

QSE-CI-NWK-E Control Interface



Description

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, 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.

Requirements

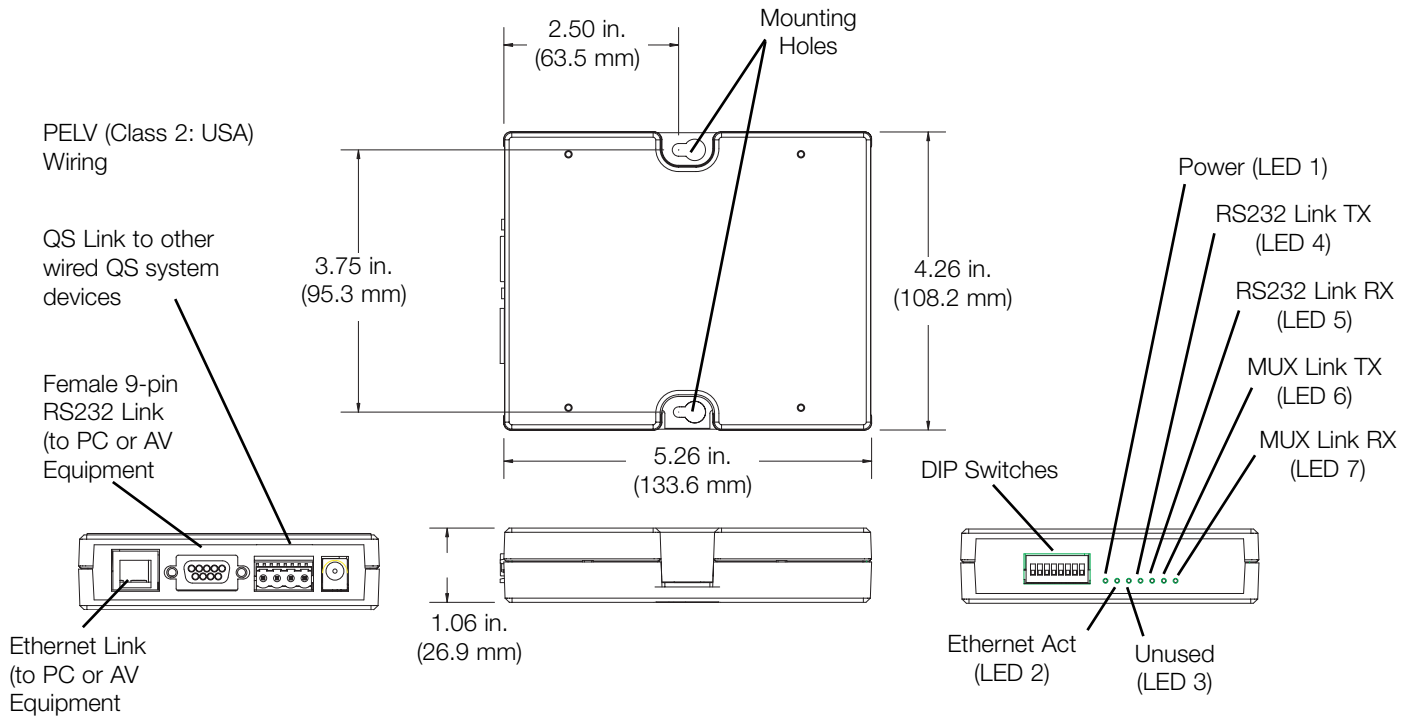
- QS Link Power Supply, such as a:
 - GRAFIK Eye QS.
 - QS Link power supply, such as the QSPS-P1-1-50.
- QS Communication Link Wire (PELV, Class 2: USA)
 - Two 18 AWG (1.0 mm²) conductors for control power.
 - One twisted, shielded pair of 22 AWG (0.34 mm²) for data link.
 - Available from Lutron, part number GRX-CBL-346S; check compatibility in your area.

Protocol

- Protocol document P/N 040-241 included on a CD accompanying the packaged QSE-CI-NWK-E.
- Also available for download at www.lutron.com/qs (search for 040-241).

