DALI Digital to Analog Converter

Overview
The DALI Digital to Analog Converter (DAC) is a lighting control device used to control any standard 0-10V current sourcing dimmable ballast/driver using Digital and Addressable Lighting Interface (DALI). It allows dimming control by converting DALI messages into 0-10V dimming signals and on/off control by leveraging the built-in relay.

Features
- Built-in latching relay and 0-10V current sinking interface used to integrate individual or a group of dimmable 0-10V ballasts/drivers to DALI based lighting control systems including Fifth Light.
- All DALI DAC’s device settings (fade, scenes and groups) configured through the Fifth Light’s Lighting Management software, eliminating the need for manual adjustments.
- Automatic detection of the DALI Bus power loss with default to closed, i.e. on or 100% position.
- Available for Class 1 or Class 2 wiring configurations.
- Ultra low profile form factor designed to fit inside ballast compartment of most standard luminaires.
- Easily mountable to fixture housing through standard knockout using supplied 90° elbow and mounting clip.
- Powered by the DALI bus and only requires line in and line out connections. Neutral and earth connection not required.
- Robust DALI communication interface withstands accidental connection to power lines (up to 347V).
### Specifications

<table>
<thead>
<tr>
<th>Catalog #</th>
<th>LCP</th>
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<tbody>
<tr>
<td><strong>Enclosure</strong></td>
<td>Dimensions: 1”H x 3.94”W x 1.125”D (25.4mm x 100mm x 28.6mm)</td>
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<tr>
<td><strong>Environment</strong></td>
<td>Temperature: 32°F to 104°F (0°C to 40°C) Relative Humidity: 10% to 90% (non-condensing) For indoor use only</td>
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<tr>
<td><strong>Relay Output Specifications</strong></td>
<td><strong>Input Voltage</strong>: 120-480 VAC +/-10% <strong>Maximum Ballast/General Load</strong>: 4.5A @ 120-480 VAC <strong>Maximum Tungsten Load</strong>: 8A @ 120 VAC, 5.8A @ 240 VAC <strong>Input Frequency</strong>: 50/60 Hz</td>
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<tr>
<td><strong>Control Specification</strong></td>
<td><strong>Communication Interface</strong>: Digital Addressable Lighting Interface (DALI) and Analog Dimming <strong>DALI Current Draw</strong>: 3.75mA <strong>Analog Dimming Current Draw</strong>: 0-10 VDC, 50mA max current sink only</td>
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<tr>
<td><strong>Wiring</strong></td>
<td>Relay: 18 AWG solid TFN non-polarized pair <strong>0-10V Dimming</strong>: 18 AWG solid TFN polarized pair <strong>DALI Communication</strong>: 18 AWG stranded PTFE plenum rated non-polarized pair</td>
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<tr>
<td><strong>Mounting</strong></td>
<td>In fixture or junction box mounting only. Refer to Wiring Diagram section of Spec Sheet for proper wiring details</td>
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<td><strong>Standards</strong></td>
<td>UL 916 Listed UL 924 Listed Meets NEC, OSHA and NFPA Safety Codes</td>
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### Dimensions

**SIDEL VIEW**

- 1.0 / 25.4
- 3.94 / 100.0

**ANGLED VIEW**

- 1.125 / 28.58
- 1.0 / 25.4

### Wiring Diagram

**FLT-DAC-DALI-DC1**

- DALI Bus 2x Purple
- Relay 2x Blue
- 0-10V
- Driver/Ballast +
- -
- 0-10V NH
- + Grey/Purple
- - Grey

**FLT-DAC-DALI-DC2**

- DALI Bus 2x Purple
- Relay 2x Blue
- 0-10V
- Driver/Ballast +
- -
- 0-10V NH
- + Grey/Purple
- - Grey

**Note:** Install in accordance with all applicable National and local electrical & building codes.

**Note:** Specifications subject to change without notice.
Sample System Topology

Maximum of up to 64 devices on each DALI Bus. All devices must be within 300 feet of the Lighting Control Panel (LCP). 16/2 AWG recommended wire.

Ordering

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<td>FLT-DAC-DALI-DC1</td>
<td>Digital to Analog Converter - DALI wiring exits with line voltage wiring for Class 1 installations of the DALI bus.</td>
</tr>
<tr>
<td>FLT-DAC-DALI-DC2</td>
<td>Digital to Analog Converter - DALI wiring exits separate from line voltage wiring for Class 2 installations of the DALI bus.</td>
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