**Specification**

**4850 Series SNAP Lighting Control Panel**

Revised January, 2017

Subject to change without notice.

**1.0 General**

 1.1 The SNAP lighting control panel shall enable DMX512 control systems to interface with LED drivers and fluorescent dimming ballasts and other controllable devices that utilize 0-10VDC sink or source analog control.

 1.2 The SNAP panel shall be capable of controlling up to sixteen (16) zones of drivers and ballasts.

 1.3 The panel shall incorporate 8(16) normally closed 1-pole relays.

 1.4 Each analog control channel shall be rated for a capacity of 100ma sinking current.

 1.5 Each analog control channel shall be rated for a capacity of 10ma sourcing current.

 1.6 DMX512-to-Analog conversion and relay control shall be accomplished with an integral 16-channel controller. The controller shall be an ANSI E1.20 RDM responder.

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**2.0 Physical**

 2.1 Whether housing 8 or 16 relays, the SNAP panel shall be a surface-mount NEMA 1 enclosure constructed from 18 gauge steel with a hinged cover.

2.2 The enclosure dimensions shall be 12” W x 18”H x 6”D (305mm x 457mm x 152mm).

2.3 The enclosure shall be fabricated with appropriate internal voltage barriers to provide for separate high-voltage and low-voltage compartments. The enclosure shall be provided with 3/4” conduit knockouts for low voltage and ¾”, 1” and 1-1/4” conduit knockouts for high voltage.

**3.0 Electrical**

 3.1 The low-voltage power supply shall be compatible with 120 or 277VAC 60Hz input. There shall be no power switch to reduce the chance of accidental shut-off.

 3.2 The relays shall be UL listed 30A at 277VAC and 20A at 347VAC for driver/ballast//HID loads; and, 20A tungsten at 120VAC loads. The relay shall have an18,000A SCCR at 277VAC. The relay shall be rated for 250,000 operations at 30A fully loaded.

 3.3 There shall be 1500-volt electrical isolation between DMX512 input and analog output sections.

 3.4 There shall be 2500-volt electrical isolation between analog output and AC power sections.

 3.5 The DMX512 input shall be capable of withstanding the application of up to 250V without damage to internal components. Input protection shall be of the self-resetting type, rated for 250V. Replaceable fuses are not acceptable.

**4.0 Field Connections**

 4.1 All internal field wiring connections shall be clearly labeled according to their function.

 4.2 Connections for DMX512, control output and DC power shall be two-part, Phoenix-type screw terminal strips, capable of accepting #26 to #14 gauge solid or stranded wire. Two sets of pluggable connector blocks shall be provided for the two DMX512 headers. One set shall be screw terminal and the second set shall be IDC to enable the use of CAT5 wire for DMX512 wiring.

 4.3 A DMX512 THRU port shall be provided to allow connection to additional eDIN enclosures and/or other DMX512 equipment.

 4.4 AC power supply connections shall be capable of accepting up to #12 gauge solid or stranded wire. A suitable terminal shall be provided for ground wire connection.

 4.5 Relay connections shall be capable of accepting up to #10 gauge solid or stranded wire. A suitable terminal shall be provided for ground wire connection.

**5.0 Features**

 5.1 The controller module shall incorporate LED indicators for DC power input, DMX512 input and processor status.

 5.2 The controller module shall incorporate 5 numeric displays, 6 menu LED indicators, and 4 pushbuttons to enable user configuration of: DMX512 address; DMX512 soft patch; relay threshold; and, self testing.

 5.3 The controller module shall incorporate an end-of-line terminate switch.

 5.4 The DMX512 address shall be selectable in one-unit increments.

 5.5 Single DMX512 control over relay and analog output pairs or full non-sequential DMX512 softpatch.

 5.6 Individual relays can be patched to an auxiliary override switch input.

 5.7 Individual analog controls can be patched to an auxiliary override switch input.

 5.8 Relay activation threshold shall be user-settable in 1% increments.

 5.9 Analog control outputs shall be capable of sourcing or sinking current.

 5.10 The panel controller shall be remotely discoverable and configurable via Remote Device Management (RDM).

**6.0 Compliance**

 6.1 The eDIN 4850 series SNAP relay panel shall be compliant with the following standards:

 a. UL and cUL 916

 b. UL and cUL 924

 c. ANSI E1.11 DMX512-A

 d. ANSI E1.20 Remote Device Management

 e. ANSI E1.3 0-to-10V Analog Control Specification

**7.0 Acceptable Product**

 7.1 Supply Pathway eDIN 4850 Series SNAP relay panels only.

 7.2 This specification applies to Pathway Connectivity models #4850-8 (eight relays) and 4850-16 (sixteen relays)