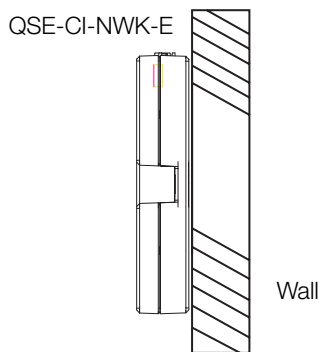
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Dimensions



Mounting

- Mounts directly to the wall.
- 19 in. AV rack mountable with 1U rack shelf from Lutron Model # LUT-19AV-1U.
- For conduit wiring options, use LUT-5x10-ENC.



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Specifications

Power

- Low-voltage PELV (Class 2: USA).
- Operating Voltage: 24 V $\overline{=}$ 60 mA.
- Uses two (2) power draw units on the QS link.

Environment

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

Integration Features

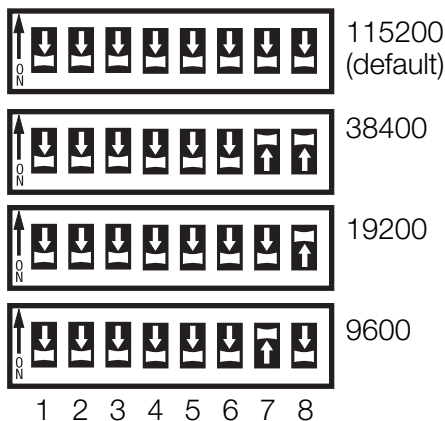
- Monitoring: Current scene, zone level, button presses, shade group levels.
- Control: Scene selection, scene lockout, zone lockout, sequencing, zone raise/lower, master raise/lower, set shade group level, simulate button press/release.

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. Use the included serial cable with standard 9-pin male connectors to connect to RS232 equipment.
- 50 foot (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, 100 m (328 feet) 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.

