

## SWITCHEX® + R1 12V and 24V Driver & Dimmer Switch

Revolutionize your low-voltage LED lighting setup with SWITCHEX®+ R1, a patented innovation that seamlessly merges a low-voltage power supply with a dimmer switch into one compact solution.

Engineered for efficiency and simplicity, it accepts 120VAC and converts it to low-voltage DC, either 12VDC or 24VDC, ready to install within a standard electrical gang box.

Date \_\_\_\_\_

Project Notes \_\_\_\_\_

**24**  
VDC

**12**  
VDC

**TITLE**  
**24**

### FEATURES

- Patented technology for maximum performance and dimming range (100%-1%)
- UL Listed for US and Canadian installations
- Single-pole or 3-way applications with a mechanical switch
- Load sensing auto-trim for optimal dimming
- Compatible with industry standard colors and trim plates
- Title 24 - Can be used to comply with Title 24 Part 6 High efficacy LED requirements. JA8-2016-E
- 5 Year limited warranty

### ORDERING CODES

#### Driver Only

Model	Voltage/Wattage
DI	
SXR1	12V40W (12 Volt / 40 Watt)
	12V60W (12 Volt / 60 Watt)
	24V60W (24 Volt / 60 Watt)
	24V96W (24 Volt / 96 Watt)



### SWITCHEX® + R1 - SPECIFICATION TABLE

Models	SXR1-12V40W	SXR1-12V60W	SXR1-24V60W	SXR1-24V96W
<b>Input Voltage / Frequency</b>	<b>120VAC 50/60HzAC</b>	<b>120VAC 50/60HzAC</b>	<b>120VAC 50/60HzAC</b>	<b>120VAC 50/60HzAC</b>
<b>Maximum Load</b>	<b>40W</b>	<b>60W</b>	<b>60W</b>	<b>96W</b>
Output Voltage	12VDC	12VDC	24VDC	24VDC
Efficiency	>91% @ 120VAC max load	>91% @ 120VAC max load	>91% @ 120VAC max load	>91% @ 120VAC max load
Class 2	Yes	Yes	Yes	Yes
Power Factor	>0.97 @ 120VAC 60Hz max load.	>0.97 @ 120VAC 60Hz max load.	>0.97 @ 120VAC 60Hz max load.	>0.97 @ 120VAC 60Hz max load.
Ambient Temperature	+32 - +104°F (0 - +40°C)	+32 - +104°F (0 - +40°C)	+32 - +104°F (0 - +40°C)	+32 - +104°F (0 - +40°C)
Minimum Load	Recommended: 5% Minimum	Recommended: 5% Minimum	Recommended: 5% Minimum	Recommended: 5% Minimum
Dimmable	Yes, auto-trim optimized	Yes, auto-trim optimized	Yes, auto-trim optimized	Yes, auto-trim optimized
Input Connection Type	Wire	Wire	Wire	Wire
Lead Wire A	6in. 18AWG Bare Wire Leads	6in. 18AWG Bare Wire Leads	6in. 18AWG Bare Wire Leads	6in. 18AWG Bare Wire Leads
Output Connection Type	Wire	Wire	Wire	Wire
Lead Wire B	6in. 18AWG Bare Wire Leads	6in. 18AWG Bare Wire Leads	6in. 18AWG Bare Wire Leads	6in. 18AWG Bare Wire Leads
Total Harmonic Distortion	<20%	<20%	<20%	<20%
Internal Protection	Short circuit, thermal runaway, overload, and over voltage.	Short circuit, thermal runaway, overload, and over voltage.	Short circuit, thermal runaway, overload, and over voltage.	Short circuit, thermal runaway, overload, and over voltage.
Environment	Indoor / Damp Location	Indoor / Damp Location	Indoor / Damp Location	Indoor / Damp Location
Working Humidity	8 ~ 90% relative humidity, non-condensing	8 ~ 90% relative humidity, non-condensing	8 ~ 90% relative humidity, non-condensing	8 ~ 90% relative humidity, non-condensing
Dimensions	1.75 x 2.125 x 4.125 in. (L x W x H)	1.75 x 2.125 x 4.125 in. (L x W x H)	1.75 x 2.125 x 4.125 in. (L x W x H)	1.75 x 2.125 x 4.125 in. (L x W x H)
Certification	cULus Listed (US & Canada) Low Voltage Lighting System #E469769.	cULus Listed (US & Canada) Low Voltage Lighting System #E469769.	cULus Listed (US & Canada) Low Voltage Lighting System #E469769.	cULus Listed (US & Canada) Low Voltage Lighting System #E469769.
Included Accessories	White Face Plate, Voltage Partition, 7x Wire Connectors, 2x Mounting Screws	White Face Plate, Voltage Partition, 7x Wire Connectors, 2x Mounting Screws	White Face Plate, Voltage Partition, 7x Wire Connectors, 2x Mounting Screws	White Face Plate, Voltage Partition, 7x Wire Connectors, 2x Mounting Screws
Warranty	5 Year	5 Year	5 Year	5 Year

