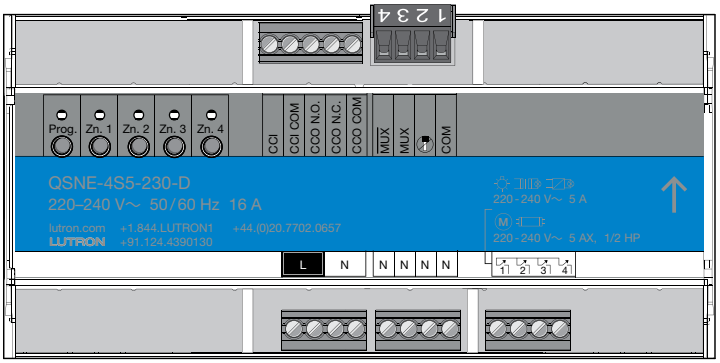
3691079e 1 01.10.24

Switching Power Module

The DIN Power Module (DPM) family is a group of modular products for the control of lighting loads. This product is compatible with Lutron Quantum systems. This document describes the following product:

- QSNE-4S5-230-D: 4-zone power module for switching only.

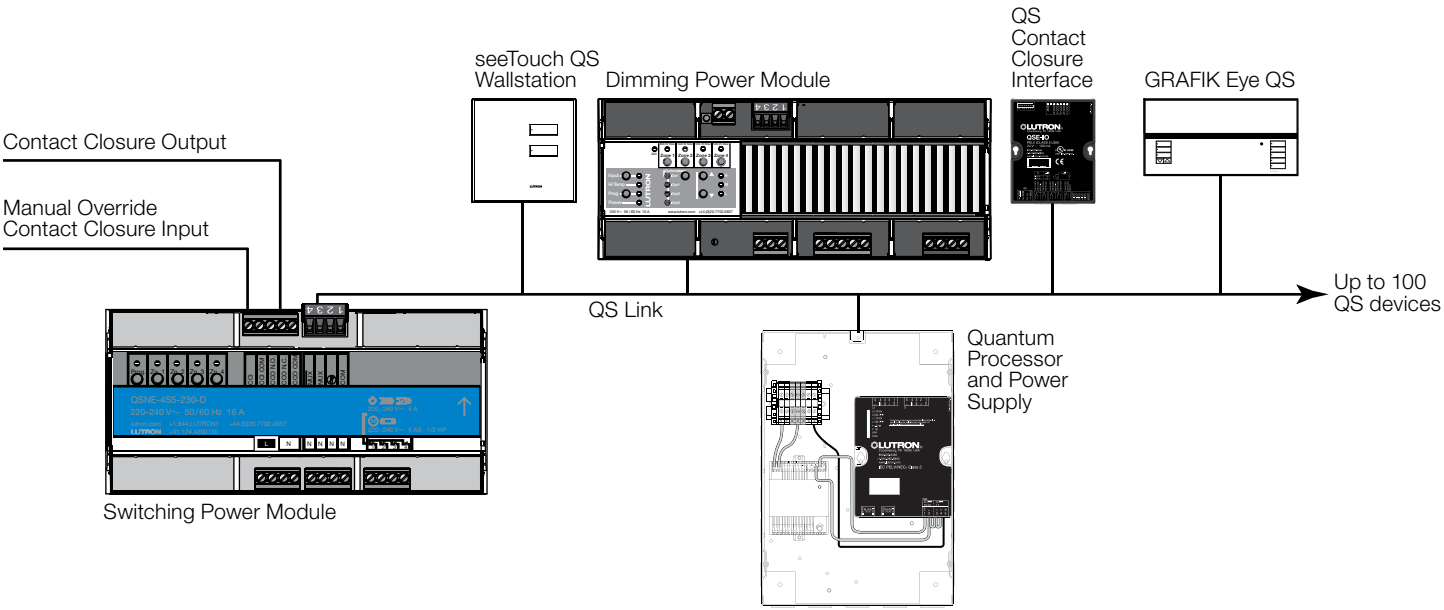


QSNE-4S5-230-D

Features

- Quantum system capability only.
- Four switched output zones.
- Adaptive zero-cross switching maximizes relay life.
- Rated for the following lighting loads: Incandescent, Magnetic Low Voltage (MLV), Electronic Low Voltage (ELV), Electonic Ballasts and LED Drivers.
- Rated for motor loads of 1/2 HP.
- Includes QS link.
- Does not supply power on the QS link.
- LEDs on the module provide diagnostic information.
- Buttons on module provide override control.
- Emergency Contact Closure Input (CCI).
- Programmable Contact Closure Output (CCO).
- Power failure memory.

