

QSE-CI-NWK-E Control Interface

The QSE-CI-NWK-E is a versatile integration access point for Lutron's QS-based systems. Through either RS232 or TCP/IP over Ethernet, third-party devices can control and/or monitor a QS system.

Key Features

- Easily integrate with touchscreens, PCs, A/V systems, or other digital systems and devices.
- Control and monitor GRAFIK Eye® QS, Sivoia® QS, Energi Savr Node™, and other products on the wired QS link.
- Monitor lighting scenes, levels, and shade positions
- Up to ten (10) QSE-CI-NWK-E control interfaces are allowed per QS link.
- The QSE-CI-NWK-E is Quantum® compatible. Refer to the Quantum® System Specification Sheet for compatibility details.



Compatible Components

The following devices are compatible with the QS link. For more information on each, refer to www.lutron.com/qs.

- GRAFIK Eye® QS control units.
- seeTouch® QS wallstations.
- Sivoia® QS shades.
- QS Interfaces (contact closure, Ethernet/RS232).
- Quantum® system.
- Energi Savr Node™ units.
- QS Sensor Module.
- QS Keyswitch.

Requirements

- QS Link Power Supply, such as a:
 - GRAFIK Eye® QS.
 - QS Link power supply, such as the QSPS-P1-1-50 .
 - Energi Savr Node™ QS.
- QS Communication Link (IEC PELV/NEC® Class 2) (see QS Link Wire Sizes table).

Protocol

- Protocol document P/N 040-249 included on a CD accompanying the packaged QSE-CI-NWK-E.
- Also available for download at www.lutron.com/qs.

Job Name:	Model Numbers:
Job Number:	

Specifications

Power

- IEC PELV/NEC® Class 2
- Operating voltage: 12–24 V $\overline{=}$ 65 mA

QS Link Limits

- The QS wired communications link is limited to 100 devices and 100 zones. Each QSE-CI-NWK-E control interface counts as 2 devices and 2 zones.
- Each QSE-CI-NWK-E control interface consumes 2 power draw units (PDU) on the QS link. Refer to the QS Link Power Draw Units Specification Submittal (Lutron PN 369405, at www.lutron.com) for more information.
- The maximum wiring length for the QS link is 2000 ft (610 m).

Environment

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

Integration Features

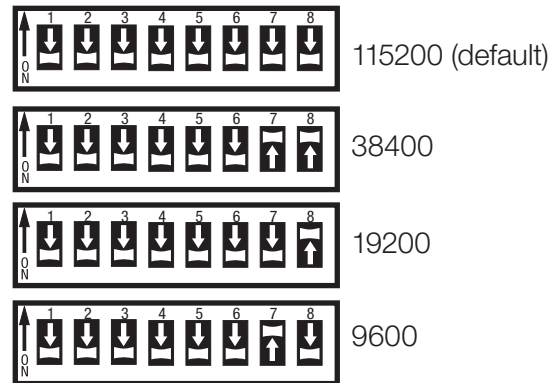
- Monitoring: Current scene, zone level, button presses, shade group levels.
- Control: Scene selection, scene lockout, zone lockout, sequencing, zone raise/lower, master raise/lower, set shade group level, simulate button press/release.

For the full list of features and commands, please refer to the protocol document on the accompanying CD, also available at www.lutron.com.

RS232 Connection

- Standard 9-pin female serial connector on interface.
- 50 ft (15 m) maximum serial cable length.
- Dip switches are set at factory, all Off.
- Dip switches are used to set RS232 baud rate:

DIP Switch Settings for RS232 Baud Rate



Ethernet Connection

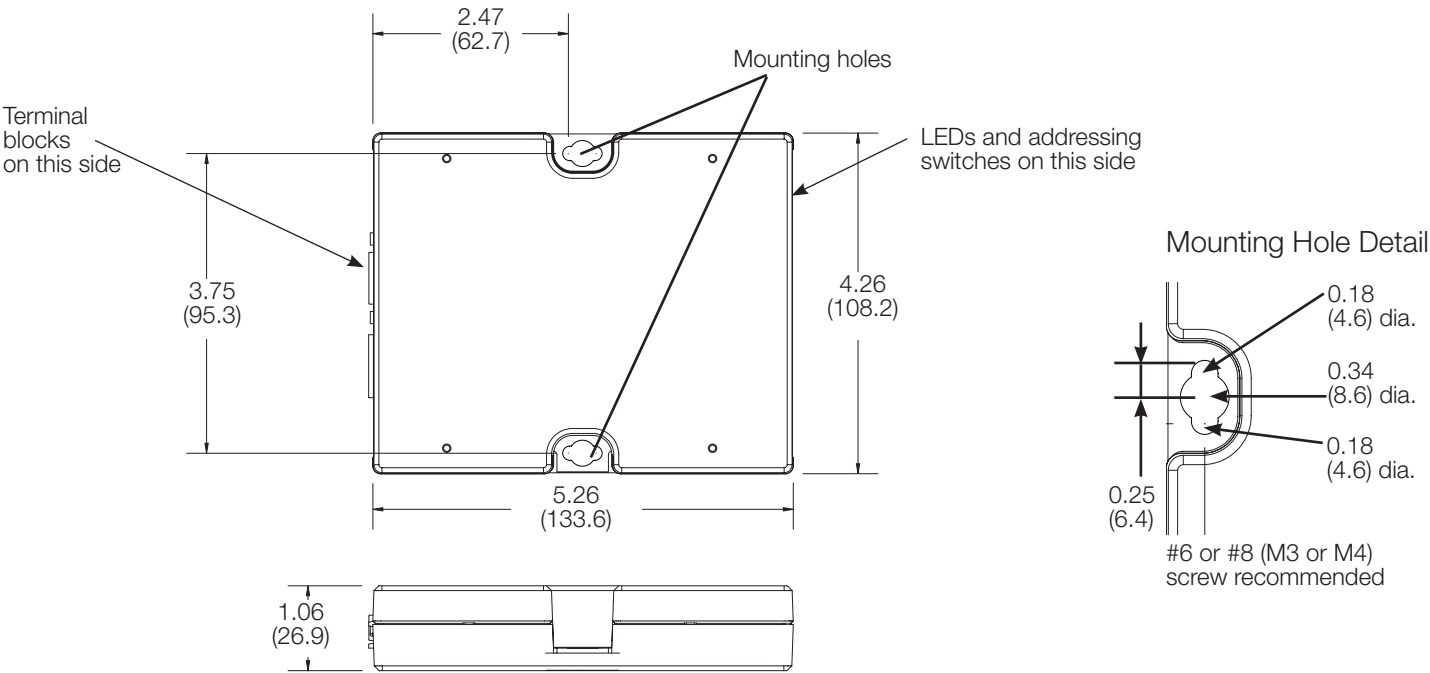
- Standard CAT5 (or better) cable, 328 ft (100 m) maximum, connects the QSE-CI-NWK-E interface to a PC or other Ethernet source.
- Supports MDI/MDIX auto-crossover (no crossover cable needed).
- Auto-negotiation of 10 or 100 Mbps speed and full- or half-duplex operation.
- Default IP address is 192.168.250.1. Can be changed using the Lutron DeviceIP tool located on the accompanying CD.

Note: Either the RS232 or the Ethernet can be used, but not both.

Job Name:	Model Numbers:
Job Number:	

Dimensions

Dimensions are in inches (mm)



Mounting Options

Mount where terminal blocks, switches, and LEDs are accessible. Strip 3/8 in (10 mm) of insulation from wires. Each data link terminal will accept up to two 18 AWG (1.0 mm²) wires. Connect wiring as shown on the Wiring page. Choose from the following mounting methods:

1: Direct Wall Mounting

Mount the control interface directly on a wall, as shown in Mounting Methods at right, using screws (not included). When mounting, provide sufficient space for connecting cables.

