



# T1M1UNV098P-50L

IP20 

## Programmable Constant Current

- Input Voltage: 120V - 277VAC 50/60Hz
- Output Current Range: 330mA - 980mA
- Output Voltage Range: 28V - 56VDC
- Output Power: 55W Max.
- 0-10V Dimming
- Dimming Range: 100% -1%, 0% (Dim-to-Off)

### General Specifications

Input Voltage / Frequency	120V - 277VAC 50/60Hz $\pm$ 10%
Input Current	0.66A @120V, 0.35A @240V and 0.30A @277V
Input Power	66W
Power Factor	> 0.9 under 120~277Vac input with 80~100% load condition (for all output currents)
THD	< 20% under 120~277Vac input with 80~100% load condition (for all output currents)
Efficiency	83% @120V, 84% @277V
Inrush Current	Maximum 0.5mA at 277Vac, 60Hz input
Leakage Current	50A @277V
Open Circuit Voltage	59V
Driver Type	Constant Current
Programming Type	Wireless, TPSB-100AW NFC Digital Wand
Output Voltage Range	28VDC - 56 VDC
Output Current Range	330mA - 980mA (programmable in 10mA increments)
Output Power	55W Max.
Aux Output	12V/200mA Max.
Load Regulation	$\pm$ 2%
Line Regulation	$\pm$ 1%
Current Tolerance	$\pm$ 5% at full load condition
Turn-on Delay Time	< 2s at full load condition
Overshoot	< 10% at full load condition
No Load Power Consumption	< 4W
Ripple & Noise (pk-pk)	< 3%
Withstand Voltage	I/P - O/P, 2,800Vdc, 2mA
Dimming Type	0-10V Dimming
Dimming Range	100% -1%, 0% (Dim-to-Off)
Operating Ambient Temperature Range	-40 ~ 50°C
Storage Temperature	-40 ~ 85°C
Maximum Driver Case Temperature (Tc)	90°C
Humidity	5% to 95%
Driver Output Type / Number of Output Channels	LED Class 2 / 1 Channel
Overall Size	14.17" L x 1.18" W x 1.00" H (360 x 30 x25.4mm) Mounting 13.78" (350mm)
Weight	1.03lbs (0.47kg) / Unit
Case Construction	Metal
Input / Output Connector Type	I/P: 18 AWG x 2C (30cm) ; O/P: 22AWG x 2C (30cm) ; connector
Safety / Compliance	UL8750, Class P, Type HL Suitable for Dry and Damp locations
IP Rating	IP20
EMC	FCC, 47CFR Part 15; ANSi C63.4:2009 Class B (Consumer Limit)
Protections	Over Voltage Protection Over Current Protection Short Circuit Protection Over Temperature Protection
Service Life	85,000 hours lifetime @ Tc 60°C
Warranty	5 years @ Tc 60°C from the date of manufacture