System Example



Job Name:	Model Numbers:	
Job Number:		

Specifications

Power

- 220–240 V~ 50/60 Hz
- Single input feed
- 16 A maximum input current
- Lightning strike protection meets ANSI/IEEE standard C62.41 and IEC 61000-4-5. Can withstand voltage surges up to 6000 V~ and current surges up to 3000 A
- ESD-protection exceeds agency requirements per IEC-61000-4-2
- For ungrounded delta feed applications, contact Lutron

Regulatory Approvals

- Complies with IEC/EN 60669
- Lutron Quality Systems registered to ISO 9001.2015
- CE Marked
- RoHS Compliant

Environment

- For thermal specifications, see **Mounting** section
- Relative humidity: less than 90% non-condensing
- For indoor use only

Terminals

- Mains wiring: 1.0 mm² to 2.5 mm² (18 AWG to 12 AWG) (single wire, solid or stranded)
- CCI/CCO wiring: 0.5 mm² to 2.5 mm² (22 AWG to 12 AWG) (single wire, solid or stranded)
  0.5 mm² to 1.5 mm² (20 AWG to 16 AWG) (two wires, solid or stranded)
- Zone wiring: 1.0 mm² to 2.5 mm² (18 AWG to 12 AWG) (single wire, solid or stranded)
- QS Link: 0.5 mm² to 2.5 mm² (22 AWG to 12 AWG) (single wire, solid or stranded)
  0.5 mm² to 1.0 mm² (20 AWG to 18 AWG) (two wires, solid or stranded)

Programming and Compatibility Requirements

- Setup and programming of the Switching Module is done through the Quantum programming software
- Quantum software version 3.4 or higher is required

QS Link Limits

- A QS link in a Quantum system can have up to 512 zones (outputs) and 100 devices (required Quantum processor counts as 1 device on the QS link)
- Each Switching Module counts as one device toward the 100 device limit, and 4 zones toward the 512 zone limit
- For more information, see the **Lutron Residential and Commercial Systems Rules** specification submittal (P/N 369821) at www.lutron.com

Output Zone Ratings

- Each zone is rated at 5 A for switching. Rated for resistive, inductive, or capacitive lighting loads as defined by IEC/EN 60669
- Air gap off per output
- No minimum load per output
- This module is designed to control loads with ratings as noted in the table below
- Outputs cannot be used to control general purpose receptacles

	Relay Ratings
Load Type	**220-240 V~**
Tungsten	5 A/zone, 16 A max/module
AC General Use	5 A/zone, 16 A max/module
Electric Discharge Lamp	5 A/zone, 16 A max/module
Electronic Ballast	5 A/zone, 16 A max/module
Resistive	5 A/zone, 16 A max/module
Inductive	5 A/zone, 16 A max/module
Motor	5 A (1/2 HP)/zone, 16 A max/module

Job Name:	Model Numbers:	
Job Number:		

Specifications - *(continued)*

- Special considerations:
  - When controlling lamps, Lutron recommends using permanently installed fixtures.
  - If controlling plug-in lamps, installation must ensure a method of preventing non-rated loads being plugged into the unit. An example is a dedicated receptacle with a mating plug type.
  - Controlling loads outside the parameters listed in the specifications may damage the device and void the warranty.
- If attempting to control general purpose receptacles, use the appropriate third-party power pack for the rated load.
- Run a separate neutral for each load circuit. A common neutral connection is not recommended.
- Unit may be powered by a Ground Fault Interrupter (GFI) or Residual Current Circuit Breaker with Overload (RCBO) protected circuit if required.
- For applications requiring higher wattage ratings, use GRX-TVI or QSNE-4S10-D for 220–240 V~.

