

## 10-Output Configurable Smart Panel

The 10-Output Configurable Smart Panel simplifies wiring and organizes installations with multiple Sivoia QS window treatments and other system devices and interfaces.

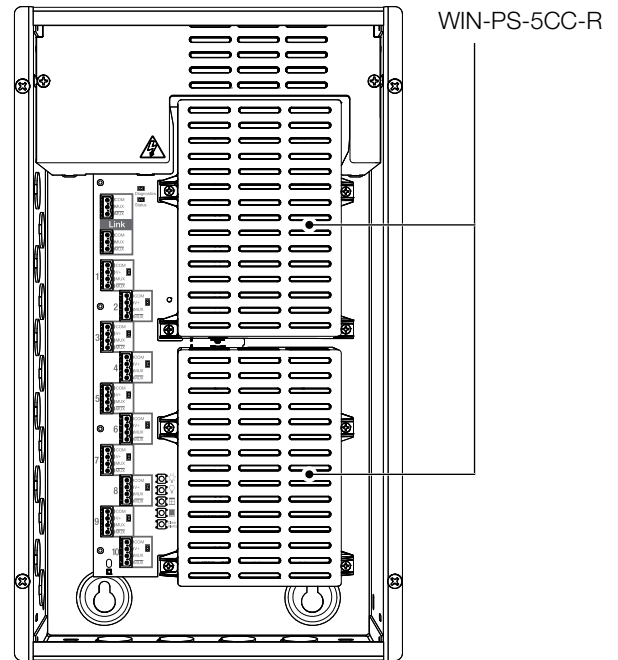
The 10-Output Configurable Smart Panel is designed to be hardwired into a standard 120-240 V~ circuit. The enclosure is plug-in ready for two 5-output power modules (sold separately). When populated with two power modules, the panel provides ten NEC® Class 2/PELV outputs that provide power and communication to connected devices.

### Features

- Plug-in ready for up to two 5-output power supply modules, model WIN-PS-5CC-R (sold separately)
- Ten NEC® Class 2/PELV outputs (when populated with two 5-output power supply modules, model WIN-PS-5CC-R), capable of operating Lutron Sivoia QS shades, drapery drive units, keypads & accessories
- No replaceable fuses required for overload/miswire protection
- Simple wiring topology to connect QS communication between shades and other system components
- Smart diagnostics verify system communication and reduce installation time
- Easy system testing with manual override buttons for shades and lighting

### Models

- QSPS-10PNL-NPM:  
18 in (457 mm) high enclosure;  
NPM = No Power Modules  
(unit ships with empty module placeholders mounted)
- WIN-PS-5CC-R: (sold separately)  
(1) Plug-in ready Power module with 5 outputs which are compliant with U.S. Department of Energy Efficiency Level VI
- WIN-PS-5CC-BLK12: (sold separately)  
Pack of (12) WIN-PS-5CC-R



Model QSPS-10PNL with (2) power modules (WIN-PS-5CC-R) installed

Job Name:

Model Numbers:

Job Number:

## Specifications

### Power

- Input: 120-240 V~ 50/60 Hz 10 A
- Output (with WIN-PS-5CC-R installed):
  - Each output: 35 V=== 143 mA 5 W
  - Each output is capable of powering one Sivoia QS shade or drapery drive unit, OR up to 8 QS PDUs; see [Wiring Rules](#)

### Input Wiring

- 14 AWG-10 AWG (2.5 mm<sup>2</sup>-4.0 mm<sup>2</sup>) single wire, solid or stranded
- Torque terminal screws to: 5 in-lbs (0.5 N•m)
- Strip length: 5/16 in (8 mm)
- Maximum 1 panel per 15 A circuit breaker (limiting factor is inrush current; in some countries, a 16 A circuit breaker will be suitable)
- Maximum 2 panels per 20 A circuit breaker (limiting factor is inrush current)

### Output Terminal Wiring

- 22 AWG-12 AWG (0.5 mm<sup>2</sup>-4.0 mm<sup>2</sup>) single wire, solid or stranded (wire gauge affects allowable length of run; see [Wiring Rules](#))
- Torque terminal screws to: 5 in-lbs (0.5 N•m)
- Strip length: 1/4 in (6 mm)
- Ten (10) output terminal blocks for shade power/communication (4-conductor)
- Two (2) link terminal blocks for communication pass-through (3-conductor)

