

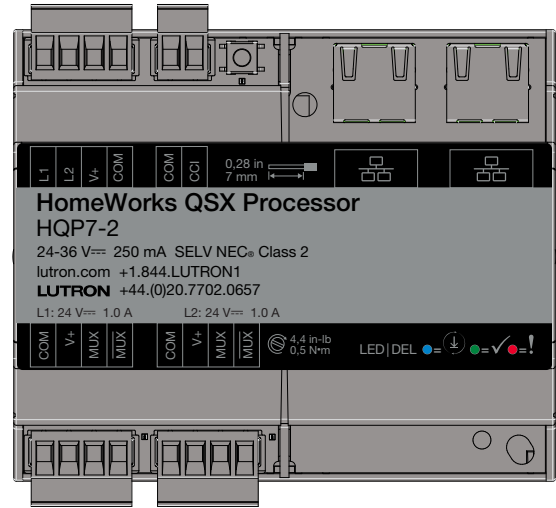
# HomeWorks QSX Processor

The HomeWorks QSX processor<sup>1</sup> provides control and communication to HomeWorks system components.

The Ethernet links allow communication to the HomeWorks designer software, integration with third-party systems and communication between multiple processors. HomeWorks QSX processors may be connected using either an Ethernet hub/switch or router, or by using Ethernet directly from a PC to the processor(s). Clear Connect - Type X Gateways cannot be wired directly to the Ethernet port on a HomeWorks QSX processor. See page 5 for details. All processors on a project must be connected to a single network. The HomeWorks designer software and all integration equipment must be connected to the same network as the processors. The HomeWorks QSX processor is required when using the Clear Connect - Type X Gateway for control of residential Ketra light sources. See Lutron Spec Submittal 3691128 at [www.lutron.com](http://www.lutron.com) for the complete details on Clear Connect - Type X Gateway.

The processor is powered from the QSPS-DH-1-75-H power supply. Refer to the HomeWorks designer software to determine link power requirements.

The QSX processor can be installed in a HQ-LV21, L-LV21, L-LV14, or PDx control panel.



## Processor Capabilities

Each QSX processor has 1 or 2 links (depending on the model number) that can be individually configured as one of two types:

- HomeWorks QS wired device link
- HomeWorks Clear Connect - Type A

## Model Numbers

HQP7-1	HomeWorks QSX 1-link processor <sup>1</sup>
HQP7-2	HomeWorks QSX 2-link processor <sup>1</sup>
HQP7-MDU-1	HomeWorks QSX 1-link MDU processor <sup>1,2</sup>
HQP7-MDU-2	HomeWorks QSX 2-link MDU processor <sup>1,2</sup>

<sup>1</sup> The HomeWorks QSX processor requires Lutron Designer software 16.x or greater to operate.

<sup>2</sup> Only available for multi-dwelling unit projects. Contact your local dealer or Lutron representative for more information.