⚠ WARNING — Entrapment hazard — May result in serious injury or death. These controls should only be used to control equipment which is visible from every control location.

⚠ WARNING – Fire hazard – May result in serious injury or death. Only use these controls to operate approved load and equipment types.

IMPORTANT NOTE:

Examples of such equipment which must not be operated by these controls include (but are not limited to) motorized gates, garage doors, industrial doors, microwave ovens, heating pads, fireplaces, space heaters, etc. It is the installer's responsibility to ensure that the equipment being controlled is visible from every control location and that only suitable equipment is connected to these controls. Failure to do so could result in serious injury or death.

Job Name:	Model Numbers:	
Job Number:		

Manual Mode Operation

- Zone buttons on the unit can be used to turn loads on and off.

Emergency Contact Closure Input (CCI)

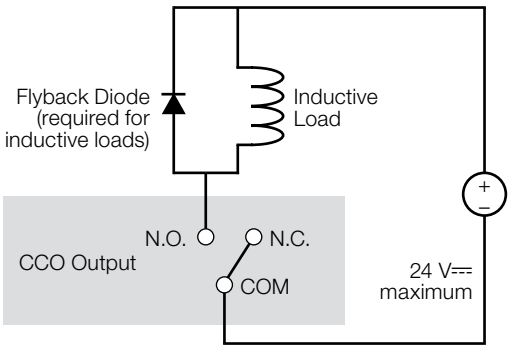
- When the CCI is open, the Switching Power Module will enter Emergency Mode, which will turn all the zones on and disable control of all local zones from any QS device.
- When the CCI is closed or jumpered (factory default), the Switching Power Module zones will return to the settings they were at prior to entering Emergency Mode.

Contact Closure Output (CCO)

- Accepts voltages of 0–24 V~/0–24 V⎓; see chart below for load switching capacities:

Switching Voltage	Resistive Load $_R$
0–24 V⎓	1.0 A
0–24 V~	0.5 A

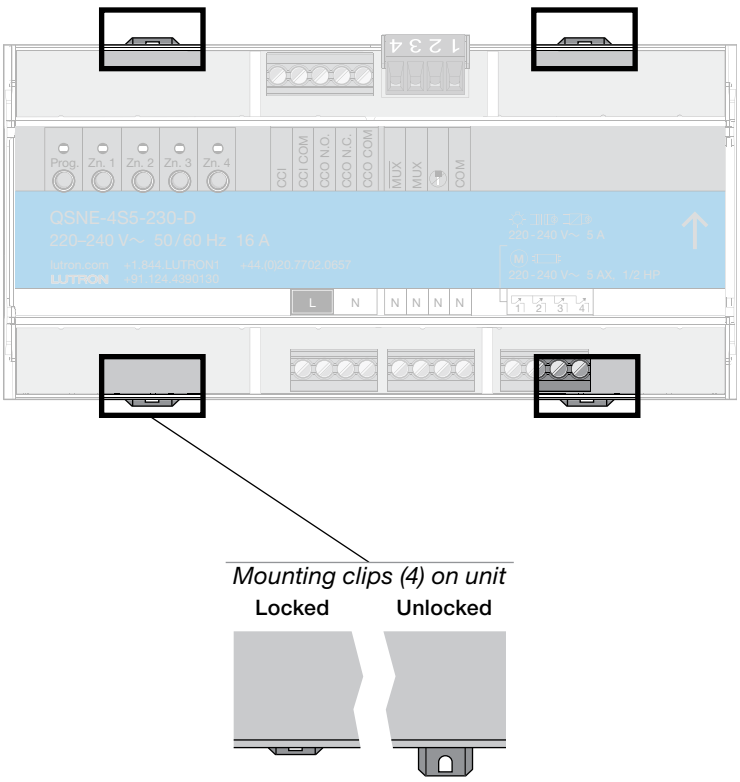
- Provides both normally open (N.O.) and normally closed (N.C.) dry contacts.
- Maintained or momentary output type.
- Output relay is non-latching (if relay is closed and power is lost, relay will open).
- The CCO is not rated to control unclamped, inductive loads. Inductive loads include, but are not limited to, relays, solenoids, and motors. To control these types of equipment, a flyback diode (not included) must be used (DC voltages only). See diagram below.