### Regulatory Approvals

- cULus Listed
- IEC Compliant (CE Marked)
- NOM Certified
- Contains U.S. Department of Energy Level VI compliant power supplies
- RoHS Compliant
- FCC Part 15 Subpart B Class B
- ICES 003 Class B

### Environment

- Ambient Temperature Operating Range: 32 °F to 104 °F (0 °C to 40 °C)
- Relative humidity: 0% to 90% non-condensing
- For indoor use only
- Thermal dissipation (with WIN-PS-5CC-R module installed)
  - with 1 window treatment and keypad per output: 20 BTU / hr
  - with load of 5 W per output: 52 BTU / hr
- Can be installed in accordance with NEC® Article 300.22(c) “Other spaces used for environmental air.”

### Performance

- +/- 6 kV surge protection (ANSI/IEEE C62.41 - 1991)
- +/- 16 kV ESD protection (EIC 61000-4-2 air discharge)
- Self-recoverable short circuit/miswire protection on power output terminals per output
- Self-recoverable overload/over temperature protection per output

### Warranty

- Covered by Lutron Shading Solutions standard warranty; see: [www.lutron.com/TechnicalDocumentLibrary/Window\\_Systems\\_Warranty.pdf](http://www.lutron.com/TechnicalDocumentLibrary/Window_Systems_Warranty.pdf)

## LUTRON SPECIFICATION SUBMITTAL

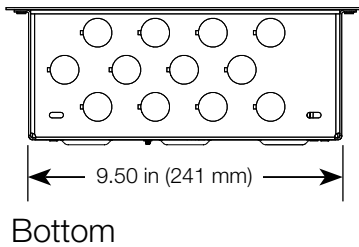
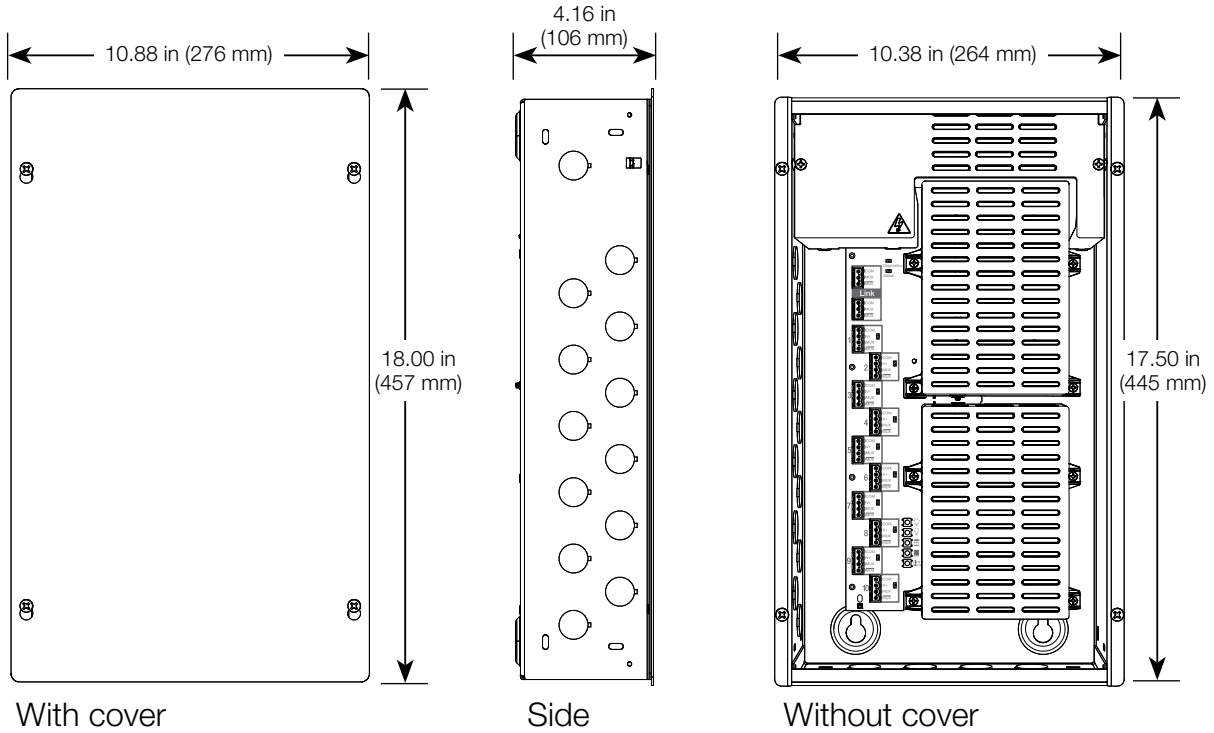
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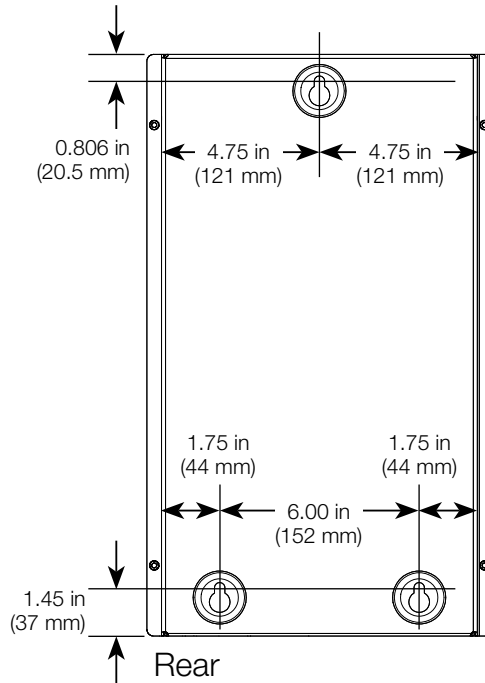
### Mounting

