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Description

The Savant SmartLighting Controller (SSL-P018) can be installed as part of a complete package within Savant's automation and control ecosystem or as a part of a standalone lighting control system.

This Savant SmartLighting Controller provides control and communication to Savant lighting control components, including 120 volt and 240 volt load and integration modules, as well as low voltage keypads. Savant SmartLighting controllers are connected to modules and keypads via the RS-422 module and RS-232 station (keypad) bus ports on the back of the controller. The Ethernet port, general purpose input (GPIO), and low voltage relay outputs also located on the back of the controller, allow for integration with third-party, integrated sub-systems, and occupancy sensors or other contact closure integrated devices .

The controller can either be powered using Power over Ethernet (PoE) or can be powered with an *optional* external power supply. The controller can either be rack mounted, or wall-mounted using side-mount brackets.
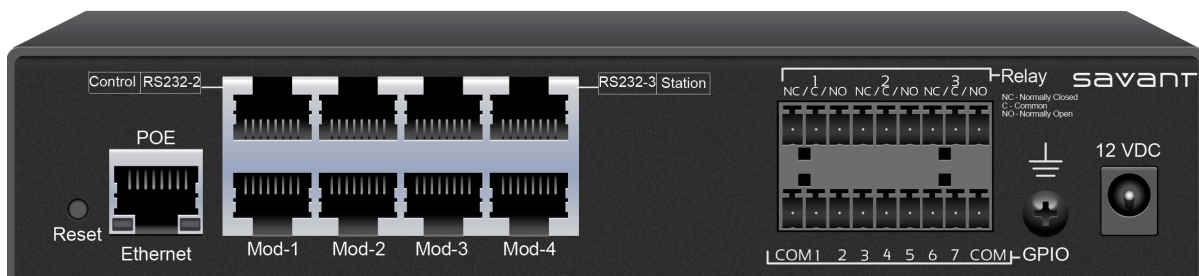
LiteWare® programming and design software, version 5.0 or higher, is used to create a programming file (PRG) that is uploaded to the controller prior to system start-up. For systems installed with Savant control and automation components, RacePoint® Blueprint is used to configure additional Savant Systems equipment and control via Savant's award-winnning TrueControl™ app.

