

Sivoia QS | roller 100

The Sivoia QS roller 100 shade utilizes the ultra-quiet, precision controlled Electronic Drive Unit (EDU). The Sivoia QS EDU is housed inside the roller shade assembly and controls the movement of the shade, keeps track of the shade's position, and adjusts the shade to the user's desired preset positions.

Features

- Ultra-quiet operation: will not exceed 38 dBA measured 3 ft (1 m) from the EDU.
- Shades move in perfect unison and exact alignment within 0.125 in (3 mm) accuracy at all times.
- Smooth, silent starts, and stops
- Offers programmable stop points. The EDU tracks the position of the shade and is able to adjust it to predetermined locations at the touch of a button.
- Provides maximum window coverage with the smallest possible light gaps, 0.75 in (19 mm) between the shade fabric and the outside edges of the shade brackets. Light gaps are symmetrical on both sides of shade.
- Easy-to-read and easy-to-use controls.
- Does not require group controls or relay systems to create shade groups and sub-groups.
- 24 V $\overline{\text{---}}$ low-voltage power.
- Power failure memory for the lifetime of the product.
- 8 year limited warranty.



Sivoia QS roller 100 shade

Specifications

Power

- Operating voltage: Low-voltage Class 2, 24 V $\overline{=}$ power supply required.
- Control system power supply offers (spike and brownout) overvoltage protection (+/- 10% of line voltage) for all devices in the system.
- Power supply provides appropriate Electro Static Discharge (ESD) protection for all devices in the system.
- Power must be derived from a Lutron approved NEC Class 2 power source.

System Capacity

- System allows for a total of 100 devices, such as a Sivoia QS shade, a seeTouch® QS keypad, a GRAFIK Eye® QS, and QS power supplies.
- System allows for a total of 100 zones, including Sivoia QS shades and GRAFIK Eye QS.
- Maximum size of shade fabric per EDU is 100 sq ft (10 sq m).

Performance

- System allows for symmetrical light gaps as small as 0.75 in (19 mm) on each side.
- Each EDU stores presets positioned at any stop point along the shade's travel, as well as full open and full close shade limits.
- Each EDU is capable of stopping with the accuracy of 0.125 in (3 mm) steps for the entire travel of the shade.
- Preset points can be located at any point between the open/close limits and are adjustable with a 5 second button push and hold from the seeTouch QS keypads or GRAFIK Eye QS.

- For systems with multiple EDUs, shades smoothly move in unison and exact alignment within 0.125 in (3 mm) accuracy at all times.
- Limits are programmable and adjustable from the EDUs, wall-mounted seeTouch QS keypads and/or GRAFIK Eye QS.

Grouping

- System keypads can control any EDU, group, or subgroup without a separate group controller or additional interface.
- System groups and subgroups can be reconfigured at the point of control without rewiring and without access to the EDU.
- Controls within this system are able to operate any group or subgroup of EDUs, regardless of window treatment type.

Integration

- EDUs seamlessly integrate with Lutron lighting control, GRAFIK Eye QS, without a separate interface.
- Contact closure, R232, and ethernet available to integrate with A/V equipment such as time clocks and security systems.

Controls

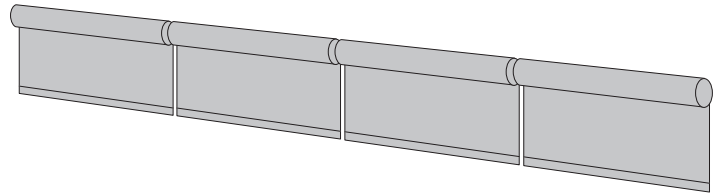
- Sivoia QS shades can be controlled by built-in shade columns on a GRAFIK Eye QS, or by seeTouch QS keypads.
- seeTouch QS keypads are low voltage
- Microprocessors are contained in the EDU, GRAFIK Eye QS, and seeTouch QS keypads, allowing high level programming from either source.
- All Sivoia QS shades, GRAFIK Eye QS and seeTouch QS keypads are wired together on the same communications link.

Sivoia QS | Roller 300 LIFT

The Sivoia QS Roller 300 LIFT system utilizes the precision controlled Electronic Drive Unit (EDU). The Sivoia QS EDU is housed inside the roller shade assembly and controls the movement of the shades, keeps track of the shades' position, and adjusts the shades to the user's desired preset positions.

