



DALI 1Ch LED Dimmer CC

Datasheet
Control Gear



1-channel LED Dimmer (CC, DT6)

- Art. Nr. 89453844-350 (350mA)
- Art. Nr. 89453844-500 (500mA)
- Art. Nr. 89453844-700 (700mA)
- Art. Nr. 89453844-700DE (700mA)
- Art. Nr. 89453844-1000DE (1000mA)
- Art. Nr. 89453844-1500DE (1500mA)
- Art. Nr. 89453844-2000DE (2000mA)
- Art. Nr. 89453844-2500DE (2500mA)

DALI 1Ch LED Dimmer CC Control Gear

Overview

- 1 channel DALI LED-Dimmer
- suitable for constant current LED-modules
- **SwitchDim2:** 2 switch-inputs offer control of light level and colour without DALI, up from FW 4.0 device can be alternatively controlled directly by a motion sensor (corridor function)
- dimming range 0.1%-100%
- adjustable PWM-frequency (122Hz/244Hz/488Hz/976Hz)
- types for constant currents of 350mA to 2800mA
- compact types for integration in luminaires or remote ceiling
- supply voltage from 12V to 48V DC
- output voltage up to 45VDC
- integrated short circuit protection
- low standby power consumption
- high efficiency
- configuration via PC-software DALI-Cockpit and DALI USB-interface
- user-friendly factory default settings

89453844-700DE, 89453844-1000DE, 89453844-1500DE, 89453844-2000DE, 89453844-2500DE:



89453844-350, 89453844-500, 89453844-700:



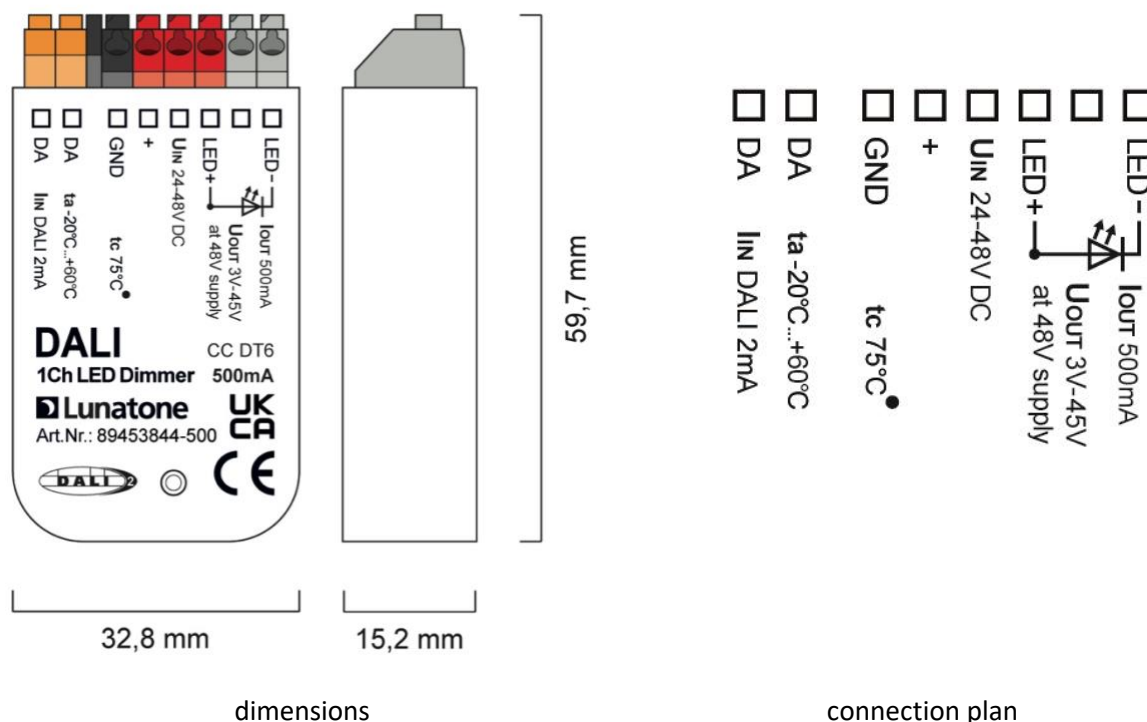
Specification, Characteristics

type	DALI 1Ch LED-Dimmer CC		
article number	89453844-350 89453844-500 89453844-700	89453844-700DE 89453844-1000DE 89453844-1500DE	89453844-2000DE 89453844-2500DE
electrical data:			
supply voltage U_{in}	24VDC-48VDC	12VDC-48VDC	
max. input current I_{inmax}	350mA / 500mA / 700mA	700mA/1000mA/1500mA	2000mA/2500mA
max. output current per channel I_{led}	350mA / 500mA / 700mA	700mA/1000mA/1500mA	2000mA/2500mA
output voltage range U_{led}	3V-45V (at 48V supply)		
control input	DALI	DALI SwitchDim2 / corridor function	
current consumption DALI	2mA		
number of DALI-addresses	1		
standby power consumption (12V)	180mW		

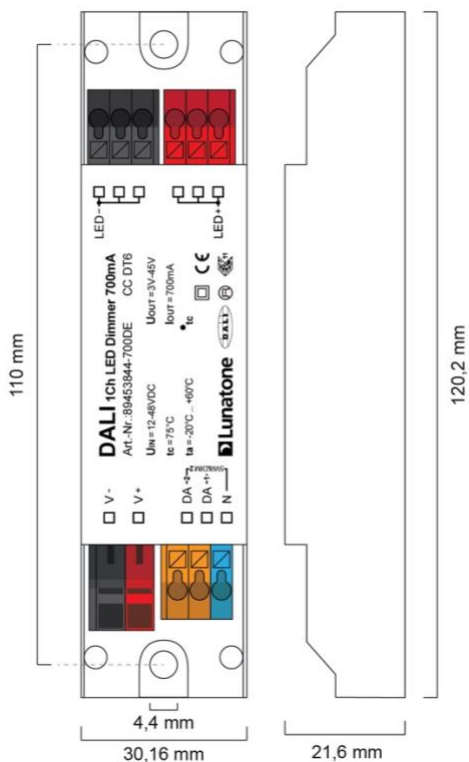
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technical data:			
power on behaviour	configurable via DALI: 0%-100% or last value		
storing and transportation temperature	-20°C ... +75°C		
operating ambient temperature Ta	-20°C ... +60°C		
expected lifetime	>100000h at Tc<75°C		
protection class	IP20		
max. connecting wire cross section	up to 1.5 mm ²	up to 1.5 mm ² , supply (V+, V-): up to 2.5 mm ²	
housing/mounting	back box	remote ceiling	
dimensions (LxWxH)	59mmx33mmx15mm	120mmx30mmx22mm	120mmx41mmx22mm

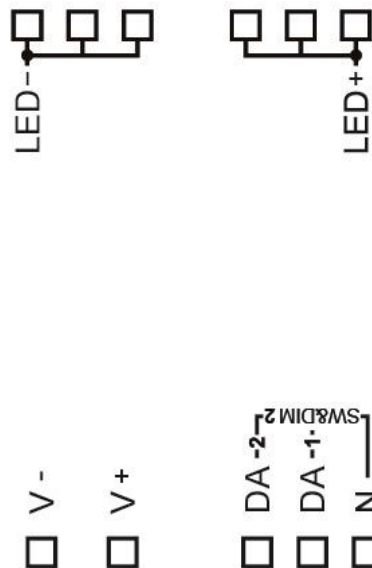
for constant currents up to 700mA (DALI) in housing 59mmx33mmx15mm:



for constant currents up to 1500mA (DALI&SwitchDim2) 120mmx30mmx22mm:

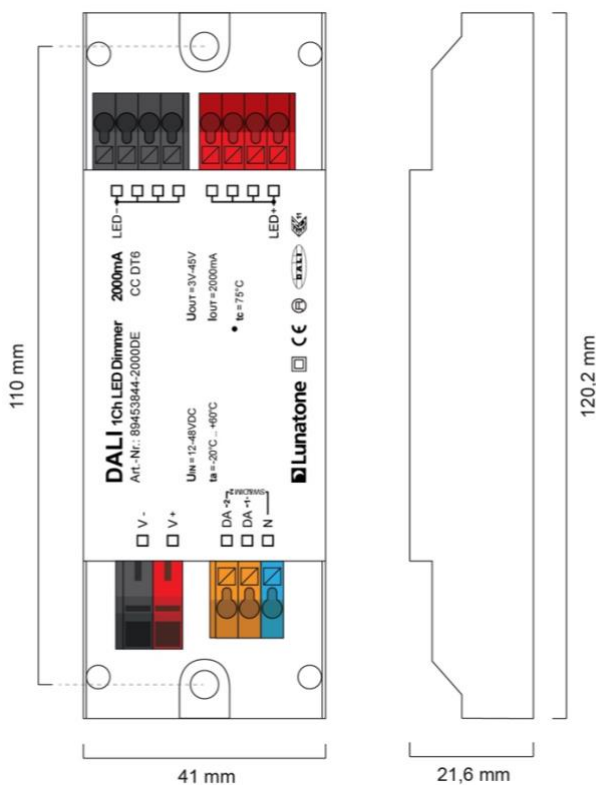


Dimensions

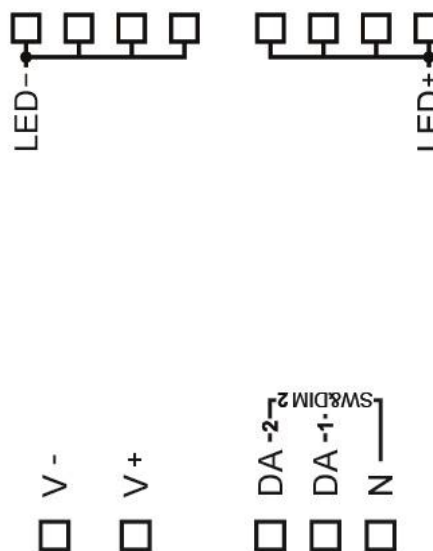


connection plan

for constant currents from 1500mA (DALI&SwitchDim2) 120mmx41mmx22mm:



Dimensions



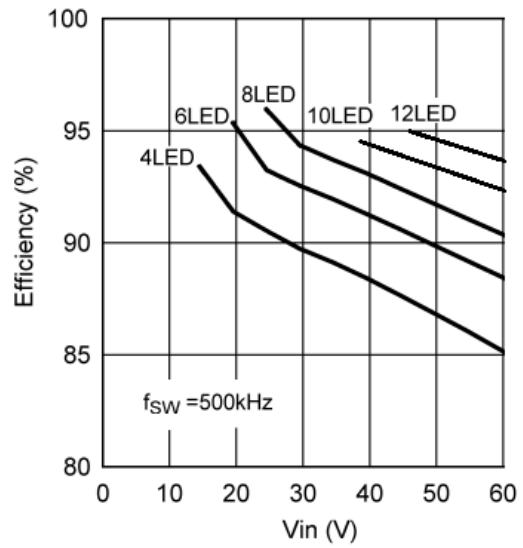
connection plan



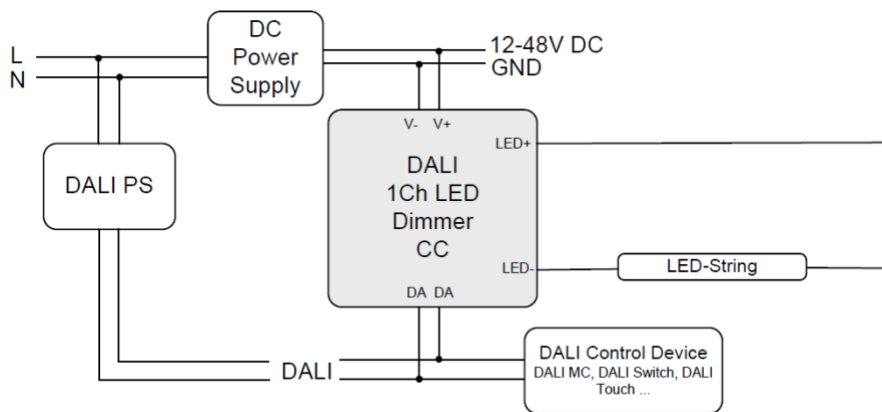
Hint:

For highest efficiency the input voltage should range between 3V and 10V above the LED-voltage:

- 4-6 LEDs: 24V
- 6-9LEDs: 36V
- 10-12 LEDs: 48V

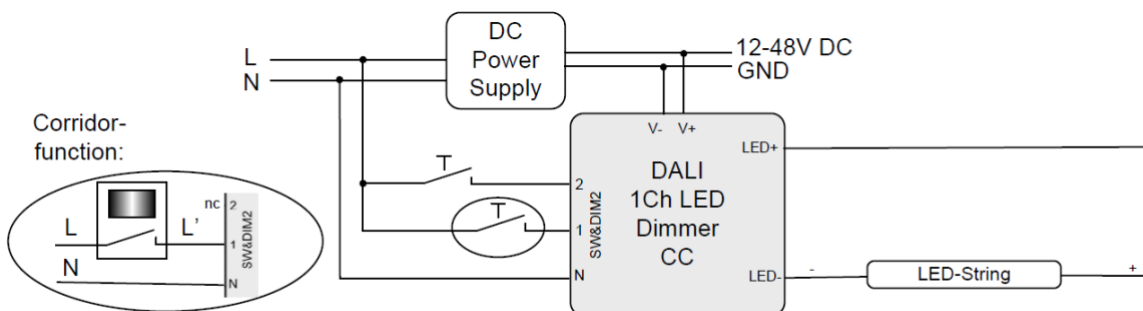


DALI:



SwitchDim2:

- control via 2 pushbuttons or
- alternatively by a motion sensor with relay output (on input SwD1)



Operating Modes

The output is controlled by by its DALI address (Device Type 6).

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

SwD1: light level

short press: On/Off

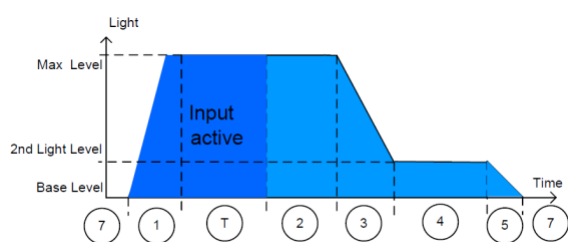
long press: dimming

SwD2: scene selector (short press)

If the SwD1-input is pressed for 2 minutes the device changes the operating mode to „corridorfunction“. This mode stays active until the device is power cycled (on power up the standard switchdim operation is active).

Corridor Function (up from FW 4.0)

This mode provides a staircase function (e.g. to control the device directly with the relay output of one or more motion sensors). On input action the LED-output is switched to max level. After the holdtime the output switches to a second light value before switching to the base level. If the input is activated again, the sequence is restarted.



