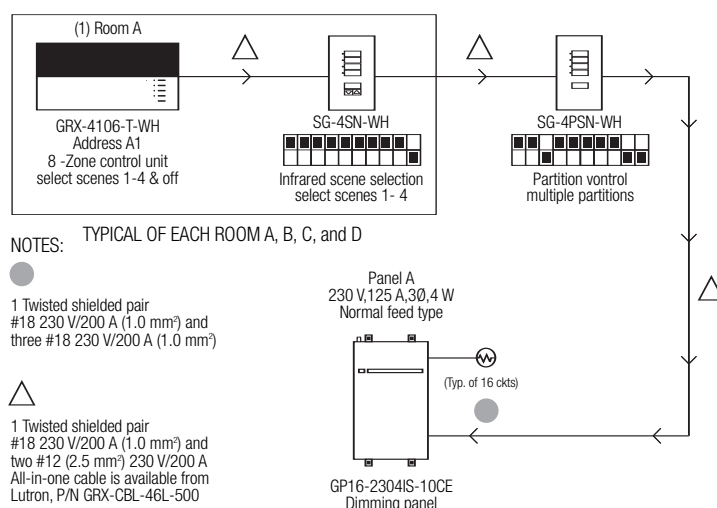
(1) Room A

GRX-4106-T-WH
Address A1
8 -Zone control unit
select scenes 1-4 & off

SG-4SN-WH
Infrared scene selection
select scenes 1- 4

SG-4PSN-WH
Partition vontrol
multiple partitions

NOTES: TYPICAL OF EACH ROOM A, B, C, and D

● 1 Twisted shielded pair #18 230 V/200 A (1.0 mm²) and three #18 230 V/200 A (1.0 mm²)

△ 1 Twisted shielded pair #18 230 V/200 A (1.0 mm²) and two #12 (2.5 mm²) 230 V/200 A All-in-one cable is available from Lutron, P/N GRX-CBL-46L-500

Panel A
230 V,125 A,3Ø,4 W
Normal feed type

(Typ. of 16 ckts)

GP16-2304IS-10CE
Dimming panel

GRAFIK Eye Designer software

Lutron's GRAFIK Eye Designer software allows faster system design by automatically assigning the panel(s) required from zone load type and wattage information. The software generates a complete bill of materials, including wallstations and control interfaces, with DIP switch settings, and a one-line diagram that can be saved and exported as a .dxf file. GRAFIK Eye Designer information is available at www.lutron.com/designer.

System maximums

- A total of 8 GRAFIK Eye 4000 Series control units
- 16 control station devices
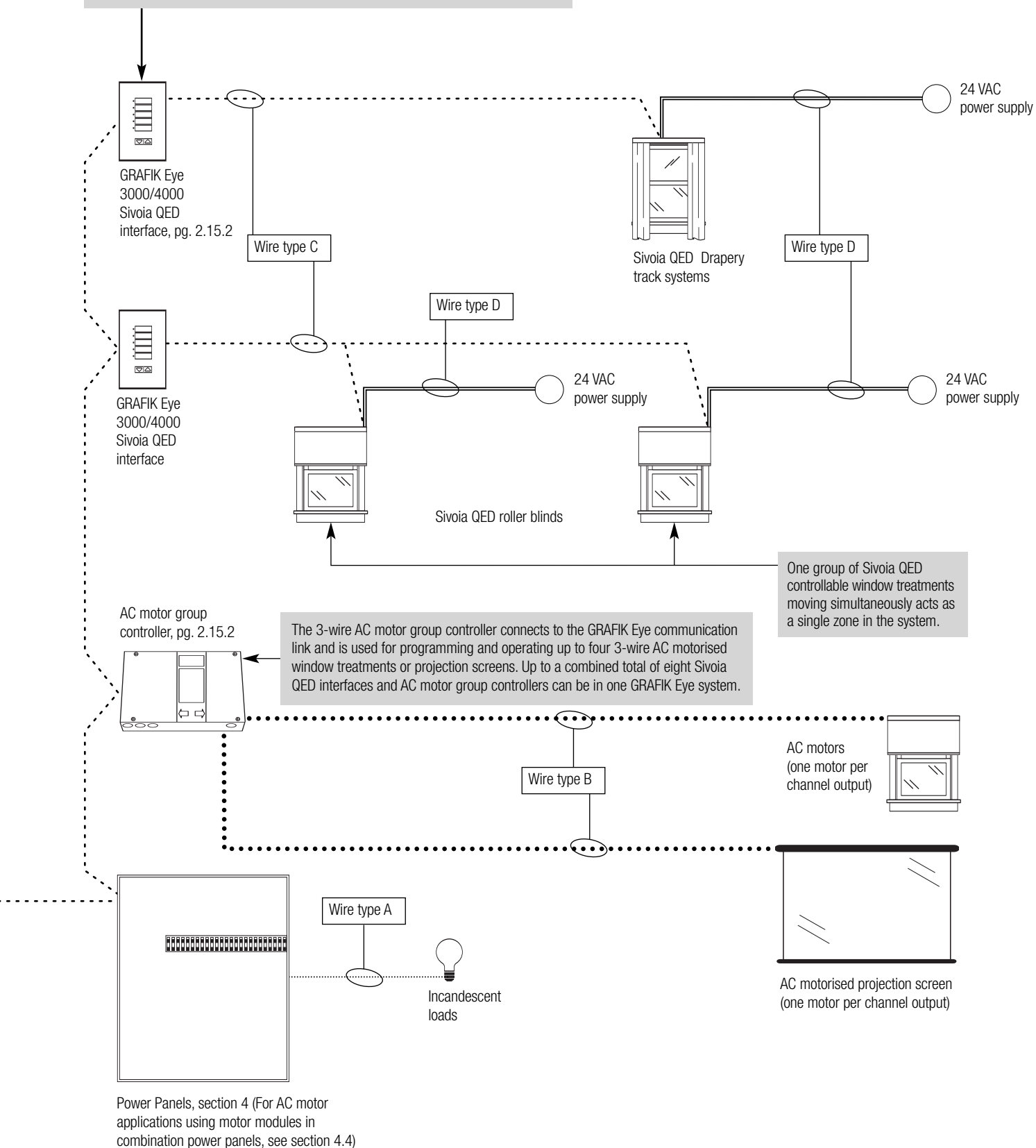- 8 Sivoia QED™ interfaces and AC motor group controllers

Note: control station devices include standard wallstations, control interfaces, and window treatment wallstations.

GRAFIK Link
Wire type C

Standard wallstations, section 2.10

Control interfaces, section 2.12

GRAFIK Eye 4500 control unit, section 2.8

Control of Sivoia QED™ and 3-wire AC motorised window treatments and projection screens requires dedicated zones on GRAFIK Eye control units. Lighting zones and window treatment zones can be mixed on the same control unit, or can be on independent units as shown.

To device by others

seeTouch™ window treatment wallstations, pg. 2.15.3

Window treatment wallstations control only window treatments without affecting lights. Each window treatment wallstation can simultaneously control one or more window treatments, up to the maximum number of window treatments in the system.

Wire type C

Wiring type key

	Type	
··················	Type A	2.5 mm² (#12 AWG) wires (230/240 V)
• • • • • • • • •	Type B	2.5 mm² (#12 AWG) wires (230/240 V)
- - - - - - - - -	Type C	Five PELV (Class 2) conductors: (2) 2.5 mm² (#12 AWG) for power wires; (1) twisted, shielded 1.0 mm² (#22 AWG) pair for control wires; plus (1) 1.00 mm² (#18 AWG) wire for the emergency sense line (Available from Lutron®; GRX-CBL-46L, see pg. 2.13.1)
————	Type D	1.5 mm² (#16 AWG) wires (24 VAC, plus earth ground)

The GRAFIK Eye 3000/4000 Sivoia QED interface, which connects to both the Sivoia QED communication link and the GRAFIK Eye communication link, is used for programming and controlling the group of window treatments wired to the control. Up to a combined total of eight Sivoia QED interfaces and AC motor group controllers can be in one GRAFIK Eye System.
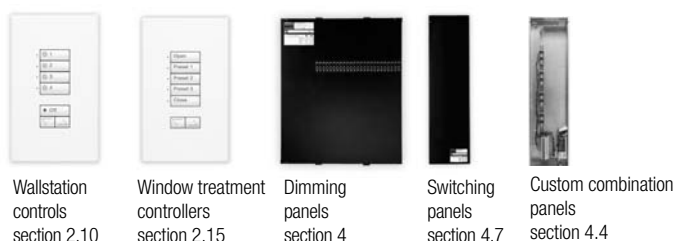
GRAFIK Eye 3000/4000 Sivoia QED interface, pg. 2.15.2

24 VAC power supply

Sivoia QED Drapery track systems

Wire type C

Wire type D

Wire type D

GRAFIK Eye 3000/4000 Sivoia QED interface

24 VAC power supply

24 VAC power supply

Sivoia QED roller blinds

One group of Sivoia QED controllable window treatments moving simultaneously acts as a single zone in the system.

AC motor group controller, pg. 2.15.2

The 3-wire AC motor group controller connects to the GRAFIK Eye communication link and is used for programming and operating up to four 3-wire AC motorised window treatments or projection screens. Up to a combined total of eight Sivoia QED interfaces and AC motor group controllers can be in one GRAFIK Eye system.

AC motors (one motor per channel output)

Wire type B

Wire type A

Incandescent loads

AC motorised projection screen (one motor per channel output)

Power Panels, section 4 (For AC motor applications using motor modules in combination power panels, see section 4.4)

Cover (shown open)

Base | Zone | Infrared receiver

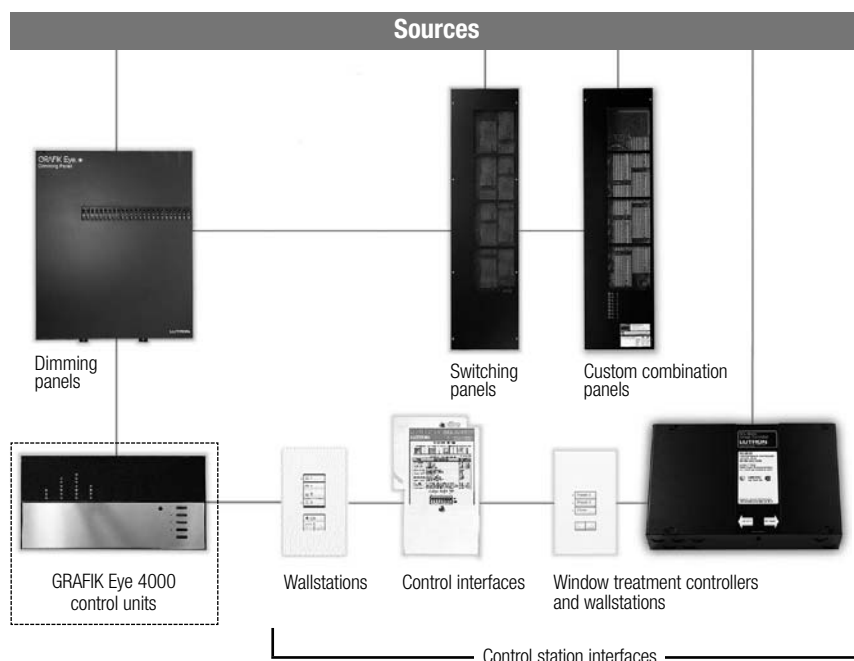**Control unit**   Scene selection buttons

Architectural-grade

- Provides continuously smooth square law dimming of all popular sources through dimming panels, and non-dim control for sources through switching panels; see Power Panels, section 4
- Dimming panels contain Lutron's patented powerline stability circuitry (RTISS™– Real-Time Illumination Stability System), capable of maintaining constant light levels with no visible flicker under changing powerline conditions
- Switching panels contain Lutron's patented XP Softswitch™ circuitry capable of withstanding inrush current 50 times operating current for full 16 A circuits of any source - resistive, inductive, or capacitive
- Average rated life of Lutron® relays are 1,000,000 cycles (on/off) at full load
- Provides positive air gap off for every circuit through power panels
- Up to 8 GRAFIK Eye 3000 series control units can be linked for up to 64 zones
- Built-in Infrared receiver/optional wireless remote control
- User-defined lockout options integral; locking covers available, pg. 2.13.1
- Offers simple program for scene light levels and fade times; no "store" button required

Compatible Lutron products

| Wallstation controls section 2.10 | Window treatment controllers section 2.15 | Dimming panels section 4 | Switching panels section 4.7 | Custom combination panels section 4.4 |

GRAFIK Eye 4000 system map

- Use the map at right to identify system component being reviewed in each section.
- For overall wiring information, see section 2.7.

Sources

Dimming panels

Switching panels

Custom combination panels

GRAFIK Eye 4000 control units

Wallstations

Control interfaces

Window treatment controllers and wallstations

—— Control station interfaces ——

Specifications

- Load types:
  - Controlled through power panels, see section 4
  - For control of Sivoia QED™ window treatments, use SG-SVCN Sivoia QED interface, see pg. 2.15.2
  - For control of AC motorised window treatments, use GRX-4M-GC-CE motor group controller, see pg. 2.15.2 and/or power panels with motor modules, see section 4.4
  - Sivoia QED and 3-wire AC motorised window treatments require dedicated zones on control units
- Power through power panels, see section 4
- Mounting:
  - Fits standard US wallboxes, 89 mm (3.50") deep strongly recommended, 64 mm (2.75") minimum
- Up to total of 8 Sivoia QED controllers plus AC motor group controllers can be in one system with 8 GRAFIK Eye control units and 16 control station devices
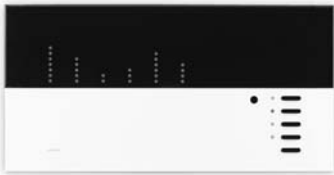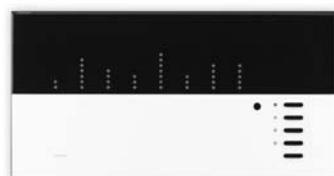
Standards

Standards listed below apply to one or more products in the Lutron product line. Consult Lutron for specific information.

LUTRON
Quality Systems
registered
to ISO 9001

CE   UL   CSA   NOM   V   T

emc   △   BAUART GEPRÜFT TYPE APPROVED   D   KEMA KEUR   D'E

	Product	Model	Options

Dimensions
W: 141 mm   (5.56")
H: 116 mm   (4.56")
D: 57 mm   (2.25")[1]

Wallbox:
P/N 2 x 241218
W: 100 mm   (4.00")
H: 100 mm   (4.00")
D: 63 mm   (2.50")

2-Zone Control Units[3]

GRX-4102-_-_
GRX-4502-_-_ [2]

- Sources controlled through dimming and XP Softswitch panels and window treatment controllers.
- For panel information, see section 4.
- For window treatment controllers, see section 2.15.

Ordering example
GRX-4102-T-WH
Add cover option and colour/finish suffix to model #

Cover options
Opaque   A
Cover and base will match
Translucent Black   T
Black translucent cover with base colour from below

Base colours
Matt finishes
Standard, ships in 48 hrs.
- Matt cover options: A or T
- See pg. 1.3.1 for complete colour offering and suffixes.

Gloss (NEMA) finishes
Ships in 4-6 weeks.
- Gloss cover option: A only
- See pg. 1.3.1 for complete colour offering and suffixes.

Metal finishes
Ships in 4-6 weeks.
- Metal cover option: T only
- See pg. 1.3.1 for complete colour offering and suffixes.

Satin finishes
Ships in 4-6 weeks.
- Satin cover option: A or T
- See pg. 1.3.1 for complete colour offering and suffixes.

Customisation
Ships in 4-6 weeks.
- See pg. 1.4.1 for multi-gang wallplates, colour matching, engraving/silk screening, and custom controls.
- See pg. 3.17.5 for engraving schedules.

Locking covers
- See pg. 2.13.1 for more information.

Dimensions
W: 186 mm   (7.31")
H: 116 mm   (4.56")
D: 57 mm   (2.25")[1]

Wallbox:
P/N 3 x 241218
W: 150 mm   (6.00")
H: 100 mm   (4.00")
D: 63 mm   (2.50")

3-Zone Control Units[3]

GRX-4103-_-_
GRX-4503-_-_ [2]

- Sources controlled through dimming and XP Softswitch panels and window treatment controllers.
- For panel information, see section 4.
- For window treatment controllers, see section 2.15.

Dimensions
W: 227 mm   (8.94")
H: 116 mm   (4.56")
D: 57 mm   (2.25")[1]

Wallbox:
P/N 241400
W: 200 mm   (8.00")
H: 95 mm   (3.75")
D: 75 mm   (3.00")

4-Zone Control Units[3]

GRX-4104-_-_
GRX-4504-_-_ [2]

- Sources controlled through dimming and XP Softswitch panels and window treatment controllers.
- For panel information, see section 4.
- For window treatment controllers, see section 2.15.

Dimensions
W: 227 mm   (8.94")
H: 116 mm   (4.56")
D: 57 mm   (2.25")[1]

Wallbox:
P/N 241400
W: 200 mm   (8.00")
H: 95 mm   (3.75")
D: 75 mm   (3.00")

6-Zone Control Units[3]

GRX-4106-_-_
GRX-4506-_-_ [2]

- Sources controlled through dimming and XP Softswitch panels and window treatment controllers.
- For panel information, see section 4.
- For window treatment controllers, see section 2.15.

Footnotes, pg. 2.8.2

1 Depth includes wallplate and backbox. Wallplate depth is 9 mm (0.35").

2 4500 model control units can be programmed manually or from a PC and offer the precision of setting light levels in 1% increments.

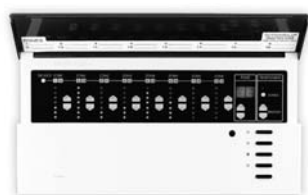3 Counts as one of eight total control units per system.

Product	Model	Options

Dimensions

W: 227 mm (8.94")
H: 116 mm (4.56")
D: 57 mm (2.25")[1]

Wallbox
P/N 241400

W: 200 mm (8.00")
W: 95 mm (3.75")
W: 75 mm (3.00")

(Shown with cover open)

Dimensions

W: 227 mm (8.94")
H: 116 mm (4.56")
D: 57 mm (2.25")[1]

Wallbox
P/N 241400

W: 200 mm (8.00")
W: 95 mm (3.75")
W: 75 mm (3.00")

(Shown with cover open)

Dimensions

W: 227 mm (8.94")
H: 116 mm (4.56")
D: 57 mm (2.25")[1]

Wallbox
P/N 241400

W: 200 mm (8.00")
W: 95 mm (3.75")
W: 75 mm (3.00")

8-Zone Control Units

GRX-4108-_-_
GRX-4508-_-_ [2]

- Sources controlled through dimming and XP Softswitch™ panels and window treatment controllers.
- For panel information, see section 4.
- For window treatment controllers, see section 2.15.
- Counts as one of eight total control units per system.

16-Zone Control Units

GRX-4116-_-_
GRX-4516-_-_ [2]

- Sources controlled through dimming and XP Softswitch panels and window treatment controllers.
- For panel information, see section 4.
- For window treatment controllers, see section 2.15.
- Counts as two out of eight total control units per system.

24-Zone Control Units

GRX-4124-_-_
GRX-4524-_-_ [2]

- Sources controlled through dimming and XP Softswitch panels and window treatment controllers.
- For panel information, see section 4.
- For window treatment controllers, see section 2.15.
- Counts as three out of eight total control units per system.

Footnotes, pg. 2.8.3

1 Depth includes wallplate and backbox. Wallplate depth is 9 mm (0.35").

2 4500 model control units can be programmed manually or from a PC and offer the precision of setting light levels in 1% increments.

Ordering example

GRX-4108-T-WH

Add cover option and colour/finish suffix to model #

Cover options

Opaque   A

Cover and base will match

Translucent Black   T

Black translucent cover with base colour from below

Base colours

Matt finishes

Standard, ships in 48 hrs.

- Matt cover options: A or T
- See pg. 1.3.1 for complete colour offering and suffixes.

Gloss (NEMA) finishes

Ships in 4-6 weeks.

- Gloss cover option: A only
- See pg. 1.3.1 for complete colour offering and suffixes.

Metal finishes

Ships in 4-6 weeks.

- Metal cover option: T only
- See pg. 1.3.1 for complete colour offering and suffixes.

Satin finishes

Ships in 4-6 weeks.

- Satin cover option: A or T
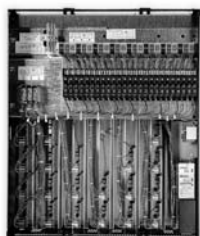- See pg.1.3.1 for complete colour offering and suffixes.

Customisation

Ships in 4-6 weeks.

- See pg.1.4.1 for multigang wallplates, colour matching, engraving/silk screening, and custom controls.
- See pg. 3.17.5 for engraving schedules.

Locking covers

- See pg. 2.13.1 for more information.