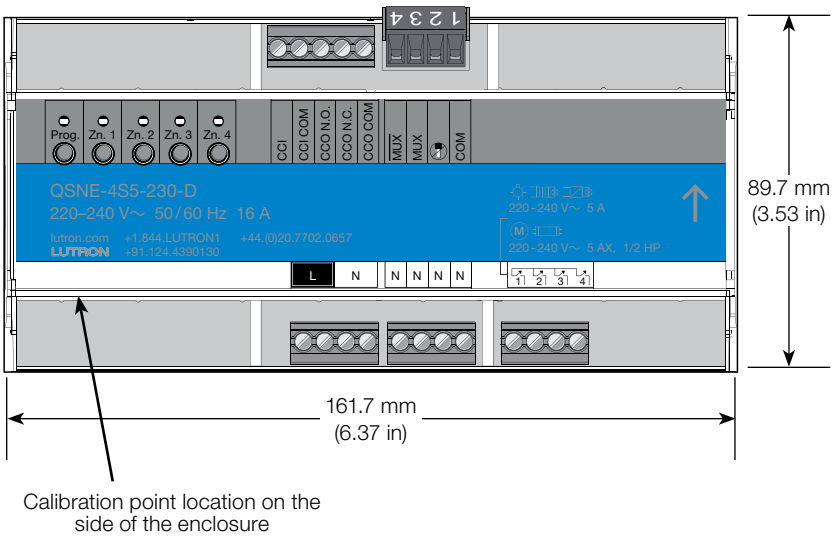
Job Name:	Model Numbers:	
Job Number:		

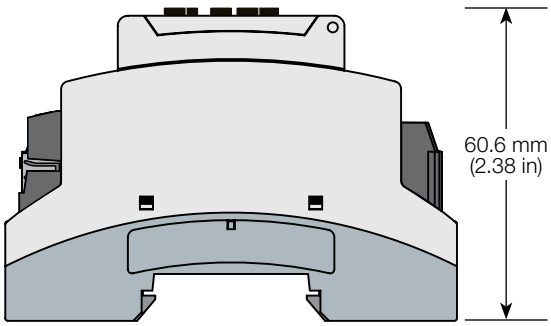
Mounting

- Mount in a Lutron DIN Panel (see P/N 369783 at www.lutron.com) or in an IP20 (minimum) rated consumer panel or breaker panel with integrated DIN rail.
- Unit is 9 DIN (161.7 mm [6.37 in]) wide.
- Mount in an accessible and serviceable location.
- Unit may be mounted by pressing the unit onto the DIN rail with the clips locked. To remove the unit from the DIN rail, unlock the clips using a screwdriver.
- See Lutron P/N 048466 at www.lutron.com for more information on mounting and installation in panels with integrated DIN rail.
- Mount the Power Module where audible noise is acceptable (internal relays click).
- Unit generates heat, maximum 24 BTU/h.
- Mount unit such that all the conditions below are met:
  - Room ambient temperature is between 0 °C and 40 °C (32 °F and 104 °F).
  - Temperature inside mounting panel, within 20 mm (0.80 in) of unit, is between 0 °C and 40 °C (32 °F and 104 °F).
  - Calibration point maximum: 65 °C (149 °F).



Mechanical Dimensions





Job Name:	Model Numbers:	
Job Number:		

