



0-10V to DALI Converter 10mA

Datasheet
Interface



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

Art. Nr. 86468352-xxx

0-10V to DALI Converter Interface

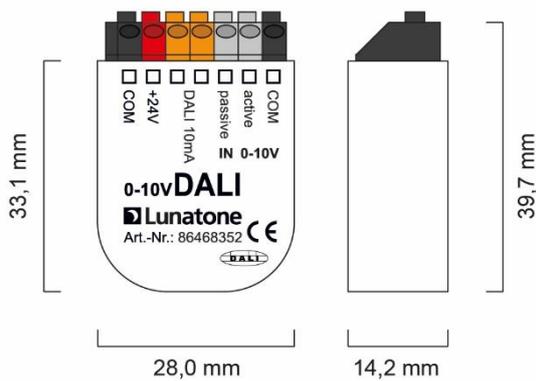
Overview

- Compact interface module for the conversion of 0-10V control signals to DALI dim levels
- The interface module provides a DALI power supply for a small DALI-subnet of up to 4 standard DALI ballasts (10mA), up to 64 DALI ballasts controllable with the help of a DALI-Expander
- Passive and active 0-10V input
- 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 a 12-24V power supply
- Various conversion-characteristics available (dimming-characteristic, OFF-function)
- **A galvanic isolation between the ballasts connected to the DALI-output (10mA) and the 0-10V signal input (and 24V supply input) can be realised with the help of a DALI-Expander**

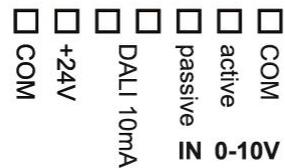
Specification, Characteristics

Type	0-10V / DALI Converter
article number	86468352-xxx
electrical data:	
supply voltage	24V DC
typ. current consumption	4mA + current for DALI-subnet
input	0-10V, passive or active
output	DALI I _{max} =10mA
function	signal converter, conversion characteristic can be selected by article number
recommended cable length to 0-10V control device	50cm
environmental conditions	
storing and transportation temperature	-20°C to +75°C
operational ambient temperature	-20°C to 60°C
rel. humidity, none condensing	15% ... 90%
general data:	
dimensions (l x w x h)	40 x 28 x 15 mm
mounting/housing	back box
protection degree housing	IP40
protection degree terminals	IP20

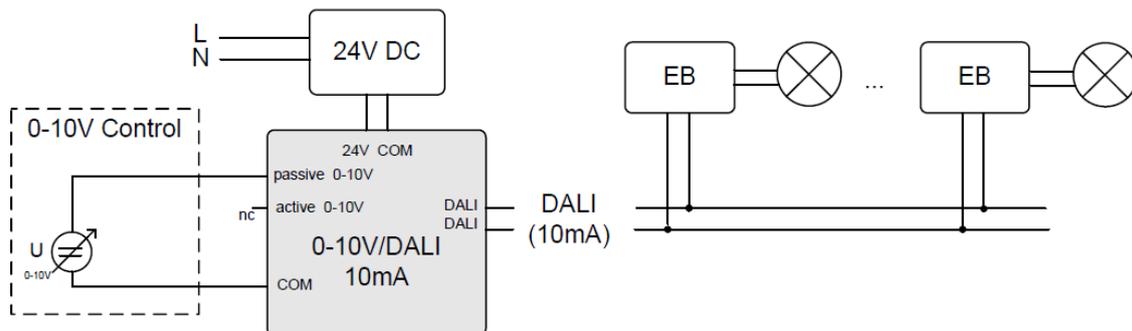
terminals	
connection type	spring terminal connector
wire size solid core	0,5 ... 1,5 mm ² (AWG20 ... AWG16)
wire size fine wired	0,5 ... 1,5 mm ² (AWG20 ... AWG16)
wire size using wire end ferrule	0,25 ... 1 mm ²
stripping length	8,5 ... 9,5mm / 0,33 ... 0,37inch
actuation type	push button
standards	
DALI	EN 62386-101, EN62386-102
EMC	EN 61547 EN 50015 / IEC CISPR15
safety	EN 61347-2-11 EN 61347-1
markings	CE