Feature Summary

- One keypad (station) bus port–maximum of 256 keypads

- Four module bus port–maximum of 2,048 loads

- Three RS-232/RS-422 integration serial ports

- Three low voltage relay output ports for shade integration

- Seven general purpose input (GPIO) for option sensor integration

- Supports Power over Ethernet using the IEEE 802.3af standard

- Rack or wall mountable

- Supports all LiteWare user programming and astronomical time clock features

- Use LiteWare® (version 5.0 or higher) and RacePoint Blueprint™ design tools to configure and customize SmartLighting SSL-P018
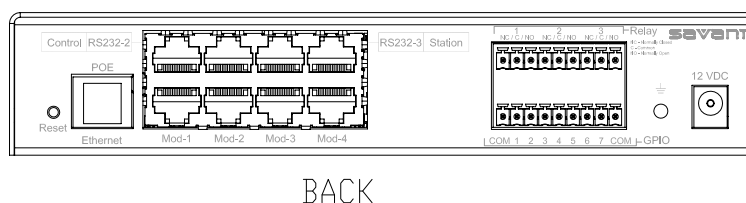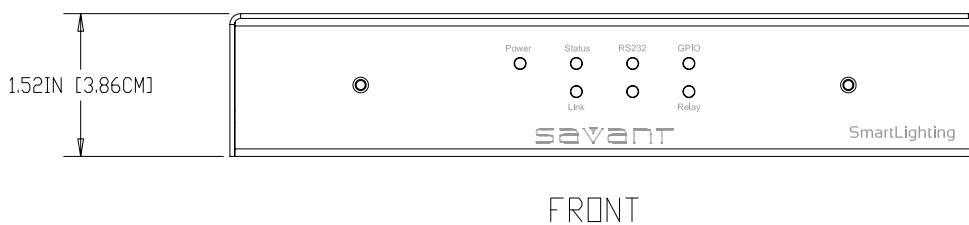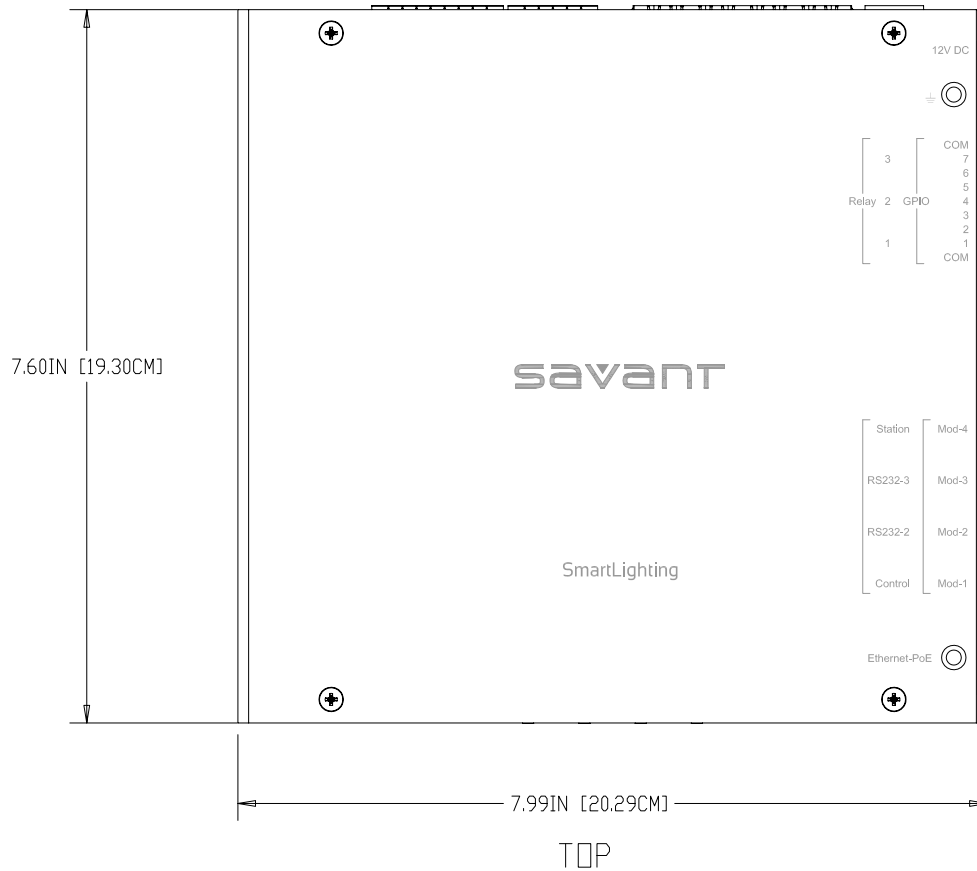

Front View of SSL-P018 (above)

Rear View of SSL-P018 (above)

45 Perseverance Way, Hyannis, MA 02601 ▼ **P: 508-683-2500** ▼ **F: 508-683-2600** ▼ **www.SavantSystems.com**

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Dimensions

The next figures show the top, front and side dimensions of the SSL-P018.

TOP

FRONT

BACK

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Specifications

Environmental	
Temperature	32° to 104° F (0° to 40° C)
Humidity	10% to 80% Relative Humidity (non-condensing)
Cooling	2 cubic feet per minute
Maximum BTUs	41 BTUs per hour

Dimensions and Weight	
Height	1.52 in (3.86 cm)
Width	7.99 in (20.29 cm)
Depth	7.6 in (19.30 cm)
Weight	6 lb (2.72 kg)
Rack Space	1U

Power	
Power Supply (SSL-P018)	12V DC 5.5 mm x 2.1 mm barrel power jack 100V-240V AC, 50/60 Hz
Nominal Power	7 watts
Maximum Power	12 watts
PoE	RJ-45 10/100/1000 Base-T Power over Ethernet using the PoE IEEE 802.3af standard

Compliance	
Safety and Emissions	FCC Part 15 CE Mark C-Tick
RoHS	Compliant

Front LEDs
The six LEDs on the front panel are used for diagnostic purposes. A description of the LEDs is available in the SSL-P018 Quick Reference Guide.

Rear Panel Input/Output
See *Rear Panel Capabilities and Connectors* on page 5.

Enclosure
Metal enclosure, matte black with mounting brackets, and vented sides. Mounting: Freestanding, surface mount or attach to a single rack rail.

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Included Items

The individual parts included with the Savant SmartLighting - SSL-P018 are outlined in the next table.

