

## 0-10V to DALI Converter 30mA

**Datasheet**  
Interface



Interface for converting 0-10V  
control signals to DALI dim levels  
with integrated DALI power supply

Art. Nr. 86468352-HS

# 0-10V to DALI Converter 30mA Interface

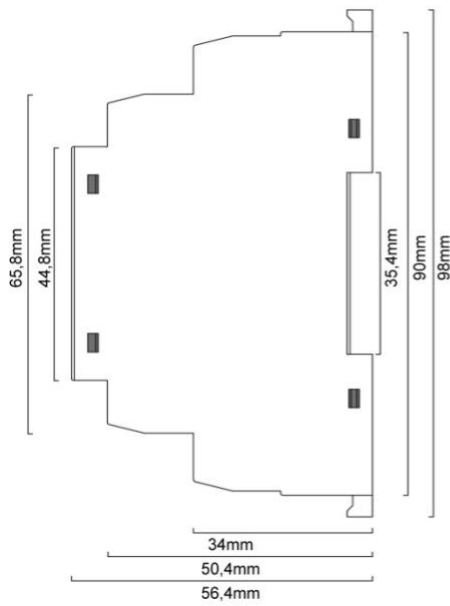
## Overview

- Compact interface module for the conversion of 0-10V control signals to DALI dim levels
- The interface module provides a 30mA DALI power supply for up to 10 standard DALI ballasts, up to 64 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 requires a 24V power supply (e.g. [24V/300mA Art.Nr. 24166012-24HS](#))
- Easy set up of the dim characteristic with the help of jumpers
- **A galvanic isolation between the ballasts connected to the DALI-output (30mA) and the 0-10V signal input (and 24V supply input) can be realised with the help of a DALI-Expander.**

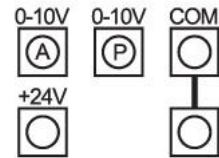
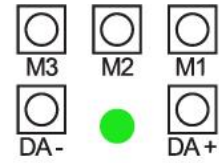
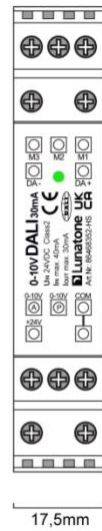


## Specification, Characteristics

|  |   |
|--|---|
| <b>type</b>                            | <b>0-10V / DALI Converter</b>                                 |
| article number                         | 86468352-HS   |
| <b>electrical data:</b>                |   |
| supply voltage                         | 24V   |
| typ. current consumption               | 4mA + current for DALI output                                 |
| input                                  | 0-10V, passive or active                                      |
| output                                 | DALI<br>I <sub>max</sub> =30mA                                |
| function                               | signal converter, selection of dim characteristic with jumper |
| <b>mechanical data:</b>                |   |
| storing and transportation temperature | -20°C ... +75°C   |
| operating ambient temperature          | -20°C ... +60°C   |
| protection class                       | IP20  |
| maximum connecting wire cross section  | 0.5-2.5 mm <sup>2</sup>                                       |
| mounting                               | DIN rail  |
| dimensions                             | 98mm x 17.5mm x 56 mm   |
| release of wire                        | open screw  |