- Weight: 15 lb (6.8 kg)
- May be surface mounted or recess mounted at a location within allowable distance to powered devices, limited by wire gauge used; see the section titled: [Wiring Rules](#)

### Dimensions



All knockouts:  
 Ø 7/8 in (22 mm)



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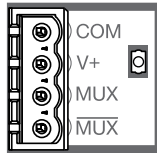
## Wiring Rules

### Link Terminals:



- All wiring is NEC® Class 2/PELV. Follow all applicable local and national codes for proper circuit separation and protection.
- COM: 12 - 18 AWG (4.0-1.0 mm<sup>2</sup>)
- MUX and  $\overline{\text{MUX}}$ : 22 AWG (0.5 mm<sup>2</sup>) twisted/shielded pair
- Total length of wiring on communication link must not exceed 2000 ft (610 m)
- Maximum of 100 devices in each Sivoia QS system (panel outputs and link pass-through combined; each QSPS-10PNL counts as 1 of the 100 devices)

**NOTE:** The 3-pin link terminals must be used when interconnecting multiple Smart Enclosures. Smart Enclosures cannot be interconnected using the 4-pin output terminals.



### Output Terminals:

- All wiring is NEC® Class 2/PELV. Follow all applicable local and national codes for proper circuit separation and protection.
- V+ and COM: 12 - 18 AWG (4.0-1.0 mm<sup>2</sup>)
- MUX and  $\overline{\text{MUX}}$ : 22 AWG (0.5 mm<sup>2</sup>) twisted/shielded pair
- Power (V+) terminals must NEVER be connected between outputs

Maximum devices powered per output			Maximum total length of wiring based on wire gauge		
Shades	+	Devices	12 AWG (4.0 mm <sup>2</sup> )	16 AWG (1.5 mm <sup>2</sup> )	18 AWG (1.0 mm <sup>2</sup> )
None	+	Up to 8 PDUs*	2000 ft (610 m)	1000 ft (305 m)	600 ft (183 m)
Any 1 shade/drapery drive unit	+	Up to 1 PDU*	500 ft (152 m)**	200 ft (61 m)	125 ft (38 m)
2 Palladiom, ≤ 30 sq ft (2.75 sq m) each	+	Up to 1 PDU*	N/A**	75 ft (23 m)	50 ft (15 m)
3 Palladiom, ≤ 20 sq ft (1.8 sq m) each	+	Up to 1 PDU*	N/A**	75 ft (23 m)	50 ft (15 m)
2 Sivoia QS roller 64, ≤ 30 sq ft (2.75 sq m) each	+	Up to 1 PDU*	200 ft (61 m)	75 ft (23 m)	50 ft (15 m)
3 Sivoia QS roller 64, ≤ 20 sq ft (1.8 sq m) each	+	Up to 1 PDU*	200 ft (61 m)	75 ft (23 m)	50 ft (15 m)
2 Sivoia QS roller 100, ≤ 50 sq ft (4.6 sq m) each	+	Up to 1 PDU*	200 ft (61 m)	75 ft (23 m)	50 ft (15 m)

\*PDU = Power Draw Unit. For more information, refer to the QS Link Power Draw Unit Specification Submittal (P/N [369405](#)).