# HomeWorks QSX Processor

## Specifications

<b>Model Number</b>	HQP7-1; HQP7-2; HQP7-MDU-1; HQP7-MDU-2							
<b>Power</b>	Processor (P): 24–36 V $\overline{=}$ 250 mA Links (L1 / L2): 24–36 V $\overline{=}$ 1 A per link							
<b>Typical Power Consumption</b>	4.2 W; 8 Power Draw Units (PDUs) Test conditions: Two Ethernet links connected, both device links in use							
<b>Regulatory Approvals</b>	cULus Listed, FCC Part 15 Compliant, ICES-003 Compliant, NOM Certified, CE Marked, UKCA Marked, RoHS Compliant							
<b>Environment</b>	Indoor use only. 32 °F to 104 °F (0 °C to 40 °C), 0% to 90% humidity, non-condensing							
<b>Heat Generated</b>	15 BTU/hr — typical							
<b>Cooling Method</b>	Passive Cooling							
<b>Power Failure Memory</b>	System data stored in non-volatile memory. Timeclock retention for 10 years							
<b>Internal Timeclock</b>	±1 minute per year							
<b>Miswire Protection</b>	All terminal block inputs are over-voltage and miswire protected against wire reversals and shorts							
<b>Low-Voltage Link Wire Type</b>	Two pair — one pair 18 AWG (0.75 mm <sup>2</sup> ), one pair 18 to 22 AWG (0.34 to 0.75 mm <sup>2</sup> ) twisted shielded — IEC PELV/SELV/NEC® Class 2 cable							
<b>Low-Voltage Power Wire Type</b>	18 AWG (0.75 mm <sup>2</sup> )							
<b>Communications</b>	Ethernet, RS485 (QS, RF)							
<b>Link Capacities</b>	<table border="0"> <tr> <td>HomeWorks QS Wired Device Link</td> <td>99 devices/512 switch legs</td> </tr> <tr> <td>HomeWorks QS Wired Device (MDU models)</td> <td>50 devices/100 switch legs</td> </tr> <tr> <td>HomeWorks Clear Connect - Type A Link</td> <td>99 devices/100 switch legs</td> </tr> </table> <p>Switch legs are the smallest controllable outputs and include dimmed or switched circuits, HomeWorks Digital or DALI addressable devices (ballasts, drivers, and interfaces), a single DMX channel, contact closure outputs, and Sivoia QS shade drives.</p>		HomeWorks QS Wired Device Link	99 devices/512 switch legs	HomeWorks QS Wired Device (MDU models)	50 devices/100 switch legs	HomeWorks Clear Connect - Type A Link	99 devices/100 switch legs
HomeWorks QS Wired Device Link	99 devices/512 switch legs							
HomeWorks QS Wired Device (MDU models)	50 devices/100 switch legs							
HomeWorks Clear Connect - Type A Link	99 devices/100 switch legs							
<b>ESD Protection</b>	Meets or exceeds the IEC 61000-4-2 standard							
<b>Surge Protection</b>	Meets or exceeds ANSI/IEEE C62.41 standard							
<b>Mounting</b>	Mounts in HQ-LV21, L-LV14, L-LV21, or PDx- control panel							
<b>Dimensions</b>	With terminal blocks: 4.25 in (108 mm) x 3.94 in (100 mm) Without terminal blocks: 4.25 in (108 mm) x 3.54 in (90 mm)							
<b>Connections</b>	4-pin removable terminal blocks. 1 for HQP7-1, 2 for HQP7-2. One 4-pin removable terminal block* for Power Input. Two RJ45 standard Ethernet connections. *Each terminal will accept up to two 18 AWG (0.75 mm <sup>2</sup> ) wires.							
<b>Limited Warranty</b>	www.lutron.com/warranty or call 1.844.LUTRON1 (U.S.A./Canada) or +1.610.282.3800 (Others) for a printed copy							

## HomeWorks QSX Processor

### HomeWorks QSX System Security Statement

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Lutron takes cybersecurity very seriously. We actively monitor the threat landscape and take a proactive approach to security and privacy, continuously working to update and enhance our systems and processes.

At Lutron, we call our approach to cybersecurity “**Secure Lifecycle**”, and we would like to present the following steps we take to protect your security and privacy:

- **Security by Design.** When building a new system, Lutron utilizes a dedicated security team to ensure best practices are implemented. Security is built in. It is not an afterthought or an add-on.
- **Third-Party Validation.** Security is complicated. Lutron has a dedicated team of internal experts, but we also leverage external experts to double-check our work, and to make security recommendations.
- **Continuous Monitoring and Improvements.** Security is a constantly moving target. Lutron uses a dedicated security team to continuously monitor for potential threats and, when needed, send out security patches to update installed systems.
- **Ongoing Support.** Lutron has the resources you need to answer questions about security when they arise.

We incorporate a variety of security features into our product designs. These features include recommendations from the National Institute of Standards and Technology (NIST) among others, and they are aimed at meeting our secure lifecycle protections. While we do not publish a comprehensive list of our security features, the following list is a small example of some of the techniques employed in our system designs for HomeWorks QSX processors, Clear Connect Gateway – Type X devices and associated services (such as mobile applications and cloud resources):

1. Secure and authenticated remote access with unique keys for every HomeWorks QSX system.
2. A secure hardware element (“chip”) on all HomeWorks QSX processors and Clear Connect Gateway – Type X to guard the keys used for secure communication and authentication.
3. Enforcing industry-standard encrypted communication and techniques for our integration protocols to the highest extent possible. Any integrated third-party components or systems should be evaluated independently.
4. Secure commissioning – all communication between the system programming software tool/app and the processors is encrypted and authenticated. Programming a system requires permission to access that system.
5. Security updates are pushed out automatically to the lighting system for urgent security patches. Lutron is committed to one year of security support from system start-up date.
6. Use of industry-standard techniques for cloud-based integrations, such as OAuth2.0.
7. Signed processor firmware to ensure a firmware update is authentically from Lutron.

