

### Lunatone DALI Light Management Systems

INPUT DEVICES, CONTROL UNITS & SENSORS PHASE DIMMER & ACTUATORS OPERATING DEVICES 230VAC / 48V / 24V DALI BUS POWER SUPPLY & EXTENSION INTERFACES & TOOLS







### **DALI - DIGITAL ADDRESSABLE LIGHT INTERFACE**

#### WHAT IS DALI?

DALI is an independent multi-master system (several control units in one bus system), where devices have assigned addresses and communicate bidirectionally, thus the control units receive feedback from the components in the installation. In 1999 the DALI protocol has been internationally standardised in IEC 62386, it is an open standard for LED operating devices and ballasts: switches and sensors are defined in the DALI-2 standard 2014. DALI installations can work as autonomous light management systems, or can be connected to building management systems.

#### **DEVICE TYPE - DT**

In the DALI standard, devices are divided into 9 different types:

- DT0, DT2 and DT3 are used for fluorescent, discharge (HID) lamps and low-voltage halogen lamps
- DT4 is used for phase dimming of 230V luminaires, e.g. incandescent and retrofit LED lights
- DT5 devices are signal converters that convert DALI signals into analog dimming signals, e.g. 0-10V
- DT6 is used for single colour LEDs 1 channel
- DT7 is used for switching (on/off), e.g. relay modules
- DT8 is used for colour management Tunable White and RGB / RGBW

#### **COMPONENTS OF A DALI SYSTEM**

A DALI system includes the following components:

- DALI bus supply: Each DALI circuit requires a power supply. Inut / Control units: These devices (e.g. Lunatone couplers, rotary dimmers, touch panels and many other) send DALI commands and thus control operating devices.
- Operating devices: DALI ballasts and actuators (e.g. DALI LED dimmers), which operate a light source based on stored parameters and received DALI commands.

The simplest DALI installation consists of a device that supplies the DALI bus with power, a control unit that sends commands and an operating device that receives and executes these commands.

#### COMMISSIONING AND CONFIGURING A DALI SYSTEM

The DALI system can be addressed and configured with the PC Software DALI Cockpit Software and a DALI USB interface.

#### ADDRESSES, GROUPS AND SCENES

The devices on the DALI line can be controlled using DALI commands. The effective range of a DALI command is defined by the target address contained in the command; a distinction is made between individual addresses, group addresses and broadcast (entire DALI bus).

Groups: With group commands whole areas can be switched and dimmed simultaneously. The DALI system supports up to 16 groups, each DALI device can belong to one or more groups. Scenes: Each DALI device is capable of storing up to 16 scenes.

A DALI scene is generally understood as an operating state, e.g. dimming value or colour setting of a luminaire. The scene command can be sent to a device directly (single address), to a group or to the entire DALI bus (broadcast).

#### DALI FACTS

- up to 64 addressable DALI devices
- up to 16 DALI groups
- up to 16 DALI scenes
- DALI bus voltage: 12V up to a maximum of 22.5V (standard 16V)
- DALI system current: <250mA
- data transfer speed: 1200Baud (asynchron interface)
- cable length up to 300m (with 1.5mm<sup>2</sup> wire cross section), permitted voltage drop of maximum 2V on the DALI line.

#### **DALI MANAGEMENT**

With the use of DALI all the advantages of a digital system (immunity to interference, precession, flexibility, repeat accuracy, functionality, etc.) can be utilised, without a significant cost increase. To control a DALI system, Lunatone offers various input devices, control units and sensor modules. A simple DALI installation (on / off / dimming) includes, for example, a standard pushbutton in combination with a DALI MC+ pushbutton coupler, which converts the key signals into DALI commands.

DALI can also be controlled wirelessly with Lunatone's wDALI modules. In order to easily recognise these wireless products, wDALI devices have been marked with the symbol shown on the right.

#### **EXPANDING A DALI SYSTEM**

The DALI bus is limited to 64 addresses and a bus load of 250mA, however with the help of a DALI Expander the system can be extended. The DALI Expander has an integrated power supply for a sub-circuit with up to 64 devices. This great flexibility creates numerous cost-effective ways to extend building installations.

#### INTEGRATIONS

Devices that do not have their own DALI interface can be integrated with the help of DALI interface module, e.g. the DALI 0-10V PWM or, if lights only have an on/off function: a DALI RM8 relay module. Integration into KNX systems is possible via a DALI/KNX gateway. For additional control and monitoring the DALI system can be connected to a higher-level building management system (BMS).

#### LUNATONE LIGHT CONTROL WITH DALI

Lunatone offers DALI products for almost all applications. With this product folder we want to facilitate the search for the right product.

Modules to control and send command are listed in section A "Input Devices. Control Units & Sensors", which includes pushbutton couplers, rotary dimmers, touch panels, sensor modules, etc.

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#### PHASE DIMMER & ACTUATORS

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DALI Jalousie	5B
DALI RM8 / RM16 0-10V - relay modules with 0-10V control input	6B

#### OPERATING DEVICES 230VAC / 48V / 24V

DALI LED Dimmer DT6 - 1-4 Channels, CV	3C
DALI LED Dimmer DT6 - 1-4 Channels, CC	5C
DALI LED Dimmer DT8 - Tunable White, RGB, RGBW - CV	7C

DALI PS - DALI bus power supply	2D
DALI Expander - Intelligent expansion & DALI bus supply	3D
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#### INTERFACES & TOOLS

DALI 4Net	2E
DALI USB	2E
DALI SCI RS232 Interface	4E
DALI DT8 to DT6 - converting DALI DT8 to DT6	4E
DALI DSI - converting DALI to DSI	5E
0-10V DALI - converting 0-10V to DALI with integrated 10mA bus power supply	5E
0-10V DALI - converting 0-10V to DALI with 1, 2 or 3 Channels	6E
0-10V DALI - converting 0-10V to DALI with integrated 30mA bus power supply	7E
DALI SI, SI-1L	8E



In part B you will find Phase dimmers & Actuators. Modules that receive DALI signals to operate e.g. luminaries are located in part C "Operating Devices 230VAC / 48V / 24V". All DALI modules require a DALI bus supply, these are in section D together with devices for expanding the system. The last part contains programming tools and interface modules to other control systems.

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DALI 0/1-10V - converting DALI to 0-10V, 1-10V or PWM	12E
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# INPUT DEVICES, CONTROL UNITS & SENSORS

Lunatone application controllers and input devices are flexible, user friendly, and can be easily adapted to a variety of applications. Various functions can be programmed and commands can be sent to individual addresses, groups or to the entire installation.



The product range includes pushbutton couplers, rotary dimmers, touch panels and many other control units and sensor modules.



### DALI Display 7"

### DALI CONTROL- AND OPERATING UNIT WITH TOUCHSCREEN

The 7" and 24 bit colour touch screen enables commission, control and operation of a DALI system with 2 lines (up to 128 DALI operating devices). Supported functions: Dimming and switching of groups, manual or time controlled recall of

scenes, week schedules, RGB colour management and colour temperature control, recall of circadian daylight curves (human centric lighting) and customisable user interfaces.





### **DALI** Touchpanel

The DALI Touchpanel is a multifunctional DALI control unit with up to 12 freely configurable buttons. It is possible to choose between a selection of default user interfaces to control groups/ scenes and colour/colour temperature.

Furthermore, each buttons can be individually configured with target address, button behaviour and DALI commands. Besides the standard functions, dimming, switching, scene recall, etc., predefined macros such as setting the colour temperature, dynamic scenes and sequences as well as user defined command lists are supported.

By inserting a layout card in the panel, it can be fitted to a wide variety of applications. Four layout cards are included in the scope of the delivery and additional ones can be designed individually.









#### Standard-Layout:



6 Buttons (factory settings)



Colour (RGB)



7 Buttons



Tunable White



### **DALI Touchpanel Bluetooth 4.0**

The DALI Touchpanel is a multifunctional DALI control unit with up to 12 freely configurable buttons and Bluetooth connection to iOS and Android devices (DALI Touch App). Individual layouts and menus can be stored on www.dalitouch.com and shared with other users. The Bluetooth-devices have a reception range of about 10-15m.

DALI Touch

Here you can download the app for your smartphone:





NAME	ARTICLE NUMBER	SUPPLY	TYP. CURRENT CONSUMPTION DALI	DIMENSIONS (MM)	DALI TOUCH APP
DALI Touchpanel Bluetooth 4.0	24035465-BT	via DALI line	4mA	111 × 83 × 9	IOS und Android

#### Typical setup for colour and colour temperature control:



### **DALI Bluetooth Interface**

DALI Touch
you can download the app for you



NAME	ARTICLE NUMBER	SUPPLY
DALI Bluetooth Interface 4.0	89453584	via DALI line









### **DALI Switch Cross & wDALI Switch Cross**

Pushbutton module with four programmable buttons. Each button can be individually configured with target address, button behaviour and DALI commands. Beside the standard functions, dimming, switching, scene recall, etc., predefined macros such as setting the colour temperature, dynamic scenes and sequencer as well as user defined command lists are also supported. The buttons can be labelled with predefined or custom symbols.

The devices support DALI-2 and can be set to "Instance Mode", enabling the communication with higher-level building management systems, such as WAGO, Beckhoff etc.



DALI

#### **DALI Switch Cross - wired**

NAME	ARTICLE NUMBER	COLOUR	SUPPLY	TYP. CURRENT CONSUMPTION DALI	DIMENSIONS (MM)
DALI Switch Cross White	86459793-W	white, RAL9010	via DALI line	1.5mA	8.5 × 82 × 82
DALI Switch Cross RAL9016	86459793-W16	White, RAL9016	via DALI line	1.5mA	8.5 × 82 × 82
DALI Switch Cross Black	86459793-B	black	via DALI line	1.5mA	8.5 × 82 × 82
DALI Switch Cross White WAGO	86459793-WA-W	white	via DALI line	1.5mA	8.5 × 82 × 82
DALI Switch Cross Black WAGO	86459793-WA-B	black	via DALI line	1.5mA	8.5 × 82 × 82

#### wDALI Switch Cross - wireless

NAME	ARTICLE NUMBER	COLOUR	SUPPLY	TYP. CURRENT CONSUMPTION DALI TRANSCEIVER	FREQUENCY RANGE	DIMENSIONS (MM)
wDALI Switch Cross white inkl. Transceiver	86459541-W+T	white, RAL9010	Battery*	3.8mA	2.4GHz	8.5 × 82 × 82 59 × 33 × 15
wDALI Switch Cross black inkl. Transceiver	86459541-B+T	black	Battery*	3.8mA	2.4GHz	8.5 × 82 × 82 59 × 33 × 15

additional Transceiver - see table page 8A

\*battery type CR2032, average lifetime 6 years



### wDALI Remote

A wireless DALI system consist of at least two components a wireless unit (e.g. wDALI Remote) and a wDALI Transceiver, which has to be connected to the DALI line.

The remote control module has 12 pushbuttons, which can be individually configured with target address, button behaviour and DALI commands. Besides the standard functions, dimming, switching, scene recall, etc., predefined macros such as setting the colour temperature, dynamic scenes and sequences as well as user defined command lists are supported. The factory settings for basic control are listed below. Under optimal conditions the reception range is 300m, in buildings usually 10-20m.

NAME	ARTICLE NUMBER	COLOUR	SUPPLY	TYP. CURRENT CONSUMPTION DALI TRANSCEIVER	FREQUENCY RANGE	DIMENSIONS (MM)
wDALI Remote white	86459534-W	white, RAL9010	Battery*	3.8mA	2.4GHz	140 × 52 × 10
wDALI Remote black	86459534-B	black	Battery*	3.8mA	2.4GHz	140 × 52 × 10
wDALI Remote white + Transceiver	86459534-W+T	white, RAL9010	Battery*	3.8mA	2.4GHz	140 × 52 × 10 59 × 33 × 15
wDALI Remote black + Transceiver	86459534-B+T	black	Battery*	3.8mA	2.4GHz	140 × 52 × 10 59 × 33 × 15
additional Transceiver - see table	ditional Transceiver - see table page 8A *battery type CR2032 average lifetime 6 years					

DALI DALI PS

B4		
B5	B9	
B6	B10	
B7	B11	
B8	B12	

FACTORY SETTING 1	
SWITCH & DIM	

B1: on (maximum)	B1
B3: off	B1
B4 long press: dim down	B3
B2 long press: dim up	B3
	B4
B5-B8: on/off group 0 (B5) to group 3 (B8)	B2

B5-B8: on/off group 0 (E B9-B12: on/off Scene 0 (B9) to scene 3 (B12)





\*battery type CR2032, average lifetime 6 years



TIP: Several wDALI control devices can be connected to the same transceiver!

#### FACTORY SETTING 2

#### SWITCH, DIM & COLOUR TEMPERATUR

- : on / maximum
- l long press: dim up
- 3: off
- long press: dim down
- long press: colder
- long press: warmer
- The buttons B5-B12 are the same as in FACTORY SETTING 1

### wDALI MC wireless pushbutton coupler

wDALI MC is a wireless version of the DALI MC+ module. The battery powered wDALI MC module has four pushbutton inputs. Each input can be individually configured with target address, button behaviour and DALI commands. The device can be mounted anywhere within the reception range of the transceiver. Under optimal conditions the reception range is 300m, in buildings usually 10-20m.



