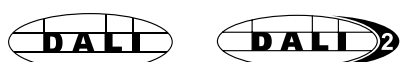




Lunatone DALI Light Management Systems

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 1.5mm² 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.

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.

INPUT DEVICES, CONTROL UNITS & SENSORS

1A

DALI Display 7"	2A	DALI GC(-A) - controlling two DALI groups	12A
DALI Touchpanel	3A	DALI SC(-A) - controlling four DALI scenes	12A
DALI Touchpanel Bluetooth 4.0	4A	DALI Sequencer - recalling command sequences (macros)	13A
DALI Bluetooth Interface	5A	DALI CDC - time based colour temperature control	14A
DALI Switch Cross & wDALI Switch Cross	6A	DALI RTC - Timer Module	15A
wDALI Remote	7A	DALI Temp - Temperature Sensor	15A
DALI MC+ pushbutton coupler	8A	DALI CS - Combi Sensor: PIR-, Temperature- and Light Sensor	16A
wDALI MC wireless pushbutton coupler	8A	DALI CS with 20mA DALI Bus Power Supply	18A
MC1L, MC4L 230V pushbutton coupler	9A	DALI SI, SI-1L	18A
DALI 100K - DALI interface for 100kΩ potentiometer	9A	DALI LS - Light Sensor	19A
DALI ROT	10A	DALI Daylight Bluetooth Interface	19A

PHASE DIMMER & ACTUATORS

1B

DALI PD - DALI 230V phase dimmer	2B	DALI RM8 / RM16 2×0-10V - operating 2 devices with 0-10V control input	6B
Relay modules RM8 / RM16	3B	wDALI RM8 0/1-10V PWM - wireless relay with 0/1-10V PWM control output	7B
wDALI RM8 - Wireless relay module	4B	DALI 0/1-10V - converting DALI to 0-10V, 1-10V or PWM	8B
DALI 4Ch RC - 4 channel relay control	4B	1Ch LED Booster/Dimmer	9B
DALI Jalousie	5B	Lunatone housing dimensions	10B
DALI RM8 / RM16 0-10V - relay modules with 0-10V control input	6B		

OPERATING DEVICES 230VAC / 48V / 24V

1C

DALI LED Dimmer DT6 - 1-4 Channels, CV	3C	DALI LED Dimmer DT8 - Tunable White, RGB, RGBW - Constant Current - CC	8C
DALI LED Dimmer DT6 - 1-4 Channels, CC	5C	230V Operating Devices - DALI LED Power Supply 1 Channel DT6, CV-CC	10C
DALI LED Dimmer DT8 - Tunable White, RGB, RGBW - CV	7C	230V Operating Devices - DALI LED Power Supply Tunable White DT8, CV-CC	11C

DALI BUS POWER SUPPLY & EXTENSION

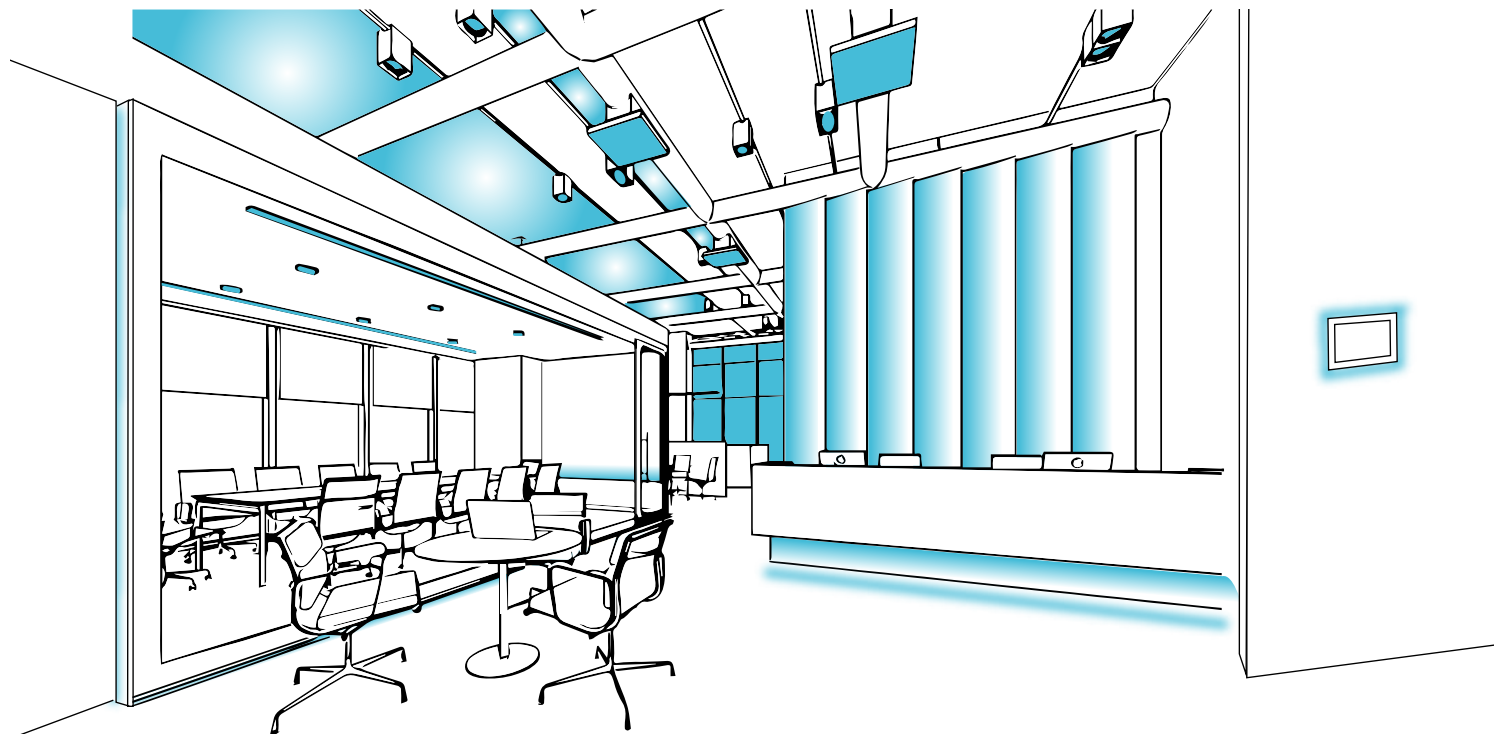
1D

DALI PS - DALI bus power supply	2D	wDALI GR Transmitter / Receiver PS20 - wireless integration	5D
DALI Expander - Intelligent expansion & DALI bus supply	3D	DALI 4Net	6D
DALI Repeater	5D		

INTERFACES & TOOLS

1E

DALI 4Net	2E	DALI Daylight Bluetooth Interface	8E
DALI USB	2E	DALI Bluetooth Interface	9E
DALI SCI RS232 Interface	4E	DALI Jalousie	10E
DALI DT8 to DT6 - converting DALI DT8 to DT6	4E	DALI RM8 / RM16 0-10V - operating devices with 0-10V control input	10E
DALI DSI - converting DALI to DSI	5E	DALI RM8 / RM16 2×0-10V - operating 2 devices with 0-10V control input	11E
0-10V DALI - converting 0-10V to DALI with integrated 10mA bus power supply	5E	wDALI RM8 0/1-10V PWM - wireless relay with 0/1-10V PWM control output	12E
0-10V DALI - converting 0-10V to DALI with 1, 2 or 3 Channels	6E	DALI 0/1-10V - converting DALI to 0-10V, 1-10V or PWM	12E
0-10V DALI - converting 0-10V to DALI with integrated 30mA bus power supply	7E	DALI Cockpit - PC Software	14E
DALI SI, SI-1L	8E	DALI COCKPIT GUIDE	14E



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"

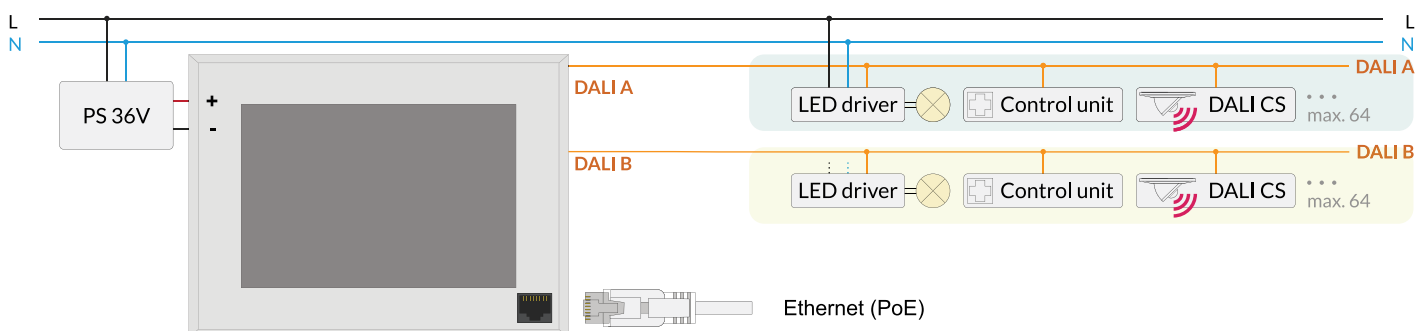
DALI CONTROL- AND OPERATING UNIT WITH TOUCHSCREEN

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.



NAME	ARTICLE NUMBER	INTERFACE	TYP. CURRENT CONSUMPTION DALI	OPERATING TEMPERATURE (TA)	DIMENSIONS (MM)
7" DALI Display	86458626	2 x DALI, USB, Ethernet	2mA per DALI line	0 - 50°C	200 × 150 × 20



DALI Touchpanel

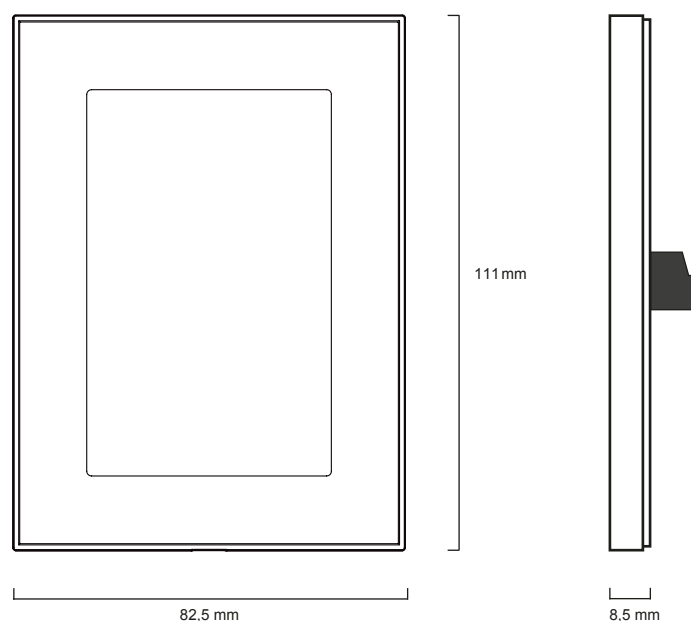
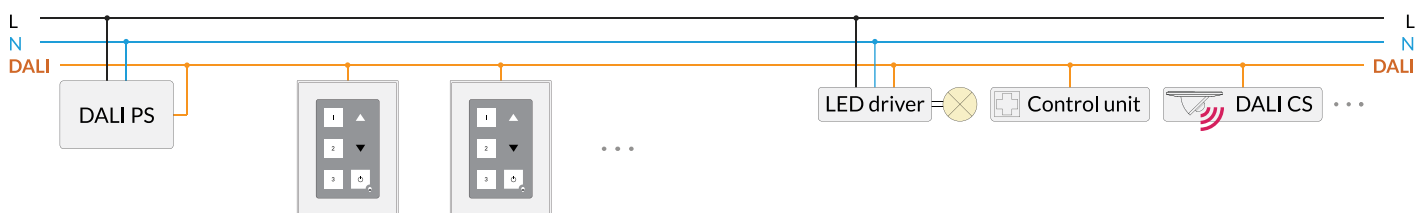
The DALI Touchpanel is a multifunctional DALI control unit with up to 12 freely configurable buttons. It is possible to choose between a selection of default user interfaces to control groups/scenes and colour/colour temperature.

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.

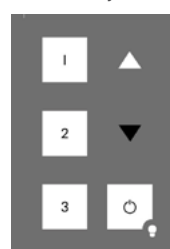
By inserting a layout card in the panel, it can be fitted to a wide variety of applications. Four layout cards are included in the scope of the delivery and additional ones can be designed individually.



NAME	ARTICLE NUMBER	SUPPLY	TYP. CURRENT CONSUMPTION DALI	DIMENSIONS (MM)
DALI Touchpanel	24035465	via DALI line	4mA	111 × 83 × 9



Standard-Layout:



6 Buttons
(factory settings)



7 Buttons



Tunable White



Colour (RGB)

TIP:
custom designed
cards
with user-defined
functions
can be used
as well!

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.

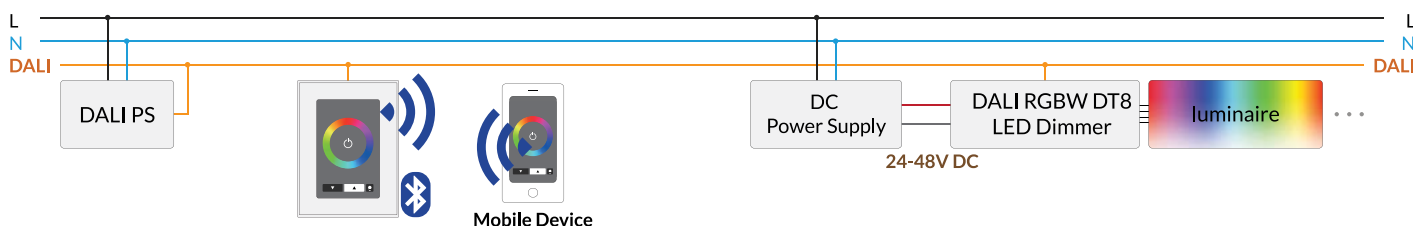
DALI Touch

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:



Callouts:

- DALI USB interface**: Points to the 'DALI USB - S/N 9032 (N/A)' section.
- Touchpanel with eAddress**: Points to the 'DALI Touch V4.8 (eA11)' section.
- save settings!**: Points to the 'save' button.
- preview button position**: Points to the 'Calibration...' button.
- tick this box to use the selected layout for the touch panel**: Points to the 'Use for Panel' checkbox.
- select button command: e.g. Light intensity (%), dimming, max, min, scene 0-15, macros, etc**: Points to the 'Function' dropdown menu.
- define button function: e.g. press briefly, press and hold, button, etc. - various operating combinations are available**: Points to the 'Function' dropdown menu.
- add / delete button**: Points to the 'Add Button' and 'Delete Button' buttons.
- enter button position**: Points to the 'Coordinates' section.
- select effective range: broadcast, groups or individual addresses**: Points to the 'Destination Address' section.

DALI Bluetooth Interface

DALI Bluetooth Interface enables the control of DALI systems with iOS and Android devices via the DALI Touch App. Individual layouts and menus can be stored on www.dalitouch.com and shared with other users. The Bluetooth-devices have a range of about 10-15m.

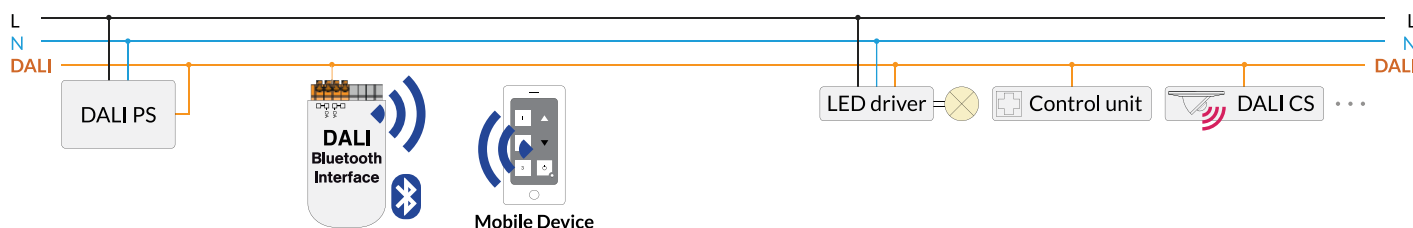
DALI Touch

Here you can download the app for your smartphone:

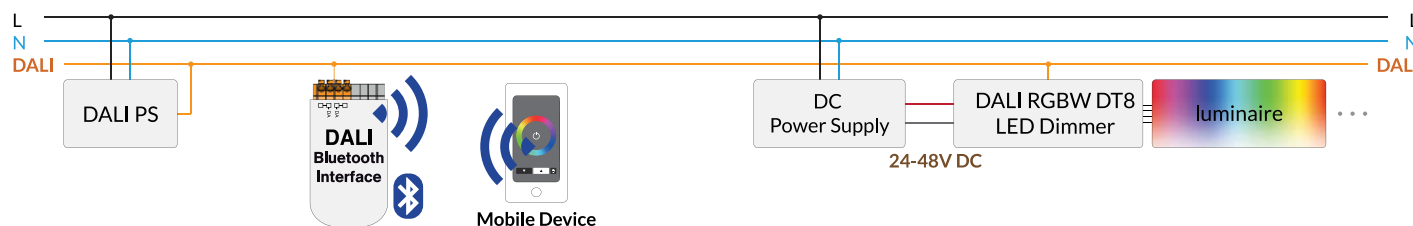


NAME	ARTICLE NUMBER	SUPPLY	TYP. CURRENT CONSUMPTION DALI	DIMENSIONS (MM)
DALI Bluetooth Interface 4.0	89453584	via DALI line	4mA	59 × 33 × 15

Typical setup for scene and group arrangements:



Typical setup for colour and colour temperature control:



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 Switch Cross - wired

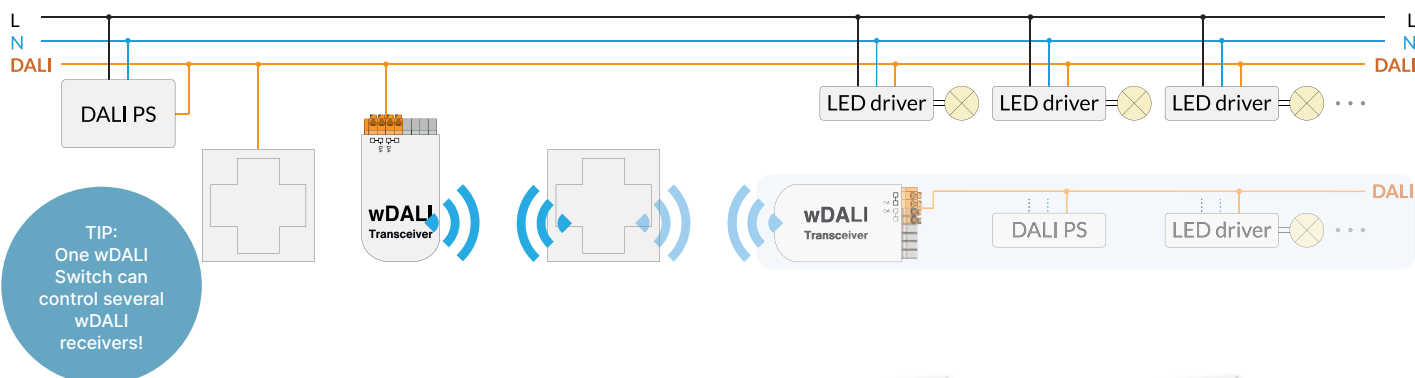
NAME	ARTICLE NUMBER	COLOUR	SUPPLY	TYP. CURRENT CONSUMPTION DALI	DIMENSIONS (MM)
DALI Switch Cross White	86459793-W	○ white, RAL9010	via DALI line	1.5mA	8.5 × 82 × 82
DALI Switch Cross RAL9016	86459793-W16	○ white, RAL9016	via DALI line	1.5mA	8.5 × 82 × 82
DALI Switch Cross Black	86459793-B	● black	via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



Accessories

NAME	ARTICLE NUMBER
Custom Symbols	86459793-Z00
Dimming Symbols	86459793-Z01
Dimming and blind Symbols	86459793-Z02



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.