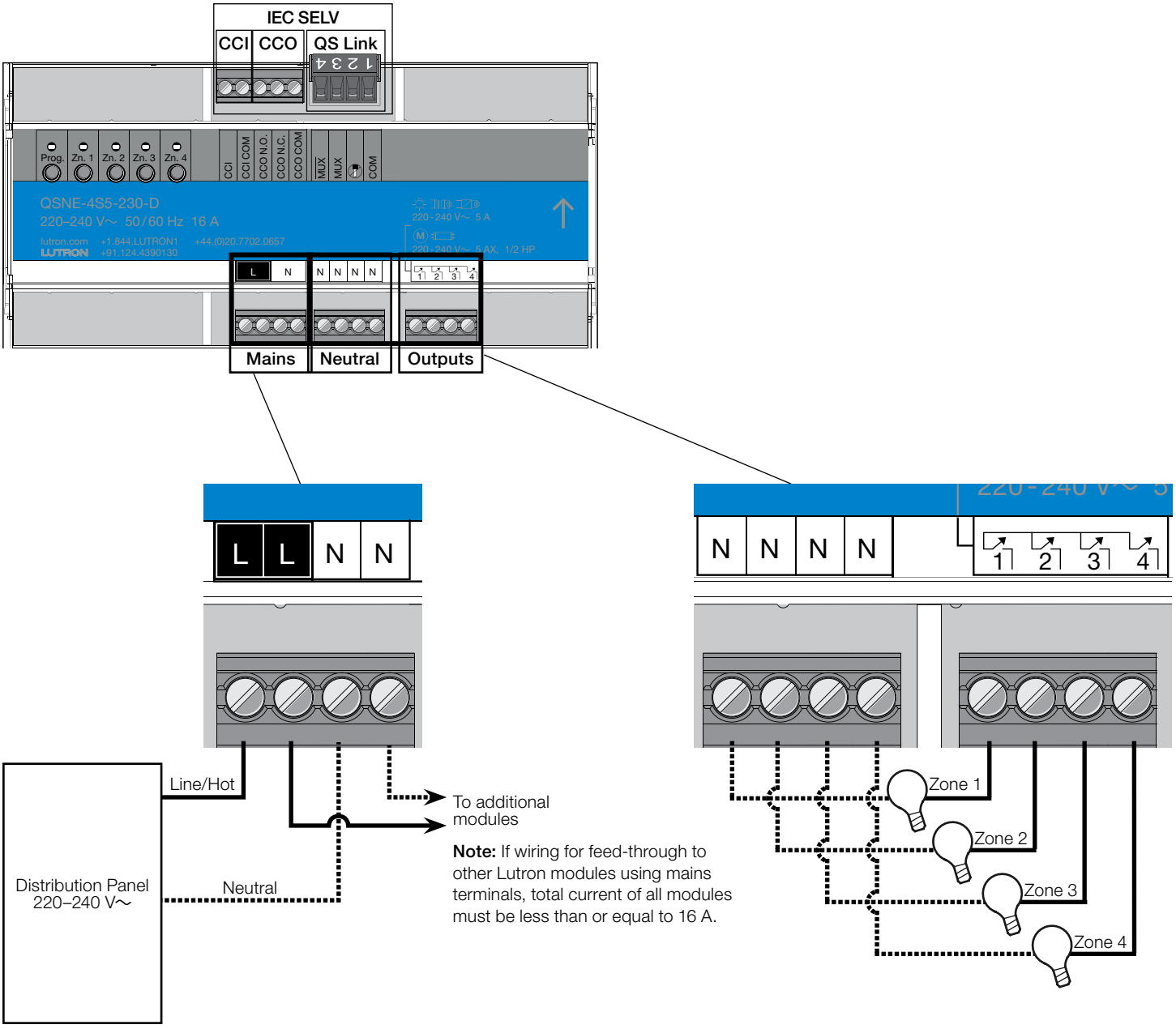
Wiring: Mains and Output Zones

Wiring from Distribution to Switching Power Module

- Turn off all circuit breakers or isolators feeding the Switching Power Module at the distribution panel.
- Run line/hot and neutral wires from a 220–240 V⁓ 50/60 Hz feed to the Switching Power Module unit.
- Run a separate neutral for each load circuit. A common neutral connection is not recommended.

Mains Wiring and IEC SELV Separation

- Follow appropriate local and national codes to avoid violating required separation guidelines.