NAME	ARTICLE NUMBER	SUPPLY TRANSCEIVER	TYP. CURRENT CONSUMPTION DALI TRANSCEIVER	OPERATING TEMPERATURE (TA)	FREQUENCY RANGE	DIMENSIONS (MM)
wDALI MC + Transceiver	89453848+T	Battery*	3.8mA	-20°C - +75°C	2.4GHz	40 × 28 × 15 59 × 33 × 15
* extra Transceiver	86459587-TR	via DALI line	3.8mA	-20°C - +75°C	2.4GHz	59 × 33 × 15
					*Pottory type CP202	2 avorago lifotimo 6 voaro



### DALI MC+ pushbutton coupler

Pushbutton coupler with 4 inputs to connect standard potentialfree switches or pushbuttons (max wire length 0.50m). Each input can be individually configured with target address, button behaviour and DALI commands. Besides the standard functions, dimming, switching, scene recall, etc., predefined macros such as setting the colour temperature, dynamic scenes and sequences as well as user defined command lists are supported. The device is designed to fit behind a light switch in a flush-type installation box.







Input T1: Dimming pushbutton - on (maximum)/ off, long press: dim up/down Input T2: max, long press: dim up Input T3: off, long press: dim down Input T4: Dimming pushbutton alternating colder / warmer light

### MC1L, MC4L 230V pushbutton coupler

DALI control module with up to four, from the DALI bus galvanically isolated, switch inputs for mains voltage. Each input can be configured with target address, button behaviour and DALI commands. Besides the standard functions, dimming, switching, scene recall, etc., predefined macros such as setting the colour temperature, dynamic scenes and sequences as well as user defined command lists are supported. The device is designed to fit behind a light switch in a flush-type installation box or in a control cabinet. The cable length between switch and module should not exceed 10m, MC1L up to 100m.

NAME	ARTICLE NUMBER	SUPPLY	TYP. CURRENT CONSUMPTION DALI	INPUT	OPERATING TEMPERATURE (TA)	DIMENSIONS (MM)
DALI MC4L	86458507-4L	via DALI line	3.5mA	4 × 230V	-20°C - +75°C	59 × 33 × 15
DALI MC4L DIN Rail	86458507-4LHS	via DALI line	3.5mA	4 × 230V	-20°C - +75°C	98 × 17.5 × 57
DALI MC1L	86458507-1L	via DALI line	3.5mA	1 × 230V	-20°C - +75°C	59 × 33 × 15



### DALI 100K - DALI interface for $100k\Omega$ potentiometer

The DALI 100K enables the control of luminaires in a DALI system with a 100k $\Omega$  potentiometer. The analog input signal from the 100k $\Omega$  potentiometer is converted into a DALI light level (%), which is transmitted to the DALI bus. Whether the signal should be sent to the entire bus, to groups or to individual addresses can be set with the DALI Cockpit Software. The analog signals from the potentiometer are either transmitted periodically (1 second - 60 minutes) or whenever the voltage is changed (more than 2%).

NAME	ARTICLE NUMBER	SUPPLY	TYP. CURRENT CONSUMPTION DALI	OPERATING TEMPERATURE (TA)	DIMENSIONS (MM)
DALI 100K	86458506	via DALI line	3mA	-20°C - +75°C	40 × 28 × 15
		<u></u>			L N DALI
DALI PS	DAI		LED driv	er = 🚫 📑 Control unit	DALI CS ····



Lunatone A



Input L1: on / maximum (broadcas) Input L2: dim up (broadcast) Input L3: off (broadcast) Input L4: dim down (broadcast)





### **DALI ROT**

Fast and precise control with a traditional push/rotary knob. The device is powered by the DALI bus. Target address(es), button behaviour and DALI commands can be configured with the DALI Cockpit Software. All standard DALI commands, such as dimming, switching, scene recall, etc. are supported. Furthermore, versions for Tunable White, RGB and RGBW control are available, enabling the change of colour or colour temperature by turning the rotary knob.

The DALI-2 devices (see table) can be set to "Instance Mode", enabling the communication with higher-level building management systems, such as WAGO, Beckhoff etc.

DALI ROT covers are available in white and black, however standard 3rd party covers can also be used (DALI ROT shaft is Ø4 mm, an adapter for Ø6mm is included in the delivery scope).



DALI

NAME	ARTICLE NUMBER	FUNCTION & OPERATING MODES	TYP. CURRENT CONSUMPTION DALI	OPERATING TEMPERATURE (TA)	DIMENSIONS (MM)
DALI ROT	86459822	1. Intensity - Switch&Dim	1.6mA	-20°C +75°C	70 × 70 × 45
DALI ROT (CH)	86459822-CH	1. Intensity - Switch&Dim	1.6mA	-20°C +75°C	70 × 70 × 45
DALI ROT Tuneable White	86459822-TW	2. TW: Intensity & TunableWhite	1.6mA	-20°C +75°C	70 × 70 × 45
DALI ROT Tuneable White (CH)	86459822-TW-CH	2. TW: Intensity & TunableWhite	1.6mA	-20°C +75°C	70 × 70 × 45
DALI ROT RGB	86459822-RGB	3. RGB: Intensity & RGB	1.6mA	-20°C +75°C	70 × 70 × 45
DALI ROT RGB (CH)	86459822-RGB-CH	3. RGB: Intensity & RGB	1.6mA	-20°C +75°C	70 × 70 × 45
DALI ROT RGBW	86459822-RGBW	4. RGBW: Intensity & RGBW	1.6mA	-20°C +75°C	70 × 70 × 45
DALI ROT RGBW (CH)	86459822-RGBW-CH	4. RGBW: Intensity & RGBW	1.6mA	-20°C +75°C	70 × 70 × 45
DALI-2 ROT	86459822-D2	1. Intensity - Switch&Dim (default) 5. D2I: DALI-2 Instancemode	1.6mA	-20°C +75°C	70 × 70 × 45
DALI-2 ROT NFC	86459822-NFC	1. Intensity - Switch&Dim (default) 2. TW: Intensity & TunableWhite 3. RGB: Intensity & RGB	1.6mA	-20°C +75°C	70 × 70 × 45
DALI-2 ROT NFC (CH)	86459822-NFC-CH	<ol> <li>4. RGBW: Intensity &amp; RGBW</li> <li>5. D2I: DALI-2 Instancemode</li> <li>6. BD/CD: Balance&amp;Dim / Colour&amp;Dim</li> </ol>	1.6mA	-20°C +75°C	70 × 70 × 45









NAME	ARTICLE NUMBER
DALI ROT cover and rotary knob, white, Jung	86459822-Z01
DALI ROT cover and rotary knob, black, Jung	86459822-Z02



DALI ROT cover and rotary knob, white, Lunatone	86459822-Z04	white, RAL9016	82.4× 82.4×16.7
DALI ROT cover and rotary knob, black, Lunatone	86459822-Z05	black	82.4× 82.4×16.7
Adapter Ø6mm	86459822-Z03		Ø6



Lunatone



84,1 mm





### DALI GC(-A) - controlling two DALI groups

DALI GC / GC-A is a control unit to address 2 DALI groups. With this compact module conventional light switches or pushbuttons can be used to send dimming and switching commands to 2 DALI groups. Using the dial on the back of the device the DALI groups can be selected. Configuration with the DALI Cockpit Software is not necessary. The device is designed to fit behind a light switch in a flush-type installation box.



DAL

NAME	ARTICLE NUMBER	SUPPLY	TYP. CURRENT CONSUMPTION DALI	DIMENSIONS (MM)
DALI GC	24033450	via DALI line	6mA	41×30×11
DALI GC-A	24138907	via DALI line	6mA	41×30×11



### DALI SC(-A) - controlling four DALI scenes

DALI SC / SC-A is a control unit to recall DALI scenes. A different light scene can be assigned to each of the 4 independent switch inputs. The dial on the back of the device can be used to define which of the 16 scenes will be recalled when the buttons are pressed. Configuration with the DALI Cockpit Software is not necessary. The device is designed to fit behind a light switch in a flush-type installation box.



NAME	ARTICLE NUMBER	SUPPLY	TYP. CURRENT CONSUMPTION DALI	DIMENSIONS (MM)
DALI SC	24034263	via DALI line	6mA	41×30×11
DALI SC-A	24138906	via DALI line	6mA	41×30×11



# DALI Sequencer - recalling command sequences (macros)

DALI control module to automatically recall pre-programmed DALI command sequences. A sequence consists of a series of max. 16 DALI commands, for example a set of colour and light level changes. 4 different sequences can be programmed with the DALI Cockpit Software. User-defined sequences can also contain timestamps (command over time  $\rightarrow$  file.cot). Furthermore, it is possible to define whether sequences are looped or run only once. Sequences can be recalled with a scene command or in case of the DIN Rail module also via the input terminals.

It is possible to install several DALI Sequencers on one DALI line.

NAME	ARTICLE NUMBER	INPUT	TYP. CURRENT CONSUMPTION DALI	MODEL	DIMENSIONS (MM)
DALI Sequencer	86459582	DALI	2mA	for flush-type boxes	40 × 28 × 15
DALI Sequencer DIN Rail	86459582-HS	DALI und 4×230V	2mA	for DIN Rail	98 × 17.5 × 57





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Example sequence: The sequence runs in a loop from scene 0 to scene 15 with 1sec delay and 1sec fade time per scene.



### DALI CDC - time based colour temperature control

DALI CDC is a control unit that automatically adjusts the colour temperature and light level during the day to simulate daylight, so-called Human Centric Lighting. The device is used together with DALI DT8 TC (tunable white) luminaries. The sequence can be activated and deactivated using scene recalls. Smooth transitions are ensured by sending commands periodically. The sequence can be adjusted with the DALI Cockpit Software.





NAME	ARTICLE NUMBER	TYP. CURRENT CONSUMPTION DALI	TIME ACCURACY	MODEL	DIMENSIONS (MM)
DALI CDC	89453853	5mA	quarz based (~20ppm)	for flush-type boxes	59 × 33 × 15
DALI CDC DIN Rail	89453853-HS	5mA	quarz based (~20ppm)	for DIN Rail	98 × 17.5 × 57



#### FACTORY SETTINGS

From 18:00 - 06:00: warm light, from 06:00 - 12:00 the light gradually gets colder, at 12:00 o'clock the colour temperature is 5800K, after that the light will gradually warm up again until 18.00 o'clock. When delivered, the brightness is not controlled or changed (DAP = "MASK"). Light levels as well as temperature values (in Kelvin) can be changed with the DALI Cockpit Software.

> Parameters can o be set with th DALI Daylight Ap page 19A

#### colour temperature brightness

24:00	2700K	100%	12:00	5800K	100%
01:00	2700K	100%	13:00	5685K	100%
02:00	2700K	100%	14:00	5318K	100%
03:00	2700K	100%	15:00	4767K	100%
04:00	2700K	100%	16:00	4101K	100%
05:00	2700K	100%	17:00	3412K	100%
06:00	2700K	100%	18:00	2700K	100%
07:00	3412K	100%	19:00	2700K	100%
08:00	4101K	100%	20:00	2700K	100%
09:00	4767K	100%	21:00	2700K	100%
10:00	5318K	100%	22:00	2700K	100%
11:00	5685K	100%	23:00	2700K	100%

### **DALI RTC - Timer Module**

This timer module can be programmed to send user-defined DALI commands at user-defined times. Weekday based schedules can be specified: The device supports up to 28 entries, each consisting of a specific time, day(s) of the week and DALI command. As of firmware version 2.4 GPS coordinates can be entered, which allows time settings relative to sunrise and sunset.

NAME	ARTICLE NUMBER	TYP. CURRENT CONSUMPTION DALI	TIME ACCURACY	MODEL	DIMENSIONS (MM)
DALI RTC - Timer modul	86459531	5mA	quarz based (~20ppm)	for flush-type boxes	59 × 33 × 15
DALI RTC - Timer modul DIN Rail	86459531 -HS	5mA	quarz based (~20ppm)	for DIN Rail	98 × 17.5 × 57



### **DALI Temp - Temperature Sensor**

DALI sensor unit to measure temperatures. Alongside the internal temperature sensor an external PT1000 sensor can be connected. The module can be used to e.g. monitor temperatures of luminaires and heating/ventilation systems or control blinds based on temperature measurements. All measured values can be read out via the DALI line and displayed with the Lunatone Software tool DALI Visual.

NAME	ARTICLE NUMBER	TYP. CURRENT CONSUMPTION DALI	TEMPERATURE MEASUREMENT RANGE INTERNAL SENSOR	TEMPERATURE MEASUREMENT RANGE EXTERNAL PT1000	DIMENSIONS (MM)
DALI Temp Sensor	86459544	2.6mA	0°C +75°C	-25°C +125°C	40 × 28 × 15

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# DALI CS - Combi Sensor: PIR-, Temperature- and Light Sensor

A compact sensor module that combines a motion detector, a light sensor and a temperature sensor.

