HOMEWORKS QS

Installation Instructions
Please read before installing

Low-Voltage Enclosure
L-LV14-120 120 V∼
L-LV14-230 220-240 V∼
50/60 Hz 1 A

Use these instructions to install the model numbers listed above.

1. **Remove terminal shield from panel to access mounting hole and wiring input.**

2. **Mount enclosure (surface mount only).**

   Use screws/bolts sufficient for 20 lb (10 kg) load (mounting hardware is not provided).

   NOTICE: Power supply will hum slightly and internal relays will click while in use. Mount in a location where such noise is acceptable.

   NOTICE: This equipment is intended for indoor use only; in a 32 °F to 104 °F (0 °C to 40 °C) setting with a relative humidity less than 90%, non-condensing.

3. **Run power wiring into the enclosure**

   ⚠ **WARNING — Shock Hazard.** Wiring with power on can result in serious injury or death. To avoid the risk of electric shock, locate and lock supply breaker in the OFF position before removing terminal shield.

   NOTICE: All wiring must be installed in accordance with national and local electrical codes.

   Input terminal blocks are located under the terminal shield. Locations to run power wiring into the enclosure are shown in **Figure 1**. Terminal wiring is shown in **Figure 2**. 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. Tighten terminal blocks to 3.5 in·lb to 5 in·lb (0.40 N·m to 0.57 N·m). Do not overtighten.

   For increased system reliability, HomeWorks® QS processors can be powered by an Uninterruptible Power Supply (UPS) that incorporates surge protection, brown-out protection, and battery backup. When selecting a UPS, allow 240 VA of capacity for each processor on the UPS. A single large UPS for all processors is better than an individual UPS for each processor. This prevents inconsistent system operation on battery backup if the individual UPS units power down at different times. The LV14 does not support housing a UPS. Installation of a UPS must be done outside this enclosure.

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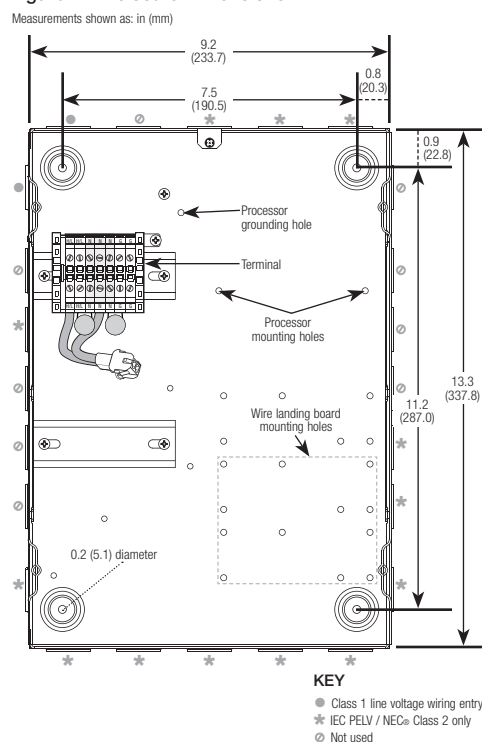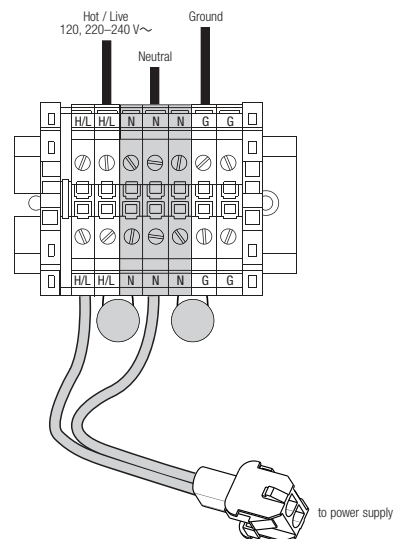---

Figure 1: Enclosure Dimensions
Measurements shown as: in (mm)

KEY
● Class 1 line voltage wiring entry
★ IEC PELV / NEC Class 2 only
⊘ Not used

Figure 2: Terminal Wiring

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4. **Installation configurations**

   Processor configuration (*Figure 3*): Installing a HomeWorks® QS processor. This configuration supports installing one HomeWorks® QS processor, a power supply to supply the processor and link devices, and up to two wire landing boards for wire management. The processor location can also accommodate a low-voltage interface device instead of a processor.

   a. **Install a HomeWorks® QS processor**
      – Install the processor in the location indicated in **Figures 1** and **3** using the screws included with the processor. Use the top row of mounting holes.
      – Torque mounting screws to 12 in·lb (1.4 N·m) max.
      – Ground processor using green wire provided using serrated screw. Screw lug to location shown in **Figure 1**.

   b. **Install power supply.** The LV14 can accommodate one QSPS-DH-1-60 power supply that is used to power the processor and devices wired to the configurable links on the processor.
      – Mount the power supply on the DIN rail assembly in the location shown in **Figure 3** and install end stop.
      – Connect the power cable harness from the Input AC of the power supply to the connector coming out of the terminal shield on the left.
      – Connect the power cable from the output DC of the power supply to the power input of the processor by connecting the black wire to pin 1 (common) and one of the red wires to pin 2 (P – processor power).
      – Connect one or both of the remaining red wires to pins 3 and 4 (L1 and L2) depending on if it is required to power devices on one or both of the links. For more information, refer to the HomeWorks® QS technical specifications guide or the power supply installation instructions.

   NOTICE: Refer to the HomeWorks® QS software to assist in determining the power requirements for each link based on the link type and the number and type of devices on the link.

   NOTICE: Any unused wires on this cable should be capped to avoid accidental shorts.

   c. **Install wire landing boards.** The LV14 can accommodate up to 2 wire landing boards (QS-WLB) to assist in the wire management of link cables running into the enclosure.
      – Refer to **Figures 1** and **3** for installation locations of the wire landing boards.
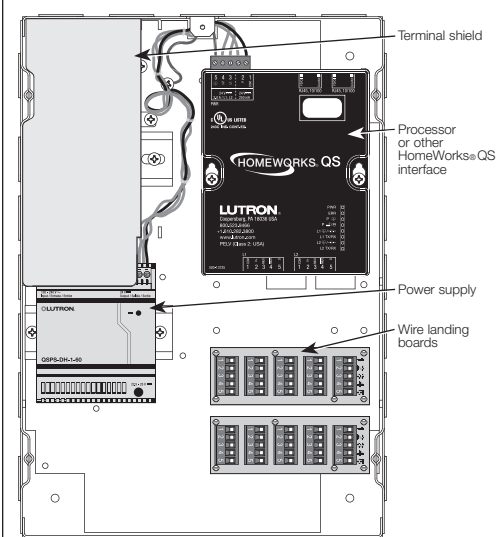   – For further instruction, refer to the QS-WLB installation guide.

   d. **Install interface devices.** The processor location shown in **Figure 3** can also accommodate installation of specific interface devices.
      – Refer to the HomeWorks® QS software to determine which products can be installed in this location.
      – Interface devices are typically powered from the communication link and not directly from the power supplies in the LV14. RF products cannot be installed in the LV14.

5. **Reinstall terminal shield. Note: be careful not to pinch wiring.**

6. **If there are remaining products to be installed in the LV14, leave this instruction sheet in a safe and accessible location.**

Figure 3: Processor Configuration

LUTRON