Features

- Operation: will not exceed 50 dBA measured 3 ft (1 m) from the EDU
- Shades move in perfect unison and exact alignment within 0.125 in (3 mm) accuracy at all times
- Smooth starts and stops
- Lutron Intelligent Facade Technology (LIFT) allows up to 6 coupled shade panels to be controlled from a single EDU
- Maximum 300 sq ft of fabric at a linear speed of 3.6 inches/second
- Offers programmable stop points. The EDU tracks the position of the shade and is able to adjust it to predetermined locations at the touch of a button
- Provides maximum window coverage with the smallest possible light gaps, 0.75 in (19 mm) between the shade fabric and the window frame and 1.5 in (38 mm) between coupled shades. Light gaps are symmetrical on both sides of shade
- Easy-to-read and easy-to-use controls are immediately understood
- Does not require group controls or relay systems to create shade groups and sub-groups
- 24 V $\overline{=}$ low-voltage power
- Power failure memory for the lifetime of the product
- 8 year limited warranty



Sivoia QS Roller 300 LIFT
(In-Line Coupled mount shown)

Specifications

Power

- Operating voltage: Low-voltage Class 2, 24 V $\overline{=}$ power supply required
- Control system power supply offers (spike and brownout) overvoltage protection (+/- 10% of line voltage) for all devices in the system
- Power supply provides appropriate Electro Static Discharge (ESD) protection for all devices in the system
- Power must be derived from a Lutron approved NEC Class 2 powersource

System Capacity

- System allows for a total of 100 devices, such as a Sivoia QS shade, a seeTouch® QS keypad, a GRAFIK Eye® QS, and QS power supplies
- System allows for a total of 100 zones, including Sivoia QS shades and GRAFIK Eye QS
- Maximum size of shade fabric per EDU is 300 sq ft (28 sq m)

Performance

- System allows for symmetrical light gaps as small as 0.75 in (19 mm) on each side
- Each EDU stores presets positioned at any stop point along the shade's travel, as well as full open and full close shade limits
- Each EDU is capable of stopping with the accuracy of 0.125 in (3 mm) steps for the entire travel of the shade
- Preset points can be located at any point between the open/close limits and are adjustable with a 5 second button push and hold from the seeTouch QS keypads or GRAFIK Eye® QS

- For systems with multiple EDUs, shades smoothly move in unison and exact alignment within 0.125 in (3 mm) accuracy at all times
- Limits are programmable and adjustable from the EDUs, wall-mounted seeTouch QS keypads and/or GRAFIK Eye QS

Grouping

- System keypads can control any EDU, group, or subgroup without a separate group controller or additional interface
- System groups and subgroups can be reconfigured at the point of control without rewiring and without access to the EDU
- Controls within this system are able to operate any group or subgroup of EDUs, regardless of window treatment type

Integration

- EDUs seamlessly integrate with Lutron lighting control, GRAFIK Eye QS, without a separate interface
- Contact closure, R232, and ethernet available to integrate with A/V equipment such as timeclocks and security systems

Controls

- Sivoia QS shades can be controlled by built-in shade columns on a GRAFIK Eye QS, or by seeTouch QS keypads
- seeTouch QS keypads are low voltage
- Microprocessors are contained in the EDU, GRAFIK Eye QS, and seeTouch QS keypads, allowing high level programming from either source
- All Sivoia QS shades, GRAFIK Eye QS and seeTouch QS keypads are wired together on the same communications link

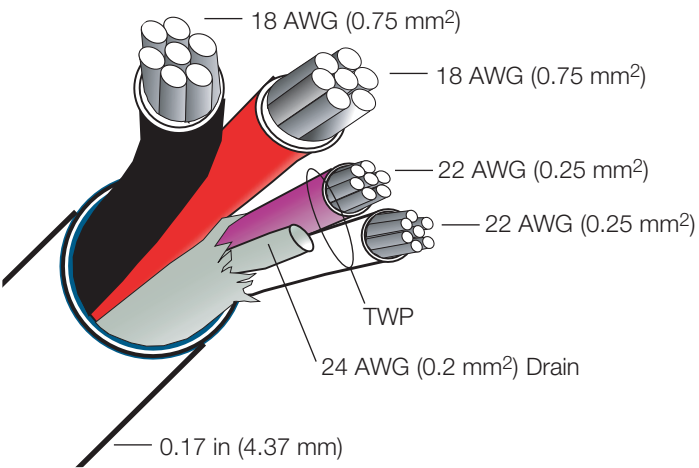
GRX-PCBL-346S Cable

Plenum rated cable for use with the following Lutron systems:

- GRAFIK Eye® 3000
- GRAFIK Eye® QS
- Energi Savr Node™
- Plenum rated for use in ceilings and enclosures that are also used by the building air distribution system to transport environmental air.