The module can be used as a control device for a DALI system or as a sensor unit in a building management system.

DALI CS can be configured with the DALI Cockpit Software to send various DALI commands upon motion detection (on/off, recall max, scene, ... ) to either the entire DALI system, groups or individual addresses. With the dial on the sensor housing, a target group can also be selected without programming. Furthermore, the module supports constant light control, to automatically change light levels.

Scene commands can be used to recall alternative behaviour. This way it is possible to e.g control specific groups or recall different lighting values depending on the situation.

The measured values can be read out via the DALI line and displayed e.g. with the Lunatone Software tool DALI Visual. Multiple sensors within one group will synchronise automatically. The device is powered directly by the DALI bus.

DALI CS is available in three different housings: for direct mounting on cavity walls or installation boxes (standard), for suspended ceilings (with spring), or for surface mounting (with backbox). Available housing colours are traffic white RAL 9016 (-W16) or pure white RAL 9010.

Factory default is PIR with corridor function and 10min hold time before the off-command.





LI Daylight A

#### Drawing of the DALI CS & DALI LS (Standard version, for direct mounting on installation boxes / cavity walls)



Configuration of the DALI CS via the DALI Cockpit Software



NAME	ARTICLE NUMBER	COLOUR	TYP. CURRENT CONSUMPTION DALI	DETECTION RANGE & MAX. MOUNTING HEIGHT	MODEL
DALI CS motion sensor	86458621	RAL9010	3.5mA	12m & 8m	standard
DALI CS motion sensor	86458621-W16	RAL9016	3.5mA	12m & 8m	standard
DALI CS motion sensor for surface mounting	86458621-W16-AP	RAL9016	3.5mA	12m & 8m	for surface mounting (with backbox)
DALI CS motion sensor for suspended ceilings	86458621-W16-ZD	RAL9016	3.5mA	12m & 8m	for suspended ceilings (with spring)
DALI CS presence sensor	86458621-O-W16	RAL9016	3.5mA	2.3m / 3m & 3m	standard
DALI CS presence sensor for surface mounting	86458621-O-W16-AP	RAL9016	3.5mA	2.3m / 3m & 3m	for surface mounting (with backbox)
DALI CS presence sensor for suspended ceilings	86458621-O-W16-ZD	RAL9016	3.5mA	2.3m / 3m & 3m	for suspended ceilings (with spring)
DALI CS motion sensor 15m,	86458621-15-W16	RAL9016	3.5mA	15m & 12m	standard
DALI CS motion sensor 15m, for surface mounting	86458621-15-W16-AP	RAL9016	3.5mA	15m & 12m	for surface mounting (with backbox)
DALI CS motion sensor 15m, for suspended ceilings	86458621-15-W16-ZD	RAL9016	3.5mA	15m & 12m	for suspended ceilings (with spring)

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### DALLCS with 20mA DALL **Bus Power Supply**

Compact DALI motion sensor with integrated light sensor. The module can be used as a control unit for a DALI system or integrated in a building management system as sensor unit. The following settings can be configured: target address(es), DALI commands for on/off and hold times, light levels, activate/ deactivate sensors, constant light control etc. Multiple sensors within one group synchronise automatically. The module is suitable for installation in a luminaire.

Illustration on the left: Art. Nr.: 89453862 / Art. Nr.: 89453862-15 on the right: Art. Nr.: 89453862-0



NAME	ARTICLE NUMBER	TYP. CURRENT CONSUMPTION DALI	DETECTION RANGE & MAX. MOUNTING HEIGHT	INTEGRATED DALI POWER SUPPLY
DALI CS motion sensor 12m	89453862	3.5mA	12m & 8m	20mA
DALI CS motion sensor 15m	89453862-15	3.5mA	15m & 12m	20mA
DALI CS motion sensor 2,5m	89453862-O	3.5mA	2.3m/3m & 3m	20mA

### DALI SI, SI-1L

Sensor Interface to connect e.g. conventional motion sensors, contact switches or photoelectric sensors to a DALI system. Configuration options are similar to the DALI CS: target address(es), DALI commands for on/off and hold times, light levels etc. Multiple sensors within one group synchronise automatically. Two different versions are available, one with switching input for potential free contacts (DALI SI), the other with switching input for mains voltage (DALI SI1L). The device is designed to fit behind a light switch in a flush-type installation box.



NAME	ARTICLE NUMBER	SUPPLY	TYP. CURRENT CONSUMPTION DALI	CONTROL INPUT	DIMENSIONS (MM)
DALI SI	89453850	via DALI line	2.9mA	1 switching input for potential free contact	40 × 28 × 15
DALI SI-1L	89453850-1L	via DALI line	2.9mA	1 switching input for mains voltage	59 × 33 × 15



### **DALI LS - Light Sensor**

The DALI LS is a compact light sensor. The module can be used to measure the light intensity as well as automatically control the light level of individual luminaires or lighting groups (Constant light control). Lux-levels and target addresses can be configured with the DALI Cockpit Software. With the dial on the sensor housing the preferred light level can also be set without PC configuration.

All measured values can be read out via the DALI line and displayed with e.g. the Lunatone Software tool DALI Visual.

DALI LS is available in three different housings: for direct mounting on cavity walls or installation boxes (standard), for suspended ceilings (with spring), or for surface mounting (with backbox). Available housing colours are traffic white RAL 9016 (-W16) or pure white RAL 9010.

NAME	ARTICLE NUMBER	COLOUR	TYP. CURRENT CONSUMPTION DALI	MODEL
DALI LS	86458674	RAL9010	3.5mA	standard
DALI LS	86458674-W16	RAL9016	3.5mA	standard
DALI LS for surface mounting	86458674-W16-AP	RAL9016	3.5mA	for surface mounting (with backbox)
DALI LS for suspended ceilings	86458674-W16-ZD	RAL9016	3.5mA	for suspended ceilings (with spring)

DALI Daylight Interface incl. App for iOS and Android allows basic adjustment of the following devices:

- DALI CDC: changing circadian curve settings (start, peak, end) •
- .
- .
- control, specifying the reference light level



NAME	ARTICLE NUMBER	SUPPLY
DALI Daylight Bluetooth Interface	89453863	via DALI lin













# PHASE DIMMER & ACTUATORS

- DALI 230V phase dimmer
- relay modules for non-dimmable luminaires
- control of 230V AC blinds / shutter drives
- 1Ch LED Booster/Dimmer



- relay modules with 0-10V control input
- converting DALI to 0-10V, 1-10V or PWM
- wireless wDALI devices



### DALI PD - DALI 230V phase dimmer

Phase dimmer with DALI control input to integrate 230V retrofit LED luminaires into a DALI system. The devices have an input for DALI, 230V AC and output for dimmable LED luminaries with inductive / capacitive characteristics. DALI PD is available for leading edge and trailing edge as well as a universal version with automatic load detection.

As of firmware version 3.5, the operating mode as noiseless





DALI-controlled electronic switch is also supported.

version.

When installing many small LED lights, dimmed by a single DALI

DALI PD is available as a compact 25W version or as 300W

PD, the inrush current and power factor should be considered.

NAME	ARTICLE NUMBER	INPUT	OUTPUT	SUITABLE LOADS LOAD RANGE		MODEL	DIMENSIONS (MM)
DALI PD 300W universal dimmer	86458619-300U	DALI, 230V AC	230V AC	trailing and leading edge R,L,C	10-300W	with strain relief for suspended ceilings	120 × 30 × 22
DALI PD 300W universal dimmer	86458619-300U-HS	DALI, 230V AC	230V AC	trailing and leading edge R,L,C	10 - 300W	for DIN Rail	98 × 17.5 × 57
DALI PD 300W trailing edge dimmer	86458619-300	DALI, 230V AC	230V AC	trailing edge R,C	10 - 300W	with strain relief for suspended ceilings	120 × 30 × 22
DALI PD 300W leading edge dimmer	86458618-300	DALI, 230V AC	230V AC	leading edge R,L	10-300W	with strain relief for suspended ceilings	120 × 30 × 22
DALI PD 25W universal dimmer	86458619-25U	DALI, 230V AC	230V AC	trailing and leading edge R,L,C	3 - 25W	for flush-type boxes	59 × 33 × 15
DALI PD 25W trailing edge dimmer	86458619	DALI, 230V AC	230V AC	trailing edge R,C	3 - 25W	for flush-type boxes	59 × 33 × 15
DALI PD 25W leading edge dimmer	86458618	DALI, 230V AC	230V AC	leading edge R,L	3 - 25W	for flush-type boxes	59 × 33 × 15



### Relay modules RM8 / RM16

The DALI RM8, DALI RM16 devices provide a relay contact that can be controlled via the DALI bus. This allows direct switching of permanent loads up to 2kW. Various compact designs and variations with make-contact or changeover-contact are available. Targeted switching in the voltage zero crossing



NAME	ARTICLE NUMBER	MAX. SWITCHING CURRENT	TYPE OF RELAY CONTACT	MODEL	DIMENSIONS (MM)
DALI RM8	86458675	8A	1 make-contact	for flush-type boxes	59 × 33 × 15
DALI RM8 DIN Rail	86458675-HS	8A	1 make-contact	for DIN Rail	98 × 17.5 × 57
DALI RM16	86458629	8A	1 changeover-contact	for flush-type boxes	59 × 33 × 15
DALI RM16 DE	86458629-DE	16A	1 make-contact	with strain relief for suspended ceilings	120 × 30 × 22
DALI RM16 DE WE	86458629-DE-WE	16A	1 changeover-contact	with strain relief for suspended ceilings	120 × 30 × 22
DALI RM16 DIN Rail	86458629-HS	16A	1 make-contact	for DIN Rail	98 × 17.5 × 57
DALI RM16 WE DIN Rail	86458629-HS-WE	16A	1 changeover-contact	for DIN Rail	98 × 17.5 × 57
DALI RM16 with Wieland connectors	86458629-CEL	16A	1 make-contact	with Wieland connectors	85 × 62 × 18



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protects the switching contact and increases the device-lifetime. The product range also includes versions with integrated in-rush current limitation. Power-up mode and system-failure settings can be configured using the DALI Cockpit Software.

# wDALI RM8 - Wireless relay module

This wDALI relay module is used to wirelessly integrate electrical devices into the DALI system. The set consists of a transmitter and a receiver. The transceiver is connected to and powered by the DALI bus (3.8mA). The receiver with relay function is powered by mains voltage. Under optimal conditions the reception range is 300m, in buildings usually 10-20m.







### **DALI** Jalousie

The module can be used to control 230V AC blinds / shutter drives via DALI. Four profiles can be set to open / close the blinds and to change the tilt angle. Suitable for DIN Rail or suspended ceiling installation (housing with strain relief).

NAME	ARTICLE NUMBER	ARTICLE SUPPLY		OPERATING TEMPERATURE (TA)	MODEL	DIMENSIONS (MM)
DALI Jalousie	86458676-DE	via DALI line	5,5mA	-20°C - +60°C	with strain relief for suspended ceilings	120 × 30 × 22
DALI Jalousie DIN Rail	86458676-HS	via DALI line	5,5mA	-20°C - +60°C	for DIN Rail	98 × 17.5 × 57



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### DALI RM8 / RM16 0-10V - relay modules with 0-10V control input

0-10V interface with 8A or 16A relay. This interface converts DALI signals into 1-10V control signals and thus enables the integration of devices with 1-10V control input into a DALI system. With the integrated switching relay, the power supply of the operating devices can be switched on and off. The modules are compliant with DALI Device Type 5 (IEC62386-206). The Linear or logarithmic dimming curve as well as the 0-10V or 1-10V control voltage range are adjustable via the DALI Cockpit Software.

The devices with PWM (see table) can also control operating devices with PWM input. The DALI input is galvanically isolated from the PWM/1-10V output.

Available for suspended ceiling installation (housing with strain relief), flush-type installation boxes or with Wieland connectors.



NAME	ARTICLE NUMBER	SWITCHING CURRENT RELAY CONTACT	TYPE OF RELAY CONTACT	OUTPUT (0-10V)	MODEL	DIMENSIONS (MM)
DALI RM8 PWM	86458668	8A	1 on/off	0-100% PWM (14Bit, 488Hz), current sink 2mA	for flush-type boxes	59 × 33 × 15
DALI RM8 1-10V AN	86458668-AN	8A	1 on/off	1-10V analog, current sink 1mA	for flush-type boxes	59 × 33 × 15
DALI RM16 1-10V with Wieland connectors	86458936	16A	1 on/off	0-100% PWM (14Bit, 488Hz), current sink 2mA	with Wieland connectors	85 × 22 × 60
DALI RM16 0-10V PWM DE	86458667-DE	16A	1 on/off	0-100% PWM (14Bit, 488Hz), current sink 2mA	with strain relief for suspended ceilings	120 × 30 × 22



### DALI RM8 / RM16 2×0-10V - operating 2 devices with 0-10V control input

DT8 DALI interface module with two control outputs to control two 1-10V operating devices.