Product	Model	Options

Dimensions

W: 186 mm (7.31")
H: 116 mm (4.56")
D: 57 mm (2.25")[1]

Wallbox:
P/N 3 x 241218

W: 150 mm (6.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

3-Zone Slider Control Units[2,3]

GRXSLD-4103-

- Serves as control unit for three zones of lighting
- Two scenes per slider control unit, expandable to 12 scenes with additional controls
- Master slider option available (uses one slider zone)
- No remote fine-tuning for individual zones available
- Built-in panic scenes

Dimensions

W: 186 mm (7.31")
H: 116 mm (4.56")
D: 57 mm (2.25")[1]

Wallbox:
P/N 3 x 241218

W: 150 mm (6.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

4-Zone Slider Control Unit[2,3]

GRXSLD- 4104-

- Serves as control unit for four zones of lighting
- Two scenes per slider control unit, expandable to 12 scenes with additional controls
- Master slider option available (uses one slider zone)
- No remote fine-tuning for individual zones available
- Built-in panic scenes

Dimensions

W: 227 mm (8.94")
H: 116 mm (4.56")
D: 57 mm (2.25")[1]

Wallbox
P/N 241400

W: 200 mm (8.00")
H: 95 mm (3.75")
D: 75 mm (3.00")

6-Zone Slider Control Unit[2,3]

GRXSLD-4106-

- Serves as control unit for six zones of lighting
- Two scenes per slider control unit, expandable to 12 scenes with additional controls
- Master slider option available (uses one slider zone)
- No remote fine-tuning for individual zones available
- Built-in panic scenes

Dimensions

W: 227 mm (8.94")
H: 116 mm (4.56")
D: 57 mm (2.25")[1]

Wallbox
P/N 241400

W: 200 mm (8.00")
H: 95 mm (3.75")
D: 75 mm (3.00")

8-Zone Slider Control Unit[2,3]

GRXSLD-4108-

- Serves as control unit for eight zones of lighting
- Two scenes per slider control unit, expandable to 12 scenes with additional controls
- Master slider option available (uses one slider zone)
- No remote fine-tuning for individual zones available
- Built-in panic scenes

Options

Ordering example

GRXSLD-4103-WH
add colour/finish suffix
to model #

Matt finishes

Ships in 4-6 weeks.

White	WH
Ivory	IV
Beige	BE
Grey	GR
Brown	BR
Black	BL

Metal finishes

Ships in 4-6 weeks.

Bright Brass	BB
Bright Chrome	BC
Bright Nickel	BN
Satin Brass	SB
Satin Chrome	SC
Satin Nickel	SN
Antique Brass	QB
Antique Bronze	QZ

Anodised Aluminium

Clear	CLA
Black	BLA
Brass	BRA

Customisation

Ships in 4-6 weeks.

- See pg. 1.4.1 for multigang wallplates, colour matching, engraving/silk screening, and custom controls.
- See pg. 3.17.5 for engraving schedules.

Locking covers

- See pg. 2.13.1 for more information.

Footnotes, pg. 2.8.4

1 Depth includes wallplate and backbox. Wallplate depth is 9 mm (0.35").
2 Manual programming only. (No PC programming available).
3 Counts as one of eight total control units per system.

GP dimming panels

LP dimming panels

XP Softswitch panels with breakers

Custom combination panels

GP dimming panels
Lutron's highest performance architectural dimming panel for all applications.

LP dimming panels
Commercial dimming panel for handling numerous small loads.

XP Softswitch™ panels
Million-cycle switching panel employs Lutron's patented Softswitch technology.
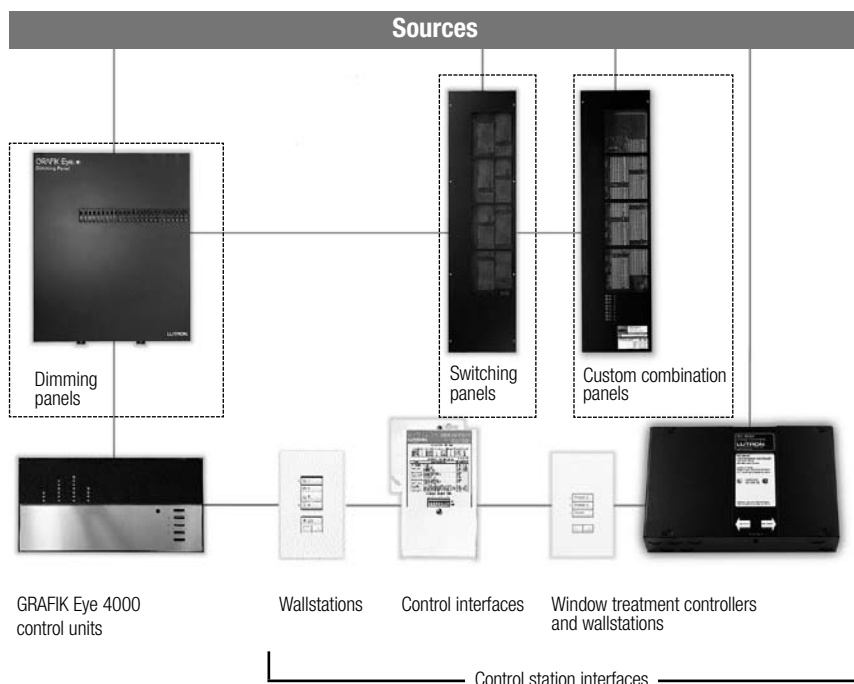
Custom combination panels
Custom dimming/switching panel tailored to your projects requirements.

GRAFIK Eye 4000 system map

- Use the map at right to identify system component being reviewed in each section.
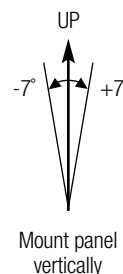- For overall wiring information, see section 2.7.

Sources

💡	Incandescent
	Magnetic low voltage
	Electronic low voltage
Ω	Neon/cold cathode
=)▌	Fluorescent
⏚	High-intensity discharge (non-dim only)
▤	Controllable window treatments

Sources

Dimming panels

Switching panels

Custom combination panels

GRAFIK Eye 4000 control units

Wallstations

Control interfaces

Window treatment controllers and wallstations

Control station interfaces

Standards

Standards listed below apply to one or more products in the Lutron product line. Consult Lutron for specific information.

LUTRON Quality Systems registered to ISO 9001

CE UL SA NOM ✓ ▽

emc △ 10V Rheinland BAUART GEPRÜFT TYPE APPROVED D KEMA EUR DVE

Specifications

- **Prewired:** Lutron® power panels are prewired at the factory. Wire feed and load wiring only. No other wiring or assembly required.
- **Thermal magnetic breakers:** Circuit breakers are UL-rated thermal magnetic.
- **Lightning strike protection:** Power panels meet ANSI/IEEE standard 62.41-1980 and can withstand voltage surges of up to 6,000 V and current surges of up to 3,000 A.
- **No flicker:** RTISS™ filter circuit technology compensates for incoming line voltage variations: No visible flicker with ±2% change in RMS voltage/cycle and ±2% Hz change in frequency/second.
- **Air gap off switches:** Ensures an open circuit when off function is selected.
- **Arcless-relay:** Eliminate arcing at mechanical contacts when loads are switched.
- **Convection cooled:** patented, ribbed aluminum heat sink base cools panel by convection. No fans.
- **Enclosure:** NEMA-Type 1 (Type 2 available upon request), IP-20 protection; #16 U.S. Gauge steel. Indoors only.
- **Customisation:** Panels can be customised to meet your needs, section 4.4.

UP

-7° +7°

Mount panel vertically

Panel Type	GP	LP/Custom Combination Panels	XP Softswitch™
Choosing a panel			
Function	Lutron's highest performance architectural dimming panel for all applications	Commercial dimming panel for handling numerous small loads	Million-cycle switching panel employs Lutron's patented Softswitch
Voltage[1]	220-240 V (AU) or 230 V (CE) 50 or 60 Hz	220-240 V (AU) or 230 V (CE) 50 or 60 Hz	220-240 V (AU) or 230 V (CE) 50 or 60 Hz
Panel feed type	Feed-through isolator switch	Feed-through isolator switch	Feed-through
Number of circuits	3-24	4-32 lighting zones (1-8 dimming modules)	4-48
Thermal magnetic circuit breaker	1 per circuit	1 per module (4 lighting zones per module)	N/A
Load rating	16 A continuous/circuit 10 A 230 V (CE)	Varies by module type	16 A continuous/circuit
Load type[2]	inc, mlv, elv[3], fl[4], n, cc, nd	inc, mlv, elv[3], fl[4], n, cc, nd, motor[5]	All load types
Lamp noise suppression	Architectural	Commercial	Not required
RFI suppression	Highest-grade choke	High-grade choke	Switching only; no choke required
Ambient temperature	0º-40ºC (32º-104ºF)	0º-40ºC (32º-104ºF)	0º-40ºC (32º-104ºF)
Mounting	Surface mount	Surface mount or recessed mount	Surface mount or recessed mount

Footnotes, pg. 2.9.2

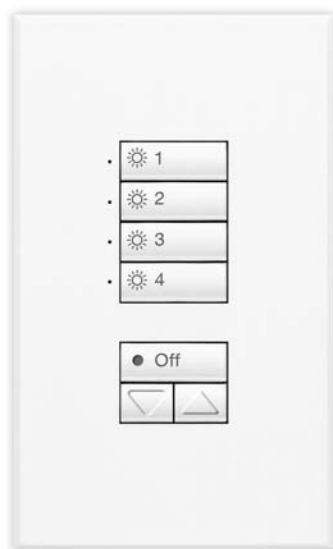1 All voltages are nominal.

2 Load type key: inc=incandescent, mlv=magnetic low voltage, n=neon, cc=cold cathode, fl=fluorescent (magnetic and capacitive), elv=electronic low voltage, nd=non-dim, HID.

3 Contact Lutron technical support for a list of approved electronic low voltage transformers.

4 Ten volt module (option), see pg. 4.4.3.

5 3-wire AC motor types; motor module (option), see pg. 4.4.3.

seeTouch Wallstation

GRAFIK Eye 3000 system map (shown)

- Use the map at right to identify system component being reviewed in each section.
- For overall wiring information, see sections 2.3 and 2.7.

Wallstation features

- Provide additional control points throughout a space
- Up to 16 wallstations and control Interfaces can be added for a total of 24 control points in one system
- seeTouch™ wallstations offer:
  - Easy to use large, rounded buttons
  - User-changeable button and faceplate assemblies which make for easy customisation
  - On-button engraving angled up to the eye for easy reading
  - Backlit buttons for improved clarity in low light conditions

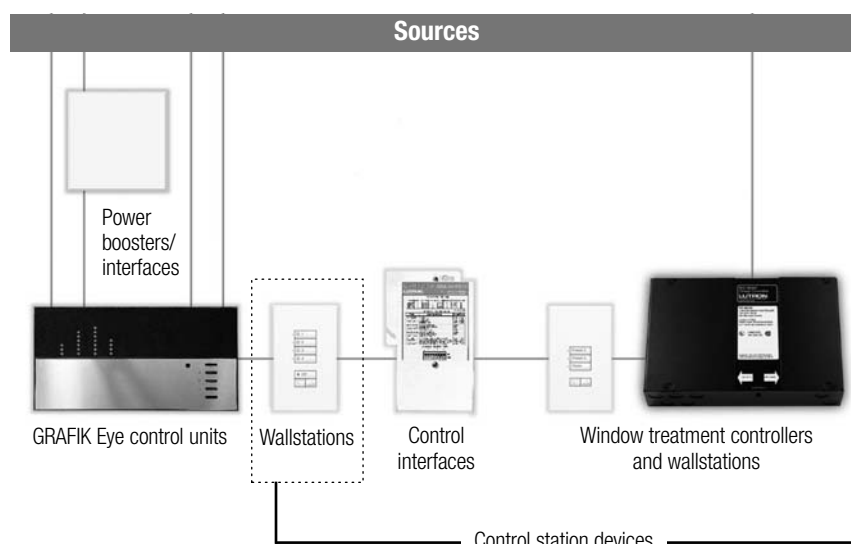| seeTouch
pg. 2.10.1 | European Style
pg. 2.10.5 | Architectural
pg. 2.10.8 | Slim button
pg. 2.10.11 | Large button
pg. 2.10.12 | Architrave™
pg. 2.10.13 |

Sources

GRAFIK Eye control units   Wallstations   Control interfaces   Window treatment controllers and wallstations
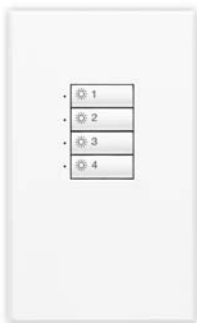
Control station devices

Specifications

- Wallstation and control interface maximums:
  - Per System: 16 (Class 2/PELV) (includes window treatment wallstations)
  - Three from each GRAFIK Eye 3000 Control Unit without external power supply; for Lutron® Power Supply, TU240-15DC-9-BL or TE240-15DC-9-BL see 2.13.1. (Does not apply to GRAFIK Eye 4000)
- Wiring specification & maximums per mystem:
  - GRAFIK Eye 3000: Four PELV (Class 2) conductors: (2) 1.0 mm^2 (#18 AWG) for power wires; plus (1) twisted, shielded 1.0 mm^2 (#22 AWG) pair for control wires (Available from Lutron, GRX-CBL-346S-500, see pg. 2.13.1)
  - GRAFIK Eye 4000: Five PELV (Class 2) conductors: (2) 2.5 mm^2 (#12 AWG) for power wires; (1) twisted, shielded 1.0 mm^2 (#22 AWG) pair for control wires; plus (1) 1.0 mm^2 (#18 AWG) wire for the emergency sense line (Available from Lutron, GRX-CBL-46L, see pg. 2.13.1)
  - Distance: 610 m (2,000'); for other cable distances, see GRAFIK Eye Application Notes available at www.lutron.com
  - Installation: daisy-chain (no home-run wiring)
  - Cable available from Lutron, see pg. 2.13.1
- Power: 12 VDC (From GRAFIK Eye 3000 Series control unit or TU240-15DC-9-BL or TE240-15DC-9-BL, see pg. 2.13.1); 24 VAC (From power panels for GRAFIK Eye 4000 Series)
- Configuration: Integral DIP switches determine function and can be configured in the field

Standards

Standards listed below apply to one or more products in the Lutron product line. Consult Lutron for specific information.

LUTRON
Quality Systems
registered
to ISO 9001

CE (UL) (SP) NOM ✔ ⟨T⟩

emc △ BAUART GEPRÜFT TYPE APPROVED (D) KEMA KEUR DVE

seeTouch	Product	Model	Options

Dimensions

W: 70 mm (2.75")
H: 116 mm (4.56")
D: 27 mm (1.06")[1]

Wallbox:

P/N 241218

W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

2-Button Wallstation — SG-2BN-[2, 3, 4]

- Optional functions (can be selected in the field):
  - Turns lighting on (Scene 1) and off
  - Recalls preset light levels for two scenes (9/10 or 13/14)
  - Single partition status determines which GRAFIK Eye control unit(s) operate independently or in combination to reflect status for one moveable wall (two rooms)
  - Panic (Scene 16, lock out GRAFIK Eye manual control)
  - Sequencing (Selects scenes 5-16 sequentially)
  - Individual zone raise/lower
  - Zone lockout
- General engraving option (EGN) shown
- For seeTouch model guide, see section 3.16

Dimensions

W: 70 mm (2.75")
H: 116 mm (4.56")
D: 27 mm (1.06")[1]

Wallbox:

P/N 241218

W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

4-Button Wallstation — SG-4BN-[2, 3, 4]

- Recalls preset light levels for four scenes (1-4, 5-8, 9-12, or 13-16)
- Can be mounted with other wallstations in multigang faceplate for 8/12/16 scene option
- No off or fine-tuning of light levels
- General engraving option (EGN) shown
- For seeTouch model guide, see section 3.16

Dimensions

W: 70 mm (2.75")
H: 116 mm (4.56")
D: 27 mm (1.06")[1]

Wallbox:

P/N 241218

W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

4-Scene Wallstation with Off — SG-4NRLN-[2, 3, 4]

- Recalls preset light levels for four scenes (1-4, 5-8, 9-12, or 13-16) plus off
- General engraving option (EGN) shown
- For seeTouch model guide, see section 3.16

Options

Ordering example

SG-2BN-WH-EGN

Add colour/finish and engraving suffix to model #

For choices see:
www.lutron.com/seetouch

Matt finishes

Ships in 48 hrs.

White	WH
Ivory	IV
Beige	BE
Grey	GR
Brown	BR
Black	BL

Gloss (NEMA) finishes

Ships in 48 hrs.
(Insert models only)

White	GWH
Light Almond	GLA

Metal finishes

Ships in 4-6 weeks.

Bright Brass	BB
Bright Chrome	BC
Bright Nickel	BN
Satin Brass	SB
Satin Chrome	SC
Satin Nickel	SN
Antique Brass	QB
Antique Bronze	QZ

Anodised Aluminium

Clear	CLA
Black	BLA
Brass	BRA

Customisation

Ships in 4-6 weeks.

- See pg. 1.4.1 for multigang wallplates, colour matching, engraving/silk screening, and custom controls.
- See pg. 3.17.5 for engraving schedules.

Locking covers

- See pg. 2.13.1 for more information.

Footnotes, pg. 2.10.2

1 Depth includes wallplate and backbox. Wallplate depth is 8 mm (0.31").
2 For insert version use I in place of last N in model number. See section 3.16 for more information.
3 PELV (Class 2) control wiring.
4 Counts as 1 of 16 maximum control station devices.

seeTouch™	Product	Model	Options

Dimensions

W: 70 mm (2.75")
H: 116 mm (4.56")
D: 27 mm (1.06")[1]

Wallbox:

P/N 241218

W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

4-Scene Wallstation with Off and Raise/Lower   SG-4SN-[2, 3, 4]

- Recalls preset light levels for four scenes (1-4, 5-8, 9-12, or 13-16) plus off
- Fine-tuning of light levels with master raise/lower buttons
- General engraving option (EGN) shown
- For seeTouch model guide, see section 3.16

Dimensions

W: 70 mm (2.75")
H: 116 mm (4.56")
D: 27 mm (1.06")[1]

Wallbox:

P/N 241218

W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

4-Scene Wallstation with Off, Raise/Lower, and Infrared Receiver   SG-4SIRN-[2, 3, 4]

- Recalls preset light levels for four scenes (1-4, 5-8, 9-12, or 13-16) plus off from keypad or four-scene wireless remote control (GRX-IT-WH, ordered separately)
- Recalls eight scenes (1-8, 5-12, 9-16, or 13-16/1-4) plus off from eight-scene Wireless Remote Control (GRX-8IT-WH, ordered separately)
- Fine-tuning of light levels from keypad or wireless remote control
- General engraving option (EGN) shown
- For seeTouch model guide, see section 3.16

Ordering example

SG-4SN-WH-EGN

Add colour/finish and engraving suffix to model #

For choices see: www.lutron.com/seetouch

Matt finishes

Ships in 48 hrs.

White	WH
Ivory	IV
Beige	BE
Grey	GR
Brown	BR
Black	BL

Gloss (NEMA) finishes

Ships in 48 hrs.
(Insert models only)

White	GWH
Light Almond	GLA

Metal finishes

Ships in 4-6 weeks.

Bright Brass	BB
Bright Chrome	BC
Bright Nickel	BN
Satin Brass	SB
Satin Chrome	SC
Satin Nickel	SN
Antique Brass	QB
Antique Bronze	QZ

Anodised Aluminium

Clear	CLA
Black	BLA
Brass	BRA

Customisation

Ships in 4-6 weeks.

- See pg. 1.4.1 for multigang wallplates, colour matching, engraving/silk screening, and custom controls.
- See pg. 3.17.5 for engraving schedules.

Locking covers

- See pg. 2.13.1 for more information.

Footnotes, pg. 2.10.3

1 Depth includes wallplate and backbox. Wallplate depth is 8 mm (0.31").
2 For insert version use I in place of last N in model number. See section 3.16 for more information.
3 PELV (Class 2) control wiring.
4 Counts as 1 of 16 maximum control station devices.

seeTouch	Product	Model	Options

Dimensions
W: 70 mm (2.75")
H: 116 mm (4.56")
D: 27 mm (1.06")[1]

Wallbox:
P/N 241218
W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

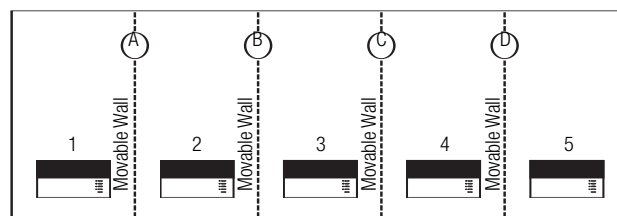### 4-Scene Wallstation with Off, Raise/Lower, and Infrared Receiver Programming   SG-PRON-[2, 3, 4, 5]

- Enhanced infrared commands for scene programming, preset selection and individual zone control of each control unit from a PDA[2]
- Fine-tuning of light levels from keypad or wireless remote control
- Recalls preset light levels for four scenes (1-4, 5-8, 9-12, or 13-16) plus off from keypad or four-scene wireless remote control (GRX-IT-WH, ordered separately)
- Recalls eight scenes (1-8, 5-12, 9-16, or 13-16/1-4) plus off from eight-scene wireless remote control (GRX-8IT-WH, ordered separately)
- General engraving option (EGN) shown
- For seeTouch model guide, see section 3.16

Ordering example
SG-PRON-WH
Add colour/finish and engraving suffix to model #
For choices see:
www.lutron.com/seetouch

Matt finishes
Ships in 48 hrs.

White	WH
Ivory	IV
Beige	BE
Grey	GR
Brown	BR
Black	BL

Gloss (NEMA) finishes
Ships in 48 hrs.
(Insert models only)

White	GWH
Light Almond	GLA

Metal finishes
Ships in 4-6 weeks.