Specifications

- Listed as type CL3P (Class 3 Plenum Cable) or CMP cULus.
- Available in 500 ft (150 m) spool.
- Five conductors:
 - Common – 18 AWG (0.75 mm²)
 - Power – 18 AWG (0.75 mm²)
 - MUX Data – 22 AWG (0.25 mm²)
 - MUX Data – 22 AWG (0.25 mm²) } Twisted wire pair
 - Drain Wire – 24 AWG (0.2 mm²)
- Total Outer Jacket Diameter: 0.17 in (4.37 mm).
- 300 V Rated.
- Plenum sheath, 75 °C rated.
- UL Listed.
- Rated FT6.
- cULus or CSA Listed.
- Capacitance of 22 AWG (0.25 mm²) Twisted Wire Pair:
 - Conductor to shield: 48 pf/ft max
 - Conductor to Conductor: 25 pf/ft max



* Please refer to the Product Specification Submittal Sheets or Product Installation Guides for control link wiring distance maximums and other limitations.

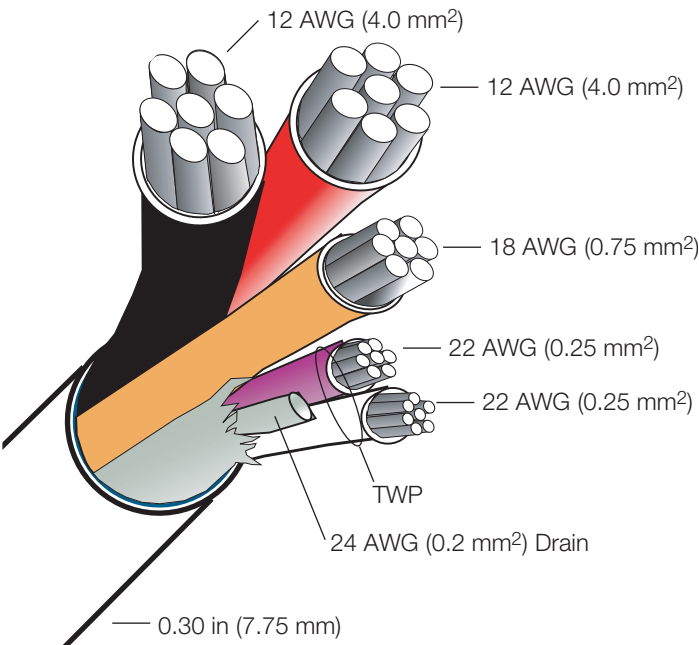
GRX-PCBL-46L Cable

Plenum rated cable for use with the following Lutron systems:

- GRAFIK Eye® 4000
 - LCP128™
 - Softswitch128®
 - GRAFIK 5000™
 - GRAFIK 6000®
 - GRAFIK 7000™
 - Quantum®
 - HomeWorks Interactive™
 - HomeWorks® QS
 - Energi Savr Node™
- Plenum rated for use in ceilings and enclosures that are also used by the building air distribution system to transport environmental air.

Specifications

- Listed as type CL3P (Class 3 Plenum Cable) or CMP cULus.
- Available in 250 ft (75 m) or 500 ft (150 m) spools.
- Six conductors:
 - Common – 12 AWG (4.0 mm²)
 - Power – 12 AWG (4.0 mm²)
 - MUX Data – 22 AWG (0.25 mm²)
 - MUX Data – 22 AWG (0.25 mm²) } Twisted wire pair
 - Sense Line – 18 AWG (0.75 mm²)
 - Drain Wire – 24 AWG (0.2 mm²)
- Total Outer Jacket Diameter: 0.30 in (7.75 mm).
- 300 V Rated.
- Plenum sheath, 75 °C rated.
- UL Listed.
- Rated FT6.
- cULus or CSA Listed.
- Capacitance of 22 AWG (0.25 mm²) Twisted Wire Pair:
 - Conductor to shield: 48 pf/ft max
 - Conductor to Conductor: 25 pf/ft max



* Please refer to the Product Specification Submittal Sheets or Product Installation Guides for control link wiring distance maximums and other limitations.

QS Link Rules

The following Link rules must be observed for proper operation.