\*\*The connector supplied with Palladiom shades is not sized to accept 12 AWG wire.

### Options available from Lutron with power and communication conductors in one cable:

Gauge	Lutron Model Number	
	Standard	For Plenum Installation
12 AWG (4.0 mm <sup>2</sup> )	QSH-CBL-L-500	QSH-CBLP-L-500
16 AWG (1.5 mm <sup>2</sup> )	QSH-CBL-M-500	QSH-CBLP-M-500
18 AWG (1.0 mm <sup>2</sup> )	GRX-CBL-346S-500	

## LUTRON SPECIFICATION SUBMITTAL

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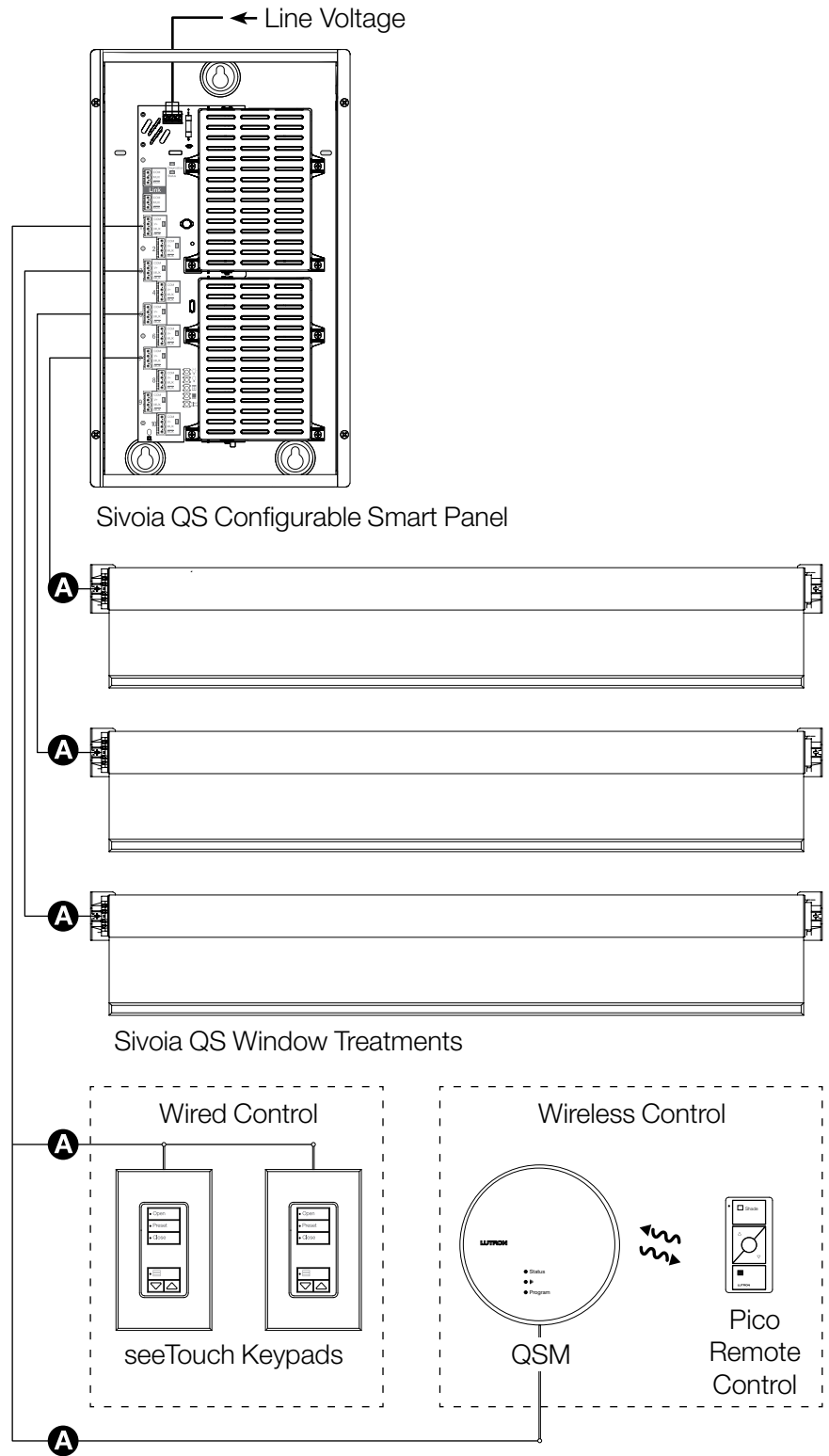
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# Application Example

