

## eldoLED SL0564S

# eldoLED SOLOdrive 564/S 50W LED Driver Instruction Manual

Model: SL0564S

## 1. INTRODUCTION

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This manual provides essential information for the safe and efficient installation, operation, and maintenance of the eldoLED SOLOdrive 564/S 50W 'Dim to Dark' Constant Current 0-10V Dimmable LED Driver. The SOLOdrive 564/S is designed to provide high-quality, flicker-free dimming for LED modules and arrays, offering smooth brightness changes down to 0.1%.

## 2. SAFETY INFORMATION

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**WARNING: Risk of Electric Shock. Installation and servicing must be performed by qualified personnel only.**

- Always disconnect power before installing, servicing, or cleaning the unit.
- Ensure all wiring complies with national and local electrical codes.
- Do not operate the driver with damaged wiring or if the casing is compromised.
- This device is intended for use with compatible LED modules and arrays. Refer to the specifications for appropriate load requirements.
- Ensure proper grounding to prevent electrical hazards.
- The driver is designed for use in damp and dry locations.

## 3. PRODUCT OVERVIEW

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The eldoLED SOLOdrive 564/S is a high-performance, constant current LED driver featuring 'Dim to Dark' technology for superior dimming quality. It integrates seamlessly with various LED modules and control systems.

### Key Features and Benefits:

- **Natural Dimming:** Provides smooth brightness changes, excellent flicker performance, adaptable dimming curves, and a configurable minimum dimming level, dimming down to 0.1%.

- **LEDcode:** Configurable design to work with most constant current LED modules and arrays, offering a connection point for integrated peripheral controls.
- **Programmable:** Allows fine-tuning of driver parameters for specific application requirements.
- **Performance:** Features a universal input voltage range (120-250V DC), low inrush current, low total harmonic distortion (THD), high power factor, and high efficiency.
- **Camera Compatibility:** Hybrid HydraDrive technology ensures flicker-free operation, suitable for TV studios and security camera environments.



Figure 1: eldoLED SOLOdrive 564/S LED Driver, showing its compact form factor.

## 4. SPECIFICATIONS

Detailed technical specifications for the SOLOdrive 564/S LED Driver:

Parameter	Value
Type	Constant Current

Parameter	Value
Form Factor	S
Output Power	50W
Input Voltage	120-250V DC
Output Voltage	2-55V DC
Output Current	150-1400mA (settable)
Dimming Control	0-10V
Dimming Range	100% - 0.1%
Dimming Method	Hybrid HydraDrive
Frequency Range	50-60 Hz
Maximum Case Temperature (Tc point)	75 °C
Ambient Operating Temperature	-20 °C to +50 °C
Dimensions (L x W x H)	5" x 3" x 1.20" (12.7 cm x 7.62 cm x 3.05 cm)
Weight	9 Ounces (approx. 255g)
ASIN	B0DTW5TFG3
Item Model Number	SL0564S

## 5. SETUP AND INSTALLATION

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Proper installation is crucial for the performance and longevity of the LED driver. Always ensure power is disconnected before beginning installation.

### Wiring Connections:

- Input Power:** Connect the AC input (120-277V, 50-60Hz) to the designated input terminals (L, N). Ensure correct polarity.
- LED Output:** Connect the LED module(s) to the LED output terminals (+, -). Observe correct polarity for the LED load. The output current is settable between 150-1400mA.
- Dimming Control (0-10V):** Connect the 0-10V dimming wires to the dedicated dimming terminals. Ensure the dimming control signal is compatible with 0-10V standards.
- LEDcode/NTC:** These terminals are for advanced control and temperature sensing. Refer to eldoLED documentation for specific programming and connection details. Note that LEDcode/NTC is not isolated from Class 2 output.



Figure 2: Top view of the SOLOdrive 564/S, highlighting input/output specifications and regulatory markings. Key identifiers include 801-00570-016, 122722, 42949B, and \*261G83\*.



Figure 3: Angled view of the SOLOdrive 564/S, illustrating the terminal blocks for power, LED output, and dimming control connections.



Figure 4: Top-down view of the SOLOdrive 564/S, providing a clear perspective of the wiring terminals for accurate connection.

**Mounting:** The driver is designed for wall mount installation. Ensure adequate ventilation around the unit to prevent overheating.

## 6. OPERATING INSTRUCTIONS

Once properly installed and powered, the SOLOdrive 564/S operates automatically. The primary control is through the 0-10V dimming input.

- **Dimming:** Apply a 0-10V signal to the dimming terminals. A 10V signal will result in 100% light output, while a 0V signal will dim the LEDs to 0.1% (near dark).
- **Programming:** The SOLOdrive 564/S is programmable. Custom output current, dimming curves, and minimum dimming levels can be configured using eldoLED's programming tools. Contact eldoLED support or your distributor for programming services or tools.

## 7. MAINTENANCE

The eldoLED SOLOdrive 564/S is designed for long-term, reliable operation with minimal maintenance.

- **Cleaning:** Ensure the driver is clean and free from dust and debris. Disconnect power before cleaning. Use a dry, soft cloth. Do not use liquid cleaners.
- **Inspection:** Periodically inspect wiring for any signs of damage or loose connections.
- **Ventilation:** Ensure that the area around the driver remains clear to allow for proper heat dissipation.

## 8. TROUBLESHOOTING

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If you encounter issues with your SOLOdrive 564/S, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
No light output	No input power Incorrect wiring Faulty LED module Dimming signal at 0V	Check power supply and circuit breaker Verify all wiring connections (input, output) Test LED module with a known good driver Check 0-10V dimming signal; ensure it's above 0V for light output
Flickering or unstable light	Loose connections Incompatible dimmer Overloaded driver	Check all wiring connections Ensure 0-10V dimmer is compatible and functioning correctly Verify LED load does not exceed driver's maximum output power (50W)
Driver is hot to touch	Insufficient ventilation Ambient temperature too high Overloaded driver	Ensure proper airflow around the driver Verify ambient operating temperature is within specified range (-20 °C to +50 °C) Check LED load against driver specifications

If problems persist, contact eldoLED technical support.

## 9. WARRANTY AND SUPPORT

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### Warranty:

The eldoLED SOLOdrive 564/S LED Driver comes with a **5-Year Warranty** from the date of purchase, covering defects in materials and workmanship under normal use and service conditions. This warranty does not cover damage caused by improper installation, misuse, unauthorized modifications, or acts of nature.

### Technical Support:

For technical assistance, programming inquiries, or warranty claims, please contact eldoLED customer support or your authorized distributor. Please have your product model number (SL0564S) and purchase information ready when contacting support.

You can find more information and contact details on the official eldoLED website: [www.eldoled.com](http://www.eldoled.com)