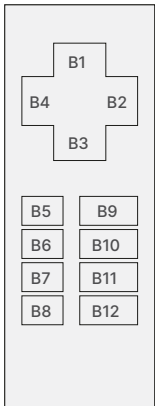
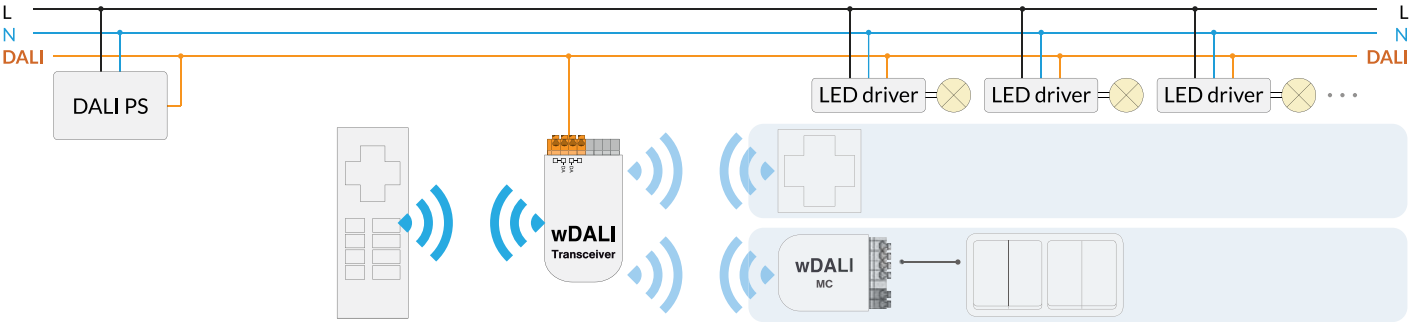
The remote control module has 12 pushbuttons, which can be individually configured with target address, button behaviour and DALI commands. Besides the standard functions, dimming, switching, scene recall, etc., predefined macros such as setting the colour temperature, dynamic scenes and sequences as 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 page 8A

*battery type CR2032, average lifetime 6 years



FACTORY SETTING 1
SWITCH & DIM

B1: on (maximum)
B3: off
B4 long press: dim down
B2 long press: dim up

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

FACTORY SETTING 2
SWITCH, DIM & COLOUR TEMPERATUR

B1: on / maximum
B1 long press: dim up
B3: off
B3 long press: dim down
B4 long press: colder
B2 long press: warmer

The buttons B5-B12 are the same as in FACTORY SETTING 1

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

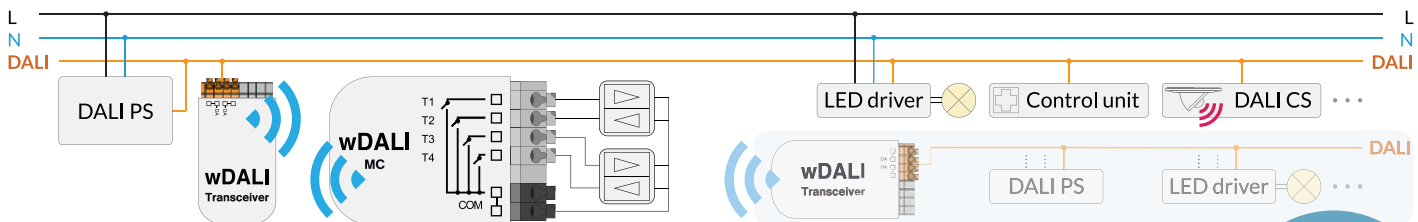
wDALI MC wireless pushbutton coupler

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

*Battery type CR2032, average lifetime 6 years



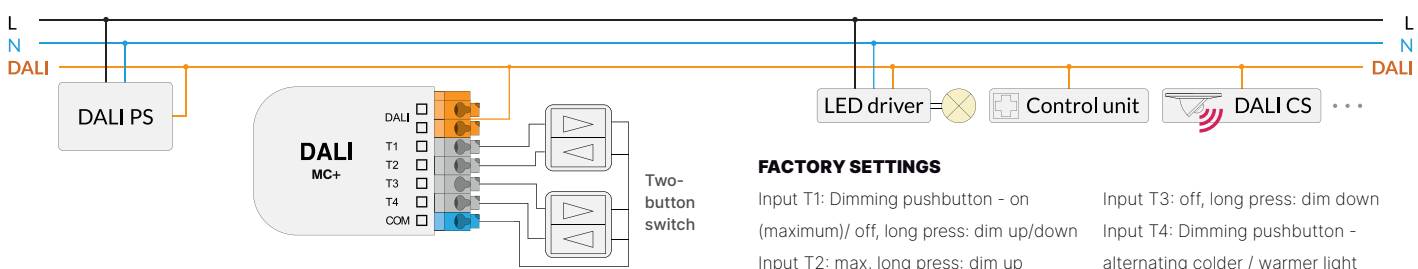
TIP:
A single wireless wDALI MC can control several DALI systems!

DALI MC+ pushbutton coupler

Pushbutton coupler with 4 inputs to connect standard potential-free 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.



NAME	ARTICLE NUMBER	SUPPLY	TYP. CURRENT CONSUMPTION DALI	OPERATING TEMPERATURE (TA)	DIMENSIONS (MM)
DALI MC+	86459532	via DALI line	4mA	-20°C - +75°C	40 × 28 × 15



FACTORY SETTINGS

Input T1: Dimming pushbutton - on (maximum)/ off, long press: dim up/down
Input T2: max, long press: dim up

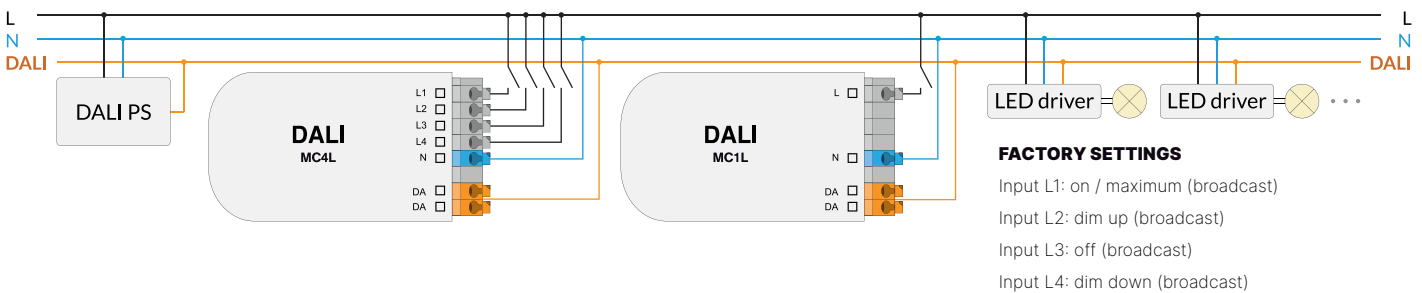
Input T3: off, long press: dim down
Input T4: Dimming pushbutton - alternating colder / warmer light

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

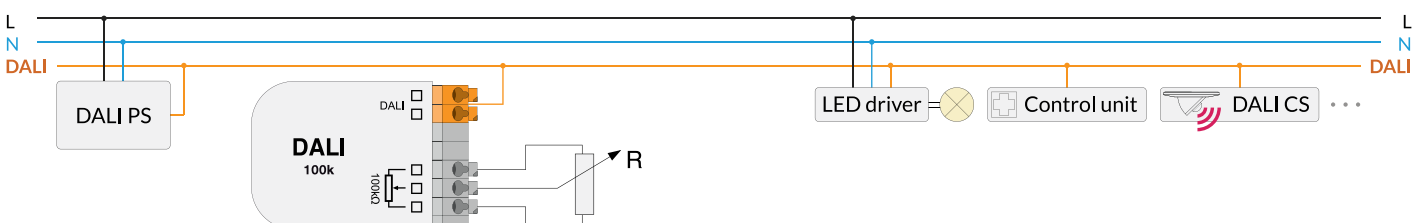


DALI 100K - DALI interface for 100kΩ potentiometer

The DALI 100K enables the control of luminaires in a DALI system with a 100kΩ potentiometer. The analog input signal from the 100kΩ 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



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.

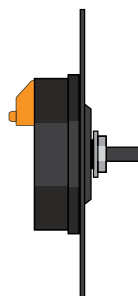
DALI ROT covers are available in white and black, however standard 3rd party covers can also be used (DALI ROT shaft is Ø4 mm, an adapter for Ø6mm is included in the delivery scope).



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 4. RGBW: Intensity & RGBW	1.6mA	-20°C ... +75°C	70 × 70 × 45
DALI-2 ROT NFC (CH)	86459822-NFC-CH	5. D2I: DALI-2 Instancemode 6. BD/CD: Balance&Dim / Colour&Dim	1.6mA	-20°C ... +75°C	70 × 70 × 45

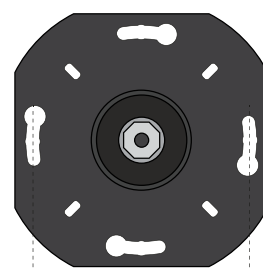


80 mm



30 mm

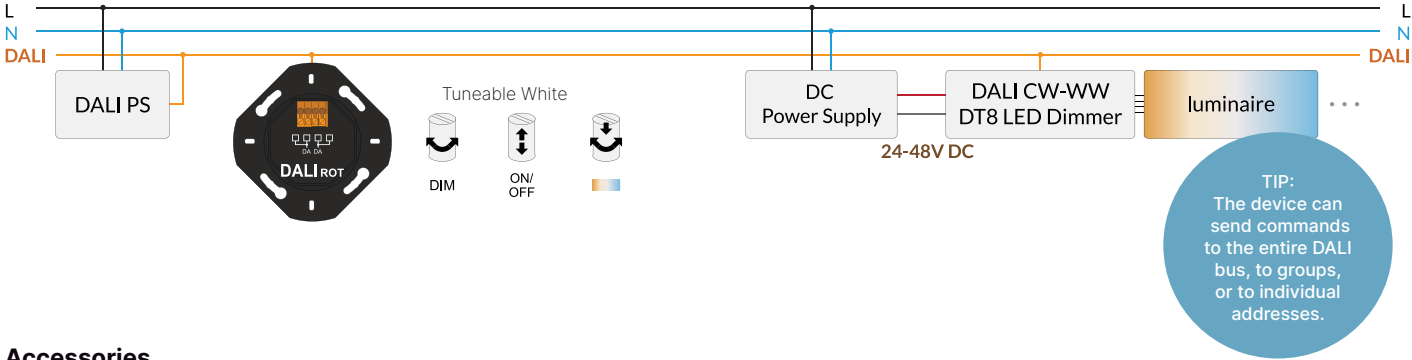
38 mm



70 mm

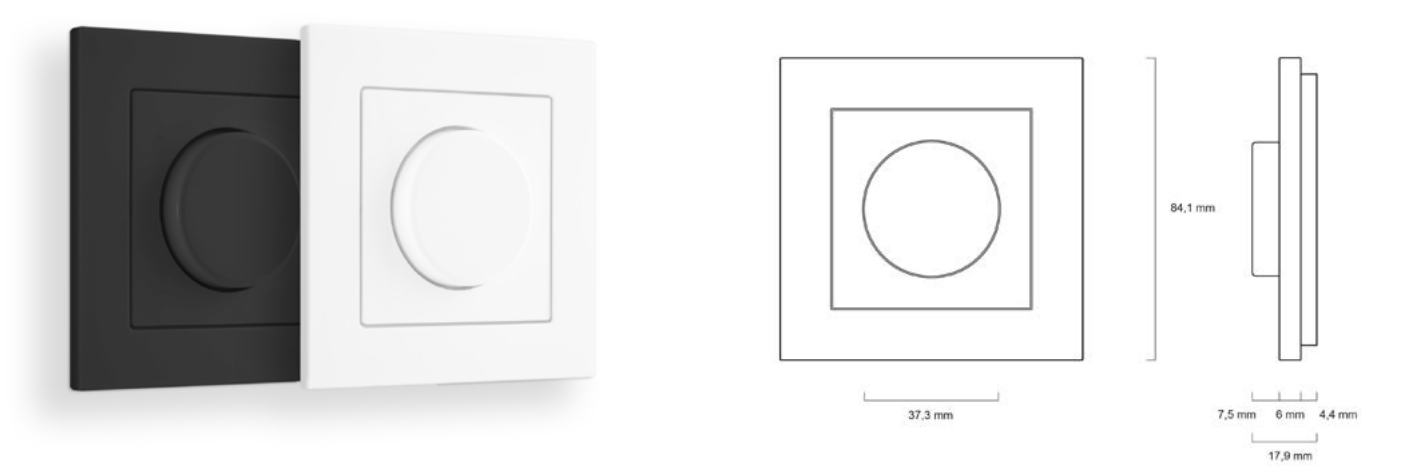
60 mm

70 mm

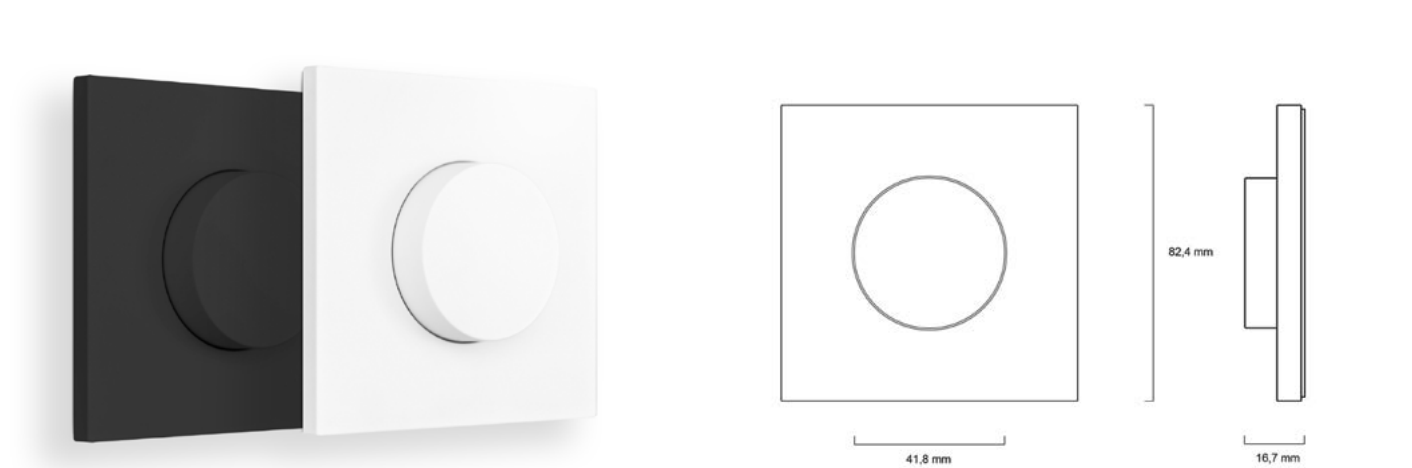


Accessories

NAME	ARTICLE NUMBER	COLOUR	DIMENSIONS (MM)
DALI ROT cover and rotary knob, white, Jung	86459822-Z01	alpinwhite, Jung Series A	84.1×84.1×17.9
DALI ROT cover and rotary knob, black, Jung	86459822-Z02	black, Jung Series A	84.1×84.1×17.9

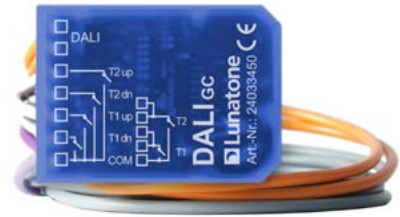


DALI ROT cover and rotary knob, white, Lunatone	86459822-Z04	white, RAL9016	82.4× 82.4×16.7
DALI ROT cover and rotary knob, black, Lunatone	86459822-Z05	black	82.4× 82.4×16.7
Adapter Ø6mm	86459822-Z03		Ø6

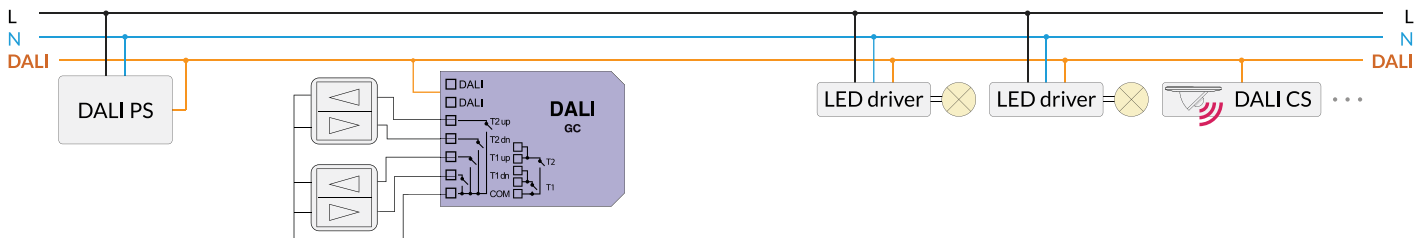


DALI GC(-A) - controlling two DALI groups

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.