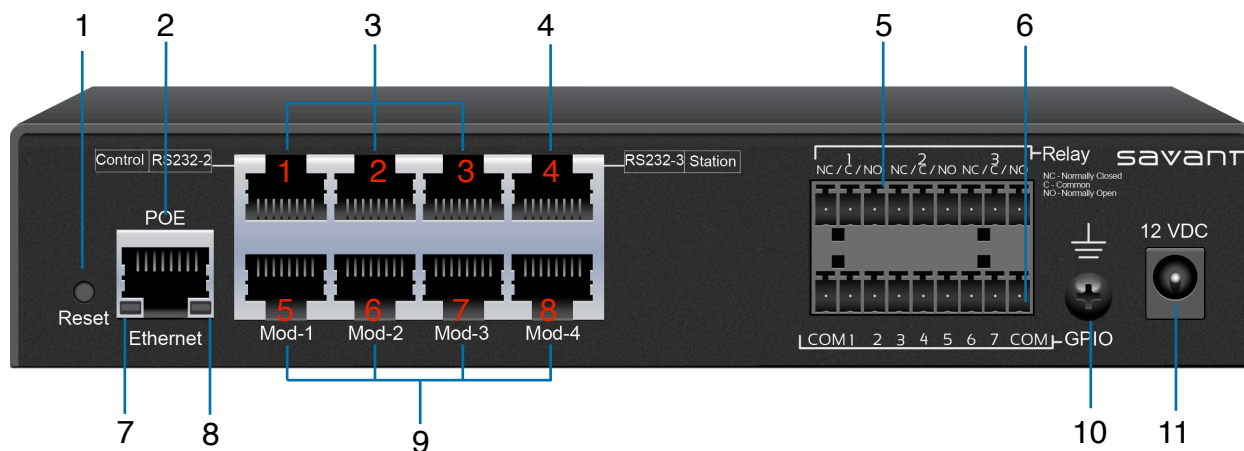| Description	Quantity
Side-Mount Bracket for Wall Mounting	2
9-Pin Screw-Down Connector	2
M3 x 8 mm Flat Phillips Screws	4
Quick Reference Guide	1

Optional Accessories

The optional accessories available for use with the SSL-P018 are outlined in the next table.

Description	Model Number
Power Supply	PWR-12125
Rack Mounting Bracket	RMB-0025
RS-232 Adapter Kit (5 pack)	SAK-1000
RJ-45 Serial Adapters Flow Null (10-pack)	CON-10FN
RJ-45 Serial Adapters Flow No Null (10-pack)	CON-10FNN
DB-9 Mini Gender Changer (10 pack)	CON-10GEN
RJ-45 Serial Adapters No Flow Null (10-pack)	CON-10NFN
RJ-45 Serial Adapters No Flow No Null (10-pack)	CON-10NFNN
9-pin Screw-Down Connector (25 pack)	CON-STC9

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Rear Panel Capabilities and Connectors

The next figure shows the rear panel of an SSL-P018. The callouts on the figure are described in the next table. Note that the next figure shows red numbers in each serial port, which are referred to in the next table. The serial ports support RS-232 and RS-422.
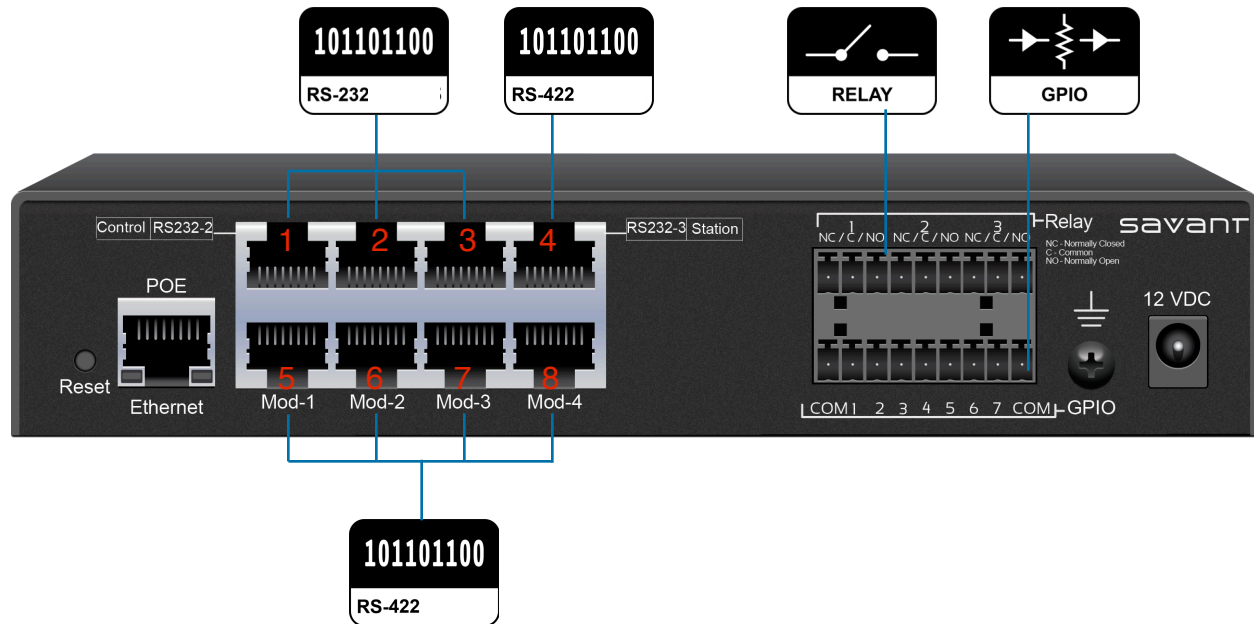

The next table describes the callouts in the previous figure.

