

# SmartLink-III™ Series

## SL-1955X-X 8 Relay Control Module

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### Features and Functions

- SmartLink-III™ System Interface
- Lightweight, modular design
- 8 local relay functions, 4 local input discrete functions
- Power-up state of all relay contacts configurable
- Firmware download capability
- Ability to report status of relays in diagnostic utility software
- Fully Programmable discrete control
- Redundancy design for high reliability



### Description

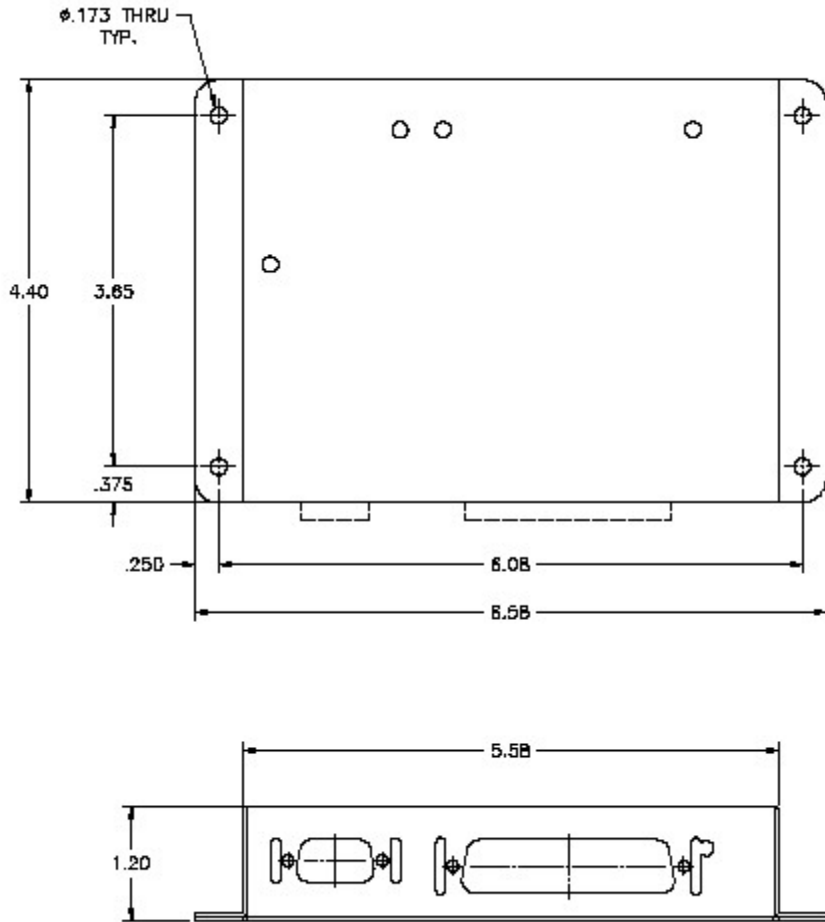
The SL-1955 module is our general-purpose relay control module that can be adapted to control a large variety of functions within the aircraft. It can be used to control lighting functions as well as a whole host of other relay functions. Since it is compatible with our SmartLink-III™ system, this module provides for the ability to locate relays close to their loads. This keeps the installed wire harness weight low while allowing these relay functions to be controlled from multiple, remote locations, as required. The relay module itself is very lightweight and compact, and can be easily installed within the tight confines of today's corporate aircraft interiors, with a minimum of cable hook-ups required to connect the module into the SmartLink-III™ wire bus. The module contains (2) Form-A Relays and (6) Form-C relays. The module also accommodates (4) grounded discrete inputs that are capable of controlling both local and remote functions.

### Application

- Lighting Control (on/off/continue dimming) for reading lights, table lights, etc.
- AC Source Switching, Motorized control, Airshow Mode Binary Select
- Any local relay control functions

### Mechanical Specification

- All dimensions are in Inch
- Material 5052-H32 Aluminum
- Chem-Film Finish
- Weight 14 OZ

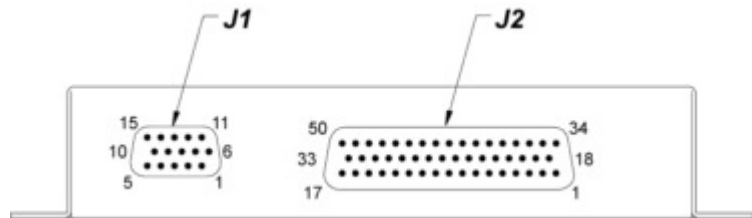


**Electrical Specification**

- **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)
- **Relay Output:** 2x 20Amps Resistive Form-A Relay Contacts (#1,#2), 2x 20Amps Resistive Form-C Relay Contacts (#3,#4), 4x 5Amps Resistive Form-C Relay Contacts (#5~#8)
- **Discrete Input:** 4x Ground Activate Discrete Inputs, 1mA Source

**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**

	<b>J1 D-Sub High Density 15 pin Plug (Male)</b>
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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)

<b>J2 D-Sub 50 pin Plug (Male)</b>					
PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION
1	Relay #1 N.O.	18	Relay #1 N.O.	34	Relay #1 N.O.
2	Relay #1 COM	19	Relay #1 COM	35	Relay #1 COM
3	Relay #2 N.O.	20	Relay #2 N.O.	36	Relay #2 N.O.
4	Relay #2 COM	21	Relay #2 COM	37	Relay #2 COM
5	Relay #3 N.O.	22	Relay #3 N.O.	38	Relay #3 N.O.
6	Relay #3 COM	23	Relay #3 COM	39	Relay #3 COM
7	Relay #3 N.C.	24	Relay #3 N.C.	40	Relay #3 N.C.
8	Relay #4 N.O.	25	Relay #4 N.O.	41	Relay #4 N.O.
9	Relay #4 COM	26	Relay #4 COM	42	Relay #4 COM
10	Relay #4 N.C.	27	Relay #4 N.C.	43	Relay #4 N.C.
11	Relay #5 N.O.	28	Reserved	44	Reserved (Master ON GND Input)
12	Relay #5 COM	29	Relay #5 N.C.	45	Discrete Return (GND)
13	Relay #6 N.O.	30	Relay #6 N.C.	46	SET #1 Discrete Input
14	Relay #6 COM	31	Relay #7 N.C.	47	SET #2 Discrete Input
15	Relay #7 N.O.	32	Relay #8 N.C.	48	CLEAR #1 Discrete Input
16	Relay #7 COM	33	Relay #8 COM	49	CLEAR #2 Discrete Input
17	Relay #8 N.O.	–	–	50	Discrete 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.
- **RELAY#1~#4:** High Power relay contacts. Multiple pins connection required.



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