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

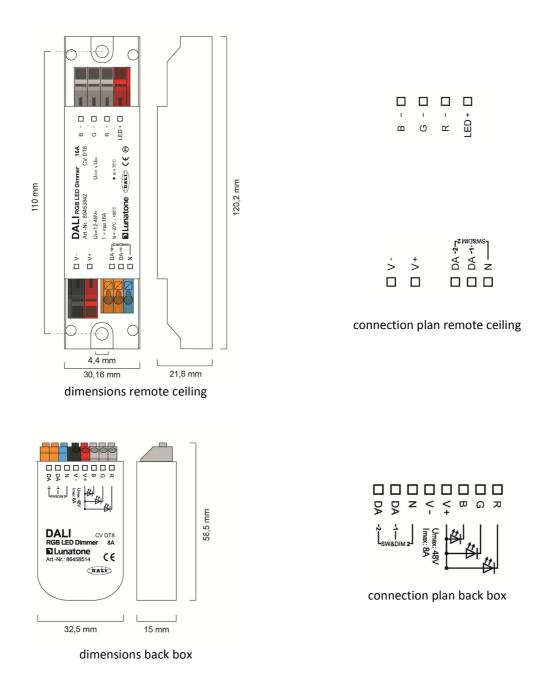
Overview

- DALI LED-Dimmer for RGB colour control
- suitable for constant voltage LEDmodules
- Operating Mode DT8: one DALIaddress 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

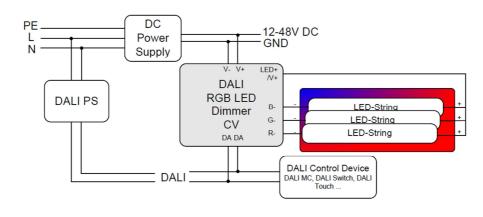
Specification, Characteristics

type	DALI RGB LED Dimmer CV							
article number	89453837	86458514	89453839	89453842				
electrical data:								
supply voltage		12VD	C-48VDC					
maximum input current linmax	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	9				
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							
dimensions (LxWxH)	59x33>	‹15 mm	120x30	x22 mm				
housing/mounting	bacl	< box	remote	e ceiling				

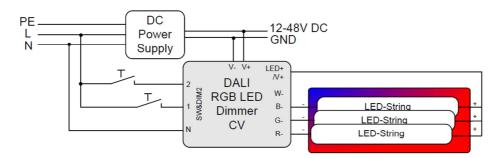


RECOMMENDATION: Care should be taken on keeping cable lengths between DC power supply and dimmer as well as between dimmer and luminaires (Led-Strings) as short as possible. This kind of installation will minimize the influence of voltage drops.

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

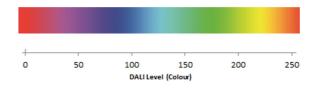
used, the first to control the light level and the second for changing the distribution on the output channels (e.g. for colour adjustments).

The Colour&Dim mode allows colour adjustments without affecting the level and vice versa. For each channel only DALIstandard 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

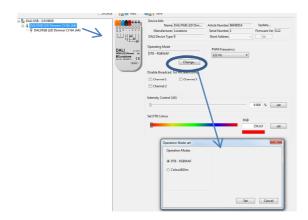


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Selection of operating mode

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 PWMfrequency 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:

😪 🖬 read	🔤 📸 🦞 save		
	Device Info Name DALI RGB LED Dim Manufacturer Lunatone DALI Device Type 6	Article Number 86458514 Serial Number 1 Short Address	Update Firmware Ver 0.12
DALI CV DT8 SB LED Dimmer BA DLunatone CE TAN: 88458514 CE	Operating Mode Colour&Dim Change	PWM Frequency:	
	Disable Broadcast for Arc and Config Channel 1 Channel 3 Channel 2		
	Intensity Control (A4)		0.000 % set
	Colour Control (A0)		0 set

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)