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RS232 Link Wiring

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

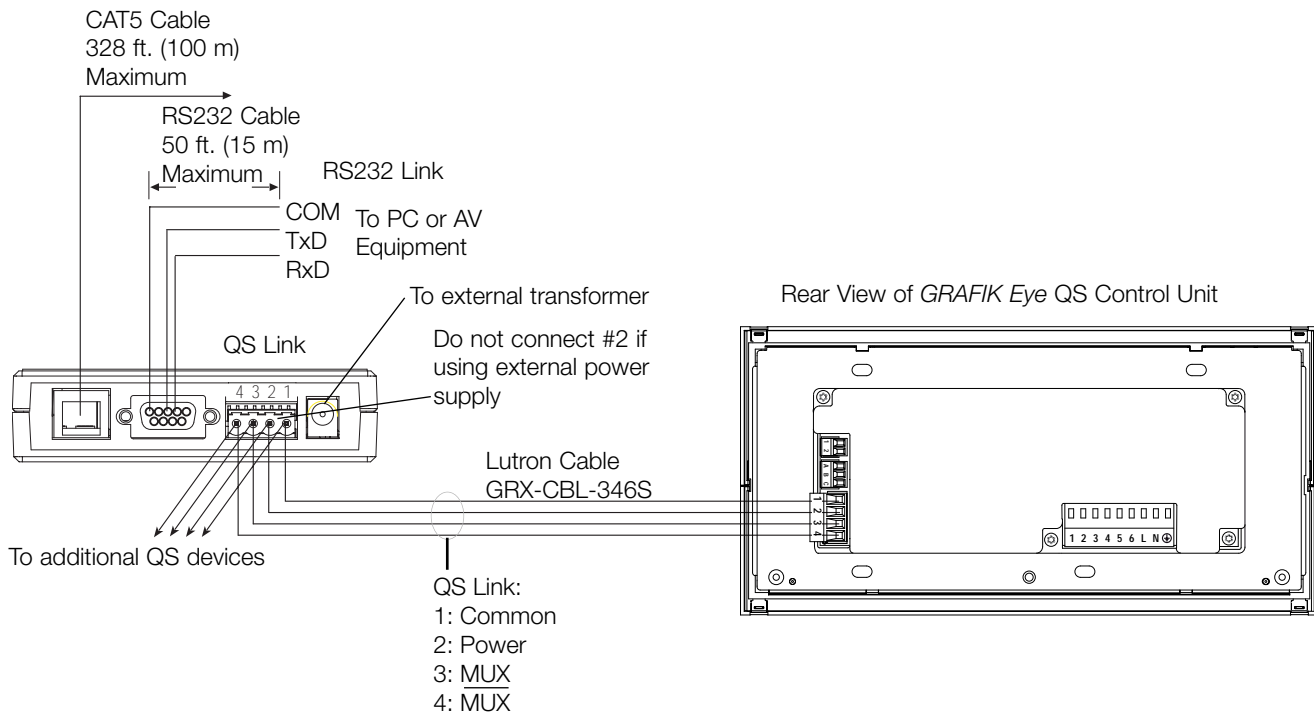
RS232 Signals

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 100 m (328 feet) or less.
- Ethernet network and cable provided by others.

Control Interface Wiring

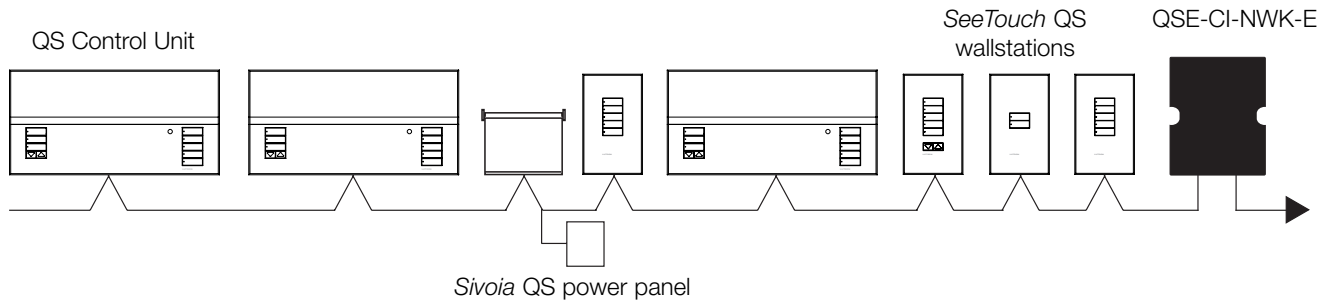


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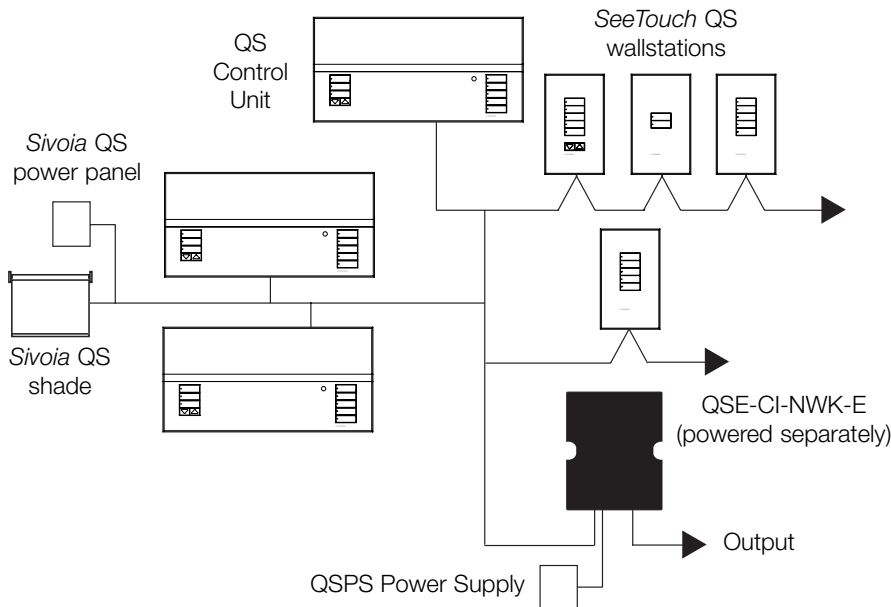
PELV (Class 2: USA) QS Link Low-Voltage Requirements and Wiring