Bright Brass	BB
Bright Chrome	BC
Bright Nickel	BN
Satin Brass	SB
Satin Chrome	SC
Satin Nickel	SN
Antique Brass	QB
Antique Bronze	QZ

Anodised Aluminium
Clear	CLA
Black	BLA
Brass	BRA

Customisation
Ships in 4-6 weeks.
- See pg. 1.4.1 for multigang wallplates, colour matching, engraving/silk screening, and custom controls.
- See pg. 3.17.5 for engraving schedules.

Locking covers
- See pg. 2.13.1 for more information.

Dimensions
W: 70 mm (2.75")
H: 116 mm (4.56")
D: 27 mm (1.06")[1]

Wallbox:
P/N 241218
W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

4-Movable Wall Status Wallstation   SG-4PSN-[3, 4, 5]

- Provides four buttons to determine which control unit(s) operate independently or in combination to reflect movable wall status for up to four moveable walls (five rooms)
- Last button resets all control units to independent operation
- General engraving option (EGN) shown
- For seeTouch model guide, see section 3.16

For example:

This button…	Toggles the status of…	To combine control units:
Button 1	Wall A	1 and 2
Button 2	Wall B	2 and 3
Button 3	Wall C	3 and 4
Button 4	Wall D	4 and 5

Dimensions
W: 70 mm (2.75")
H: 116 mm (4.56")
D: 27 mm (1.06")[1]

Wallbox:
P/N 241218
W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

4-Button Master Control Wallstation   SG-4MN-[3, 4, 5]

- Each of four buttons toggles selected control unit(s) between Scene 1 and off
- Last button can be all on (Scene 1) or all off for selected control unit(s)
- General engraving option (EGN) shown
- For seeTouch model guide, see section 3.16

Footnotes, pg. 2.10.4
1 Depth includes wallplate and backbox. Wallplate depth is 8 mm (0.31").
2 Requires a GRX 3500 or a GRX 4500 control unit
3 For insert version use I in place of last N in model number. See section 3.16 for more information.
4 PELV (Class 2) control wiring.
5 Counts as 1 of 16 maximum control station devices.

European Style	Product	Model	Options

Dimensions
W: 86 mm (3.38")
H: 86 mm (3.38")
D: 22 mm (0.88")[1]

2-Button Wallstation — EGRX-2B-SL-[2, 3]

- Optional functions (can be selected in the field):
  - Turns lighting on (Scene 1) and off
  - Recalls preset light levels for two scenes (9/10 or 13/14)
  - Single partition status determines which control unit(s) operate independently or in combination to reflect status for one moveable wall (two rooms)
  - Panic (Scene 16, lock out manual control)
  - Sequencing (Selects Scenes 5-16 sequentially)
  - Individual zone raise/lower
- Mounts in European wallbox (Lutron® P/N 241683)
- On-button and wallplate engraving available

Dimensions
W: 86 mm (3.38")
H: 86 mm (3.38")
D: 22 mm (0.88")[1]

4-Button Wallstation — EGRX-4B-[2, 3]

- Recalls preset light levels for four scenes (1-4, 5-8, 9-12, or 13-16)
- Mounts in European wallbox (Lutron P/N 241683)
- On-button and wallplate engraving available

Dimensions
W: 86 mm (3.38")
H: 86 mm (3.38")
D: 22 mm (0.88")[1]

4-Scene Wallstation with Off and Raise/Lower — EGRX-4S-[2, 3]

- Recalls preset light levels for four scenes (1-4, 5-8, 9-12, or 13-16) plus off
- Fine-tuning of light levels with master raise/lower buttons
- Mounts in European wallbox (Lutron P/N 241683)
- On-button and wallplate engraving available

Options

Ordering example

EGRX-8S-<u>WH</u>

Add colour/finish suffix to model number.

For choices see:
www.lutron.com/seetouch

Matt finishes

Ships in 48 hrs.

White	WH
Black	BL

Metal finishes

Ships in 4-6 weeks.

Bright Brass	BB
Bright Chrome	BC
Bright Nickel	BN
Satin Brass	SB
Satin Chrome	SC
Satin Nickel	SN
Antique Brass	QB
Antique Bronze	QZ

Anodised Aluminium

Clear	CLA
Black	BLA
Brass	BRA

Customisation

Ships in 4-6 weeks.

- See pg. 1.4.1 for multigang wallplates, colour matching, engraving/silk screening, and custom controls.
- See pg. 3.17.5 for engraving schedules.

Footnotes, pg. 2.10.5

1. Depth includes wallplate and backbox. Wallplate depth is 12 mm (0.48"). Minimum wallbox depth is 25 mm.
2. PELV (Class 2) control wiring.
3. Counts as 1 of 16 maximum control station devices.

European Style	Product	Model	Options

Dimensions
W: 86 mm (3.38")
H: 86 mm (3.38")
D: 22 mm (0.88")[1]

8-Scene Wallstation with Off and Raise/Lower   EGRX-8S-[2, 3]

- Recalls preset light levels for eight scenes (1-8, 5-12, 9-16, or 13-16/1-4) plus off
- Fine-tuning of light levels with master raise/lower buttons
- Mounts in European wallbox (Lutron P/N 241683)
- On-button and wallplate engraving available

Dimensions
W: 86 mm (3.38")
H: 86 mm (3.38")
D: 22 mm (0.88")[1]

4-Scene Wallstation with Off, Raise/Lower, and Infrared Receiver   EGRX-4S-IR-[2, 3]

- Recalls preset light levels for four scenes (1-4, 5-8, 9-12, or 13-16) plus off from keypad or four-scene wireless remote control (GRX-IT-WH, ordered separately)
- Recalls eight scenes (1-8, 5-12, 9-16, or 13-16/1-4) plus off from eight-scene wireless remote control (GRX-8IT-WH, ordered separately)
- Fine-tuning of light levels from keypad or wireless remote control
- Mounts in European wallbox (Lutron P/N 241683)
- On-button and wallplate engraving available

Dimensions
W: 86 mm (3.38")
H: 86 mm (3.38")
D: 22 mm (0.88")[1]

8-Scene Wallstation with Off, Raise/Lower, and Infrared Receiver   EGRX-8S-IR-[2, 3]

- Recalls preset light levels for four scenes (1-4, 5-8, 9-12, or 13-16) plus off from four-scene wireless remote control (GRX-IT-WH, ordered separately)
- Recalls eight scenes (1-8, 5-12, 9-16, or 13-16/1-4) plus off from keypad or eight-scene wireless remote control (GRX-8IT-WH, ordered separately)
- Fine-tuning of light levels from keypad or wireless remote control
- Mounts in European wallbox (Lutron P/N 241683)
- On-button and wallplate engraving available

Options

Ordering example

EGRX-8S-WH

Add colour/finish suffix to model number.

For choices see:
www.lutron.com/seetouch

Matt finishes

Ships in 48 hrs.

White	WH
Black	BL

Metal finishes

Ships in 4-6 weeks.

Bright Brass	BB
Bright Chrome	BC
Bright Nickel	BN
Satin Brass	SB
Satin Chrome	SC
Satin Nickel	SN
Antique Brass	QB
Antique Bronze	QZ

Anodised Aluminium

Clear	CLA
Black	BLA
Brass	BRA

Customisation

Ships in 4-6 weeks.

- See pg. 1.4.1 for multigang wallplates, colour matching, engraving/silk screening, and custom controls.
- See pg. 3.17.5 for engraving schedules.

Footnotes, pg. 2.10.6

1   Depth includes wallplate and backbox. Wallplate depth is 12 mm (0.48"). Minimum wallbox depth is 25 mm.
2   PELV (Class 2) control wiring.
3   Counts as 1 of 16 maximum control station devices.
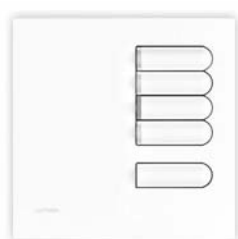
European Style	Product	Model	Options

Dimensions
W: 86 mm (3.38")
H: 86 mm (3.38")
D: 22 mm (0.88")[1]

4-Scene with Off, Raise/Lower, and Infrared Receiver Programming   EGRX-PRO-[2, 3, 4]

- Enhanced infrared commands for scene programming, preset selection, and individual zone control of each control unit from a PDA[2]
- Fine-tuning of light levels from keypad or wireless remote control
- Recalls preset light levels for four scenes (1-4, 5-8, 9-12, or 13-16) plus off from keypad or four-scene wireless remote control (GRX-IT-WH, ordered separately)
- Recalls eight scenes (1-8, 5-12, 9-16, or 13-16/1-4) plus off from eight-scene wireless remote control (GRX-8IT-WH, ordered separately)
- Mounts in European wallbox (Lutron® P/N 241683)
- On-button and wallplate engraving available

Dimensions
W: 86 mm (3.38")
H: 86 mm (3.38")
D: 22 mm (0.88")[1]

4-Movable Wall Status Wallstation   EGRX-4PS-[3,4]

- Provides four buttons to determine which control unit(s) operate independently or in combination to reflect movable wall status for up to four moveable walls (five rooms)
- Last button resets all control units to independent operation
- Mounts in European wallbox (Lutron P/N 241683)
- On-button and wallplate engraving available

For example:

This button…	Toggles the status of…	To combine Control Units:
Button 1	Wall A	1 and 2
Button 2	Wall B	2 and 3
Button 3	Wall C	3 and 4
Button 4	Wall D	4 and 5

Dimensions
W: 86 mm (3.38")
H: 86 mm (3.38")
D: 22 mm (0.88")[1]
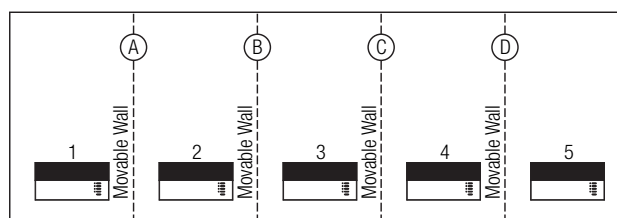
4-Button Master Control Wallstation   EGRX-4M-[3,4]

- Each of four buttons toggles selected control unit(s) between Scene 1 and off
- Last button can be all on (Scene 1) or all off for selected control unit(s)
- Mounts in European wallbox (Lutron P/N 241683)
- On-button and wallplate engraving available

Footnotes, pg. 2.10.7

1 Depth includes wallplate and backbox. Wallplate depth is 12 mm (0.48"). Minimum wallbox depth is 25 mm.
2 Requires a GRX 3500 or GRX 4500 control unit.
3 PELV (Class 2) control wiring.
4 Counts as 1 of 16 maximum control station devices.

Ordering example

EGRX-PRO-WH

Add colour/finish suffix to model number

For choices see:
www.lutron.com/seetouch

Matt finishes

Ships in 48 hrs.

White	WH
Black	BL

Metal finishes

Ships in 4-6 weeks.

Bright Brass	BB
Bright Chrome	BC
Bright Nickel	BN
Satin Brass	SB
Satin Chrome	SC
Satin Nickel	SN
Antique Brass	QB
Antique Bronze	QZ

Anodised Aluminium

Clear	CLA
Black	BLA
Brass	BRA

Customisation

Ships in 4-6 weeks.

- See pg. 1.4.1 for multigang wallplates, colour matching, engraving/silk screening, and custom controls.
- See pg. 3.17.5 for engraving schedules.

Architectural	Product	Model	Options

Dimensions

W: 70 mm (2.75")
H: 116 mm (4.56")
D: 43 mm (1.69")[1]

Wallbox:

P/N 241218

W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

**2-Button Wallstation
with Status Light** — **NTGRX-2B-SL-**[2, 3]

• Optional functions (can be selected in the field):
- Turns lighting on (Scene 1) and off
- Recalls preset light levels for two scenes (9/10 or 13/14)
- Single partition status determines which control unit(s) operate independently or in combination to reflect status for one moveable wall (two rooms)
- Panic (Scene 16, lock out manual control)
- Sequencing (Selects Scenes 5-16 sequentially)
- Individual zone raise/lower

Dimensions

W: 70 mm (2.75")
H: 116 mm (4.56")
D: 43 mm (1.69")[1]

Wallbox:

P/N 241218

W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

Keyswitch — **NTGRX-KS-**[2, 3]

• Provides momentary keyswitch control for all functions of the NTGRX-2B-SL- (see above)

Ordering example

NGTRX-2B-SL-WH

Add colour/finish and engraving suffix to model #

Matt finishes

Ships in 48 hrs.

White	WH
Ivory	IV
Beige	BE
Grey	GR
Brown	BR
Black	BL

Metal finishes

Ships in 4-6 weeks.

Bright Brass	BB
Bright Chrome	BC
Bright Nickel	BN
Satin Brass	SB
Satin Chrome	SC
Satin Nickel	SN
Antique Brass	QB
Antique Bronze	QZ

Anodised Aluminium

Clear	CLA
Black	BLA
Brass	BRA

Customisation

Ships in 4-6 weeks.

• See pg. 1.4.1 for multigang wallplates, colour matching, engraving/silk screening, and custom controls.

• See pg. 3.17.5 for engraving schedules.

Locking covers

• See pg. 2.13.1 for more information.

Footnotes, pg. 2.10.8

1 Depth includes wallplate and backbox. Wallplate depth is 9 mm (0.35").
2 PELV (Class 2) control wiring.
3 Counts as 1 of 16 maximum control station devices.

Architectural	Product	Model	Options

Dimensions

W: 70 mm (2.75")
H: 116 mm (4.56")
D: 29 mm (1.13")[1]

Wallbox:

P/N 241218

W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

4-Button Wallstation   NTGRX-4B-[2, 3]

• Recalls preset light levels for four scenes (1-4, 5-8, 9-12, or 13-16)

• Can be mounted with other wallstations in multigang faceplate for 8/12/16 scene selection

• No off or fine-tuning of light levels

Ordering example

NTGRX-4B-WH

Add colour/finish and engraving suffix to model #

Matt finishes

Ships in 48 hrs.

White	WH
Ivory	IV
Beige	BE
Grey	GR
Brown	BR
Black	BL

Metal finishes

Ships in 4-6 weeks.

Bright Brass	BB
Bright Chrome	BC
Bright Nickel	BN
Satin Brass	SB
Satin Chrome	SC
Satin Nickel	SN
Antique Brass	QB
Antique Bronze	QZ

Anodised Aluminium

Clear	CLA
Black	BLA
Brass	BRA

Customisation

Ships in 4-6 weeks.

• See pg. 1.4.1 for multigang wallplates, colour matching, engraving/silk screening, and custom controls.

• See pg. 3.17.5 for engraving schedules.

Locking covers

• See pg.2.13.1 for more information.

Dimensions

W: 70 mm (2.75")
H: 116 mm (4.56")
D: 29 mm (1.13")[1]

Wallbox:

P/N 241218

W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

4-Scene Wallstation with Off and Raise/Lower   NTGRX-4S-[2, 3]

• Recalls preset light levels for four scenes (1-4, 5-8, 9-12, or 13-16) plus off

• Fine-tuning of light levels with master raise/lower button

Dimensions

W: 70 mm (2.75")
H: 116 mm (4.56")
D: 29 mm (1.13")[1]

Wallbox:

P/N 241218

W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

4-Scene Wallstation with Off and Infrared Receiver   NTGRX-4S-IR-[2, 3]

• Recalls preset light levels for four scenes (1-4, 5-8, 9-12, or 13-16) plus off from keypad or four-scene wireless remote control (GRX-IT-WH, ordered separately)

• Recalls eight scenes (1-8, 5-12, 9-16, or 13-16/1-4) plus off from eight-scene wireless remote control (GRX-8IT-WH, ordered separately)

• Fine-tuning of light levels from wireless remote control

Footnotes, pg. 2.10.9

1 Depth includes wallplate and backbox. Wallplate depth is 9 mm (0.35").
2 PELV (Class 2) control wiring.
3 Counts as 1 of 16 maximum control station devices.

Architectural	Product	Model	Options

Dimensions
W: 70 mm (2.75")
H: 116 mm (4.56")
D: 29 mm (1.16")[1]

Wallbox:
P/N 241218
W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

4-Scene Wallstation with Off, Infrared Receiver, and Switch Input   NTGRX-SI4S-IR-[2, 3]

- Recalls preset light levels for four scenes (1-4 or 5-8 based on external contact closure) from keypad or wireless remote control (GRX-IT-WH ordered separately)
- Fine-tuning from wireless remote control only
- Ideal for two-room partitionable spaces
- Allows new scenes to accommodate function of two single rooms reoriented into one larger room

Dimensions
W: 70 mm (2.75")
H: 116 mm (4.56")
D: 29 mm (1.16")[1]

Wallbox:
P/N 241218
W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

4-Movable Wall Status Wallstation   NTGRX-4PS-[2, 3]

- Provides four buttons to determine which control unit(s) operate independently or in combination to reflect movable wall status for up to four moveable walls (five rooms)
- Last button resets all control units to independent operation

For example:

This button…	Toggles the status of…	To combine Control Units:
Button 1	Wall A	1 and 2
Button 2	Wall B	2 and 3
Button 3	Wall C	3 and 4
Button 4	Wall D	4 and 5

Dimensions
W: 70 mm (2.75")
H: 116 mm (4.56")
D: 29 mm (1.16")[1]

Wallbox:
P/N 241218
W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

4-Button Master Control Wallstation   NTGRX-4M-[2, 3]

- Each of four buttons toggles selected control unit(s) between Scene 1 and off
- Last button can be all on (Scene 1) or all off for selected control unit(s)

Footnotes, pg. 2.10.10
1 Depth includes wallplate and backbox. Wallplate depth is 9 mm (0.35").
2 PELV (Class 2) control wiring.
3 Counts as 1 of 16 maximum control station devices.

Ordering example
NTGRX-SI4S-IR-WH

Add colour/finish and engraving suffix to model #

Matt finishes

Ships in 48 hrs.

White	WH
Ivory	IV
Beige	BE
Grey	GR
Brown	BR
Black	BL

Metal finishes

Ships in 4-6 weeks.

Bright Brass	BB
Bright Chrome	BC
Bright Nickel	BN
Satin Brass	SB
Satin Chrome	SC
Satin Nickel	SN
Antique Brass	QB
Antique Bronze	QZ

Anodised Aluminium

Clear	CLA
Black	BLA
Brass	BRA

Customisation

Ships in 4-6 weeks.

- See pg. 1.4.1 for multigang wallplates, colour matching, engraving/silk screening, and custom controls.
- See pg. 3.17.5 for engraving schedules.

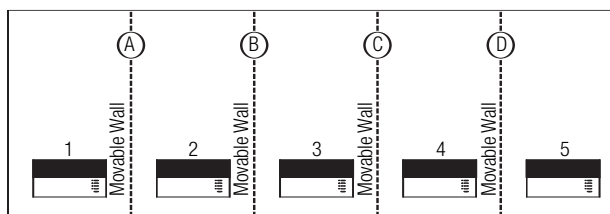**Locking covers**

- See pg. 2.13.1 for more information.

Slim Button	Product	Model	Options

Dimensions
W: 70 mm (2.75")
H: 114 mm (4.50")
D: 29 mm (1.13")[1]
Wallbox:
P/N 241218
W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

4-Scene Wallstation with Off and Raise/Lower   NTGRX-KP5-[2, 3]

- Optional functions (Can be selected in the field)
  - Recalls preset light levels for four scenes (1-4 or 6-9) plus off with fine-tuning
  or
  - Recalls five scenes (1-5 or 6-10) plus off with full-on (Scene 16)
- Amber status LEDs standard

Dimensions
W: 70 mm (2.75")
H: 114 mm (4.50")
D: 29 mm (1.13")[1]
Wallbox:
P/N 241218
W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

9-Scene Wallstation with Off and Raise/Lower   NTGRX-KP10-[2, 3]

- Optional functions (Can be selected in the field)
  - Recalls preset light levels for nine scenes (1-9 or 6-14) plus off with fine-tuning
  or
  - Recalls preset light levels for 10 scenes (1-10 or 6-15) plus off with full-on (Scene 16)
- Amber status LEDs standard

14-Scene Wallstation with Off and Raise/Lower   NTGRX-KP15-[2, 3]

- Optional functions (Can be selected in the field)
  - Recalls preset light levels for Scenes 1-14 plus off with fine-tuning
  or
  - Recalls preset light levels for Scenes 1-15 plus off with full-on (Scene 16)
- Amber status LEDs standard

Dimensions
W: 114 mm (4.50")
H: 114 mm (4.50")
D: 29 mm (1.16")[1]

Wallbox:
P/N 2 x 241218
W: 100 mm (4.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

Options

Ordering example

NTGRX-KP5-WH

Add colour/finish and engraving suffix to model #

Matt finishes

Ships in 48 hrs.

White	WH
Ivory	IV
Beige	BE
Grey	GR
Brown	BR
Black	BL

Metal finishes

Ships in 4-6 weeks.

Bright Brass	BB
Bright Chrome	BC
Bright Nickel	BN
Satin Brass	SB
Satin Chrome	SC
Satin Nickel	SN
Antique Brass	QB
Antique Bronze	QZ

Anodised Aluminium

Clear	CLA
Black	BLA
Brass	BRA

Customisation

Ships in 4-6 weeks.

- See pg. 1.4.1 for multigang wallplates, colour matching, engraving/silk screening, and custom controls.
- See pg. 3.17.5 for engraving schedules.

Locking covers

- See pg. 2.13.1 for more information.

Footnotes, pg. 2.10.11
1 Depth includes wallplate and backbox. Wallplate depth is 9 mm (0.35").
2 PELV (Class 2) control wiring.
3 Counts as 1 of 16 maximum control station devices.