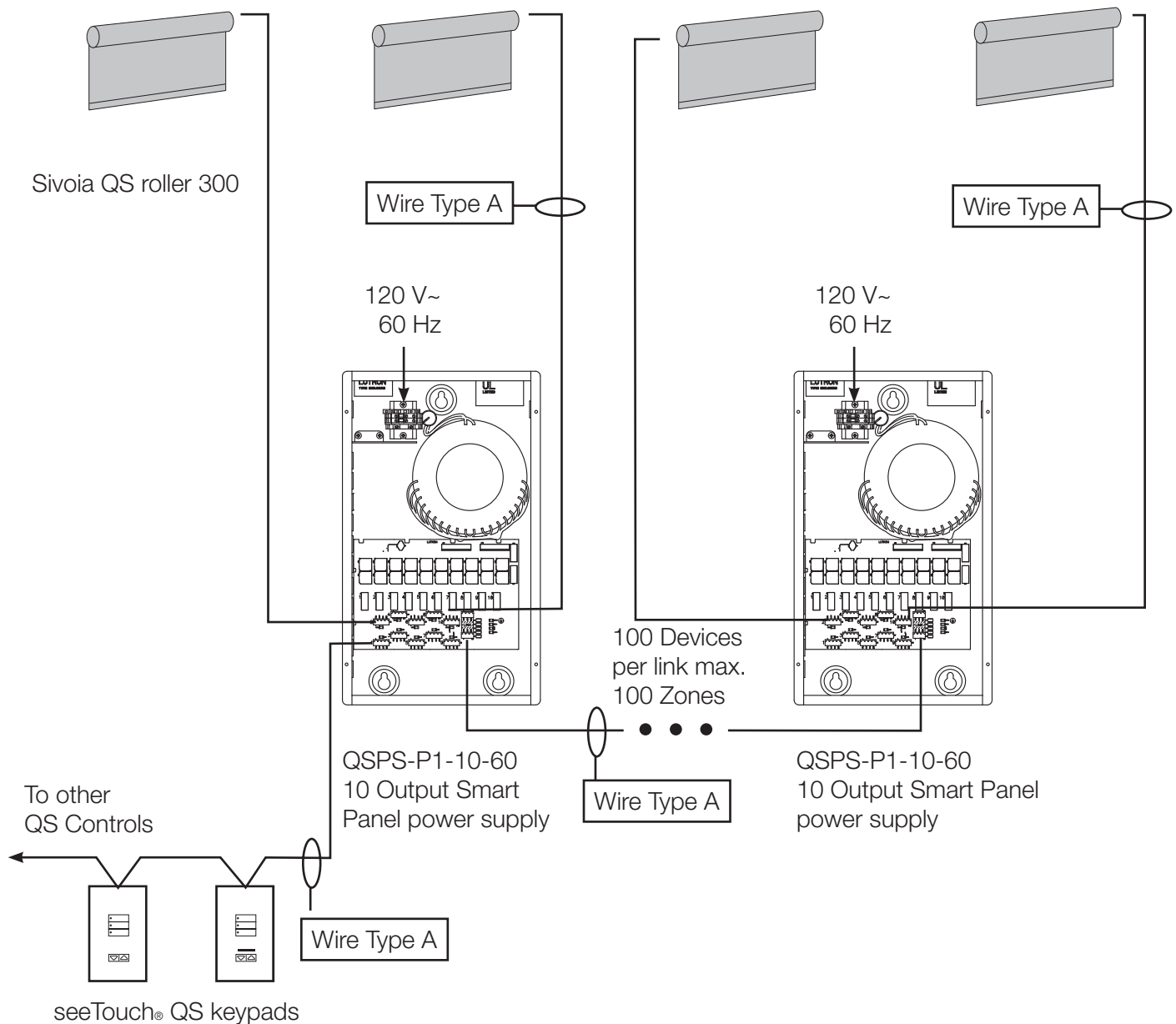
- Maximum of 100 devices (such as a GRAFIK Eye® QS, seeTouch® QS keypad, smart panel power supply [QSPS-P1-10-60], or Sivoia® QS shade)
- Maximum of 100 zones - such as a Sivoia QS shade, or a lighting zone on a GRAFIK Eye QS
- Maximum 2000 ft (600 m) of cable connecting all QSPS-P1-10-60 panels
- Maximum 2000 ft (600 m) of cable to devices wired to each QSPS-P1-10-60
- Only use cable with at least one twisted/shielded pair for communications (MUX and $\overline{\text{MUX}}$)

QS Smart Panel Power Supply Wiring Guide

Wiring Guidelines for Power Supply Module Outputs				
Maximum devices per one output		Maximum distance per one output based on wire gauge		
Shades	+ Devices	12 AWG 4 mm ²	16 AWG 1.5 mm ²	18 AWG 1 mm ²
None	Up to 50 power draw units	1250 ft (375 m)	500 ft (150 m)	250 ft (75 m)
None	Up to 25 power draw units	2000 ft (600 m)	1000 ft (300 m)	600 ft (175 m)
1 Sivoia QS shade	Up to 1 power draw unit	500 ft (150 m)	200 ft (60 m)	125 ft (35 m)

Refer to www.lutron.com/sivoiaqs for wiring guide for other roller tube dimensions

Sivoia QS System Wiring: Smart Panel power supply, single shade per output



Wiring Type Key

Type A

Communications Link: 4 Conductor (twisted and shielded), listed for application
Refer to wiring guide on pg. 9 for wire gauge based on distance
Maximum comm. link: – Up to 2000 ft (600 m) connecting
all QSPS-P1-10-60 panels