- System communication uses low-voltage wiring.
- Wiring can be daisy-chained or T-tapped (see below).
- Wiring must be run separately from line/mains voltage.
- Each PELV (Class 2:USA) terminal accepts up to two 18 AWG (1.0 mm²) wires.
- PELV (Class 2:USA) wiring link requires:
 - Two 18 AWG (1.0 mm²) conductors for control power.
 - One twisted, shielded pair of 22 AWG (1.0 mm²) for data link.
 - Available from Lutron, P/N GRX-CBL-346S; check compatibility in your area.
- Total length of control link must not exceed 2,000 ft (610 m).
- Connect the terminal 1, 3, and 4 connections to all control units, wallstations, and control interfaces. See **Powering the QSE-CI-NWK-E** for pin 2 connectivity.

Daisy-Chain Wiring Example



T-Tap Wiring Example

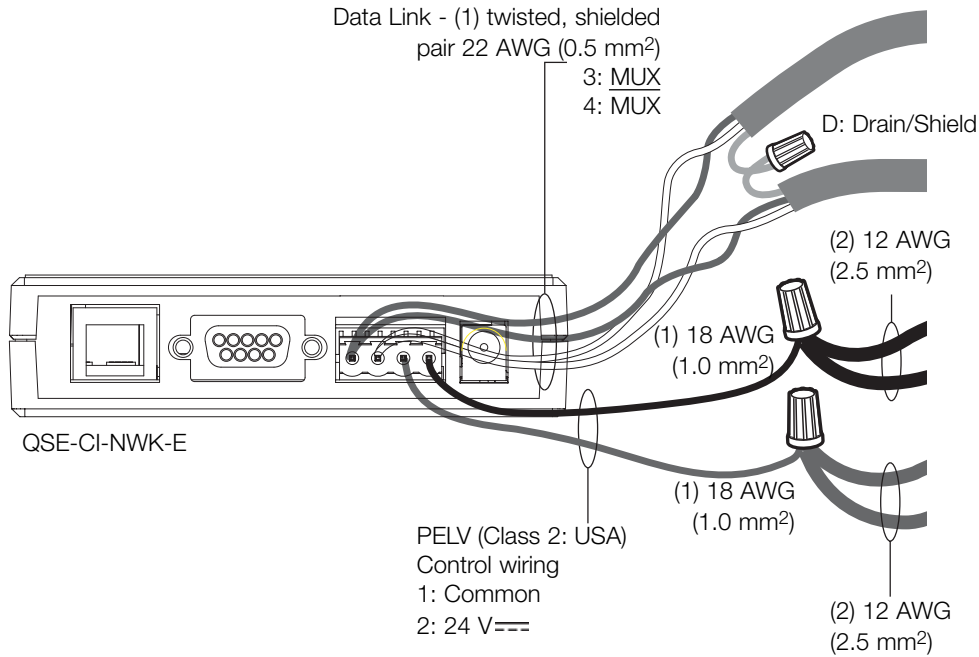


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PELV (Class 2: USA) Terminal Connections

When used with *GRAFIK Eye* QS Control Units

- Two 18 AWG (1.0 mm²) conductors for Common (terminal 1) and 24 V_{AC} (terminal 2). Ensure that the terminal 2 connection is wired correctly. Refer to *GRAFIK Eye* QS Specification Submittal for more details.
- One shielded, twisted pair 22 AWG (0.5 mm²) for data link (terminals 3 and 4).



