

THKFMSRC KC-700-SMART

THKFMSRC KC-700-SMART Constant Current Receiver

USER MANUAL

1. Introduction

Thank you for choosing the THKFMSRC KC-700-SMART Constant Current Receiver. This device is designed to provide reliable low-voltage power conversion and precise brightness control for compatible LED lighting systems. Please read this manual thoroughly before installation and operation to ensure safe and efficient use of the product.

2. Safety Information

WARNING: Electrical shock hazard. Installation should only be performed by a qualified electrician or trained personnel. Disconnect power before installation or servicing.

- Ensure the input voltage (DC12-36V) matches the power supply specifications.
- Do not exceed the maximum output current of 700mA per channel or maximum power of 25W per channel.
- Keep the device away from water, moisture, and high temperatures.
- Do not attempt to open or modify the device. There are no user-serviceable parts inside.
- Ensure proper ventilation around the receiver to prevent overheating.

3. Product Overview

The KC-700-SMART is a constant current receiver specifically designed for low-voltage lighting applications. It features two independent output channels, allowing for flexible control of multiple LED fixtures. Its primary function is to convert a DC input voltage into a stable constant current output, essential for the optimal performance and longevity of constant current LEDs. This receiver is compatible with KDD-DIM-L01 or KDD-DIM-L04 dimmers for brightness control.

Key Features:

- Input Voltage: DC12-36V
- Output Channels: Two independent
- Brightness Control: 5-100% dimming range
- Maximum Output Current: 700mA per channel
- Maximum Power: 25W per channel
- Learning Function: For pairing with compatible dimmers (KDD-DIM-L01 or KDD-DIM-L04)

4. Setup and Installation

Before beginning installation, ensure all power is disconnected at the circuit breaker.

Wiring Diagram (Conceptual):

Note: A detailed wiring diagram is typically provided with the product packaging. The following is a general guide.

1. **Input Connection:** Connect the DC12-36V power supply to the input terminals of the KC-700-SMART receiver. Ensure correct polarity (+ to + and - to -).
2. **Output Connection:** Connect your constant current LED fixtures to the two independent output channels. Each channel supports up to 700mA and 25W. Ensure correct polarity for each LED fixture.
3. **Dimmer Connection:** Connect the KDD-DIM-L01 or KDD-DIM-L04 dimmer to the designated control input terminals on the KC-700-SMART receiver. Refer to the dimmer's manual for specific wiring instructions.
4. **Secure Wiring:** Ensure all wire connections are secure and properly insulated.
5. **Mounting:** Mount the receiver in a suitable, well-ventilated location, away from direct heat or moisture.

5. Operating Instructions

Once the KC-700-SMART receiver is correctly installed and powered, it is ready for operation with a compatible dimmer.

Pairing with Dimmer (Learning Function):

The KC-700-SMART features a learning function to pair with KDD-DIM-L01 or KDD-DIM-L04 dimmers. The exact procedure may vary slightly depending on the dimmer model. Generally, the steps involve:

1. Ensure both the receiver and the dimmer are powered on.
2. Initiate the pairing mode on the dimmer (refer to the dimmer's manual for specific instructions, often involving a button press or sequence).
3. Within a short timeframe (e.g., 5-10 seconds), activate the learning function on the KC-700-SMART receiver (this might be a small button or a specific power cycle sequence).
4. Successful pairing is usually indicated by a flash of the connected lights or an LED indicator on the receiver/dimmer.

Brightness Control:

After successful pairing, use the KDD-DIM-L01 or KDD-DIM-L04 dimmer to adjust the brightness of the connected LED fixtures. The receiver supports a dimming range of 5% to 100%.

6. Maintenance

The KC-700-SMART receiver requires minimal maintenance.

- **Cleaning:** Ensure power is off before cleaning. Use a soft, dry cloth to wipe the exterior of the device. Do not use harsh chemicals or abrasive cleaners.
- **Inspection:** Periodically inspect the wiring for any signs of damage, loose connections, or wear. Address any issues promptly.
- **Ventilation:** Ensure that the area around the receiver remains clear to allow for proper airflow and prevent heat buildup.

7. Troubleshooting

If you encounter issues with your KC-700-SMART receiver, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No power to LEDs	No input power; Incorrect wiring; Faulty LED fixture	Check power supply and connections; Verify wiring polarity; Test LED fixture separately
Dimming not working	Receiver not paired with dimmer; Incorrect dimmer wiring; Incompatible dimmer	Perform pairing procedure; Check dimmer connections; Ensure KDD-DIM-L01/L04 is used
LEDs flicker or unstable brightness	Loose connections; Overloaded channel; Incompatible LED fixture	Check all wiring connections; Reduce load on channel; Ensure LEDs are constant current type
Receiver is hot	Poor ventilation; Overloaded channels	Ensure adequate airflow; Reduce load on channels to stay within specifications

If the problem persists after trying these solutions, please contact customer support.

8. Specifications

Feature	Specification
Model	KC-700-SMART
Input Voltage	DC12-36V
Output Channels	Two independent
Brightness Control	5-100%
Max Output Current	700mA/channel
Max Power	25W/channel
Compatibility	KDD-DIM-L01 or KDD-DIM-L04 dimmers
Item Weight	50 Grams

9. Warranty

THKFMSRC products are manufactured to high-quality standards. This product is covered by a limited warranty against defects in materials and workmanship from the date of purchase. Please retain your proof

of purchase for warranty claims. The warranty does not cover damage caused by improper installation, misuse, unauthorized modifications, or acts of nature. For specific warranty terms and conditions, please refer to the documentation provided with your purchase or contact THKFMSRC customer support.

10. Support

For technical assistance, troubleshooting, or warranty inquiries, please contact THKFMSRC customer support. Have your product model number (KC-700-SMART) and purchase information ready when contacting support.

© 2023 THKFMSRC. All rights reserved.