Lunatone

0-10V to DALI Converter

Datasheet

Interface

Interface for converting 0-10V control signals to DALI dim levels

Art. Nr. 86468352-xxx-P
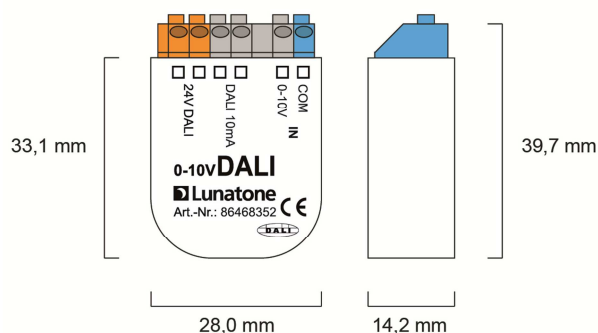Art. Nr. 86468352-xxx-A
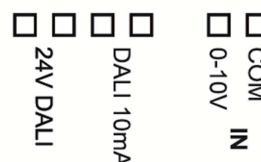
0-10V to DALI Converter Interface

Overview

- Compact interface module for the conversion of 0-10V control signals to DALI direct arc power dim levels.

- The interface module provides a DALI sub-line power supply for up to 4 standard DALI ballasts (10mA), up to 64 DALI ballasts controllable with the help of a DALI-Expander.

- The converted value is sent broadcast on the DALI subnet

- A change in the 0-10V input voltage signal (>1%) is used as trigger event.

- The interface module is supplied by either a 12-24V power supply

- Passive input (type P): the module does not supply any voltage at the 0-10V input, suitable to connect 0-10V analog signale (e.g. with a SIEMENS LOGO)

- Type A with active input available on request: the module provides a supply voltage at the 0-10V input, suitable for connecting a (linear) 100kΩ-potentiometer

- **A galvanic isolation between DALI-output (10mA) and 0-10V signal input or 24V supply input can be realised with the help of a DALI-Expander.**

Specification, Characteristics

type	0-10V / DALI Converter
article number	86468352
supply	12V-24V (polarity free)
typ. current consumption	4.1 + current for subnet ballasts
input	0-10V
output	DALI Imax=10mA
function	converter
temperature	0°C-50°C
protection class	IP20
connecting wire cross section	0.5-1.5 mm^2
wiring length to 0-10V control devices	50 cm
geometry	40 / 28 / 15 mm

33,1 mm   39,7 mm

24V DALI   DALI 10mA   0-10V   COM   **IN**

0-10VDALI

Lunatone CE
Art.-Nr.: 86468352
DALI

28,0 mm   14,2 mm
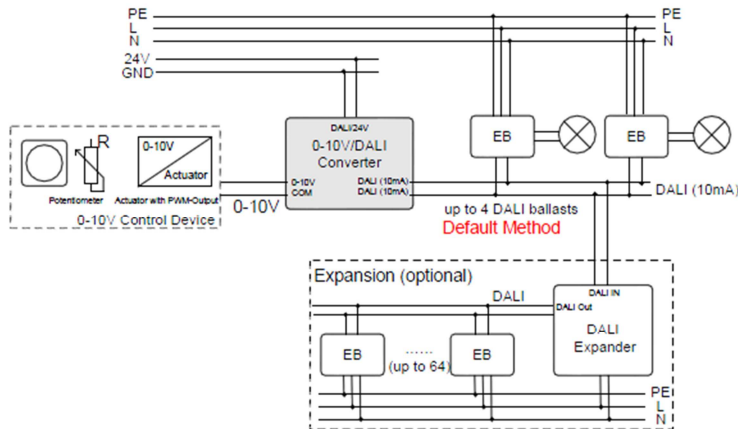
geometry

24V DALI   DALI 10mA   0-10V   COM   **IN**

connection plan

Type P: passive 0-10V input

Type A: active 0-10V input

0-10V source

```
        ┌──────→  0-10V
        │      I
   ┌────┴────┐
U  │    ⧄    │
0-10V└────┬────┘
        └──────  GND
```