### SWITCHEX® + R1 12V and 24V

#### Driver & Dimmer Switch

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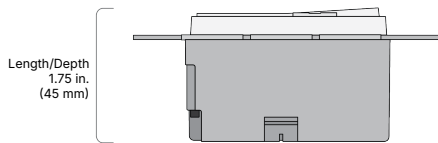
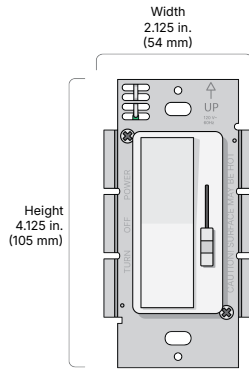
#### MECHANICAL DIAGRAMS

SXR1-12V40W

SXR1-12V60W

SXR1-24V60W

SXR1-24V96W



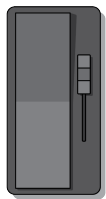
#### RECOMMENDED TAPE LIGHTS

- ALPHATECH® X
- BLAZE™
- BLAZE™ Wet Location
- BLAZE™ COLORS
- BLAZE™ Mini
- BLAZE™ X
- BLAZE™ X Wet Location
- GRAZE X™
- LINAIRE® FLEX 3D BEND
- LINAIRE® FLEX MICRO SIDE BEND
- LINAIRE® FLEX MINI 3D
- LINAIRE® FLEX SIDE BEND
- LINAIRE® FLEX TOP BEND
- LINAIRE® FLEX TUBE 360
- NEON BLAZE™
- OBD™ FLEX OPTICS
- SQUIGGLY™
- STREAMLITE™
- STREAMLITE™ Wet Location
- STREAMLITE™ Colors
- STREAMLITE™ Colors Wet Location
- VALENT®
- VALENT® Wet Location
- VALENT® X
- VALENT® X Wet Location

#### ACCESSORIES - Sold Separately

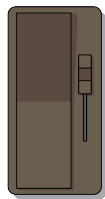
DI-SXR1-FP-BL

SWITCHEX+ R1 Black Faceplate Only



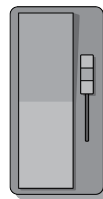
DI-SXR1-FP-BRN

SWITCHEX+ R1 Brown Faceplate Only



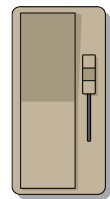
DI-SXR1-FP-GR

SWITCHEX+ R1 Gray Faceplate Only



DI-SXR1-FP-LA

SWITCHEX+ R1 Light Almond Faceplate Only



DI-SXR1-FP-WH

SWITCHEX+ R1 White Faceplate Only  
(One included with every unit)



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### CERTIFICATIONS

#### Safety

- cULus Listed (US & Canada) Low Voltage Lighting System #E469769.
- FCC Approved. Complies with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.
- Conforms to NEC Code 725.136: Class 1 and Class 2 circuit in same enclosure must be separated by a barrier (partition) unless Class 2 circuit conductors are install in accordance with 725.41 Class 1 Circuits.
- Designed to meet IEC61000-3-2 For Class C equipment.

