

eldoLED LINEARdrive 720D

eldoLED LINEARdrive 720D Intelligent LED Driver/Controller User Manual

Model: LINEARdrive 720D

INTRODUCTION

This manual provides essential instructions for the safe and efficient installation, operation, and maintenance of the eldoLED LINEARdrive 720D Intelligent LED Driver/Controller. The LINEARdrive 720D is a constant voltage LED driver designed for professional lighting applications, offering DMX/RDM and DALI control with four independent output channels.

Please read this manual thoroughly before installation and retain it for future reference.

IMPORTANT SAFETY INFORMATION

- Installation must be performed by a qualified electrician in accordance with all local and national electrical codes.
- Disconnect power before installing or servicing the device.
- Ensure the input voltage and current ratings match the specifications of the LINEARdrive 720D.
- Do not expose the device to moisture or extreme temperatures outside the specified operating range (-20°C to +50°C).
- This device is designed for use with constant voltage LED loads only.
- The device operates with VDC in: SELV equivalent.

PRODUCT OVERVIEW

The eldoLED LINEARdrive 720D is an intelligent LED driver/controller featuring:

- DMX/RDM and DALI control interfaces.

- Four independent control channels.
- Constant voltage output suitable for various LED applications.
- High efficiency: 99% typical.
- Operating ambient temperature (Ta): -20°C to +50°C.
- Maximum case temperature (Tc): +65°C.
- Compliance with IEC61347, EN55015, IEC61003, EN61547 standards.



Figure 1: Top view of the eldoLED LINEARdrive 720D, showing the brand 'eldoLED', model 'LINEARdrive 720D', control buttons, and compliance markings (IEC61347, EN55015, IEC61003, EN61547). Key specifications like VDC in: SELV equivalent, 99% typical efficiency, Ta: -20°C to +50°C, and Tc: +65°C are also visible.

SETUP AND INSTALLATION

1. Mounting

Mount the LINEARdrive 720D in a suitable enclosure or location that allows for adequate ventilation and prevents exposure to moisture. Ensure the ambient temperature remains within the specified operating range.

2. Wiring Connections

The LINEARdrive 720D requires connections for power input, LED outputs, and control signals (DMX/RDM or DALI). Refer to the detailed wiring diagrams provided with the product packaging for specific connection points.

- **Power Input:** Connect the appropriate constant voltage power supply to the input terminals. Ensure correct polarity.
- **LED Outputs:** Connect your constant voltage LED fixtures to the four output channels. Observe maximum current ratings per channel and total power output.
- **Control Signal (DMX/RDM or DALI):** Connect the DMX/RDM or DALI control lines to the designated terminals. Ensure proper termination for DMX/RDM networks.

Caution: Incorrect wiring can damage the device and connected LEDs. Always verify connections before applying power.

OPERATING INSTRUCTIONS

The LINEARdrive 720D supports both DMX/RDM and DALI control protocols. The specific operating mode and addressing are typically configured via the device's onboard interface (buttons visible on the unit) or through RDM (Remote Device Management) for DMX, or DALI commissioning tools.

1. DMX/RDM Control

- **DMX Addressing:** Set the DMX start address using the onboard buttons or via RDM. Each of the four output channels will typically occupy consecutive DMX addresses.
- **RDM Functionality:** Use an RDM-compatible controller to discover the device, monitor its status, and configure settings remotely.
- **Control:** Send DMX values (0-255) to the assigned addresses to control the intensity of each LED output channel.

2. DALI Control

- **DALI Addressing:** The device can be addressed as a DALI control gear. Use a DALI commissioning tool to assign short addresses to the device and its individual channels.
- **Control:** Control the intensity of each LED output channel using standard DALI commands.

3. Onboard Interface

The LINEARdrive 720D features onboard buttons for basic configuration, such as setting DMX addresses or selecting operating modes. Refer to the full product datasheet for detailed instructions on using these buttons.

MAINTENANCE

The eldoLED LINEARdrive 720D is designed for long-term, reliable operation with minimal maintenance.

- **Cleaning:** Periodically clean the exterior of the device with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Inspection:** Regularly inspect wiring connections for any signs of damage or loose terminals.
- **Ventilation:** Ensure that ventilation openings (if any) are not obstructed to prevent overheating.

Warning: Do not attempt to open or repair the device. Refer all servicing to qualified personnel.

TROUBLESHOOTING

If you encounter issues with your LINEARdrive 720D, consult the following table before contacting support:

Problem	Possible Cause	Solution
LEDs not lighting up.	No power to the driver. Incorrect wiring. No control signal. Faulty LED fixture.	Check power supply and connections. Verify all wiring according to diagrams. Ensure DMX/DALI controller is active and sending signals. Test LED fixture independently.
LEDs flickering or unstable.	Poor control signal. Loose connections. Overloaded output channel.	Check DMX/DALI signal integrity and termination. Inspect and secure all wiring connections. Ensure total LED load does not exceed channel or device limits.

Problem	Possible Cause	Solution
Device is hot to the touch.	Insufficient ventilation. Ambient temperature too high. Overloaded device.	Ensure proper airflow around the device. Verify ambient temperature is within -20°C to +50°C. Reduce connected load if exceeding specifications.

SPECIFICATIONS

Feature	Detail
Model	LINEARdrive 720D
Control Protocols	DMX/RDM, DALI
Output Channels	4
Output Type	Constant Voltage
Input Voltage	VDC in: SELV equivalent
Efficiency	99% typical
Ambient Temperature (Ta)	-20°C to +50°C
Case Temperature (Tc)	+65°C
Material	Plastic
Compliance	IEC61347, EN55015, IEC61003, EN61547
UPC	715706905572

WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation included with your product or visit the official eldoLED website. Keep your purchase receipt as proof of purchase for warranty claims.

Contact information for support can typically be found on the manufacturer's website or product packaging.