DALI Dim2warm

Datenblatt

DALI DT6 to 2 x DT6
converter for Dim2warm

DALI-interface module for
the conversion of DT6 dimlevels
to 2 DALI outpus

Art. 89453864

DALI Dim2warm Interface

Overview

- With only one DT6 DALI address, the Dim2Warm module allows the simultaneous control of brightness while changing the colour temperature.
- Usually: the lower the dimming value, the warmer the light.
- The behavior of the outputs can be adjusted individually.
- Separate outpus for coldwhite and warmwhite channel (factory default)
- Alternatively, this can also be used for e.g. direct and indirect lighting.
- Alternative output mode: dim-levels for cold-white and warm-white channel are sent to groups (G0 and G1)
- Easy system expansion with the help of DALI-2 Expander, DALI Expander3 or Repeater PS
- Configuration with PC-software tool DALI-Cockpit and DALI USB interface

Specification, Characteristics

type	**DALI Dim2warm**
article number	89453864
input: DA+, DA-	
input type	DALI control input
marking terminals	DA+, DA-
input voltage range	12V … 22,5V [1]
current consumption DALI	4.5mA + current consumption subnet
output: DA+, DA-	
output type	2x DALI bus power supply
marking terminals	DA1+, DA1-, DA2+, DA2-
output voltage range	10Vdc … 20,5Vdc
guaranteed /max DALI supply current	4mA / 250mA each[2]
open circuit proof	yes
short circuit proof	yes
Number of DALI addresses	1 (DT6)
behaviour after power on	configurable via DALI

[1] at least 12V to ensure the necessary current and bus voltage (>10.5V) on the output side.
[2] an additional external DALI bus supply is not possible, expansion of subnet is possible via DALI-2 Expander

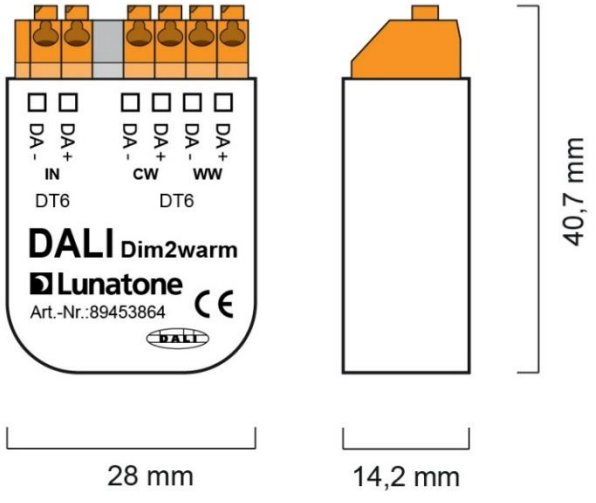
insulation data	
impulse voltage category	II
pollution degree	2
rated insulation voltage	250V
insulation DALI / mains	not isolated
insulation test voltage DALI / mains	3000Vac

environmental conditions	
storing and transportation temperature	-20°C … 75°C
operational ambient temperature	-20°C … 60°C
rel. humidity, not condensing	15% … 90%

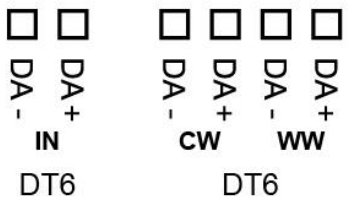
general data	
dimensions (l x w x h)	40mm x 28mm x 14mm
mounting	back box
protection class	II (when used/installed as intended)
protection degree housing	IP40
protection degree terminals	IP20

terminals	
connection type	spring terminal connectors
wire size: solid core	0,5 … 1,5 mm^2 (AWG20 … AWG16)
wire size: fine wired	0,5 … 1,5 mm^2 (AWG20 …AWG16)
wire size: using wire end ferrule	0,25 … 1 mm^2
stripping length	8,5 … 9,5 mm / 0,33 … 0,37 inch
tightening/ release of wire	push mechanism