Output mode for channel 1 / channel 2 can be defined via the DALI Cockpit Software: either Brightness/Tc or separate channels for CW and WW.



NAME	ARTICLE NUMBER	SWITCHING CURRENT RELAY CONTACT	TYPE OF REL CONTACT
DALI RM16 2×0-10V DIN Rail	89453857-HS	16A	1 make-contac
DALI RM16 2×0-10V DE	89453857-DE	8A	1 on/off



### wDALI RM8 0/1-10V PWM - wireless relay module with 0/1-10V PWM control output

Wireless 0-10V PWM interface with integrated 8A relay. The set consists of a transceiver and a receiver and is used to wirelessly control lights with 0-10V / 1-10V / PWM operating devices. The transmitter is connected to and powered by the DALI bus (3.8mA). The receiver has a 0-10V PWM output and a relay function and is powered by mains voltage. The wDALI RM8 0-10V enables the wireless integration of electrical devices such as floor lamps and outdoor lighting into a DALI system. Under optimal conditions the reception range is 300m, in buildings usually 10-20m.

NAME	ARTICLE NUMBER	MAX. SWITCHING CURRENT	TYPE OF RELAY CONTACT	OUTPUT	MODEL	DIMENSIONS (MM)
wDALI RM8 0-10V PWM + Transceiver	89453852+T	8A	1 on/off	0-100% PWM (16Bit, 488Hz), current sink 1mA	for flush-type boxes	59 × 33 × 15
DALI PS	Ddriver = Con	trol unit	WDA RM8/ 1-1		electrical device 0-10V	COM 1-10V electrical device 0-10V

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### DALI 0/1-10V - converting DALI to 0-10V, 1-10V or PWM

These interfaces convert DALI signals into 0-10V, 1-10V or PWM control signals, thus enabling the integration of electrical devices with 0-10V control inputs into a DALI system, see table.

A single module can control up to 10 ballasts. The output voltage range as well as linear or logarithmic dimming curve (see table) can be adjusted via the DALI Cockpit Software.



NAME	ARTICLE NUMBER	GALVANIC ISOLATION: INPUT - OUTPUT	ANIC ISOLATION: T - OUTPUT M		DIMENSIONS (MM)
DALI 0-10V analog	86458508-LE	no	0-10V (0%-100%) analog voltage 1mA max. (current sink)	for flush-type boxes	40 × 28 × 15
DALI 0-10V analog, galv. isolation	86458508-AN	yes	0.6V-10V analog voltage 100uA-1mA	for flush-type boxes	40 × 28 × 15
DALI 0-10V PWM 1mA, galv. isolation	86458508-PWM	yes	488Hz PWM (0%-100%) / 1mA current sink	for flush-type boxes	40 × 28 × 15
DALI PWM 100mA	86458508-100	yes	0%-100% PWM 100mA, 60VDC max. PWM-frequency: 488Hz/976Hz 10%	for flush-type boxes	40 × 28 × 15

#### 86458508-LE enables the integration of electrical devices with integrated galvanic isolation and 0 or 1-10V control input





Booster or Dimmer. The device functions as PWM Booster, if PWM signals are applied to the input (50Hz-1kHz). If operated with a  $100k\Omega$  potentiometer or a 0-10V control device (active or

NAME	ARTICLE NUMBER	INPUT
1CH LED Booster/ Dimmer CV 16A	86459838	- PWM (50Hz-1kHz) - 100kOhm Potentiometer - 0-10V aktiv/passiv





### Lunatone housing dimensions

scale 1:1



compact housing for flush-type boxes ca. 40 × 28 × 15

designed to fit e.g. behind a light switch in a flush-type installation box





### housing for flush-type boxes ca. 59 × 33 × 15

designed to fit e.g. behind a light switch in a flush-type installation box





17,5mm





wide housing with strain relief ca. 120 × 41 × 22 for suspended ceilings



compact housing with strain relief ca. 120 × 30 × 22 for suspended ceilings

1DU DIN Rail module ca. 98 × 17,5 × 57 for the control cabinet

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#### 120,2 mm



# OPERATING DEVICES 230VAC / 48V / 24V

- DALI LED Dimmer DT6: 1-4 Channels, constant voltage (CV) and constant current (CC)
- DALI LED Dimmer DT8: Tunable White, RGB, RGBW, constant voltage (CV) and constant current (CC)



- 230V Operating Devices: DALI LED Power Supply 1 Channel DT6, constant voltage (CV) and constant current (CC)
- 230V Operating Devices: DALI LED Power Supply Tunable
   White DT8, constant voltage (CV) and constant current (CC)



### SPECIAL FEATURES OF DALI LED DIMMERS

Lunatone DALI LED dimmers offer a wide dimming range from 0.1 to 100% and are available for constant voltage (CV types) and constant current (CC types). There are single-channel devices and multi-channel devices for DALI Device Type 6 commands (DT6): 1-4Ch devices, as well as devices for colour and tunable

white control for DALI Device Type 8 commands (DT8): CW-WW, RGB, RGBW devices.

As alternative to the DALI control, Lunatone devices also support pushbutton control (SW&DIM2), this option is especially suitable for small installations.



#### Connection example: LED dimmer control via pushbutton (SW&DIM2)



The SW&DIM2 operation is realised with one or two commercially available pushbuttons: Button 1 is used to control the brightness



Button 2 can control tunable white, colour or scenes depending on the device type and setting

## ALTERNATIVE

### OPERATING MODES

As an alternative to the DT8 and DT6 control commands, the following operating modes can be used (via DALI as well as pushbuttons):

#### operating mode: DIM2WARM

to control Tunable White luminaires

#### **DALI control:**

Only one address is required to control brightness and colour temperature simultaneously; the lower the dimming value, the warmer the light.

#### SW&DIM2 control:

Only one button (input SW&DIM1) is required to control brightness and colour temperature simultaneously; the lower the dimming value the warmer the light.



### operating mode: BALANCE&DIM and operating mode: COLOUR&DIM

to control Tunable White, RGB (W) luminaires or indirect / direct lighting

If enough addresses are available in the DALI system (2 DALI addresses per LED dimmer) the operating mode Balance&Dim or Colour&Dim can be used. They are a user-friendly, easy to integrate alternative to the DT6/DT8 control. Besides luminaires with cold white and warm white modules, luminaires with direct and indirect lighting can be controlled comfortably.

#### DALI control:

Address 1 to control the brightness Address 2 to control the colour temperature, colour or indirect / direct lighting

#### SW&DIM2 control:

Button 1 (input SwD1) to control the brightness Button 2 (input SwD2) to control the colour temperature, colour or indirect / direct lighting

#### operating mode: scene switch

Default setting for 1 channel DT6 devices

Button 1 switching and dimming (SW&DIM), Button 2 is used as a scene switch. On delivery, scenes are predefined, but can also be configured via the DALI Cockpit Software.

### DALI LED Dimmer DT6 1-4 Channels, constant voltage (CV)

#### **DEVICE TYPE DT6 - ONE ADDRESS PER CHANNEL**

Lunatone DT6 LED dimmers are used to control luminaires via up to 4 separately controllable channels. Each channel has its own DALI address and can be configured via the DALI Cockpit Software. Besides the DALI Device Type 6 commands (DT6), the device supports alternative operating modes listed on the right side of the table. Convenient for small installations is the optional control via pushbutton (SW&DIM2).

See page 2C for more information on control options and operating modes.





#### operating mode: CORRIDOR

automatic switch off after a defined period of time

A mode with integrated staircase automation, e.g. to control one or more motion detectors or light barriers with a relay contact.





#### Connection example: 4Ch LED dimmer CV DT6, control via DALI (SW&DIM2 connection see page 2C):



NAME	ARTICLE NUMBER	INPUT CURRENT	NUMBER OF ADDRESSES DT6	SUPPLY	DIMENSIONS (MM)	MODEL	SW&DIM	SW&DIM2	KORRIDOR	DIM2WARM	<b>BALANCE&amp;DIM</b>	COLOUR&DIM
DALI 1Ch LED Dimmer CV 4A	89453826	4A	1	12-28V DC	40 × 28 × 15	for flush-type boxes	~		V			
DALI 1Ch LED Dimmer CV 8A	86459556	8A	1	12-48V DC	59 × 33 × 15	for flush-type boxes		V	~			
DALI 1Ch LED Dimmer CV 10A	86459572	10A	1	12-48V DC	120 × 30 × 22	with strain relief for suspended ceilings	~		~			
DALI 1Ch LED Dimmer CV 16A	89453829	16A	1	12-48V DC	120 × 30 × 22	with strain relief for suspended ceilings	~		~			
DALI 1Ch LED Dimmer 16A CV DIN Rail	89453829-HS	16A	1	12-48V DC	98 × 17.5 × 57	for DIN Rail		V	V			
DALI 2Ch LED Dimmer CV 4A	89453827	4A	2	12-28V DC	40 × 28 × 15	for flush-type boxes				V	V	
DALI 2Ch LED Dimmer CV 8A	89453833	8A	2	12-48V DC	59 × 33 × 15	for flush-type boxes		V		V	V	
DALI 2Ch LED Dimmer CV 10A	86459561	10A	2	12-48V DC	120 × 30 × 22	with strain relief for suspended ceilings		V		V	V	
DALI 2Ch LED Dimmer CV 16A	89453830	16A	2	12-48V DC	120 × 30 × 22	with strain relief for suspended ceilings		V		V	V	
DALI 2Ch LED Dimmer 16A CV DIN Rail	89453830-HS	16A	2	12-48V DC	98 × 17.5 × 57	for DIN Rail		v		V	V	
DALI 3Ch LED Dimmer CV 4A	89453828	4A	3	12-48V DC	59 × 33 × 15	for flush-type boxes		V				~
DALI 3Ch LED Dimmer CV 8A	89453834	8A	3	12-48V DC	59 × 33 × 15	for flush-type boxes		V				V
DALI 3Ch LED Dimmer CV 10A	86459571	10A	3	12-48V DC	120 × 30 × 22	with strain relief for suspended ceilings		V				V
DALI 3Ch LED Dimmer CV 16A	89453831	16A	3	12-48V DC	120 × 30 × 22	with strain relief for suspended ceilings		V				V
DALI 3Ch LED Dimmer 16A CV DIN Rail	89453831-HS	16A	3	12-48V DC	98 × 17.5 × 57	for DIN Rail		V				~
DALI 4Ch LED Dimmer CV 8A	89453835	8A	4	12-48V DC	59 × 33 × 15	for flush-type boxes						~
DALI 4Ch LED Dimmer CV 10A	86459560	10A	4	12-48V DC	120 × 30 × 22	with strain relief for suspended ceilings		V				V
DALI 4Ch LED Dimmer CV 16A	89453832	16A	4	12-48V DC	120 × 30 × 22	with strain relief for suspended ceilings		V				V
DALI 4Ch LED Dimmer 4A CV DIN Rail	89453832-HS	16A	4	12-48V DC	98 × 17.5 × 57	for DIN Rail		V				~

#### SW&DIM: 1 control input for dimming and switching SW&DIM2: 2 control inputs, see page 2C

### 1-4 Channels, constant current (CC)

#### **DEVICE TYPE DT6 - ONE ADDRESS PER CHANNEL**

Lunatone DT6 LED dimmers are used to control luminaires via up to 4 separately controllable channels. Each channel has its own DALI address and can be configured via the DALI Cockpit Software. Besides the DALI Device Type 6 commands (DT6), the device supports alternative operating modes listed on the right side of the table. Convenient for small installations is the optional control via pushbutton (SW&DIM2). See page 2C for more information on control options and operating modes.