Potentiometer

```
        ┌──────←  0-10V
   ┌────┤   I
   │    │ 100k
   │    │
   └────┴──────  GND
```
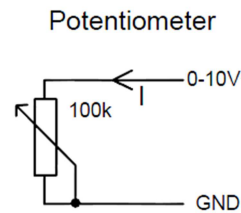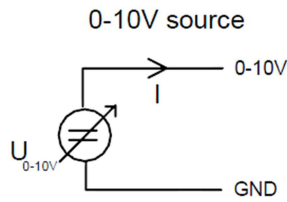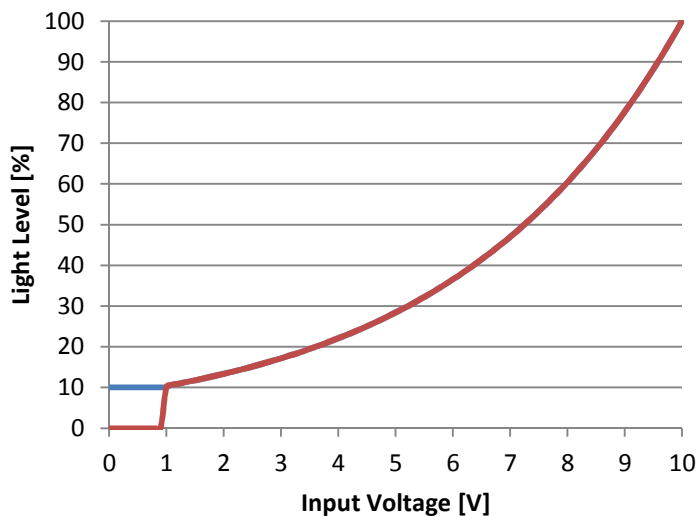
Application: StandAlone Solution

- 12V-24V powered
- Standalone solution for small DALI subnet (no DALI PS required)
- 0-10V values are sent on the DALI subnet broadcast

👉 **Hint**: More than 4 DALI-ballasts can be controlled by the use of a DALI-Expander (ArtNr. 89453847, integrated DALI PS for up to 64 DALI-ballasts)

👉 **Hint**: A DALI-circuit with separate DALI power supply can be controlled by a potentiometer using DALI 100k (ArtNr. 86458506) or DALI MC+ (ArtNr. 86459532).

0-10V to DALI conversion

Implemented Conversion Curve:
The input voltage range of 1V-10V is converted to the light level range of the connected DALI ballast.

The input voltage is converted to either 1%-100% or 10% -100% light level (depending on the type)

For a better visualisation the characteristics of the 10% types are shown.

ON/OFF:
Depending on the variant the converter behaviour below 1V is different. It is either switched OFF (red characteristic) or the Minimumlevel is sent (blue characteristic).

The light level is the ouput power of a standard DALI-ballast (IEC62386-102) which is connected to the converter.

Purchase Information

The types vary in dimming range, OFF-function and 0-10V input circuit (active/passive):

Types supporting OFF-function:

Art. Nr.: 86468352-001-P   1%-100%, OFF below 1V, 0-10V passive (default)

Art. Nr.: 86468352-001-A   1%-100%, OFF below 1V, 0-10V active

Art. Nr.: 86468352-010-P   10%-100%, OFF below 1V, 0-10V passive

Art. Nr.: 86468352-010-A   10%-100%, OFF below 1V, 0-10V active

Types without OFF-function:

Art. Nr.: 86468352-101-P   1%-100%, 1% below 1V, 0-10V passive

Art. Nr.: 86468352-101-A   1%-100%, 1% below 1V, 0-10V active

Art. Nr.: 86468352-110-P   10%-100%, 10% below 1V, 0-10V passive

Art. Nr.: 86468352-110-A   10%-100%, 10% below 1V, 0-10V active

Additional Information and Equipment

DALI-Cockpit – free configuration tool from Lunatone for DALI systems
http://lunatone.at/en/downloads/Lunatone_DALI-Cockpit.zip

Lunatone DALI products
http://www.lunatone.at/en/

Lunatone datasheets and manuals
http://lunatone.at/en/downloads/

Contact

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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.