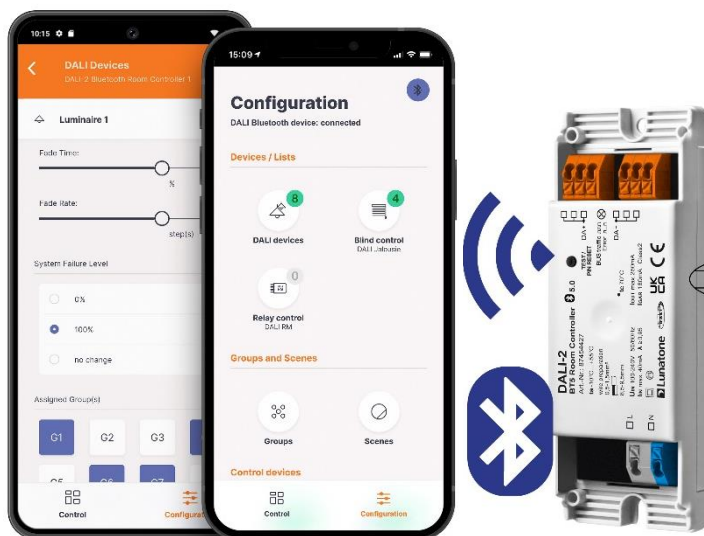




DALI-2 BT5 Room Controller

Datasheet
Bluetooth 5.0 Interface



DALI-2 Bluetooth Interface
for commissioning,
configuration and control
of DALI systems using
the smartphone app
DALI Cockpit Mobile

Art.Nr. 87454427

DALI-2 BT5 Room Controller Bluetooth 5.0 Interface

Overview

- DALI-Bluetooth Interface
- Unit for commissioning, configuration and control of a DALI system via Bluetooth using the Lunatone smartphone application DALI Cockpit Mobile
- Output with DALI power supply (200mA) for the supply of up to 64 DALI devices
- Enables simple room solutions
- Test button for functional testing
- Smartphone application for easy configuration of Lunatone devices. (List of supported devices see section "*Function*" on page 6.
- The interface description - LUBA protocol is available for the implementation of your own user interfaces (see section "*Additional information*" on page 7).

Specification, Characteristics

type	DALI-2 BT5 Room Controller
article number	87454427
input: L, N	
input type	supply, mains- voltage
marking terminals	L, N
input voltage range	100Vac ... 240Vac
max. input supply current	40mA (@120Vac), 20mA (@240Vac)
input supply frequency	50Hz / 60Hz
max. power consumption	5,3W
start-up time	250ms
output: DA+, DA-	
output type	DALI supply
marking terminals	DA+, DA-
voltage range	12Vdc ... 20,5Vdc
guaranteed DALI supply current	180mA
max. DALI supply current	250mA
open circuit proof	yes
short circuit proof	yes
insulation data:	
impulse voltage category	II
pollution degree	2
rated insulation voltage	250V

insulation DALI (DA+, DA-) / supply (L, N)	reinforced isolation
insulation test voltage DALI- output/mains	3000Vac

environmental conditions:

storing and transportation temperature	-20°C ... +75°C
operational ambient temperature	-10°C ... +55°C
rel. humidity, none condensing	15% ... 90%

general data:

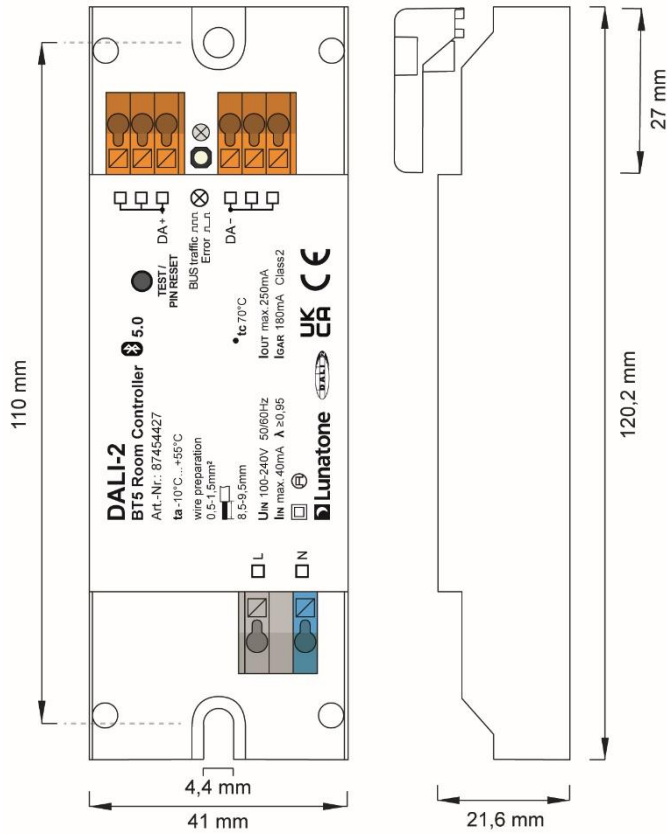
dimensions (l x w x h)	120mm x 41mm x 22mm
mounting	remote ceiling integration in class II devices
rated max. temperature tc	70°C
expected life time @tc	50.000 h
protection class	II in intended use
protection degree housing	IP40
protection degree terminals	IP20

terminals:

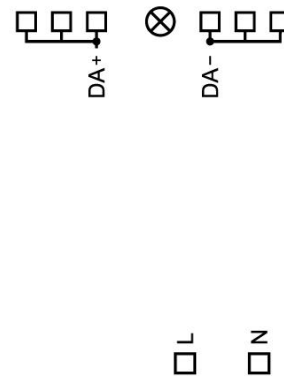
connection type	spring terminal connector
wire size solid core	0,5 ... 1,5 mm ² (AWG20 ... AWG16)
wire size fine wired	0,5 ... 1,5 mm ² (AWG20 ... AWG16)
wire size using wire end ferrule	0,25 ... 1 mm ²
stripping length	8,5 ... 9,5mm / 0,33 ... 0,37inch
locking torque	-
release of wire	push button

standards:

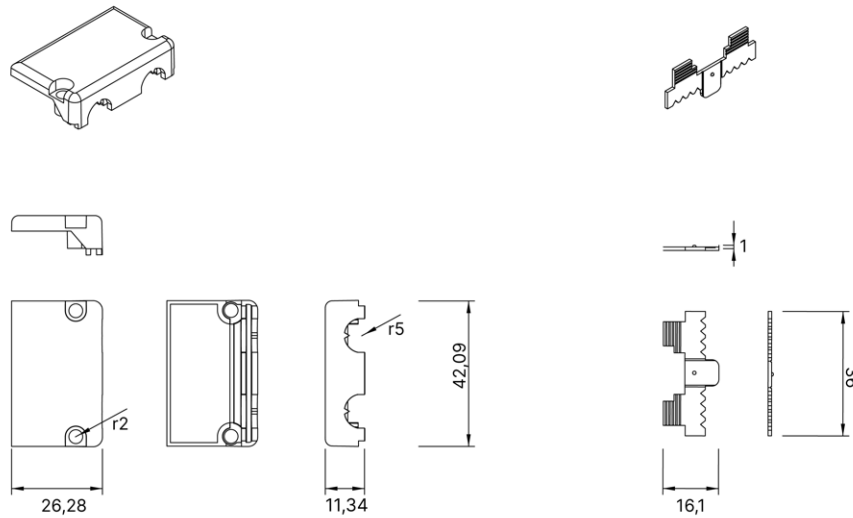
DALI	EN 62386-101
EMV	EN 61547 EN 50015 / IEC CISPR15
safety	EN 61347-2-11 EN 61347-1
markings	CE



dimensions



connection plan



standard strain relief cover for 120x41x22mm

Installation

- The Room Controller is intended for remote installation in the ceiling or in an enclosure, ensure proper cable relief for installation in protection class II devices.
- The wiring should be carried out as a permanent installation in a dry and clean environment.
- Installation may only be carried out in a voltage-free state of the system and by qualified specialists.
- National regulations for setting up electrical systems must be followed.
- connect power supply terminals L and N to mains voltage according to the labelling.
- the polarity of the output voltage is marked on the housing (DA+, DA-)
- The DALI line may be routed together with the mains voltage (in one cable or as single wires in a tube).
- The DALI-line must **not** be connected to the mains or extra low voltage systems.
- Only 1 wire may be connected to each terminal. When using double wire end

ferrules, the connection capacity of the terminal must be considered.

- The DALI wiring can be realised with standard low-voltage installation material. No special cables are required.
- Wiring topology of the DALI-line: Line, Tree, Star.
- Wiring check by pressing the test button: the LED is flashing and all luminaires connected to the DALI system will be controlled by a test sequence (on, off, dimming). To quit the test mode, press the test button again.



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



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



Attention: an additional and/or unsuitable DALI power supply can cause damage of the DALI devices!