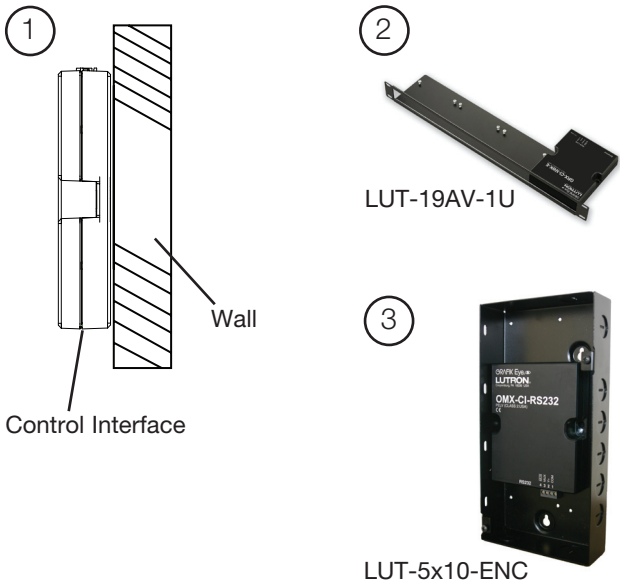
2: Rack Mounting

Place the unit can in the LUT-19AV-1U AV rack using screws (not included). The LUT-19AV-1U will hold up to four units.

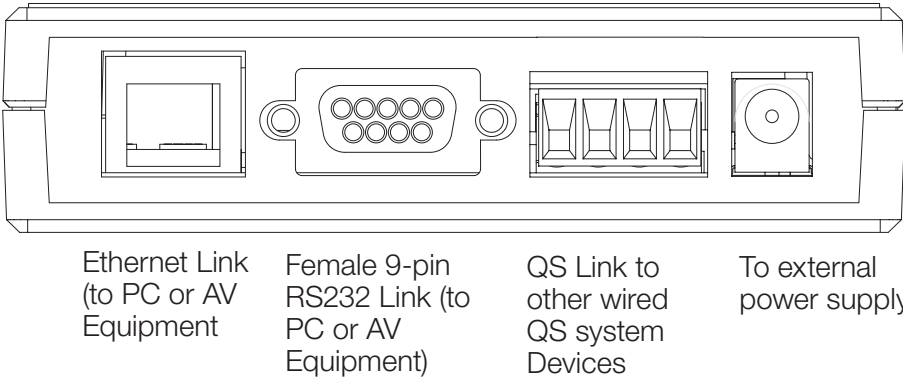
3: Enclosed Wall Mounting

If conduit is desired for wiring, use the LUT-5x10-ENC to mount one unit.