Large Button	Product	Model	Options

Dimensions
W: 70 mm (2.75")
H: 114 mm (4.50")
D: 29 mm (1.16")[1]

Wallbox:
P/N 241218
W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

5-Scene Wallstation with Off   NTGRX-LB6-[2, 3]

• Recalls preset light levels for five scenes (1-5 or 9-13) plus off
• Amber status LEDs standard

8-Scene Wallstation with Off   NTGRX-LB9-[2, 3]

• Recalls preset light levels for eight scenes (1-8 or 9-16) plus off
• Amber status LEDs standard

Dimensions
W: 114 mm (4.50")
H: 114 mm (4.50")
D: 29 mm (1.16")[1]

Wallbox:
P/N 2 x 241218
W: 100 mm (4.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

Dimensions
W: 70 mm (2.75")
H: 114 mm (4.50")
D: 29 mm (1.16")[1]

Wallbox:
P/N 241218
W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

**3-Scene Wallstation with Off
and Raise/Lower**   NTGRX-LB6-RL-[2, 3]

• Recalls preset light levels for three scenes (1-3 or 9-11) plus off with fine-tuning of light levels
• Amber status LEDs standard

**6-Scene Wallstation with Off
and Raise/Lower**   NTGRX-LB9-RL-[2, 3]

• Recalls preset light levels for six scenes (1-6 or 9-14) plus off with fine-tuning of light levels
• Amber status LEDs standard

Dimensions
W: 114 mm (4.50")
H: 114 mm (4.50")
D: 29 mm (1.16")[1]

Wallbox:
P/N 2 x 241218
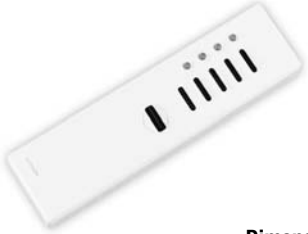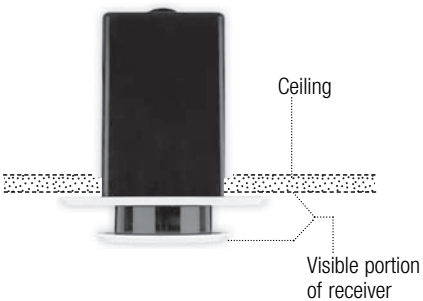W: 100 mm (4.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

Footnotes, pg. 2.10.12

1 Depth includes wallplate and backbox. Wallplate depth is 9 mm (0.35").
2 PELV (Class 2) control wiring.
3 Counts as 1 of 16 maximum control station devices.

Options

Ordering example

NTGRX-LB6-<u>WH</u>

Add colour/finish and engraving suffix to model #

Matt finishes

Ships in 48 hrs.

White	WH
Ivory	IV
Beige	BE
Grey	GR
Brown	BR
Black	BL

Metal finishes

Ships in 4-6 weeks.

Bright Brass	BB
Bright Chrome	BC
Bright Nickel	BN
Satin Brass	SB
Satin Chrome	SC
Satin Nickel	SN
Antique Brass	QB
Antique Bronze	QZ

Anodised Aluminium

Clear	CLA
Black	BLA
Brass	BRA

Customisation

Ships in 4-6 weeks.

• See pg. 1.4.1 for multigang wallplates, colour matching, engraving/silk screening, and custom controls.
• See pg. 3.17.5 for engraving schedules.

Locking covers

• See pg. 2.13.1 for more information.

Architrave™	Product	Model	Options

Dimensions

W: 44 mm (1.75")
H: 114 mm (4.50")
D: 41 mm (1.63")

Wallbox:
P/N 241399

W: 32 mm (1.25")
H: 97 mm (3.80")
D: 70 mm (2.75")

Slim-Button Architrave Wallstation   GRX-4S-DW-[1, 2]

- Recalls preset light levels for four scenes
  (1-4, 5-8, 9-12, or 13-16) plus off
- Fine-tuning of light levels with master raise/lower button
- Mounts in Lutron®-supplied wallbox (P/N 241399)
- Standard finishes are bright brass (BB) and white (WH)
- Contact Customer Service for other finishes

Dimensions

W: 38 mm (1.50")
H: 131 mm (5.16")
D: 31 mm (1.99")

Wallbox:
P/N 241663

W: 32 mm (1.25")
H: 112 mm (4.40")
D: 70 mm (2.75")

Large-Button Architrave Wallstation   GRX-4SLB-DW-[1, 2]

- Recalls preset light levels for four scenes (1-4, 5-8, 9-12, or 13-16)
  plus off
- Fine-tuning of light levels with master raise/lower button
- Mounts in Lutron-supplied wallbox (P/N 241663)
- Standard finishes are bright brass (BB) and white (WH)
- Contact Customer Service for other finishes

Ordering example

GRX-4S-DW-WH

Add colour/finish and engraving suffix to model #

Metal finishes

Ships in 48 hrs.

White   WH
Bright Brass   BB

Customisation

Ships in 4-6 weeks.

- See pg. 1.4.1 for multigang wallplates, colour matching, engraving/silk screening, and custom controls.
- See pg. 3.17.5 for engraving schedules.

Footnotes, pg. 2.10.13

1 PELV (Class 2) control wiring.
2 Counts as 1 of 16 maximum control station devices.
3 Depth includes wallplate and backbox. Wallplate depth is 3 mm (0.13").

※LUTRON®

Infrared	Product	Model	Options

4-Scene Wireless Infrared Remote Control — GRX-IT-WH

- Recalls preset light levels for four scenes plus off (scenes dependent on receiver settings)
- Fine-tuning of light levels with master raise/lower
- 15 m (50') line-of-sight range to receiver
- Does not count as 1 of 16 maximum control station interfaces
- Infrared frequency is 40 kHz
- Available in white (WH) only
- Engraving available. Add -E to end of model; see engraving schedule, pg. 3.17.5

Dimensions
W: 38 mm (1.50")
H: 145 mm (5.69")
D: 22 mm (0.88")

8-Scene Wireless Infrared Remote Control — GRX-8IT-WH

- Recalls preset light levels for eight scenes plus off (scenes dependent on receiver settings)
- Fine-tuning of light levels with master raise/lower
- 15 m (50') line-of-sight range to receiver
- Does not count as 1 of 16 maximum wallstations/control Interfaces
- Infrared frequency is 40 kHz
- Available in white (WH) only
- Engraving available. Add -E to end of model; see engraving schedule, pg. 3.17.5

Dimensions
W: 38 mm (1.50")
H: 145 mm (5.69")
D: 22 mm (0.88")

Ceiling-Mounted Infrared Receiver — GRX-CIR

- Receives signal from Infrared wireless remote control
- Allows recall of preset light levels for four scenes (1-4, 5-8, 9-12, or 13-16) plus off with four-scene wireless remote control (GRX-IT-WH)
- Recalls eight scenes (1-8, 5-12, 9-16, or 13-16/1-4) plus off with eight-scene wireless remote control (GRX-8IT-WH)
- Fine-tuning of light levels with wireless remote control
- 360º reception range, 15 m (50') line-of-sight range from wireless remote control to receiver
- Mounts in 56 mm (2.19") x 56 mm (2.19") collar provided by Lutron
- Available in white (WH) only
- PELV (Class 2) control wiring
- Counts as 1 of 16 maximum control station devices.

Ceiling

Visible portion of receiver

Dimensions
Diameter: 89 mm (3.50")
Depth: 76 mm (3.00")

Ordering example

GRX-IT-WH
Ships in 48 hrs.

Engraving

Ships in 4-6 weeks.
- See pg. 3.17.5 for engraving schedules.

Ethernet interface

Control interface features

- Coordinate GRAFIK Eye 3000 Series control units with other systems:
  - Contact closures
  - Serial links
  - Infrared
  - Ethernet
- Automate lighting control with the astronomical time clock
- Provide energy savings by using a daylight control and photosensor or by connecting an occupancy sensor to the system
- Programming tools simplify system installation
- Coordinate lighting and controllable window treatments
- Simple on/off entrance controls use standard 2-way wiring

| Contact closures pg. 2.12.3 | Infrared partition sensor pg. 2.12.5 | Theatrical controls pg. 2.12.6 | Daylighting sensor pg. 2.12.7 | Accessories section 2.13 | Wireless interface section 2.14 |

GRAFIK Eye 3000 system map (shown)

- Use the map at right to identify system component being reviewed in each section.
- For overall wiring information, see sections 2.3 and 2.7.

Sources

Power boosters/interfaces

GRAFIK Eye control units   Wallstations   Control interfaces   Window treatment controllers and wallstations

Control station devices
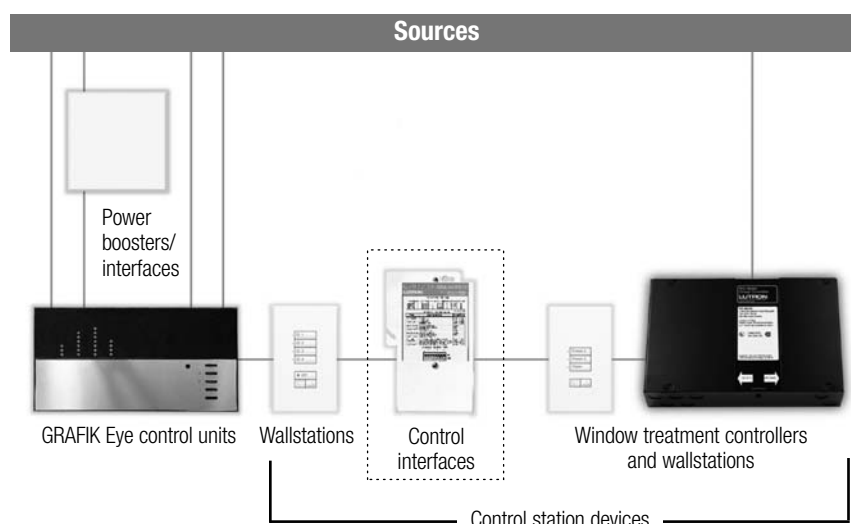
Specifications

- Wallstation and control interface maximums:
  - Per System: 16 (Class 2/PELV) (includes window treatment wallstations)
  - Three from each GRAFIK 3000 control unit without external power supply; for Lutron® power supply, TU240-15DC-9-BL or TE240-15DC-9-BL, see pg. 2.13.1 (Does not apply to GRAFIK 4000)
- Wiring specification & maximums:
  - GRAFIK Eye 3000: Four PELV (Class 2) conductors: (2) 1.0 mm² (#18 AWG) for power wires; plus (1) twisted, shielded 1.00 mm² (#22 AWG) pair for control wires (Available from Lutron, GRX-CBL-346S-500, see pg. 2.13.1)
  - GRAFIK Eye 4000: Five PELV (Class2) conductors: (2) 2.5 mm² (#12 AWG) for power wires; (1) twisted, shielded 1.0 mm² (#22 AWG) pair for control wires; plus (1) 1.0 mm² (#18 AWG) wire for the emergency sense line (Available from Lutron, GRX-CBL-46L-500, see pg. 2.13.1)
  - Distance: 610 m (2,000'); for other cable distances, see GRAFIK Eye Application Notes available at www.lutron.com
  - Installation: daisy-chain (no home-run wiring)
- Power: 12 VDC (From GRAFIK 3000 Series control unit or TU240-15DC-9-BL or TE240-15DC-9-BL, see pg. 2.13.1); 24 VAC (From Power Panels for GRAFIK 4000 Series)
- Configuration:
  - Integral DIP switches determine function and can be configured in the field

Standards

Standards listed below apply to one or more products in the Lutron product line. Consult Lutron for specific information.

LUTRON Quality Systems registered to ISO 9001

CE   UL   SA   NOM   V   T

emc   TÜV Rheinland   BAUART GEPRÜFT TYPE APPROVED   D   KEMA EUR   DVE

Features/functions	Ethernet	Contact closures		Serial links		Infrared
	GRX-CI-NWK-E pg. 2.12.3	GRX-AV pg. 2.12.3	GRX-CCO-8 pg. 2.12.3	GRX-CI-RS232 pg. 2.12.4	GRX-PRG pg. 2.12.4	GRX-IRI pg. 2.12.4
Preset scene control						
Select Scene	●	●		●	●	●
Scene Status Feedback	●	●		●	●	
Security/life safety						
Initiate "Panic-on" mode – Selects Scene 16 and locks control unit to prevent manual changes and returns to previous scene when closure is removed		●				
Occupant response						
Inputs turn selected control units on to Scene 1 or off based on occupancy		●				
Sequencing						
Initiate a sequence loop	●	●		●	●	
Lockout						
Zone Lock – Prevent intensity changes on selected control unit(s)	●	●		●	●	
Scene Lock – Disables scene buttons on selected control unit(s)	●	●		●	●	
Partition status						
Return status of movable walls		●				
Scheduling						
Astronomical time clock – 4 schedules with 60 events per schedule					●	
External time clock – Scene selection through contact closure inputs		●				
Zone control						
Independent zone raise/lower	●			●	●	●
Zone on/off status	●		●	●	●	
Button Feedback	●			●	●	
Window treatments						
Open/Close	●		●	●	●	
Open/Close/Stop	●		●	●	●	
Programming utilities						
Liaison™ – Windows®-based programming tool for GRAFIK Eye 3500 Series					●	

	Product	Model	Options

Dimensions

W: 95.3 mm   (3.75")
H: 26.9 mm   (1.06")
D: 133.6 mm (5.26")

Ethernet Interface   GRX-CI-NWK-E[1,2]

- Integrates control unit(s) with user-supplied PC or A/V equipment (touchscreen) using TCP/IP over Ethernet

- Enables control of scene selection, scene lock, sequencing, zone lock, zone raise/lower

- Can provide status monitoring through button feedback and scene-status updates

- Rack mount option available using LUT-19AV-1U[3]

- A 12-24 VDC external power supply is required; TU240-15DC-9-BL or T240-15DC-9-BL, see page 2.13.1.

Ordering example

GRX-AV

Ships in 48 hrs.

Dimensions

W: 127 mm   (5.00")
H: 197 mm   (7.75")
D: 64 mm   (2.50")

Mounts on:

P/N 241496

W: 105 mm   (4.13")
H: 105 mm   (4.13")
D: 40 mm   (1.57")

Contact Closure Interface   GRX-AV[1, 2]

- Provides two-way interface between control units and contact closure devices

- Product functions (selected in the field)
  - Recall four scenes (1-4, 5-8, 9-12, or 13-16) plus off
  - Enable/disable panic, scene lockout, or zone lockout modes
  - Turn lights on (Scene 1) or off based on occupancy (control up to five individual rooms), see occupancy sensors, pg. 2.16.1
  - Initiate scene (1-4 or 5-16) sequence loop
  - Inputs determine which control unit(s) operate independently or in combination to reflect partition status for up to five moveable walls (six rooms)

- Five inputs and five outputs

- Inputs and outputs can be momentary or maintained

- Output requires external relay and power supply (30 VDC maximum) by others for contact closure

- Input specification:
  - Input must be dry contact closure or open collector (NPN):
  - On-state saturation voltage less than 2.0 VDC
  - Off-state leakage current less than 10 µA
  - Open circuit voltage 36 VDC maximum
  - Short circuit current 4.0 mA maximum

- Output specification:
  - 38 VDC maximum
  - 200 mA maximum
  - Open collector (NPN) output
  - On-state saturation voltage 1.0 VDC maximum
  - Off-state leakage current 0.1 µA maximum

Customer supplied equipment

Dimensions

W: 146 mm   (5.75")
H: 273 mm   (10.75")
D: 50 mm   (2.00")

Surface mount

Contact Closure Output   GRX-CCO-8[1, 2]

- Provides eight dry contact closure outputs

- For integration to third-party controllable window treatments or A/V equipment

- May be set to normally open (NO) or normally closed (NC)

- May be set to momentary or maintained contacts

- Depending on configuration the outputs indicate:
  - Current scene (1-8, 9-16)
  - Zone on/off for eight zones
  - Open/close window treatments (four shades)
  - Open/close/stop window treatments (two shades)

- Output ratings: 0-30 VDC, 1.0 A and 30-42 VDC, 0.5 A

Footnotes, pg. 2.12.3

1 PELV (Class 2) control wiring.
2 Counts as 1 of 16 maximum control station devices.
3 Holds up to 4 control interface units.

	Product	Model	Options

Dimensions

W: 95.3 mm   (3.75")
H: 26.9 mm   (1.06")
D: 133.6 mm (5.26")

RS-232 Interface   GRX-CI-RS232[1]

- Integrates control units with user-supplied PC or A/V equipment (touchscreen) using RS-232 serial communication
- Enables control of scene selection, scene lock, sequencing, zone lock, zone raise/lower
- Can provide status monitoring through button feedback and scene-status updates
- Must be located within 15 m (50') of RS-232 source
- Rack mount option available using LUT-19AV-1U[2]

Ordering example

GRX-CI-RS232

Ships in 48 hrs.

Dimensions

W: 127 mm   (5.00")
H: 197 mm   (7.75")
D: 64 mm   (2.50")

Mounts on:

P/N 241496

W: 105 mm   (4.13")
H: 105 mm   (4.13")
D: 40 mm   (1.57")

Astronomical Time Clock and Programmer Interface   GRX-PRG[1]

- Includes all features of GRX-CI-RS232
- Built-in astronomical time clock features four schedules with 60 events per schedule
- Programmed via PC (not included) using Lutron® Liaison™ software (included, see below)
- Provides access to advanced user-programmable features when used with GRAFIK Eye 3500 or 4500 control units such as programming scenes and system communications
- Must be located within 15 m (50') of RS-232 source
- Only one GRX-PRG per system

Liaison Software (included with GRX-PRG)

Windows®-based programming tool run on a customer-supplied PC or laptop

- Time clock events
  - Create/edit real time and astronomical event schedule
- Super sequence
  - Automated, synchronised dynamic scene sequence throughout the system
- System set-up (3500 and 4500 only)
  - Program main units, accessories, and power panels
  - Integrate the system for information about all connected units
  - Archive system configuration, including time clock schedules
  - Copy system configuration to similar rooms

Dimensions

W: 45 mm   (1.75")
H: 105 mm (4.10")
D: 23 mm   (0.90")

Wallbox:

P/N 241218

W: 50 mm   (2.00")
H: 100 mm (4.00")
D: 63 mm   (2.50")

Infrared Interface   GRX-IRI[1]

- Integrates control unit(s) with user-supplied infrared transmitter
- Enables control of scene selection and zone raise/lower
- Recalls preset light levels from wireless remote control (GRX-IT-WH or GRX -8IT-WH, ordered separately, see section 2.11)

Footnotes, pg. 2.12.4
1 Counts as one of 16 maximum control station devices.
2 Holds up to 4 control interface units.

Partitioning	Product	Model	Options

Infrared Movable Wall Sensor   GRX-IRPS-WH

- Infrared sensor provides contact closure based on status of sensor
- Can be used with GRX-AV (GRAFIK Eye 3000/4000 Series), pg. 2.12.3 or OMX-AV (Centralised lighting control system), pg. 3.12.3 for partitioning; GRX-AV or OMX-AV ordered separately
- Includes transmitter and receiver; (2 units as shown)
- Requires either TU240-15DC-9-BL or TE240-15DC-9-BL for power, see pg. 2.13.1
- Transmitter and receiver are white
- Fits in 241218 backbox, mounted front side down, on either side of partition wall, near ceiling surface
- Consult factory for additional details when being used with switch input control NTGRX-SI4S-IR, pg. 2.10.10

Dimensions
W: 161 mm (6.32")
H: 116 mm (4.56")
D: 27 mm (1.06")[1]

Wallbox:
P/N 3 x 241218
W: 150 mm (6.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

Dimensions
W: 161 mm (6.32")
H: 116 mm (4.56")
D: 29 mm (1.13")[2]

Wallbox:
P/N 3 x 241218
W: 150 mm (6.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

Movable Wall Status Wallstations

seeTouch™   SG-4PS-CF- [3,4]

Architectural-Style   NTGRX-4PS-CF-[4]

- Provides four buttons to determine which GRAFIK Eye control unit(s) operate independently or in combination to reflect partition status for up to four movable walls
- Wallplate custom-engraved to match your floorplan
- Wallstations are available with control for 2-12 movable walls, (contact Lutron® customer service for more information)

For example:

This button…	Toggles the status of…	To combine control units:
Button 1	Wall A	1 and 2
Button 2	Wall B	2 and 3
Button 3	Wall C	3 and 4
Button 4	Wall D	4 and 5
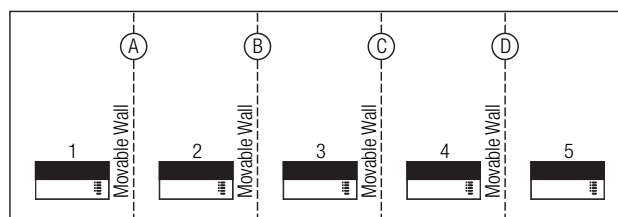
Footnotes, pg. 2.12.5

1 Depth includes wallplate and backbox. Wallplate depth is 8 mm (0.31").
2 Depth includes wallplate and backbox. Wallplate depth is 9 mm (0.35").
3 For insert version use I in place of last N in model number. See section 3.16 for more information.
4 Counts as 1 of 16 maximum control station devices.

Options

Ordering example

SG-4PS-CF-WH

Add colour/finish suffix to model #

For choices see: www.lutron.com/seetouch

Infrared movable wall sensor
Ships in 1 week.

Movable wall status wallstations
Ships in 4-6 weeks.
- seeTouch colour offering, pg. 1.3.1.
- Architectural colour offering, pg. 2.91.