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## Charts

Figure 1

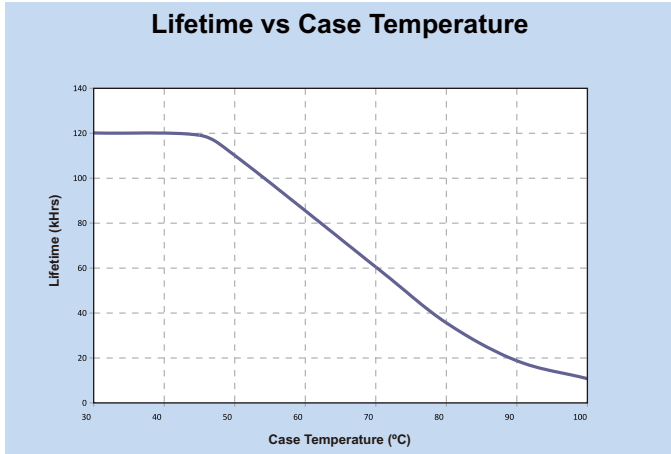


Figure 2

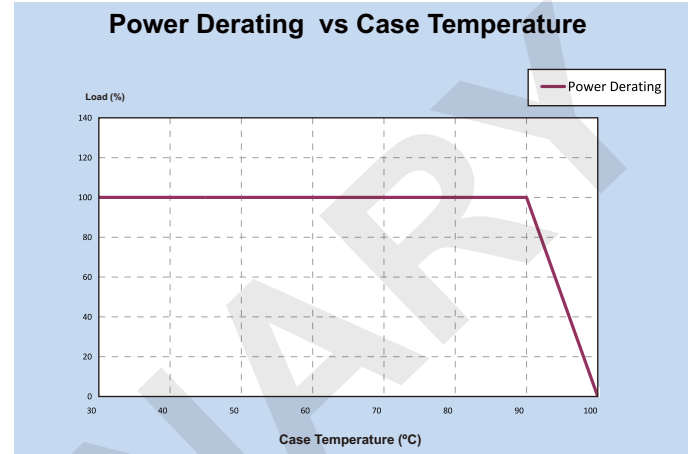
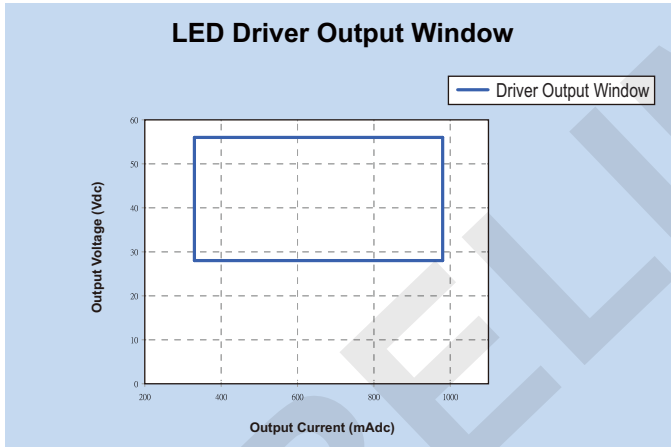


Figure 3

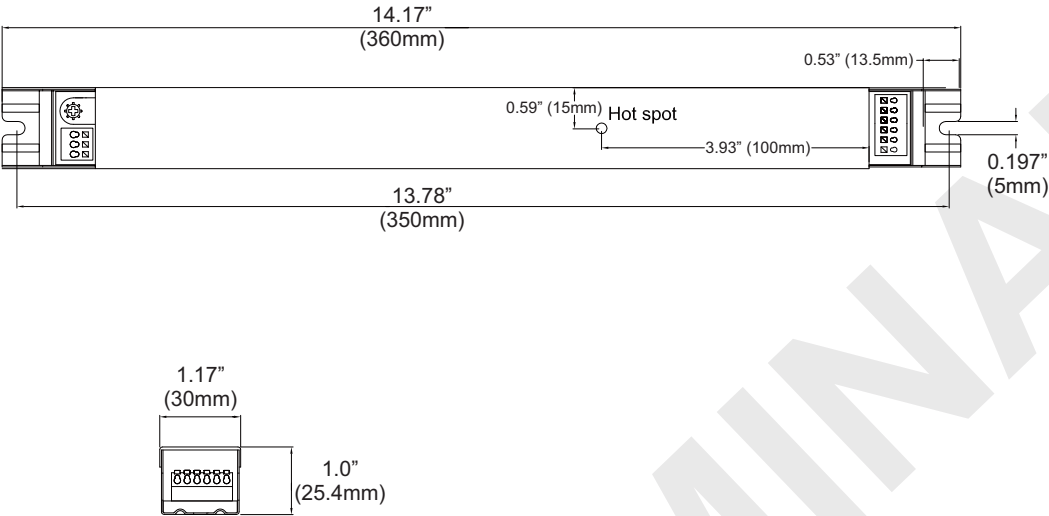




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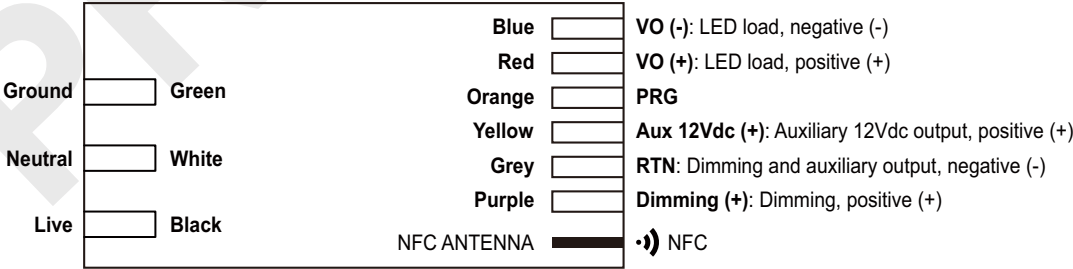
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## Mechanical Drawings



Overall Dimensions	
Length	14.17" [360mm]
Width	1.18" [30mm]
Height	1.0" [25.4mm]
Mounting	13.78" [350mm]
Wire Length	
Input/Output	Terminal Block
0-10V Dimming	Terminal Block

## Wire Diagram



### NOTES :

- 1) This driver must be installed by a licensed electrician
- 2) This driver must be grounded



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## Guidelines

### Grounding

- Driver must be grounded by means of the Driver case.

