HomeWorks® QS Processor

The HomeWorks® QS processor provides control and communication to HomeWorks® QS system components.
The Ethernet links allow communication to the HomeWorks® QS software, integration with third party systems and communication between multiple processors. HomeWorks® QS processors may be connected using either standard networking or using ad-hoc networking. All processors on a project must be connected to a single network. The HomeWorks® QS software and all integration equipment must be connected to the same network as the processors.
The processor is powered from the QSPS-DH-1-75 or QSPS-DH-1-60 power supply. Refer to the HomeWorks® QS software to determine link power requirements.
The HomeWorks® QS processor can be installed in a HQ-LV21, L-LV21, L-LV14, or PNL-8 enclosure.

Processor Capabilities

Each HomeWorks® QS processor has 2 links that can be individually configured as one of four types:

- HomeWorks® / HomeWorks® QS Power Panels
  16 interfaces / 256 zones
- HomeWorks® QS Wired Device Link
  99 devices / 512 zones
- HomeWorks® QS RF Link
  99 devices / 100 zones
- HomeWorks® / HomeWorks® QS Wired Dimmers
  4 interfaces / 192 zones

Model Number

HQP6-2  HomeWorks® QS Processor
# HomeWorks® QS Processor

## Specifications

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| **Power**        | Processor (P): 24 V === 250 mA  
|                  | Links (L1 / L2): 24 V === 2 A per link |
| **Typical Power Consumption** | 5 W; 8 Power Draw Units (PDUs)  
|                  | Test conditions: Two Ethernet links connected, both device links in use |
| **Regulatory Approvals** | UL, cUL, CE, CTICK |
| **Environment**  | Indoor use only. 32 °F to 104 °F (0 °C to 40 °C), 0% to 90% humidity, non-condensing |
| **Heat Generated** | 17 BTU/hr — typical  
|                  | (24 BTU/hr with 2 links at 2 A each output) |
| **Cooling Method** | Passive Cooling |
| **Power Failure Memory** | System data stored in non-volatile memory. Timeclock retention for 10 years |
| **Internal Timeclock** | ±1 minute per year |
| **Miswire Protection** | All terminal block inputs are over-voltage and miswire protected against wire reversals and shorts. |
| **Low-Voltage Link Wire Type** | Two pair — one pair 18 AWG (0.75 mm²), one pair 18 to 22 AWG (0.34 to 0.75 mm²) twisted shielded — IEC PELV / NEC® Class 2 cable |
| **Low-Voltage Power Wire Type** | 18 AWG (0.75 mm²) |
| **Communications** | Ethernet, RS485 (QS, RF, Power Panel) |
| **Link Capacities** | HomeWorks®/HomeWorks® QS Power Panels 16 interfaces/256 zones  
|                  | HomeWorks® QS Wired Device Link 99 devices/512 zones  
|                  | HomeWorks® QS RF Link 99 devices/100 zones  
|                  | HomeWorks®/HomeWorks® QS Wired Dimmers 4 interfaces/192 zones |
| **ESD Protection** | Meets or exceeds the IEC 61000-4-2 standard |
| **Surge Protection** | Meets or exceeds ANSI/IEEE C62.41 standard |
| **Mounting** | Mounts in HQ-LV21, L-LV14, L-LV21, or PNL-8 enclosure |
| **Dimensions** | With terminal blocks (as shown): 4.27 in (108 mm) x 6.0 in (152 mm)  
|                  | Without terminal blocks: 4.27 in (108 mm) x 5.26 in (134 mm) |
| **Connections** | Two 5-pin removable terminal blocks* for Links 1 and 2.  
|                  | One 5-pin removable terminal block* for Power Input.  
|                  | Two RJ45 standard Ethernet connections.  
|                  | *Each terminal will accept up to two 18 AWG (0.75 mm²) wires. |

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HomeWorks® QS Processor

Dimensions

Dimensions shown as: in (mm)

**Front View**

- Width: 4.27 (108)
- Height: 5.26 (134)

**Side View**

- Height: 6.0 (152)
- Width: 1.06 (26.9)
HomeWorks® QS Processor

Mounting

- DIN Rail Power Supply (QSPS-DH-1-75 or QSPS-DH-1-60)
- Wire Landing Boards (QS-WLB)

L-LV21/HQ-LV21

(1) Black COM (Common)
(2) Red P (Processor) Power
(3) Red L1 (Link 1) Power
(4) Red L2 (Link 2) Power
(5) Ground

L-LV14
PNL-8

Technical Support: 800.523.9466 (U.S.A.)
+44.(0)20.7680.4481 (Europe)
HomeWorks® QS Processor

Wiring Diagrams — Networking

**Standard Networking:** Connection using an Ethernet hub/switch/router

HQ-LV21 Panel with
2 HomeWorks® QS processors

328 ft (100 m) maximum each run

**Ad-hoc Networking:** Direct Ethernet connection from PC to processors

Up to 5 processors can be daisy-chained
HomeWorks® QS Processor

Wiring Diagrams — Power Panel Link

* Pin 2 does not get connected when using a power panel link.
HomeWorks® QS Processor

Wiring Diagrams — H48 Dimmer Interface

H48 Link
LT-1 Terminal Block

To Processor or next
H48 Dimmer Interface
(max 4 HWI-H48 dimmer
interfaces per link)

Pin 2 should NOT be connected

HomeWorks® Maestro®
wire local controls

Max 8 HomeWorks®
Maestro® wired local
controls per bus

Violet
Gray

One pair 22 AWG (0.5 mm²)
twisted, shielded Class 2 wires
(max home run 500 ft [152.5 m]
per local control, not to exceed
1000 ft [305 m] total per bus)
**HomeWorks® QS Processor**

**Wiring Diagrams — HomeWorks® QS RF Link**

* HomeWorks® QS Hybrid Repeaters can be powered from the Processor link or a wall-mount transformer. If powering from a wall-mount transformer, Pin 2 does not get connected.
HomeWorks® QS Processor

Wiring Diagrams — QS Link

Maximum 2 A combined current draw from processor when powering both links from the same power supply.

Wiring Diagrams — Link Power

More current can be supplied by an additional power supply

Max 2 A per link when using a separate power supply for each link
Wiring Diagrams—QS Wired Device Link
with Shades/Draperies (Controllable Window Solutions)