PRESIDOR™

Architectural Control Solutions
Room Linker/Combiner PRLC-4
Specifications

1. General

1.1 The Architectural Lighting Room Linker/Combiner shall be the Presidor™ PRLC-4 Series as manufactured by Johnson Systems Inc. or equivalent.

1.2 The PRLC-4 shall be the "hub" of all Presidor™ Wall Stations (PWS) remotely located in all rooms to be controlled.

1.3 The PRLC-4 shall permit the linking of multiple rooms of Presidor™ Wall Stations (PWS) in any combination. Each PRLC-4 shall support up to 4 rooms of PWS. Multiple PRLC-4 units shall be cascadable permitting room expansion up to 25 rooms per DMX universe.

1.4 Each PRLC-4 shall contain a UL approved NEMA C13 fused power disconnect (universal computer power receptacle) with integral illuminated power switch. A face panel LED will illuminate when the power switch is on.

1.5 Each PRLC-4 shall have four opto-isolated DMX input ports for connection to room architectural wall stations (PWS). Each DMX input shall contain an isolated 48VDC power supply for driving the room PWS's.

1.6 Each of the four DMX512 inputs shall have visual LED indication on the face panel and shall illuminate when an active DMX512 input signal is being received.

1.7 Each PRLC-4 shall have one DMX output for supplying the "merged" DMX room data from the PWS's to any DMX512 receiver.

1.8 The DMX output and all DMX inputs shall have RJ-45 connection permitting interconnection to room PWS's via Cat5/5e/6 wiring. In addition, premium "Phoenix Style" terminal block will permit the option for connection to room/zone PWS's using existing Belden #9773 wiring for legacy installations.

1.9 PRLC's shall permit direct room/zone control capable of expansion up to a maximum of 25 rooms/zones per DMX universe. Rooms/zones shall be linkable in any combination permitting universal room customization. Room linking hardware and/or software only allowing adjacent rooms to be linked shall not be considered acceptable.

1.10 Each PLRC-4 shall contain 4 (four) programmable contact closure inputs for maintained contact closure input from external contact. Each input shall be programmable to 'Link' any combination of rooms/zones in the PRLC-4 or any cascaded PRLC-4 in larger system configurations.

1.11 PWS room/zone linking shall also be achieved via:

1.11.1 A PWS-RDU-7R (Remote Display Unit) PWS wall station via color capacitive touch and customization. Up to 7 rooms/zones.

1.11.2 A PWS-RDU-25R (Remote Display Unit) touch screen laptop application. Up to 25 rooms/zones.

Both of the above options will connect directly to the 'Master' PRLC-4 via Cat5/5e/6 wiring and RJ-45 connectors. Either optional 'graphic select room link' control option shall supercede and "lockout" the dedicated contact closure inputs on all connected PRLC-4's.

1.12 The PRLC-4 shall also contain a "network" input for connection to a remote mounted capacitive touch Presidor™ Remote Display Unit (RDU) or touch screen lap-top PC permitting room linking by touch as required.

1.13 The PRLC-4 face panel shall contain a USB C Tech Port for updating firmware.

1.14 Each PRLC-4 shall contain an intuitive user interface comprising of high contrast, low power, O-LED display and navigational pod interface.

1.15 The PRLC-4 shall be mounted in a standard 19" rack consuming 1 RU of space. An optional low profile PRLC wall mount rack shall be available (PRLCR-4U). This 4RU rack will permit the installation of up to four PRLC-4 units and can be ordered factory pre-wired and ready for installation.

1.16 PRLC's shall operate with intuitive 'self-contained' programming permitting ease of configuration and set up. Architectural Lighting Controls requiring a PC or OS by others for set up and programming shall not be considered acceptable.