#### Performance

- Can be used to comply with TITL 24 Part 6 High Efficacy Lighting LED requirements - JA8-2016-2022-E

#### Safety / Warnings / Disclosures

1. Unlike traditional dimming controls, SWITCHEX + R1 requires unique wiring steps. Read all warnings and installation instructions thoroughly.
2. This product must be installed in accordance with the applicable installation code by a person familiar with the construction and operation of the product and the hazards involved.
3. Install in accordance with national and local electrical code regulations.
4. This product is intended to be installed and serviced by a qualified, licensed electrician.
5. Only use copper wiring. Use wires rated for at least 194°F (90°C) and certified for use with external connection of electrical equipment.
6. Ensure applicable wire is installed between driver, fixture, and any controls in-between. When choosing wire, factor in voltage drop, amperage rating, and type (in-wall rated, wet location rated, etc.). Inadequate wire installation could overheat wires, and cause fire.
7. Do not install in environment where excessive heat may exist (ex. close proximity to fireplace, etc.) See Ambient Temperature ratings.
8. Do not modify product beyond instructions or warranty will be void.

### WARRANTY

#### Limited Warranty

- 5 Year limited warranty

This warranty does not include the additional accessories referenced in this specification sheet. Complete warranty details for fixtures and additional accessories are available at [www.diodeled.com/limited-warranty/](http://www.diodeled.com/limited-warranty/) within the Policies section. For warranty related questions please contact product support.

#### Consumer's Acknowledgment

Elemental LED, Inc. stands behind its products when they are used properly and according to our specifications. By purchasing our products, the purchaser agrees and acknowledges that lighting design, configuration and installation is a complex process, wherein seemingly minor factors or changes in layout and infield adjustments can have a significant impact on an entire system. Choosing the correct components is essential. Elemental LED is able to work with the original purchaser to make an appropriate product selection to the extent of the limited information that the customer can provide, but it is virtually impossible for Elemental LED to design a system that foresees every unknown factor. For this reason, this Warranty does not cover problems caused by improper design, configuration or installation issues. Any statement from a Elemental LED employee or agent regarding a customer's bill of goods and/or purchase order is NOT an acknowledgment that the products purchased are designed and configured correctly. The purchase agrees and acknowledges that it is the customer's responsibility to adhere strictly to all information contained in the Product Specification Sheets.

There is often more than one way to design, configure and layout an LED lighting application properly to achieve the same lighting effect. Elemental LED strongly recommends that licensed professionals be used in the design and installation of lighting systems that include Elemental LED products. The specifications include important information that a designer and installer should carefully review and strictly follow. Qualified designers and certified and/or licensed installers, with access to the final installation environment, customer goals, and Elemental LED product specifications can make the requisite decisions appropriate for a successful finished lighting application.

- Lumen value measured in accordance to IES LM-80-08. LED chips have a luminous flux range with a tolerance of +/- 5%.
- Each maximum run requires a dedicated power feed from the driver. Do not extend beyond the recommended maximum run length. Max run may exceed Class 2 limit. Actual wattage may differ from calculated wattage due to voltage drop across run.
- Do not install product in an environment outside the listed ambient temperature. Exceeding the maximum ambient temperature may damage LED chips, reduce the total lamp life, lumen output, and/or adversely impact color consistency.
- Actual efficacy value is dependent to specified LED driver (power supply). An estimated efficacy value can be calculated as follows: Lumen value divided by average power consumption per foot.
- Operating temperature is measured according to the minimum and maximum ambient temperature environment.