

# DMX-LED-Dimmer CC1

User Manual



**DMX** <sup>®</sup>  
**4**  
**ALL**



For your own safety, please read this user manual and warnings carefully before installation.

## Description

The **DMX-LED-Dimmer CC1** is designed for controlling LEDs, which are operated with constant current and works with up to 48V DC.

### Output with selectable constant current modules

Different constant current modules with different output currents are available for connection. The constant current modules are available as accessories and are not included in the scope of delivery.

### Power supply from 12V up to 48V

The DMX-LED Dimmer CC1 works with supply voltages from 12V to 48V.

### 0% to 100%

The connected LEDs can be dimmed via PWM of 0% up to 100%.

### DMX FAIL-Function

An adjustable DMX FAIL-Function offers the option to hold the current state (HOLD) or to adopt a predefined value if the DMX signal fails.

### RDM support

The DMX-LED-Dimmer CC1 the configuration via RDM or DMX.

### Top hat rail mounting available

Suitable for the DMX-LED-Dimmer CC1 the DIN rail housing 350 is available as accessory.

## Data sheet

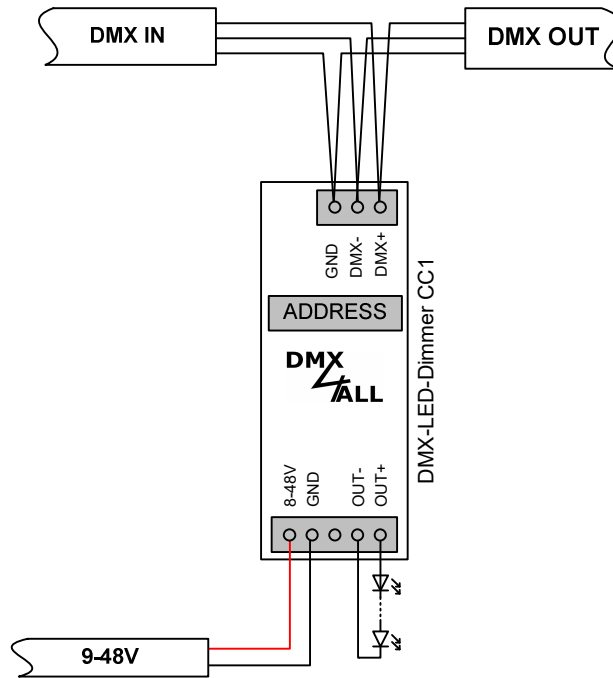
<b>Power supply:</b>	9-48V DC 20mA@12V; 11mA@24V; 6mA@48V (current consumption without LED-Driver)
<b>Protocol:</b>	DMX512 RDM
<b>DMX channels:</b>	1 Channel
<b>DMX-FAIL:</b>	HOLD / 0-100%
<b>Output:</b>	1 current limited dimmable LED-Output Output current according to used constant current-module
<b>PWM-Frequency:</b>	244 Hz
<b>Dimensions:</b>	29,2mm x 82mm

## Content

- 1x DMX-LED-Dimmer CC1
- 1x Quick manual german and english

**Current modules are not included in the delivery!**

## Connection



## LED-Display

The integrated green LED is a multi-function display.

During the normal operation the LED lights permanently. In this case the device is working.

Furthermore, the LED shows the current status. In this case the LED lights up in short pitches and then is missing for longer time.

The number of the flashing lights is equal to the event number.

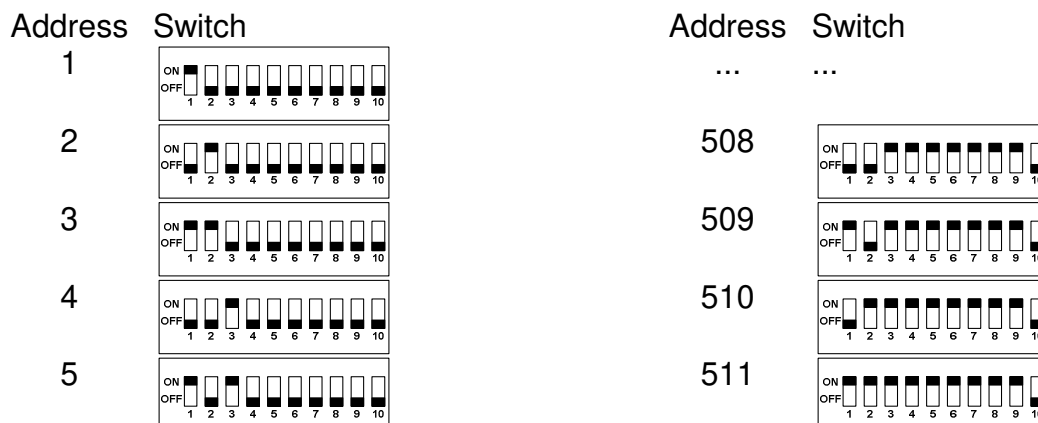
Status-Number	Error	Description
1	No DMX	No DMX-Signal is recognized
2	Addressing error	Please check the adjusted DMX address

## DMX-Addressing

The start address is adjustable via the DIP-switches.