sequence of corridor function

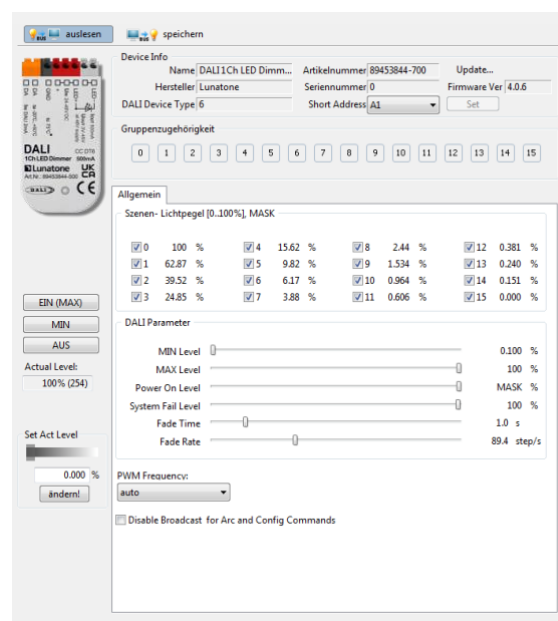
States and Default values of the corridor function:

- 1 – Fade-In Time: immediate
- 2 – Holdtime Max Level: 10 minutes
- 3 – Fade Time: 5 seconds
- 4 – HoldTime 2nd Level: 10 minutes
- 5 – Fade Out Time: 5 seconds
- Max Level (P,2): 100%

- 2nd Light Level (4): 50%
- Base Level (7): 0%

DALI-Cockpit Settings:

With the help of the DALI-Cockpit software the device can be configured. The device can be assigned to groups, scene values can be set and parameters can be defined (the parameters shown in the pic are default values):



Factory Default Settings

Before the initial addressing is performed, the device can already be controlled by group address G0. This predefined grouping will be deleted during the first addressing procedure. Afterwards groups can be assigned as usual (e.g. with the help of the DALI Cockpit). By sending a DALI-Reset command the device is set to DALI default values as defined in the standard.

Summary of the factory default settings (delivery state):

operating mode	DT6	
SwitchDim2	SwD1: light level SwD2: scene selector	
Min Level	0.1% back box type: 1%	
PowerOn Level	MASK (last value)	
Fade Time	2 (1s)	
Fade Rate	5 (89.4 steps/s)	
PWM-frequency	122Hz back box type: 976Hz	
Groups before initial addressing	G0	
scene values:	Scene 0: 254 Scene 1: 237 Scene 2: 220 Scene 3: 203 Scene 4: 186 Scene 5: 169 Scene 6: 152 Scene 7: 135	Scene 8: 118 Scene 9: 101 Scene 10: 84 Scene 11: 67 Scene 12: 50 Scene 13: 33 Scene 14: 16 Scene 15: 0
	back box type: all scene values set to MASK	

Purchase Order Information

Art.Nr. 89453844-350/500/700: DALI 1Ch LED Dimmer, CC – constant current 350/500/700mA (other currents from 100mA-700mA on request), supply 12V-48V DC, output voltage range 3V-45V, back box;

Art.Nr. 89453844-700DE/1000DE/1500DE, DALI 1Ch LED Dimmer, CC – constant current 700/1000/1500mA (other currents from 100mA-1500mA on request), supply 12V-48V DC, output voltage: 3V-45V, SwitchDim2/Corridorfunction, remote ceiling & integration in luminaires;

Art.Nr. 89453844-2000DE/2500DE, DALI 1Ch LED Dimmer, CC – constant current 2000mA/2500mA (other currents from 1500mA-2800mA on request), supply 12V-48V DC, output voltage: 3V-45V, SwitchDim2/Corridorfunction, remote ceiling & integration in luminaires;

Additional Information and Equipment

Lunatone DALI Cockpit
<https://www.lunatone.com/en/product/dali-cockpit/>

Lunatone datasheets and manuals
<https://www.lunatone.com/en/downloads-a-z/>

Lunatone DALI products
<https://www.lunatone.com/en/>

Contact

Technical Support: support@lunatone.com

Requests: sales@lunatone.com

www.lunatone.com

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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.