Sivoia QS

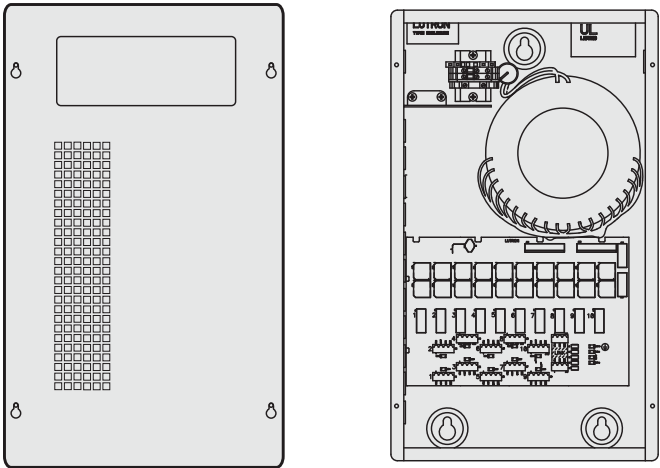
120V Smart Panel
power supply

The Sivoia QS Smart Panel power supply (QSPS-P1-10-60) is a 24 V $\equiv$ hardwired power supply that is used with Lutron® QS lighting or shading devices. QSPS-P1-10-60 simplifies the wiring and organizes installations that require multiple power supplies. Each panel contains ten 30 W (60 W peak) outputs, designed for use with Lutron QS lighting and shading devices.

QSPS-P1-10-60 is designed to be hardwired into a standard 120 V~ circuit. The panel contains fuses on each output to protect the device in the event of a miswire.

Features

- 24 V $\equiv$ supply that provides power to shades, drapery drive units, keypads, and accessories
- Simple wiring scheme uses 4-conductor low voltage link to provide power and communication for both QS electronic drive units (EDUs) and seeTouch QS keypads
- Flexible wiring topology for easy installation and integration
- 10 output panel provides power for 10 to 30 shades based on shade dimensions
- Smart diagnostics reduce installation time and system verification
- Confirms system communication and facilitates system installation
- Provides easy system testing with manual override buttons for shades and lighting



~~QSPS-P1-10-60
10 output Smart Panel power supply~~

Plenum rated shade panels required
below is comment from Mark De La Fuente from WTA:

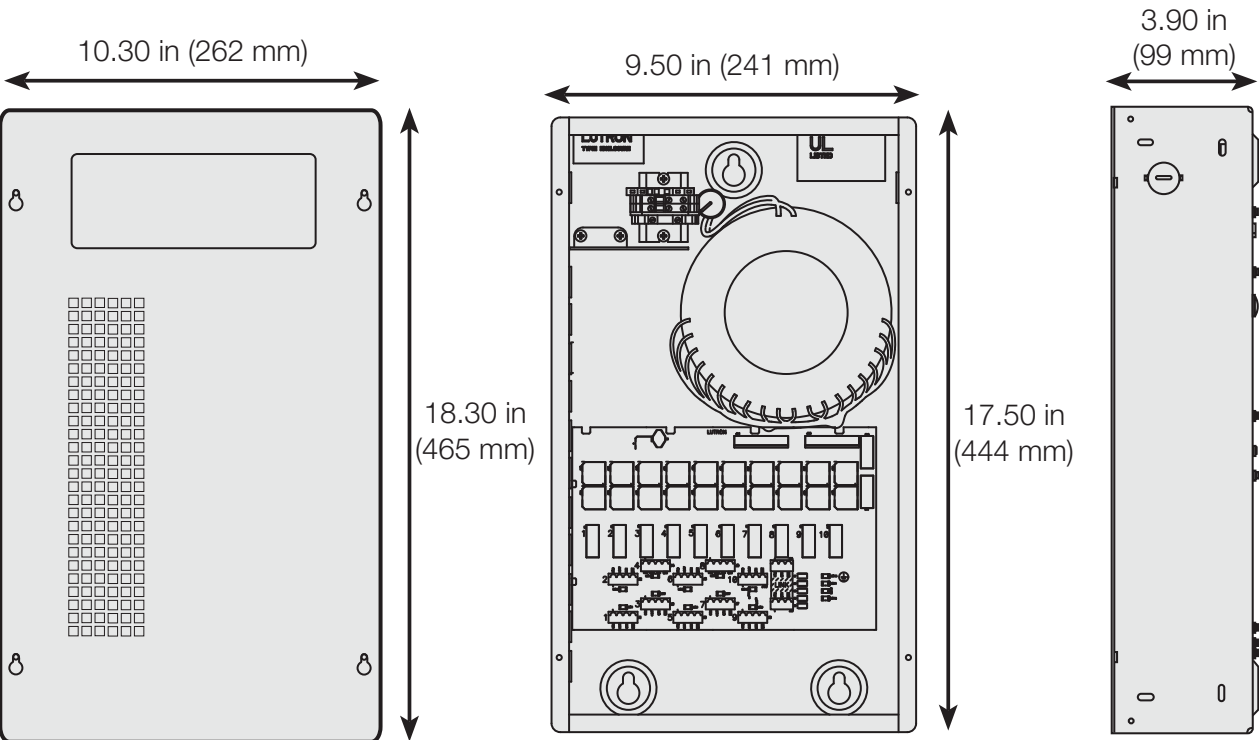
Please note Lutron's old shade panels (the ones shown in this submittal) are NOT plenum rated. However, Lutron now has plenum rated shade panels and are discontinuing their old non-plenum-rated shade panels. So it's not clear if you would actually get what is submitted. In order for this to work, we want QSPS-10-PNL solid state, plenum rated shade panels in-lieu of the shade panels submitted.