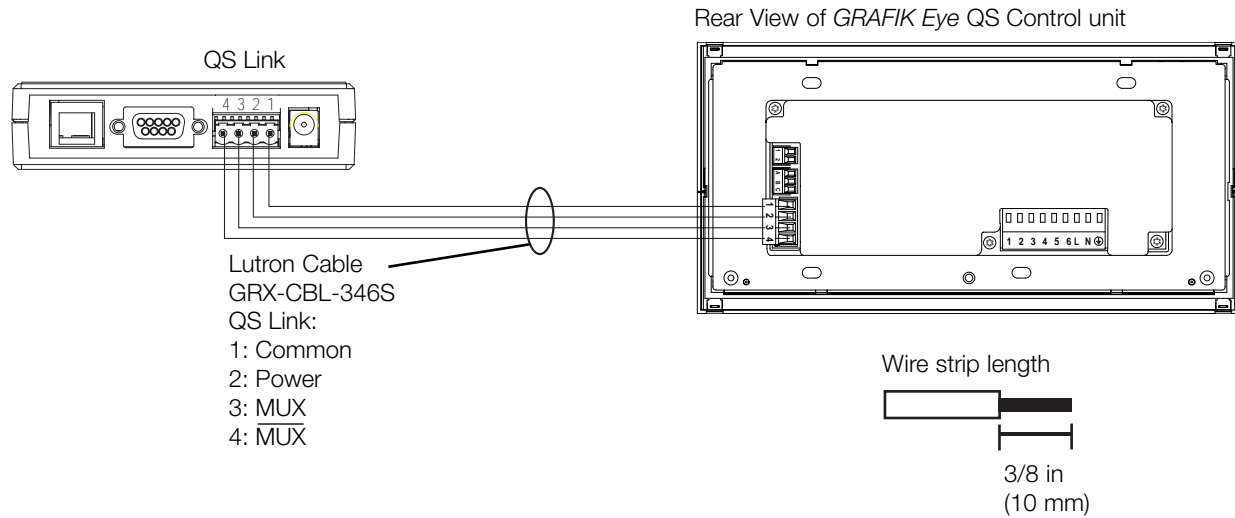
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Powering the QSE-CI-NWK-E

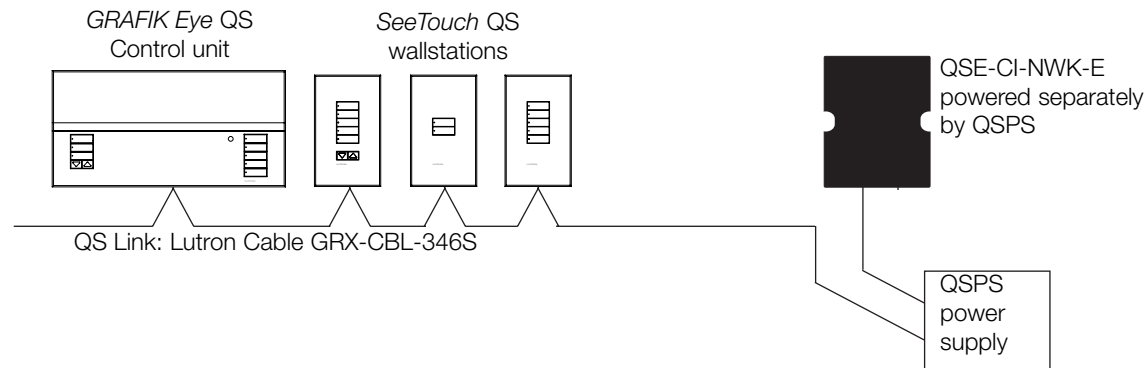
- The QSE-CI-NWK-E uses two (2) power draw units on the QS link.
Power for one QSE-CI-NWK-E counts as two devices toward the maximum of three devices per *GRAFIK Eye* QS Wireless Control Unit when powered off of Pin 2 of the *GRAFIK Eye* QS.
- Another option is to power the QSE-CI-NWK-E from a QS Link power supply (QSPS-P1-1-50, QSPS-P2-1-50, or QSPS-P3-1-50) or a QS shade panel power supply (QSPS-P2-10-60 for 230 V~, or QSPS-P1-10-60 for 120 V~).

Wiring Examples

QSE-CI-NWK-E Powered by a *GRAFIK Eye*® QS Wireless



QSE-CI-NWK-E Powered by a QSPS Power Supply



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