Customisation
Ships in 4-6 weeks.
- See pg. 1.4.1 for multigang wallplates, colour matching, engraving/silk screening, and custom controls.
- See pg. 3.17.5 for engraving schedules.

Locking covers
- See pg. 2.13.1 for more information.

Theatrical	Product	Model

Dimensions
W: 127 mm   (5.00")
H: 197 mm   (7.75")
D: 64 mm   (2.50")

Mounts on:

P/N 241496

W: 105 mm   (4.13")
H: 105 mm   (4.13")
D: 40 mm   (1.57")

DMX512 Interface   **LUT-DMX[2]**

- Converts Control Unit intensities to DMX512 Output

- Use to control:
  - Fibre optic lighting
  - LED-based lamps
  - Strobe lights
  - Fog machines
  - Moving fixtures
  - Animated characters

- DMX–send (output DMX intensities) only

- Visit www.lutron.com/onespec/applications/theatrical/details/lutdmx.html for more information

Multi-Channel Theatrical Console

12 Channels   **LTC-12**

24 Channels   **LTC-24**

- Two-scene preset mode with 12 or 24 channels
- Dipless crossfade between manual scenes
- Preset scenes may be "piled on" in any combination
- Preview mode allows cues to be checked
- Preset memories: 48 or 96
- DMX Output: 5-Pin XLR
- Analog output: (2 each) 8-Pin CJ Male or (1 each) 27-Pin CJ Male
- Other models available, contact Lutron

Dimensions
12 Channel
W: 391 mm   (15.41")
H: 73 mm   (2.87")
D: 257 mm   (10.13")

Dimensions
24 Channel
W: 644 mm   (25.38")
H: 73 mm   (2.87")
D: 257 mm   (10.13")

Link A

Link B

GRAFIK Eye
Control Unit

Power Panel

DMX Stage Console

Power Panel Option

- The 2Link™ power panel option provides two distinct control links inside each power panel.

- Each link — Link A and Link B — is capable of operating on any one of these systems – Lutron's GRAFIK Eye 4000, Lutron's centralised lighting control system, or USITT DMX512 protocol.

- Each system or protocol is unique, but the power panel is designed to automatically detect which one is present and operate accordingly.

- When ordering the appropriate panel, ask for the 2Link option.

Dimensions
W: 70 mm   (2.75")
H: 116 mm   (4.56")
D: 51 mm   (2.00")[1]

Wallbox:

P/N 241218

W: 50 mm   (2.00")
H: 100 mm   (4.00")
D: 63 mm   (2.50")

Theatrical Receptacles[2]

- Receptacle provides standard pinout for DMX512 theatrical protocol
- PELV (Class 2) device; barriers must be provided when line-voltage and Class 2 controls are ganged together in the same wallbox
- DMX cable available from Lutron® P/N GRX-CBL-DMX

Stageboard Receptacle   **NT-DMXJ-IN-WH**

- Five-pin XLR-style male jack for connection to a theatrical stage board
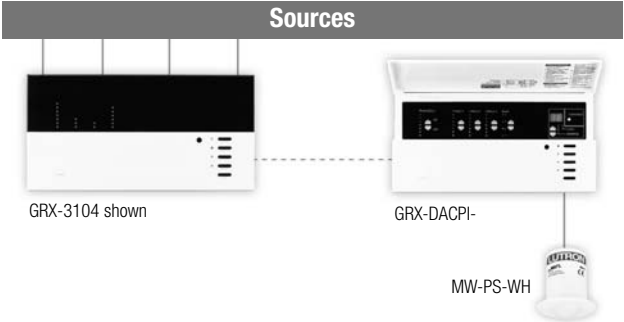
Fixture Equipment Receptacle   **NT-DMXJ-OUT-WH**

- Five-pin XLR-style female jack for connecting LUT-DMX to a theatrical fixture equipment

Footnotes, pg. 2.12.6
1 Depth includes wallplate and backbox. Wallplate depth is 9 mm (0.35").
2 PELV (Class 2) control wiring.

Daylighting	Product	Model	Options

Dimensions

W: 227 mm (8.94")
H: 116 mm (4.56")
D: 57 mm (2.25")

Wallbox:
P/N 241400

W: 200 mm (8.00")
H: 95 mm (3.75")
D: 75 mm (3.00")

Daylighting Control **GRX-DACPI-**

- Automatically selects preset scenes in response to ambient daylight

- Enforce option assures photosensor overrides manual control for energy savings

- Use up to three Lutron® photosensors (MW-PS-WH) in parallel or one 0-10 V photosensor by others
  NOTE: Photosensors ordered separately (see next page)

- PELV (Class 2) control wiring

- Counts as 1 of 16 maximum wallstations/control interfaces

Sources

GRX-3104 shown

GRX-DACPI-

MW-PS-WH

Ordering example

GRX-DACPI-T- WH

Add cover option
and colour/finish suffix
to model #

Cover options

Opaque   A

Cover and base will match

Translucent Black   T

Black translucent cover with
base colour from below

Base colours

Matt finishes

Standard, ships in 48 hrs.

- Matt cover options:
                    A or T

- See pg. 1.3.1 for
  complete colour offering
  and suffixes.

Gloss (NEMA) finishes

Ships in 4-6 weeks.

- Gloss cover option:
                    A only

- See pg. 1.3.1 for complete
  colour offering and suffixes.

Metal finishes

Ships in 4-6 weeks.

- Metal cover option:
                    T only

- See pg. 1.3.1 for complete
  colour offering and suffixes.

Customisation

Ships in 4-6 weeks.

- See pg. 1.4.1 for
  multigang wallplates,
  colour matching,
  engraving/silk screening,
  and custom controls.

- See pg. 3.17.5 for
  engraving schedules.

Locking covers

- See pg. 2.13.1 for
  more information.

Product	Model	Options

Dimensions
Diameter: 66 mm (2.59")
Depth: 55 mm (2.16")

Ceiling mounted; 50 mm (2.16") diameter bracket (Lutron supplied)

microPS™ Ceiling-Mounted Photosensor

MW-PS-WH

• Responds to daylight and automatically lowers/adjusts light levels
• Linear response from 0 to 500 footcandles
• Easily calibrated at OMX-DACPI
• Available in white (WH) only
• Does not count as one of wallstations/control interfaces

Ordering example

MW-PS-WH

Photosensors:

• The notch on the photosensor defines the viewing direction
• Place photosensor so its viewing area does not extend out of the window
• Do not position the photosensor in the well of a skylight or above indirect fixtures
• Ensure the view of the photosensor is not obstructed

Photosensor location for average size area

Notch toward window
2-3 H
W/2
W/2
H
Area viewed by Lutron daylight sensor

H = Effective window height
W = Width of room

Mounting considerations

Do not position photosensor above indirect fixtures
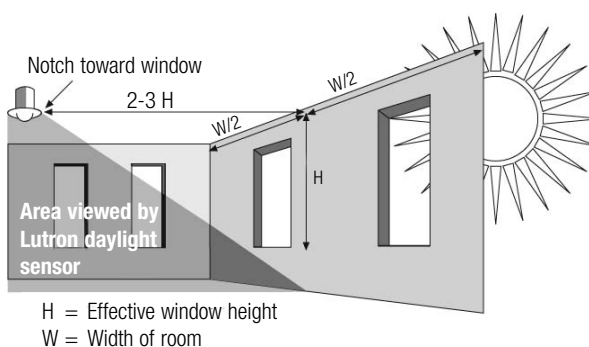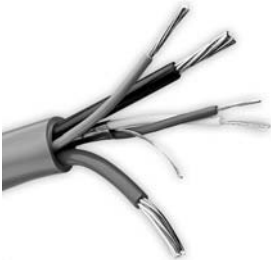
Photosensor location for narrow area

Notch away from window

Accessories	Product		Model
	Lockable Covers	Single-gang	**GRX-1GLC**
		Two-gang	**GRX-2GLC**
		Three-gang	**GRX-3GLC**
		Four-gang	**GRX-4GLC**

- Prevents tampering with GRAFIK Eye control units or wallstations
- Permits infrared operation
- Translucent smoked grey
- Cover slides left or right

	Replacement Covers	Two-gang (AU models only)	**GRX-2GRC-**
		Three-gang (AU models only)	**GRX-3GRC-**
		Four-gang (Both AU and CE models)	**GRX-4GRC-**

- See section 1.3 or section 1.4 for cover options and base colours.
- For 230 V applications, all GRAFIK Eye 3000 Series control units are four-gang

External Power Supplies

	UK plug style	**TU240-15DC-9-BL**
	European plug style	**TE240-15DC-9-BL**

GRAFIK Eye 3000 Low Voltage Cable[1,2]

150 m (500') spool	**GRX-CBL-346S-500** (non-plenum)
	GRX-PCBL-346S-500 (plenum)

- Four PELV (Class 2) conductors: (2) 1.0 mm² (#18 AWG) for power wires; plus (1) twisted, shielded 1.00 mm² (#22 AWG) pair for control wires

GRAFIK Eye 4000, Centralised Lighting Control System[1,3]

75 m (250') spool	**GRX-CBL-46L-250** (non-plenum)
	GRX-PCBL-46L-250 (plenum)
150 m (500') spool	**GRX-CBL-46L-500** (non-plenum)
	GRX-PCBL-46L-500 (plenum)

- Five PELV (Class 2) conductors: (2) 2.5 mm² (#12 AWG) for power wires; (1) twisted, shielded 1.00 mm² (#22 AWG) pair for control wires; plus (1) 1.00 mm² (#18 AWG) wire for the emergency sense line

Footnotes, pg. 2.13.1

1 For information on cable size and distance, see "Application Note W14" on http://www.lutron.com/onespec/cutsheets/appnotes/grx/grxwire.pdf.

2 See the application note on pg. 2.16.3 for more information.

3 See the application note on pg. 2.16.4 for more information.

Product	Model	Options

Dimensions
W: 70 mm (2.75")
H: 116 mm (4.56")
D: 42 mm (1.67")[1]
Wallbox:
P/N 241218
W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

RF/GRAFIK Eye Interface — RB-GRXI-

- Allows GRAFIK Eye preset lighting controls to be controlled by radio frequency
- GRAFIK Eye preset lighting scenes can be selected from any RF Master Control in the system
- Use one interface per room controlled by a GRAFIK Eye preset lighting control; do not link to multiple GRAFIK Eye Control Units in different rooms

Ordering example

RBMC-10TRL-UK-WH
Ships in 48 hours.
- Contact customer service about colours/finishes and customisation.

Plug styles

United Kingdom	UK
Europe	EU

Matt finishes

White	WH
Black	BL

RF Signal Repeater — RB-REP-_-WH

- Required for system communication
- System communicates at 434 MHz
- System components must be within a 10 metre radius of the repeater
- For more information, contact Lutron®

Dimensions
W: 91 mm (3.57")
H: 82 mm (3.23")
D: 25 mm (0.96")

Master Controls

Tabletop	RBMC-5TRL- RBMC-10TRL- RBMC-15TRL-
Cordless	RBMC-10CRL-

Dimensions
W: 91 mm (3.57")
H: 82 mm (3.23")
D: 25 mm (0.96")

RBMC-10TRL shown

Footnotes, pg. 2.14.1
1 Depth includes wallplate and backbox. Wallplate depth is 8 mm (0.31").

Window treatment controllers and wallstations

- Used to incorporate Sivoia QED™ and AC motorised blinds, projection screens, and curtains into scenes, or control independently from GRAFIK Eye control units or seeTouch™ wallstations

- Up to total of 8 window treatment controllers (Sivoia QED interfaces plus AC motor group controllers) can be in one system with 8 GRAFIK Eye control units and 16 control station devices (includes window treatment wallstations)

- Requires a dedicated zone on the GRAFIK Eye control unit for each independent window treatment, screen, roller blind, or curtain zone

Sivoia QED interface

AC motor group controller

GRAFIK EYE 3000 system map (shown)

- Use the map at right to identify system component being reviewed in each section.

- For overall wiring information, see sections 2.3 and 2.7.

Source

Controllable window treatments

Sources

Power boosters/ interfaces

GRAFIK control units   Wallstations   Control interfaces   Window treatment controllers and wallstations

Control station devices
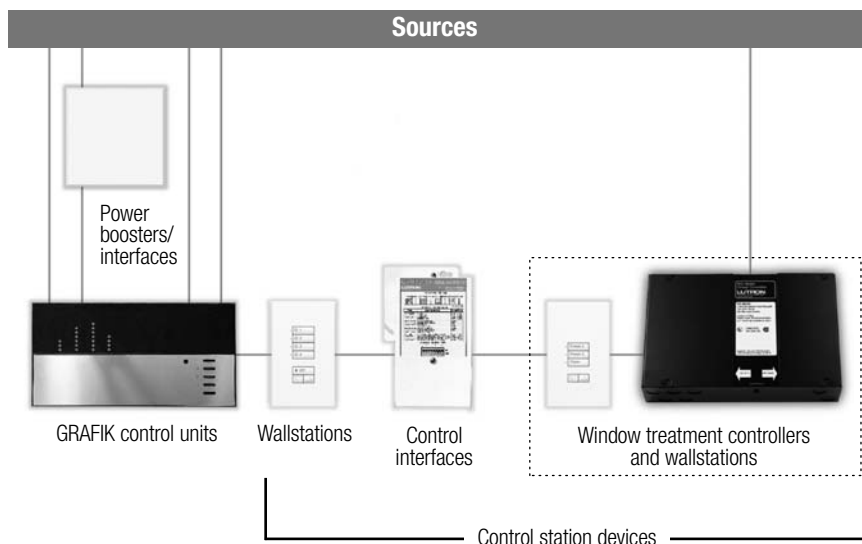
Specifications

GRAFIK Eye 3000/4000 Sivoia QED interface (SG-SVCN)

- Power: 24 VAC (Supplied by Sivoia QED electronic drive unit)

- Wiring Specifications: Connects to both GRAFIK and Sivoia QED communication links:

  - to GRAFIK Eye 3000 Series: Four PELV (Class 2) conductors: (2) 1.0 mm² (#18 AWG) for power wires; plus (1) twisted, shielded 1.0 mm² (#22 AWG) pair for control wires (Available from Lutron®, GRX-CBL-346S-500, see pg. 2.13.1)

  - to GRAFIK Eye 4000 Series: Five PELV (Class 2) conductors: (2) 2.5 mm² (#12 AWG) for power wires; (1) twisted, shielded 1.0 mm² (#22 AWG) pair for control wires; plus (1) 1.0 mm² (#18AWG) wire for the emergency sense line (Available from Lutron GRX-CBL-46L, see pg. 2.13.1)

  - to Sivoia QED EDU: (3) 1.0 mm² (#18 AWG) [24 VAC, plus earth ground] and (1) twisted, shielded pair 1.0 mm² (#22 AWG)

- Mounting: 241218; no derating required when multiganged AC motor group controller (GRX-4M-GC-CE)

- Power: 230 VAC, 50-60 Hz

- Channel capacity: 4 channels each at 5 A, 400W motor load per channel at 230 VAC; 10 A total input current

- Mounting: Must be accessible for programming and setup

  - Wall-mounted; allow 114 mm (4.5") between group controllers when mounting multiple units

  - Unit's relays will click in normal use; mount where this is acceptable

Standards

Standards listed below apply to one or more products in the Lutron product line. Consult Lutron for specific information.

LUTRON Quality Systems registered to ISO 9001

CE   (UL)   (SP)   NOM   ✓   ▽

emc   ⚠   (D)   KEMA EUR   DVE

Controllers and Interfaces	Source	Product	Model	Options

Dimensions

W: 70 mm (2.75")
H: 116 mm (4.56")
D: 27 mm (1.06")[1]

Wallbox:

P/N 241218

W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

Sivoia QED Interface — SG-SVCN-[2, 3,4]

- Requires a dedicated zone on GRAFIK Eye control unit for each Sivoia QED zone.
- Provides programming and control of one group of Sivoia QED electronic drive units (EDUs); one SG-SVCN needed per group of Sivoia QED EDUs (up to 96) moving together.
- Provides capability to incorporate Sivoia QED into lighting scenes.
- Sivoia QED zones may be set to Open, Close, Preset 1, Preset 2, Preset 3, or Unaffected in each and every lighting scene, including the Off scene.
- Can control Sivoia QED independent of lighting scenes.
- Pressing the Open button once will cause the window treatments to move to their fully open position; pressing the Open button again while the window treatments are opening will stop their movement.
- Pressing Preset 1, 2, or 3 once will cause the window treatments to move to that preset level; if that Preset button is pressed again while the window treatments are moving, the window treatments will stop.
- Pressing the Close button once will cause the window treatments to move to their fully closed position; pressing the Close button again while the window treatments are closing will stop their movement.
- Pressing the Raise/Lower buttons will cause the window treatments to Open/Close while the button is pressed.
- The LEDs next to each button are used during programming and provide feedback of the current Sivoia QED preset.
- Interfaces the GRAFIK Eye link to the Sivoia QED link, see wiring diagram, pgs. 2.3.1 and 2.7.1.
- For seeTouch model guide, see section 3.16.

Dimensions

W: 305 mm (12.00")
H: 200 mm (7.90")
D: 70 mm (2.75")[1]

Surface mount

AC Motor Group Controller — GRX-4M-GC-CE[3]

- Requires a dedicated zone on GRAFIK Eye control unit for each channel in group controller.
- 4 channels each at 5 A, 400W motor load per channel at 230 VAC; 10 A total input current.
- Provides capability to incorporate AC motorised window treatments or projection screens into lighting scenes.
- Window treatment zones may be set to Open, Close, or Unaffected for each and every lighting scene, including the Off scene.
- Can control AC motorised window treatments independent of lighting scenes.
- Provides dry contact closure inputs for control by low-voltage, dry contact closure devices in addition to communications link.
- Provides Open, Close, and Stop terminals for contact closure input; stop function may also be accomplished by applying Open and Close simultaneously.
- Provides LED indication of last position of AC window treatments (Open, Close, Stop).
- Integrates seamlessly with GRAFIK Eye 3000/4000 controls units; wires directly into GRAFIK Eye communications link.
- Separates low voltage and line voltage wiring for ease of installation.

Footnotes, pg. 2.15.2

1 Depth includes wallplate and backbox. Wallplate depth is 12 mm (0.48").
2 PELV (Class 2) control wiring.
3 Counts as 1 of 8 maximum window treatment devices.
4 For insert version use I in place of the last N in model number. See section 3.16 for more information.

Ordering example

SG-SVCN-WH

Add colour/finish and engraving suffix to model #.

For choices see:
www.lutron.com/seetouch

Matt finishes

Ships in 48 hrs.

White	WH
Ivory	IV
Beige	BE
Grey	GR
Brown	BR
Black	BL

Gloss (NEMA) finishes

Ships in 48 hrs.
(Insert models only)

White	GWH
Light Almond	GLA

Metal finishes

Ships in 4-6 weeks.

Bright Brass	BB
Bright Chrome	BC
Bright Nickel	BN
Satin Brass	SB
Satin Chrome	SC
Satin Nickel	SN
Antique Brass	QB
Antique Bronze	QZ

Anodised Aluminium

Clear	CLA
Black	BLA
Brass	BRA

Customisation

Ships in 4-6 weeks.

- See pg. 1.4.1 for multigang wallplates, colour matching, engraving/silk screening, and custom controls.
- See pg. 3.17.5 for engraving schedules.

Locking covers

- See pg. 2.12.1 for more information.

Window Treatment Wallstations	Product	Model	Options

Dimensions

W: 70 mm (2.75")
H: 116 mm (4.56")
D: 27 mm (1.06")[1]

Wallbox:

P/N 241218

W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

2-Button Window Treatment Wallstation   SG-2WN-[2, 3]

- Use with Sivoia QED™ Interface (SG-SVCN) or AC motor group controller (GRX-4M-GC-CE), see pg. 2.15.2.
- Used to control one or more window treatment zones simultaneously on GRAFIK Eye 3000/4000 control units.
- Can control Sivoia QED and AC motorised window treatments.
- Pressing the Open button once will cause the window treatments to move to their fully open position; pressing the Open button again while the window treatments are opening will stop their movement.
- Pressing the Close button once will cause the window treatments to move to their fully closed position; pressing the Close button again will stop their movement.
- Standard text engraving option (EO1) shown.
- For seeTouch™ model guide, see section 3.16.

Dimensions

W: 70 mm (2.75")
H: 116 mm (4.56")
D: 27 mm (1.06")[1]

Wallbox:

P/N 241218

W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

3-Button Window Treatment Wallstation   SG-3WN-[2, 3]

- Use with Sivoia QED Interface (SG-SVCN) or AC motor group controller Controller (GRX-4M-GC-CE), see pg. 2.15.2.
- Pressing the Open button once will cause the window treatments to move to their fully open position; pressing the Open button again while the window treatments are opening will stop their movement.
- Pressing the Close button once will cause the window treatments to move to their fully closed position; pressing the Close button again will stop their movement.
- Pressing Stop will stop the movement of the window treatments.
- Standard text engraving option (EO1) shown.
- For seeTouch model guide, see section 3.16.