NAME	ARTICLE NUMBER	MAX. INPUT CURRENT PER CHANNEL	NUMBER OF ADDRESSES	OF DIMENSIONS MODEL SES (MM)		SW&DIM2	DIM2WARM	<b>BALANCE&amp;DIM</b>	COLOUR&DIM	COMMON MINUS	COMMON PLUS
DALI 1Ch LED Dimmer CC 350mA	89453844-350	350mA	1	59 × 33 × 15	for flush-type boxes						~
DALI 1Ch LED Dimmer CC 500mA	89453844-500	500mA	1	59 × 33 × 15	for flush-type boxes						~
DALI 1Ch LED Dimmer CC 700mA	89453844-700	700mA	1	59 × 33 × 15	for flush-type boxes						~
DALI 1Ch LED Dimmer CC 700mA DE	89453844-700DE	700mA	1	120 × 30 × 22	with strain relief for suspended ceilings	~					~
DALI 1Ch LED Dimmer CC 1000mA	89453844-1000DE	1000mA	1	120 × 30 × 22	with strain relief for suspended ceilings	~					~
DALI 1Ch LED Dimmer CC 1500mA	89453844-1500DE	1500mA	1	120 × 30 × 22	with strain relief for suspended ceilings	V					~
DALI 1Ch LED Dimmer CC 2000mA	89453844-2000DE	2000mA	1	120 × 41 × 22	with strain relief for suspended ceilings	~					~
DALI 1Ch LED Dimmer CC 2500mA	89453844-2500DE	2500mA	1	120 × 41 × 22	with strain relief for suspended ceilings	V					~
DALI 2Ch LED Dimmer CC 350mA	89453845-350	350mA	2	59 × 33 × 15	for flush-type boxes		V	V			~
DALI 2Ch LED Dimmer CC 350mA DE	89453845-350DE	350mA	2	120 × 30 × 22	with strain relief for suspended ceilings	V	√	V			√
DALI 2Ch LED Dimmer CC 500mA	89453845-500	500mA	2	59 × 33 × 15	for flush-type boxes		√	V			√
DALI 2Ch LED Dimmer CC 500mA DE	89453845-500DE	500mA	2	120 × 30 × 22	with strain relief for suspended ceilings	V	~	V			√
DALI 2Ch LED Dimmer CC 700mA	89453845-700	700mA	2	120 × 41 × 22	with strain relief for suspended ceilings	~	~	V			~
DALI 2Ch LED Dimmer CC 1000mA	89453845-1000	1000mA	2	120 × 41 × 22	with strain relief for suspended ceilings	V	√	V			√
DALI 2Ch LED Dimmer CC 350mA GM	89453845-350GMDE	350mA	2	120 × 41 × 22	with strain relief for suspended ceilings	~	√	V		~	
DALI 2Ch LED Dimmer CC 500mA GM	89453845-500GMDE	500mA	2	120 × 41 × 22	with strain relief for suspended ceilings	~	~	V		~	
DALI 2Ch LED Dimmer CC 700mA GM	89453845-700GM	700mA	2	120 × 41 × 22	with strain relief for suspended ceilings	~	~	~		~	
DALI 2Ch LED Dimmer CC 1000mA GM	89453845-1000GM	1000mA	2	120 × 41 × 22	with strain relief for suspended ceilings	~	V	~		V	

Lunatone 5 C



NAME	ARTICLE NUMBER	MAX. INPUT CURRENT PER CHANNEL	NUMBER OF ADDRESSES	DIMENSIONS (MM)	MODEL	SW&DIM2	DIM2WARM	<b>BALANCE&amp;DIM</b>	COLOUR&DIM	COMMON MINUS	COMMON PLUS
DALI 3Ch LED Dimmer CC 350mA	89453846-350	350mA	3	120 × 30 × 22	with strain relief for suspended ceilings	V			V		V
DALI 3Ch LED Dimmer CC 500mA	89453846-500	500mA	3	120 × 30 × 22	with strain relief for suspended ceilings	~			~		~
DALI 3Ch LED Dimmer CC 350mA GM	89453846-350GM	350mA	3	120 × 30 × 22	with strain relief for suspended ceilings	~			~	~	
DALI 3Ch LED Dimmer CC 500mA GM	89453846-500GM	500mA	3	120 × 30 × 22	with strain relief for suspended ceilings	~			~	~	
DALI 3Ch LED Dimmer CC 700mA GM	89453846-700GM	700mA	3	120 × 30 × 22	with strain relief for suspended ceilings	~			V	~	
DALI 4Ch LED Dimmer CC 250mA	89453855-250	250mA	4	120 × 41 × 22	with strain relief for suspended ceilings	~			V		~
DALI 4Ch LED Dimmer CC 350mA	89453855-350	350mA	4	120 × 41 × 22	with strain relief for suspended ceilings	~			v		~
DALI 4Ch LED Dimmer CC 500mA	89453855-500	500mA	4	120 × 41 × 22	with strain relief for suspended ceilings	~			v		$\checkmark$
DALI 4Ch LED Dimmer CC 700mA	89453855-700	700mA	4	120 × 41 × 22	with strain relief for suspended ceilings	~			~		~
DALI 4Ch LED Dimmer CC 350mA GM	89453855-350GM	350mA	4	120 × 41 × 22	with strain relief for suspended ceilings	~			V	~	
DALI 4Ch LED Dimmer CC 500mA GM	89453855-500GM	500mA	4	120 × 41 × 22	with strain relief for suspended ceilings	~			V	~	
DALI 4Ch LED Dimmer CC 700mA GM	89453855-700GM	700mA	4	120 × 41 × 22	with strain relief for suspended ceilings	~			~	~	



Other output currents are available on request!

Connection example: 4Ch LED dimmer CC DT6, control via DALI (SW&DIM2 connection see page 2C):



### DALI LED Dimmer DT8 Tunable White, RGB, RGBW - Constant Voltage (CV)

### DEVICE TYPE DT8 - COLOUR MANAGEMENT WITH ONLY ONE DALI ADDRESS

Lunatone DT8 LED dimmers are used to control the brightness and colour temperature or colour of Tunable White CW-WW, RGB or RGBW capable luminaires. The devices are DALI Device Type 8 (DT8), which means only one DALI address is needed to control up to 4 outputs. Besides the DALI Device Type 8 commands (DT8), the device supports alternative operating modes listed on the right side of the table. Convenient for small installations is the optional control via pushbutton (SW&DIM2). See page 2C for more information on control options and operating modes.

Connection example: CW-WW LED dimmer CV DT8, control via DALI (SW&DIM2 connection see page 2C):



NAME	ARTICLE NUMBER	INPUT CURRENT	APPLICATION	SUPPLY	DIMENSIONS (MM)	MODEL	SW&DIM2	DIM2WARM	<b>BALANCE&amp;DIM</b>	COLOUR&DIM
DALI CW-WW LED Dimmer CV 4A	89453836	4A	Tunable White	12-28V	40 × 28 × 15	for flush-type boxes		√	~	
DALI CW-WW LED Dimmer CV 8A	86458673	8A	Tunable White	12-48V	59 × 33 × 15	for flush-type boxes	~	√	~	
DALI CW-WW LED Dimmer CV 10A	89453838	10A	Tunable White	12-48V	120 × 30 × 22	with strain relief for suspended ceilings	~	V	V	
DALI CW-WW LED Dimmer CV 16A	89453841	16A	Tunable White	12-48V	120 × 30 × 22	with strain relief for suspended ceilings	~	V	V	
DALI CW-WW LED Dimmer CV 16A DIN Rail	89453841-HS	16A	Tunable White	12-48V	98 × 17.5 × 57	for DIN Rail	~	~	V	
DALI 2x CW-WW LED Dimmer CV 16A DIN Rail	89453858-HS	16A	Tunable White	12-48V	98 × 17.5 × 57	for DIN Rail				
DALI RGB LED Dimmer CV 4A	89453837	4A	RGB	12-48V	59 × 33 × 15	for flush-type boxes	~			~
DALI RGB LED Dimmer CV 8A	86458514	8A	RGB	12-48V	59 × 33 × 15	for flush-type boxes	~			~
DALI RGB LED Dimmer CV 10A	89453839	10A	RGB	12-48V	120 × 30 × 22	with strain relief for suspended ceilings	~			~
DALI RGB LED Dimmer CV 16A	89453842	16A	RGB	12-48V	120 × 30 × 22	with strain relief for suspended ceilings	~			~
DALI RGB LED Dimmer CV 16A DIN Rail	89453842-HS	16A	RGB	12-48V	98 × 17.5 × 57	for DIN Rail	$\checkmark$			V

### D Lunatone 7 C



NAME	ARTICLE NUMBER	INPUT CURRENT	APPLICATION	SUPPLY	DIMENSIONS (MM)	MODEL	SW&DIM2	DIM2WARM	<b>BALANCE&amp;DIM</b>	COLOUR&DIM
DALI RGBW LED Dimmer CV 8A	86458509	8A	RGBW	12-48V	59 × 33 × 15	for flush-type boxes				V
DALI RGBW LED Dimmer CV 10A	89453840	10A	RGBW	12-48V	120 × 30 × 22	with strain relief for suspended ceilings	√			V
DALI RGBW LED Dimmer CV16A	89453843	16A	RGBW	12-48V	120 × 30 × 22	with strain relief for suspended ceilings	~			V
DALI RGBW LED Dimmer CV 16A DIN Rail	89453843-HS	16A	RGBW	12-48V	98 × 17.5 × 57	for DIN Rail	√			V

### Tunable White, RGB, RGBW - Constant Current (CC)

#### **DEVICE TYPE DT8 - COLOUR MANAGEMENT WITH** ONLY ONE DALI ADDRESS

Lunatone DT8 LED dimmers are used to control the brightness and colour temperature or colour of Tunable White CW-WW, RGB or RGBW capable luminaires. The devices are DALI Device Type 8 (DT8), which means only one DALI address is needed to control up to 4 outputs. Besides the DALI Device Type 8 commands (DT8), the device supports alternative operating modes listed on the right side of the table.

Convenient for small installations is the optional control via pushbutton (SW&DIM2). See page 2C for more information on control options and operating modes.



Connection example: CW-WW LED dimmer CC DT8, control via DALI (SW&DIM2 connection see page 2C):