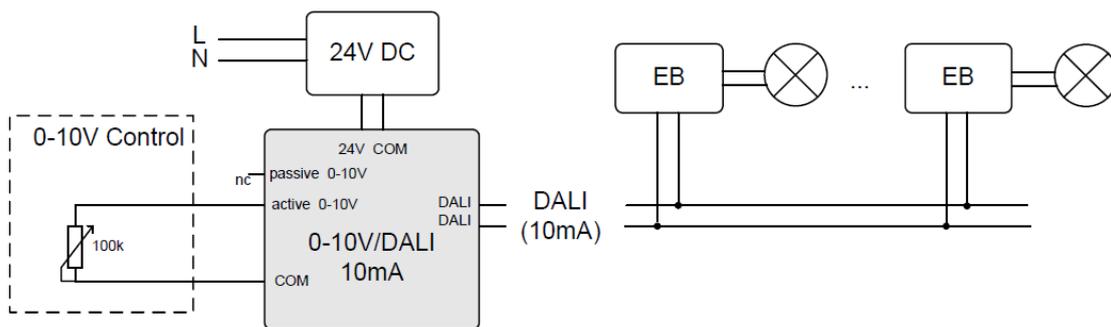
dimensions



connection plan

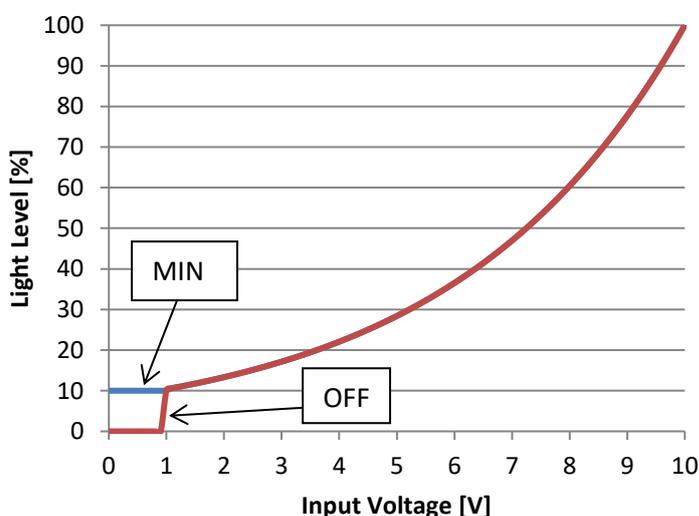


typical application with passive 0-10V input (0-10V control = voltage source)



typical application with 100k potentiometer on active 0-10V input (potentiometer = load)

0-10V to DALI conversion



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)

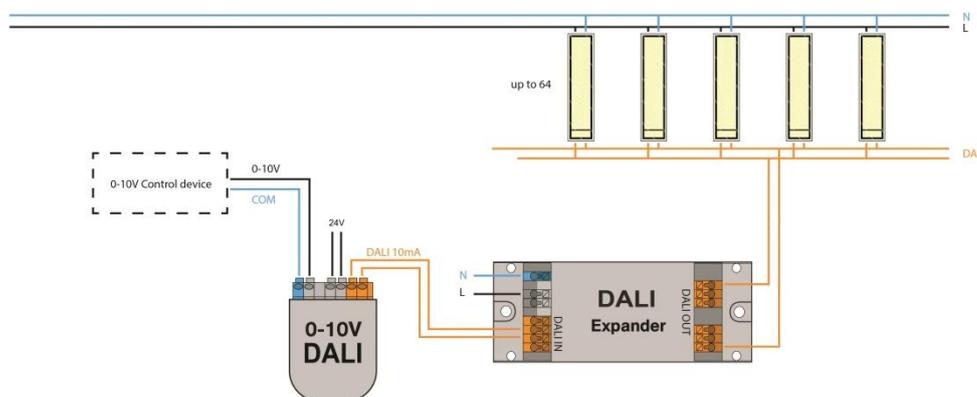
For a better visualisation the characteristics of the 10% types are shown.

MIN/OFF:

Depending on the type the converter behaviour below 1V is different. It is either switched OFF (red characteristic) or the minimum level is recalled (blue characteristic).

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

Application Example: Controlling up to 64 ballasts with DALI-Expander



Control of 64 DALI-luminaires with a 0-10V to DALI converter with the help of a DALI Expander (ArtNr: 89453847)

Installation

- The DALI 0-10V Converter is suitable for back box installation
- 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 connection to the DALI-line (DA,DA) is polarity free
- Wiring topology of the DALI-line: line, tree, star
- Connect only one wire on each terminal, if twin ferrules are used take care to the maximum wire size
- The DALI wiring can be realised with standard low-voltage installation material. No special cables are required.
- The DALI line may be routed together with the mains voltage (in one cable or as single wires in a tube)



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).

Purchase Information

Art.Nr. 86468352-xxx:

0-10V to DALI converter for the control of a small DALI subnet (broadcast);

Various types differ in dimming range and OFF-function.

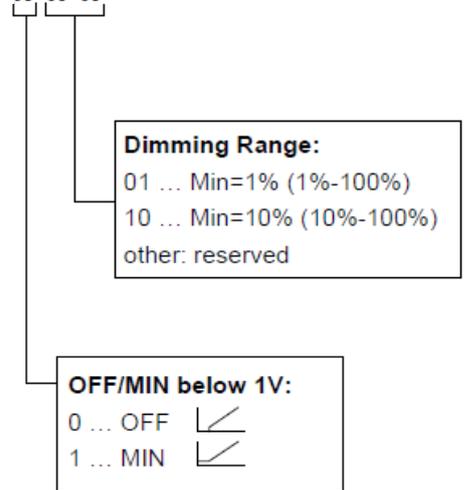
Art.Nr. 86468352-**001**: OFF / 1-100%

Art.Nr. 86468352-**010**: OFF / 10-100%

Art.Nr. 86468352-**101**: MIN / 1-100%

Art.Nr. 86468352-**110**: MIN / 10-100%

Art.Nr.: 86468352 - **X X X**



In case of orders without detailed specification the delivered parts correspond to the following item number:

Art.Nr. 86468352-001 (OFF, 1%-100%)

Additional Information and Equipment

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

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

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 compatibility with other devices must be tested in advance to the installation.