Lunatone

DALI
1Ch LED Dimmer CV

Datasheet

Control Gear

1-channel LED Dimmer (CV, DT6)

Art. Nr. 89453826 (4A)

Art. Nr. 86459556 (8A)
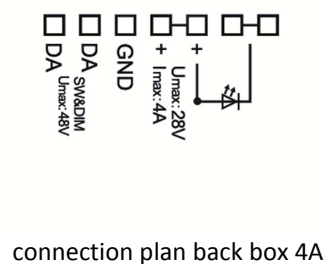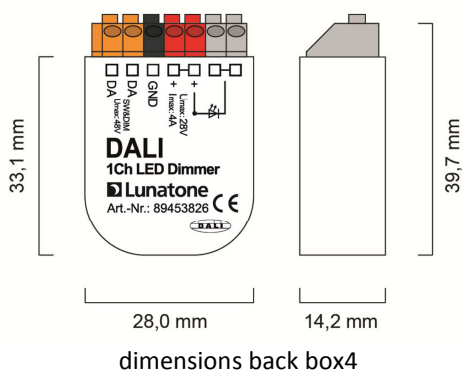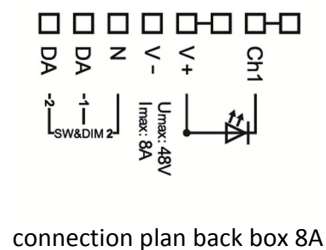
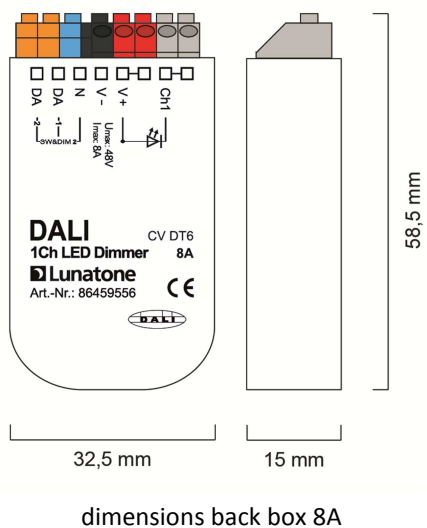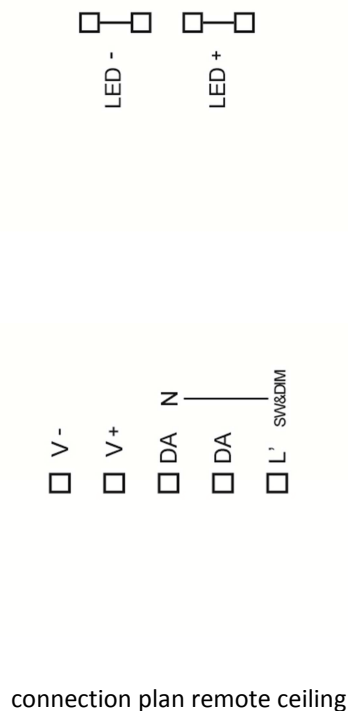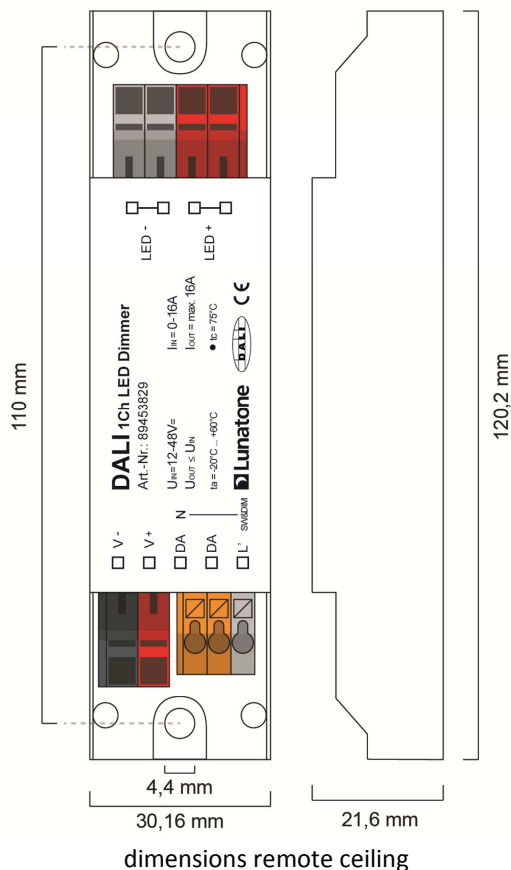Art. Nr. 86459572 (10A)

