Lunatone

DALI RGB
LED Dimmer CV

Datasheet
Control Gear

RGB LED Dimmer (CV, DT8)

Art. Nr. 89453837 (4A)
Art. Nr. 86458514 (8A)
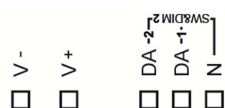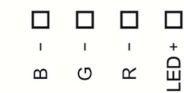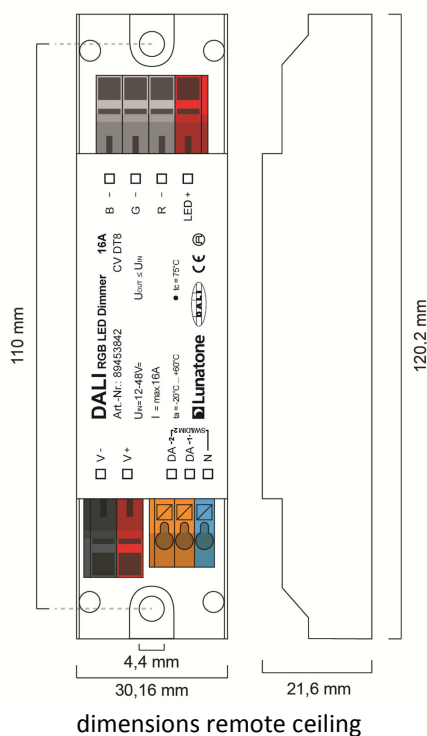Art. Nr. 89453839 (10A)
Art. Nr. 89453842 (16A)

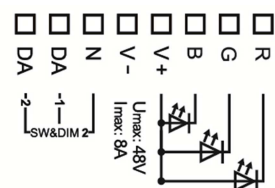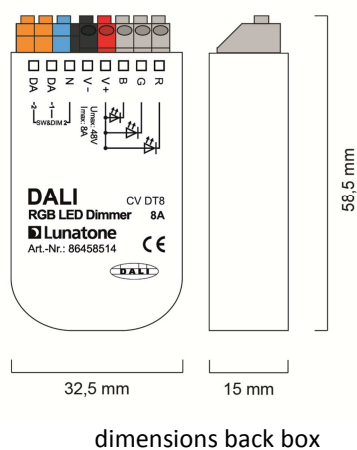# DALI RGB LED Dimmer CV Control Gear

Overview

- DALI LED-Dimmer for RGB colour control
- suitable for constant voltage LED-modules
- **Operating Mode DT8**: one DALI-address for the independent control of light level and colour (DALI DT8, Type RGBWAF)
- **Operating Mode Colour&Dim**: control by 2 DALI-addresses, one for adjusting the light level and one for adjusting the colour
- **SwitchDim2**: 2 switch-inputs offer control of light level and colour without DALI
- dimming range 0.1%-100%

- adjustable PWM-frequency (122Hz/244Hz/488Hz/976Hz)
- compact types for integration in luminaires or remote ceiling
- supply voltage 12V to 48V DC
- type dependent max. input currents of 4A, 8A, 10A or 16A
- the maximum input current can be distributed on the channels at will
- low standby power consumption
- high efficiency
- configuration via PC-software DALI-Cockpit and DALI USB-interface
- user-friendly factory default settings

Specification, Characteristics

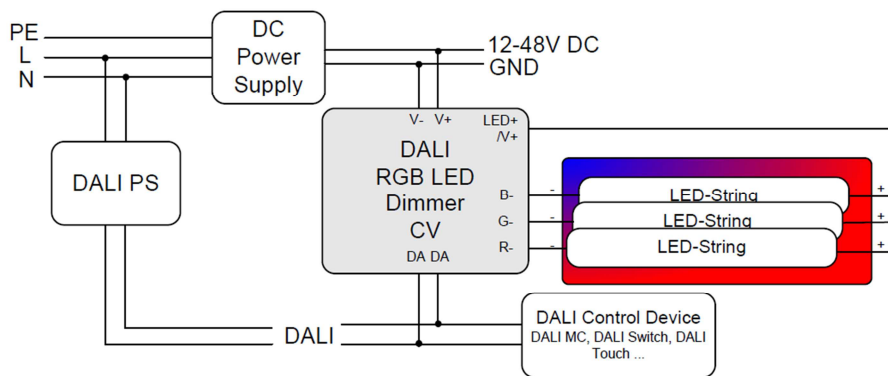| type	DALI RGB LED Dimmer CV			
article number	89453837	86458514	89453839	89453842
electrical data:				
supply voltage	12VDC-48VDC			
maximum input current Iinmax	4A	8A	10A	16A
control input	DALI SwitchDim2 (mains voltage)			
current consumption DALI	2mA			
number of DALI-addresses	operating mode DT8: 1 operating mode Colour&Dim: 2			
standby power consumption (12V)	~ 120mW			
technical data:				
power on behaviour	configurable: 0%-100% or last value			
ambient temperature	-20°C to +60°C			
expected lifetime (at Tc<=75°C)	>100000h			
protection class	IP20			
max. connecting wire cross section	1.5 mm^2		2.5 mm^2/ DALI &SwDim: 1.5 mm^2	
dimensions (LxWxH)	59x33x15 mm		120x30x22 mm	
housing/mounting	back box		remote ceiling	