If you have additional questions or would like to make a vulnerability disclosure to Lutron, please contact Lutron’s 24/7 Technical support line at 1.844.LUTRON1 or email us at [support@lutron.com](mailto:support@lutron.com)

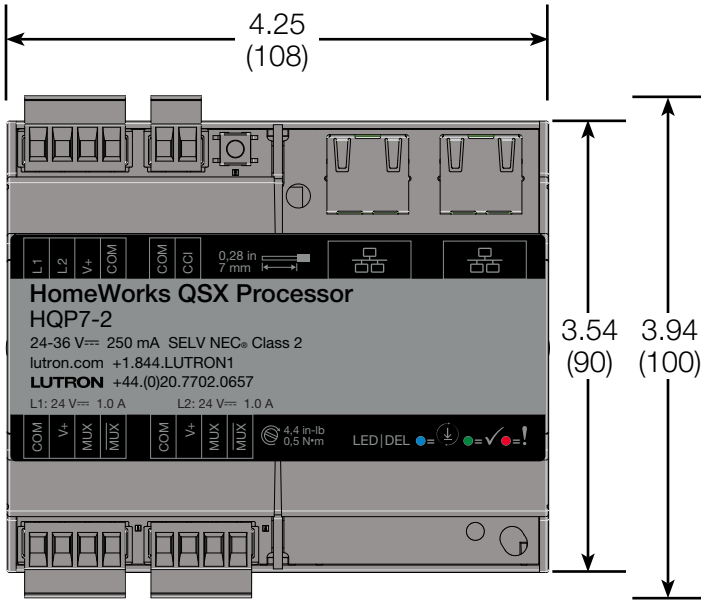
SOC2 report available upon request.

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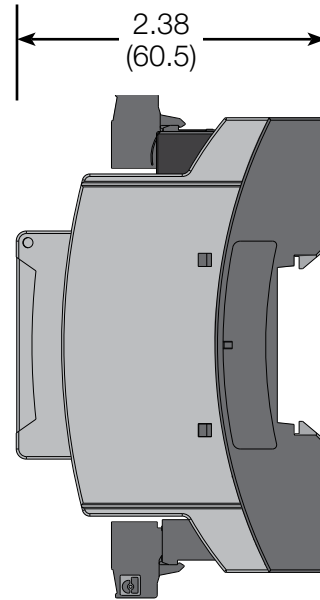
## Dimensions

Dimensions shown as: in (mm)