standards	
DALI	IEC62386-101
EMV	EN 61547 EN 50015 / IEC CISPR15
safety	EN 61347-2-11 EN 61347-1
markings	CE, UKCA



dimensions DALI Dim2warm



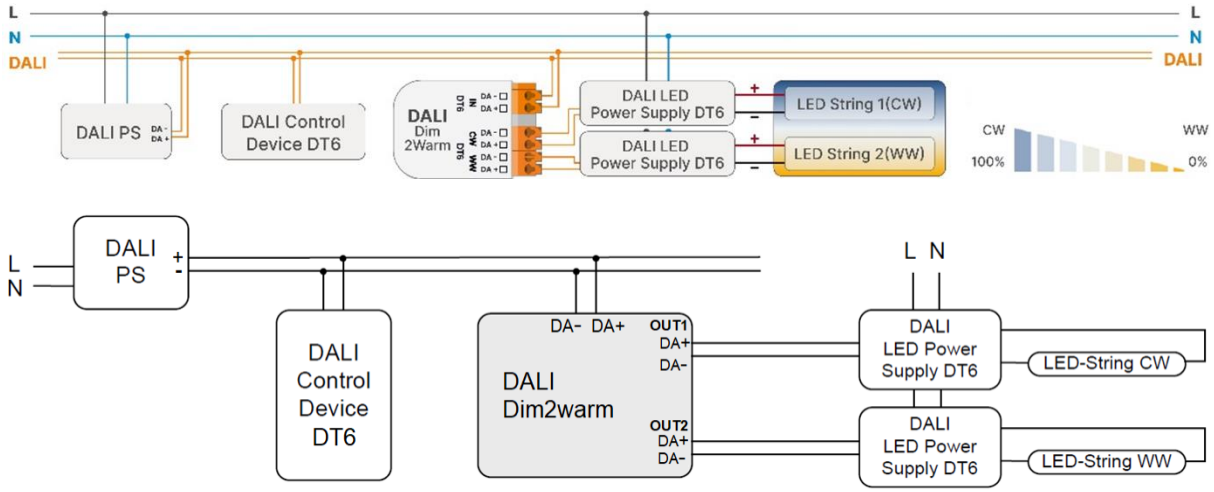
connection plan DALI Dim2warm

Factory Default

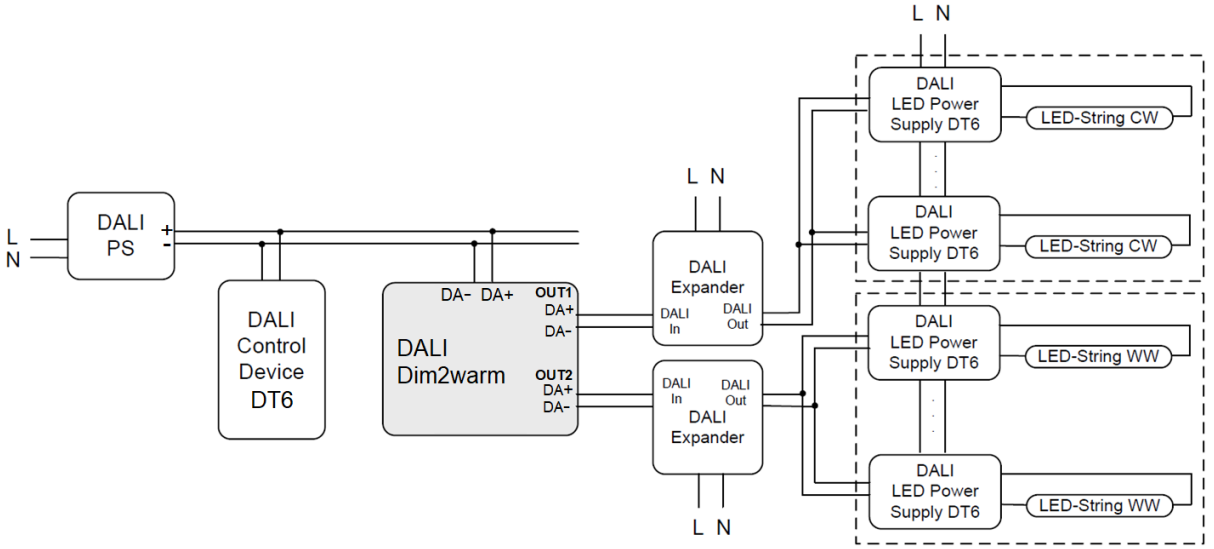
The following configuration is implemented on delivery (factory default setting). If necessary, this can be changed and adapted.