dimensions remote ceiling

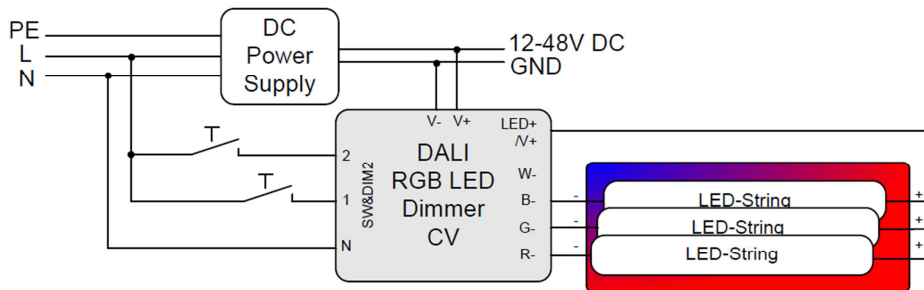connection plan remote ceiling

dimensions back box

connection plan back box

RECOMMENDATION: Care should be taken on keeping cable lengths between DC power supply and dimmer as well as between dimmer and luminaires (Led-Strings) as short as possible. This kind of installation will minimize the influence of voltage drops.

DALI:

SwitchDim2:

Operating Modes

The device offers several operating modes:

DT8 (factory default)

In this operating mode one DALI-address for the independent control of light level and colour is used (Device Type 8 RGBWAF).

Alternatively the device can be controlled using 2 switch-inputs for mains voltage (SwitchDim2):

SwD1: light level
      short press: On/Off
      long press: dimming
SwD2: colour
      long press: change colour

Colour&Dim

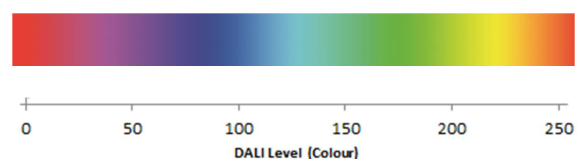This operating mode is suitable for operating RGB—luminaires. Two DALI-addresses are used, the first to control the light level and the second for changing the distribution on the output channels (e.g. for colour adjustments).

The Colour&Dim mode allows colour adjustments without affecting the level and vice versa. For each channel only DALI-standard commands like dim up/down but also DAP are used. Thus the device can be used with all common controls and gateways (e.g. KNX). The Colour&Dim mode provides an alternative to the DT8-RGBWAF mode.

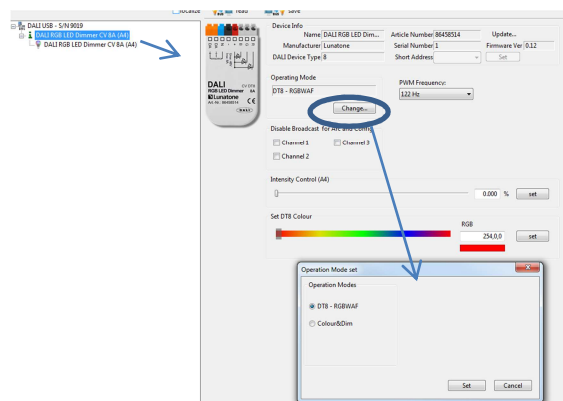Can be operated via DALI or SwitchDim2:

DALI-address 1, SwD1: light level

DALI-address 2, SwD2: colour

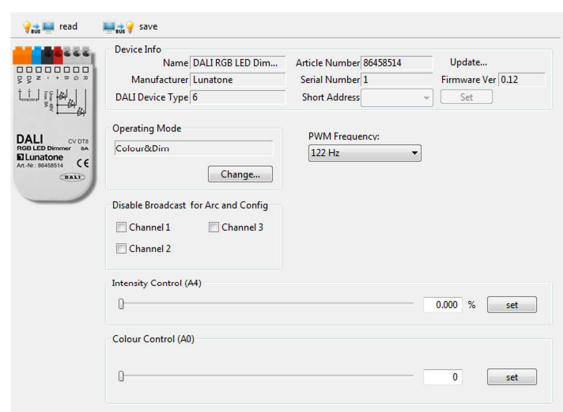**Selection of operating mode**

With the help of the PC-software tool DALI-Cockpit the operating mode can be easily set on the general settings page.

Operating mode DT8-RGBWAF:

In addition, on the same page the PWM-frequency can be selected and basic control elements for testing each operating modes are available (slider for level and colour in the operating modes DT8 and Colour&Dim). Furthermore the broadcast control can be deactivated for each channel individually.