### Front View

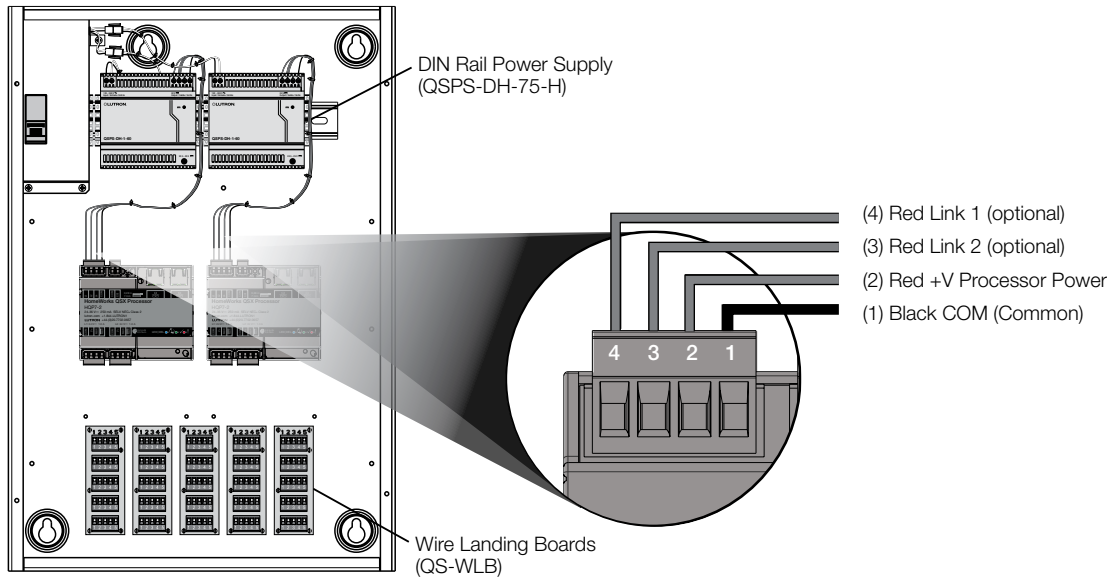


### Side View

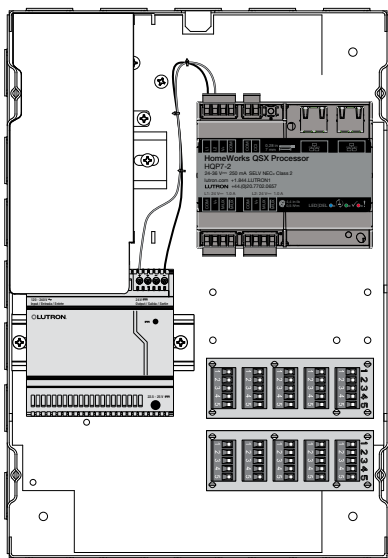


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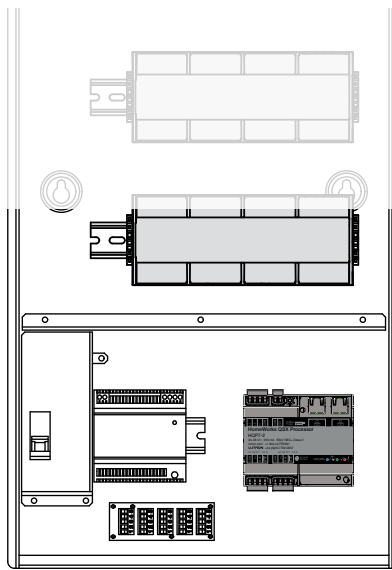
## Mounting



L-LV21/HQ-LV21



L-LV14

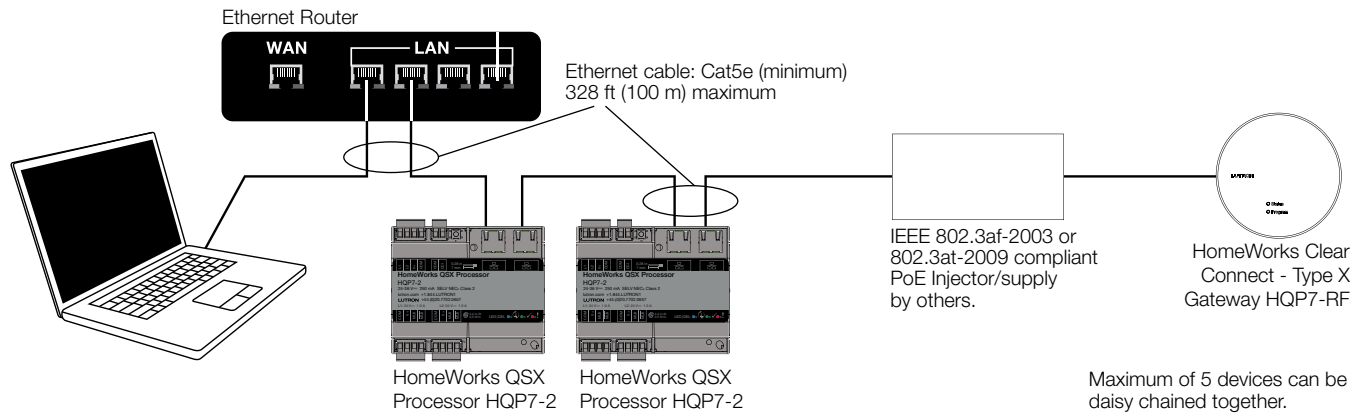
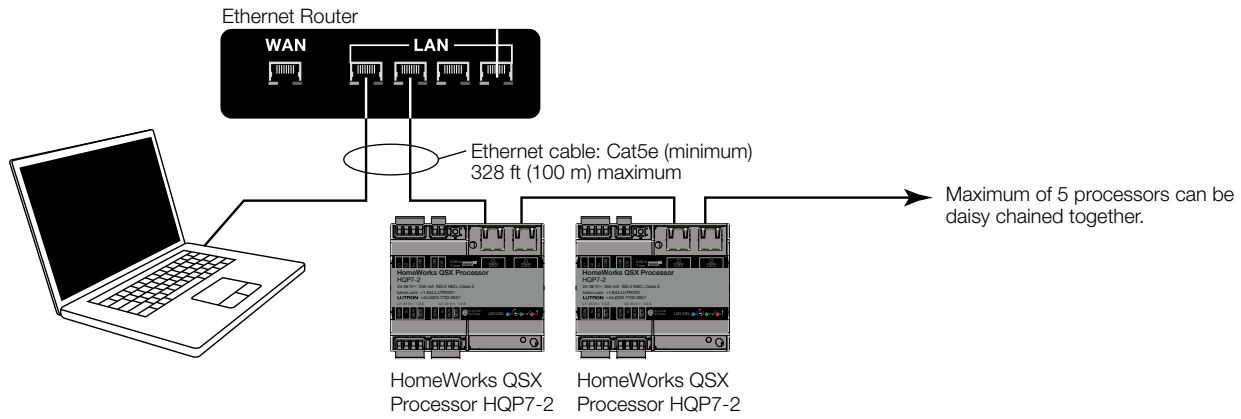