Specifications

Input Voltage	120 V~
Input current per QSPS-P1-10-60	8 A (35% duty cycle) or 4.6 A (continuous)
Output Voltage	24 V==
Output Current	2.5 A (35% duty cycle) or 1 A (continuous)
Operating Frequency	60 Hz
ESD Protection	(+/-) 16kV
Miswire Protection	Fuse on each output 2 spares included (5x20mm, 2.5 A fuse)
Wiring	Input wires to 120 V~ supply, output wires to Lutron QS lighting or shading devices
Wiring type	Input wires: 10-14 AWG (6-2.5 mm²) stranded Output wires: 4 conductor 12-18 AWG (4-1 mm²) stranded, twisted/shielded
Connections	Terminal blocks
Maximum QSPS-P1-10-60	1 panel per dedicated 15 A circuit Note: use only high magnetic circuit breakers
Maximum QSPS-P1-10-60	2 panels per dedicated 20 A circuit Note: use only high magnetic circuit breakers
Maximum feed breaker size	30 A
Weight	25 lbs (11.3 kg)
Regulatory Approvals	UL Listed: #E42071 (Industrial Control Equipment) UL Listed: #E135084 (Drapery Operator)
Industrial Control Equipment	Limited Voltage/Limited Current Circuit (NEC® approved class 2 power source)

Dimensions

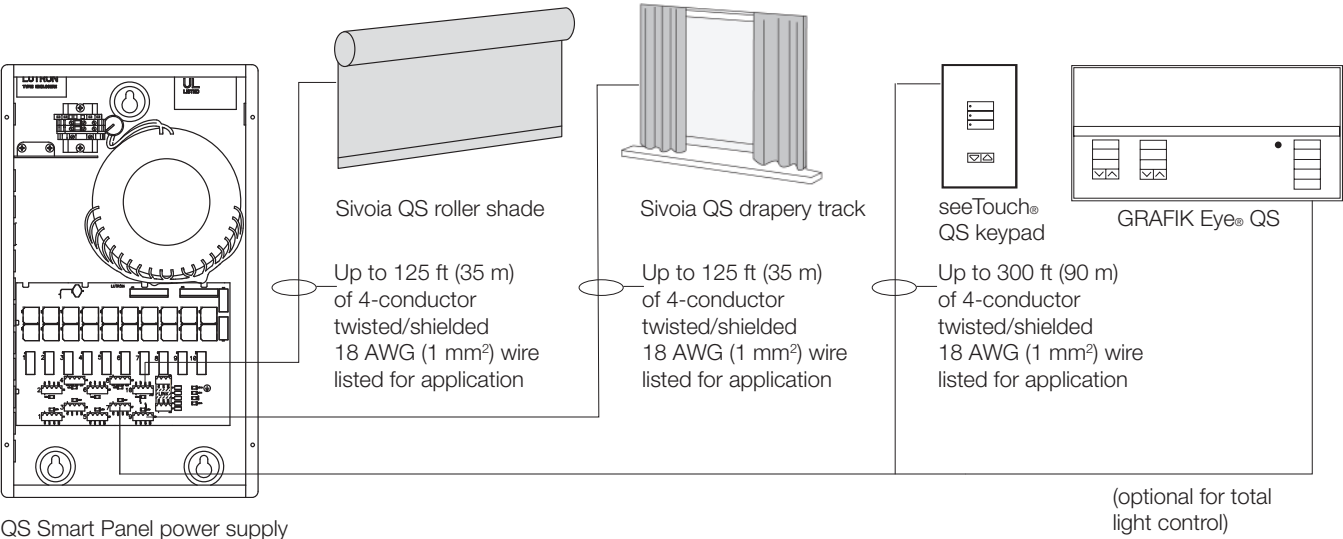
~~QSPS P1 10-60~~



with cover

without cover

System Wiring Overview: QS Smart Panel Power Supply



- Maximum 100 devices (Sivoia QS shades / drapery drive units, seeTouch QS keypads, GRAFIK Eye QS main units, and QS power supplies) per link
- Maximum 100 zones (Sivoia QS shades / drapery drive units and GRAFIK Eye QS lighting zones)



