

## LD-Series Electronic Dimmer Control



The NEW LD-Series represents a dynamic breakthrough in dashboard technology, programmable circuitry, superior design, and unparalleled performance that will afford seamless integration into most any dash panel. A Variety of options, along with superior performance, functionality, and aesthetics assure compliance with most any customer requirement. In addition, our integrated design can provide savings by reducing the need for insulated wires and connectors.

### Dielectric Strength

1000V - live to dead metal parts

### Electrical Life

50,000 cycles

### Mechanical Life

100,000 cycles

### Operating Temperature

-40°C to +85°C

### Electrical

Contact Rating . . . . .	4 amps, 14 VDC 7 amps, 14 VDC 10 amps, 14 VDC 2 amps, 28 VDC 3.5 amps, 28 VDC 5 amps, 28 VDC
Contacts . . . . .	Solid State
Terminals . . . . .	.250 (6.3mm) Quick Connect terminations standard.
EMI/EMC . . . . .	Per SAE J 1113 & SAE J 1455
Reverse Polarity. . . . .	.24VDC for 5 minutes
Dielectric Strength. . . . .	.A potential of 1000V @ 60Hz was applied to each unit for one minute. The voltage was increased from 0 to 1000V at a rate of 500V per second and then reduced from 1000V to 0 at a rate of 500V per second. No noticeable signs of flashover, arcing or perforation were evident. All units operated properly both before and after test.

### Mechanical

Endurance . . . . .	100,000 cycles minimum
Actuation Force. . . . .	300 grams ± 50 grams

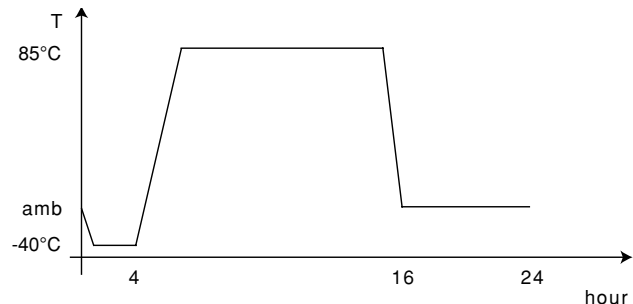
### Physical Characteristics

Lighted . . . . .	LED - internally dimmed, rated 100,000 hours 1/2 life
Base . . . . .	PBT Polyester with V-0 flammability rating
Actuator . . . . .	Polycarbonate or Nylon 6/6 glass filled
Bracket . . . . .	PBT Polyester with V-0 flammability rating
Connector . . . . .	Nylon 6/6 toughened
Function . . . . .	Incremental or continuous dimming
Operation . . . . .	Momentary
Weight . . . . .	52 grams

NOTES:  
For more detailed specifications, consult factory.

### Environmental

Operating Temperature . . .	-40° C to + 85° C
Vibration . . . . .	Resonance Search Individual resonance searches were conducted with vibration applied along each of the three mutually perpendicular axes. 24-50 Hz 0.40 DA; 50-2000 ±10 G's peak Random Vibration The random vibration endurance test conditions were sequentially conducted in each of the three mutually perpendicular axes, 1hr/axis. 9.36 Grms Frequency (Hz) PSD (G <sup>2</sup> /Hz) 24 Hz 0.06 60 Hz 0.50 100 Hz 0.50 1000 Hz 0.025 2000 Hz 0.025 During this test, all units were operated at a load current of 2A with 12.5 VDC.
Shock . . . . .	Per Mil-Std 202F, Method 213B, Test Condition K @ 30G's. Tested with connector. Test criteria - No loss of circuit during test, pre, & post test contact resistance.
Salt Spray . . . . .	Per Mil-Std 202F, Method 101D, Test Condition A, 96 Hrs.
Thermal Shock . . . . .	Per Mil-Std 202F, Method 107F, Test Cond. A, -55°C to 85°C. Test criteria - pre & post test contact resistance
Moisture Resistance . . . .	Per Mil-Std 202F, Method 106E, Test Criteria - pre and post test contact resistance.
Dust . . . . .	Per Mil-Std 810C, Method 510.2 Air velocity 300± 200 ft/min, test duration 16 hr.
Temperature Cycle. . . . .	Temperature Cycle . . . . . .According to SAE J1455, Sec. 4.1.3.1 (See Figure below)



**LD 3 5 1 C C 1 - 3 A A FE - 1 FC**

1 Series      2 Rating      3 Dimming Rate      4 Termination      5 Illumination      6 Illumination      7 Bracket Color      8 Actuator Style/Color      9 Lens Color      10 Lens Color      11 Legend One      12 Legend Orientation      13 Legend Two

