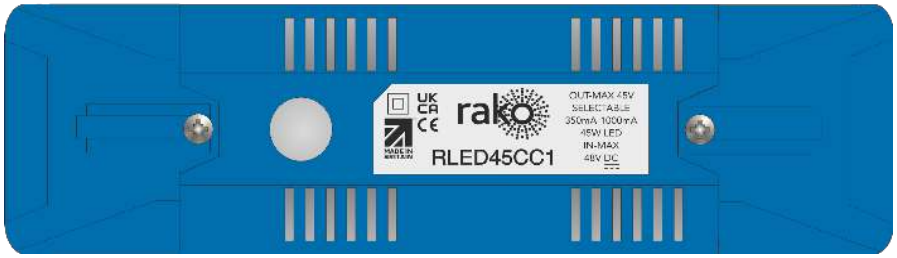
Instruction Manual

RLED45CC1

Single Channel Constant Current Dimmer

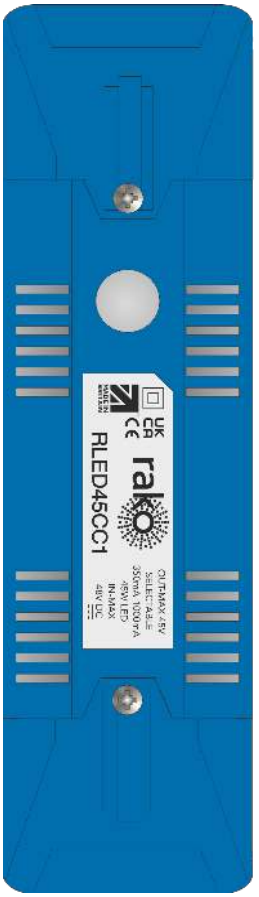


2024
Version 2.0.0

For more information relating to the RLED45CC1, see the Wireless Module Application Sheet, Wireless RAK Application Sheet, and Wireless Device LED Diagnostics.

Contents

1 What is the RLED45CC1?
2 Loadings
3 Installation of the RLED45CC1
4 Initial Checks
5 Programming the RLED45CC1
Appendix 1: Example wiring diagram
Appendix 2: LED Diagnostics



1 What is the RLED45CC1?

- The RLED45CC1 is a Constant Current LED dimmer designed for controlling a single Constant Current load.
- Offering various output options, the RLED45CC1 supports 350mA, 500mA, 600mA, 700mA and 1000mA loads.
- As well as being compatible with Rako Wireless systems, the RLED45CC1 can be integrated into a Wired system when within range of a WK-HUB.

2 Loadings

The permissible loadings depend on several criteria keeping within the loading of 45W and a forward Voltage of 45V.

Min Load	Max Load
3W	45W

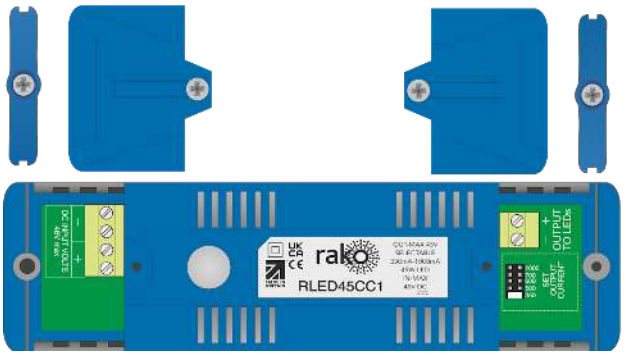
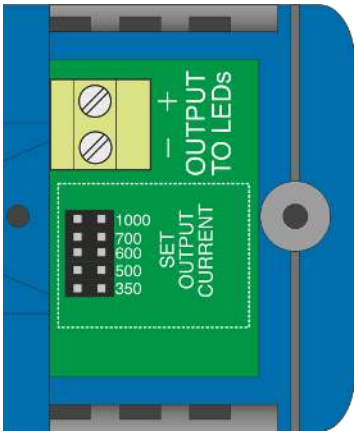
To calculate the total Forward Voltage of the load, refer to the manufacturer's data.

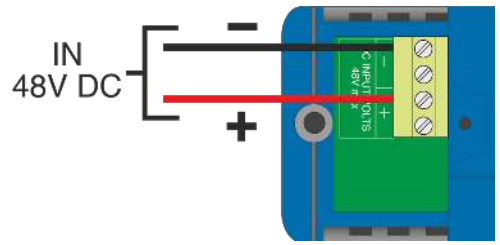
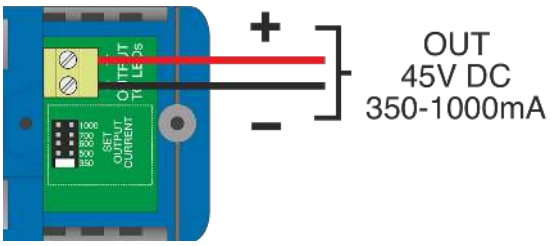
3 Installation of the RLED45CC1

⚠WARNING

Installation should only be carried out by a competent electrician.
DO NOT CONNECT DIRECTLY TO THE MAINS SUPPLY.