PDx- Control Panel

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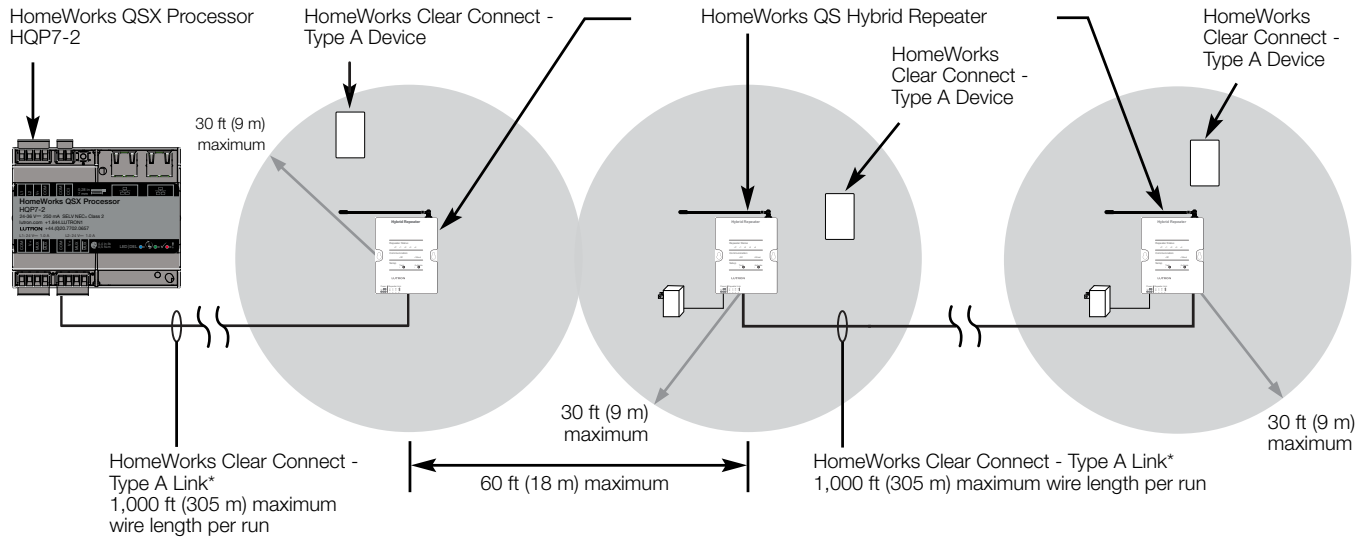
## Wiring Diagrams – Networking

### Connection using an Ethernet hub/switch/router



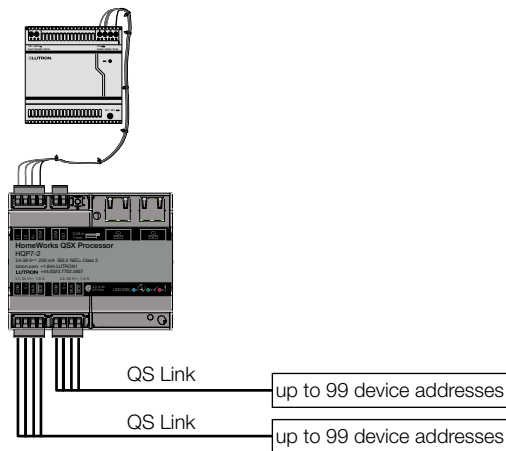
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## Wiring Diagrams – HomeWorks Clear Connect - Type A



\* HomeWorks 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.