#### Connection example: RGBW LED dimmer CC DT8, control via DALI (SW&DIM2 connection see page 2C):



ARTICLE NUMBER	MAX. INPUT CURRENT PER CHANNEL	APPLICATION	DIMENSIONS (MM)	MODEL	SW&DIM2	DIM2WARM	<b>BALANCE&amp;DIM</b>	COLOUR&DIM	COMMON MINUS	COMMON PLUS
86458911-350	350mA	Tunable White	59 × 33 × 15	for flush-type boxes		V	V			V
86458911-350DE	350mA	Tunable White	120 × 30 × 22	with strain relief for suspended ceilings	~	~	V			V
86458911-500	500mA	Tunable White	59 × 33 × 15	for flush-type boxes		~	V			V
86458911-500DE	500mA	Tunable White	120 × 30 × 22	with strain relief for suspended ceilings	~	~	V			V
86458911-700	700mA	Tunable White	120 × 41 × 22	with strain relief for suspended ceilings	~	~	V			V
86458911-1000	1000mA	Tunable White	120 × 41 × 22	with strain relief for suspended ceilings	~	~	V			V
86458911-350GMDE	350mA	Tunable White	120 × 30 × 22	with strain relief for suspended ceilings	~	~	V		~	
86458911-500GMDE	500mA	Tunable White	120 × 30 × 22	with strain relief for suspended ceilings	~	~	V		~	
86458911-700GM	700mA	Tunable White	120 × 41 × 22	with strain relief for suspended ceilings	~	~	V		~	
86458911-1000GM	1000mA	Tunable White	120 × 41 × 22	with strain relief for suspended ceilings	~	~	V		~	
86458913-350	350mA	RGB	120 × 30 × 22	with strain relief for suspended ceilings	~			~		~
86458913-500	500mA	RGB	120 × 30 × 22	with strain relief for suspended ceilings	~			V		√
86458913-700	700mA	RGB	120 × 30 × 22	with strain relief for suspended ceilings	~			~		V
86458913-350GM	350mA	RGB	120 × 30 × 22	with strain relief for suspended ceilings	~			V	V	
86458913-500GM	500mA	RGB	120 × 30 × 22	with strain relief for suspended ceilings	~			~	~	
86458913-700GM	700mA	RGB	120 × 30 × 22	with strain relief for suspended ceilings	~			V	~	
86458912-100	100mA	RGBW	120 × 41 × 22	with strain relief for suspended ceilings	~			V		√
86458912-250	250mA	RGBW	120 × 41 × 22	with strain relief for suspended ceilings	~			~		√
86458912-350	350mA	RGBW	120 × 41 × 22	with strain relief for suspended ceilings	~			v		√
86458912-500	500mA	RGBW	120 × 41 × 22	with strain relief for suspended ceilings	~			V		√
86458912-700	700mA	RGBW	120 × 41 × 22	with strain relief for suspended ceilings	~			V		√
86458912-350GM	350mA	RGBW	120 × 41 × 22	with strain relief for suspended ceilings	~			v	~	
86458912-500GM	500mA	RGBW	120 × 41 × 22	with strain relief for suspended ceilings	~			V	~	
86458912-700GM	700mA	RGBW	120 × 41 × 22	with strain relief for suspended ceilings	~			V	~	
	ARTICLERATICLE86458911-35086458911-350DE86458911-350DE86458911-500DE86458911-700GMDE86458911-350GMDE86458911-700GMDE86458913-350GMDE86458913-350GM86458913-350GM86458913-350GM86458913-700GM86458913-700GM86458913-700GM86458913-700GM86458913-700GM86458913-700GM86458913-700GM86458912-25086458912-25086458912-350GM86458912-350GM86458912-300GM86458912-300GM86458912-300GM86458912-300GM86458912-300GM86458912-300GM86458912-300GM86458912-300GM86458912-300GM86458912-300GM86458912-300GM86458912-300GM86458912-300GM86458912-300GM86458912-300GM86458912-300GM86458912-300GM86458912-300GM	ANUMBERMAX.INPUT SPENANNEL86458911-350D350mA86458911-350DE300mA86458911-500DE500mA86458911-700700mA86458911-300GMDE300mA86458911-300GMDE300mA86458911-300GMDE300mA86458911-300GMDE300mA86458911-700GMD700mA86458913-300GMD300mA86458913-300GMD300mA86458913-300GMD300mA86458913-300GMD300mA86458913-300GMD300mA86458913-300GMD300mA86458913-300GMD300mA86458912-300GMD300mA86	ATTICLE NUMBERMAX.INPUT SURRENT SURRENTAPPLICATION86458911-350350mATunable White86458911-300E500mATunable White86458911-500E500mATunable White86458911-500E500mATunable White86458911-700700mATunable White86458911-300E350mATunable White86458911-300E500mATunable White86458911-300GME350mATunable White86458911-300GME300mATunable White86458911-300GME700mATunable White86458911-300GME350mARGB86458913-300350mARGB86458913-300500mARGB86458913-300300mARGB86458913-300300mARGB86458913-300300mARGB86458913-300GM300mARGB86458913-300GM300mARGB86458912-300300mARGB86458912-300300mARGBW86458912-300500mARGBW86458912-300300mARGBW86458912-300300mARGBW86458912-300300mARGBW86458912-300GM300mARGBW86458912-300GM300mARGBW86458912-300GM300mARGBW86458912-300GM300mARGBW86458912-300GM300mARGBW86458912-300GM300mARGBW86458912-300GM300mARGBW86458912-300GM300mARGBW <td>ARTICLEBAX. INPUT PERANNELAPPLCATIONIMMENSIONE86458911-3500350MATunable White59×33×1586458911-3500E350MATunable White120×30×2286458911-500DE500MATunable White120×41×2286458911-500DE500MATunable White120×41×2286458911-700700MATunable White120×41×2286458911-300CME350MATunable White120×41×2286458911-500CME500MATunable White120×41×2286458911-500GMDE350MATunable White120×41×2286458911-700GM700MATunable White120×41×2286458913-300GMD350MARGB120×30×2286458913-300G500MARGB120×30×2286458913-300GM500MARGB120×30×2286458913-300GM500MARGB120×30×2286458913-300GM500MARGB120×30×2286458913-700GM700MARGB120×30×2286458913-700GM700MARGB120×30×2286458913-700GM700MARGBW120×41×2286458913-700GM350MARGBW120×41×2286458913-700GM500MARGBW120×41×2286458912-700G500MARGBW120×41×2286458912-700G500MARGBW120×41×2286458912-700G700MARGBW120×41×2286458912-700GM500MARGBW120×41×2286458912-700GM700MARGBW120×41×2286458912-700GM<!--</td--><td>ATTICLEAPALICATIONDIMENSIONSMODEL88458811-3500350mATunable White59 × 33 × 15for flush-type boxes86458911-3500E350mATunable White120 × 30 × 22suspended cellings86458911-5000E500mATunable White120 × 31 × 15for flush-type boxes86458911-5000E500mATunable White120 × 31 × 22with strain relief for suspended cellings86458911-700700mATunable White120 × 41 × 22with strain relief for suspended cellings86458911-300MDE350mATunable White120 × 30 × 22with strain relief for suspended cellings86458911-300MDE350mATunable White120 × 30 × 22with strain relief for suspended cellings86458911-300MDE500mATunable White120 × 30 × 22with strain relief for suspended cellings86458911-300MDE500mATunable White120 × 30 × 22with strain relief for suspended cellings86458911-300GMDE1000mATunable White120 × 30 × 22with strain relief for suspended cellings86458913-300CM350mARGB120 × 30 × 22with strain relief for suspended cellings86458913-700700mARGB120 × 30 × 22with strain relief for suspended cellings86458913-500CM500mARGB120 × 30 × 22with strain relief for suspended cellings86458913-500CM500mARGB120 × 30 × 22with strain relief for suspended cellings86458913-500CM500mARGB120</td><td>ANTICIDER         DEX.INPUT CRANNEER         APPLICATION         DIMENSIONS         MODEL         Seq (1)           86458911-3500         350mA         Tunable White         59 × 33 × 15         for flush-type boxes         7           86458911-3500E         350mA         Tunable White         120 × 30 × 22         suspended cellings         7           86458911-500DE         500mA         Tunable White         120 × 30 × 22         suspended cellings         7           86458911-500DE         500mA         Tunable White         120 × 41 × 22         suspended cellings         7           86458911-700         700mA         Tunable White         120 × 41 × 22         suspended cellings         7           86458911-500CMDE         500mA         Tunable White         120 × 41 × 22         with strain relef for suspended cellings         7           86458911-500CMDE         500mA         Tunable White         120 × 30 × 22         with strain relef for suspended cellings         7           86458911-500CMDE         500mA         Tunable White         120 × 30 × 22         with strain relef for suspended cellings         7           86458913-700CM         700mA         RGB         120 × 30 × 22         with strain relef for suspended cellings         7           86458913-700         700mA</td><td>ANTICLER DER PARNER CHANNELAPPLICATION DIMENSIONSMODELSQSQ86458011-3500350mATunable White59 × 33 × 15for flush-type boosesII86458011-3500350mATunable White120 × 30 × 22with strain relief for suspended ceilingsII86458011-3000500mATunable White120 × 30 × 22with strain relief for suspended ceilingsII86458011-5000F500mATunable White120 × 30 × 22with strain relief for suspended ceilingsII86458011-5000F500mATunable White120 × 41 × 22with strain relief for suspended ceilingsII86458011-50001000mATunable White120 × 41 × 22with strain relief for suspended ceilingsII86458011-5000MDE500mATunable White120 × 41 × 22with strain relief for suspended ceilingsII86458011-5000MDE500mATunable White120 × 41 × 22with strain relief for suspended ceilingsII86458011-5000MDE500mARGR120 × 30 × 22with strain relief for suspended ceilingsII86458013-500500mARGR120 × 30 × 22with strain relief for suspended ceilingsII86458013-500500mARGR120 × 30 × 22with strain relief for suspended ceilingsII86458013-500500mARGR120 × 30 × 22with strain relief for suspended ceilingsII864580</td><td>ANTICLER DELIGATIONAPPLICATIONIMMENSIONSMODELSee Not see Not s</td><td>ANTIME         MARLINEL         PAPLICATION         DIMENSIONS         MODEL         Version         Version         Version         Version           86458011-3500         350mA         Tunable White         50 × 33 × 15         for flush-type boxes         1         .</td><td>ATTICLEADM. BURN. DEM. NODELADM. ADM. ADM.ADM. ADM.ADM. ADM. ADM. ADM.ADM. ADM. ADM. ADM. ADM. ADM. ADM. ADM.</td></td>	ARTICLEBAX. 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BURN. DEM. NODELADM. ADM. ADM.ADM. ADM.ADM. ADM. ADM. ADM.ADM. ADM. ADM. ADM. ADM. ADM. ADM. 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Other output currents are available on request!

### 230V Operating Devices - DALI LED Power Supply 1 Channel DT6, CV-CC

#### **DEVICE TYPE DT6 - ONE ADDRESS PER CHANNEL**

Lunatone DT6 LED Power Supply is used to power and control dimmable lights, with a dimming range of 0.1 to 100% with PWM. Variants for constant current and constant voltage are available. The devices can be configured via the DALI Cockpit Software. Convenient for small installations is the optional control via pushbutton (SW&DIM2) - see page 2C for more information.



#### constant voltage CV

NAME	ARTICLE NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	MAX.OUTPUT CURRENT	POWER (W)	DIMENSIONS (MM)	SW&DIM2
DALI LED Power Supply 25W 24V	89453849-24V	220-240V AC	24V DC PWM	1A	24W	120 × 41 × 22	$\checkmark$

#### constant current CC

NAME	ARTICLE NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE RANGE	OUTPUT CURRENT	POWER (W)	DIMENSIONS (MM)	SW&DIM2
DALI LED Power Supply 15W 250mA	89453849-250	220-240V AC	12V-44V	250mA	3W-11W	120 × 41 × 22	$\checkmark$
DALI LED Power Supply 15W 350mA	89453849-350	220-240V AC	12V-44V	350mA	4.2W-15.4W	120 × 41 × 22	$\checkmark$
DALI LED Power Supply 20W 500mA	89453849-500	220-240V AC	12V-36V	500mA	6W-18W	120 × 41 × 22	$\checkmark$
DALI LED Power Supply 20W 700mA	89453849-700	220-240V AC	12V-32V	700mA	8.4W-22.4W	120 × 41 × 22	$\checkmark$
DALI LED Power Supply 20W 1050mA	89453849-1050	220-240V AC	12V-21V	1050mA	12.6W-22.05W	120 × 41 × 22	$\checkmark$

#### Connection example: DALI 24V LED Power Supply CV DT6, control via DALI (SW&DIM2 connection see page 2C):



### 230V Operating Devices - DALI LED Power Supply Tunable White DT8, CV-CC

#### **DEVICE TYPE DT8 - COLOUR MANAGEMENT WITH** ONLY ONE DALI ADDRESS

Lunatone DT8 LED Power Supply is used to supply and independently control the brightness and colour temperature of Tunable White CW-WW capable luminaires, with a dimming range of 0.1 to 100% with PWM. Variants for constant current and constant voltage are available. The device can be configured via the DALI Cockpit Software (e.g. PWM frequency).

Besides the DALI Device Type 8 commands (DT8), the device supports alternative operating modes listed on the right side of the table.

Convenient for small installations is the optional control via

#### constant voltage CV

NAME	ARTICLE NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	MAX. OUTPUT CURRENT	POWER (W)	DIMENSIONS (MM)	SW&DIM2	DIM2WARM	<b>BALANCE&amp;DIM</b>	COLOUR&DIM
DALI CW-WW LED Power Supply 25W 24V	89453849-CWW- 24V	220-240V AC	24V DC PWM	1A	24W	120 × 41 × 22	V	V	V	
DALI CW-WW LED Power Supply 25W 36V	89453849-CWW- 36V	220-240V AC	36V DC PWM	700mA	25.2W	120 × 41 × 22	V	~	V	

#### constant current CC

NAME	ARTICLE NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE RANGE	OUTPUT CURRENT	POWER (W)	DIMENSIONS (MM)	SWI&IM2	DIM2WARM	BALANCE&DIM	COLOUR&DIM
DALI CW-WW LED Power Supply 15W 350mA	89453849-CWW-350	220-240V AC	12V-44V	350mA	4.2W-15.4W	120 × 41 × 22	~	V	V	
DALI CW-WW LED Power Supply 20W 500mA	89453849-CWW-500	220-240V AC	12V-36V	500mA	6W-18W	120 × 41 × 22	~	V	V	
DALI CW-WW LED Power Supply 20W 700mA	89453849-CWW-700	220-240V AC	12V-32V	700mA	8.4W-22.4W	120 × 41 × 22	V	V	V	
DALI CW-WW LED Power Supply 20W 800mA	89453849- CWW-800	220-240V AC	12V-28V	800mA	9.6W-22.4W	120 × 41 × 22	~	V	V	
DALI CW-WW LED Power Supply 20W 1000mA	89453849- CWW-1000	220-240V AC	12V-16V	1000mA	12W-16W	120 × 41 × 22	$\checkmark$	V	V	
DALI CW-WW LED Power Supply 20W 1100mA	89453849- CWW-1100	220-240V AC	12V-16V	1100mA	13.2W-17.6W	120 × 41 × 22	$\checkmark$	V	V	

#### Connection example: DALI LED Power Supply CW-WW CC DT8, control via DALI (SW&DIM2 connection see page 2C):



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pushbutton (SW&DIM2). See page 2C for more information on control options and operating modes.

DAL

Control unit



# DALI BUS POWER SUPPLY & EXTENSION

Every DALI system requires a power supply that supplies the DALI bus. Lunatone Bus Power Supplies (DALI PS) are available for various applications, with currents from 30mA to 250mA, and with different housing types.

A maximum of 64 addresses can be assigned on the DALI bus,



in order to expand the DALI system, Lunatone offers various options:

- DALI Expander for power supply and bus extension
- DALI Repeater for the extension of the DALI line
- wDALI Transmitter for the wireless integration of devices



### DALI PS - DALI bus power supply

Every DALI System requires a DALI power supply for the connected control units, sensors and operating devices. The DALI PS serves as power supply for the entire DALI bus system, depending on the model this can be up to 250mA (see table below). For smaller DALI installations the DALI PS2 30mA is most suitable, due to its compact size, it easily fits in flush-type installation boxes. Lunatone also manufactures DALI bus supplies with 18-48V DC input and DALI output, for e.g. 24Volt electrical systems or systems with emergency power supply.

The DALI PS modules are available for DIN Rail, suspended ceiling installation (housing with strain relief) or flush-type installation boxes.

DALIZ



NAME	ARTICLE NUMBER	INPUT VOLTAGE RANGE	OUTPUT CURRENT DALI	MODEL	DIMENSIONS (MM)
DALI PS	24033444	120 - 240V AC	250 mA	for DIN Rail	98 × 17.5 × 57
DALI PS2	24033444-2	110 - 240V AC	230 mA	with strain relief for suspended ceilings	120 × 30 × 22
DALI PS128	24033444-128	110 - 240V AC	150mA	with strain relief for suspended ceilings	120 × 30 × 22
DALI PS2 30mA	24033444-30	120 - 240V AC	40 mA	for flush-type boxes	59 × 33 × 15
DALI PS24 100mA	24033444-24VDO	18 - 48V DC	100 mA	for flush-type boxes	59 × 33 × 15

### DALI Expander - Intelligent expansion & DALI bus supply

With the DALI Expander, DALI Expander 3 additional DALI sub-lines can be created and supplied with power and information. The connected operating devices within the DALI sub-line can be controlled broadcast via the address(es) of the DALI Expander (3). Alternatively the DALI sub-line can be controlled directly with the SW&DIM pushbutton input. The devices have an integrated DALI bus power supply for the DALI sub-line. Furthermore, the Expander can also be used to increase the line length by 300m.