<b>1 SERIES</b>	
LD Electronic Dimmer Control	
<b>2 RATING</b>	
1 4A, 14 volt	3 10A, 14 volt      C 5A, 28 volt
2 7A, 14volt	A 2A, 28 volt
<b>3 DIMMING RATE</b>	
1 30 - 100% 8 positions	A 0 - 100% 11 positions
5 10 - 100% 10 positions	
<b>4 TERMINATION</b>	
1 .250 TABS (6.4 mm)	
<b>5 &amp; 6 ILLUMINATION</b>	
No lamp S	
12V LED C N H	Red Amber Green
24V LED D P J	
<b>7 BRACKET COLOR<sup>1</sup></b>	
1 Black	2 White      3 Gray
<b>8 ACTUATOR STYLE / COLOR<sup>1</sup></b>	
Laser Etched	Black      White      Gray      Red
Rocker 3 A B C D	
Paddle 4 J K M N	

<b>9 &amp; 10 LENS COLOR</b>						
Z NO LENS						
CLEAR	WHITE	AMBER	GREEN	RED	BLUE	LENS STYLE
1 -	B	G	M	T		Large
-	7 C	H	N	U		Transparent Large
3 -	D	J	P	V		Translucent Bar
-	9 E	K	R	W		Transparent Bar
5 A	-	-	-	-		Translucent Laser Etch

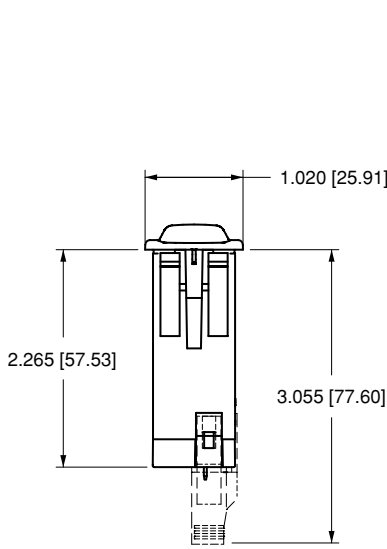
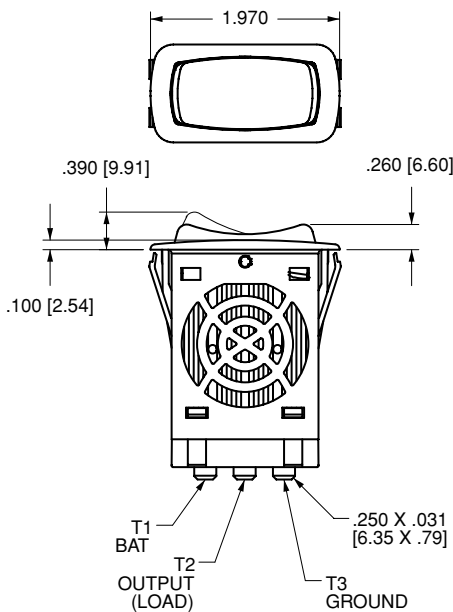
<b>11 LEGEND #1</b>		
00 No legend	FC DIM	FE BRIGHT
For additional legend options, see page 69 of this catalog.		

**12 LEGEND ORIENTATION**

0 No legend  
 1 vertical (lamp 1 on top)  
 2 horizontal (lamp 1 on right)  
 3 vertical (lamp 1 on bottom)

<b>13 LEGEND #2</b>		
00 No legend	FC DIM	FE BRIGHT
For additional legend options, see page 69 of this catalog.		

NOTES  
 1 Custom colors are available. Consult factory.



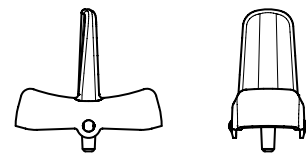
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1.734 [44.04]

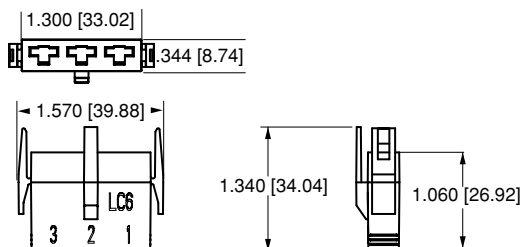
TEST CUT HOLE IN ACTUAL MATERIAL

MOUNTING HOLE

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



PADDLE STYLE ACTUATOR



Q.C. SELECTION GUIDE			
COMPANY SERIES	PACKARD PART NO.	WIRE GAGE	
		AWG	MM2
PACKARD METRI-PACK 630 SERIES TIN PLATED BRASS	12084590	12	3.0
	12052224	12	3.0
	12015870	16-14	2.0-1.0
	12015869	20-18	1.0-.80
	12020035	22-18 (2 REQ'D)	.80-.50 (2 REQ'D)
	12052222	20-22	.50-.35