LETTER OF TRANSMITTAL

To: Paric Corporation
77 Westport Plaza, Suite 250
St. Louis, MO 63146

Phone: 636-561-9500

Date: 12/08/16
Attn: Jason Szachnieski
Job #:
Job: Webster University ISB
Re: Window Shade Submittal

We Are Sending You: ☒ Attached ☐ Samples ☐ Copy of Letter
☒ Shop Drawings ☐ Plans ☐ Specification ☐ Other:

Copies	Description
1	Window Shades Submittal - Product Data, Shop Drawings, Color Samples

These Are Transmitted As Checked Below:

☒ For Approval ☒ Return one (1) corrected print ☐ For review and comment
☐ For your use ☐ As requested

Remarks:

Return one set of approved shop drawings with color selections to Interior Investments. Material will not be ordered until approved shop drawings with selections are returned.

Signed: Cory Van Britson, Project Manager



**MOTORIZED WINDOW SHADES
SHOP DRAWING SUBMITTAL
SECTION: 122413**

Job Name: Webster University ISB

Customer: Paric Corporation
77 Westport Plaza, Suite 250
St. Louis, MO 63146

Ship To:
Webster University ISB
8274 Big Bend Blvd.
Webster Groves, MO 63119

Contact: Jason Szachnieski
Phone: 636-561-9608
Email: jrszachnieski@paric.com

Interior Investments Contact: Cory Van Britson 314-300-5926

NOTE: BASKETWEAVE SPECIFIED
-PLEASE PROVIDE OPTIONS TO
SELECT BASKETWEAVE FABRICS -
BOTH 1% AND 3%

PRODUCT - MOTORIZED WINDOW SHADES

Manufacturer: Lutron Window Shading Systems

Operation: Motorized - Sivoia QS / Roller 100, 150 and 300 lift systems

Blackout Fabric Style: Value Premiere - Blackout 0% open (Color to be selected by Architect)

Sheer Fabric Style: Sheer Lite - Sheer 3% open (Color to be selected by architect)

Quantity / size: (190) Motorized Window Shades - all window sizes to be field verified

Location: Exterior windows throughout the 1st, 2nd, 3rd and 4th floors - see Shade Schedule

Accessories: Ceiling Pocket - 5" x 5" single shade pocket and 7" x 11" double shade pocket

Pocket Color: Pockets come in standard white - custom colors are White, Bronze or Clear Anodized
Architect to select color for pockets that will be mounted below the ceiling.

Controls: (9) Sivoia QS Smart Power Panels, (10) two group & (14) single group wall station keypads

Mounting Detail: The shades will be mounted in the ceiling pockets at the window heads

Control / Motor Location: See Shop Drawings for the locations of the motors and wall switches. Final locations of all wall switches and power panels to be located by others.

Remarks:

All Electrical work, connections and power wire / cable required for the operation of the motorized window shades to be provided and installed by others.

BELOW CEILING POCKETS - EAST SIDE
LEVELS 02, 03, 04: MATCH SHERWIN
WILLIAMS SW 7075 WEB GRAY.

Date Product is required: Advise

Product Lead Time: 6 - 8 weeks

Approved By:



**MOTORIZED WINDOW SHADES
SECTION: 122413
SHADE SCHEDULES**

**Webster University ISB
PRODUCT - MOTORIZED WINDOW SHADES**

<u>Level / Area:</u>	<u>Shade Type:</u>	<u>Rooms:</u>	<u>Qty:</u>
Level 01 - Area B	C.2 - (Type 2) Motorized Double Roller Shades. Surface mounted with custom color closure plate.	140 & 160	18 (36 total)
Level 02 - Area A	C.1 - (Type 1) Motorized Single Roller Shades in continuous recessed pocket (CFCI)	283 & 291	13
	C.30 - (Type 7) Motorized Double Roller Shades. Surface mounted with custom color fascia	284	8 (16 total)
	C.31 - (Type 8) Motorized Double Roller Shades in recessed pocket.	276	5 (10 total)
Level 02 - Area B	C.15 - (Type 5) Motorized Double Roller Shades in recessed pocket.	231, 233 & 235	29 (58 total)
Level 03 - Area A	C.1 - (Type 1) Motorized Single Roller Shades in continuous recessed or surface mounted pocket.	378, 383, 386, 388, 389 & 391	27
Level 04 - Area A	C.1 - (Type 1) Motorized Single Roller Shades in continuous recessed or surface mounted pocket.	472, 480, 483, 488, 489 & 491	30