DALI Expander 3

NAME	ARTICLE NUMBER	INPUT VOLTAGE	DALI BUS SUPPLY
DALI Expander	89453847	100-240V AC	200 mA
DALI Expander DIN Rail	89453847-HS	110-230V AC	200 mA

100-240V AC

3 × 50mA

#### DALI Expander, Expander 3 as DALI System extension

89453847-3



controllable with DALI and/or pushbutton - 3 pieces
 uses 3 DALI addresses on the main bus
 3 outputs for up to 25 devices each
 integrated DALI bus power supply: 3x50mA

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			And Remote 3     Mail Tenners     Mail Tenners     Mail Tenners       And Mail Tenners     Mail Tenners     Mail Tenners     Mail Tenners       And Mail Tenners     Mail Tenners     Mail Tenners     Mail Tenners       And Mail Tenners     Mail Tenners     Mail Tenners     Mail Tenners       And Mail Tenners     Mail Tenners     Mail Tenners     Mail Tenners       And Mail Tenners     Mail Tenners     Mail Tenners     Mail Tenners       And Mail Tenners     Mail Tenners     Mail Tenners     Mail Tenners       Mail Tenners     Mail Tenners     Mail Tenners     Mail Tenners
er input	OUTPUT	OPERATING TEMPERATUR	DIMENSIONS RE (TA) (MM)
DALI / Tasi	ter DALI	-20°- +60°	120 × 41 × 22
DALI / Tasi	ter DALI	-20°- +60°	98 × 17.5 × 57
DALI / Tast	ter DALI	-20°- +60°	120 × 41 × 22



#### DALI Expander, Expander 3 as DALI System extension (illustration page 3 D)

With a **DALI Expander** an existing DALI installation can be expanded by up to 64 DALI devices. The connected devices (sub-line) can be controlled with the address of the DALI Expander (1 address). It is possible to connect control units and sensors to the sub-line to control the devices locally, these control signals are not forwarded to the main bus.

**DALI Expander 3** uses 3 DALI addresses on the main bus and can control 3 separate sub-lines. Each sub-line has a 50mA

DALI bus supply and each can supply 25 DALI devices. In order to send DALI commands between sub-lines, group commands can be used (e.g. to control two sub-lines with a single DALI CS sensor). By factory default group commands are forwarded as listed below:

G1 → DALI A	
G2 → DALI B	
G3 → DALI C	
G4 → DALI A + DALI B	

 $\begin{array}{l} \mathsf{G5} \rightarrow \mathsf{DALI} \ \mathsf{A} + \mathsf{DALI} \ \mathsf{C} \\ \mathsf{G6} \rightarrow \mathsf{DALI} \ \mathsf{B} + \mathsf{DALI} \ \mathsf{C} \\ \mathsf{G7} \rightarrow \mathsf{DALI} \ \mathsf{A} + \mathsf{DALI} \ \mathsf{B} + \mathsf{DALI} \ \mathsf{C} \end{array}$ 

#### DALI Expander, Expander 3 as DALI bus power supply, controllable via pushbutton

**The DALI Expander** can be used as main power supply for a DALI system (200mA). In addition to all the functions of a normal power supply, the entire DALI system can be controlled with a pushbutton (SW&DIM input) to send commands to all devices in the sub-line (broadcast). The factory settings are: on/off, dimming. This way, a simple and inexpensive DALI system can be realised without any programming work.

The **DALI Expander 3** has three separate DALI outputs and corresponding inputs for pushbuttons, which enables independent dimming of up to three zones. Each output provides 50mA, to power up to 25 DALI devices.



#### DALI Expander and Control Systems with 0/1-10V Signal (xComfort and others)

To convert a 0/1-10V signal to DALI, a 0-10V to DALI module is used (Art.Nr.: 86468352). However, only up to 4 DALI devices can be supplied with the integrated 10mA bus power supply. With the help of the DALI Expander up to 64 DALI devices can be controlled via the 0/1-10V signal. The DALI Expander simply needs to be connected to the 0-10V to DALI module.



### **DALI** Repeater

DALI installations have a maximum range of 300 meters. For larger installations, a DALI Repeater can be used to amplify signals and extend the installation by an additional 300m. The device supports bidirectional communication and can be used with multiple controllers (multi-master systems and DT8). The DALI Repeater provides a galvanic isolation between DALI inputs and DALI outputs.

Two versions of the DALI Repeater are available: Art. Nr.:86458401 in a DIN Rail housing for the control cabinet and Art.Nr.:86458401-PS with strain relief for suspended ceiling installation and integrated DALI bus power supply for the output.

NAME	ARTICLE NUMBER	SUPPLY	TYP. CURRENT CONSUMPTION DALI	INTEGRATED DALI POWER SUPPLY OUT	MODEL	DIMENSIONS (MM)
DALI Repeater DIN Rail	86458401	via DALI line	6mA	-	for DIN Rail	98 × 17.5 × 57
DALI Repeater PS	86458401-PS	via DALI line / 100-240V AC	2mA	200mA	with strain relief for suspended ceilings	120 × 41 × 22

### wDALI GR Transmitter / Receiver PS20 - wireless integration

wDALI GR Transmitter / Receiver PS is an interface to wirelessly integrate DALI devices into the DALI system. The transmitter is connected to the main DALI bus. The Receiver PS20 forms a DALI sub-line that wirelessly receives commands from the main bus. With the dial on the device housing a group can be assigned to the receiver. Commands directed to this group are forwarded to the entire sub-line. DALI Receiver PS20 has a 230V AC input and supplies the DALI sub-line with 20mA for up to 10 DALI devices.

NAME	ARTICLE NUMBER	INTEGRATED DALI POWER SUPPLY
wDALI GR Transmitter	86459587-GRTM	-
wDALI GR Receiver PS20	86459587-GRRPS	20mA







FREQUENCY RANGE	MODEL	DIMENSIONS (MM)
2,4 Ghz	for flush-type boxes	59 × 33 × 15
2,4 Ghz	for flush-type boxes	59 × 33 × 15







### **DALI 4Net**

The compact 1DU DIN Rail module enables the control of 4 DALI lines, i.e. up to 256 DALI operating devices. With the help of external DALI bus supplies, the system is efficiently scalable. The DALI 4Net supports communication between the 4 DALI lines (Crossline Operations), this is realised with the help of 15 zones. Up to 4 groups can be assigned to each zone, one from each DALI line. This way it is possible to extend the effective range of a command beyond one DALI line.

DALI devices and DALI LED dimmers can be configured via the DALI 4Net Ethernet interface and the DALI Cockpit Software. When configuring a device in a system including a DALI 4Net, additional options will be available, e.g. whether the control unit should only control the local bus, several buses or a userdefined zone. Via Ethernet and ModBUS TCP / IP the DALI 4Net can be connected to building management systems (BMS). The entire DALI bus information can be read out and displayed e.g. with the PC Software DALI Visual.

The DALI 4Net is available as basic version with the abovementioned functions, or as an extended version with real-time





clock (RTC), circadian daylight curve (CDC), schedules, as well as crossline functions for input devices.

NAME	ARTICLE NUMBER	INTERFACE	INPUT VOLTAGE	DIMENSIONS (MM)	CROSSLINE OPERATIONS	GATEWAY MODBUS ↔ DALI	REAL TIME CLOCK
DALI 4Net	22176666	4xDALI, Ethernet	24V DC	98 × 17.5 × 57	$\checkmark$	$\checkmark$	$\checkmark$
DALI 4Net Basic	22176666-B	4xDALI, Ethernet	24V DC	98 × 17.5 × 57	$\checkmark$	$\checkmark$	-

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## **INTERFACES & TOOLS**

The devices in the following chapter enable communication with the DALI bus via a range of interfaces:

- DALI USB interface between the DALI Cockpit Software and the devices on the DALI bus
- DALI 4Net control of 4 DALI lines
- DALI SCI RS232 Interface
- converting DALI DT8 to DT6



- converting DALI to DSI
- converting 0-10V to DALI
- Interface to connect e.g. conventional motion sensors
- Bluetooth Interfaces incl. Apps for iOS and Android
- control 230V AC blinds / shutter drives via DALI
- 0-10V interfaces with 8A or 16A relay
- converting DALI to 0-10V, 1-10V or PWM
- DALI Cockpit PC Software

### DALI USB

The DALI USB is used as interface between the DALI Cockpit PC Software and the devices on the DALI bus. The DALI USB is available in 5 different versions: with strain relief, for DIN Rail or flush-type installation boxes (with or without integrated 30mA bus supply), or as a wireless wDALI module.



NAME	ARTICLE NUMBER	TYP. CURRENT CONSUMPTION DALI	WIRELESS	INTEGRATED DALI POWER SUPPLY	MODEL	DIMENSIONS (MM)
DALI USB	24138923	6mA	-	-	with strain relief	102 × 51 × 30
DALI USB MINI	24138923DO	6mA	_	-	for flush-type boxes	59 × 33 × 15
wDALI USB	24138923-WD	9mA	$\checkmark$	-	for flush-type boxes	59 × 33 × 15
DALI USB 30mA	24138923-30		_	30mA	for flush-type boxes	59 × 33 × 15
DALI USB DIN Rail	24138923-HS	6mA	-	-	for DIN Rail	98 × 17.5 × 57

NAME	ARTICLE NUMBER	INTERFACE	INPUT VOLTAGE	DIMENSIONS (MM)	CROSSLINE OPERATIONS	GATEWAY MODBUS ↔ DALI	REAL TIME CLOCK
DALI 4Net	22176666	4xDALI, Ethernet	24V DC	98 × 17.5 × 57	$\checkmark$	$\checkmark$	$\checkmark$
DALI 4Net Basic	22176666-B	4xDALI, Ethernet	24V DC	98 × 17.5 × 57	$\checkmark$	$\checkmark$	_



### DALI 4Net

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DALI devices and DALI LED dimmers can be configured via the DALI 4Net Ethernet interface and the DALI Cockpit Software. When configuring a device in a system including a DALI 4Net, additional options will be available, e.g. whether the control unit should only control the local bus, several buses or a user-defined zone. Via Ethernet and ModBUS TCP / IP the DALI 4Net can be connected to building management systems (BMS). The entire DALI bus information can be read out and displayed e.g. with the PC Software DALI Visual.

The DALI 4Net is available as basic version with the abovementioned functions, or as an extended version with real-time



clock (RTC), circadian daylight curve (CDC), schedules, as well as crossline functions for input devices.



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### DALI SCI RS232 Interface

Module with serial interface to communicate with the DALI bus via RS232, with RJ45 plug and screw terminals. Allows e.g. the connection of a PLC to a DALI system via RS232 for bidirectional data transmission. Suitable for addressing, configuration, status queries and monitoring.



### DALI

NAME	ARTICLE NUMBER	SUPPLY	TYP. CURRENT CONSUMPTION DALI	SCI PROTOCOL	TYP. CURRENT CONSUMPTION SCI	INTEGRATED DALI POWER SUPPLY	MODEL	DIMENSIONS (MM)
DALI SCI RS232	22176438-HS	6-24V DC	10mA	RS232, 38400Baud,	5mA	-	for DIN Rail	98 × 17.5 × 57
DALI RS232 PS 240mA	24166096-PS-DE	230V AC	2mA	8 databits, no parity, 1 stop bit (38400,8,n,1)	-	240mA	with strain relief for suspended ceilings	120 × 41 × 22

### DALI DT8 to DT6 - converting DALI DT8 to DT6

This compact module can process DT8 Tunable White commands and forward them to 2 control outputs for DT6 devices. Thus, Tunable White control can be realized with DT6 dimmers.





### DALI DSI - converting DALI to DSI

DALI DSI converts DALI commands to DSI signals to enable the integration of DSI-based operating devices into a DALI system. The DALI DSI obtains its own address and can be assigned to groups as well as scenes. The compact device is designed to fit in flush-type installation boxes.



# 0-10V DALI - converting 0-10V to DALI with integrated 10mA bus power supply

This compact module converts analogue 0-10V control signals into DALI dim levels. The device has an active and a passive input for 0-10V. The converted values are sent broadcast to the entire DALI system. With the integrated bus supply a small DALI system with up to 4 standard DALI devices (10mA) can be realised. The interface module is supplied by a 12-24V power supply. Versions with different dimming ranges, such as 1%-100% or 10%-100%, and different DALI functionality at input voltages <1V are available.