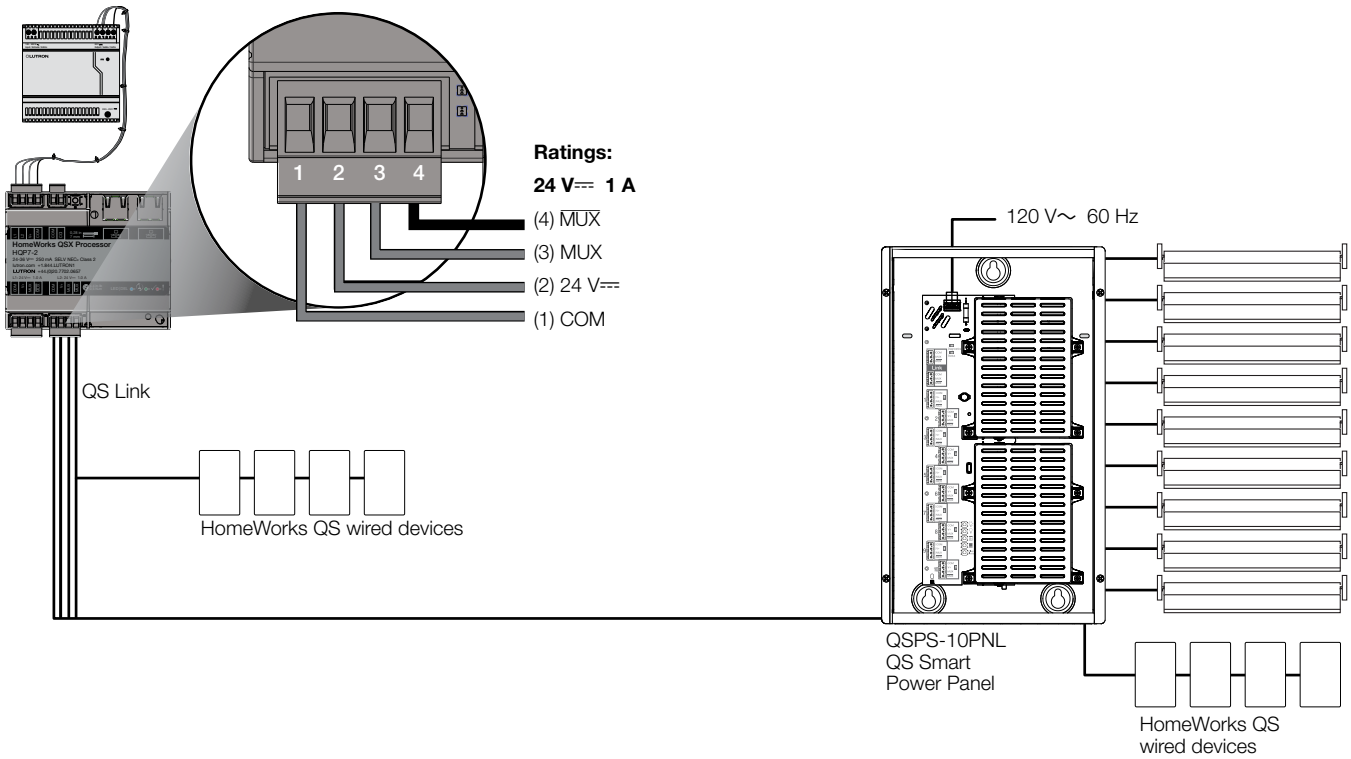
## Wiring Diagrams – QS Wired Device Link



Maximum 1 A current draw per link when powering both links from the same power supply.

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## Wiring Diagrams – QS Wired Device Link with Shades / Draperies (Controllable Window Solutions)



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