## Standalone System

### A Power and communication link (4 conductor)

Provides power and communication to QS shades and/or keypads



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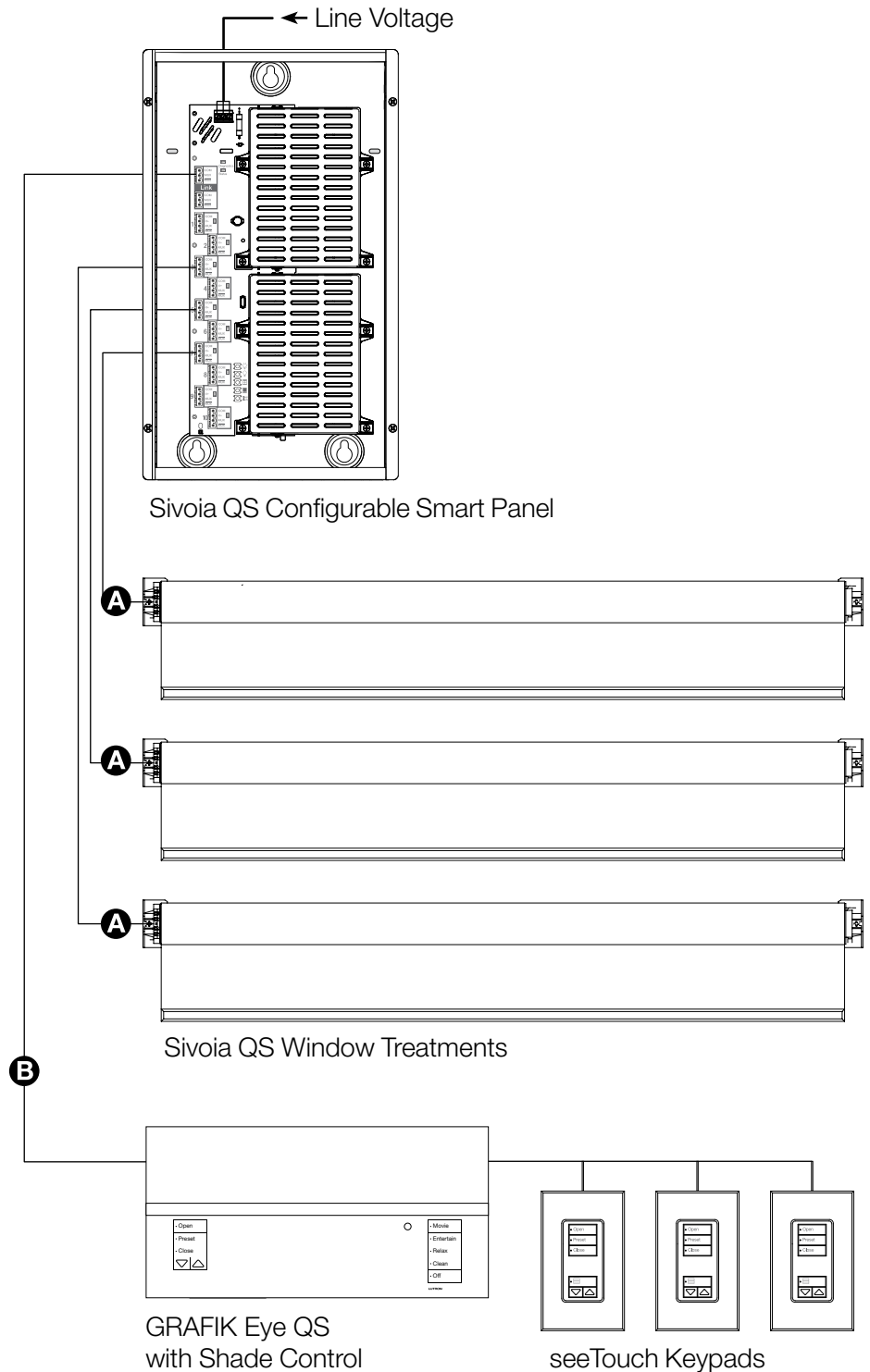
# Application Example GRAFIK Eye QS System

## A Power and communication link (4 conductor)

Provides power and communication to QS shades and/or keypads

## B Communication link (3 conductor)

Used as a communications pass-through connection for QS Link devices



Job Name:	Model Numbers:
Job Number:	