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

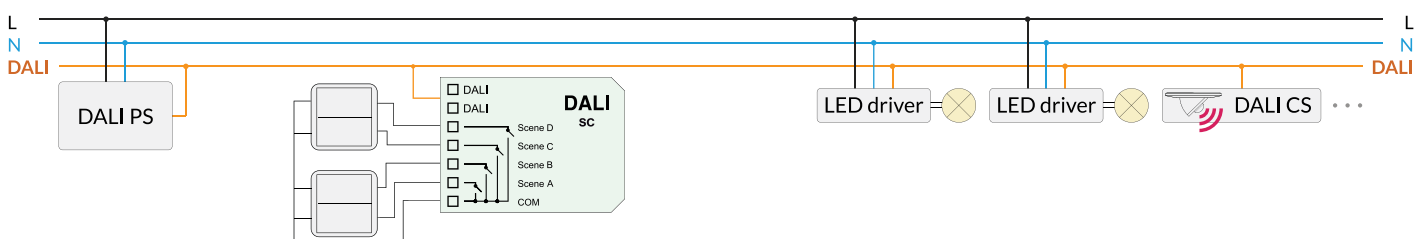


DALI SC(-A) - controlling four DALI scenes

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



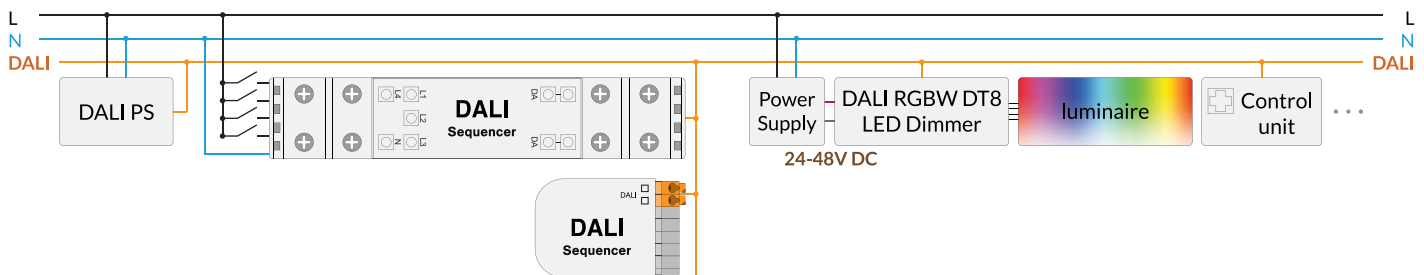
DALI Sequencer - recalling command sequences (macros)

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 → 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



Destination Address

1: All (DALI Broadcast)

Command:

Macro: Dynamic scenes

Macro Settings

Delay [0...254sec]	Fade Time	Scene	Delay [0...254sec]	Fade Time	Scene
1 [2] 1 sec	Scene 0	9 [2] 1 sec	Scene 8		
2 [2] 1 sec	Scene 1	10 [2] 1 sec	Scene 9		
3 [2] 1 sec	Scene 2	11 [2] 1 sec	Scene 10		
4 [2] 1 sec	Scene 3	12 [2] 1 sec	Scene 11		
5 [2] 1 sec	Scene 4	13 [2] 1 sec	Scene 12		
6 [2] 1 sec	Scene 5	14 [2] 1 sec	Scene 13		
7 [2] 1 sec	Scene 6	15 [2] 1 sec	Scene 14		
8 [2] 1 sec	Scene 7	16 [2] 1 sec	Scene 15		

☒ loop

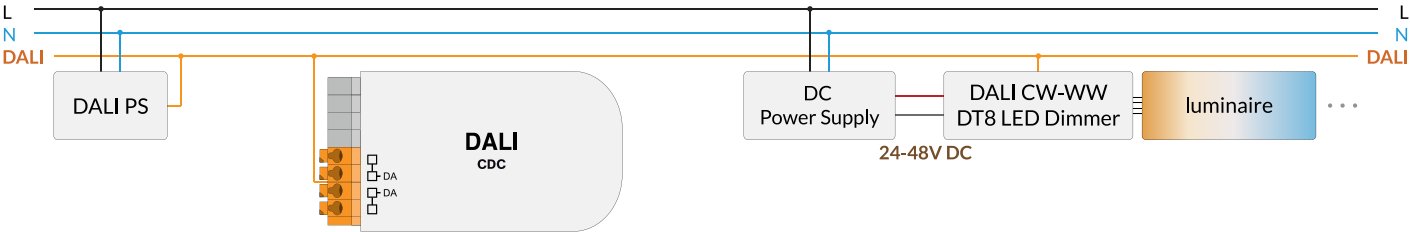
Example sequence:
The sequence runs in a loop from scene 0 to scene 15 with 1sec delay and 1sec fade time per scene.

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.

TIP:
Parameters can also be set with the DALI Daylight App. page 19A

time	colour temperature	brightness	time	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

Scheduling

☒ Enable Scheduler Job

Mo Tu We Th Fr Sa Su
☒ ☒ ☒ ☒ ☒ ☒ ☒

Latitude: 48.210033 Longitude: 16.363449

Time point: Before Sunrise Time Of day: 2 min

DALI command: GOTO SCENE 12

Destination Address: Gruppe 12 (G12)

Buttons: Add, Update, Delete

N	En	Active days	Time	Command	Address
1	•	Mo,Tu,We,Th,Fr,Sa,Su	2 min Before Sunrise	GOTO SCENE 12	G12
2	•	Mo,Tu,We,Th,Fr,Sa,Su	11:59	OFF	all

Callouts:

- on which days should the commands be sent?
- a specific time or time interval in regards to sunrise / sunset can be entered
- TIP: Parameters can also be set with the DALI Daylight App. page 19A
- "Astro Clock": entering GPS coordinates allows time settings relative to sunrise and sunset
- DALI command, to be executed at the selected time (light level (%), scene, max./min, off, etc.)
- target address: entire DALI bus (broadcast), group(s) or individual addresse(s)

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

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.

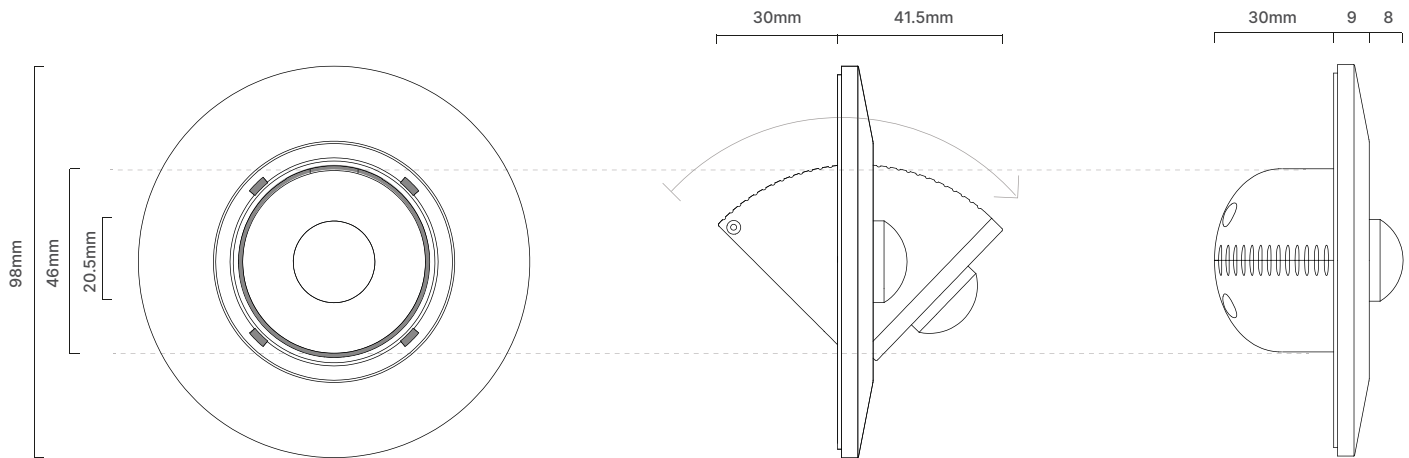


TIP:
Parameters can also be set with the DALI Daylight App. page 19A

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)

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

Device Info

Name	DALI CS	Article Number	86458621	Firmware Ver	5.2
Manufacturer	Lunatone	Serial Number	1		
DALI Device Type	N/A	Short Address	eA0		

Settings Motion Sensor Light Sensor Temperature Sensor Variable Operating Behavior

Destination Address

1:	All (DALI Broadcast)	
2:	none	
3:	none	
4:	none	

Power up

☐ Send Command

Light Level (DAP) %

☐ Start Corridor Function (15s, 15s)

Hold on time (2): 10min 0sec

Second level Hold on time (4): 0min 0sec

On Command (1): RECALL MAX LEVEL

Mid Level Command (3): Light Level (DAP) Light Level: 10 % ☐ Fade Time [?] 1 sec

Off Command (5): OFF

On-Cmd Threshold (Light sensor)

☐ Send Cmd X only if Light level > threshold (i.e. day)

☐ Send Cmd X only if Light level < threshold (i.e. night)

☒ Cmd X is independent from Light sensor

Off-Cmd Threshold (Light sensor) – Bright Out

☒ Re-trigger by motion independent from Light Level

☐ Re-trigger by motion only if Light Level < threshold

☐ Switch on red LED when movement is detected ☐ poll Light Level -- Lux

Threshold: 500 Lux

Hysteresis: 100 Lux

Threshold: 1020 Lux

Graph: The graph shows the light level over time. The x-axis represents time in minutes, and the y-axis represents light level. The graph is divided into five sections: 1. Initial light level, 2. Hold on time, 3. Second level hold on time, 4. Second level hold on time, 5. Off command.

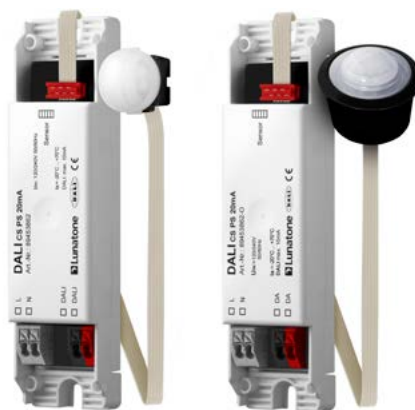
Callouts:

- Target address: entire DALI bus (broadcast), groups oder individual addresses
- Command that is executed upon motion detection. → section 1 in the graph
- Command executed after the first hold on time → section 3 in the graph
- Hold on time: How long should the maximum level be active (0-63min)? → section 2 in the graph
- 2nd level Hold on time: How long should the second light level be active (0-63min)? → section 4 in the graph
- Command executed after the second hold on time → section 5 in the graph

DAI CS with 20mA DALI 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-O



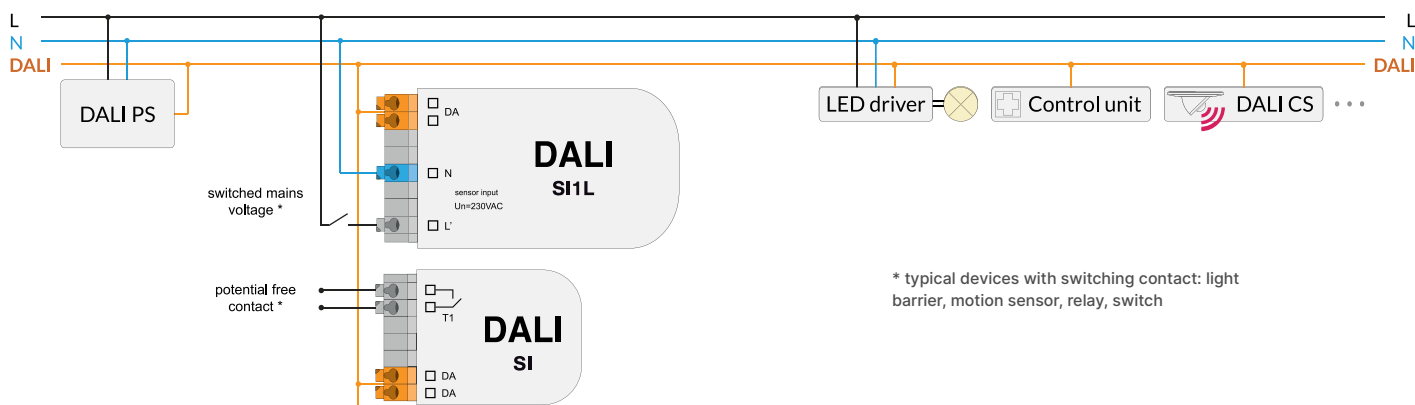
NAME	ARTICLE NUMBER	TYP. CURRENT CONSUMPTION DALI	DETECTION RANGE & MAX. MOUNTING HEIGHT	INTEGRATED DALI POWER SUPPLY
DALI CS motion sensor 12m	89453862	3.5mA	12m & 8m	20mA
DALI CS motion sensor 15m	89453862-15	3.5mA	15m & 12m	20mA
DALI CS motion sensor 2,5m	89453862-O	3.5mA	2.3m/3m & 3m	20mA

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



* typical devices with switching contact: light barrier, motion sensor, relay, switch

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 Bluetooth Interface

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

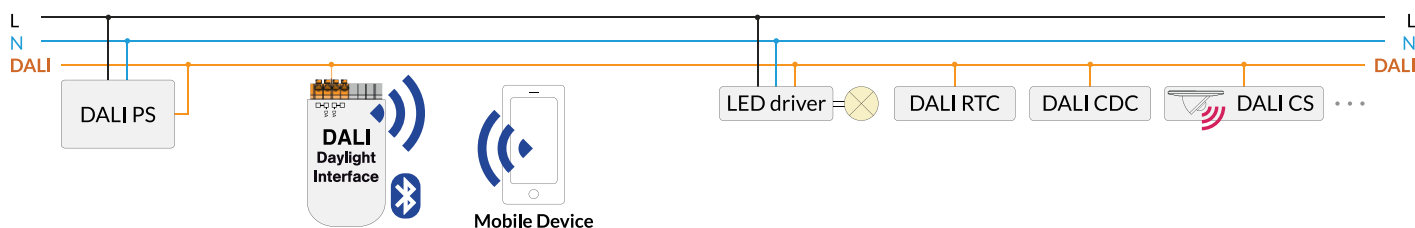
- DALI CDC: changing circadian curve settings (start, peak, end)
- DALI RTC: definition of 2 switching intervals per weekday
- DALI CS: setting light level and hold time
- DALI LS: switching between manual and automatic light level control, specifying the reference light level

DALI Daylight

Here you can download the app for your smartphone:



NAME	ARTICLE NUMBER	SUPPLY	TYP. CURRENT CONSUMPTION DALI	DIMENSIONS (MM)
DALI Daylight Bluetooth Interface	89453863	via DALI line	4mA	59 × 33 × 15





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

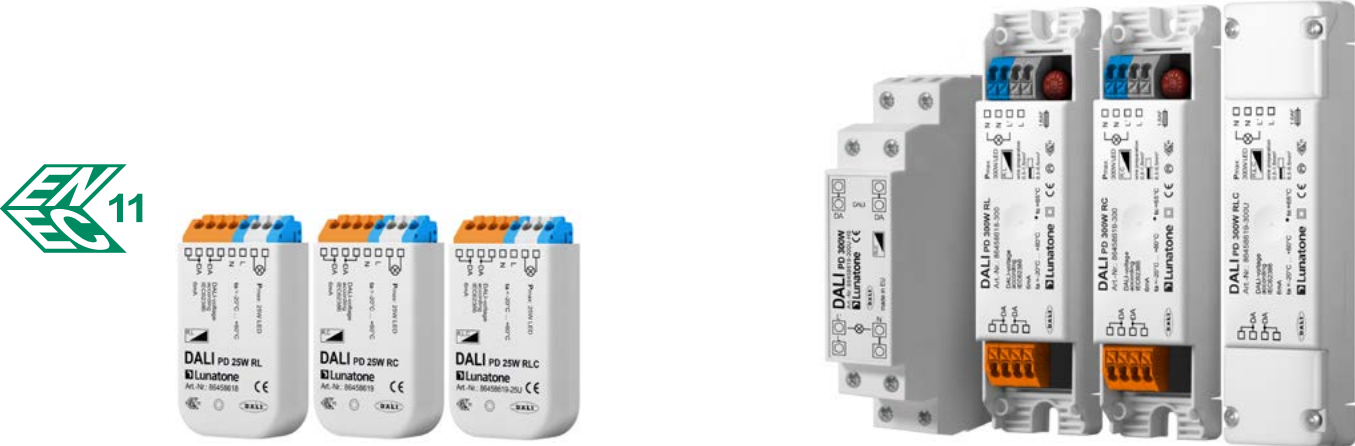
Phase dimmer with DALI control input to integrate 230V retrofit LED luminaires into a DALI system. The devices have an input for DALI, 230V AC and output for dimmable LED luminaires with inductive / capacitive characteristics. DALI PD is available for leading edge and trailing edge as well as a universal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

As of firmware version 3.5, the operating mode as noiseless

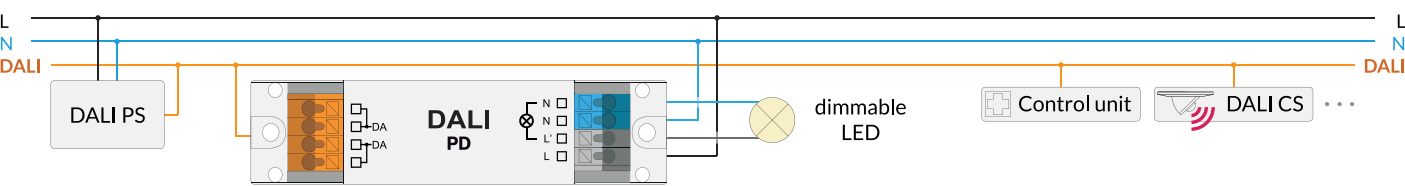
DALI-controlled electronic switch is also supported.

When installing many small LED lights, dimmed by a single DALI PD, the inrush current and power factor should be considered.

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



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



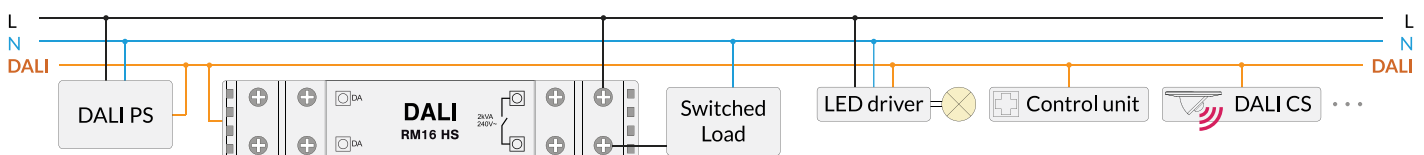
Relay modules RM8 / RM16

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

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.



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

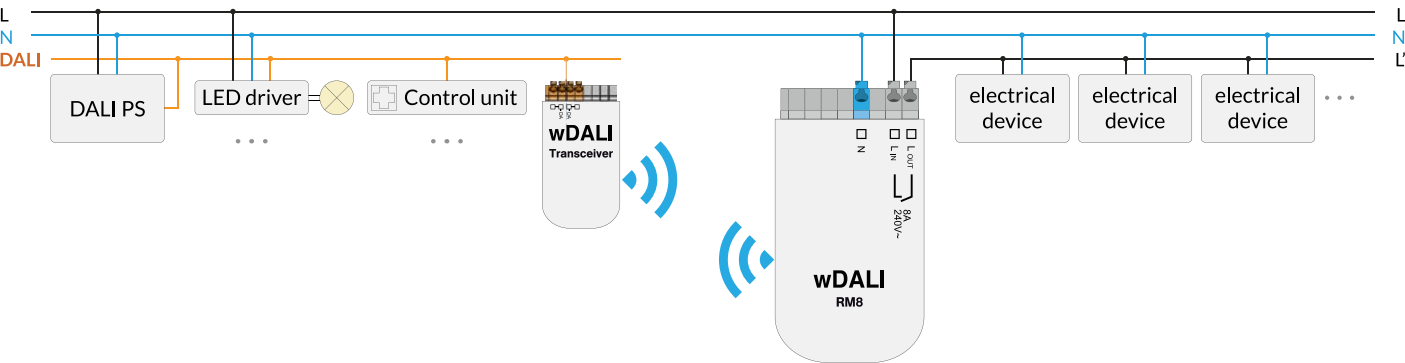


wDALI RM8 - Wireless relay module

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.