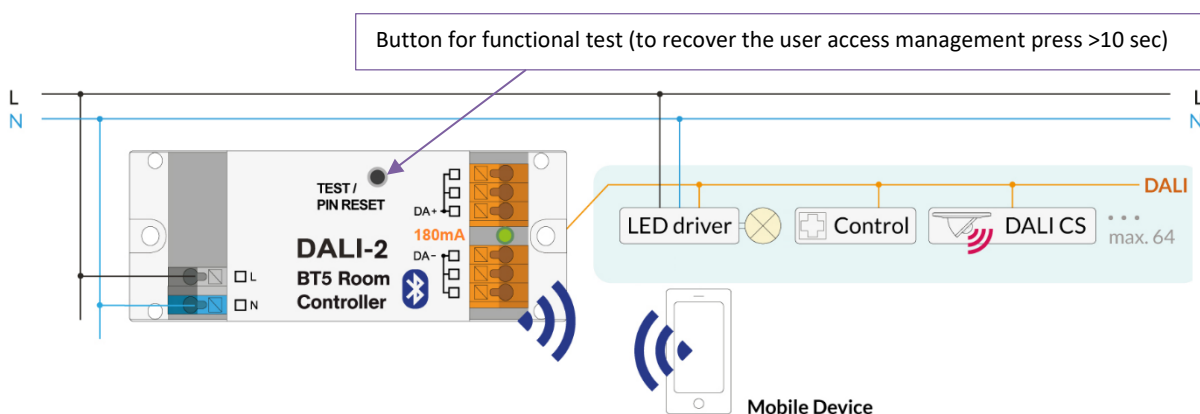


Fig. 1 Installation Room Controller – typical Application

Commissioning

- After installation, the DALI-Room Controller is ready for use.
- It must be ensured that the maximum power consumption on the DALI line does not exceed the guaranteed output current (200mA) of the DALI Room Controller at any time.
- The DALI Room Controller can be connected to the smartphone application DALI Cockpit Mobile to configure and control the devices on the DALI bus.
- The connection of a smartphone with the DALI Room Controller is possible via Bluetooth.
- Pressing the test / PIN reset button for > 10 seconds (LED on the device lights up), enables recovery of the user access management in the smartphone application (for instructions see the [app manual](#)).
- Status-LED:
 - flashing 5Hz, 50% on: test mode
 - flashing 2Hz, 5% on : error (Overload / short circuit)
 - flashing 2Hz, 90% on: activity

Function

The DALI Room Controller serves as an interface between Bluetooth and DALI. Simplified, the packets received via Bluetooth are converted into corresponding DALI commands and vice versa. This means that devices connected to the DALI bus can be operated and configured via the Bluetooth interface.

The Bluetooth Room Controller provides the power supply (200mA) for the DALI bus.

Therefore, simple room solutions can be easily implemented with the DALI Room Controller.

The Lunatone smartphone application [DALI-Cockpit Mobile](#) offers a clear and simple interface for controlling and configuring Lunatone devices on the DALI bus. The following devices are currently supported by the smartphone application:

Operating devices:

- DALI Dimmer – Standard DALI settings of DALI gears (by Lunatone or other manufacturers)
- DALI Jalousie Module (Art. Nr.: 86458676)
- DALI Relay Module (Art. Nr.: 86458675, Art. Nr.: 86458629)

Sensors:

- DALI-2 CS (Art. Nr.: 86458670, Art. Nr.: 86457244, Art. Nr.: 88793325)

Control / Input Devices:

- DALI-2 Touchpanel (Art. Nr.: 24035410)
- DALI-2 Switch Cross (Art. Nr.: 86459793-*Farbcode-2*)
- DALI-2 MC (Art. Nr.: 86459532-2)
- DALI-2 MC4L (Art. Nr.: 86458507-4L-2)
- DALI Rotary (Art. Nr.: 86459822, Art. Nr.: 86459822-TW, Art. Nr.: 86459822-RGB, Art. Nr.: 86459822-RGBW)

Further control devices (max 1pcs each per Room Controller):

- DALI CDC (Art. Nr.: 89453853)
- DALI RTC (Art. Nr.: 86459531)
- DALI-2 Sequencer (Art. Nr.: 89453371)

Communication between the smartphone app and the DALI room controller takes place using the proprietary [Lunatone Universal Building and Automation Protocol \(LUBA-Protocol\)](#).

The protocol documentation is available in the downloads section. (or section “*Additional Information*” for the download link).

Purchase Information

Art.Nr. 87454427: DALI Room Controller,
Bluetooth – DALI interface with integrated bus
power supply, remote ceiling

Additional Information and Equipment

Smartphone Application “DALI Cockpit
Mobile” Manual:

https://www.lunatone.com/wp-content/uploads/2020/11/87454427_DALI-2_BT5-Room-Controller_APP_EN_M0020.pdf

Lunatone Universal Building and Automation
Protocol (LUBA) - Documentation

https://www.lunatone.com/wp-content/uploads/2021/04/LUBA_Protocol_EN.pdf

Lunatone datasheets, manuals and software
<http://www.lunatone.com/downloads-a-z/>

Lunatone DALI products
<http://www.lunatone.com>

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Disclaimer

Subject to change. Information provided without guarantee.
The datasheet refers to the current delivery.

The function in installations with other devices must be tested
for compatibility in advance



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