- All LED fittings should be wired in series.
- RLED45CC1 modules should be mounted in areas that are adequately ventilated, dry, and outside of any enclosed metal casings that may interfere with the Wireless signal.
- Modules should be mounted vertically, with the terminals at the bottom, or horizontally.
- While the modules are designed to be maintenance-free, they should be mounted in an accessible location should investigation or re-addressing of the units be necessary.
- Ensure that the cable clamps are fitted tightly to secure the cables.

STEP 1		Remove the covers and cable clamps.
STEP 2		Select the Constant Current output on the RLED45CC1 to match the rating on the load. • 1000mA • 700mA • 600mA • 500mA • 350mA NB Do not set multiple jumpers.

STEP 3		Connect the 48V DC input supply.
STEP 4		Connect the load, there can be up to four controllable outputs. NB Ensure that the connected load is wired in series, as parallel wiring will cause damage to the RLED40CC1 and the load.
STEP 5		Fix the cable clamps over the cables to secure them in place, and replace the cover.

4 Initial Checks

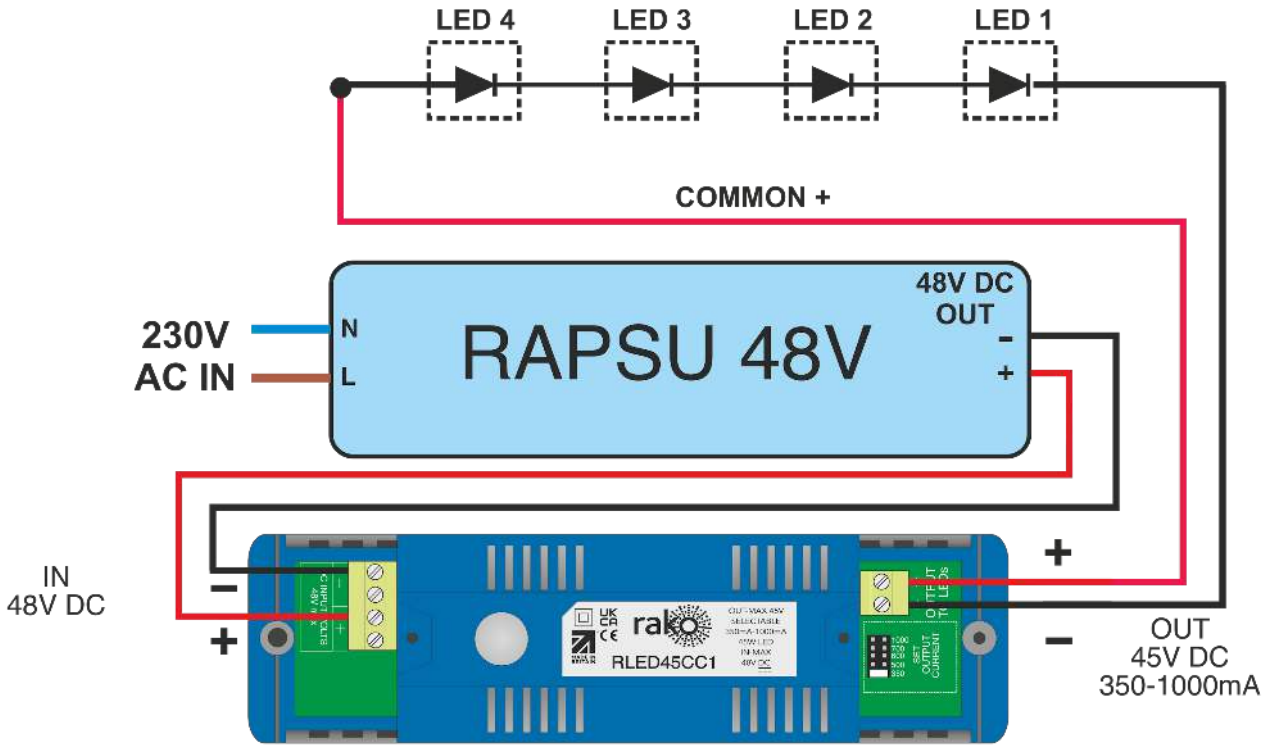
- When power is initially connected to the module, the load should power up to full brightness.
- The clear button can be used as a manual on/off switch to test the circuit.
- The internal LED behind the clear button will flicker when the module receives any Rako wireless message and is a useful diagnostic indicator. The LED feedback becomes inactive after 20 minutes to avoid a nuisance light spill but can be re-activated by pressing the clear button.

5 Programming the RLED45CC1

Once the RLED45CC1 has powered up and has been tested working with the setup button, the device is ready to be programmed. For instructions on how to program the RLED45CC1, see the Wireless Module Setup Guide.

Thank you for choosing Rako Controls; we hope that you are pleased with your system. Should you require further assistance, please contact us via our website, www.rakocontrols.com, or by calling our customer support helpline on 01634 226666.

Appendix 1: Example wiring diagram



Appendix 2: LED Diagnostics

Wireless Range	LED Pulses	Description
Good wireless reception		When the unit is receiving successfully, there will be four rapid pulses on the LED when any wireless message is sent.
Bad wireless reception		When the unit is out of range, there will be intermittent pulses on the LED when any wireless message is sent. NB It is recommended to install a wireless repeater (WRB-100) if you are experiencing intermittent wireless range.