Quantum® Select

Light Management Hub (QP3)
QP3-1PL-100-240
120-240 V∼ 50/60 Hz 1 A

Installation Instructions
Please Read Before Installing

Use these instructions to install the model number listed above.

1. Mount Enclosure
- For indoor use only.
- NEMA, Type 1 enclosure, IP20.
- Install in accordance with all national and local electrical codes.
- Maintain at least 5 inches (127 mm) of spacing between installed panel and other equipment.
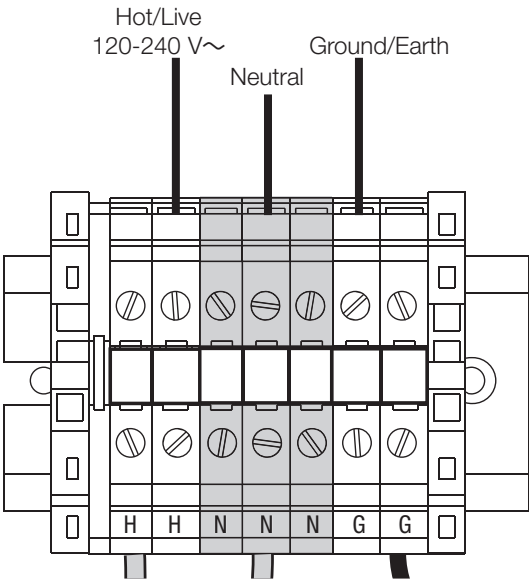
2. Control Power Wiring

⚠ **WARNING! Danger of Shock.** May result in serious injury or death. DO NOT WIRE WHEN LIVE! Switch off power to all power feeds via circuit breaker or isolator before wiring or servicing the Light Management Hub.

- Turn power off.
- Remove metal outer panel cover.
- Remove internal metal line voltage shield.
- Use 14 AWG to 12 AWG (2.5 mm² to 4.0 mm²) conductors (depending on breaker rating) to feed the control power wiring. The device draws less than 1 A.
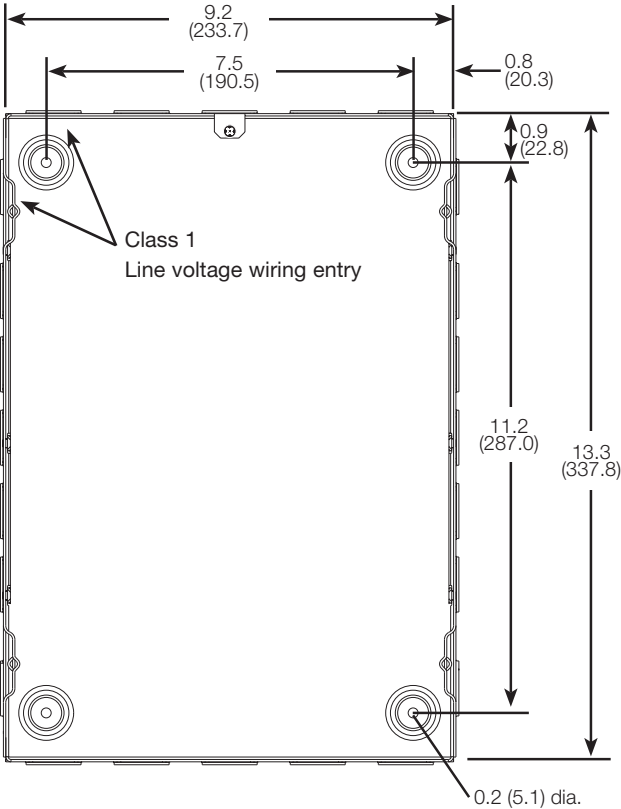
Terminal Assembly

Hot/Live 120-240 V∼
Neutral
Ground/Earth

H H N N N G G

Enclosure Dimensions
Measurements in inches (millimeters)

9.2 (233.7)
7.5 (190.5)
0.8 (20.3)
0.9 (22.8)
11.2 (287.0)
13.3 (337.8)
0.2 (5.1) dia.