### Over temperature protection

- The Fulham ThoroLED drivers is protected against thermal overload. If the temperature limit is exceeded, the output current is reduced.

### LED load

- Fulham ThoroLED drivers are designed to drive passive LEDs, -COB's and -LED assemblies .Proper function is not guaranteed when (LED)loads with active components are used.

### Short-circuit protection

- In case of a short circuit the LED driver switches to protection mode. After the removal of the short-circuit the LED driver will recover automatically.

### No-load Operation

- In no-load operation the output voltage will not exceed the specified open circuit output voltage.

### Hot Swapping

- This driver does not support hot swapping of the LEDs.

### Remote Mounting

- Up to 38ft with 18AWG. Contact Fulham for higher remote distance.

### Service life/Lifetime

- Failure Rate Info based upon MTBF modeling: 90% survivals at end of life @  $\leq T_c$  lifetime rating.

### Warranty

- Reference Fulham's limited Warranty: <https://cdn.fulham.com/PDFs/Limited-Warranty.pdf>



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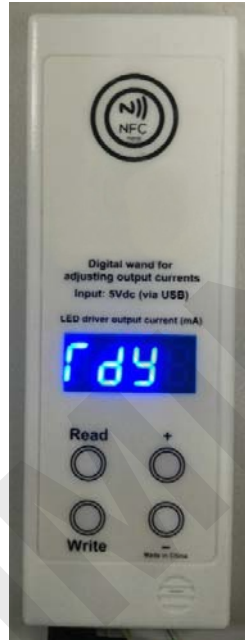
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## Programing Tool

- 1) To program this LED driver use the Fulham TPSB-100AW NFC Digital Wand.
  - 2) Please consult the user manual for instructions on using the TPSB-100AW FC Digital Wand.
- Note: The LED driver can only be programmed in 10mA increments.



Toggle switch on side  
Upward: Easy Mode  
Downward: Advanced Mode



Ready State  
Of  
Advanced Mode



Program State  
Of  
Advanced Mode



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## Part Number Matrix

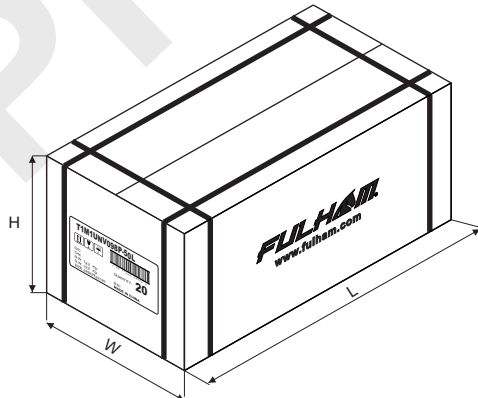
<u>T</u>	<u>1</u>	<u>M</u>	<u>1</u>	<u>UNV</u>	<u>098</u>	<u>P</u>	<u>50</u>	<u>L</u>
<u>LED Driver</u>	<u># of Control Channels</u>	<u>Dimming Control Type</u>	<u># of Control Channels</u>	<u>Input Voltage</u>	<u>Output Current</u>	<u>Characteristic</u>	<u>Max. Output Power</u>	<u>Case Type</u>
T = ThoroLED	1 = 1 Channels	M = 0-10V	1 = 1 Channels	UNV = 120V~277V	098 = 980mA Max.	P = Programmable	55 = 55 W	L = Long

## Product Image



## Packaging

### Master Carton



OUTER DIMENSION		
L	W	H
14.56"(370mm)	6.49"(165mm)	5.11"(130mm)
Net Weight	Gross Weight	QUANTITY
20.72 lbs. (9.4 kg)	22.04 lbs. (10 kg)	20pcs.