Operating mode Colour&Dim:

Switching between operating modes can also be done with the help of the DALI-command SET OPERATING MODE (IEC 62386-102 Ed.2). When changing the operating mode the number of used DALI-addresses can change as well and this requires a new addressing procedure. In the DALI-Cockpit this address assignment is performed automatically.
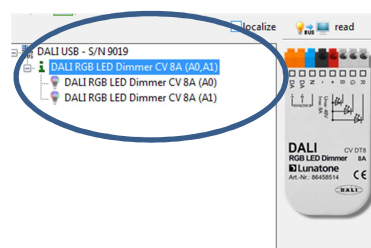
Operating Mode:

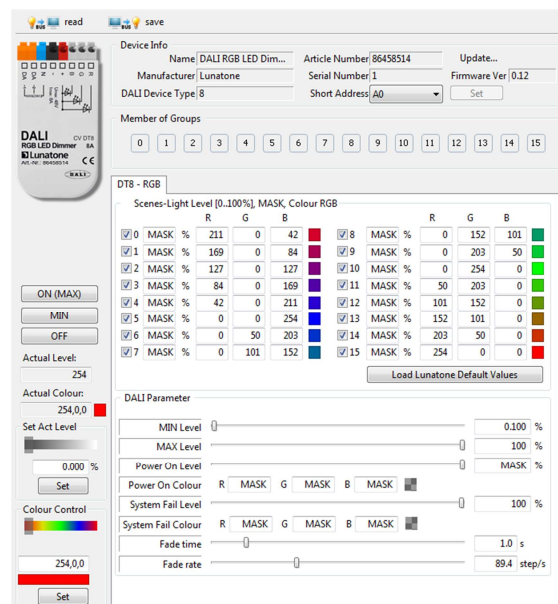| number	operating mode
0x0	DT8 (factory default)
0x92	DT8
0x93	Colour&Dim

Additional Settings

Besides the settings on the general page each channel can be selected separately in the component tree for individual configuration.
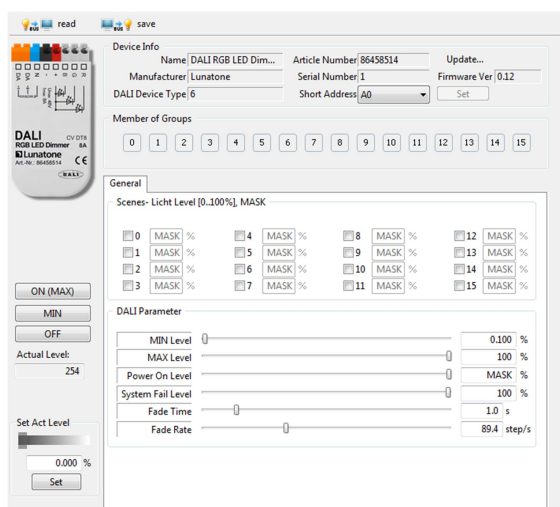
Component Tree:

Settings in the operating mode DT8-RGBWAF (displayed parameters are the factory default values)

Settings for each channel in the operating mode Colour&Dim:

For each address the group membership can be set as well as scene values and DALI-parameters. In Colour&Dim operating mode, all values assigned to channel 2 are representing colours.

Factory Default Settings

Before the initial addressing is performed, the device can already be controlled by a group address.

Summary of the factory default settings (delivery state):

Operating mode	DT8
SwitchDim2	SwD1: level SwD2: colour
Min Level	0.1%
PowerOn Level	MASK (last value)
Fade Time	2 (1s)
Fade Rate	5 (89.4 steps/s)
PWM-frequency	Auto
Groups before intial addressing:	G0 (or G0 and G1 in operating mode Colour&Dim)

Predefined Scene Values:

Purchase Order Information

Art.Nr. 89453837: RGB LED Dimmer, CV, input current 4A, 12V-48V DC, SwitchDim2, back box

Art.Nr. 86458514: RGB LED Dimmer, CV, input current 8A, 12V-48V DC, SwitchDim2, back box

Art.Nr. 89453839: RGB LED Dimmer, CV, input current 10A, 12V-48V DC, SwitchDim2, remote ceiling & integration in luminaires

Art.Nr. 89453842: RGB LED Dimmer, CV, input current 16A, 12V-48V DC, SwitchDim2, remote ceiling & integration in luminaires

Additional Information and Equipment

DALI-Cockpit – free configuration tool from Lunatone for DALI systems
http://lunatone.at/en/downloads/Lunatone_DALI-Cockpit.zip

Lunatone DALI products
http://www.lunatone.at/en/

Lunatone datasheets and manuals
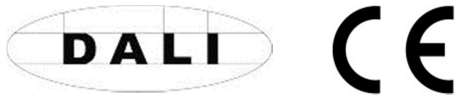http://lunatone.at/en/downloads/

Contact

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www.lunatone.com

Disclaimer

Subject to change. Information provided without guarantee.
The datasheet refers to the current delivery.

The compatibility with other devices must be tested in advance
to the installation.