NAME	ARTICLE NUMBER	MAX. SWITCHING CURRENT	TYPE OF RELAY CONTACT	FREQUENCY RANGE	MODEL	DIMENSIONS (MM)
wDALI RM8 + Transceiver	86459542+T	8A	1 on/off	2.4GHz	for flush-type boxes	59 × 33 × 15

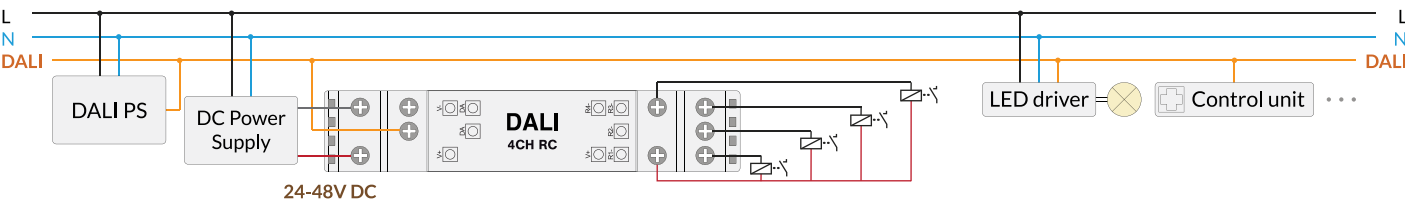


DALI 4Ch RC - 4 channel relay control

DALI relay controller with 4 DALI addresses, one for each channel. Suitable for controlling relays and contactors with a control voltage of 12V-48V DC, enabling the integration of electrical devices into the DALI system.



NAME	ARTICLE NUMBER	INPUT VOLTAGE	MAXIMUM INPUT CURRENT	MAX. OUTPUT CURRENT PER CHANNEL	MODEL	DIMENSIONS (MM)
DALI 4Ch RC	89453860-DE	12-48V DC	8A	2A	with strain relief for suspended ceilings	120 × 30 × 22
DALI 4Ch RC DIN Rail	89453860-HS	12-48V DC	8A	2A	for DIN Rail	98 × 17.5 × 57

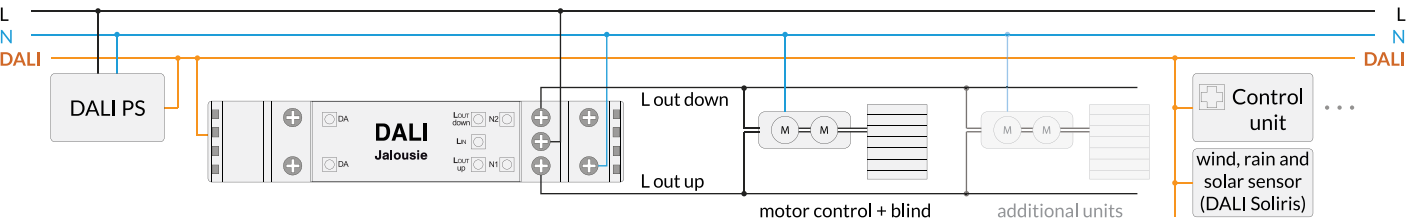


DALI Jalousie

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

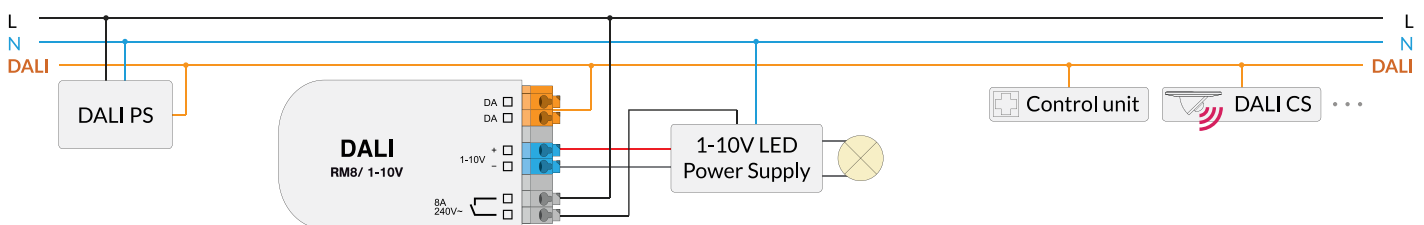
0-10V interface with 8A or 16A relay. This interface converts DALI signals into 1-10V control signals and thus enables the integration of devices with 1-10V control input into a DALI system. With the integrated switching relay, the power supply of the operating devices can be switched on and off. The 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



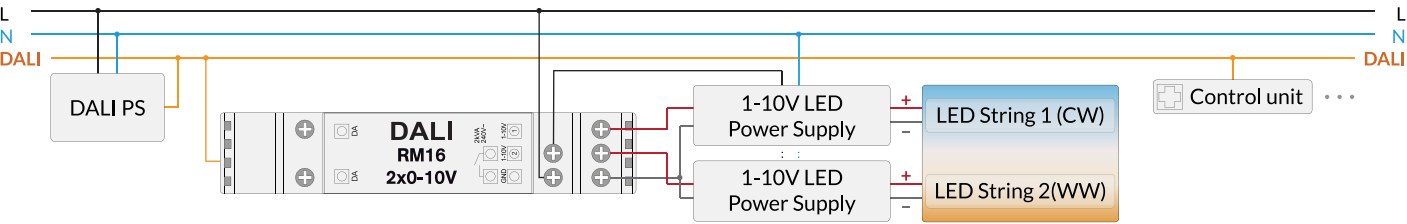
DALI RM8 / RM16 2×0-10V - operating 2 devices with 0-10V control input

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 RELAY CONTACT	CHANNELS (1-10V)	MODEL	DIMENSIONS (MM)
DALI RM16 2×0-10V DIN Rail	89453857-HS	16A	1 make-contact	channel 1: 1-10V analog, current sink 1mA	for DIN Rail	98 × 17.5 × 57
DALI RM16 2×0-10V DE	89453857-DE	8A	1 on/off	channel 2: 1-10V analog, current sink 1mA	with strain relief for suspended ceilings	120 × 30 × 22

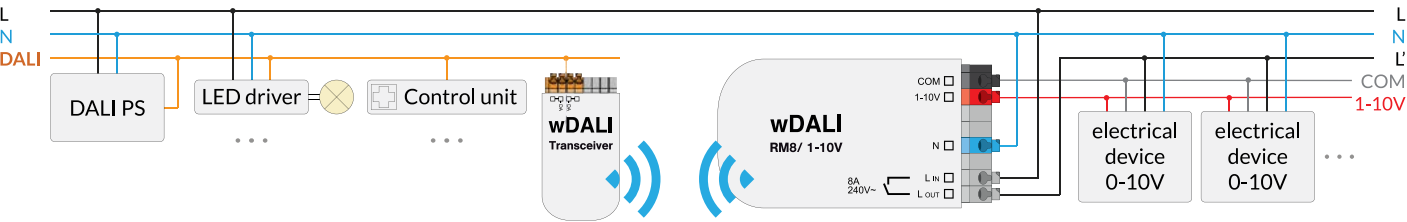


wDALI RM8 0/1-10V PWM - wireless relay module with 0/1-10V PWM control output

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

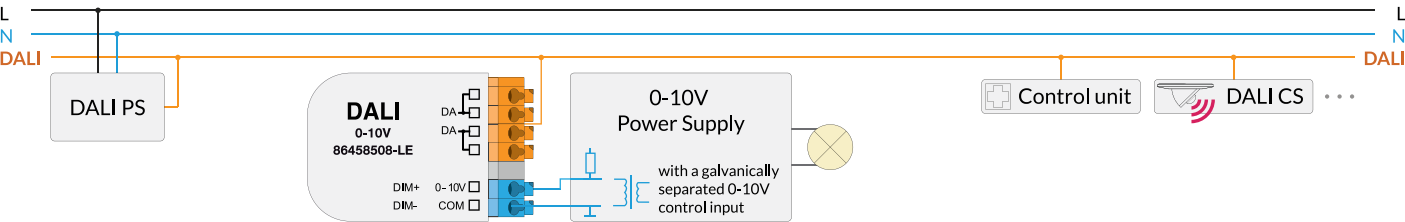
These interfaces convert DALI signals into 0-10V, 1-10V or PWM control signals, thus enabling the integration of electrical devices with 0-10V control inputs into a DALI system, see table.

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.

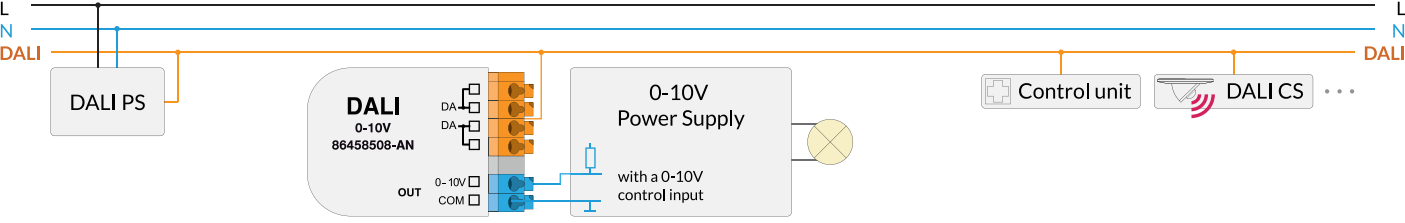


NAME	ARTICLE NUMBER	GALVANIC ISOLATION: INPUT - OUTPUT	OUTPUT	MODEL	DIMENSIONS (MM)
DALI 0-10V analog	86458508-LE	no	0-10V (0%-100%) analog voltage 1mA max. (current sink)	for flush-type boxes	40 × 28 × 15
DALI 0-10V analog, galv. isolation	86458508-AN	yes	0.6V-10V analog voltage 100uA-1mA	for flush-type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

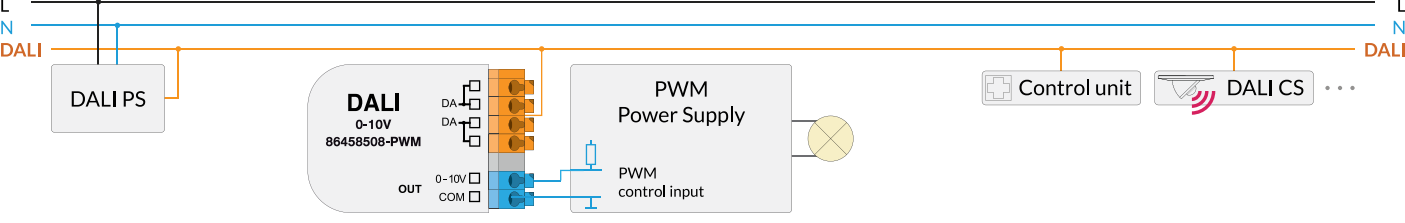
86458508-LE enables the integration of electrical devices with integrated galvanic isolation and 0 or 1-10V control input



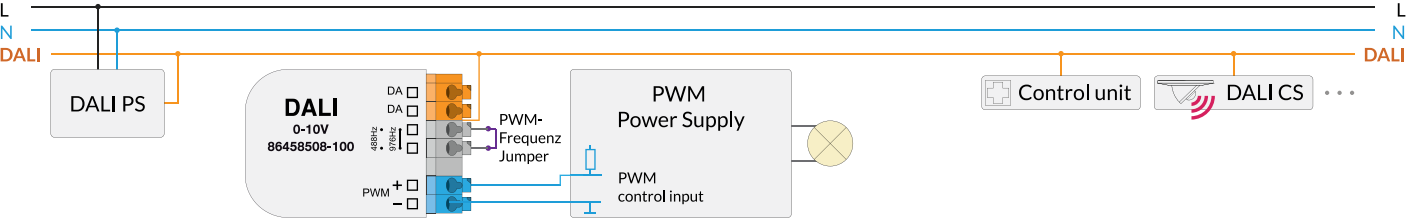
86458508-AN enables the integration of electrical devices with 0 or 1-10V control input



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

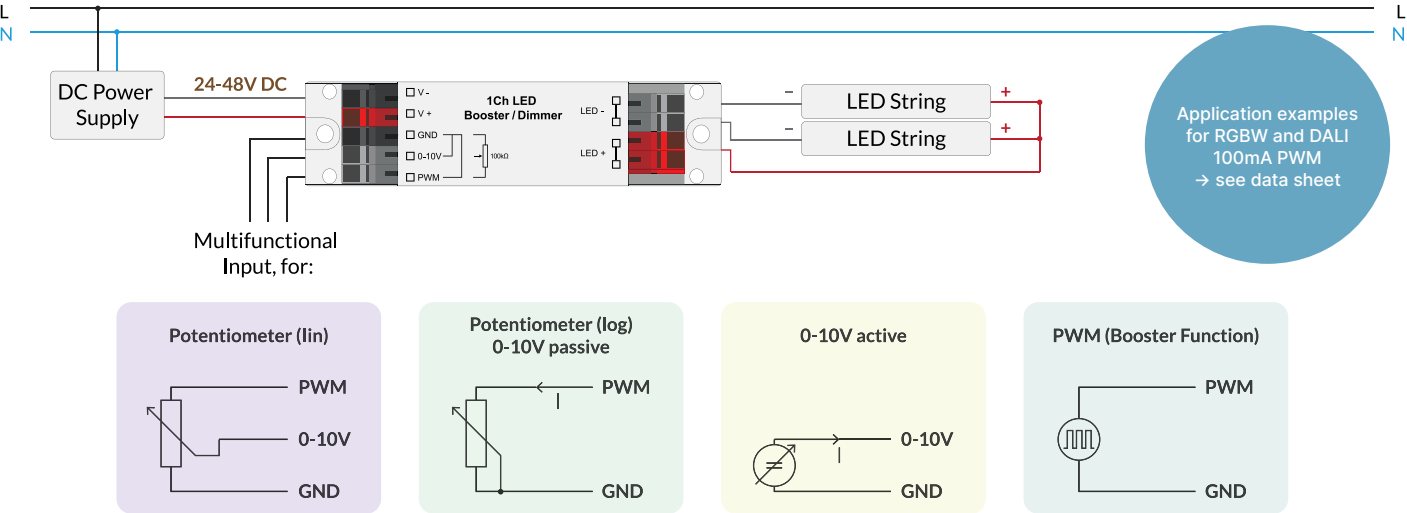


1Ch LED Booster/Dimmer

This LED driver (CV) with one channel, can be operated as PWM Booster or Dimmer. The device functions as PWM Booster, if PWM signals are applied to the input (50Hz-1kHz). If operated with a 100kΩ potentiometer or a 0-10V control device (active or passive), the device functions as Dimmer.

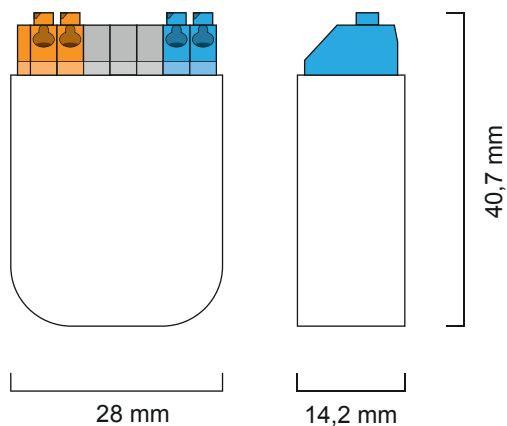


NAME	ARTICLE NUMBER	INPUT	INPUT CURRENT	SUPPLY	DIMENSIONS (MM)
1Ch LED Booster/ Dimmer CV 16A	86459838	- PWM (50Hz-1kHz) - 100kOhm Potentiometer - 0-10V aktiv/passiv	16A	12-48V DC	120 × 30 × 22



Lunatone housing dimensions

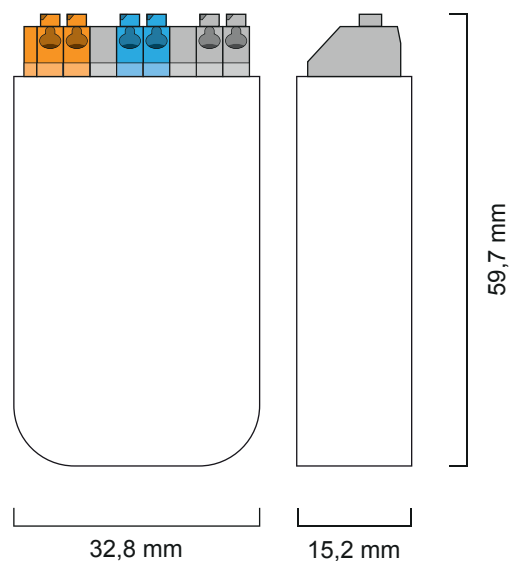
scale 1:1



compact housing for flush-type boxes

ca. 40 × 28 × 15

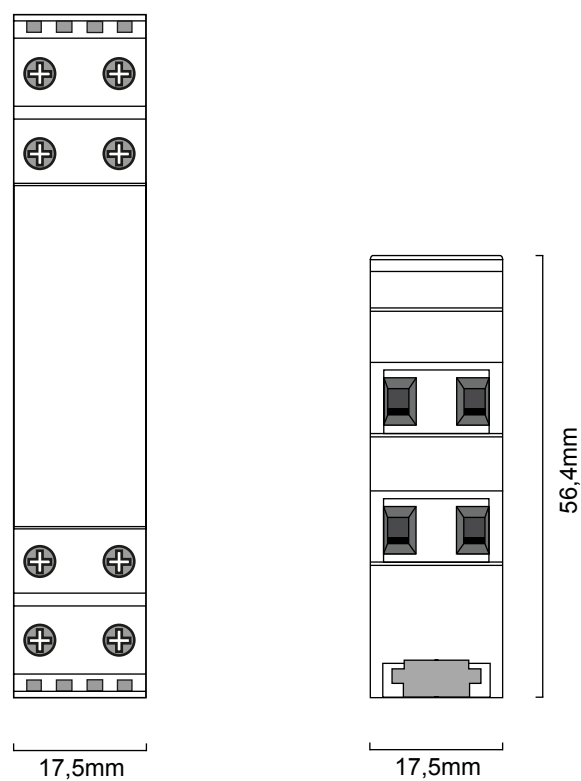
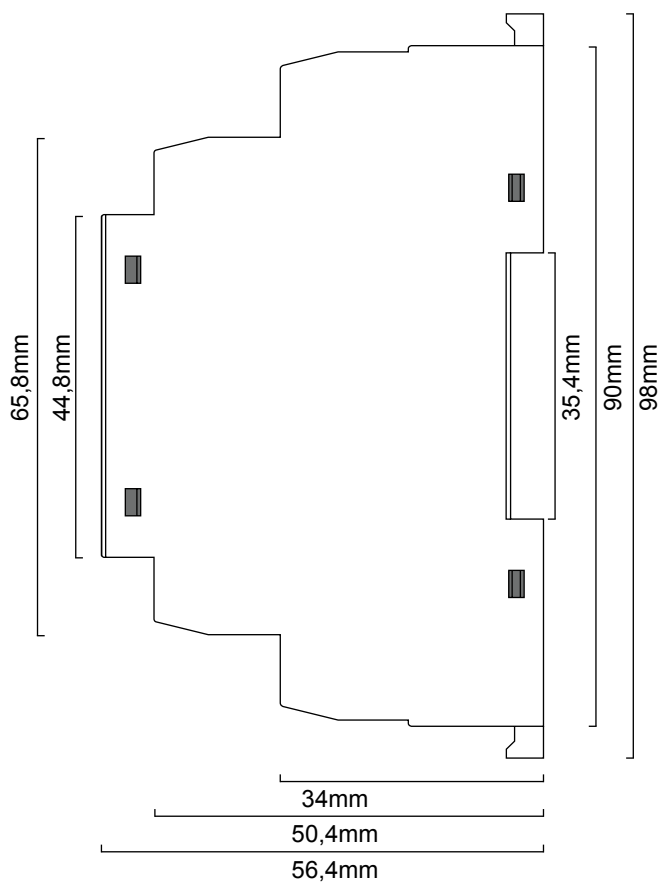
designed to fit e.g. behind a light switch in a flush-type installation box