## Application Example

### Linking Multiple Smart Panels in Large Systems (Quantum, HomeWorks QS)

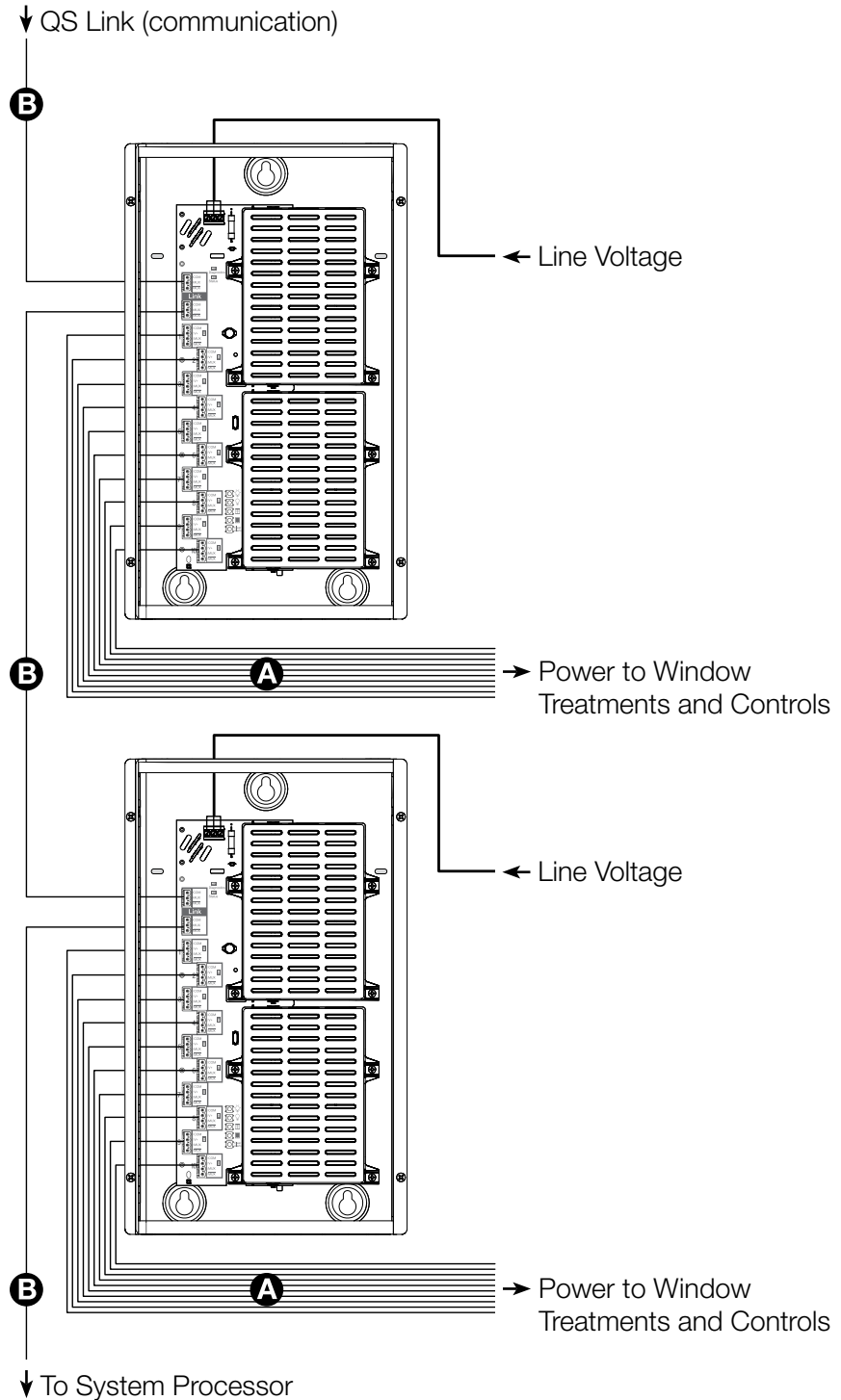
**A Power and communication link (4 conductor)**

Provides power and communication to QS shades and/or keypads

**B Communication link (3 conductor)**

Used as a communications pass-through connection for QS Link devices

**NOTE:** The 3-pin link terminals must be used when interconnecting multiple Smart Panels. Smart Panels cannot be interconnected using the 4-pin output terminals.



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