2.0 Mechanical

2.1 The Presidor™ Room Linker Combiner (PRLC-4) is designed for installation in standard 19" racks.

2.2 Each PRLC-4 shall be 1 RU and not exceed 1.74" (44mm) in height with a total depth not exceeding 6.6" (167mm).

2.3 Each PRLC shall have a finished weight not exceeding 6lbs (2.7kg).

2.4 Venting of the side frames shall provide adequate cooling with silent operation. Equipment containing fans for cooling shall not be considered acceptable.

2.5 Case construction of the PRLC-4 shall be of 18 gauge painted in black powder coat finish.

3.0 Electrical

3.1 Each PRLC-4 shall contain a UL approved NEMA C13 fused power disconnect with integral illuminated power switch. A face panel LED will illuminate when the power switch is on. A universal computer power cable shall permit connection to local power over a range of 100-240VAC at 50 or 60 Hz.

3.2 The electrical connection to each room/zone of Presidor™ Wall Station shall be two wires for power and one twisted pair for DMX512.

3.2.1 Integrators shall supply and certify Cat5, Cat5E, Cat6 or Belden 9773 or equivalent daisy-chain wiring between the Presidor™ Room Linker/Combiner (PRLC-4) and the first (Master) Presidor™ Wall Stations (PWS) in each room/zone. Subsequent PWS stations within a given room (Slaves) shall inter-connect with a daisy-chain wiring topology.

3.2.2 Multi-room applications using the Presidor™ Room Linker Combiner (PRLC-4) using Category cable or existing Belden 9773 can support a total cable bus length up to 300m (1000') per DMX input port.

3.2.3 Premium terminal block "breakaway" style connectors will permit the use of standard DMX wiring.

3.3 System expansion of up to 25 rooms shall be achieved by simply cascading additional PRLC-4's (4 rooms per PRLC-4) using standard RJ-45 connectors over Cat5.

3.4 PRLC-4 shall have four individual opto-isolated DMX input ports supplying all PWS in each room at 48VDC.

3.5 An optional PWS-RDU wall station will permit remote room linking via capacitance touch display. The RDU will connect directly to the PRLC-4 via Cat5/5e/6 cabling. This port shall also have full opto-isolation.

3.6 A 12VDC (10 Watt) supply will be provided to power industry standard auxiliary low voltage equipment.

3.7 All PRLC-4 printed circuit boards (PCB's) shall be FR4/G10 with a minimum UL 94V-0 Flame Class Rating.

4.0 Functionality

4.1 The Presidor™ Room Linker/Combiner shall facilitate the interconnect of multiple rooms of Presidor™ Wall Stations (PWS) for facilities requiring room linking capabilities of an advanced architectural lighting control system.

4.2 The PRLC-4 or multiples of PRLC-4 shall permit individual room/zone power and data isolation for unsurpassed system reliability on standard Cat5/5e/6 or existing 3 twisted pair wiring.

4.3 PLRC-4 shall merge multiple room inputs of DMX512 into a single DMX512 output in real-time. DMX room inputs shall be expanded by cascading additional PRLC-4 units up to a maximum of 25 DMX room inputs (8 x PRLC-4) per DMX universe.

4.4 PRLC-4 shall self-discover additional PRLC-4 units when cascaded for system expansion and automatically assign the first (top) PRLC-4 as the Master PLRC-4 and the remaining PRLC-4's as numerical Slave PRLC-4's. The face panel LED display shall provide indication of Master or Slave and numerically assign the rooms according to the number of PRLC's active.

4.5 Each PRLC-4 shall permit "stand-alone" recording of room patching without an external programmer or PC. All programming shall be via a face panel navigational pod using intuitive steps with button activation and tactile feedback.

4.6 All room patch programming shall be stored on a internally removable memory dongle. In the event it is necessary to replace a PRLC-4, simply swapping the memory will restore all programmed data to the replacement PRLC-4 on power up.

4.7 Illuminated face panel LED's will provide visual identification of live DMX inputs (4 per PRLC-4) and power.

Patent Pending

Specifications subject to change without notice.

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