housing for flush-type boxes

ca. 59 × 33 × 15

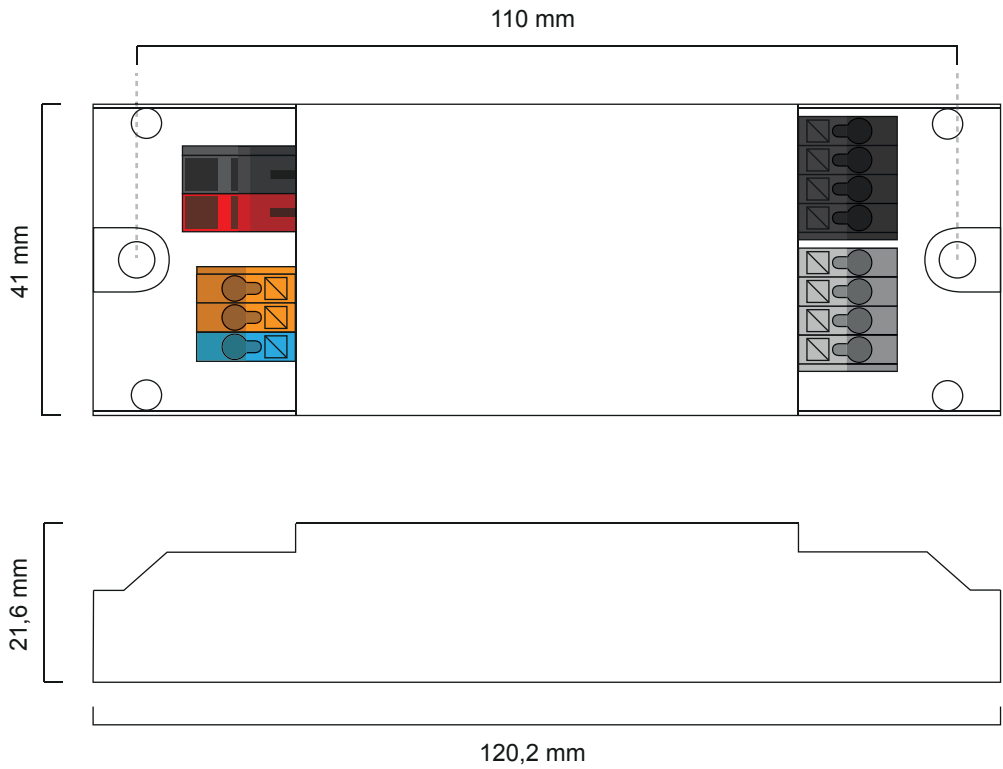
designed to fit e.g. behind a light switch in a flush-type installation box



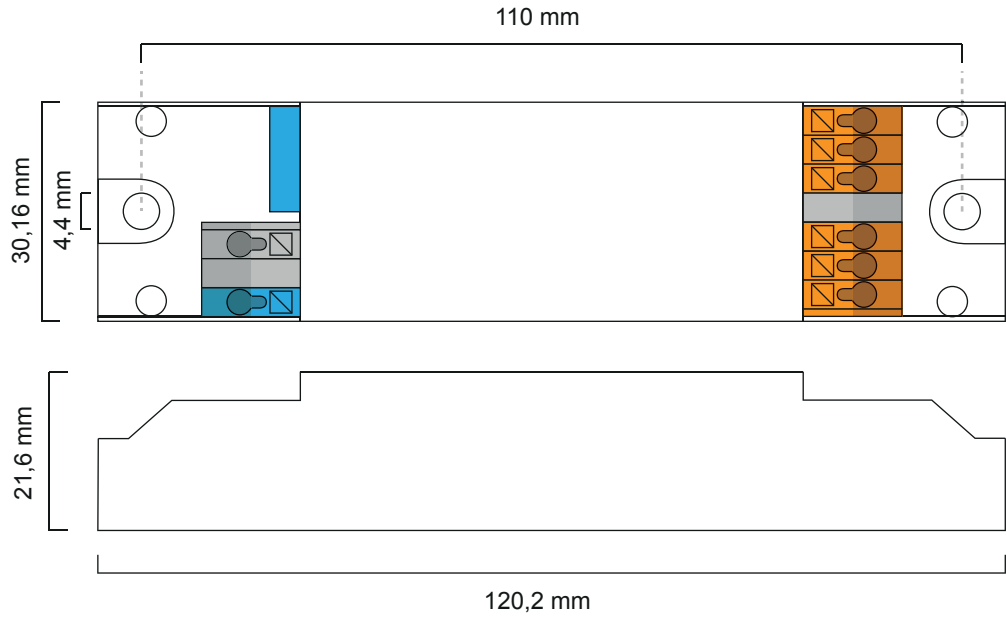
1DU DIN Rail module

ca. 98 × 17,5 × 57

for the control cabinet



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



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



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)



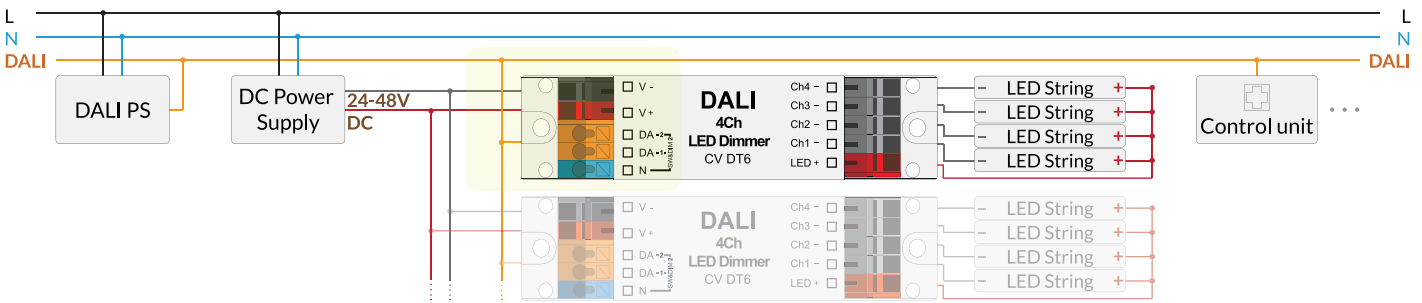
SPECIAL FEATURES OF DALI LED DIMMERS

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 for DALI Device Type 6 commands (DT6): 1-4Ch devices, as well as devices for colour and tunable

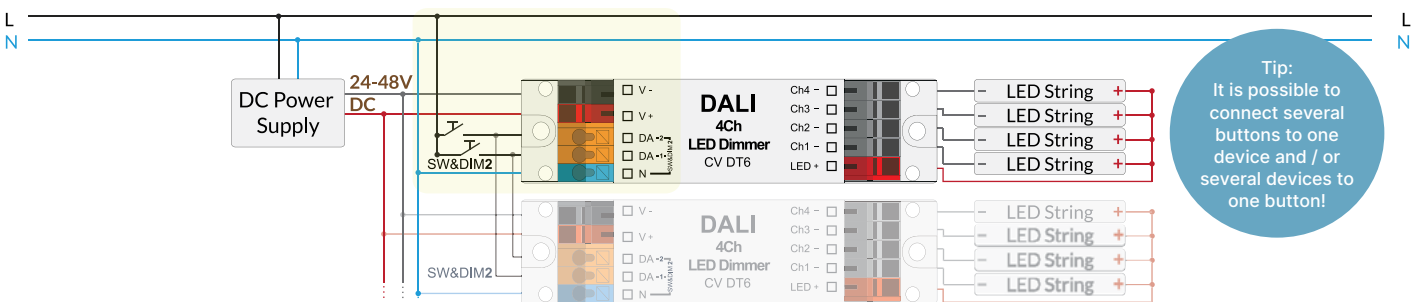
white control for DALI Device Type 8 commands (DT8): CW-WW, RGB, RGBW devices.

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 DALI



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

BALANCE&DIM

Address 1 or button 1



Address 2 or button 2



COLOUR&DIM

Address 1 or button 1



Address 2 or button 2



DALI Level (colour)

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.

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.

DALI LED Dimmer DT6

1-4 Channels, constant voltage (CV)

DEVICE TYPE DT6 - ONE ADDRESS PER CHANNEL

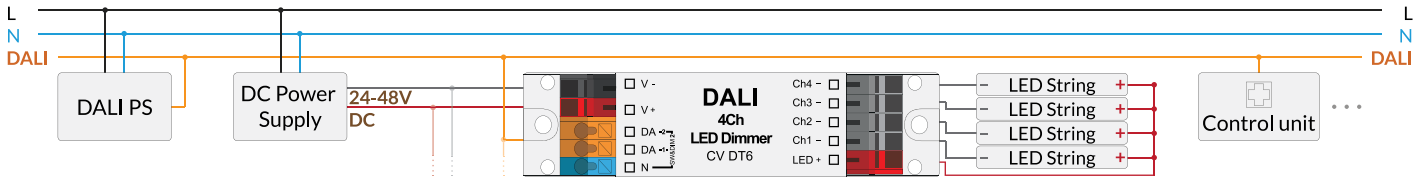
Lunatone DT6 LED dimmers are used to control luminaires via up to 4 separately controllable channels. Each channel has its own DALI address and can be configured via the DALI Cockpit Software. Besides the DALI Device Type 6 commands (DT6), the device supports alternative operating modes listed on the 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.



TIP:
converting DT8
to DT6, see
brochure E,
page 4

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	BALANCE&DIM	COLOUR&DIM
DALI 1Ch LED Dimmer CV 4A	89453826	4A	1	12-28V DC	40 × 28 × 15	for flush-type boxes	✓		✓			
DALI 1Ch LED Dimmer CV 8A	86459556	8A	1	12-48V DC	59 × 33 × 15	for flush-type boxes		✓	✓			
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		✓	✓			
DALI 2Ch LED Dimmer CV 4A	89453827	4A	2	12-28V DC	40 × 28 × 15	for flush-type boxes				✓	✓	
DALI 2Ch LED Dimmer CV 8A	89453833	8A	2	12-48V DC	59 × 33 × 15	for flush-type boxes		✓		✓	✓	
DALI 2Ch LED Dimmer CV 10A	86459561	10A	2	12-48V DC	120 × 30 × 22	with strain relief for suspended ceilings		✓		✓	✓	
DALI 2Ch LED Dimmer CV 16A	89453830	16A	2	12-48V DC	120 × 30 × 22	with strain relief for suspended ceilings		✓		✓	✓	
DALI 2Ch LED Dimmer 16A CV DIN Rail	89453830-HS	16A	2	12-48V DC	98 × 17.5 × 57	for DIN Rail		✓		✓	✓	
DALI 3Ch LED Dimmer CV 4A	89453828	4A	3	12-48V DC	59 × 33 × 15	for flush-type boxes		✓				✓
DALI 3Ch LED Dimmer CV 8A	89453834	8A	3	12-48V DC	59 × 33 × 15	for flush-type boxes		✓				✓
DALI 3Ch LED Dimmer CV 10A	86459571	10A	3	12-48V DC	120 × 30 × 22	with strain relief for suspended ceilings		✓				✓
DALI 3Ch LED Dimmer CV 16A	89453831	16A	3	12-48V DC	120 × 30 × 22	with strain relief for suspended ceilings		✓				✓
DALI 3Ch LED Dimmer 16A CV DIN Rail	89453831-HS	16A	3	12-48V DC	98 × 17.5 × 57	for DIN Rail		✓				✓
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		✓				✓
DALI 4Ch LED Dimmer CV 16A	89453832	16A	4	12-48V DC	120 × 30 × 22	with strain relief for suspended ceilings		✓				✓
DALI 4Ch LED Dimmer 4A CV DIN Rail	89453832-HS	16A	4	12-48V DC	98 × 17.5 × 57	for DIN Rail		✓				✓

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.



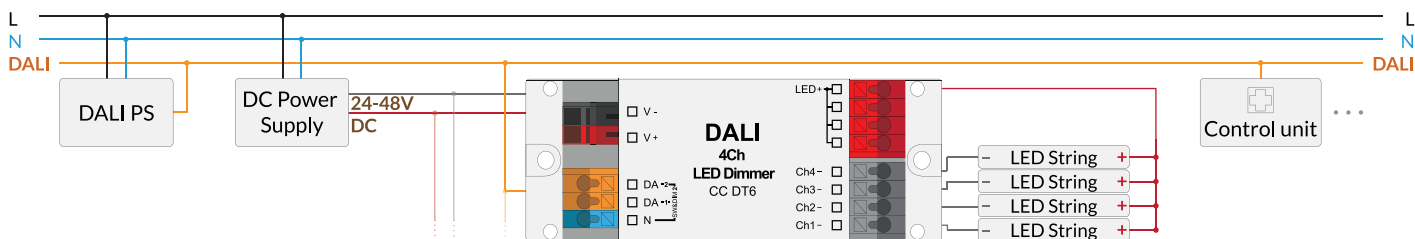
NAME	ARTICLE NUMBER	MAX. INPUT CURRENT PER CHANNEL	NUMBER OF ADDRESSES	DIMENSIONS (MM)	MODEL	SW&DIM2	DIM2WARM	BALANCE&DIM	COLOUR&DIM	COMMON MINUS	COMMON PLUS
DALI 1Ch LED Dimmer CC 350mA	89453844-350	350mA	1	59 × 33 × 15	for flush-type boxes						✓
DALI 1Ch LED Dimmer CC 500mA	89453844-500	500mA	1	59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

NAME	ARTICLE NUMBER	MAX. INPUT CURRENT PER CHANNEL	NUMBER OF ADDRESSES	DIMENSIONS (MM)	MODEL	SW&DIM2	DIM2WARM	BALANCE&DIM	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	✓			✓		✓
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	✓			✓	✓	
DALI 4Ch LED Dimmer CC 250mA	89453855-250	250mA	4	120 × 41 × 22	with strain relief for suspended ceilings	✓			✓		✓
DALI 4Ch LED Dimmer CC 350mA	89453855-350	350mA	4	120 × 41 × 22	with strain relief for suspended ceilings	✓			✓		✓
DALI 4Ch LED Dimmer CC 500mA	89453855-500	500mA	4	120 × 41 × 22	with strain relief for suspended ceilings	✓			✓		✓
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	✓			✓	✓	
DALI 4Ch LED Dimmer CC 500mA GM	89453855-500GM	500mA	4	120 × 41 × 22	with strain relief for suspended ceilings	✓			✓	✓	
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!

TIP:
converting DT8
to DT6, see
brochure E,
page 4

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



DALI LED Dimmer DT8

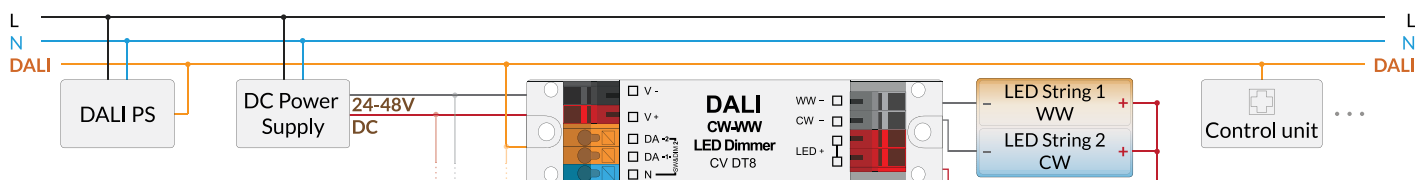
Tunable White, RGB, RGBW - Constant Voltage (CV)

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	BALANCE&DIM	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	✓	✓	✓	
DALI CW-WW LED Dimmer CV 16A	89453841	16A	Tunable White	12-48V	120 × 30 × 22	with strain relief for suspended ceilings	✓	✓	✓	
DALI CW-WW LED Dimmer CV 16A DIN Rail	89453841-HS	16A	Tunable White	12-48V	98 × 17.5 × 57	for DIN Rail	✓	✓	✓	
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	✓			✓

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

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

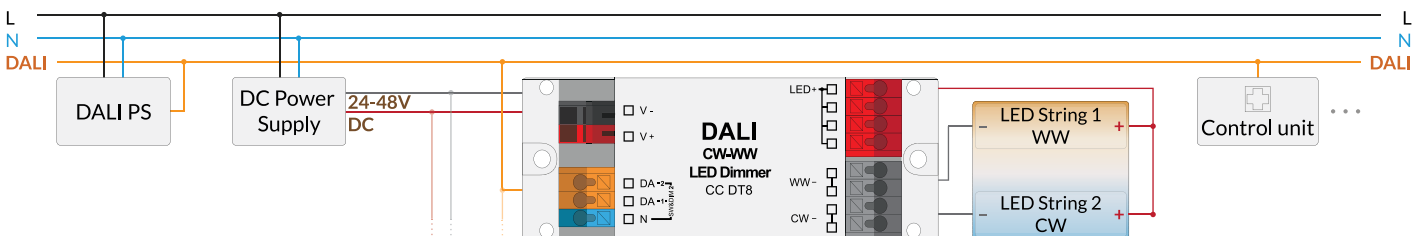
DEVICE TYPE DT8 - COLOUR MANAGEMENT WITH ONLY ONE DALI ADDRESS

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.

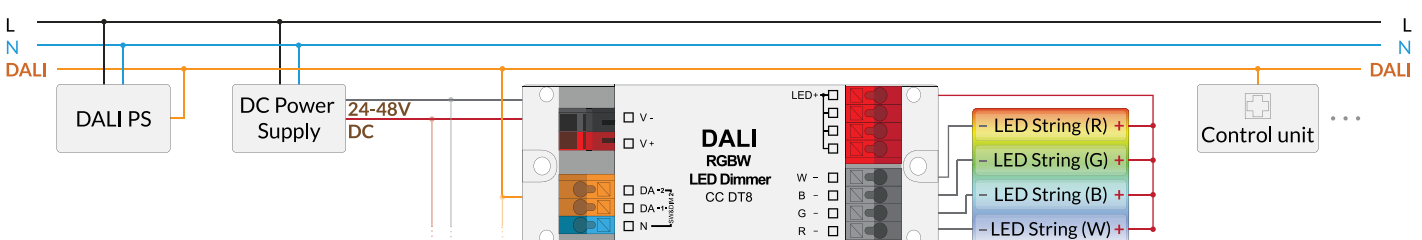
Convenient for small installations is the optional control via pushbutton (SW&DIM2). See page 2C for more information on control options and operating modes.