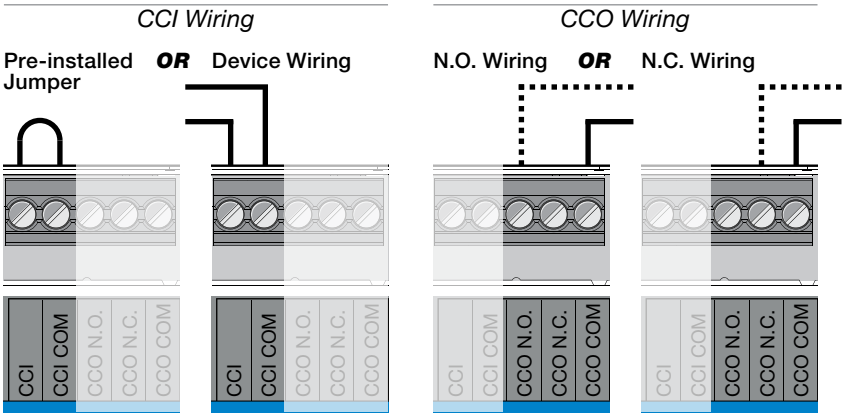
Job Name:	Model Numbers:	
Job Number:		

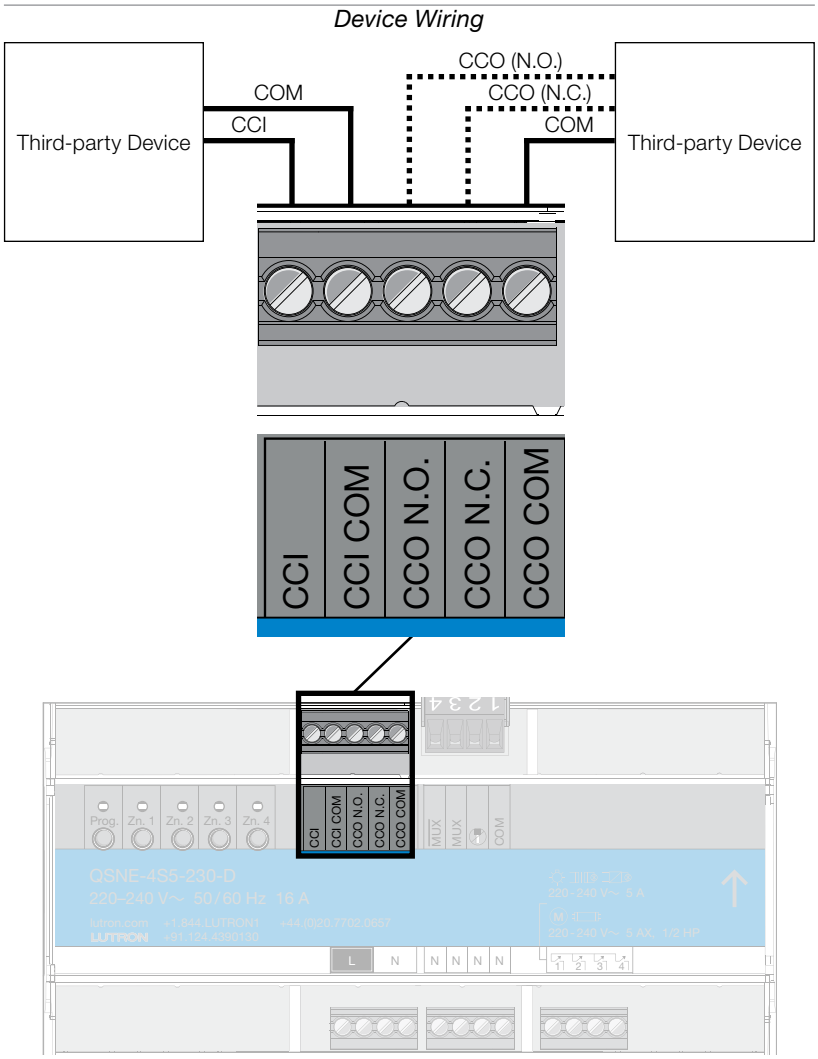
Wiring: Emergency Contact Closure Input and Contact Closure Output

IEC SELV Contact Closures

- Emergency Contact Closure Input (CCI) / Contact Closure Output (CCO) wiring is IEC SELV. Follow all applicable national and local codes for proper circuit separation and protection.
- Turn off all breakers or isolators feeding the Switching Power Module at distribution panel before servicing unit.
- CCI is local control only and cannot control other units over the QS link. CCI on up to 32 units may be connected to an emergency or manual override device in parallel if event is intended to affect multiple units.
- When in Emergency Mode:
  - All zone outputs will be switched on.
  - Controls will not affect units in Emergency Mode.
  - Controls connected to a unit in Emergency Mode will continue to affect units on the link that are not in Emergency Mode.
- Emergency contact closure input is normally closed (N.C.). The Switching Power Module is shipped with a jumper pre-installed.

