AL-PSE-8D
Distribution panel for 800 Watts

**Product Description - AL-PSE-8D**

This structured wiring panel provides Class 2 power and DALI signals to 8 outputs. Ideal for up to 120 light fixtures and up to 48 Light switches.

It has two power inputs, with power failover management. It is housed in a case ideal for structured wiring panels. Two power inputs are relay routed to 8 outputs providing load balancing and failover.

It uses quick connect 5 amp rated connectors. When used with Class 1 power supplies, the output current is limited per Class 2 to 100 watts (2 amps). Voltage is is 44 to 56 volts, and passes unchanged to the output. Earth connection is provided for static discharge management.

Ideally matched with 2 Meanwell 350 Watt power supplies, the AL-PSE-8D is a member of the ATX SML family for quick installation in Media Panels.

**Failover Power**

The Power Distribution has 2 inputs – apply a matched set of 48v (max 52v) power supplies to reach the power budget for the project. If a 500 watt project has 2 500 watt power supplies – then an outage will have no impact. The voltages are monitored by the RJ45 connector that links to the ATX LED Hub.

**LED status display**

There is 1 Green LED per power input, and one Orange for IEC 62486 DAbus power.

**sml Format**

This device is a member of the ATX LED sml family for Structured Media Panels. This allows 8 devices in a 14x14 panel. Other devices include our 51v 96w power supply, PSE-4D distribution panel, Raspberry Pi hat, and DALI controlled PoE Switch.
Specifications

- **Power source**: KF 3.81mm connectors (2) 2 pin
- **Power out and DALI**: KF 3.81mm connectors (8) 5 pin
- **Connector type**: CUI TBP02P1-381-02-BE (power in), earth ground
  
  CUI TBP02P1-381-05-BE (power and data out)

- **RJ45 to ATX LED Hub**: Power from each input, and DALI data

- **DALI data expander**: KF141V connector for additional DALI distribution panels.

- **Failover**: Relays from 2 DC power inputs assures all outputs are live

- **Input voltage range**: 44v to 56 volts (for Relay activation)

- **Current Limit**: Each port has a self resetting 2.5 amp fuse

- **Internal Power consumption**: 50 milliwatts standby

- **Protection**: Reverse protection and static protection

- **Operating Temperature**: 0°C ~ 50°C

- **Size**: 70 mm x 147mm x 30mm plus 10mm interlocking tabs

- **Hot Swap**: Yes – can unplug and connect input power live

- **Earth Ground**: Connection for earth grounding

- **Failover Detection**: Cutover at less than 44 volts

- **Mounting Kit**: Leviton 47615-NYL push pins

- **Jumper to ground RJ45 pin 2**: Internal jumper option to ground

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### RJ45 Pinout

<table>
<thead>
<tr>
<th>Pin</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DALI +</td>
</tr>
<tr>
<td>2</td>
<td>DALI – *</td>
</tr>
<tr>
<td>3</td>
<td>NC</td>
</tr>
<tr>
<td>4</td>
<td>+ Voltage A</td>
</tr>
<tr>
<td>5</td>
<td>+ Voltage B</td>
</tr>
<tr>
<td>6</td>
<td>Ground</td>
</tr>
<tr>
<td>7</td>
<td>Ground</td>
</tr>
<tr>
<td>8</td>
<td>Ground</td>
</tr>
</tbody>
</table>

* Jumper on back to connect to ground

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### SML Low Voltage modules

The ATX LED SML modules snap into the Leviton 47605 structured media boxes.

The 47605 is 14 inches wide and available with 14, 21, 28 or 42 inch height

A 21 inch 47605 can house 12 of the ATX SML devices.

Since the ATX LED system operates from the same general voltage as PoE, you can use left over PSE power to power WiFi access points and routers.
Quick Connect Power outputs

The KF12EKN 5 pin connector is provided to source 51 volts the Lighting system, on 4 outputs. Each output is connected to the corresponding DIN connector input, unless that input has no power. In case of missing power, internal relays will switch the input power to the outputs. The same connector also has the DAbus and earth ground.

- **DA+** = Yellow
- **DA-** = White
- **E** = Green
- **51V -** = Blue
- **51V +** = Red

Earth Grounding

Earth grounding is recommended for static discharge of people using the wall switches. In a proper installation with the AL-51v96w power supply – the 120vac power socket should have an earth ground. That earth ground flows thru the DIN4 connector to the outputs. In cases where the AL-PS-51v96w is not used – connect a awg18 wire from the gray connector to an earth ground.
Meanwell Wiring Examples

Example of 2 Meanwell-500, AL-PSE-8D and 800 Watts total

Example of 2 Meanwell-350, AL-PSE-8D and 600 Watts total
Example of 2 Meanwell-500, 2x AL-PSE-8D and 1000 Watts total
Example of 3 Meanwell-500, 2x AL-PSE-8D and 1500 Watts total
Example of 3 Meanwell-350, 2x AL-PSE-8D and 1050 Watts total