Art. Nr. 89453829 (16A)

DALI 1Ch LED Dimmer CV Control Gear

Overview

- 1 channel DALI LED-Dimmer
- suitable for constant voltage LED-modules with operating voltages from 12V to 48V
- **Sw&Dim or SwitchDim2**: 1 or 2 switch inputs offer control of light level control 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)

- compact types for integration in luminaires or remote ceiling
- supply voltage type dependent of 12V to 28V DC or from 12V to 48V DC (according to the operating voltage of the led modules)
- type dependent max. input currents of 4A, 8A, 10A or 16A
- 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 1Ch Led Dimmer CV			
article number	89453826	86459556	86459572	89453829

electrical data:

supply voltage Vin	12V-28VDC	12VDC-48VDC		
maximum input current Iinmax	4A	8A	10A	16A
control input	DALI Sw&Dim 48V	DALI SwitchDim2 (mains voltage)	DALI Sw&Dim (mains voltage)	
current consumption DALI	2mA			
number of DALI-addresses	1			
standby power consumption (12V)	120 mW			

technical data:

power on behaviour	configurable via DALI: 0%-100% or last value
storing- and transportation temperature	-20°C … +75°C
ambient temperature	-20°C … +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/Sw&Dim: 1.5 mm^2
dimensions (LxWxH)	40x28x14 mm / 59x33x15 mm / 120x30x22 mm
housing/mounting	back box / remote ceiling