SUBMITTAL IDENTIFICATION SHEET

To be completed by Contractor/CM

WEBSTER UNIVERSITY ISB	
PROJECT NAME	
8274 BIG BEND BLVD	
ADDRESS	
NUMBER	
WEBSTER UNIVERSITY	
OWNER	
CANNON DESIGN	
ARCHITECT / ENGINEER	
Joe Voypick	
SUBMITTED BY	
122413-005	
CONTRACTOR / CM SUBMITTAL NO.	CANNON DESIGN SUBMITTAL NO.
	122413
DRAWING / DETAIL REFERENCE	SPECIFICATION SECTION / PARAGRAPH
Interior Investments	
MANUFACTURER / SUPPLIER	ITEM / PRODUCT ID
REQUIRED DATE	PRIORITY
	CRITICAL

ITEM BEING SUBMITTED (check only one)

- | | | |
|--------------------------------------|---|--|
| ☐ Shop Drawings | ☐ Certification / | ☐ Coordination Drawing |
| ☐ Samples | ☐ Qualifications | ☐ Calculations |
| ☐ (____ copies) | ☐ Record Documents | ☐ Schedules |
| ☐ LEED Submittal | ☒ Product Data | ☐ O&M Manuals |
| ☐ Other _____ | | |

ITEM BEING SUBMITTED FOR (check only one)

- ☒ Action ☐ Information Only ☐ Record

REMARKS OR DEVIATIONS

CONTRACTOR / CM CERTIFICATION (SUBMITTALS NOT CERTIFIED WILL BE RETURNED WITHOUT REVIEW)



PARIC CORPORATION
SUBMITTAL STAMP

THIS SHOP DRAWING HAS BEEN REVIEWED BY PARIC CORPORATION

Subcontractor remains responsible for dimensions, quantities, coordination with other trades and compliance with contract documents.

By:

Devin D. Gates

To be completed by Reviewer

12 2413-005
CANNON DESIGN SUBMITTAL NUMBER
12/19/16
RECEIVED DATE

- ☐ A. No Exceptions Taken
No further review of submittal is required.
- ☒ B. Make Corrections Noted
Incorporate corrections in work; resubmission is not required.
- ☐ C. Revise and Resubmit
Revise as noted, and resubmit for review.
- ☐ D. Rejected
Submittal is not in compliance with Contract Documents; provide new submittal.
- ☐ E. For Record / Information Only
Submittal was reviewed for Record / Information purposes only.
- ☐ F. Not Required for Review
Submittal is not required by Contract Documents and has not been reviewed.

Review is for conformance with the design concept of this project and for general compliance with contract documents. Contractor is responsible for quantities, dimensions and compliance with contract documents and for information that pertains to fabrication processes, construction techniques and coordination of this work with all trades which will be affected thereby. This review is null and void if submittal deviates from contract documents and does not indicate or note deviations.

A/E COMMENTS

☐ See attached sheet(s) for additional comments

PROVIDE 12" X 12" SAMPLES OF ALL SHADE FABRICS FOR SELECTION INCLUDE LUTRON BASKETWEAVE , BASKETWEAVE 27, BASKETWEAVE 4000 ECO, BASKETWEAVE 90, BASKETWEAVE E SCREEN.BASKETWEAVE MS IN ADDITION TO SHEERLITE PROVIDE 1% AND 3% OPEN FABRICS.

PLENUM RATED SHADE PANELS ARE REQUIRED: QSPS-10-PNL

SURFACE MOUNTED POCKETS - NOTE CUSTOM COLOR SPECIFIED

Joe Voypick	12/19/16
REVIEWED BY	DATE

Lynn Grossman	01.22.17
REVIEWED BY	DATE

Digitally signed by Lynn Grossman
DN: cn=Lynn Grossman, o=Cannon Design, cn=Lynn Grossman
Date: 2017.01.22 11:48:03 -06'00'



77 Westport Plaza
Suite 250
St. Louis, MO 63146

TRANSMITTAL

No. 15051-0386

Paric Corporation

PROJECT: 15051-Webster University Interdisciplinary Science Building

DATE: 12/19/2016

TO: Cannon Design
1100 Clark Ave
St Louis MO 63102

Fax;
314-241-2203

RE: Motorized Roller Window Shades Product
Data

ATTN: Kelvin Patel

JOB: 15051

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☐ Shop Drawings	☒ Approval	☐ Approved as Submitted
☐ Letter	☐ Your Use	☐ Approved as Noted
☐ Prints	☐ As Requested	☐ Returned After Loan
☐ Change Order	☐ Review and Comment	☐ Resubmit
☐ Plans		☐ Submit
☐ Samples	SENT VIA:	☐ Returned
☐ Specifications	☐ Attached	☐ Returned for Corrections
☒ Other: Product Data	☐ Separate Cover Via:	☐ Due Date:

Item	Package	Code	Rev.	Copies	Date	Description	Status
Submittal		122413-005	1		12/19/2016	Motorized Roller Window Shades Product Data	Submitted

NOTES:

CC:

Signed: _____
Devin Gates