NAME	ARTICLE NUMBER	SUPPLY VOLTAGE	FUNCTION WHEN <1V	DIMMING RANGE	INTEGRATED DALI POWER SUPPLY	DIMENSIONS (MM)
0-10V to DALI Converter	86468352-001	12 - 24V DC	OFF	1 - 100 %	10mA	40 × 28 × 15
0-10V to DALI Converter	86468352-010	12 - 24V DC	OFF	10 - 100 %	10mA	40 × 28 × 15
0-10V to DALI Converter	86468352-101	12 - 24V DC	MIN	1 - 100 %	10mA	40 × 28 × 15
0-10V to DALI Converter	86468352-110	12 - 24V DC	MIN	10 - 100 %	10mA	40 × 28 × 15
NAME	ARTICLE NUMBER	INPUT VOLTAGE	OUTPUT CURRENT	OUTPUT VOLTAGE	MODEL	DIMENSIONS (MM)
24V Power Supply	24166012-24	230V AC	300 mA	24V DC	for flush-type boxes	59 × 33 × 15
24V Power Supply DIN Rail	24166012-24HS	230V AC	50 mA	24V DC	for DIN rail mounting	98 × 17.5 × 57



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#### typical application with 0-10V voltage at the passive 0-10V intput (0-10V control device = voltage source, e.g.: SPS)



### 0-10V DALI - converting 0-10V to DALI with 1, 2 or 3 Channels

□ +24V

Сом

The compact module converts analogue 0-10V control signals into DALI dim levels (direct arc power). The device is available with up to 3 input channels to integrate multiple 0-10V devices into the DALI System. Effective range, conversion curve and functionality at input voltages <1V can be set with the DALI Cockpit Software. Factory settings: Dimming range 1-100%, at input voltages <1V off-command is sent. The interface module is supplied by a 12-24V power supply. An additional DALI bus power supply is required for the DALI line, see brochure D, page 2.

24V DC

**Power Supply** 





NAME	ARTICLE NUMBER	SUPPLY VOLTAGE	NUMBER OF 0-10V CHANNELS	DIMMING RANGE	FUNCTION WHEN <1V	MODEL	DIMENSIONS (MM)
1 channel 0-10V to	86468353-1-HS	12 - 24V DC	1	1%-100%	OFF	for DIN Doil	98 × 17.5 × 57
DALI Converter				(configurable)	(configurable)	TOT DIIN Rail	
2 channel 0-10V to		12 - 24V DC	2	1%-100%	OFF		98 × 17.5 × 57
DALI Converter	86468353-2-HS			(configurable)	(configurable)	for DIN Rail	
3 channel 0-10V to	00400050 0 110	10 041/00	3	1%-100%	OFF	for DIN Doil	98 × 17.5 × 57
DALI Converter	80408333-3-HS	12 - 24V DC		(configurable)	(configurable)	IOF DIIN Rall	

### 0-10V DALI - converting 0-10V to DALI with integrated **30mA Bus Power Supply**

The compact module converts analogue 0-10V control signals into DALI dim levels (direct arc power). The device has an active and a passive input for 0-10V. The converted values are sent broadcast to the entire DALI system. With the integrated bus supply a small DALI system with up to 10 standard DALI devices (30mA) can be realised. The interface module is supplied by a 12-24V power supply. The device functionality can be changed with the help of jumpers: dimming range 1-100% or 10-100% and off (OFF) or minimum (MIN) at input voltages <1V.

NAME	ARTICLE NUMBER	SUPPLY VOLTAGE	FUNCTION WHEN <1V
0-10V to DALI	06460252 110	12 241/ DC	variable (iumpor)
Converter 30mA	00400332-H3	12 - 24V DC	variable (jurriper)

Changing the dimming characteristic via jumpers by connecting either M1, M2, M3:





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#### 0-10V / DALI Conversion

The light level corresponds to the output power of a standard DALI device connected to the converter (according to IEC62386-102).





### DALI SI, SI-1L

DALI Daylight Bluetooth Interface

Sensor Interface to connect e.g. conventional motion sensors, contact switches or photoelectric sensors to a DALI system. Configuration options are similar to the DALI CS: effective range, target address, DALI commands for on/off and hold times, light levels etc. Multiple sensors within one group synchronise automatically. Two different versions are available, one with switching input for potential free contacts (DALI SI), the other with switching input for mains voltage (DALI SI1L). The device is designed to fit behind a light switch in a flush-type installation box.





NAME	ARTICLE NUMBER	SUPPLY	TYP. CURRENT CONSUMPTION DALI	CONTROL INPUT	DIMENSIONS (MM)
DALI SI	89453850	via DALI line	2.9mA	1 switching input for potential free contact	40 × 28 × 15
DALI SI-1L	89453850-1L	via DALI line	2.9mA	1 switching input for mains voltage	59 × 33 × 15



### **DALI Daylight Bluetooth Interface**

89453863

DALI Daylight Interface incl. App for iOS and Android allows basic adjustment of the following devices: • DALI CDC: changing circadian curve settings (start, peak, end) DALI RTC: definition of 2 switching intervals per weekday DALI CS: setting light level and hold time • • DALI LS: switching between manual and automatic light level control, specifying the reference light level 막문 DALI 04.0 DALI Daylight ■Lunatone (€ Here you can download the app for your DAL smartphone: ARTICLE NUMBER TYP. CURRENT CONSUMPTION DALI DIMENSIONS (MM) SUPPLY

via DALI line

4mA

59 × 33 × 15

<b>DALI Touch</b> Here you can download the app for your smartphone:		Available on the App Store	Coogle play	
NAME	ARTICLE NUMBER		SUPPLY	



Typical setup for colour and colour temperature control:







### **DALI** Jalousie

The module can be used to control 230V AC blinds / shutter drives via DALI. Four profiles can be set to open / close the blinds and to change the tilt angle. Suitable for DIN Rail or suspended ceiling installation (housing with strain relief).

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unit wind, rain and

solar sensor (DALI Soliris)

NAME	ARTICLE NUMBER	SUPPLY	TYP. CURRENT CONSUMPTION DALI	OPERATING TEMPERATURE (TA)	MODEL	DIMENSIONS (MM)
DALI Jalousie	86458676-DE	via DALI line	5,5mA	-20°C - +60°C	with strain relief for suspended ceilings	120 × 30 × 22
DALI Jalousie DIN Rail	86458676-HS	via DALI line	5,5mA	-20°C - +60°C	for DIN Rail	98 × 17.5 × 57
DALI PS			Lout down			DALI

Loutun

motor control + blind

DALI Lorr NC C C Lorr Lorr NC Lorr C NC C



NAME	ARTICLE NUMBER	SWITCHING CURRENT RELAY CONTACT	TYPE OF RELAY CONTACT	OUTPUT (0-10V)	MODEL	DIMENSIONS (MM)
DALI RM8 PWM	86458668	8A	1 on/off	0-100% PWM (14Bit, 488Hz), current sink 2mA	for flush-type boxes	59 × 33 × 15
DALI RM8 1-10V AN	86458668-AN	8A	1 on/off	1-10V analog, current sink 1mA	for flush-type boxes	59 × 33 × 15
DALI RM16 1-10V with Wieland connectors	86458936	16A	1 on/off	0-100% PWM (14Bit, 488Hz), current sink 2mA	with Wieland connectors	85 × 22 × 60
DALI RM16 0-10V PWM DE	86458667-DE	16A	1 on/off	0-100% PWM (14Bit, 488Hz), current sink 2mA	with strain relief for suspended ceilings	120 × 30 × 22

### DALI RM8 / RM16 2×0-10V - operating 2 devices with 0-10V control input

DT8 DALI interface module with two control outputs to control two 1-10V operating devices.

Output mode for channel 1 / channel 2 can be defined via the DALI Cockpit Software: either Brightness/Tc or separate channels for CW and WW.

NAME	ARTICLE NUMBER	SWITCHING CURRENT RELAY CONTACT	TYPE OF RELAY CONTACT	CHANNELS (1-10V)	MODEL	DIMENSIONS (MM)
DALI RM16 2×0-10V DIN Rail	89453857-HS	16A	1 changeover- contact	channel 1: 1-10V analog, current sink 1mA	for DIN Rail	98 × 17.5 × 57
DALI RM16 2×0-10V DE	89453857-DE	84	1 on/off	channel 2: 1-10V analog, current sink 1mA	with strain relief for suspended ceilings	120 × 30 × 22
DALI DALI PS	● ○š [ ● ○š 2:	DALI ∰ @ 0 RM16 / ⊡ @ 0 x0-10V / © © 0	1-10 Power 1-10 Power	V LED + LED String Supply - LED String V LED + LED String r Supply - LED String	1 (CW)	L N DALI trol unit

### DALI RM8 / RM16 0-10V - operating devices with 0-10V control input

0-10V interface with 8A or 16A relay. This interface converts DALI signals into 1-10V control signals and thus enables the integration of devices with 1-10V control input into a DALI system. With the integrated switching relay, the power supply of the operating devices can be switched on and off. The modules are compliant with DALI Device Type 5 (IEC62386-206). The Linear or logarithmic dimming curve as well as the 0-10V or 1-10V control voltage range are adjustable via the DALI Cockpit Software.

The devices with PWM (see table) can also control operating devices with PWM input. The DALI input is galvanically isolated from the PWM/1-10V output.

Available for suspended ceiling installation (housing with strain relief), flush-type installation boxes or with Wieland connectors.



additional units

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### wDALI RM8 0/1-10V PWM - wireless relay module with 0/1-10V PWM control output

Wireless 0-10V PWM interface with integrated 8A relay. The set consists of a transceiver and a receiver and is used to wirelessly control lights with 0-10V / 1-10V / PWM operating devices. The transmitter is connected to and powered by the DALI bus (3.8mA). The receiver has a 0-10V PWM output and a relay function and is powered by mains voltage. The wDALI RM8 0-10V enables the wireless integration of electrical devices such as floor lamps and outdoor lighting into a DALI system. Under optimal conditions the reception range is 300m, in buildings usually 10-20m.



NAME	ARTICLE NUMBER	MAX. SWITCHING CURRENT	TYPE OF RELAY CONTACT	OUTPUT	MODEL	DIMENSIONS (MM)
wDALI RM8 0-10V PWM + Transceiver	89453852+T	8A	1 on/off	0-100% PWM (16Bit, 488Hz), current sink 1mA	for flush-type boxes	59 × 33 × 15



### DALI 0/1-10V - converting DALI to 0-10V, 1-10V or PWM

These interfaces convert DALI signals into 0-10V, 1-10V or PWM control signals, thus enabling the integration of electrical devices with 0-10V control inputs into a DALI system, see table.

A single module can control up to 10 ballasts. The output voltage range as well as linear or logarithmic dimming curve (see table) can be adjusted via the DALI Cockpit Software.



NAME	ARTICLE NUMBER	GALVANIC ISOLATION: INPUT - OUTPUT	OUTPUT	MODEL	DIMENSIONS (MM)
DALI 0-10V analog	86458508-LE	no	0-10V (0%-100%) analog voltage 1mA max. (current sink)	for flush-type boxes	40 × 28 × 15
DALI 0-10V analog, galv. isolation	86458508-AN	yes	0.6V-10V analog voltage 100uA-1mA	for flush-type boxes	40 × 28 × 15
DALI 0-10V PWM 1mA, galv. isolation	86458508-PWM	yes	488Hz PWM (0%-100%) / 1mA current sink	for flush-type boxes	40 × 28 × 15
DALI PWM 100mA	86458508-100	yes	0%-100% PWM 100mA, 60VDC max. PWM-frequency: 488Hz/976Hz 10%	for flush-type boxes	40 × 28 × 15

#### 86458508-LE enables the integration of electrical devices with integrated galvanic isolation and 0 or 1-10V control input





86458508-PWM enables the integration of electrical devices with PWM control input



86458508-100 enables the integration of electrical devices with PWM 100mA control input



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### DAL Control unit DALI CS



### DALI Cockpit - PC Software

DALI Cockpit is a user-friendly desktop application to commission, address and configure devices in a DALI system. The Software is currently available for free and can be downloaded from www.lunatone.com. The following functions are supported: addressing DALI devices, configuring Lunatone DALI components, configuring standard DALI devices, defining groups and scenes, sending DALI commands, creating macros and saving / loading entire DALI system configurations.

The Software package also includes a DALI monitor that can be used to monitor, control and record DALI bus communication.

### DALI COCKPIT GUIDE

- Connect the DALI USB to the DALI bus and connect the USB plug to the PC. Download the DALI Cockpit Software from www.lunatone.com and start it.
- Open the DALI Cockpit and click on "Addressing". For systems that are already partially addressed, please select "System Extension", for new systems "complete new installation".



- 3. Once addressing has been completed, the DALI devices can be grouped and configured.
- 4. Grouping: With a right mouse click in the component tree a group can be created and the addresses can be dragged into the group.



 The configuration of the various control units such as DALI Touchpanel, Switch Cross, Remote Control, MC+ and MC4L are very similar to each other. As an example, you will find the configuration page of the DALI Switch Cross below.





The following settings have been made: Button 1 controls the group 0 with the button function "BF6 Dim button": short press: MAX (CmdX: RECALL MAX) or OFF (CmdY: OFF), keeping the button pressed dims the light.

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