operating mode	Dedicated: out1: cold; out2: warm
Behaviour on Power On	ON
Ignore broadcast commands	deactivated

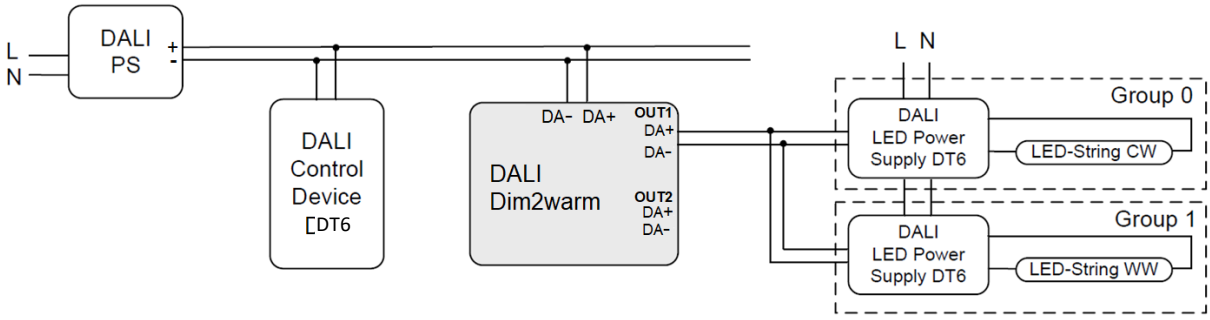
Application Exampes



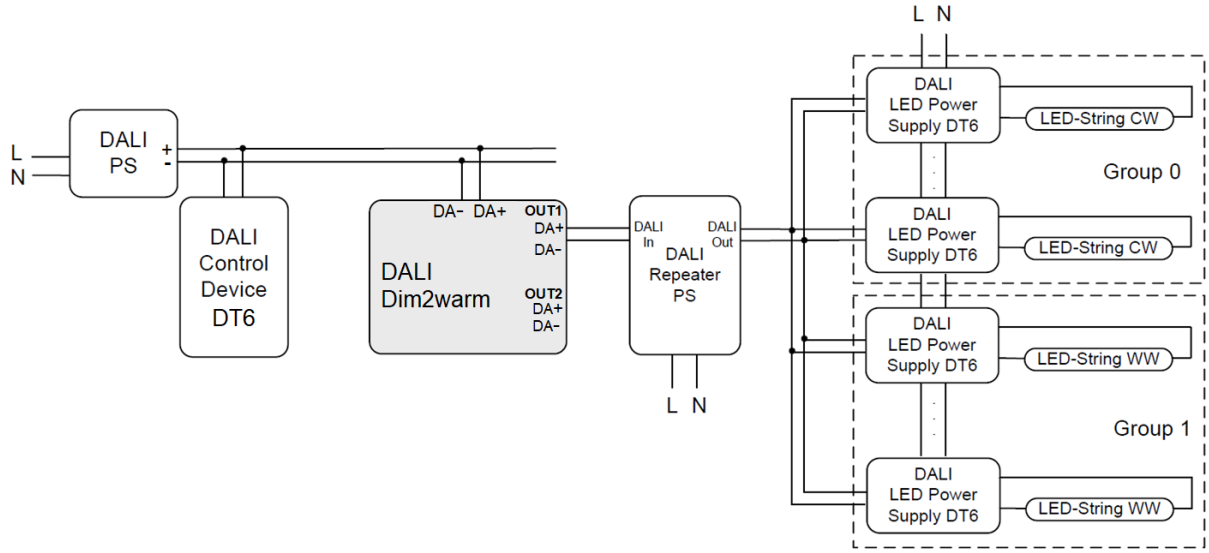
Application example: CW and WW channel on separated outputs