dimensions remote ceiling

DALI 1Ch LED Dimmer
Art.-Nr.: 89453829

U_{IN}=12-48V=
$U_{OUT} \leq U_{IN}$
ta =-20°C ... +60°C

I_{IN}=0-16A
I_{OUT} = max. 16A
tc =75°C

LED -   LED +

V -   V +   DA   DA   L'   SW&DIM

110 mm
120,2 mm
4,4 mm
30,16 mm
21,6 mm

connection plan remote ceiling

LED -   LED +

V -   V +   DA   DA   L'   SW&DIM   N

dimensions back box 8A

DALI
1Ch LED Dimmer   CV DT6   8A
Lunatone
Art.-Nr.: 86459556

DA   DA   N   V -   V +   Ch1
-2   -1   SW&DIM 2   Umax: 48V   Imax: 8A

32,5 mm   15 mm   58,5 mm

connection plan back box 8A

DA   DA   N   V -   V +   Ch1
-2   -1   SW&DIM 2   Umax: 48V   Imax: 8A

dimensions back box4

DALI
1Ch LED Dimmer
Lunatone
Art.-Nr.: 89453826

DA   DA   GND   +   +
SW&DIM   Umax:28V   Imax:4A
Umax:48V

33,1 mm   28,0 mm   14,2 mm   39,7 mm

connection plan back box 4A

DA   DA   GND   +   +
SW&DIM   Umax:28V   Imax:4A
Umax:48V

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.
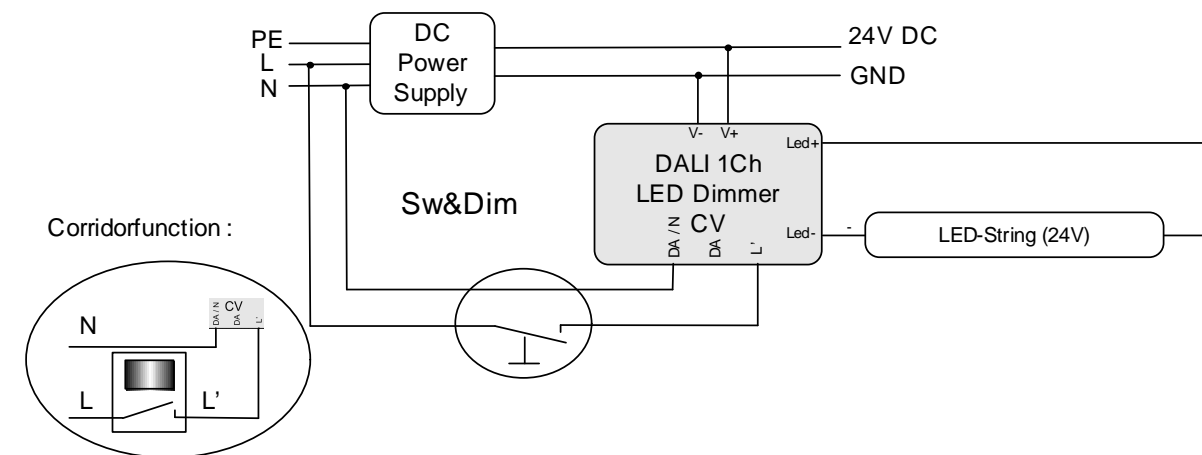
DALI:
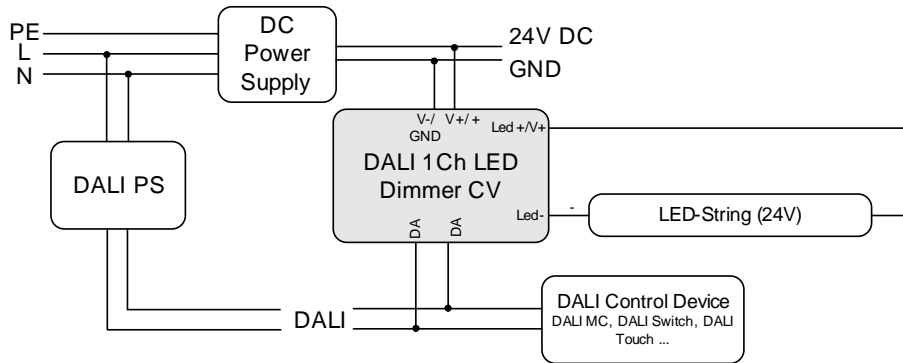
SwitchDim2 (8A type):

- control via 2 pushbuttons or
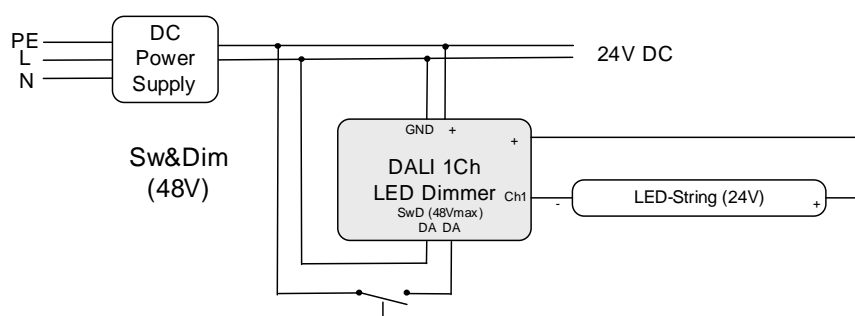- alternatively by a motion sensor with relay output (on input SwD1)
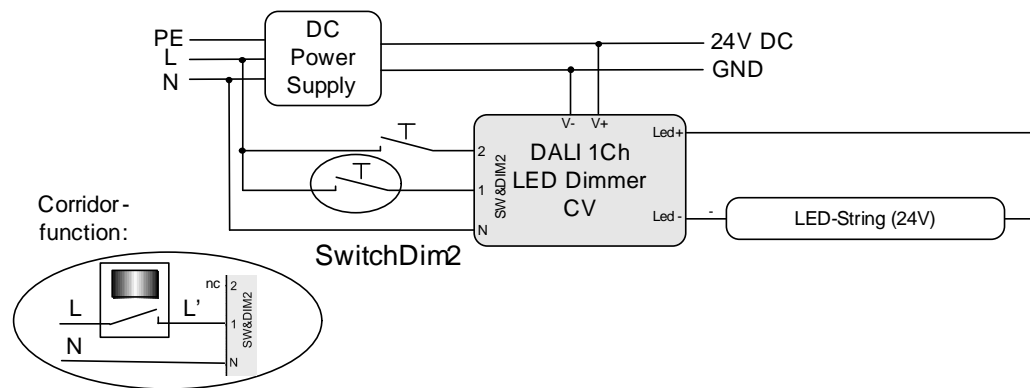
Sw&Dim (10A/16A types): – Switch and Dim

