LD-Series
ELECTRONIC DIMMER CONTROLS

The LD-Series represents a dynamic breakthrough in dashboard technology, with its programmable circuitry, superior design, and unparalleled performance that affords seamless integration into most any dash panel. A variety of options, along with superior performance, functionality, and aesthetics assure compliance with the most stringent customer requirements. Key features include: robust design package with all components encased in switch housing, eliminating wire chafing and providing cost-savings as well with minimized electrical connections; sealing which prevents PCB degradation and eliminates short circuit potential. Superior heat dissipation is achieved with a heat sink mass which is over 50% larger than competitive products. Fully programmable circuitry lets the designer decide illumination levels and detent positions. EMC eliminates electrical “noise” and provides interference-free radio signals. Ease of assembly is accommodated with polarized integral connectors and an industry standard mounting hole.

Product Highlights:
- 3 Choices for incremental dimming rates
- 12 or 24 Volts
- Laser Etched or Lens Illumination

Typical Applications:
- On/Off-Highway Equipment
- Agricultural Equipment
- Construction Equipment

Resources:
- Configure a Complete Part
- Download CAD & Sales Drawing

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**LD-Series - Electronic Dimmer Control - General Specifications**

### Electrical
- **Contact Rating**: 9-16VDC, 2-10Amp.
- **Terminals**: 6.3mm (0.250" TAB)
- **Contacts**: solid-state load switching
- **Output**: PWM 200 Hz.
- **SAE J1113 and SAE J1455**
- **Conducted Transient Emissions**:
- **RF Conducted Emissions**:
- **Conducted Susceptibility**:
  - Test pulse #1
  - Test pulse #2
  - Test pulse #3a, #3b
  - Load Dump: Test Pulse #5
  - Power lead Disturbance
    - (Power Dips)
  - AF Conducted Immunity
  - Direct RF Injection (DRFI)
  - Abnormal Vehicle Operating Conditions
- **RF Radiated Emissions**
- **Conducted Immunity**
- **RF Conducted Immunity**
- **Direct RF Injection**
- **Abnormal Vehicle Operating Conditions**
- **RF Radiated Emissions**
- **Radiated Immunity**
- **Electrostatic Discharge**:
- **Shipping / handling Electrostatic Discharge**: Human Static Discharge

### Physical
- **Function**: Incremental for continuous dimming
- **Operation**: Momentary
- **Lighted**: LED's internally dimmed
- **Base**: PBT Polyester V-0 flammability
- **Rocker**: Polycarbonate or Nylon 6/6 Glass filled
- **Bracket**: PBT Polyester V-0 flammability
- **Connector**: Nylon 6/6 toughened
- **Actuation Force**: 300 gm ± 50 gm
- **Weight**: 52 grams

### Environmental
- **Operating Temperature**
- **Vibration**

### Mounting Specifications
- **Panel Thickness Range**
- **Acceptable Panel Thickness**: .030 to .156 (.76mm to 3.96mm)
- **Recommended**: .030, .062, .093, .125 and .156

*Manufacturer reserves the right to change product specification without prior notice.*
LD - Series - Electronic Dimmer Control - Ordering Scheme, Dimensional Specifications

<table>
<thead>
<tr>
<th>1 SERIES</th>
<th>LD</th>
<th>Electronic Dimmer Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 RATING</td>
<td>1</td>
<td>4A, 12 volts</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>10A, 12 volts</td>
</tr>
<tr>
<td>3 DIMMING RATE</td>
<td>1</td>
<td>30 - 100% 8 positions</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>10 - 100% 10 positions</td>
</tr>
<tr>
<td>4 TERMINATION</td>
<td>1</td>
<td>.230 TABS (5.84 mm)</td>
</tr>
<tr>
<td>5 &amp; 6 ILLUMINATION</td>
<td>No lamp</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>12V LED</td>
<td>C N H</td>
</tr>
<tr>
<td></td>
<td>24V LED</td>
<td>D P J</td>
</tr>
<tr>
<td>7 BRACKET COLOR</td>
<td>1</td>
<td>Black</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>White</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Gray</td>
</tr>
<tr>
<td>8 ACTUATOR STYLE / COLOR</td>
<td>Laser Etched</td>
<td>Black</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>A B C D</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>J K M N</td>
</tr>
<tr>
<td>9 &amp; 10 LENS COLOR</td>
<td>Z</td>
<td>Clear No Lens</td>
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<tr>
<td></td>
<td>1</td>
<td>White</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Amber</td>
</tr>
<tr>
<td></td>
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<td>Green</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Red</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Blue</td>
</tr>
<tr>
<td>11 LEGEND #1</td>
<td>00</td>
<td>No legend FC Dim FE Bright</td>
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<tr>
<td>12 LEGEND ORIENTATION</td>
<td>0</td>
<td>No legend</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>vertical (lamp 1 on top)</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>horizontal (lamp 1 on right)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>vertical (lamp 1 on bottom)</td>
</tr>
<tr>
<td>13 LEGEND #2</td>
<td>00</td>
<td>No legend FC Dim FE Bright</td>
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<tr>
<td>Notes: 1</td>
<td>Custom colors are available. Consult factory.</td>
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Q.C. SELECTION GUIDE

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<thead>
<tr>
<th>COMPANY SERIES</th>
<th>PACKARD PART NO.</th>
<th>WIRE GAGE</th>
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<td>AWG</td>
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<tr>
<td>12094950</td>
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<td>20.0</td>
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<tr>
<td>12052222</td>
<td>22-22</td>
<td>24.0</td>
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About Carling

Founded in 1920, Carling Technologies is a leading manufacturer of electrical and electronic switches and assemblies, circuit breakers, electronic controls, power distribution units, and multiplexed power distribution systems. With four ISO registered manufacturing facilities and technical sales offices worldwide, Carling Technologies Sales, Service and Engineering teams do much more than manufacture electrical components, they engineer powerful solutions! To learn more about Carling please visit www.carlingtech.com/company-profile.

To view all of Carling’s environmental, quality, health & safety certifications please visit www.carlingtech.com/environmental-certifications
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