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):



NAME	ARTICLE NUMBER	MAX. INPUT CURRENT PER CHANNEL	APPLICATION	DIMENSIONS (MM)	MODEL	SW&DIM2	DIM2WARM	BALANCE&DIM	COLOUR&DIM	COMMON MINUS	COMMON PLUS
DALI CW-WW LED Dimmer CC 350mA	86458911-350	350mA	Tunable White	59 × 33 × 15	for flush-type boxes		✓	✓			✓
DALI CW-WW LED Dimmer CC 350mA DE	86458911-350DE	350mA	Tunable White	120 × 30 × 22	with strain relief for suspended ceilings	✓	✓	✓			✓
DALI CW-WW LED Dimmer CC 500mA	86458911-500	500mA	Tunable White	59 × 33 × 15	for flush-type boxes		✓	✓			✓
DALI CW-WW LED Dimmer CC 500mA DE	86458911-500DE	500mA	Tunable White	120 × 30 × 22	with strain relief for suspended ceilings	✓	✓	✓			✓
DALI CW-WW LED Dimmer CC 700mA	86458911-700	700mA	Tunable White	120 × 41 × 22	with strain relief for suspended ceilings	✓	✓	✓			✓
DALI CW-WW LED Dimmer CC 1000mA	86458911-1000	1000mA	Tunable White	120 × 41 × 22	with strain relief for suspended ceilings	✓	✓	✓			✓
DALI CW-WW LED Dimmer CC 350mA GM	86458911-350GMDE	350mA	Tunable White	120 × 30 × 22	with strain relief for suspended ceilings	✓	✓	✓		✓	
DALI CW-WW LED Dimmer CC 500mA GM	86458911-500GMDE	500mA	Tunable White	120 × 30 × 22	with strain relief for suspended ceilings	✓	✓	✓		✓	
DALI CW-WW LED Dimmer CC 700mA GM	86458911-700GM	700mA	Tunable White	120 × 41 × 22	with strain relief for suspended ceilings	✓	✓	✓		✓	
DALI CW-WW LED Dimmer CC 1000mA GM	86458911-1000GM	1000mA	Tunable White	120 × 41 × 22	with strain relief for suspended ceilings	✓	✓	✓		✓	
DALI RGB LED Dimmer CC 350mA	86458913-350	350mA	RGB	120 × 30 × 22	with strain relief for suspended ceilings	✓			✓		✓
DALI RGB LED Dimmer CC 500mA	86458913-500	500mA	RGB	120 × 30 × 22	with strain relief for suspended ceilings	✓			✓		✓
DALI RGB LED Dimmer CC 700mA	86458913-700	700mA	RGB	120 × 30 × 22	with strain relief for suspended ceilings	✓			✓		✓
DALI RGB LED Dimmer CC 350mA GM	86458913-350GM	350mA	RGB	120 × 30 × 22	with strain relief for suspended ceilings	✓			✓	✓	
DALI RGB LED Dimmer CC 500mA GM	86458913-500GM	500mA	RGB	120 × 30 × 22	with strain relief for suspended ceilings	✓			✓	✓	
DALI RGB LED Dimmer CC 700mA GM	86458913-700GM	700mA	RGB	120 × 30 × 22	with strain relief for suspended ceilings	✓			✓	✓	
DALI RGBW LED Dimmer CC 100mA	86458912-100	100mA	RGBW	120 × 41 × 22	with strain relief for suspended ceilings	✓			✓		✓
DALI RGBW LED Dimmer CC 250mA	86458912-250	250mA	RGBW	120 × 41 × 22	with strain relief for suspended ceilings	✓			✓		✓
DALI RGBW LED Dimmer CC 350mA	86458912-350	350mA	RGBW	120 × 41 × 22	with strain relief for suspended ceilings	✓			✓		✓
DALI RGBW LED Dimmer CC 500mA	86458912-500	500mA	RGBW	120 × 41 × 22	with strain relief for suspended ceilings	✓			✓		✓
DALI RGBW LED Dimmer CC 700mA	86458912-700	700mA	RGBW	120 × 41 × 22	with strain relief for suspended ceilings	✓			✓		✓
DALI RGBW LED Dimmer CC 350mA GM	86458912-350GM	350mA	RGBW	120 × 41 × 22	with strain relief for suspended ceilings	✓			✓	✓	
DALI RGBW LED Dimmer CC 500mA GM	86458912-500GM	500mA	RGBW	120 × 41 × 22	with strain relief for suspended ceilings	✓			✓	✓	
DALI RGBW LED Dimmer CC 700mA GM	86458912-700GM	700mA	RGBW	120 × 41 × 22	with strain relief for suspended ceilings	✓			✓	✓	

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.



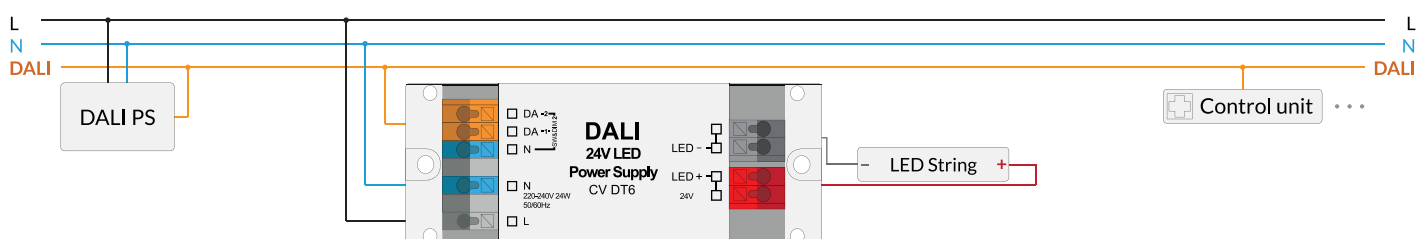
constant voltage CV

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	✓

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	✓
DALI LED Power Supply 15W 350mA	89453849-350	220-240V AC	12V-44V	350mA	4.2W-15.4W	120 × 41 × 22	✓
DALI LED Power Supply 20W 500mA	89453849-500	220-240V AC	12V-36V	500mA	6W-18W	120 × 41 × 22	✓
DALI LED Power Supply 20W 700mA	89453849-700	220-240V AC	12V-32V	700mA	8.4W-22.4W	120 × 41 × 22	✓
DALI LED Power Supply 20W 1050mA	89453849-1050	220-240V AC	12V-21V	1050mA	12.6W-22.05W	120 × 41 × 22	✓

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



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

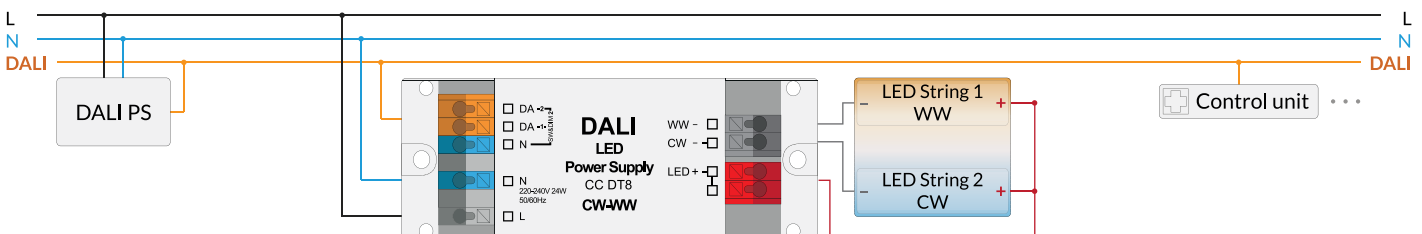
constant voltage CV

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

constant current CC

NAME	ARTICLE NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE RANGE	OUTPUT CURRENT	POWER (W)	DIMENSIONS (MM)	SW&DIM2	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	✓	✓	✓	
DALI CW-WW LED Power Supply 20W 500mA	89453849-CWW-500	220-240V AC	12V-36V	500mA	6W-18W	120 × 41 × 22	✓	✓	✓	
DALI CW-WW LED Power Supply 20W 700mA	89453849-CWW-700	220-240V AC	12V-32V	700mA	8.4W-22.4W	120 × 41 × 22	✓	✓	✓	
DALI CW-WW LED Power Supply 20W 800mA	89453849-CWW-800	220-240V AC	12V-28V	800mA	9.6W-22.4W	120 × 41 × 22	✓	✓	✓	
DALI CW-WW LED Power Supply 20W 1000mA	89453849-CWW-1000	220-240V AC	12V-16V	1000mA	12W-16W	120 × 41 × 22	✓	✓	✓	
DALI CW-WW LED Power Supply 20W 1100mA	89453849-CWW-1100	220-240V AC	12V-16V	1100mA	13.2W-17.6W	120 × 41 × 22	✓	✓	✓	

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





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.



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

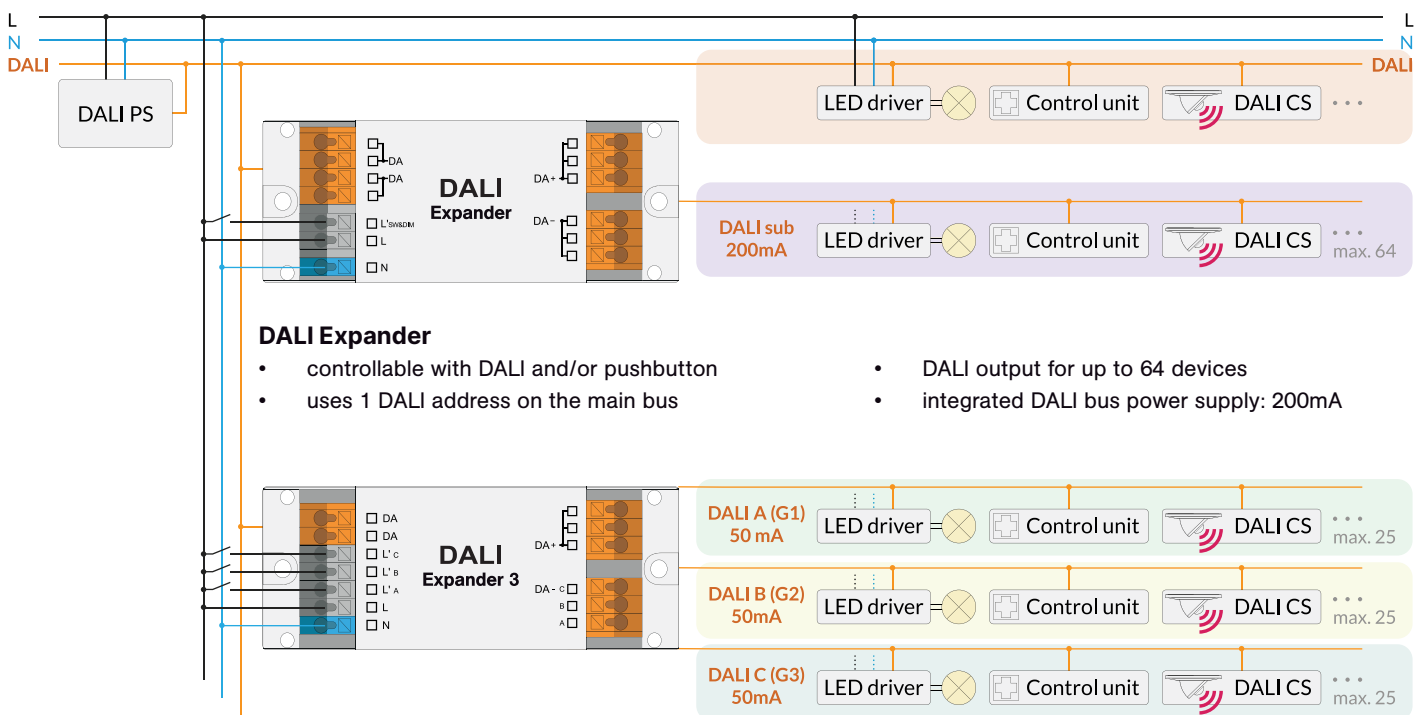
DALI Expander - Intelligent expansion & DALI bus supply

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.



NAME	ARTICLE NUMBER	INPUT VOLTAGE	DALI BUS POWER SUPPLY	INPUT	OUTPUT	OPERATING TEMPERATURE (TA)	DIMENSIONS (MM)
DALI Expander	89453847	100-240V AC	200 mA	DALI / Taster	DALI	-20° - +60°	120 × 41 × 22
DALI Expander DIN Rail	89453847-HS	110-230V AC	200 mA	DALI / Taster	DALI	-20° - +60°	98 × 17.5 × 57
DALI Expander 3	89453847-3	100-240V AC	3 × 50mA	DALI / Taster	DALI	-20° - +60°	120 × 41 × 22

DALI Expander, Expander 3 as DALI System extension



DALI Expander

- controllable with DALI and/or pushbutton
- uses 1 DALI address on the main bus
- DALI output for up to 64 devices
- integrated DALI bus power supply: 200mA

DALI Expander 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

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:

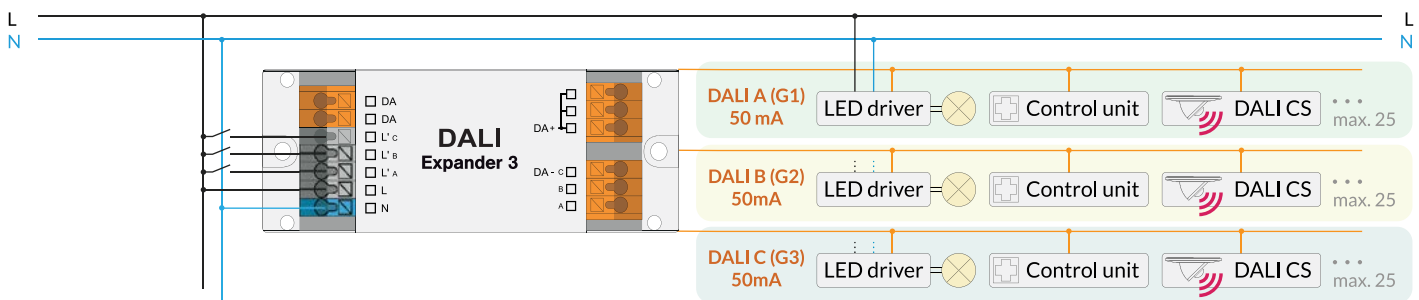
G1 → DALI A
G2 → DALI B
G3 → DALI C
G4 → DALI A + DALI B

G5 → DALI A + DALI C
G6 → DALI B + DALI C
G7 → DALI A + DALI B + DALI C

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.

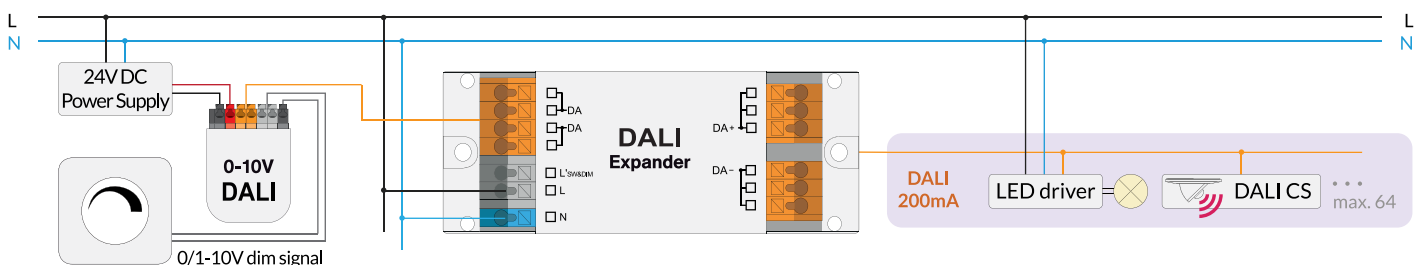
The **DALI Expander 3** has three separate DALI outputs and corresponding inputs for pushbuttons, which enables independent dimming of up to three zones. Each output provides 50mA, to power up to 25 DALI devices.



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.



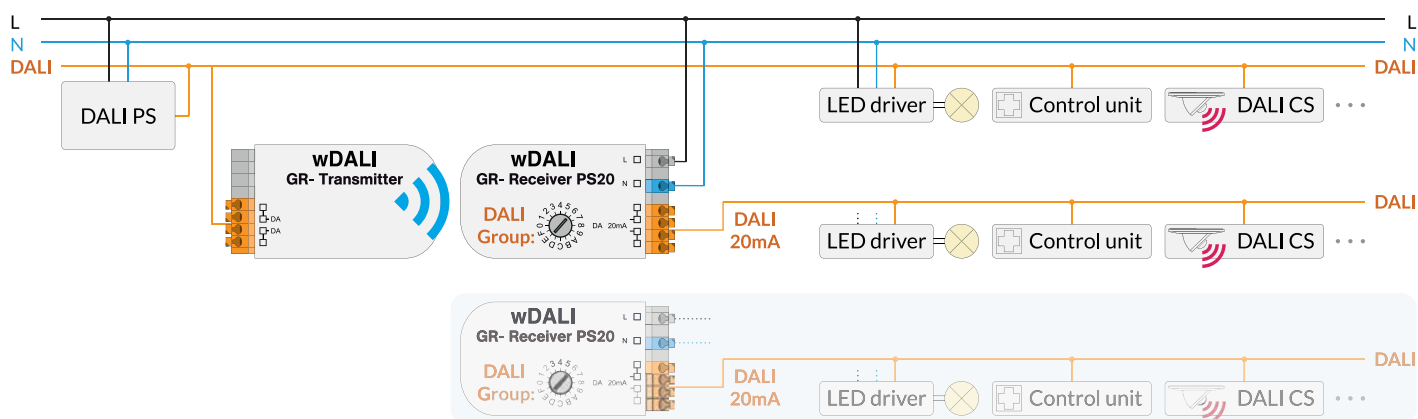
NAME	ARTICLE NUMBER	SUPPLY	TYP. CURRENT CONSUMPTION DALI	INTEGRATED DALI POWER SUPPLY OUT	MODEL	DIMENSIONS (MM)
DALI Repeater DIN Rail	86458401	via DALI line	6mA	-	for DIN Rail	98 × 17.5 × 57
DALI Repeater PS	86458401-PS	via DALI line / 100-240V AC	2mA	200mA	with strain relief for suspended ceilings	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	FREQUENCY RANGE	MODEL	DIMENSIONS (MM)
wDALI GR Transmitter	86459587-GRTM	-	2,4 Ghz	for flush-type boxes	59 × 33 × 15
wDALI GR Receiver PS20	86459587-GRRPS	20mA	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.

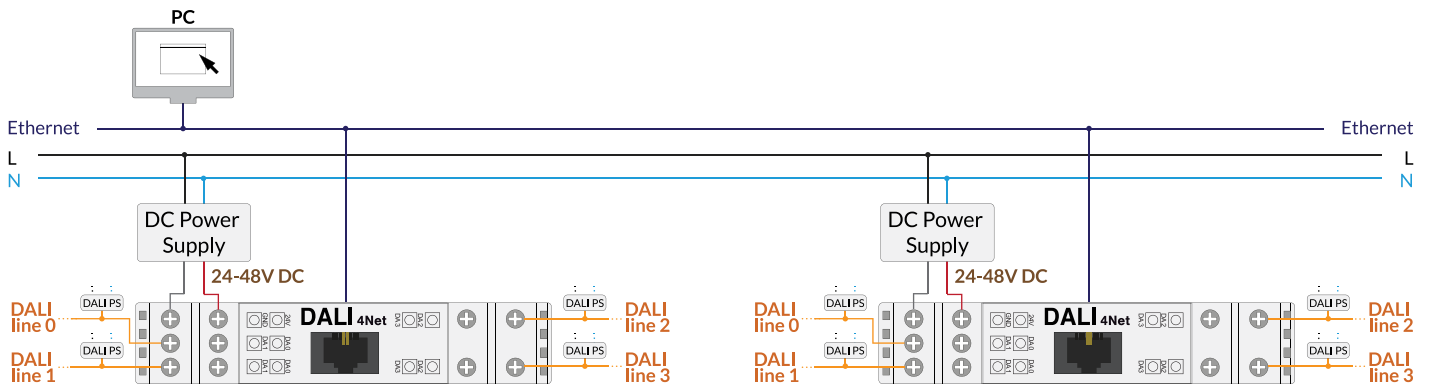
DALI devices and DALI LED dimmers can be configured via the DALI 4Net Ethernet interface and the DALI Cockpit Software. When configuring a device in a system including a DALI 4Net, additional options will be available, e.g. whether the control unit should only control the local bus, several buses or a 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 above-mentioned 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	✓	✓	✓
DALI 4Net Basic	22176666-B	4xDALI, Ethernet	24V DC	98 × 17.5 × 57	✓	✓	-



15 zones can be defined. Up to 4 groups can be assigned to each zone, one from each DALI line.