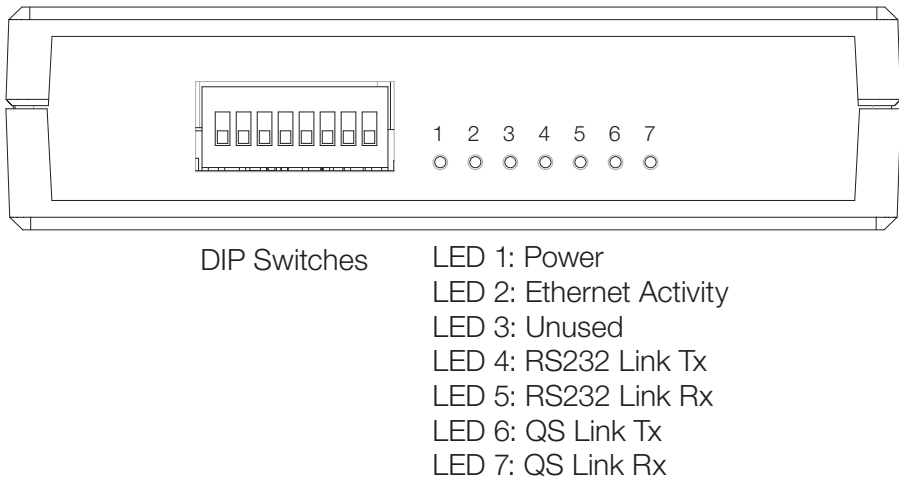
Mounting Methods



Terminal Locations



LED and DIP Switch Locations



Wiring

RS232 Link

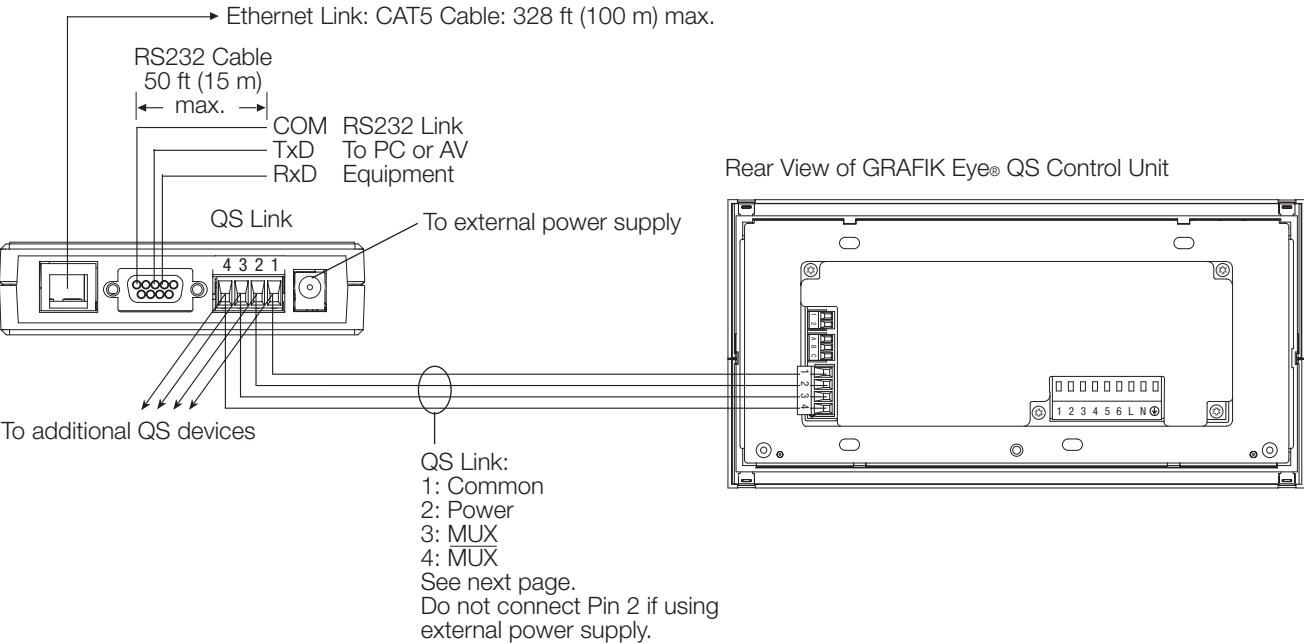
- Standard 9-pin serial connector plugs into RS232 equipment, and to QSE-CI-NWK-E.
- Must be 50 ft (15 m) or less.

RS232 Signals

Signals	Pin on 9-Pin Cable
Com	5
TxD	3
RxD	2

Ethernet Link Wiring

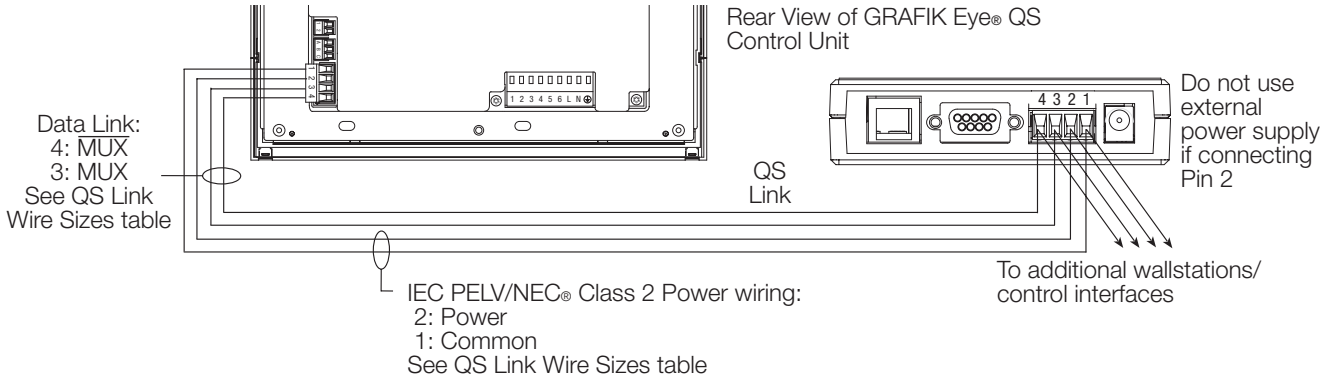
- Standard CAT5 cable connects QSE-CI-NWK-E Interface to PC, router, or other Ethernet source.
- No crossover cable needed.
- Must be 328 ft (100 m) or less.
- Ethernet network and cable provided by others.