Number	Item	Description
1	Reset	Resets the factory default DHCP mode.
2	POE	RJ-45 10/100 Base-T, auto-negotiating port. Power over Ethernet using the PoE IEEE 802.3af standard.
3	RS-232 Control (RJ-45)	Port 1 - used to control lighting from a third party system. Ports 2-3 - used to control lighting from a third party system as a stand-alone system.
4	RS-422	Port 4 - defaults to RS-422 for communication with SKL-1000 and SKL-4000.
5	Relay 1-3 NC/C/NO (Normally Closed/Common Normally Open)	These ports provide dry contacts (open/closed) to control devices requiring basic on/off operation. A single relay port can carry a maximum of 30V DC with a maximum current of 1.0 amps. Input from a device to the Savant controller is not supported through a relay.
6	GPIO COM 1 – 7 COM	General Purpose Input Output ports use 9-pin screw-down connectors (3.81 mm). The digital GPIO ports are binary I/O ports used for input. Each GPIO is individually configured as an input trigger. All seven GPIO pins use the COM pins for common ground (at each end of the GPIO block). The GPIO port detects a voltage present (GPIO input). GPIO inputs can safely detect the presence of a voltage of 0-30V DC with a threshold of 2.4V DC.
7	Ethernet Link/Activity LED	RJ-45 10/100 Base-T, auto-negotiating port. Green indicates an Ethernet link has been established. Green flashing indicates Ethernet activity. Off indicates an Ethernet link has not been established.
8	Ethernet Speed LED	RJ-45 10/100 Base-T, auto-negotiating port. Green indicates an Ethernet speed of 100 Mb. Off indicates an Ethernet speed of 10 Mb.
9	Mod-1–Mod-4	Default to RS-422 and used to communicate with SmartLighting modules.
10	⏚	Ground Connector - used to connect to a suitable ground reference when using Power over Ethernet.
11	12V DC	Provides 12V DC input power to the SSL-P018 when PoE is not available.

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Devices Supported by SSL-P018

The next figure shows a rear view of the SSL-P018. Note that the next figure shows red numbers in each serial port, which are referred to in the next table.


The next table describes the typical uses associated with the ports on the SSL-P018.

Port Quantity	Port Type	Port Icon	Typical Uses
8	Serial	101101100 RS-232/422	Port 1 - used to control lighting from a third party system Ports 2-3 - used to control lighting from a third party system as a stand-alone system Port 4 - used to communicate with SKL-1000 or SKL-4000 Ports 5-8 - used to communicate with modules in enclosures
3	Relay	RELAY	For Window Shade Control
7	General Purpose Input Output	GPIO	Equipment Power Sensing, and Voltage Control Applications

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Installation and Mounting Options

The SSL-P018 can be wall mounted or mounted in a 1U rack enclosure. Two of these systems can be mounted on a 1U rack shelf. Note that the mounting hardware is not included with the SSL-P018. The SSL-P018 is compatible with all standard 19-inch National Electrical Manufacturers Association (NEMA) rack-mounts.
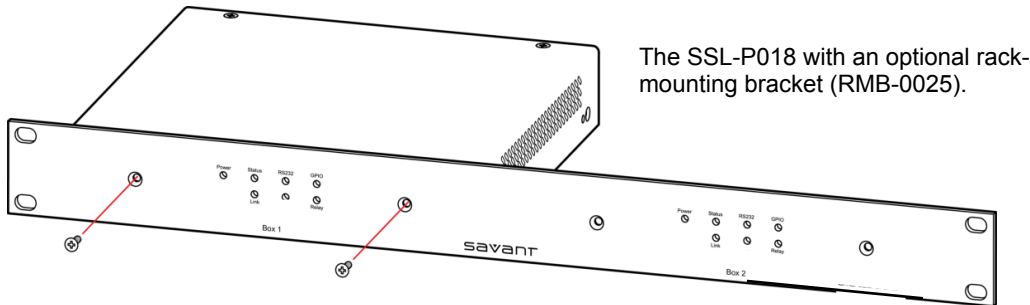
The SSL-P018 with an optional rack-mounting bracket (RMB-0025).

SSL-P018
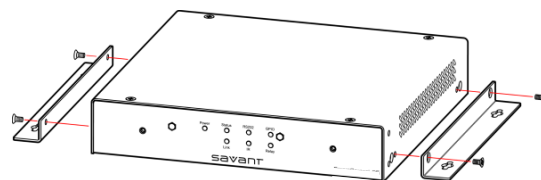
SSL-P018 with side mounting brackets for wall mounting.

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