

SmartLink-III™ Series

SL-1369X-X

12 Channel Lighting Control Module

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Features and Functions

- SmartLink-III™ System Interface
- Lightweight, modular design
- Controls (3) 4-light clusters with Dim/Bright functions for each cluster
- Common Power Input for each cluster
- 5A relay contacts for power control
- PWM dimming signal output on each channel
- Firmware download capability
- Redundancy design for high reliability



Description

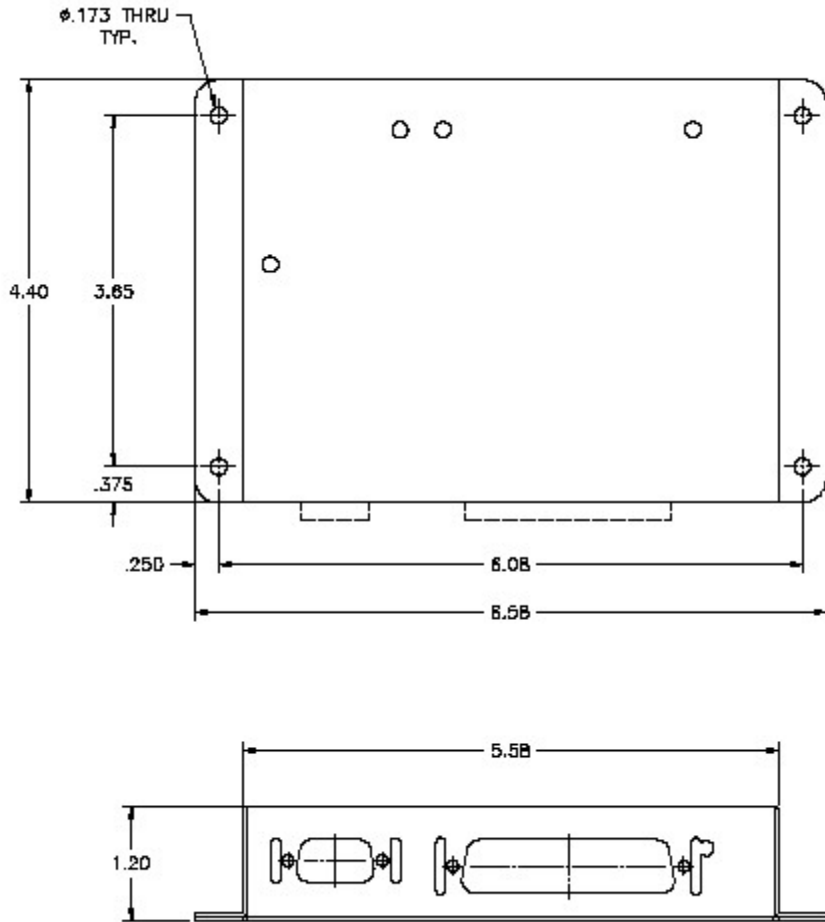
This is the premier module for controlling lighting functions within an aircraft cabin. The module offers twelve lighting channels, grouped in three control clusters, with (4) lighting channels per cluster. One channel controls one light. This allows individual lighting requirements to be set for three separate areas of the aircraft cabin interior with the use of only (1) SL-1369 module. Each channel has (1) 5A, Form-C relay to control on/off functions, and (1) PWM (Pulse Width Modulator) on each channel to control dimming functions. Ideally, the module would be placed in close proximity to the lights it is controlling, thus reducing wiring runs to the lights. The lighting functions of this module can be controlled from multiple, remote locations within the cabin interior. The module itself is very lightweight and compact, and can be easily installed within the tight confines of today's corporate aircraft, with a minimum of cable hook-ups required to connect the module into the SmartLink-III™ wire bus.