"Crossline Operations" extends the effective command range to multiple DALI lines or custom zones.

The screenshot shows the configuration interface for the DALI 4Net unit. The 'Zones' tab is active, displaying a table for defining 15 zones across four DALI lines. The 'Settings' tab is also visible, showing input mode, threshold, trigger, and destination address settings.

	DALI Line 1	DALI Line 2	DALI Line 3	DALI Line 4
Zone 1:	Group 0	Group 0	Group 3	Group 5
Zone 2:	Group 2	Group 2	Group 2	Group 2
Zone 3:	Group 6	not used	Group 7	not used
Zone 4:	not used	not used	not used	not used

Settings

Input 1 Input 2 Input 3 Input 4

Input Mode: ☐ Digital ☒ Analog

Input Threshold for OFF (0% - 100%): 1%

Trigger: ☐ Periodic ☒ 1% Input Voltage

Destination Address: ☒ Local Bus Operations ☒ Crossline Operations

☒ DALI Lines: ☒ Line 0 ☐ Line 1 ☐ Line 2 ☐ Line 3

All (DALI Broadcast)

☐ DALI Zone: Zone 0

Power up: Action after power up: no change

Delay: 0 [0...7sec]



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	✓	-	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

DALI 4Net

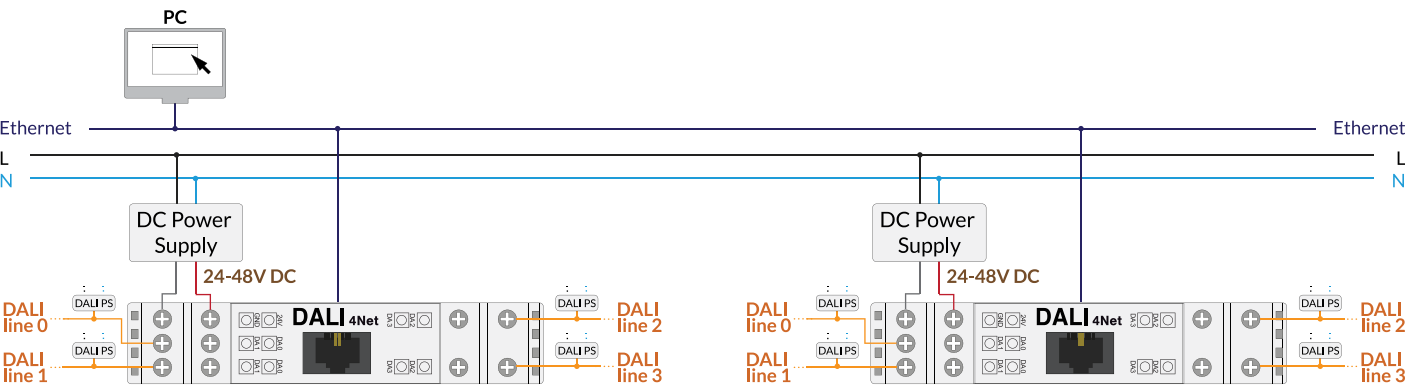
The compact 1DU DIN Rail module enables the control of 4 DALI lines, i.e. up to 256 DALI operating devices. With the help of external DALI bus supplies, the system is efficiently scalable. The DALI 4Net supports communication between the 4 DALI lines (Crossline Operations), this is realised with the 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 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 above-mentioned 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	✓	✓	✓
DALI 4Net Basic	22176666-B	4xDALI, Ethernet	24V DC	98 × 17.5 × 57	✓	✓	-



15 zones can be defined. Up to 4 groups can be assigned to each zone, one from each DALI line.

DALI Commands **Zones**

	DALI Line 1	DALI Line 2	DALI Line 3	DALI Line 4
Zone 1:	Group 0	Group 0	Group 3	Group 5
Zone 2:	Group 2	Group 2	Group 2	Group 2
Zone 3:	Group 6	not used	Group 7	not used
Zone 4:	not used	not used	not used	not used

Settings **Input 1** **Input 2** **Input 3** **Input 4**

Input Mode
☐ Digital
☒ Analog

Input Threshold for OFF (0%..10%)
1%

Trigger
☐ Periodic
☒ 1% Input Voltage

Destination Address
☐ Local Bus Operations
☒ Crossline Operations

☒ DALI Lines
☒ Line 0 ☐ Line 1 ☐ Line 2 ☐ Line 3
All (DALI Broadcast)

☐ DALI Zone
Zone 0

Power up
Action after power up:
no change
Delay: 0 [0...7s]

"Crossline Operations" extends the effective command range to multiple DALI lines or custom zones.

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.



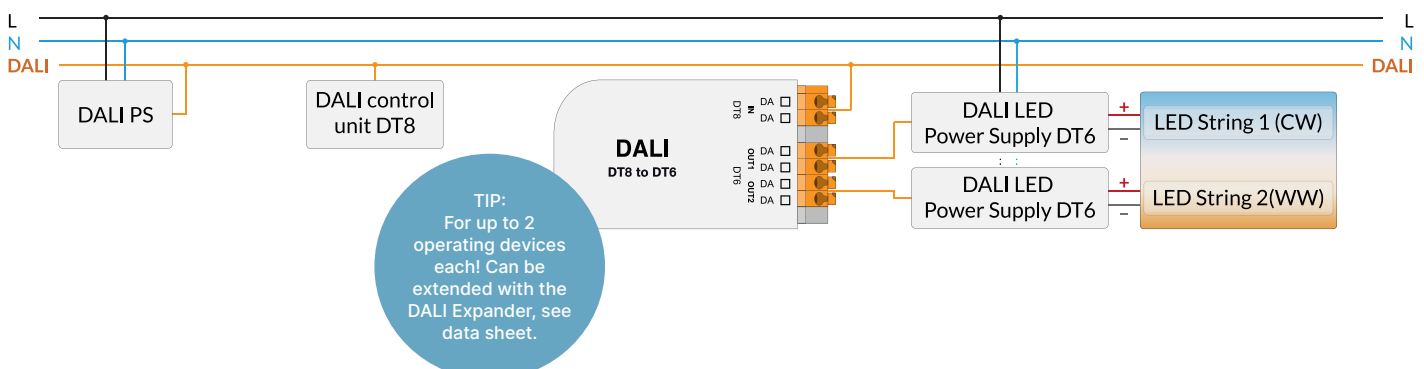
NAME	ARTICLE NUMBER	SUPPLY	TYP. CURRENT CONSUMPTION DALI	SCI PROTOCOL	TYP. CURRENT CONSUMPTION SCI	INTEGRATED DALI POWER SUPPLY	MODEL	DIMENSIONS (MM)
DALI SCI RS232	22176438-HS	6-24V DC	10mA	RS232, 38400Baud, 8 databits, no parity, 1 stop bit (38400,8,n,1)	5mA	-	for DIN Rail	98 × 17.5 × 57
DALI RS232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



NAME	ARTICLE NUMBER	TYP. CURRENT CONSUMPTION DALI	OUTPUT	MODEL	DIMENSIONS (MM)
DALI DT8 to DT6	89453859	2mA + current consumption sub-line	2xDALI	for flush-type boxes	40 × 28 × 15

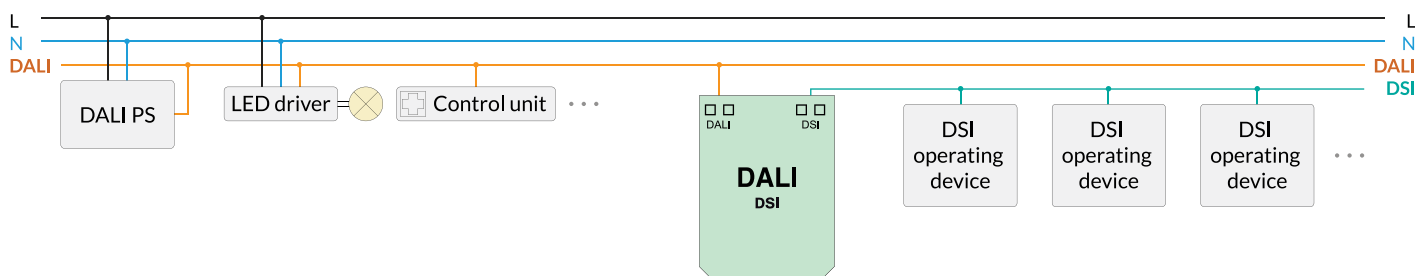


DALI DSI - converting DALI to DSI

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.



NAME	ARTICLE NUMBER	SUPPLY	TYP. CURRENT CONSUMPTION DALI	DIMENSIONS (MM)
DALI DSI	24034689	via DALI line	16 mA	41×30×11



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.

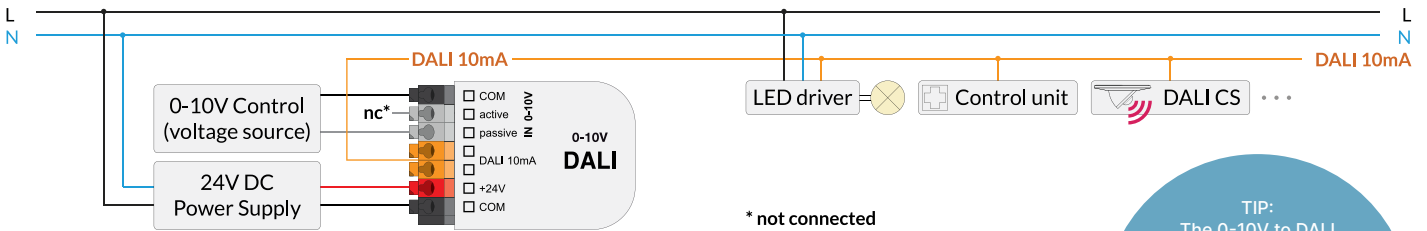


NAME	ARTICLE NUMBER	SUPPLY VOLTAGE	FUNCTION WHEN <1V	DIMMING RANGE	INTEGRATED DALI POWER SUPPLY	DIMENSIONS (MM)
0-10V to DALI Converter	86468352-001	12 - 24V DC	OFF	1 - 100 %	10mA	40 × 28 × 15
0-10V to DALI Converter	86468352-010	12 - 24V DC	OFF	10 - 100 %	10mA	40 × 28 × 15
0-10V to DALI Converter	86468352-101	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

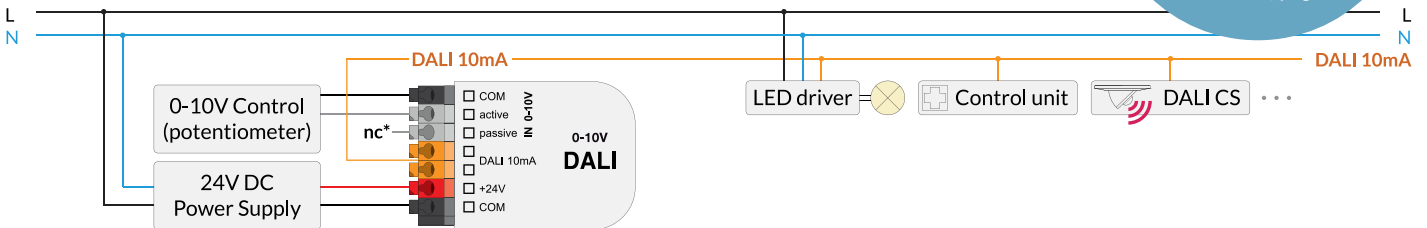
typical application with 0-10V voltage at the passive 0-10V input

(0-10V control device = voltage source, e.g.: SPS)

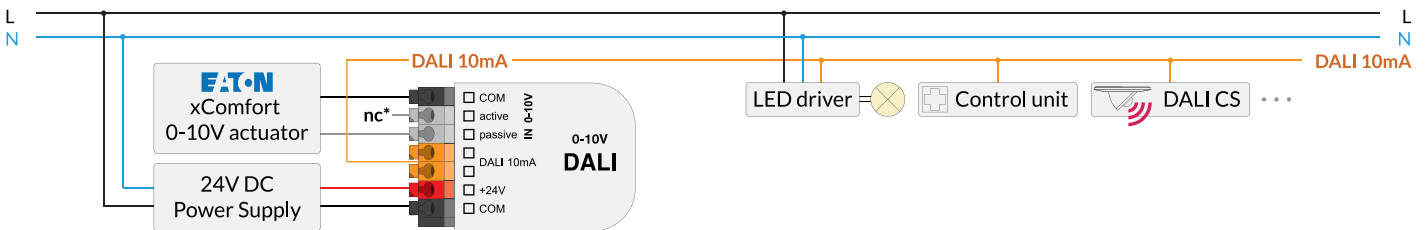


typical application with 100k potentiometer at the active 0-10V input

(0-10V control device = load)



Example: Control of DALI luminaires with xComfort by EATON



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

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.



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

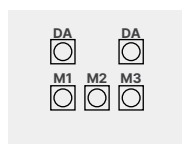
0-10V DALI - converting 0-10V to DALI with integrated 30mA Bus Power Supply

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.

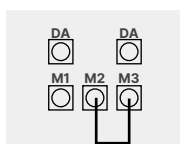


NAME	ARTICLE NUMBER	SUPPLY VOLTAGE	FUNCTION WHEN <1V	DIMMING RANGE	INTEGRATED DALI POWER SUPPLY	MODEL	DIMENSIONS (MM)
0-10V to DALI Converter 30mA	86468352-HS	12 - 24V DC	variable (jumper)	variable (jumper)	30mA	for DIN Rail	98 × 17.5 × 57

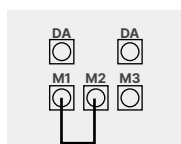
Changing the dimming characteristic via jumpers by connecting either M1, M2, M3:



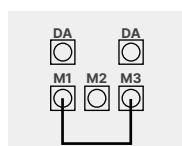
V1: Dimming: 1-100% <1V: OFF
(red curve)



V2: Dimming: 10-100% <1V: OFF
(red curve)



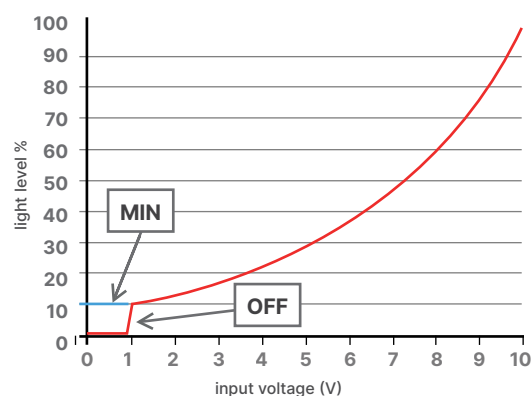
V3: Dimming: 1-100% <1V: MIN (1%)
(blue curve)



V4: Dimming: 10-100% <1V: MIN (10%)
(blue curve)

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).

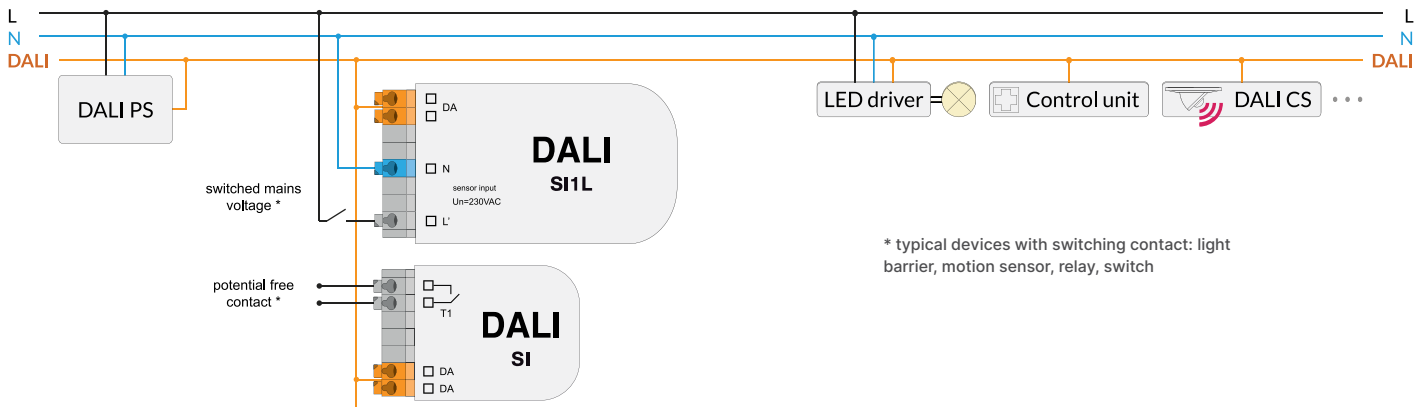


DALI SI, SI-1L

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

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

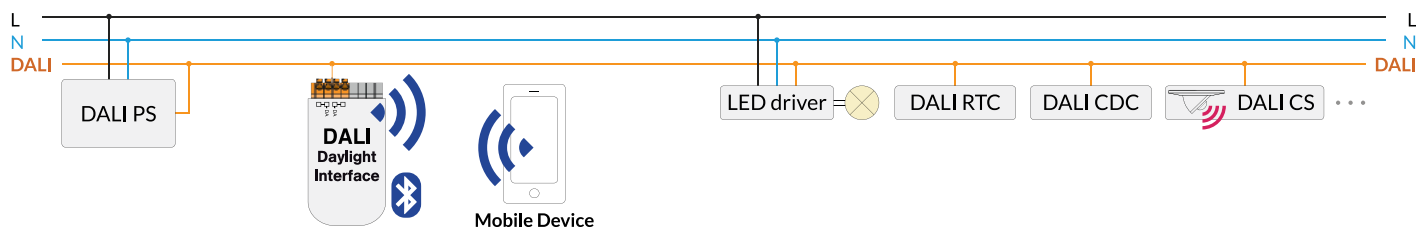
- DALI CDC: changing circadian curve settings (start, peak, end)
- DALI RTC: definition of 2 switching intervals per weekday
- DALI CS: setting light level and hold time
- DALI LS: switching between manual and automatic light level control, specifying the reference light level

DALI Daylight

Here you can download the app for your smartphone:



NAME	ARTICLE NUMBER	SUPPLY	TYP. CURRENT CONSUMPTION DALI	DIMENSIONS (MM)
DALI Daylight Bluetooth Interface	89453863	via DALI line	4mA	59 × 33 × 15



DALI Bluetooth Interface

DALI Bluetooth Interface enables the control of DALI systems with iOS and Android devices via the DALI Touch App. Individual layouts and menus can be stored on www.dalitouch.com and shared with other users. The Bluetooth-devices have a range of about 10-15m.