Dimensions

W: 70 mm (2.75")
H: 116 mm (4.56")
D: 27 mm (1.06")[1]

Wallbox:

P/N 241218

W: 50 mm (2.00")
H: 100 mm (4.00")
D: 63 mm (2.50")

3-Button Window Treatment Wallstation with Raise/Lower   SG-3WRLN-[2, 3]

- Use with Sivoia QED interface (SG-SVCN) or AC motor group controller (GRX-4M-GC-CE), see pg. 2.15.2.
- Pressing the Open button once will cause the window treatments to move to their fully open position; pressing the Open button again while the window treatments are opening will stop their movement.
- Pressing the Close button once will cause the window treatments to move to their fully closed position; pressing the Close button again will stop their movement.
- Pressing Stop will stop the movement of the window treatments.
- Pressing and holding the Raise/Lower buttons will cause the window treatment to open/close to a new position.
- Standard text engraving option (EO1) shown.
- For seeTouch model guide, see section 3.16.

Footnotes, pg. 2.15.3

1 Depth includes wallplate and backbox. Wallplate depth is 8 mm (0.31").
2 For insert version use I in place of last N in model number. See section 3.16 for more information.
3 Counts as 1 of 16 maximum control station devices.

Options

Ordering example

SG-2WN-WH-E01

Add colour/finish and engraving suffix to model #.

For choices see:
www.lutron.com/seetouch

Matt finishes

Ships in 48 hrs.

White	WH
Ivory	IV
Beige	BE
Grey	GR
Brown	BR
Black	BL

Gloss (NEMA) finishes

Ships in 48 hrs.
(Insert models only)

White	GWH
Light Almond	GLA

Metal finishes

Ships in 4-6 weeks.

Bright Brass	BB
Bright Chrome	BC
Bright Nickel	BN
Satin Brass	SB
Satin Chrome	SC
Satin Nickel	SN
Antique Brass	QB
Antique Bronze	QZ

Anodised Aluminium

Clear	CLA
Black	BLA
Brass	BRA

Customisation

Ships in 4-6 weeks.

- See pg. 1.4.1 for multigang wallplates, colour matching, engraving/silk screening, and custom controls.
- See pg. 3.17.5 for engraving schedules.

Locking covers

- See pg. 2.12.1 for more information.

Window Treatment Wallstations	Product	Model	Options

Dimensions

W: 70 mm   (2.75")
H: 116 mm   (4.56")
D: 27 mm   (1.06")[1]

Wallbox:
P/N 241218

W: 50 mm   (2.00")
H: 100 mm   (4.00")
D: 63 mm   (2.50")

3-Button Dual Window Treatment Wallstation   SG-3WDN-[2, 3]

- Use with Sivoia QED Interface (SG-SVCN) or AC motor group controller (GRX-4M-GC-CE), see pg. 2.15.2.
- Used to control one or more window treatment zones simultaneously on GRAFIK Eye 3000/4000 Control Units.
- Provides control for two separate groups of window treatments from one wallstation.
- Pressing the Open button once will cause the window treatments to move to their fully open position; pressing the Open button again while the window treatments are opening will stop their movement.
- Pressing the Close button once will cause the window treatments to move to their fully closed position; pressing the Close button again will stop their movement.
- Pressing Stop will stop the movement of the window treatments.
- Standard text engraving option (E01) shown.
- For seeTouch model guide, see section 3.16.

Dimensions

W: 70 mm   (2.75")
H: 116 mm   (4.56")
D: 27 mm   (1.06")[1]

Wallbox:
P/N 241218

W: 50 mm   (2.00")
H: 100 mm   (4.00")
D: 63 mm   (2.50")

5-Button Preset Sivoia QED Wallstation with Raise/Lower   SG-5WRLN-[2, 3]

- NOTE: Only for use with Sivoia QED electronic drive units (EDUs).
- Used to simultaneously control one or more zones of Sivoia QED controllable window treatments from a GRAFIK Eye 3000/4000 control unit.
- LEDs provide feedback of the current Sivoia QED preset.
- Pressing the Open button once will cause the window treatments to move to their fully open position; pressing the Open button again while the window treatments are opening will stop their movement.
- Pressing Preset 1, 2, or 3 once will cause the window treatments to move to that preset level; if that Preset button is pressed again while the window treatments are moving, the window treatments will stop.
- Pressing the Close button once will cause the window treatments to move to their fully closed position; pressing the Close button again will stop their movement.
- Pressing and holding the Raise/Lower buttons will cause the window treatment to open/close to a new position.
- Standard text engraving option (E01) shown.
- For seeTouch model guide, see section 3.16.

Options

Ordering example

SG-3WDN-WH-E01

Add colour/finish and engraving suffix to model #.

For choices see:
www.lutron.com/seetouch

Matt finishes

Ships in 48 hrs.

White	WH
Ivory	IV
Beige	BE
Grey	GR
Brown	BR
Black	BL

Gloss (NEMA) finishes

Ships in 48 hrs.
(Insert models only)

White	GWH
Light Almond	GLA

Metal finishes

Ships in 4-6 weeks.

Bright Brass	BB
Bright Chrome	BC
Bright Nickel	BN
Satin Brass	SB
Satin Chrome	SC
Satin Nickel	SN
Antique Brass	QB
Antique Bronze	QZ

Anodised Aluminium
Clear	CLA
Black	BLA
Brass	BRA

Customisation

Ships in 4-6 weeks.

- See pg. 1.4.1 for multigang wallplates, colour matching, engraving/silk screening, and custom controls.
- See pg. 3.17.5 for engraving schedules.

Locking covers

- See pg. 2.12.1 for more information.

Footnotes, pg. 2.15.4

1 Depth includes wallplate and backbox. Wallplate depth is 8 mm (0.31").
2 For insert version use I in place of last N in model number. See section 3.16 for more information.
3 Counts as 1 of 16 maximum control station devices.

Interfacing other equipment with GRX-AV/OMX-AV

The ability to provide output closures from a system to interface with other equipment (A/V, security systems, building management, etc.) can be accomplished using a GRX-AV/OMX-AV contact closure interface. Outputs are open collector transistor outputs that sink current only. Refer to the diagram at right for set up.

GRX-AV/OMX-AV

Current not to exceed 200 mA

Power supply supplied by customer (not to exceed 30 VDC)

To customer supplied equipment

Relay supplied by others

Occupancy sensors by others

The ability to turn lights on when a room or space is entered and off when that space is unoccupied can be accomplished with an occupant sensor with a low voltage contact and a GRX-AV/OMX-AV.

The occupant sensor should provide maintained dry-contact closures to the GRX-AV/OMX-AV. One GRX-AV/OMX-AV can accept up to five occupant sensor inputs to control up to five different rooms or spaces.

GRX-AV/OMX-AV

Occupancy sensor by others

External power supply

Using the unaffected feature for individual zone control
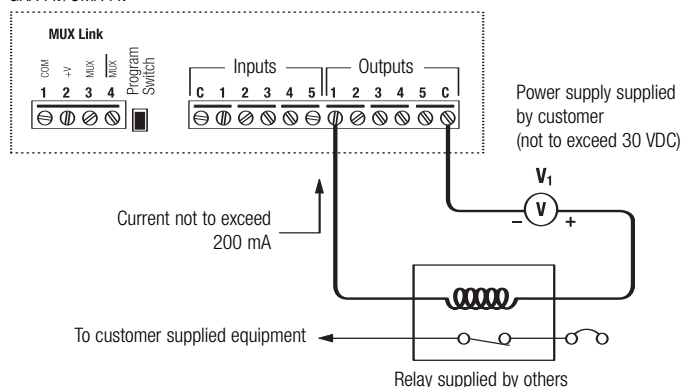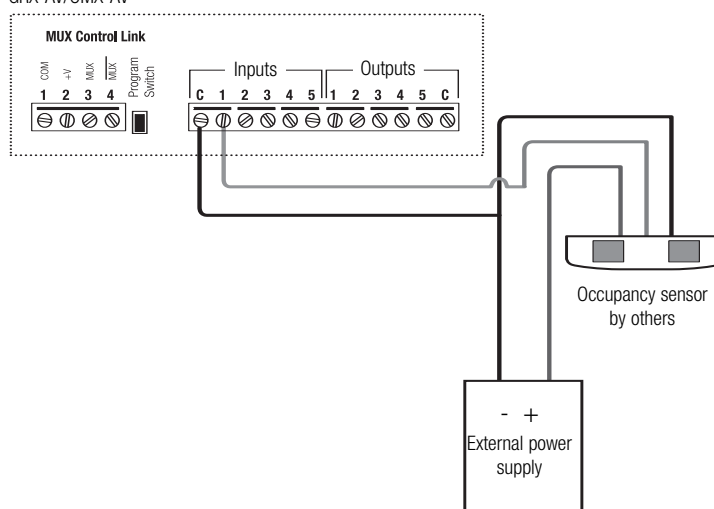
Individual zone control from a second location can be accomplished through the use of an scene selector control, NTGRX-4S, or wireless remote control, GRX-8IT-WH, and the Unaffected feature of a control unit. GRAFIK Eye control unit zones can be set to be "Unaffected" when a scene is selected. The Unaffected zone's light levels remain unchanged when the new specified scene is selected, and the Unaffected zone(s) does not respond to master Raise/Lower commands. Several zones can be set up as Unaffected in a scene.

Function notes

• Each Scene (5-8) should be set up to have one zone adjustable; all others should be set up as Unaffected.

• Set the Fade Time to approximately one minute to avoid any sudden jumps in light intensity.

• To adjust an individual zone, press the corresponding scene button (5-8) on the NTGRX-4S or GRX-8IT-WH, and then use the master Raise/Lower button to fine-tune that zone. All zones set as Unaffected will not respond to the master Raise/Lower function, i.e., the Unaffected zone(s) light level will remain unchanged.

Operation

By pressing any of the Scene 1-4 buttons, the user gets four standard presets. By pressing any of the Scene 5-8 buttons, the user gets individual control of a zone. Once the Scene 5-8 button is pressed, the zone of lights can be adjusted using the Raise/Lower button, and the other zones will be unaffected. This series of events can be done one after the other to individually adjust all four zones.

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Using electronic low voltage transformers with leading edge dimmers

Stating that an electronic low voltage transformer is compatible with leading edge dimmers is a very subjective statement. In virtually all cases the light source responds to the dimmer, and from a lighting viewpoint the two are compatible. However, other symptoms such as transformer noise, lamp noise, dimmer noise, and RF interference influence the end user's view of what is acceptable. Factors ranging from dimmer, transformer, and lamp design (or manufacture) to installation, placement, and application influence these symptoms. In many situations there is no end user compatibility issue; however, there have been instances where the various factors have combined unfavourably.

To obtain the best performance out of ANY electronic low voltage transformer, Lutron® recommends using a trailing edge dimmer (NTGRX-ELVI interface plus a GRAFIK Eye 3000 or a GRAFIK Integrale™).

In situations where using an electronic low voltage interface or GRAFIK Integrale is prohibitive Lutron has introduced an electronic low voltage transformer line to reduce end user compatibility issues.

Dimensions
L: 123 mm (4.84")
W: 38 mm (1.50")
H: 30 mm (1.18")

60 Watt Electronic Low Voltage Transformer

Terminal blocks on primary and secondary	**ELVXF-60-T10-CE**
One pair of leads on the secondary	**ELVXF-60-L11-CE**
Two pairs of leads (on the primary and secondary)	**ELVXF-60-L12-CE**

- Input Power: 230-240 VAC ± 10% 50/60 Hz, at 60 W, 0.28 A
- Output Power: 11.7 VAC 35 kHz, 10-60 W, SELV-Equivalent
- Short-circuit, thermal, and overload protection with self-resetting capabilities built in

Dimensions
L: 150 mm (5.91")
W: 42 mm (1.65")
H: 32 mm (1.26")

60 Watt Electronic Low Voltage Transformer

Terminal blocks on primary and secondary	**ELVXF-60-T20-CE**

- Loop-in/Loop-out terminals on the primary
- Three secondary terminals
- Input Power: 230-240 VAC ± 10% 50/60 Hz, at 60 W, 0.28 A
- Output Power: 11.7 VAC 35 kHz, 10-60 W, SELV-Equivalent
- Short-circuit, thermal, and overload protection with self-resetting capabilities built in

Dimensions
L: 150 mm (5.91")
W: 42 mm (1.65")
H: 32 mm (1.26")

105 Watt Electronic Low Voltage Transformer

Terminal blocks on primary and secondary	**ELVXF-105-T20-CE**
One pair of leads on the primary	**ELVXF-105-L23-CE**

- Loop-in/Loop-out terminals on the primary
- Three secondary terminals
- Input Power: 230-240 VAC ± 10% 50/60 Hz, at 105 W, 0.45 A
- Output Power: 11.7 VAC 35 kHz, 36-105 W, SELV-Equivalent
- Short-circuit, thermal, and overload protection with self-resetting capabilities built in

4-Conductor Cable

GRX-CBL-346S

- 18 gauge common
- 18 gauge, 12 VDC
- Outer PVC jacket
- Foil shield
- 24 gauge, drain
- 22 gauge, $\overline{MUX}$
- 22 gauge, MUX
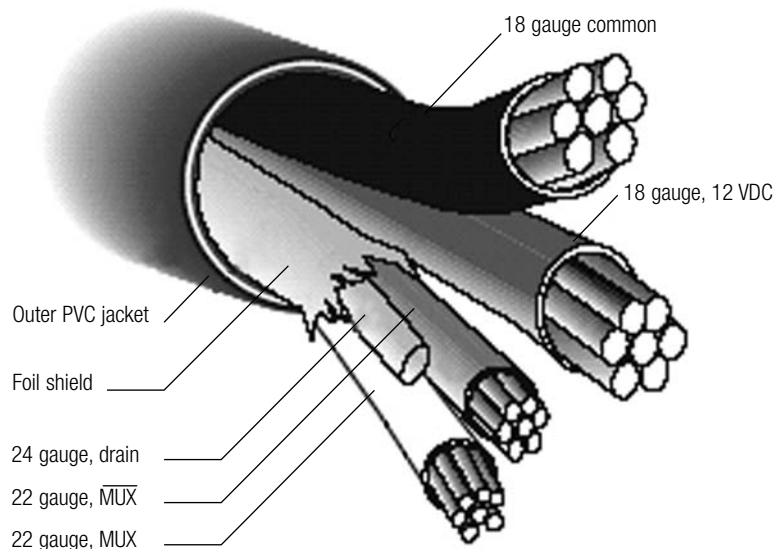
Wire sizes

mm²	AWG	Ohms/500 metres	Ohms/1,000 ft
0.823	18	10.7	6.5
0.326	22	27.0	16.4
0.205	24	43.0	26.2

Insulation
- 2,500 VAC dielectric strength between any one (1) layer of insulation
- 4,000 VAC dielectric strength between any two (2) layers of insulation

Capacitance
- Conductor to shield -   156 pF/m (48 pF/ft) maximum
- Conductor to conductor -   80 pF/m (25 pF/ft) maximum

The two 0.326 mm² (22 AWG) wires are a twisted pair and must be completely covered by a foil shield with a 0.205 mm² (24 AWG) drain wire on the inner side of the shield. The number of twists should be greater than 12 per metre or 4 per foot.

Specification tradeoffs

1. The specifications shown on these pages will guarantee that the supply voltage and data lines will provide appropriate signal levels at distances up to 610 metres or 2,000 feet.

2. Using cable with smaller wire sizes will result in larger voltage drops on long wiring runs. As a result, the maximum wiring length rating will be less than 610 metres or 2,000 feet. For example, on the GRAFIK Eye 4000, GRAFIK 5000™, GRAFIK 6000™, and GRAFIK 7000™, the maximum voltage drop allowed on the supply lines is 12 VDC. The maximum supply current on a fully loaded supply is 1.8 A peak. When calculating total drop, the length of wire must include both the supply and return lines.

3. Using cable with higher capacitance will result in signal degradation over long distances. The capacitance per unit length may go up proportionately with the reduction in wire length. For example, if the total length of wire is reduced by half, the capacitance per unit length of the cable can be doubled.

5-Conductor Cable

GRX-CBL-46L

- 12 gauge common
- 12 gauge, 24 VDC or 33 VDC
- 18 gauge, sense
- Outer PVC jacket
- Foil shield
- 24 gauge, drain
- 22 gauge, $\overline{\text{MUX}}$
- 22 gauge, MUX
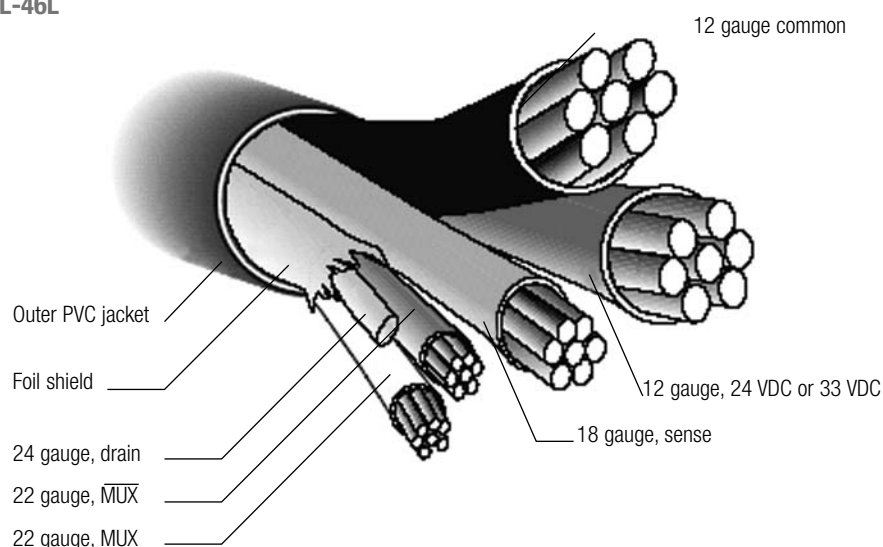
Wire sizes

mm²	AWG	Ohms/500 metres	Ohms/1,000 ft
3.3	12	2.7	1.6
0.823	18	10.7	6.5
0.326	22	27.0	16.4
0.205	24	43.0	26.2

Insulation
- 2,500 VAC dielectric strength between any one (1) layer of insulation
- 4,000 VAC dielectric strength between any two (2) layers of insulation

Capacitance
- Conductor to shield - 156 pF/m (48 pF/ft) maximum
- Conductor to conductor - 80 pF/m (25 pF/ft) maximum

The two 0.326 mm² (22 AWG) wires are a twisted pair and must be completely covered by a foil shield with a 0.205 mm² (24 AWG) drain wire on the inner side of the shield. The number of twists should be greater than 12 per metre or 4 per foot.

Specification tradeoffs

1. The specifications shown on these pages will guarantee that the supply voltage and data lines will provide appropriate signal levels at distances up to 610 metres or 2,000 feet.

2. Using cable with smaller wire sizes will result in larger voltage drops on long wiring runs. As a result, the maximum wiring length rating will be less than 610 metres or 2,000 feet. For example, on the GRAFIK Eye 4000, GRAFIK 5000™, GRAFIK 6000™, and GRAFIK 7000™, the maximum voltage drop allowed on the supply lines is 12 VDC. The maximum supply current on a fully loaded supply is 1.8 A peak. When calculating total drop, the length of wire must include both the supply and return lines.

3. Using cable with higher capacitance will result in signal degradation over long distances. The capacitance per unit length may go up proportionately with the reduction in wire length. For example, if the total length of wire is reduced by half, the capacitance per unit length of the cable can be doubled.

