

# LD-181 LED Driver – 8 Watt

## Product Overview:

The LD-181 is an 8W universal input LED driver with 0-10V dimming (down to 2%), specifically designed for small fixture enclosures and providing long service life at elevated temperatures. It has two versions, one that can drive an LED load 5.75-23 VDC up to 350mA and another that can drive a 3-12 VDC LED load up to 700mA. It's of compact and rugged construction for indoor and outdoor applications and is designed for Class 2 safety compliance.



## Features:

- 90-305VAC, 50/60Hz Universal Input
- Output 5.75-23VDC @ 350mA or 3-12VDC @ 700mA
- 0-10V dimming per IEC 60929 (dimming performance down to 2% without shut-off or flicker) (see Note 2)
- Ingress Protection to IP67
- High ambient operating temperature - Active temperature compensation (foldback) when temperature threshold is exceeded (see Note 3)
- Complies with emissions requirements of EN 55022; FCC Part 15
- Complies with UL/CSA Product Safety requirements (UL8750 and UL1310 Class 2)
- AC line or DC load switching without overshoot
- Short circuit, open circuit, overload and surge protection
- 18AWG Wire Leads, color coded, for AC, LED and DIM connections
- 5 Year Warranty

## Part Numbers:

<p><b>LD181-350</b> (350mA max. LED current)  <b>LD181-700</b> (700mA max. LED Current)</p>
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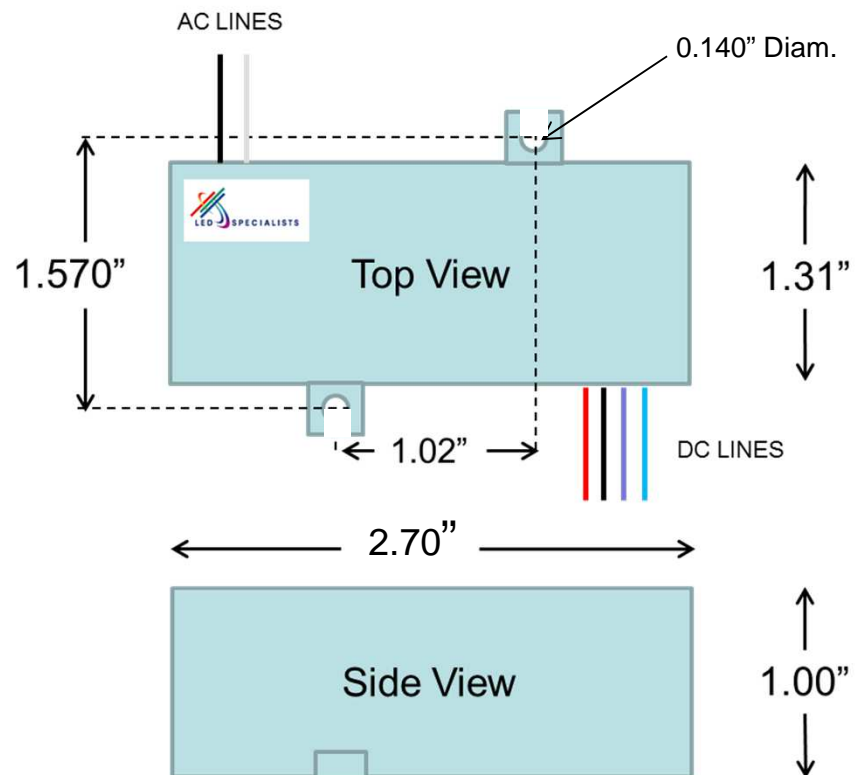
## Specifications:

Electrical	
Input Voltage:	90-305 VAC (50/60Hz)
Power:	8W
LED Load Voltage:	3-12VDC (700mA), 5.75-23VDC (350mA)
Efficiency:	~ 75%
0-10VDC Dimming:	Per IEC 60929 Annex E, down to 1%
Isolation:	3000VAC

Environmental	
Operating Temperature:	-40 to +75C
Storage Temperature:	-40 to +105C
Ingress Protection:	IP67
Mechanical	
Size (w/o flange):	2.70"L x 1.31"W x 1.00"H
Leads:	11", 18AWG
Safety and Regulatory:	
Safety:	UL8750 Class 2/CAN/CSA C22.1 (1), UL1310
EMI Emissions:	EN 55022, Class B; FCC Part 15 for 120VAC and 277VAC
Surge Protection:	IEC 61000-4-5 Level 3

Wire Color Code	
AC Input:	Line (BLK), Neutral (WHT)
LED Output:	LED+ (RED), LED- (BLK)
Dimming:	DIM+ (PUR), DIM- (GRY)

## Dimensions:



(drawing not to scale)

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## Notes:

**Note 1:** LED output wires and DIM leads isolated (Class 2)

**Note 2:** Provides continuous, smooth, flicker free dimming from 100% to 2%. LED current dimming linearly dimmed.

The LED driver is a current “source”, controlled by an external dimmer that is a current “sink”, per IEC 60929 Annex E.

At 1 Volt Dim input, the driver reduces the LED current to 2% of maximum (e.g. for 350mA version, LED current ~7mA at 2% DIM). Below 1 Volt Dim input, the driver continues to output minimum LED current and does not turn-off output.

**Note 3:** LED Driver operates in ambient temperature environment in accordance with derating curve shown below. When maximum specification ambient temperature is exceeded (75C), LED Driver uses “thermal foldback” to reduce LED drive current to reduce heat load.

