

DALI Proxy

Datasheet

DALI System Extension

device for simple
DALI line expansion

Art. Nr. 89452887



DALI Proxy DALI System Extension

Overview

- Device for simple DALI line expansion
- Enables the control of two DALI devices via one DALI address
- Allows simple lamp or dimmer replacement without re-addressing!
- For the superordinate DALI line, the DALI Proxy acts as a DALI EVG (DALI IN) with a single address
- Two Outputs (DALI OUT) with DALI power supply (each 4mA), for control of two DALI EVGs
- Broadcast forwarding of DALI commands received at the input (DALI IN) to the outputs (DALI OUT) – i.e. the received DALI commands are broadcasted to the underlying devices.



Specification, Characteristics

type	DALI Proxy
article number	89452887
input: DA, DA	
input type	DALI control input
marking terminals	DA, DA
input voltage range	12V ... 22,5V ¹
current consumption DALI	4.5mA + I _{out}
output: DA+, DA-	
output type	2x DALI bus power supply
marking terminals	DA1+, DA1- DA2+, DA2-
output voltage range	10Vdc ... 20,5Vdc
guaranteed /max DALI supply current	4mA / 250mA each
open circuit proof	yes
short circuit proof	yes
insulation data:	
impulse voltage category	II
pollution degree	2
rated insulation voltage	250V
insulation DALI input / output (DA+, DA-)	not isolated
insulation test voltage housing	3000Vac

¹ at least 12V to ensure the necessary current and bus voltage (>10.5V) on the output side.

environmental conditions:

storing and transportation temperature	-20°C ... +75°C
operational ambient temperature	-20°C ... +60°C
rel. humidity, none condensing	15% ... 90%

general data:

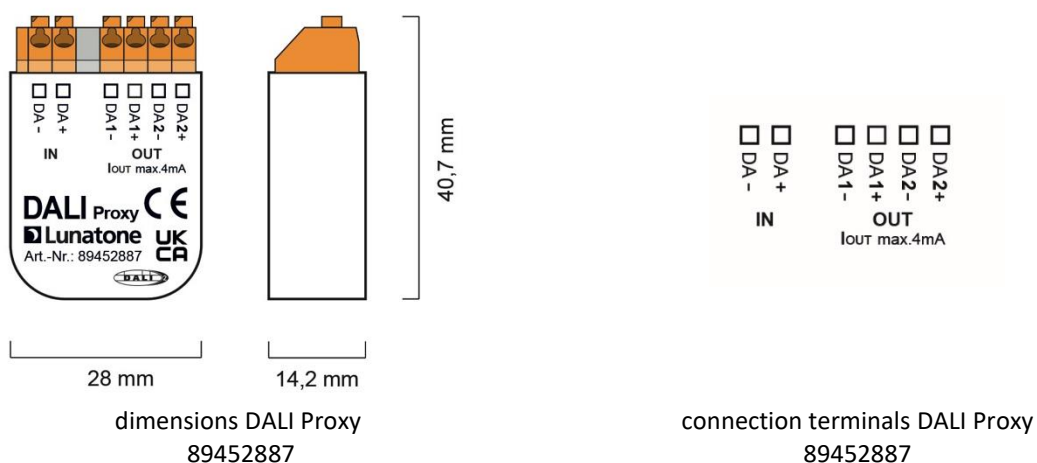
dimensions (l x w x h)	40mm x 28mm x 15mm
mounting	back box installation
rated max. temperature tc	70°C
expected life time @tc	100.000 h
protection class	II (when used/installed as intended)
protection degree housing	IP40
protection degree terminals	IP20

terminals:

connection type	spring terminal connectors
wire size solid core	0,5 ... 1,5 mm ² (AWG20 ... AWG16)
Wire size stranded 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
release of wire	push button

standards

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



Installation

- The DALI Proxy can be installed in a flush-mounted installation box or in an enclosure. When installing in protection class II devices, proper strain relief must be ensured.
- The wiring should be carried out as a permanent installation in a dry and clean environment.
- Installation may only be carried out in a voltage-free state of the system and by qualified specialists.
- National regulations for setting up electrical systems must be followed.
- the 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)
- The DALI line must **not** be connected to mains voltage or another extra low voltage (SELV) system
- 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 structure