Class 1
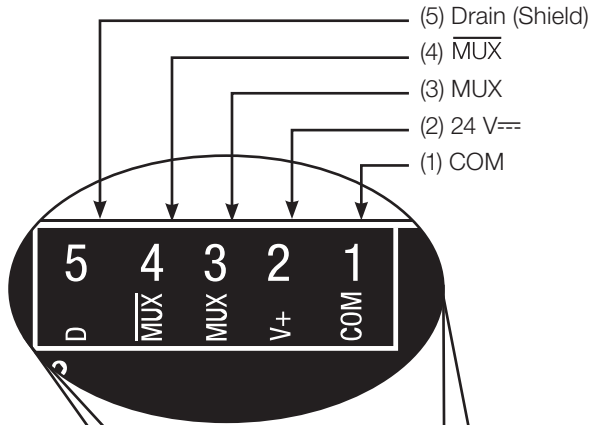Line voltage wiring entry

3. Configurable Link Wiring
- Turn power off.
- Link 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 wiring.
- 22 AWG to 12 AWG (0.5 mm² to 4.0 mm²)
- Up to two 18 AWG (1.0 mm²) wires
- Data (terminals 3 and 4 of each Configurable Link) twisted and shielded pair of 22 AWG (0.5 mm²) wires.
- Strip length: 3/8 in (8.5 mm)
- Torque: 5 in•lb (0.5 N•m)
- Link length not to exceed 2000 ft (609 m) if using 12 AWG (4.0 mm²) wire or 500 ft (152 m) if using 18 AWG (1.0 mm²) wire.
- For more information on wiring the configurable links, please visit www.lutron.com and refer to the Quantum® Light Management Hub (QP3) Specification Submittal (369423).
- For use with Lutron® power panels, install LT-1 link terminator on terminals 3 & 4
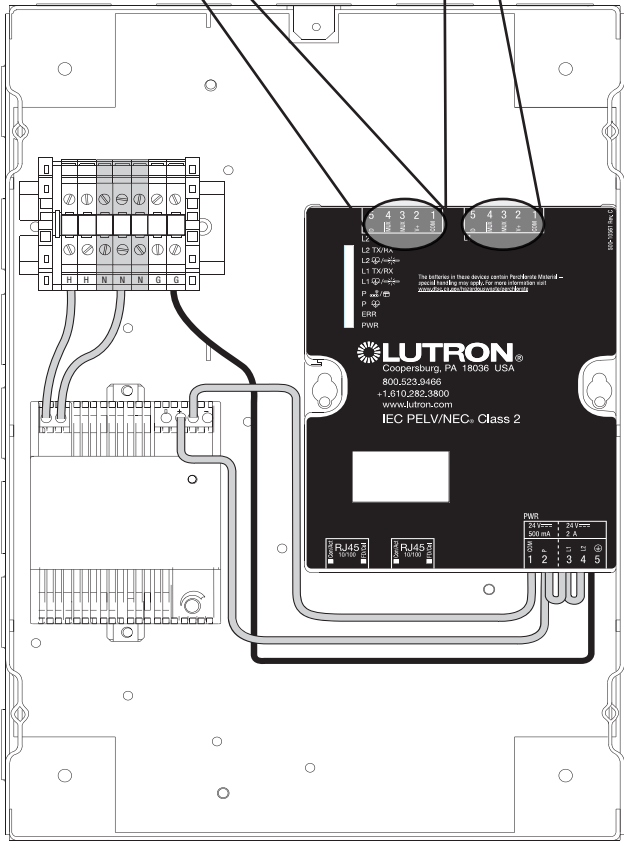
4. Inter-Processor Link Wiring
- Connect Hubs together using Ethernet cable and one of the RJ45 jacks and an external Ethernet switch. DO NOT daisy chain panels together.
- A "wire segment" is a length of cable connecting two devices communicating over Ethernet.
- Ethernet wire segment length not to exceed 300 ft (91 m).
- Hubs cannot be more than 6 "wire segments" from the server.
- For more information on Inter-processor wiring, please visit www.lutron.com and refer to the Quantum® Light Management Hub (QP3) Specification Submittal (369423).
- For more information about connecting a Quantum® System to a corporate or building wide network, please visit www.lutron.com and refer to the Ethernet Network by Others Specification Submittal.
- Replace metal outer panel cover.

Configurable Links

(5) Drain (Shield)
(4) $\overline{MUX}$
(3) MUX
(2) 24 V⎓
(1) COM

5 4 3 2 1
D $\overline{MUX}$ MUX V+ COM

Processor Configuration

5. Activate the System
You have completed your Quantum® system installation. For onsite factory startup, call Lutron® Technical Support and select Startup to schedule a field service visit. Allow for 10 working days between day of call and scheduled visit.

In the U.S., Canada, and the Caribbean: 1.800.523.9466
In Mexico: 888.235.2910
In Europe: +44.207.702.0657

6. Troubleshooting

LED	Normal Operation	Problem Indicator	Probable Cause and Solution
Processor			
L1 TX/RX L2 TX/RX	Flashing Orange	Off or Solid Orange	Link error: Run software diagnostics
L1 ⌂/⇥⇤ L2 ⌂/⇥⇤	Flashing Green (solid green if no links are present)	Solid Red	Link power is shorted or overloaded: After fault is cleared, will flash once per second for 5 seconds to indicate link power has been restored
P ⌨/▱	Flashing Orange (solid orange if no links are present)	Flashing Red	Link error: Run software diagnostics
P ⌂	Flashing Green	Off	Check power supply
ERR	Off	Solid Red for 3 Seconds	Link error: Run software diagnostics
PWR	Solid Green	Off	Check power supply
Power Supply			
Power LED ⎓	On	Off	No power from power supply: Check power feed

Frequently Asked Questions

1. Can I fit more than one hub on a breaker?
   Yes. The hub draws 1 A; do not exceed the capacity of the breaker.
2. Can I mount one hub near another?
   Yes. A Light Management Hub (QP3) many be mounted above, below, or beside another Light Management Hub (QP3). Maintain at least 5 inches (127 mm) of spacing between installed panel and other equipment, and follow NEC® guidelines for minimum conduit bend radii.
3. What else can I mount in the hub?
   No other devices or components may be mounted in the hub.
4. How much heat does the hub generate?
   The Light Management Hub (QP3) generates 240 BTUs/Hour.
5. What does the knob do on the power supply?
   The trim knob can be used to adjust the power supply's output voltage. The hub ships with the output preset to 24 V⎓, but can be adjusted between 22.5-25 V⎓. The output voltage can be verified by using a digital multi-meter to measure the voltage between the + and - terminals on the power supply.
6. How do I tell if the links are shorted?
   The corresponding L1/L2 ⌂/⇥⇤ LED will be lit solid red. Once the short is removed, the link heartbeat LED will return to its normal status (flashing green).
7. How do I tell if the processor is running?
   Normal operation is indicated by the LEDs on the processor. Refer to Section 6 (Troubleshooting) of this install guide for normal LED operation.

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