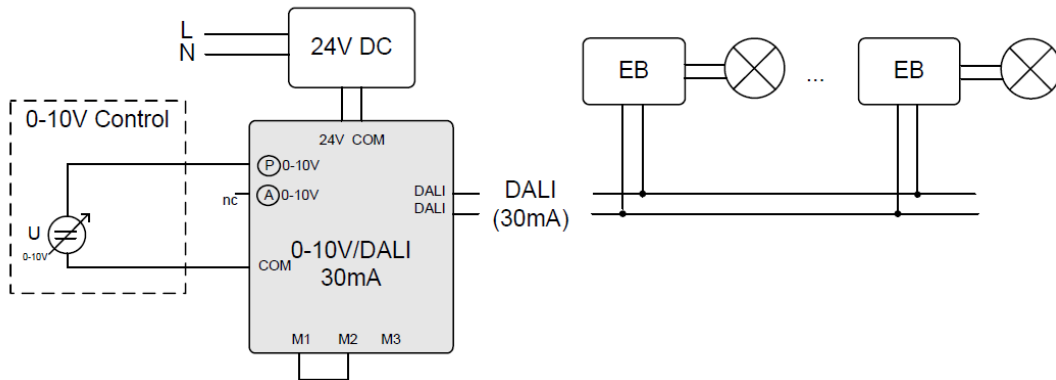


geometry

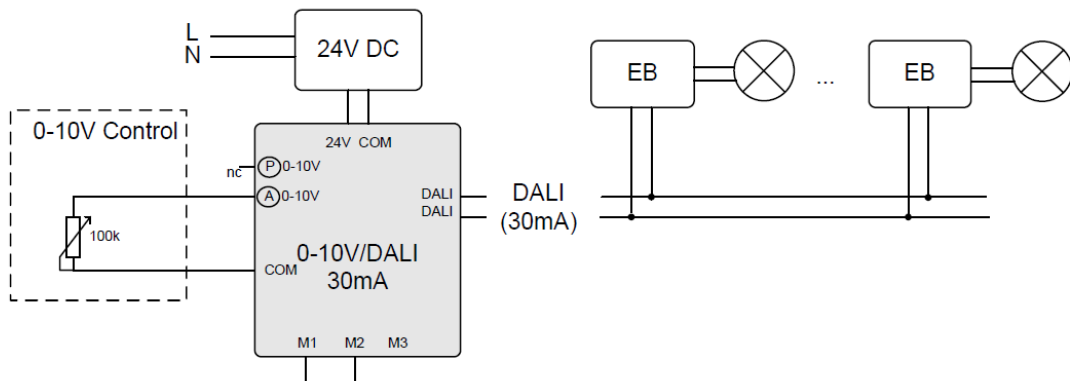


connection plan

**Typical Application**

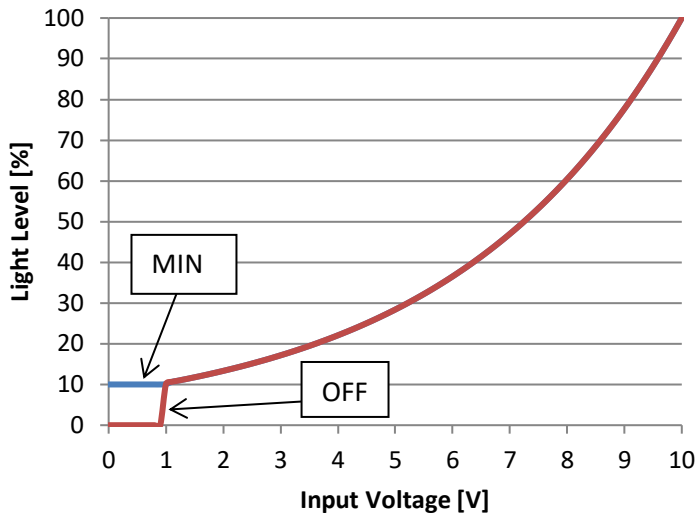


typical application with 0-10V voltage on input P (input passive, 0-10V control = source)



typical application with 100k potentiometer on input A (input active, 0-10V control = sink)

### 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

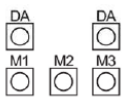
For a better visualisation only the characteristics of the 10% types are shown on the left.

#### ON/OFF

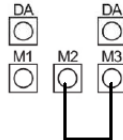
As behaviour below 1V the device can either switch OFF (red) or send the minimum level (blue).

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

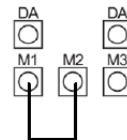
#### Dim Characteristic Selection by Jumper on M1 ... M3



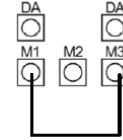
**V1:**  
Dimming: 1%-100%  
below 1V: OFF  
(equivalent to red characteristic with light level 1% at 1V)



**V2:**  
Dimming: 10%-100%  
below 1V: OFF  
(red characteristic)

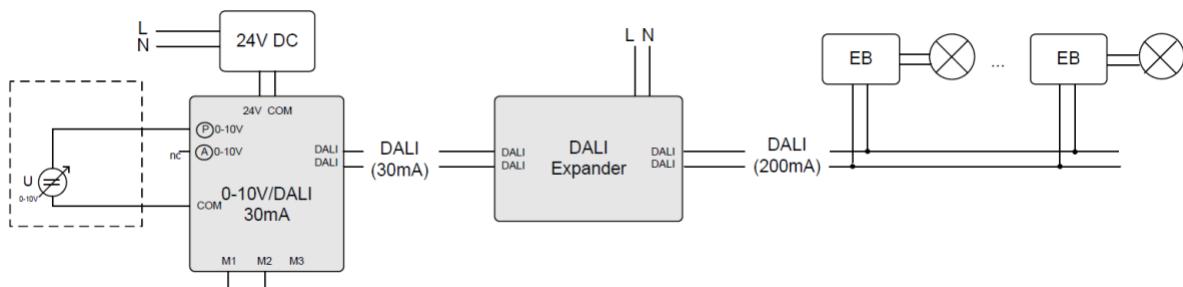


**V3:**  
Dimming: 1%-100%  
below 1V: Min (1%)  
(equivalent to blue characteristic with light level: 1% at 1V)



**V4:**  
Dimming: 10%-100%  
below 1V: Min (10%)  
(blue characteristic)

### 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)

## Notes UL

There is **no electrical isolation between 24V, control input 0-10V and DALI**. The 24V supply used has to have electrical isolation (Class2). If a separation between the control bus and DALI is necessary, this can be achieved with a [Lunatone DALI Expander](#).

**Il n'y a pas d'isolation électrique entre 24V, entrée de commande 0-10V et DALI.**

L'alimentation 24 V utilisée doit avoir une isolation électrique (classe 2). Si une séparation entre le bus de commande et DALI est nécessaire, cela peut être réalisé avec un [Lunatone DALI Expander](#).

## Purchase Information

**Art.Nr. 86468352-HS:** 0-10V to DALI converter, internal 30mA DALI power supply, configurable dim characteristic, active and passive 0-10V input, din rail mounting

Accessories:

**Art. Nr.: 24166012-24HS, PS 24V, 300mA:** 24VDC/300mA power supply, dinrail, 1TE

**Art.Nr.: 89453847, DALI Expander:** DALI input 1 address to DALI broadcast output, DALI PS 200mA out, Sw&Dim input

## Additional Information and Equipment

DALI-Cockpit – free configuration tool from Lunatone for DALI systems

<https://www.lunatone.com/en/product/dali-cockpit/>

Lunatone DALI products

<https://www.lunatone.com/en/>

Lunatone datasheets and manuals

<https://www.lunatone.com/en/downloads-a-z/>

DALI-Expander

<https://www.lunatone.com/en/product/dali-expander/>



## Contact

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## 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.