Wiring diagram #1

GRAFIK Eye 3000 series
Control unit power and load wiring

Earth/ground from distribution panel

Distribution panel

Earth

Live

Neutral

Load 2 — 2.5 mm²
Load 4 — 2.5 mm²
Load 4 — 2.5 mm²
(2#12 AWG)
Live

2.5 mm²
(2#12 AWG)

Zone 2
Zone 4
Zone 6

CU wire only

Zone 1
Zone 3
Zone 5

2.5 mm² — Zone 1
2.5 mm² — Zone 3
2.5 mm² — Zone 5
(2#12 AWG)

Class 2
1 2 3 4

USA
Class 2
IEC
PELV

Live
SSA

Neutral

Neutral

Rear View of GRAFIK Eye control unit (GRX-3106 shown)
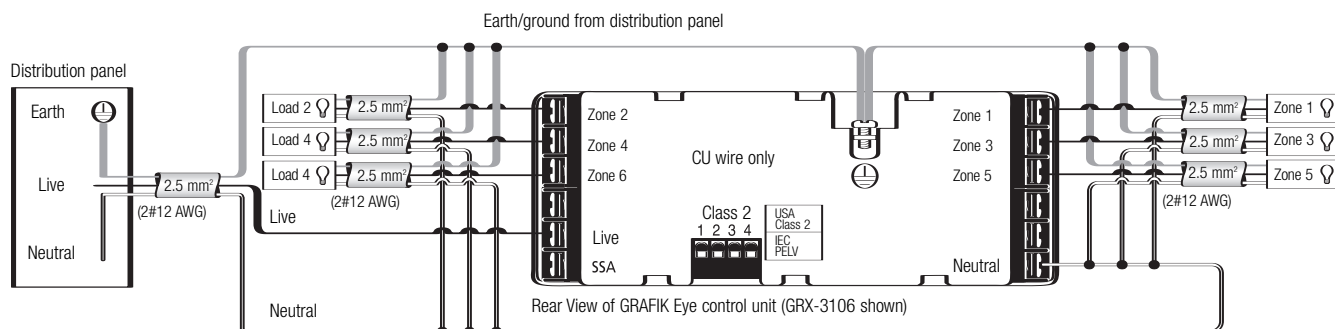
Notes:

1. Each line voltage terminal can accept up to (2) 2.5 mm² (#12 AWG) wires.

2. Each PELV (Class 2) terminal can accept up to (2) 1.0 mm² (#18 AWG) wires.

3. For load side emergency transfer wiring, see Application Notes, available at www.lutron.com.

Wiring diagram #2

GRAFIK Eye 3000 series
Control unit power to wallstation wiring
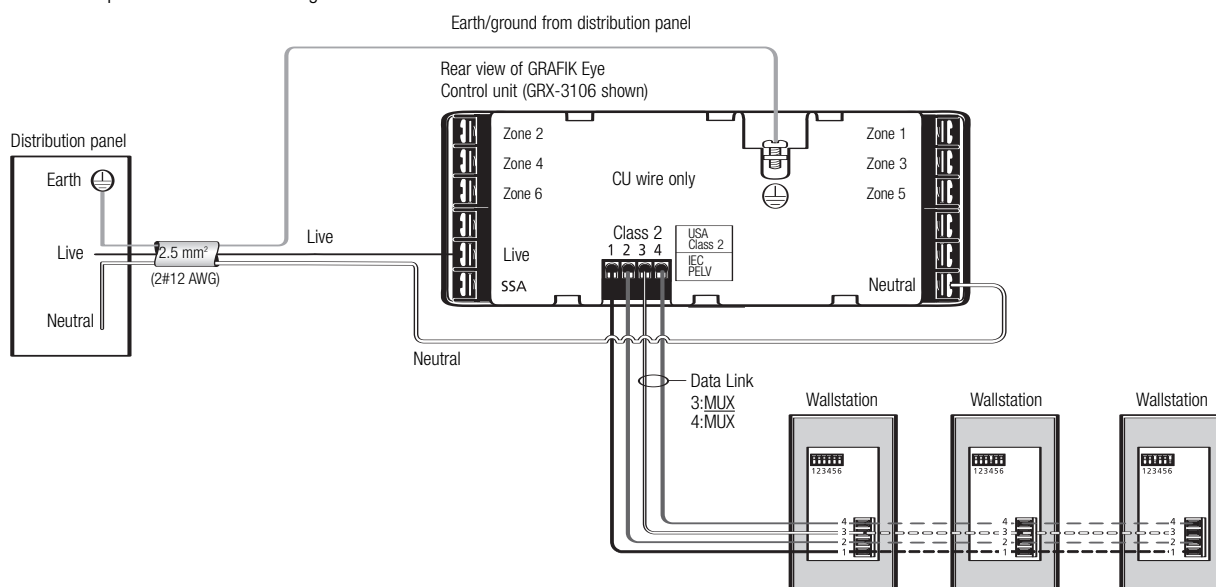
Earth/ground from distribution panel

Rear view of GRAFIK Eye
Control unit (GRX-3106 shown)

Distribution panel

Earth

Live — 2.5 mm²
(2#12 AWG)

Neutral

Live

Neutral

Zone 2
Zone 4
Zone 6

CU wire only

Zone 1
Zone 3
Zone 5

Live
SSA

Class 2
1 2 3 4

USA
Class 2
IEC
PELV

Neutral

Data Link
3:MUX
4:MUX

Wallstation   Wallstation   Wallstation

Notes:

1. Each control unit can power up to three PELV (Class 2) wallstations/control interfaces. If more than three need to be connected to one control unit, install an external power supply as shown in wiring diagram #5.

2. PELV (Class 2) cable (GRX-CBL-346S-500) is available from Lutron®.

Wiring diagram #3

GRAFIK IntegraleTM
Control unit power and load wiring

GXI-3104 control unit

Wiring diagram #4

GRAFIK Eye 3000 series
Control unit to control unit wiring

Rear view of GRAFIK Eye control unit (GRX-3106 shown)

Rear view of GRAFIK Eye control unit (GRX-3106 shown)

Zone 2		Zone 1
Zone 4	CU wire only	Zone 3
Zone 6		Zone 5
	Class 2	
	1 2 3 4	USA Class 2
Live		IEC PELV
SSA		Neutral
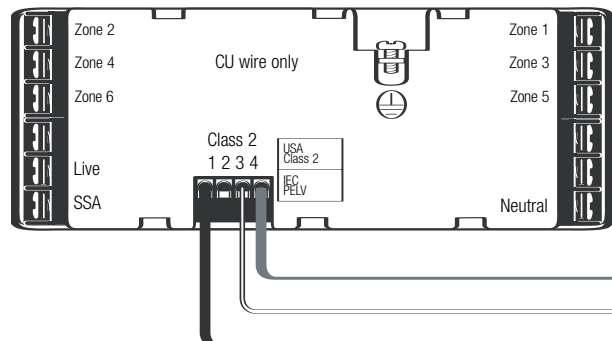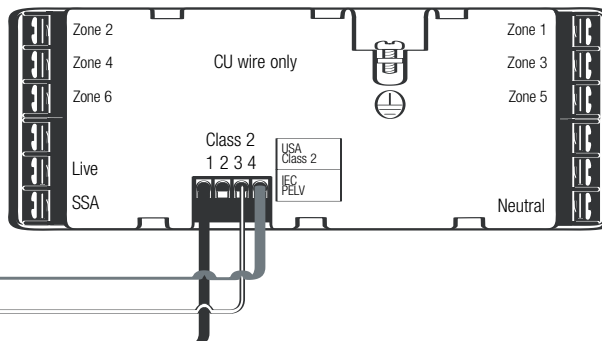
Notes:

1. Each control unit has its own power supply.

2. Do not connect terminal No. 2 when wiring between GRAFIK Eye 3000 series control units.

3. PELV (Class 2) cable (GRX-CBL-346S-500) is available from Lutron®.

Wiring diagram #5

GRAFIK Eye 3000 Series
System control wiring overview

Rear view of GRAFIK Eye control unit
(GRX-3106 shown)
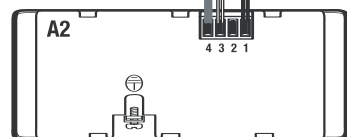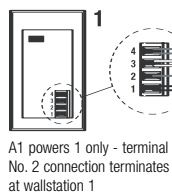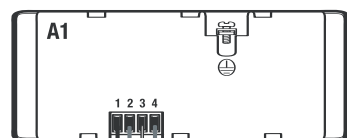
Rear view of GRAFIK Eye control unit
(GRX-3106 shown)

A1

A3

5

1 2 3 4

1 2 3 4
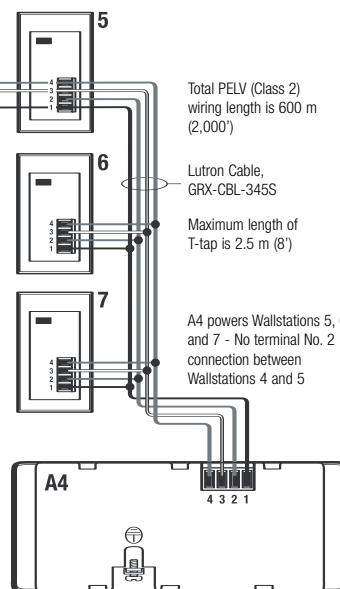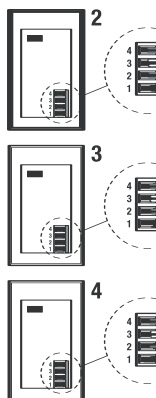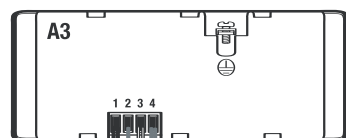
Total PELV (Class 2) wiring length is 600 m (2,000')

A2 and A3 have their own power supplies - No. 2 terminal No. 2 connection

A3 powers Wallstations 2,3 and 4 - No terminal No. 2 connection between wallstations 4 and 5

1

2

6

Lutron Cable, GRX-CBL-345S

Maximum length of T-tap is 2.5 m (8')

A1 powers 1 only - terminal No. 2 connection terminates at wallstation 1

3

7

A4 powers Wallstations 5, 6 and 7 - No terminal No. 2 connection between Wallstations 4 and 5

A2

4

A4

4 3 2 1

4 3 2 1

Rear view of GRAFIK Eye control unit (GRX-3106 shown)

Rear View of GRAFIK Eye Control Unit (GRX-3106 shown)

Notes:

1. Each control unit can power up to three PELV (Class 2) wallstations/control Interfaces. If more than three need to be connected to one control unit, install an external 12 VDC power supply, see pg. 2.13.1 as shown in wiring diagram #6.

2. Do not connect terminal No. 2 between GRAFIK Eye 3000 Series control unit and external TU240-15DC-9-BL or TE240-15DC-9-BL power supply, see pg. 2.13.1 as shown in wiring diagram #6.

3. Up to eight GRAFIK Eye 3000 Series control units and 16 wallstations/control Interfaces can be daisy-chained together in one system.

4. PELV (Class 2) cable (GRX-CBL-346S-500) is available from Lutron.

Wiring diagram #6

GRAFIK Eye 3000 Series
External wallstation power supply wiring

Rear View of GRAFIK Eye Control Unit (GRX-3106 shown)

Zone 2
Zone 4
Zone 6
CU Wire Only
Zone 1
Zone 3
Zone 5

Live
Class 2
1 2 3 4
USA
Class 2
IEC
PELV
SSA
Neutral

Lutron Cable
GRX-CBL-346S

Wallstation
Wallstation
Wallstation
Wallstation
123456
123456
123456
123456

1 Twisted Pair
1.0 mm² (18 AWG)

2 Twisted Pair
1.0 mm² (18 AWG)

1.0 mm² (18 AWG)

Common

Wallstations/Control Interfaces (16 Maximum)

TU240-15DC-9-BL

TE240-15DC-9-BL

Notes:

1. Do not connect terminal No. 2 between GRAFIK Eye 3000 series control unit and TU240-15DC-9-BL or TE240-15DC-9-BL power supply, see pg. 2.13.1.

2. PELV (Class 2) cable (GRX-CBL-346S-500) is available from Lutron.

Wiring diagram #7

GRAFIK Eye 3000 Series
Sivoia QED™ interface wiring

Dist
panel

Zone 2
Zone 4
Zone 6
CU wire only
Zone 1
Zone 3
Zone 5

To dimmed
lighting loads

Live
Class 2
1 2 3 4
USA
Class 2
IEC
PELV
SSA
Neutral

Distribution panel

To GRAFIK Eye
Wallstations

4 MUX
3 MUX
2 +V
1 COM

To EDU's
and keypads
(see wiring
diagram #17)

5 MUX
4 COM
3 MUX
6 AC
8 AC
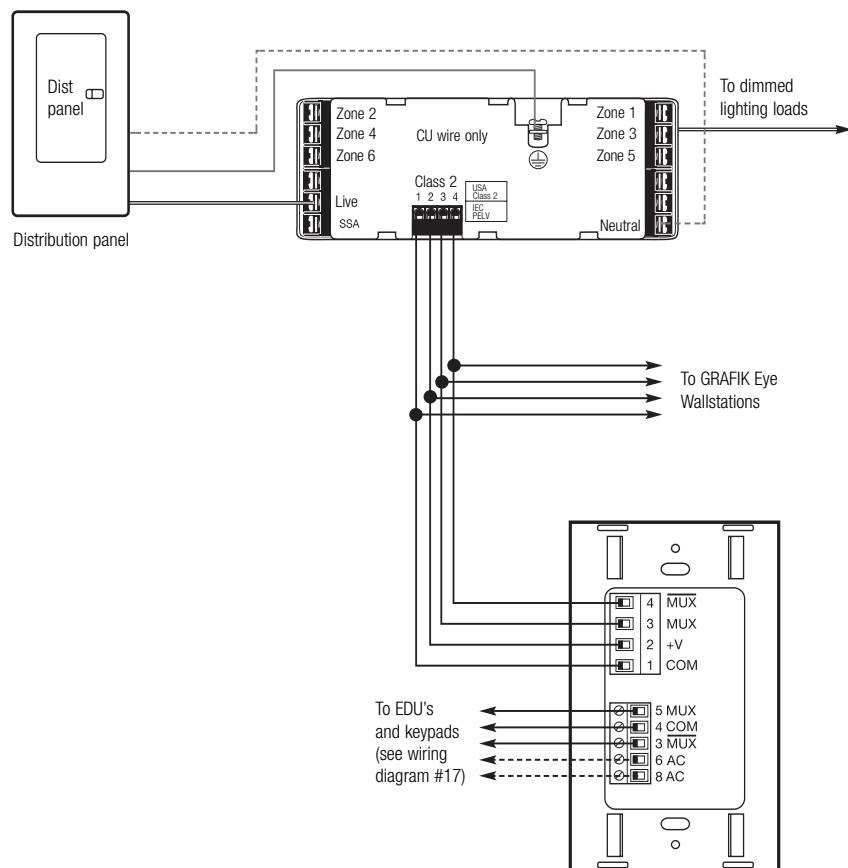
Wiring diagram #8

GRAFIK Eye 3000 series
Contact closure interface (GRX-AV) wiring

Customer supplied equipment

Lutron® Cable,
GRX-CBL-346S

To additional Wallstations/Control Interfaces
(16 Maximum; three from one Control Unit
without external power supply.

GRX-AV
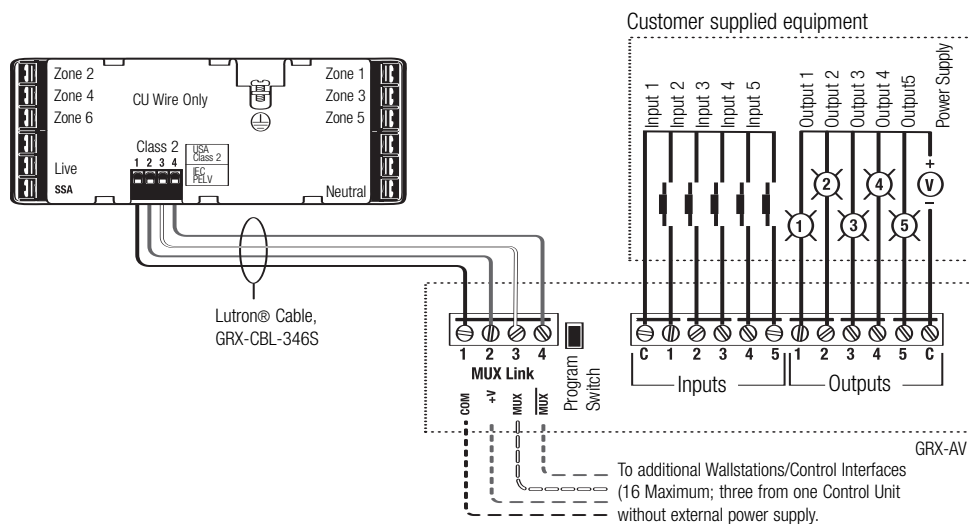
Notes:

For more information, see Application Notes pg. 2.16.1.

Wiring diagram #9

GRAFIK Eye 3000 Series
RS-232 Control interface (GRX-CI-RS232) wiring

Control interface wiring

RS-232 Cable
15 m (50')
Maximum

To PC or AV
Equipment

COM (pin 9)
TxD (pin 3)
RxD (pin 2)

RS-232 Link

MUX Link

Data link - 4: $\overline{MUX}$
3: MUX

Lutron cable, GRX-CBL-346S

PELV (Class 2)
Control wiring
2: Power
1: Common

To additional wallstations/control interfaces
(16 Maximum; three from one Control Unit
without external 12 VDC power supply.
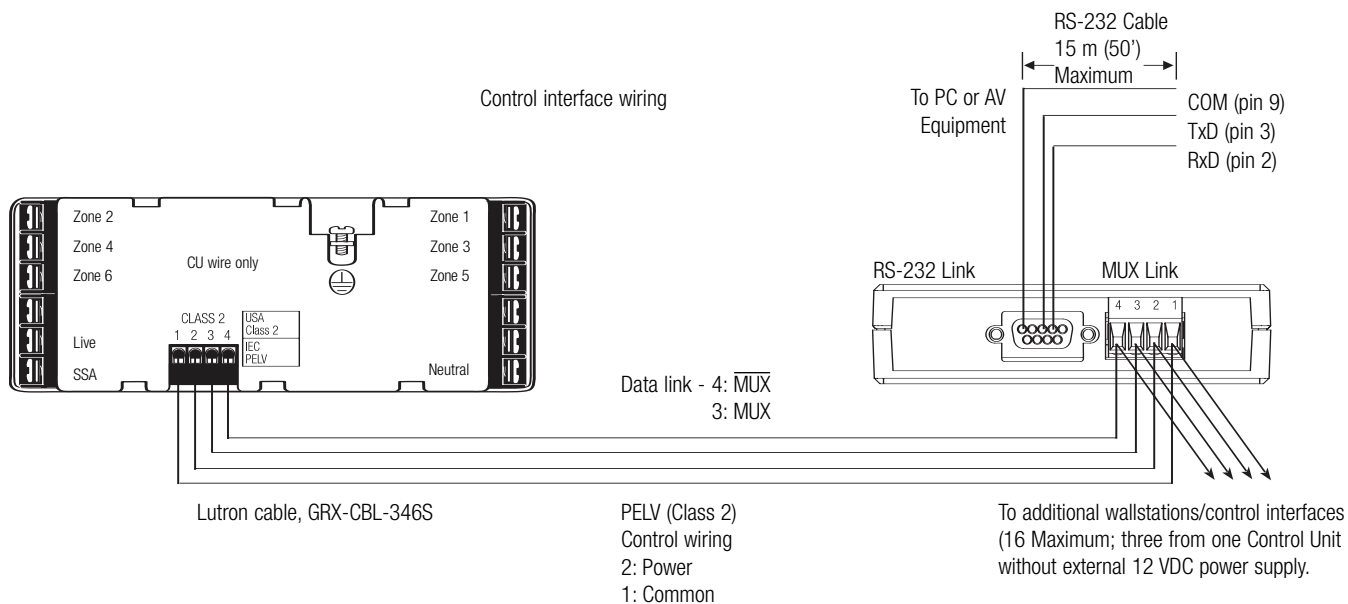
Wiring diagram #10

GRAFIK Eye 3000 series
Power boosters/interfaces
Power booster/electronic low voltage interface wiring

Rear view of GRAFIK Eye control unit
(GRX-3106 shown)
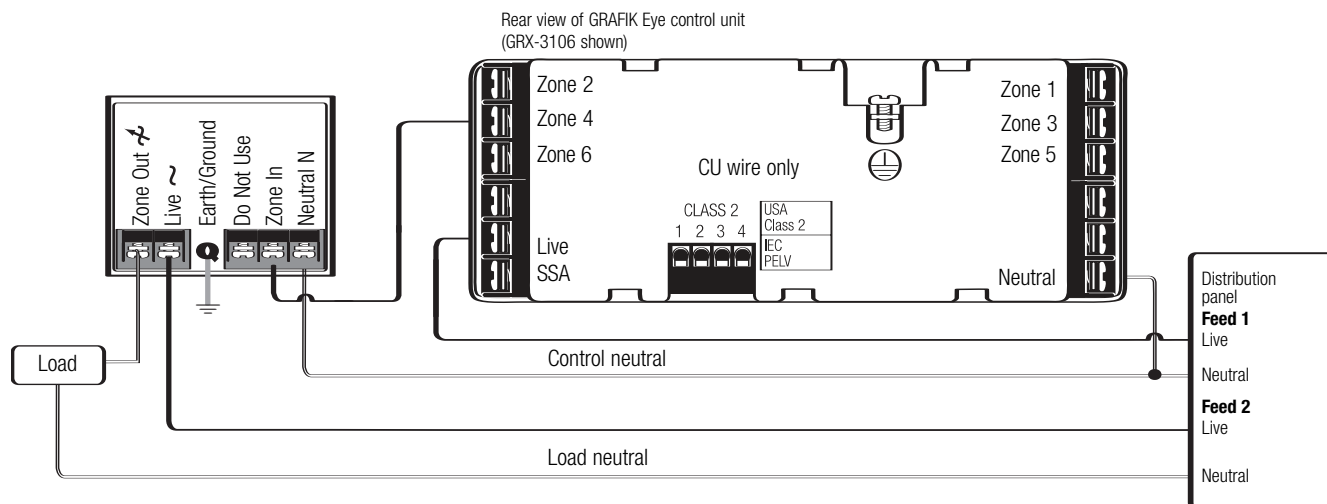
Notes:

1. Each terminal can accept up to (2) 2.5 mm^2 (#12 AWG) wires.
2. PB/ELVI Hot/Live can be on the same phase or different phase than the GRAFIK Eye 3000 series control unit Hot/Live.
3. Up to two PB/ELVI interfaces can be wired to a single zone.
4. Load neutral must be kept separate from control neutral.

