DALI Powerpack

Overview

The DALI Powerpack provides power to low voltage sensors and the DALI communication hardware required to send occupancy data to the Fifth Light system. The DALI Powerpack is ideal for open spaces requiring two or more low voltage, dual tech occupancy sensors. This eliminates the need to home run the dual tech low voltage back to the Lighting Control Panel (LCP).

Features

- **Supports up to five (5) occupancy sensors** – Reduces the cost of connecting low voltage PIR, ultrasonic and dual tech sensors to a DALI lighting control system by 90%. Five occupancy sensors can be grouped together to provide a large coverage area with a single DALI address being shared for all five sensors.

- **Plenum rated** – Eliminates the need for a junction box when installed in a plenum-rated area, i.e. areas where air handling equipment is present.

- **Device identification buzzer** – Reduces the time to locate a DALI Powerpack installed in a ceiling thanks to the buzzer sound if troubleshooting is required.

- **Integrated with Greengate sensors** – Greengate sensors connected to the DALI Powerpack will blink in commissioning mode allowing installers to easily identify sensors connected to a specific DALI Powerpack.
Specifications

<table>
<thead>
<tr>
<th>Catalog #</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Input Voltage</td>
<td>120/277 VAC, 240 VAC, or 347 VAC +/- 10%</td>
</tr>
<tr>
<td>Input Frequency</td>
<td>50/60 Hz</td>
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</tbody>
</table>

**Operating Environment**
- Operating Temperature: 32°F to 104°F (0°C to 40°C) for indoor use only
- Operating Humidity: 10% to 90% RH (non-condensing)
- Storage Temperature: 32°F to 104°F (0°C to 40°C)

**Dimensions**
- 1.7”H x 2.6”W x 6.1”L (43.2mm x 66mm x 155mm)

**Housing**
- Medium impact injection molded housing. ABS resin with 5VA flame rating. Plenum rated for external junction box mounting with Teflon coated leads.

**Wiring & Mounting**
- DALI: 18 AWG stranded PTFE plenum rated non-polarized pair
- Mounting: Mounts to the side of a 4” square box via ½” knockout

**Control Specification**
- Communication Interface: Digital Addressable Lighting Interface (DALI)
- DALI Current Draw: 2mA per device (max)
- Output: 15 VDC, 125mA to operate up to five Greengate sensors

**Standards**
- cULus certified
- Manufactured in an ISO 9001 certified factory

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**Wiring Diagrams**

The line voltage section of the DALI Powerpack is to be connected to a 120/277 VAC or 240 VAC or 347 VAC 20 amp branch circuit to provide unit power.

The Powerpack provides a 15V output required to power the low voltage sensors.

The low voltage section of the DALI Powerpack is to be connected to a junction box using the accompanying the NPT adapter and the lock nut. The following wiring diagram shows how to properly wire the device between the line voltage input, low voltage sensors and the DALI bus.
**CLASS 1 WIRING**

- RED (POWER 120VDC)
- BLUE (CONTROL/OCCUPANCY)
- BLACK (COMMON)
- YELLOW (OCO/OCML LIGHTING)
- WHITE (COMMISSIONING)

**CLASS 2 WIRING**

- RED (POWER 120VDC)
- BLUE (CONTROL/OCCUPANCY)
- BLACK (COMMON)
- YELLOW (OCO/OCML LIGHTING)
- WHITE (COMMISSIONING)
- WHITE/BLACK (120VAC NEUTRAL)
- WHITE/ORANGE (277VAC NEUTRAL)
- PURPLE (DAIL BUS)

**Junction Box Mounting**

**Greengate Sensor Compatibility**

The following Greengate sensors will have their LED blink when the DALI Powerpack that powers the sensors is in Commissioning Mode.

**Wall Mount Occupancy**
- OAWC-DT-120W-R
- OAWC-P-120W-R
- OAWC-P-009LH-R

**Ceiling Mount Occupancy Sensors**
- OAC-P-0500-R
- OAC-P-1500-R
- OAC-U-0501-R
- OAC-U-1000-R
- OAC-U-2000-R
- OAC-DT-0501-R
- OAC-DT-1000-R
- OAC-DT-2000-R

**Note:** The DALI Powerpack can power other types of low voltage sensors. However, to take advantage of the DALI Powerpack’s built-in commissioning mode, it is highly recommended to use the DALI Powerpack with the above Greengate sensor models.

**Note:** Please refer to the individual Greengate specification sheets for more information on the capabilities of these occupancy sensors.
Greengate Sensor Setup

Please refer to the Greengate sensor installation instructions for sensor setup.

**WARNING:** Do not enable the “Zero Time Delay” DIP Switch on the sensor.

**Ordering**

This is an accessory for the Fifth Light addressable lighting control system. When ordering, specify the Powerpack as a separate system accessory.

The DALI Powerpack is compatible with OAC, VAC and OAWC Greengate sensor that include the –R option.

<table>
<thead>
<tr>
<th>Catalog #</th>
<th>Description</th>
<th>Input Voltage</th>
<th># of Sensors</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLT-SP-MV-DC2</td>
<td>DALI Powerpack 120/277V class 2 installation of DALI bus</td>
<td>120/277 VAC</td>
<td>5</td>
</tr>
<tr>
<td>FLT-SP-MV-DC1</td>
<td>DALI Powerpack 120/277V class 1 installation of DALI bus</td>
<td>120/277 VAC</td>
<td>5</td>
</tr>
<tr>
<td>FLT-SP-240-DC2</td>
<td>DALI Powerpack 240V class 2 installation of DALI bus</td>
<td>240 VAC</td>
<td>5</td>
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<tr>
<td>FLT-SP-240-DC1</td>
<td>DALI Powerpack 240V class 1 installation of DALI bus</td>
<td>240 VAC</td>
<td>5</td>
</tr>
<tr>
<td>FLT-SP-347-DC2</td>
<td>DALI Powerpack 347V class 2 installation of DALI bus</td>
<td>347 VAC</td>
<td>5</td>
</tr>
<tr>
<td>FLT-SP-347-DC1</td>
<td>DALI Powerpack 347V class 1 installation of DALI bus</td>
<td>347 VAC</td>
<td>5</td>
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