Application example: CW and WW channel on separated outputs, DALI-Expanders are used for increasing the number of LED power supplies



Application example: CW and WW on same output: the LED power supplies must be assigned to group G0 (for CW) and G1 (for WW)



Application example: CW and WW on same output: DALI Repeater with integrated bus power supply is used for increasing the number of LED power supplies

Installation

- The DALI Dim2warm device can be installed in a flush-mounted installation box

- The device is directly connected and supplied by the DALI bus. A DALI bus power supply (e.g. DALI PS) is required. The current consumption depends on the number of connected DALI ballasts. The own consumption is 4.5 mA.

- If more dimmers need to be connected to the output the number of led power supplies can be increased easily with the help of DALI Repeater PS, DALI Expander or DALI Expander 3. See also section “Application Exampes” page 4.

- the polarity of the output voltage is marked on the housing (DA+, DA-)

Attention: the polarity of the DALI connections must be taken into account.

- The wiring should be carried out as a permanent installation in a dry and clean environment.
- Installation may only be carried out in a voltage-free state of the system and by qualified specialists.
- National regulations for setting up electrical systems must be followed.
- The DALI line must not be connected to mains voltage or any extra low voltage (SELV) system
- The DALI wiring can be realised with standard low-voltage installation material. No special cables are required.
- Only 1 wire may be connected to each terminal. When using double wire end ferrules, the connection capacity of the terminal must be considered.
- Wiring topology of the DALI line: Line, Tree, Star structure

☞ **Attention:** The DALI-signal is not classified as SELV circuit (Safety Extra Low Voltage). Therefore, the installation regulations for low voltage apply.

☞ The voltage drop on the DALI line must not exceed 2V at maximum length (300m) and maximum bus load (250mA).

Commissioning

After installation, the device is ready for use.

Addressing and Configuration

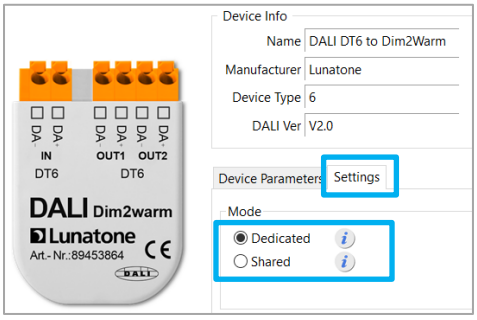
Addressing and changes to the factory settings are possible with the DALI Cockpit Software (Windows PC).

When using the DALI Cockpit Software, the PC must be connected to the DALI bus via a suitable interface module (DALI-2 USB; DALI USB, DALI-2 WLAN, DALI-2 Display, DALI-2 IoT, DALI 4Net, DALI SCI RS232). The device is automatically recognised by the DALI Cockpit during the addressing process and listed in the device overview. The desired functions can then be configured on the device page – see section “Function” page 6 and Figure 1, page 8.

Function

The DALI Dim2warm converter represents one control gear on the DALI-line (DT86). Dimming commands sent to the device’s DALI address, will be converted to dim levels for 2 separate DALI outputs (cold white and a warm white channel).

How the dim levels are put out can be adjusted with the DALI-Cockpit Software in the tab "Settings" section “Mode”

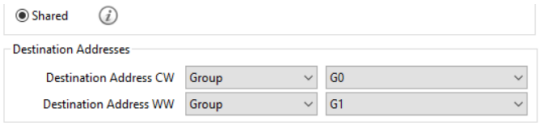


See also Figure 2, page 8.