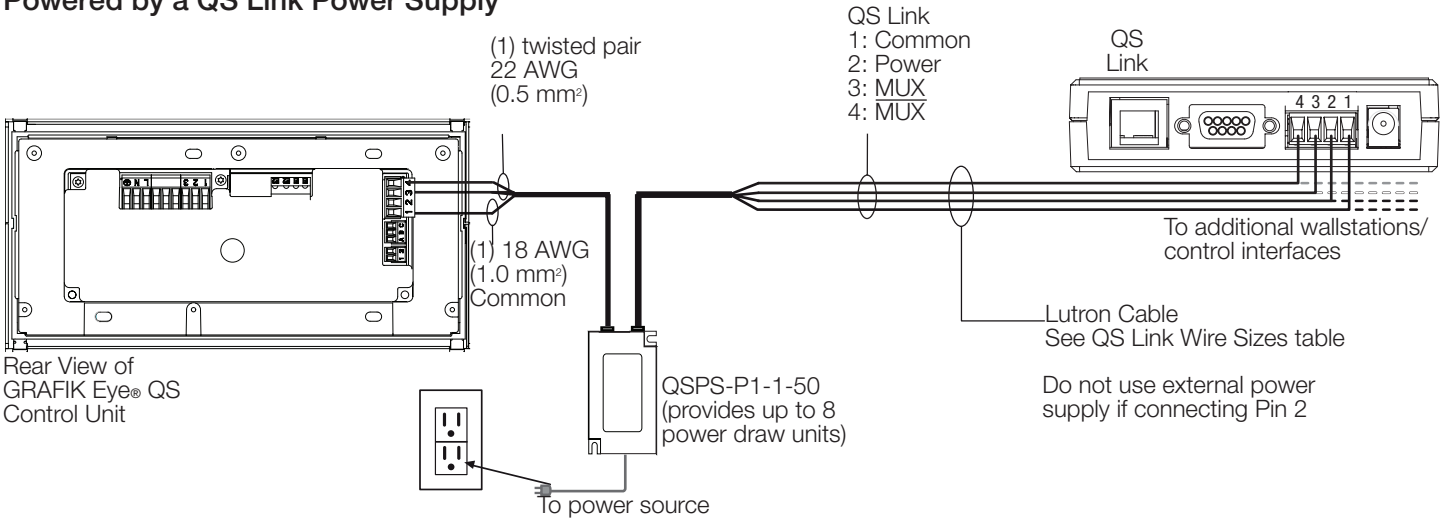
Wiring (continued): QS Link Wiring Methods (choose one)

- System communication uses IEC PELV/NEC® Class 2 wiring.
 - Follow all local and national electrical codes when installing IEC PELV/NEC® Class 2 wiring with line voltage/mains wiring.
 - Each terminal accepts up to two 18 AWG (1.0 mm²) wires.
- Total length of control link must not exceed 2000 ft (610 m).
 - Typical Wire Sizes: See QS Link Wire Sizes table.
 - Connect the terminal 1, 3, and 4 connections to all control units, wallstations, and control interfaces in the QS system. For terminal 2 connectivity, see below.

Powered by GRAFIK Eye® QS Control Unit



Powered by a QS Link Power Supply



QS Link Wire Sizes (check compatibility in your area)

QS Link Wiring Length	Wire Gauge	Lutron Cable Part Number
< 500 ft (153 m)	Power (terminals 1 and 2) 1 pair 18 AWG (1.0 mm²)	GRX-CBL-346S (non-plenum) GRX-PCBL-346S (plenum)
	Data (terminals 3 and 4) 1 twisted, shielded pair 22 AWG (0.5 mm²)	
500 – 2000 ft (153 – 610 m)	Power (terminals 1 and 2) 1 pair 12 AWG (4.0 mm²)	GRX-CBL-46L (non-plenum) GRX-PCBL-46L (plenum)
	Data (terminals 3 and 4) 1 twisted, shielded pair 22 AWG (0.5 mm²)	