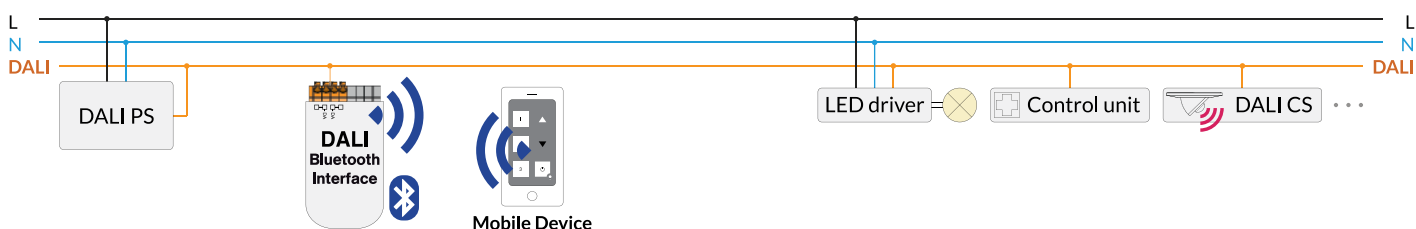
DALI Touch

Here you can download the app for your smartphone:

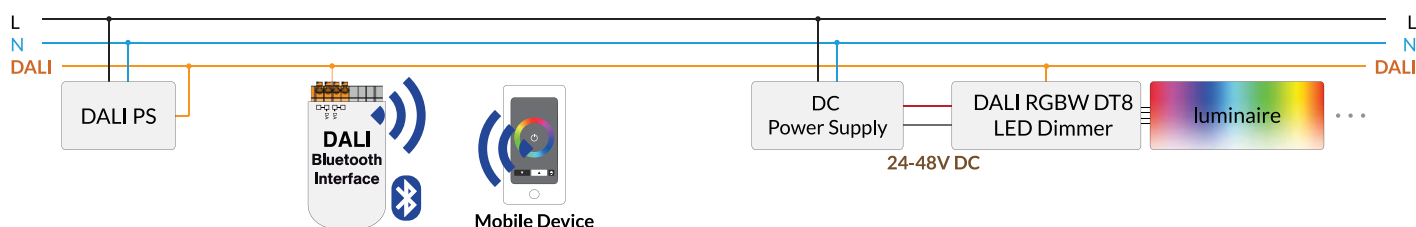


NAME	ARTICLE NUMBER	SUPPLY	TYP. CURRENT CONSUMPTION DALI	DIMENSIONS (MM)
DALI Bluetooth Interface 4.0	89453584	via DALI line	4mA	59 × 33 × 15

Typical setup for scene and group arrangements:



Typical setup for colour and colour temperature control:

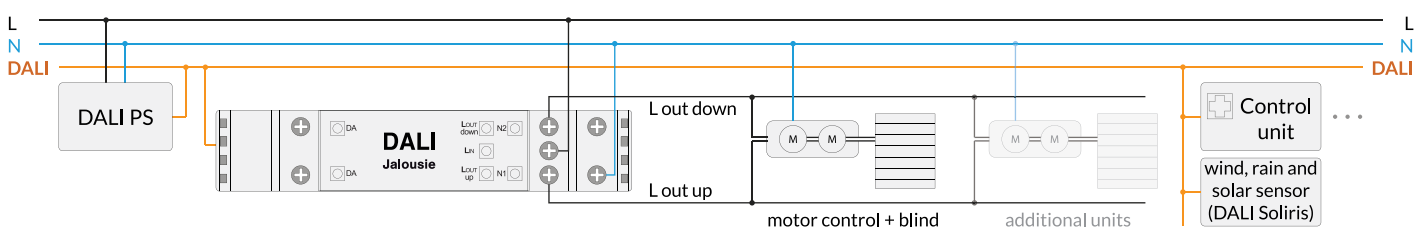


DALI Jalousie

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).



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



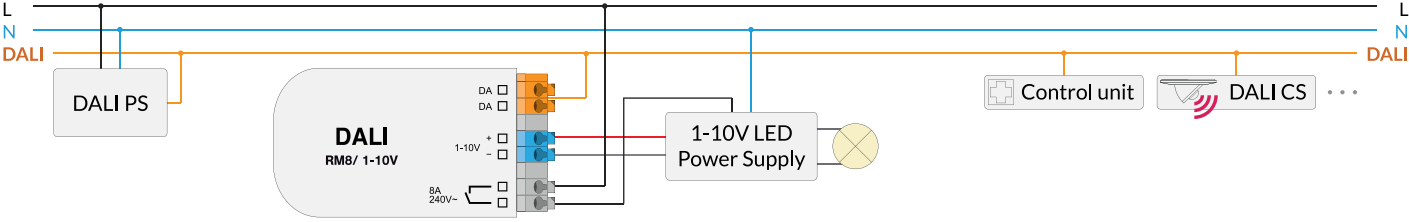
DALI RM8 / RM16 0-10V - operating devices with 0-10V control input

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.





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

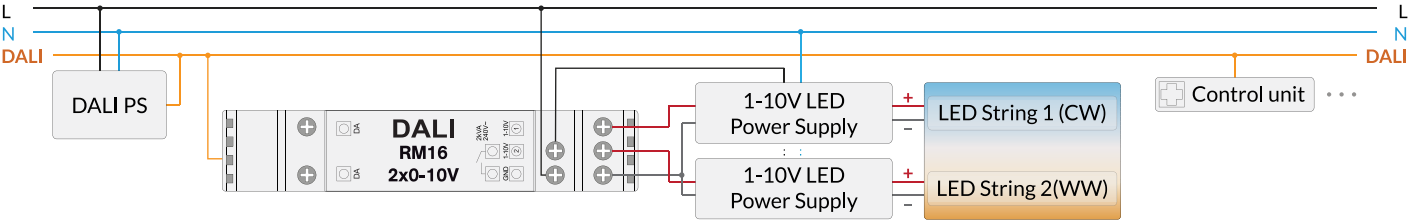
DALI RM8 / RM16 2×0-10V - operating 2 devices with 0-10V control input

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	8A	1 on/off	channel 2: 1-10V analog, current sink 1mA	with strain relief for suspended ceilings	120 × 30 × 22

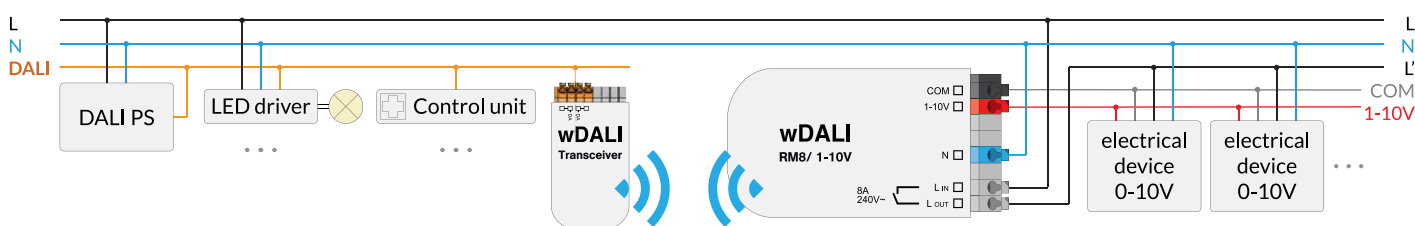


wDALI RM8 0/1-10V PWM - wireless relay module with 0/1-10V PWM control output

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

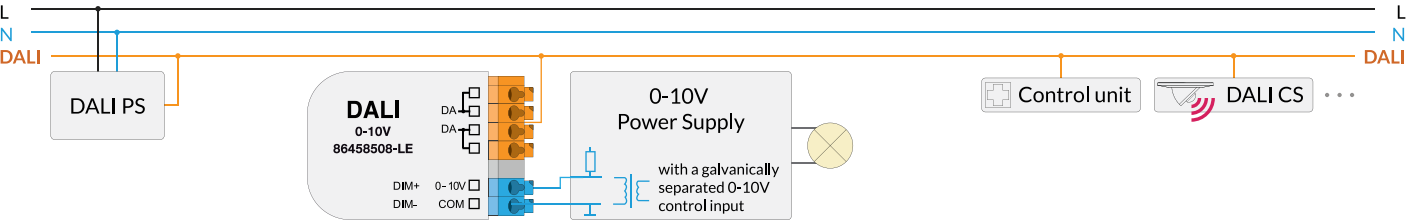
These interfaces convert DALI signals into 0-10V, 1-10V or PWM control signals, thus enabling the integration of electrical devices with 0-10V control inputs into a DALI system, see table.

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.

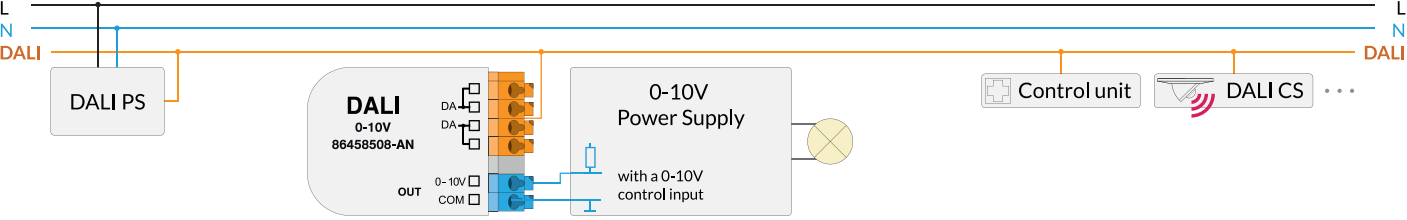


NAME	ARTICLE NUMBER	GALVANIC ISOLATION: INPUT - OUTPUT	OUTPUT	MODEL	DIMENSIONS (MM)
DALI 0-10V analog	86458508-LE	no	0-10V (0%-100%) analog voltage 1mA max. (current sink)	for flush-type boxes	40 × 28 × 15
DALI 0-10V analog, galv. isolation	86458508-AN	yes	0.6V-10V analog voltage 100uA-1mA	for flush-type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

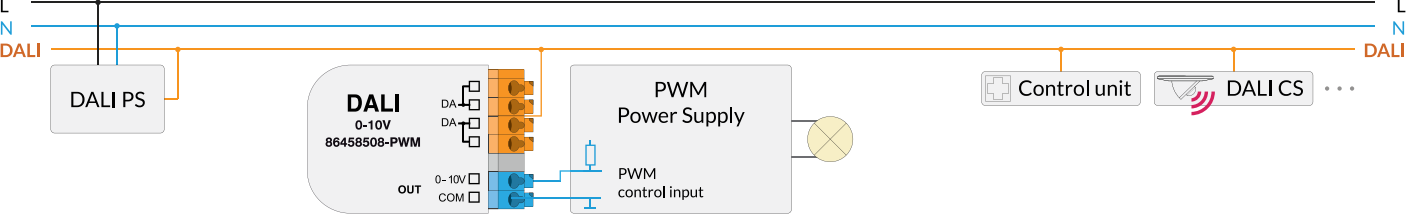
86458508-LE enables the integration of electrical devices with integrated galvanic isolation and 0 or 1-10V control input



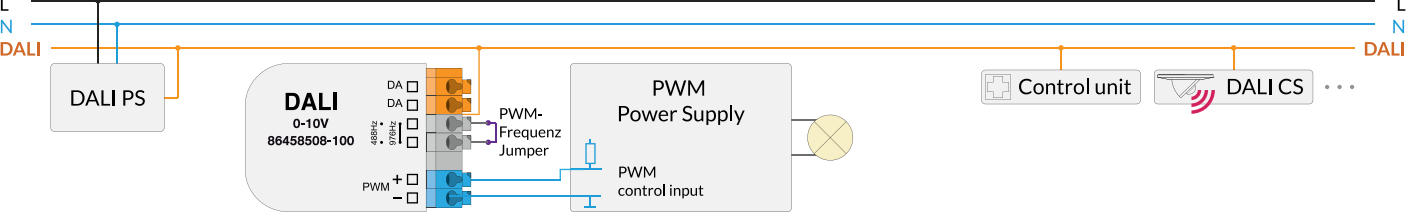
86458508-AN enables the integration of electrical devices with 0 or 1-10V control input



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



DALI Cockpit - PC Software

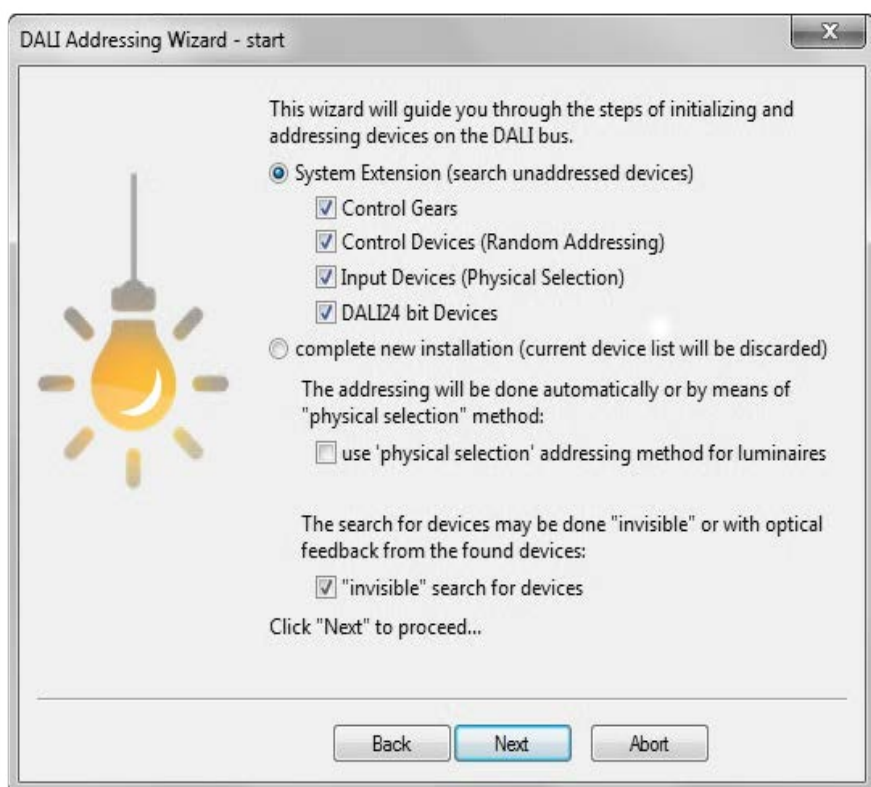
DALI Cockpit is a user-friendly desktop application to commission, address and configure devices in a DALI system. The Software is currently available for free and can be downloaded from www.lunatone.com. The following functions are supported: addressing DALI devices, configuring Lunatone DALI components, 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

1. 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.
2. 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.

5. Create scenes:

the following scene types can be selected:
Brightness, DT8 RGBWAF colours, DT8 Tc (Kelvin values e.g. 2700K) or DT8 XY

effective range of the scene: entire DALI bus (broadcast), a group or address

Double-clicking on the color field opens the RGB color picker

the settings can be saved in a scene

save settings!

The 'Scenes configuration' window displays various settings for creating a scene. It includes a 'Destination Address' dropdown set to 'All (DALI Broadcast)', a 'Scene type' section with radio buttons for 'Level only', 'DT8 RGBWAF' (selected), 'DT8 Tc', and 'DT8 XY', and a 'Scene set' grid with 15 color swatches. Below these are 'Scene Settings' for 'Scene 7', including sliders for Act, R, G, B, W, A, and F, and a 'MASK' column. At the bottom are buttons for 'Read all', 'Store all', 'Preview scenes', and 'Close'. An 'RGB Colour Selection' dialog is open, showing a color field with a selected color (R=7, G=193, B=29) and a 'Close' button.

6. 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.

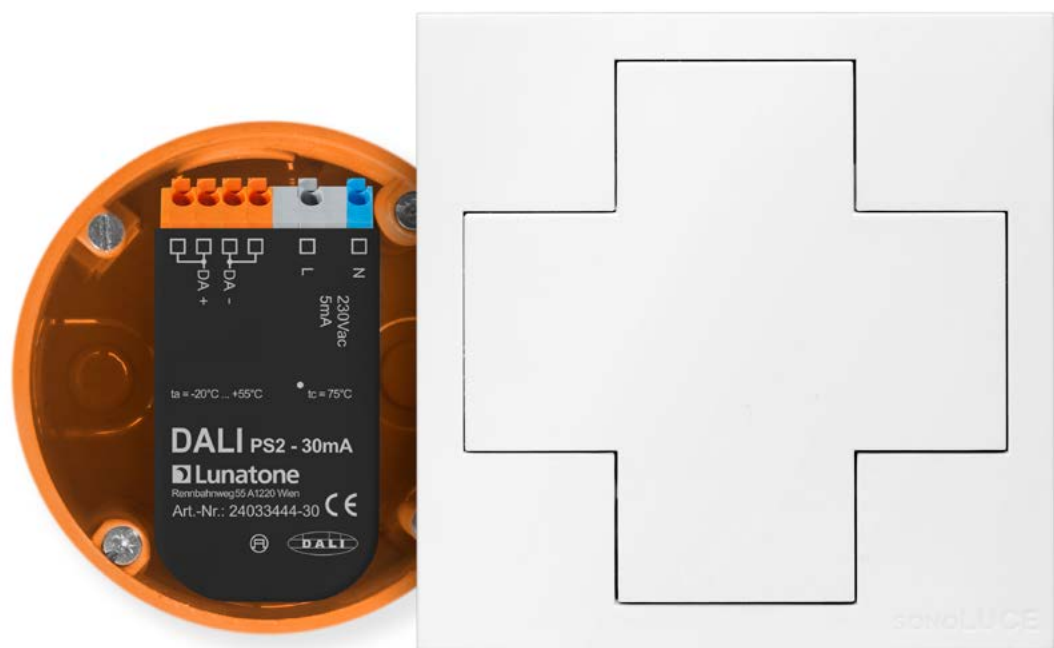
1. select the button that should be programmed

2. select the effective range: entire DALI bus (broadcast), up to 4 groups or up to 4 addresses

3. define the function of the button: press briefly, press and hold, key, etc. - various operating combinations are available

4. commands can be assigned to previously defined button functions: e.g. "RECALL MAX" or "OFF"

The 'DALI Switch Cross' configuration window shows settings for a device named 'DALI Switch'. It includes fields for 'Article Number' (86459793), 'Serial Number' (N/A), 'Firmware Ver' (2.0), and 'Short Address' (eA1). The 'Settings' tab is active, showing 'Button 1' configuration. It includes a 'Destination Address' section with four rows for Group, Address, and two other fields, all set to 'none'. The 'Function' is set to 'BF6 Dim button: CmdX/CmdY/UP/DOWN depending on actual light level'. Below this are two dropdown menus for 'Cmd X (ON Cmd)' (set to 'RECALL MAX') and 'Cmd Y (OFF Cmd)' (set to 'OFF'). A 'Power up' section shows 'Action after power up' set to 'no change' and 'Delay' set to '0 [0...7sec]'.



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