There are two possible output modes “Dedicated” and “Shared”:

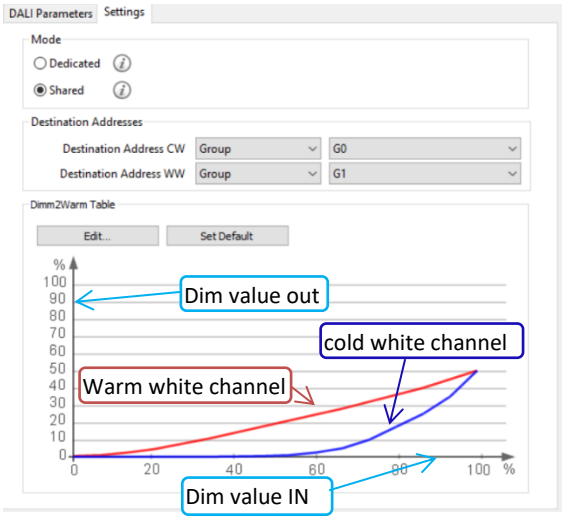
Dedicated:
output 1 (OUT1): cold white values
output 2 (OUT2): warm white values
(Factory setting)

Shared:
Warm white and cold white levels are sent to both outputs. Target addresses for these values can be set in the section “Destination Addresses”:



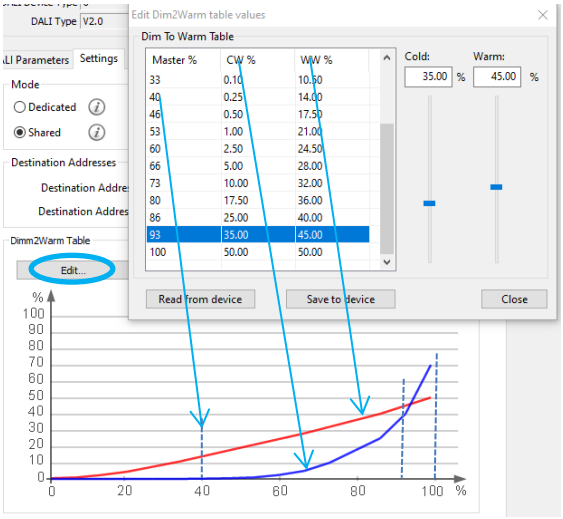
Dim2Warm table:

In the section “Dim2warm Table” the curve for the two outputs is visualized and configurable



The curve is defined by 16 points, whereby the corresponding output dimming values are assigned to an input dim value. In between, the dimming values are linearly interpolated.

The curve can be configured -> click on “Edit” button:



See also Figure 2, page 8.