CC.cce	Device Info Name DALI RGB LED Dim Article Number 86458514 Upd								Update.	date					
g z · · · · · 7	Manufacturer Lu			Lunator	ne							rmware	ware Ver 0.12		
	DALI	Device	Type	3			Short	Addres	s A0		-	Set			
· ∗(µ	Mem	ber of G	roups												
ALI CV DT8 IB LED Dimmer 8A Lunatone CV DT8 CV	0	1	2	3	4	5	6 7	8	9	10	11 12	2 13	14	15	
-	DT8 -	RGB													
	S	enes-Lie	ght Le	vel [01	.00%], MA	SK, C	olour RG	3							
				R	G	В					R	G	В		
	V 0	MASK	%	211	0	42		₹8	MASK	%	0	152	101		
	▼1	MASK	%	169	0	84		9	MASK	%	0	203	50		
	2	MASK	%	127	0	127		V 10	MASK	%	0	254	0		
ON (MAX)	V 3	MASK	%	84	0	169		V 11	MASK	%	50	203	0		
	V 4	MASK	%	42	0	211		V 12	MASK	%	101	152	0		
MIN	V 5	MASK	%	0	0	254		V 13	MASK	%	152	101	0		
OFF	₹6	MASK	%	0	50	203		V 14	MASK	%	203	50	0		
tual Level:	7	MASK	%	0	101	152		V 15	MASK	%	254	0	0		
254									Lo	oad L	unatone [Default \	/alues		
tual Colour:	DAL	I Parame	ter												
254,0,0	UAL	1 Falalin	eter												
t Act Level		MIN	Level	0-									0.100	%	
		MAX	Level									0	100	%	
0.000 %	P	ower On	Level									0	MASK	%	
Set		wer On (MASK	G	MASK	В	MASK	a.					
olour Control	Sys	stem Fai	Level	-								0	100	%	
	Syste	em Fail (olour	R	MASK	G	MASK	В	MASK	i.					
		Fad	e time		0								1.0 s		
254,0,0		Fac	le rate			-)						89.4 ste	ep/s	

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

	Device Info Name DALL R Manufacturer Lunato DALI Device Type 6	RGB LED Dim one	Dim Article Number 86458514 Serial Number 1 Short Address A0 V			Update Firmware Ver 0.12			
ALI CV DT8 B LED Dimmer BA Junatone N:: 86458514 C €	Member of Groups	4 5	6 7 8 9	9 10 11	12 13	14	15		
(hai)	General Scenes- Licht Level [010	00%], MASK							
ON (MAX)	0 MASK % 1 MASK % 2 MASK % 3 MASK %	5 MA	SK % 8 SK % 9 SK % 10 SK % 11	MASK % MASK % MASK % MASK %	12 13 14 15	MASH MASH MASH MASH	< %		
MIN OFF tual Level:	MIN Level 0					0.100			
254	Power On Level System Fail Level					MASK 100	(%		
t Act Level	Fade Time Fade Rate	0	0			1.0 s 89.4 s			
0.000 %									

For each address the group membership can be set as well as scene values and DALIparameters. 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	DT8
mode	
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-	Auto
frequency	
Groups before	G0
intial	(or G0 and G1 in operating
addressing:	mode Colour&Dim)

Predefined Scene Values:

			к	G	в	
V 0	MASK	%	211	0	42	
V 1	MASK	%	169	0	84	
V 2	MASK	%	127	0	127	
V 3	MASK	%	84	0	169	
V 4	MASK	%	42	0	211	
V 5	MASK	%	0	0	254	
V 6	MASK	%	0	50	203	
7	MASK	%	0	101	152	
V 8	MASK	%	0	152	101	
V 9	MASK	%	0	203	50	
V 10	MASK	%	0	254	0	
V 11	MASK	%	50	203	0	
V 12	MASK	%	101	152	0	
V 13	MASK	%	152	101	0	
V 14	MASK	%	203	50	0	
V 15	MASK	%	254	0	0	

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 <u>http://lunatone.at/en/downloads/Lunatone</u> DALI-Cockpit.zip

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

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

Contact

Technical Support: support@lunatone.com

Requests: sales@lunatone.com

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.