Application

- All Lighting Control applications requiring dimming capabilities
- Simple Lighting Control (on/off)
- Upwash/Downwash Lighting Control

Mechanical Specification

- All dimensions are in Inch
- Material 5052-H32 Aluminum
- Chem-Film Finish
- Weight 12 OZ

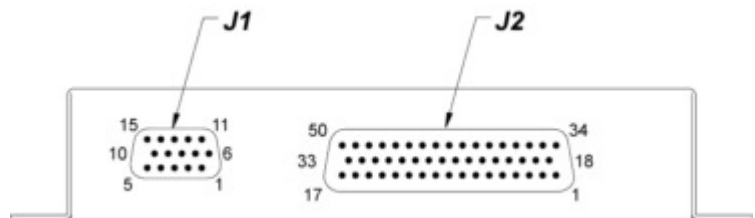


Electrical Specification

- **Operating Voltage:** 17 ~ 32 VDC
- **Operating Current:** 0.2 ~ 0.8 Amps
- **Operating Temperature:** -10 ~ +55 °C
- **System Interface:** SmartLink-III Compliant Firmware Upload Re-configurable
- **Connector:** D-Sub Series with #4-40 Jackscrew ('P' suffix with Positronic's V3 Tab)
- **Cluster Support:** 3 with Common Power Input
- **Channel per Cluster:** 4 Individual Controlled Lights channel
- **Light Powered:** On-Off thru 5 Amps Resistive Form-A Contacts Sharing Common Power
- **PWM Output:** Continues Dimming Lights PWM Driver support up to 10x [494-311](#) Light Dimming Module per circuit

System Interconnect Connector

Label	Description	Connector Type
J1	SmartLink System Interface	High Density D-Sub 15 pin Plug (Male)
J2	Input /Output Interface	D-Sub 50 pin Plug (Male)



Connector Pinouts

J1 D-Sub High Density 15 pin Plug (Male)

PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION
1	Frame Ground	6	Device ID (HEX bit 0)	11	Device ID (HEX bit 3)
2	Power Input +28VDC	7	Device ID (HEX bit 1)	12	Device ID (HEX bit 4)
3	Power Return (GND)	8	Device ID Return (GND)	13	Device ID (HEX bit 5)
4	SmartLink Data bus – HI	9	SmartLink – Shield (GND)	14	Device ID (HEX bit 6)
5	SmartLink Data bus – LO	10	Device ID (HEX bit 2)	15	Device ID (HEX bit 7)

J2 D-Sub 50 pin Plug (Male)

PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION
1	RESERVED	18	RESERVED	34	RESERVED
2	RESERVED	19	POWER-INPUT 1X	35	RESERVED
3	POWER-INPUT 1X	20	PWM-OUT 1A	36	RESERVED
4	POWER-OUT 1A	21	PWM-OUT 1B	37	PWM-RETURN (GND)
5	POWER-OUT 1B	22	PWM-OUT 1C	38	PWM-RETURN (GND)
6	POWER-OUT 1C	23	PWM-OUT 1D	39	PWM-RETURN (GND)
7	POWER-OUT 1D	24	POWER-INPUT 2X	40	PWM-RETURN (GND)
8	POWER-INPUT 2X	25	PWM-OUT 2A	41	RESERVED
9	POWER-OUT 2A	26	PWM-OUT 2B	42	PWM-RETURN (GND)
10	POWER-OUT 2B	27	PWM-OUT 2C	43	PWM-RETURN (GND)
11	POWER-OUT 2C	28	PWM-OUT 2D	44	PWM-RETURN (GND)
12	POWER-OUT 2D	29	POWER-INPUT 3X	45	PWM-RETURN (GND)
13	POWER-INPUT 3X	30	PWM-OUT 3A	46	RESERVED
14	POWER-OUT 3A	31	PWM-OUT 3B	47	PWM-RETURN (GND)
15	POWER-OUT 3B	32	PWM-OUT 3C	48	PWM-RETURN (GND)
16	POWER-OUT 3C	33	PWM-OUT 3D	49	PWM-RETURN (GND)
17	POWER-OUT 3D	–	–	50	PWM-RETURN (GND)

Installation Notes:

- **FRAME GROUND:** Chassis Ground connection using 20AWG hookup wire minimum.
- **POWER INPUT AND POWER RETURN:** Power Pins
- **SL3 – HI/LO/SHLD:** SmartLink-III™ bus connection, using 22AWG (minimum) Shielded Twisted Pair cable with single ended shield terminated to SHLD pin.



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