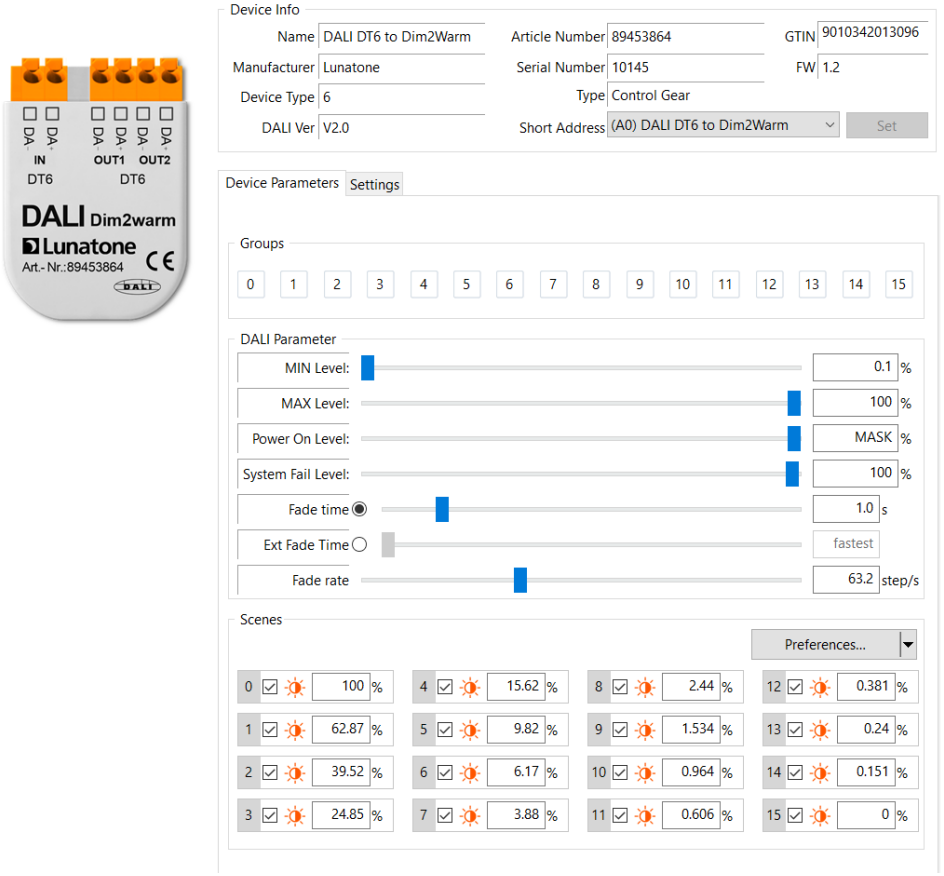


Figure 1 DALI Cockpit tab Device Parameters

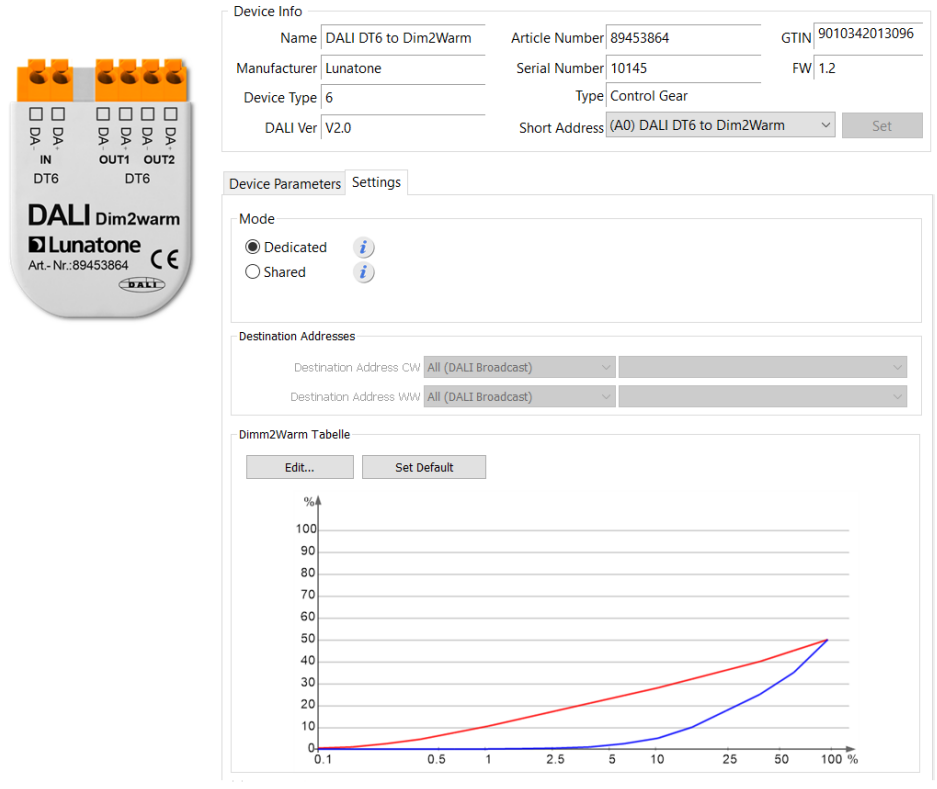


Figure 2 DALI Cockpit tab Settings

Purchase Order Information

Art.Nr. 89453864: DALI Dim2warm Converter DALI in DT6 to 2 x DALI broadcast out DT6 (warm/cold white), configurable curve
back box 40 x 28 x 14mm

Additional Information and Equipment

DALI Cockpit - free configuration software for DALI systems
https://www.lunatone.com/en/product/dali-cockpit/

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

Lunatone Datenblätter und Manuals
https://www.lunatone.com/en/download s-a-z/

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.