Thereby switch 1 has the valency  $2^0 (=1)$ , switch 2 the valency  $2^1 (=2)$  and so on until switch 9 has the valency  $2^8 (=256)$ . The switches showing ON represent in sum the starting address.

In total all switches showing ON represent the starting-address.



## Constant current-modules

The following constant current-modules are available as accessory for the DMX-LED-Dimmer CC1:

- Constant current LED-Driver LDD-300H (300mA)
- Constant current LED-Driver LDD-350H (350mA)
- Constant current LED-Driver LDD-500H (500mA)
- Constant current LED-Driver LDD-600H (600mA)
- Constant current LED-Driver LDD-700H (700mA)
- Constant current LED-Driver LDD-1000H (1000mA)
- Constant current LED-Driver LDD-1200H (1200mA)
- Constant current LED-Driver LDD-1500H (1500mA)

Plug the constant current module in such way, that the output of the module (Vout) points to the screw terminals:



## DMX-Failure behavior

The **DMX-LED-Dimmer CC1** has a DMX- Failure behavior (DMX-FAIL), which stores the last value after a DMX-Signal failure. This function leaves the output unchanged (HOLD), set to 0% (ALL OFF) or activated with 100% (ALL ON).

A power failure occurs that the last value will be rejected !

The DMX-HOLD Function can be activated via switch 7 and 8 during the operating mode adjustment:

- Turn off the device
- Set switch 9 on OFF and switch 10 on ON  
Switch 1 to 6 is reserved and should be OFF
- Adjust the failure behavior via switch 7 and 8
- Turn on the device
- Set switch 9 on ON
- Set switch 10 on OFF
- The LEDs lights up 4x to confirm for takeover
- Set about switch 1-9 the DMX-address

Switch 7	Switch 8	Failure behavior
OFF	OFF	ALL OFF (0%)
ON	OFF	ALL ON (100%)
OFF	ON	HOLD
ON	ON	Reserved



Via the RDM parameter DMX\_FAIL\_MODE the level can be adjusted also.

## RDM (up to Hardware V1.3 with Firmware V1.3 or higher)

RDM is the shortcut for **R**emote **D**evice **M**anagement.

As soon as the device is in the system, device-dependent settings can be made remotely via RDM command due to the uniquely assigned UID. A direct access to the device is not necessary.



If the DMX start address is set via RDM, all address switches at the DMX-LED-Dimmer CC1 must be set to OFF ! A DMX start address set via the address switches always has priority !

This device supports the following RDM commands:

Parameter ID	Discovery Command	SET Command	GET Command	ANSI/PID
DISC_UNIQUE_BRANCH	✓			E1.20
DISC_MUTE	✓			E1.20
DISC_UN_MUTE	✓			E1.20
DEVICE_INFO			✓	E1.20
SUPPORTED_PARAMETERS			✓	E1.20
PARAMETER_DESCRIPTION			✓	E1.20
SOFTWARE_VERSION_LABEL			✓	E1.20
DMX_START_ADDRESS		✓	✓	E1.20
DEVICE_LABEL		✓	✓	E1.20
MANUFACTURER_LABEL			✓	E1.20
DEVICE_MODEL_DESCRIPTION			✓	E1.20
IDENTIFY_DEVICE		✓	✓	E1.20
FACTORY_DEFAULTS		✓	✓	E1.20
DMX_PERSONALITY		✓	✓	E1.20
DMX_PERSONALITY_DESCRIPTION			✓	E1.20
DISPLAY_LEVEL		✓	✓	E1.20
DMX_FAIL_MODE		✓	✓	E1.37
IDENTIFY_MODE		✓	✓	E1.37



Parameter ID	Discovery Command	SET Command	GET Command	ANSI/ PID
SERIAL_NUMBER <sup>1)</sup>			✓	PID: 0xD400

1) Manufacturer depending RDM control commands (MSC - Manufacturer Specific Type)

Manufacturer depending RDM control commands:

### SERIAL\_NUMBER

PID: 0xD400

Outputs a text description (ASCII text) of the device serial number.