- control via pushbuttons or
- alternatively by a motion sensor with relay output

Lunatone

Sw&Dim 48V (4A type): – Switch and Dim

Operating Modes

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

Alternatively the device can be controlled by one (Sw&Dim) or two switch inputs (SwitchDim2):

SwD1,Sw&Dim: 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.
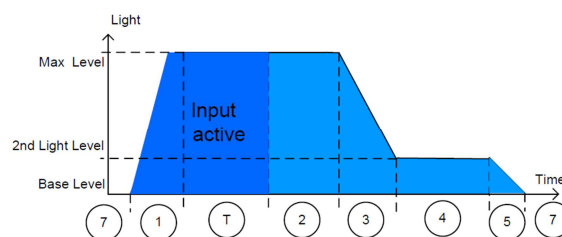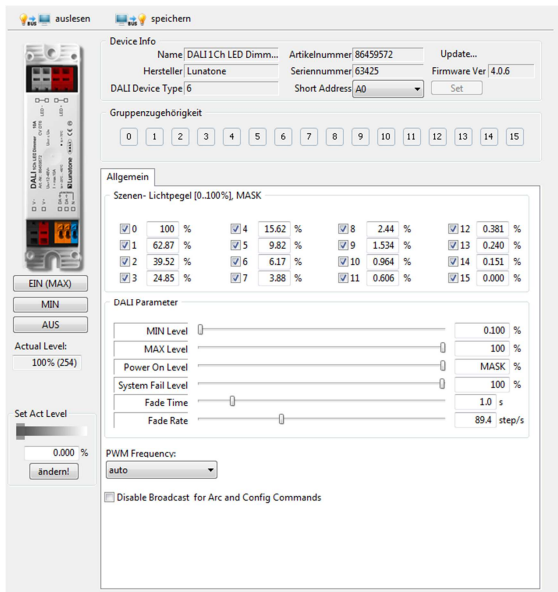

sequence of corridor function

States and Default values of the corridor function:

1 – Fade-In Time: immidiate
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%

Hint: forerunner types of the 10A/16A, which do not have inputs marked with L' and N, do not support Sw&Dim with mains voltage, only 48V DC may be used for SwD operation.

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%
PowerOn Level	MASK (last value)
Fade Time	2 (1s)
Fade Rate	5 (89.4 steps/s)
PWM-frequency	122Hz
Groups before intial addressing	G0
scene values:	Scene 0: 254 Scene 8: 118 Scene 1: 237 Scene 9: 101 Scene 2: 220 Scene 10: 84 Scene 3: 203 Scene 11: 67 Scene 4: 186 Scene 12: 50 Scene 5: 169 Scene 13: 33

Scene 6: 152	Scene 14: 16
Scene 7: 135	Scene 15: 0

Purchase Order Information

ArtNr. 89453826: 1-channel LED Dimmer, CV, max. input current 4A, 12V-28V DC, Sw&Dim 48V, back box

ArtNr. 86459556: 1-channel LED Dimmer, CV, max. input current 8A, 12V-48V DC, SwitchDim2, back box

ArtNr. 86459572: 1-channel LED Dimmer, CV, max. input current 10A, 12V-48V DC, Sw&Dim, remote ceiling & integration in luminaires

ArtNr. 89453829: 1-channel LED Dimmer, CV, max. input current 16A, 12V-48V DC, Sw&Dim, 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
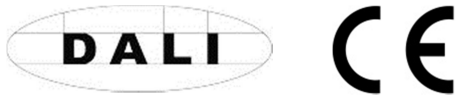http://lunatone.at/en/downloads/

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.