Wiring diagram #11

GRAFIK Eye 3000 series
Power boosters/interfaces
0-10 V interface (GRX-TVI) wiring
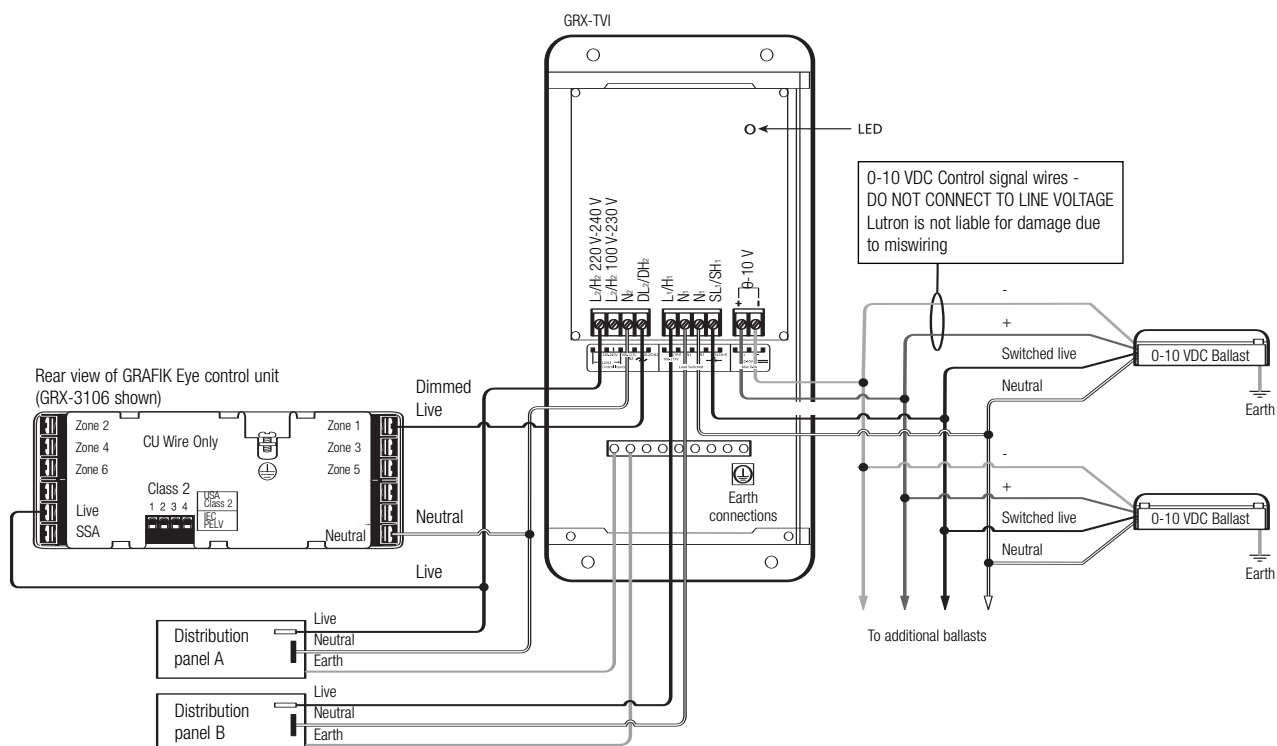
Notes:

Distribution panels can be different phases or voltages (230 VAC shown).

Wiring diagram #12

GRAFIK Eye 4000 series
System overview control wiring
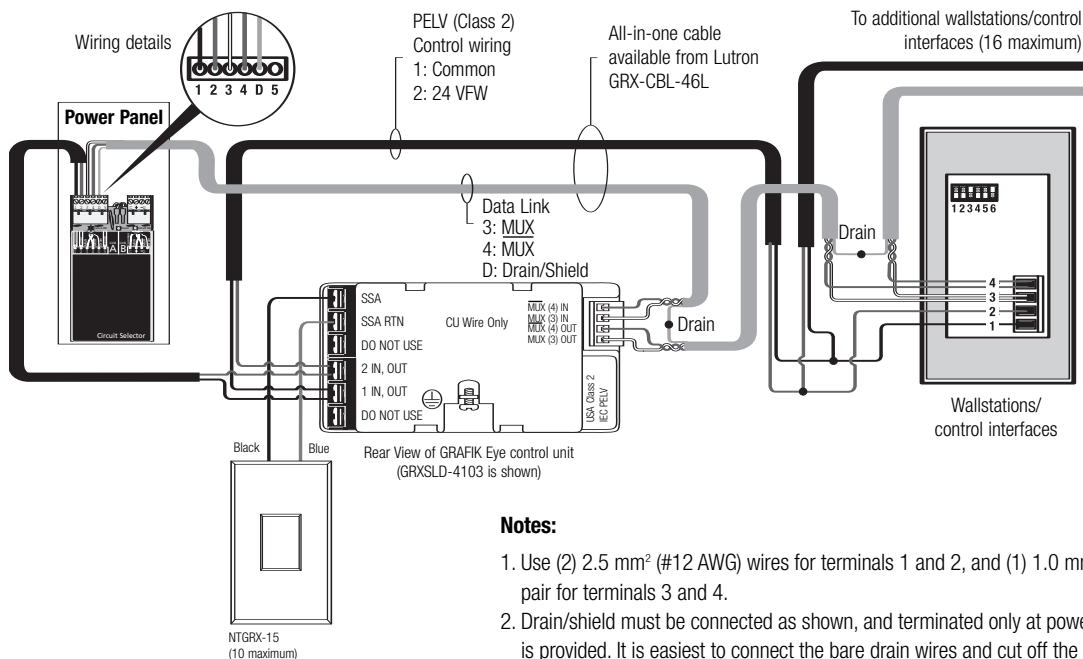
Wiring details

Power Panel

PELV (Class 2)
Control wiring
1: Common
2: 24 VFW

All-in-one cable
available from Lutron
GRX-CBL-46L

To additional wallstations/control
interfaces (16 maximum)

Data Link
3: MUX
4: MUX
D: Drain/Shield

SSA
SSA RTN
DO NOT USE
2 IN, OUT
1 IN, OUT
DO NOT USE

CU Wire Only

MUX (4) IN
MUX (3) IN
MUX (4) OUT
MUX (3) OUT

USA Class 2
IEC PELV

Drain

Drain

Wallstations/
control interfaces

123456

4
3
2
1

Black   Blue

Rear View of GRAFIK Eye control unit
(GRXSLD-4103 is shown)

NTGRX-15
(10 maximum)

Notes:

1. Use (2) 2.5 mm² (#12 AWG) wires for terminals 1 and 2, and (1) 1.0 mm² (#18 AWG) twisted, shielded pair for terminals 3 and 4.
2. Drain/shield must be connected as shown, and terminated only at power panel if drain terminal is provided. It is easiest to connect the bare drain wires and cut off the outside shield throughout the control link.
3. Up to 8 GRAFIK Eye 4000 Series control units (addresses) and 16 wallstations/control interfaces can be daisy-chained together in one system.
   A 16-zone control unit requires two addresses;
   a 24-zone control unit requires three addresses.
4. PELV (Class 2) cable (GRX-CBL-46L) is available from Lutron, see pg. 2.13.1.

Wiring diagram #13

GRAFIK Eye 4000 Series
2.5 mm² (#12 AWG) to 1.0 mm² (#18) AWG wiring
for wallstations/control interfaces

Wallstation rear view

Data Link
3: MUX
4: MUX

D: Drain/Shield

123456

4
3
2
1

(1) 1.0 mm²
(#18 AWG)

(1) 1.0 mm²
(#18 AWG)

(2) 2.5 mm²
(#12 AWG)

PELV (Class 2)
Control wiring
1: Common
2: 24 VFW

(2) 2.5 mm²
(#12 AWG)

(2) 2.5 mm²
(#12 AWG)

Notes:

1. Use (2) 2.5 mm² (#12 AWG) wires for terminals 1 and 2, and (1) 1.0 mm² (#18 AWG) twisted, shielded pair for terminals 3 and 4.
2. All control wiring is Class 2/PELV. Do not place any of these wires in with line-voltage (mains voltage) wiring.
3. (2) 2.5 mm² (#12 AWG) wires will not fit in the wallstations/control interfaces terminal blocks. Use the diagram shown here to make the connections in the wallbox. 2.5 mm² (#12 AWG) wiring is necessary to minimise voltage drop.
4. Drain/shield must be connected as shown. Do not connect to earth or wallstations/control interfaces. It is easiest to connect the bare drain wires and cut off the outside shield throughout the control link.
5. Make wire connections inside the wallbox and power panel or in a junction box (provided by others) within 2.4 m (8') of the terminals.
6. PELV (Class 2) cable (GRX-CBL-46L) is available from Lutron, see pg. 2.13.1.

Wiring diagram #14

GRAFIK Eye 4000 series
Sivoia QED™ interface wiring

To lighting loads

CU Wire Only

Y

SSA
SSARTN
DO NOT USE
2 IN, OUT
1 IN, OUT
DO NOT USE

Live

USA Class 2
IEC PELV

DIST PANEL

Distribution panel

GP Panel

To GRAFIK Eye wallstations

4	MUX
3	MUX
2	+V
1	COM

To EDUs and keypads
(see wiring diagram #17)

5 MUX
4 COM
3 MUX
6 AC
8 AC

SG-SVCN (Back)

Wiring diagram #15

GRAFIK Eye 4000 series
Astronomical time clock and programmer interface (GRX-PRG) wiring

Wiring details

Power Panel

PELV (Class 2)
Control wiring
1: Common
2: 24 VFW

Data Link
3: MUX
4: MUX

Drain

To additional wallstations/control interfaces (16 maximum)

15 m (50')
(Maximum)

COM
TxD
RxD
PC or A/V
Equipment

SSA
SSA RTN
DO NOT USE
2 IN, OUT
1 IN, OUT
DO NOT USE

CU Wire Only

MUX (4) IN
MUX (3) IN
MUX (4) OUT
MUX (3) OUT

Drain

USA Class 2
IEC PELV

Rear View of GRAFIK Eye control unit
(GRXSLD-4103 is shown)

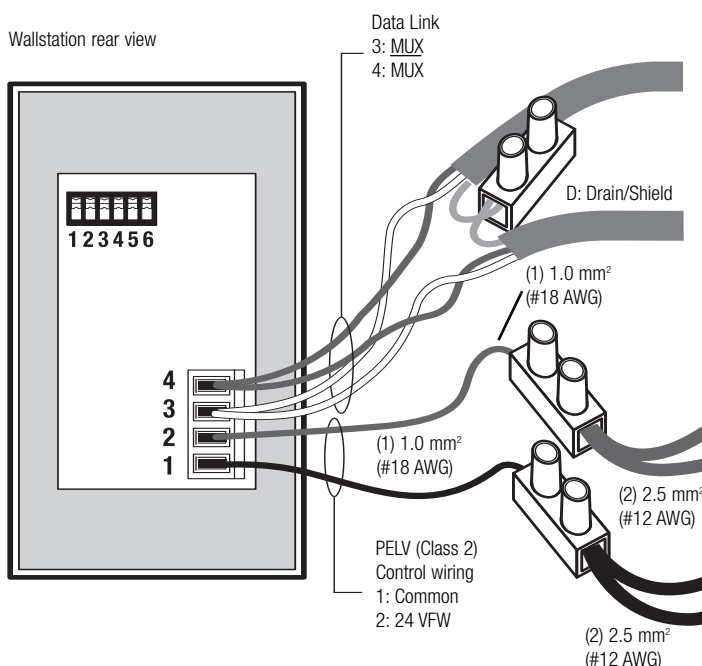MUX Link

RS-232 Link

GRX-PRG
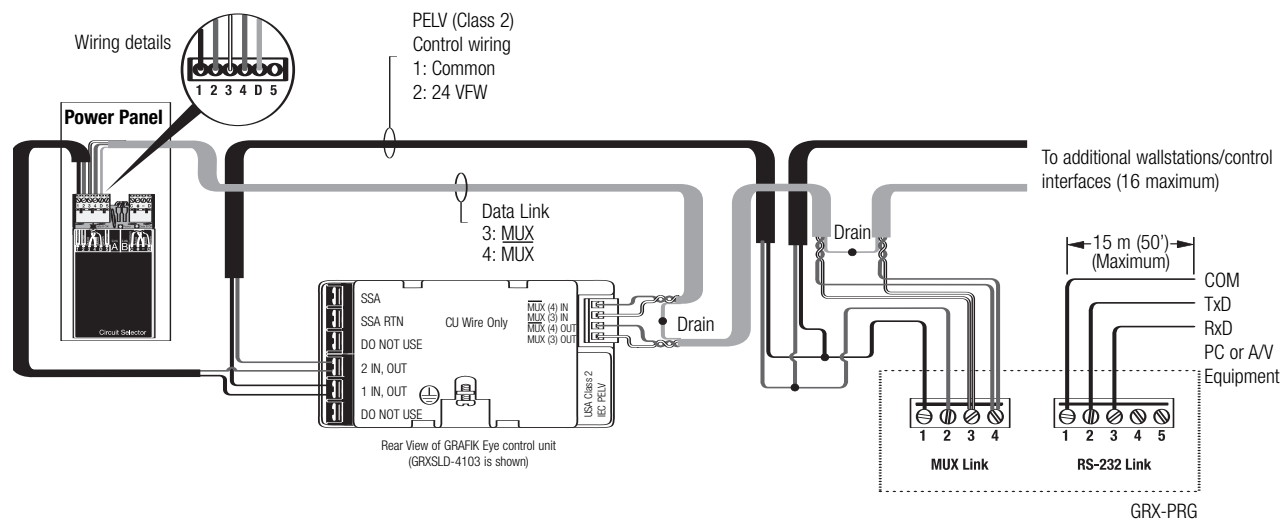
Notes:

1. Use (2) 2.5 mm² (#12 AWG) wires for terminals 1 and 2, and (1) 2.5 mm² (#18 AWG) twisted, shielded pair for terminals 3 and 4.

2. Drain/shield must be connected as shown, and terminated only at power panel if drain terminal is provided. It is easiest to connect the bare drain wires and cut off the outside shield throughout the control link.

3. Up to eight GRAFIK Eye 4000 series control units and 16 wallstations/control Interfaces can be daisy-chained together in one system.

4. PELV (Class 2) cable (GRX-CBL-46L) is available from Lutron®, see pg. 2.13.1.

Wiring diagram #16

GRAFIK Eye 4000 series
2Link™ DMX512 wiring

Wires must be daisy-chained
and capped off at both ends

To additional power panels

To GRAFIK Eye 4000 Series control unit
or Centralised Lighting Control System panel

DMX Theatrical console

NovaT☆-Style
DMX Jack

Link B
PELV (Class 2)
Data Link
1: Common
2: -
3: +

Link B
PELV (Class 2)
Data Link
3: No connection
4: No connection

Link A
PELV (Class 2)
Control wiring
1: Common
2: 24VFW

Link A
PELV (Class 2)
Control Wiring
3: MUX
4: MUX

Power panel

Circuit selector
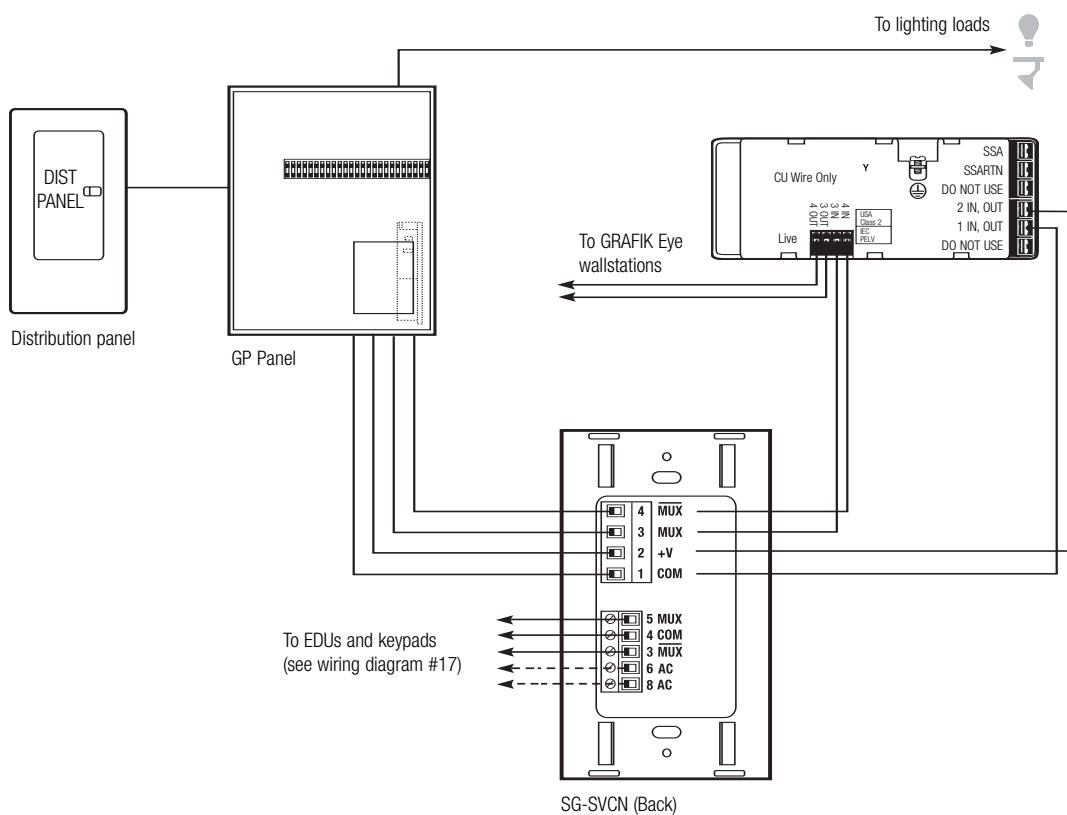
SELECT CIRCUIT

Circuit

Link A

Link B

Power Panel

Notes

1. Use (2) 2.5 mm² (#12 AWG) wires for terminals 1 and 2, and (1) 1.0 mm² (#18 AWG) twisted, shielded pair for terminals 3 and 4.

2. An additional 1.0 mm² (#18 AWG) wire can be used as a "sense" line from terminal 5 of another panel. This sense line allows an Emergency (Essential) lighting panel to "sense" when Normal (Non-Essential) power is lost. For more information on Emergency, see application notes, pg. 4.8.3.

3. For panel to panel wiring, refer to power panel instruction sheet.

4. Centralised lighting control systems have separate power panel and control links. GRAFIK Eye 4000 series power panels connect to the same link as control units and wallstations/control interfaces.

5. PELV (Class 2) cable (GRX-CBL-46L) is available from Lutron®, see pg. 2.13.1.

6. DMX512 PELV (Class 2) cable (GRX-CBL-DMX) is available from Lutron in 75 m (250') and 150 m (500') lengths.

Wiring Diagram #17

GRAFIK Eye 3000/4000 series
Sivoia QED™ interface
(SG-SVCN) wiring

Sivoia QED electronic drive unit EDU

Sivoia QED EDU

EDU terminal block

1 2 3 4 5 6 7

COM +12 MUX MUX AC 1 AC 2 GND

Power supply
24 VAC
transformer

EDU terminal block

1 2 3 4 5 6 7

COM +12 MUX MUX AC 1 AC 2 GND

Power supply
24 VAC
transformer

Sivoia QED interface

To GRAFIK Eye
3000/4000
control unit
(see wiring
diagram
#6 or #18)

4 MUX
3 MUX
2 +V
1 COM

5 MUX
4 COM
3 MUX
6 AC
8 AC

Connect pins 3, 4 and 5 only
for each additional EDU

Lutron® Cable, GRX-CBL-346S
SG-SVC pins 1 through 7 connected
to first EDU

Notes:
1. Sivoia QED EDUs shown will be controlled
   together as one zone.
2. One SG-SVC is needed per group of Sivoia QED
   EDU's (up to 96) moving together.

Wiring diagram #18

GRAFIK Eye 3000/4000 series
Four-motor AC group controller (GRX-4M-GC-CE) wiring

Rear veiw of GRAFIK Eye control unit (GRX-3106 shown)

1 2 3 4

GRX-CBL-346S (3000 series)
or GRX-CBL-46L (4000 series)

SW Live 4B
SW Live 4A
Neutral
SW Live 3B
SW Live 3A
Neutral
SW Live 2B
SW Live 2A
Neutral
SW Live 1B
SW Live 1A
Neutral
Neutral
120V
240V
Motor Supply

ADDRESS
ON
OPTIONS

MUX
MUX
V+
COM

PROGRAM   STATUS   POWER

OPEN ALL
CLOSE ALL
OPEN 4
CLOSE 4
OPEN 3
CLOSE 3
OPEN 2
CLOSE 2
OPEN 1
CLOSE 1

Com
Open All
Stop All
Close All

Input simultaneously controls all four channels

Inputs can be paralleled to simultaneously control multiple channels

Input controls channel 2 motor only

Input controls channel 1 motor only

Control by contact closures is optional

PELV (Class 2) Wiring

AC Motor 1   AC Motor 2   AC Motor 3   AC Motor 4

GRX-4M-GC-CE AC Group controller

Motor 4
Motor 3
Motor 2
Motor 1

Distribution panel

Power feed wiring

*Motor earth/ground wire not shown.

Wiring entry knockouts

Wiring diagram #19

To PC or AV equipment. For ethernet link, use CAT5 cable provided to connect to auxiliary equipment. The ethernet link LED will light continuously when link is present and will flash when there is activity. Additional ethernet network equipment and cables provided by others.

CAT5 cable:
maximum 100 m
(328')

Control interface wiring

Ethernet link/activity

Ethernet speed

RJ45 jack:
ethernet link
(to PC or AV
equipment)

Zone 2
Zone 4
Zone 6

Zone 1
Zone 3
Zone 5

CU wire only

Live

SSA

Neutral

CLASS 2
1 2 3 4

USA
Class 2
IEC
PELV

4 3 2 1

Data link - 4: MUX
3: MUX

Data link (to control units, processors and wallstations)

Lutron cable, GRX-CBL-346S

PELV (Class 2)
control wiring
2: Power
1: Common

To additional wallstations/control interfaces
(16 Maximum; three from one control unit
without external 12 VDC power supply.

12V-32V DC to outlet (with optional transformer).
Do not wire terminal 2 on data link when using
optional transformer. To power separately from the
data link, order the following Lutron® transformer
model numbers:

120V:	**GRX-12VDC**
240V:	**TE240-15DC-9-BL**
240V(UK):	**TU240-15DC-9-BL**

2.17.15

LUTRON