  Note: The Switching Power Module will default to Emergency Mode if the CCI is left open. If no Emergency contact input is required, leave the wire jumper in the CCI terminals.

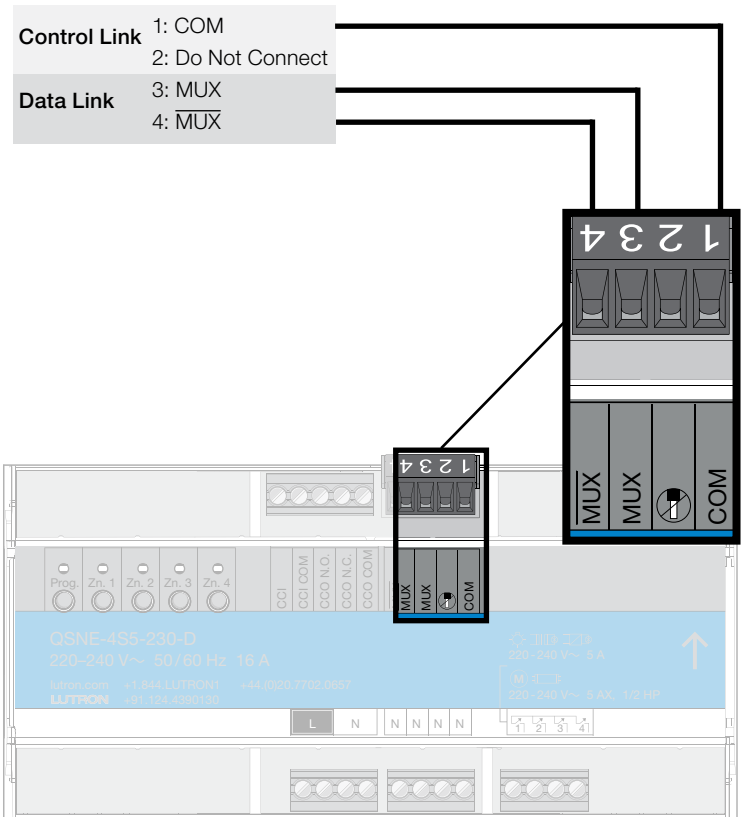




Job Name:	Model Numbers:	
Job Number:		

Wiring: QS Link

- QS link wiring is IEC SELV. Follow all applicable local codes for proper circuit separation and protection.
- Turn off all breakers or isolators feeding the Switching Power Module at distribution panel before servicing unit.
- Wiring may be daisy chained or t-tapped.
- Wire Gauge:
  - Control (terminal 1): 0.5 mm^2 to 2.5 mm^2 (22 AWG to 12 AWG) single wire, solid or stranded.
  - Data (terminals 3 and 4): 1 pair 0.5 mm^2 to 1.0 mm^2, (22 AWG to 18 AWG) twisted and shielded.
- Can use Lutron cable GRX-CBL-346S-500 (less than 152 m [498 ft]) or GRX-CBL-46L (152 m to 610 m [498 ft to 2000 ft]).
- For adherence to Low Smoke Generation (EN61034-2), Halogen Gas Emission (EN60754-1 & -2), and Flame Retardation (EN60332-1-2), use QS-CBL-L52H-500 (less than 152 m [498 ft]).



Lutron logo, Lutron, seeTouch, Quantum, and GRAFIK Eye are trademarks or registered trademarks of Lutron Electronics Co., Inc. in the U.S. and /or other countries.
All other product names, logos, and brands are property of their respective owners.

Job Name:	Model Numbers:	
Job Number:		