GET    Send:    PDL=0  
       Receive: PDL=21 (21 Byte ASCII-Text)

## Factory Reset



Before running the factory reset, read all steps carefully.

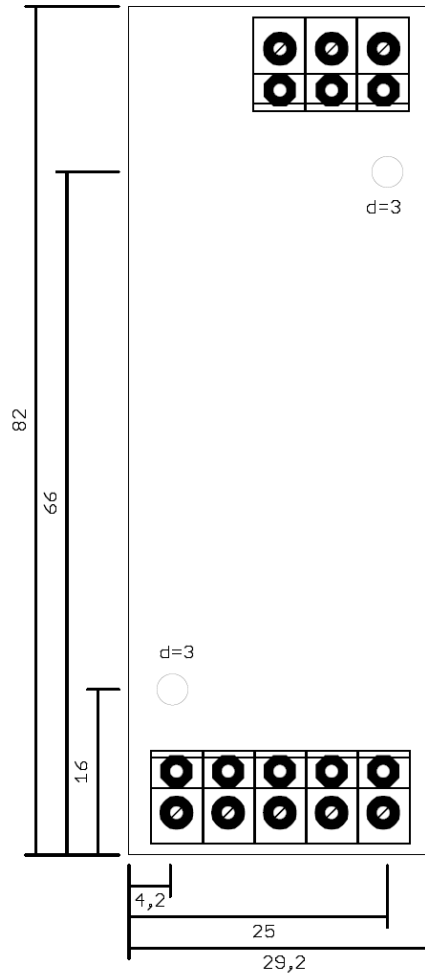
To reset the **DMX-LED-Dimmer CC1** to delivery state, proceed as follows:

- Turn off device (power supply)
- Set DIP switch 1 up to 10 to ON
- Turn on the device (power supply)
- The LED lights up 20x during ca. 3 seconds
  - ➔ While the LED lights up set DIP switch 10 to OFF
- Now, the Factory Reset is executed
  - ➔ The LED lights up with error code 4
- Turn off the device (power supply)
- Now, the device can be used



If a Factory Reset is needed again, this procedure can be repeated at any time.

## Dimensions



(all details in mm)

## Accessories

### Top-hat rail mounting 350



### Constant current LED-Module

- Constant current LED-Driver LDD-300H
- Constant current LED-Driver LDD-350H
- Constant current LED-Driver LDD-500H
- Constant current LED-Driver LDD-600H
- Constant current LED-Driver LDD-700H
- Constant current LED-Driver LDD-1000H
- Constant current LED-Driver LDD-1200H
- Constant current LED-Driver LDD-1500H



## CE-Conformity



This assembly (board) is controlled by a microprocessor and uses high frequency. In order to maintain the properties of the module with regard to CE conformity, installation into a closed metal housing in accordance with the EMC directive 2014/30/EU is necessary.

## Disposal



Electronical and electronic products must not be disposed in domestic waste. Dispose the product at the end of its service life in accordance with applicable legal regulations. Information on this can be obtained from your local waste disposal company.

## Warning



This device is no toy. Keep out of the reach of children. Parents are liable for consequential damages caused by nonobservance for their children.

## Risk-Notes



You purchased a technical product. Conformable to the best available technology the following risks should not be excluded:

### **Failure risk:**

The device can drop out partially or completely at any time without warning. To reduce the probability of a failure a redundant system structure is necessary.

### **Initiation risk:**

For the installation of the board, the board must be connected and adjusted to foreign components according to the device paperwork. This work can only be done by qualified personnel, which read the full device paperwork and understand it.

### **Operating risk:**

The Change or the operation under special conditions of the installed systems/components could as well as hidden defects cause to breakdown within the running time.

### **Misusage risk:**

Any nonstandard use could cause incalculable risks and is not allowed.

**Warning:** It is not allowed to use the device in an operation, where the safety of persons depend on this device.



DMX4ALL GmbH  
Reiterweg 2A  
D-44869 Bochum  
Germany

Last changes: 15.09.2021

© Copyright DMX4ALL GmbH

All rights reserved. No part of this manual may be reproduced in any form (photocopy, pressure, microfilm or in another procedure) without written permission or processed, multiplied or spread using electronic systems.

All information contained in this manual was arranged with largest care and after best knowledge. Nevertheless errors are to be excluded not completely. It is pointed out that neither a guarantee nor the legal responsibility or any liability for consequences which are due to incorrect information is assumed. This document does not contain assured characteristics. The guidance and the features may be changed at any time and without previous announcement