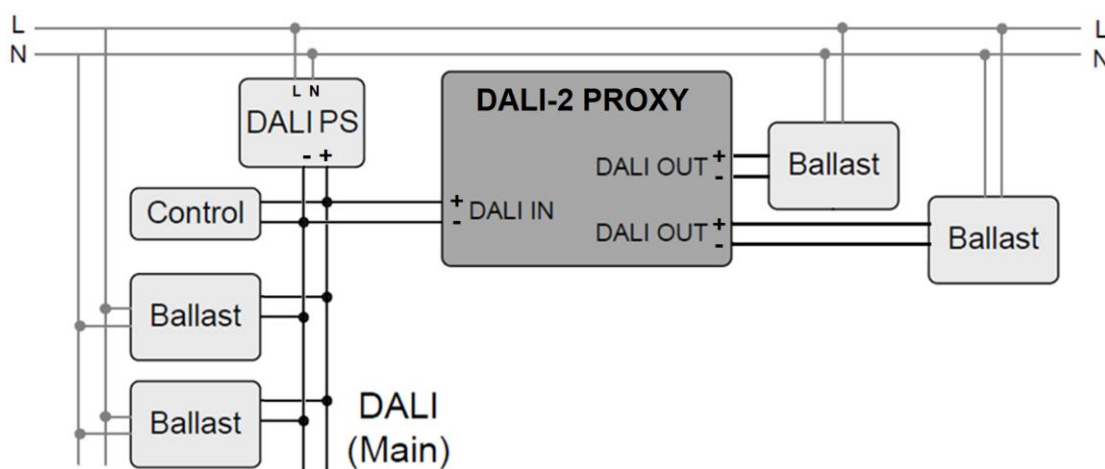
Attention: The DALI signal is not classified as SELV circuit (Safety Extra Low Voltage). Therefore, the installation regulations for low voltage apply.



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



Attention: an unsuitable DALI power supply can lead to defects in DALI devices!



Expansion of a DALI line (Main) with a DALI Proxy (all control commands sent to the address of the DALI Proxy are broadcasted to the 2 underlying DALI devices)

Addressing and Configuration

- After wire connection the DALI Proxy is ready for operation
- It must be ensured that the maximum current consumption of the DALI devices on the output side does not exceed the guaranteed output current (4mA per output) of the DALI Proxy
- The DALI Proxy can be addressed with the DALI Cockpit PC Software.
When using the DALI Cockpit Software, the PC must be connected to the DALI bus via a suitable interface module (DALI USB, DALI 4Net, DALI SCI RS232). The DALI Proxy is automatically recognised by the DALI Cockpit during the addressing process and listed in the device overview.
- Scene values, groups and other settings of the DALI devices at the output can be configured in the DALI Cockpit via the DALI Proxy.

Function

The DALI Proxy is used for a simple DALI line expansion and enables an easy exchange of the devices connected to the output without re-addressing.

On the input side (DALI IN) the DALI Proxy represents one device (one DALI address) and can be handled like any DALI ballast.

All commands received by the device are forwarded broadcast to the underlying devices (DALI OUT). Hence the devices connected to DALI OUT can be controlled via the DALI address of the DALI Proxy. There are no restrictions regarding device-type specific commands for the forwarded commands – the device type as which the DALI Proxy should be recognized on the main DALI line can be set in the DALI Cockpit Software. The DALI 2 command "Go to Last Active Level" is also supported.

It is possible to periodically repeat DAP commands for the underlying devices (default=5s). This ensures that lights do not remain in the power-on level after phase failure and voltage recovery, but switch to the last recalled value.

A LAMP FAILURE of the DALI sub line can be queried. Because of the strict DALI Timing the answer from the DALI sub line is not received in time - to get a valid response, the query must be sent twice in a row.

DALI commands:

Query Actual Level (=255 on Lamp Failure)
 Query Status (Bit[1]=1 on Lamp Failure)
 Query LampFailure (answer = YES on LampFailure)

Purchase Information

Art.Nr. 89452887: DALI Proxy, device for simple DALI line expansion, back box installation, 40 x 28 x 15mm

Additional Information and Equipment

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

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

DALI Cockpit – free configuration tool from Lunatone for DALI systems
<https://www.lunatone.com/en/product/dali-cockpit/>

Contact

Technical Support: support@lunatone.com

Requests: sales@lunatone.com

www.lunatone.com



Disclaimer

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

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