

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 setup 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.**

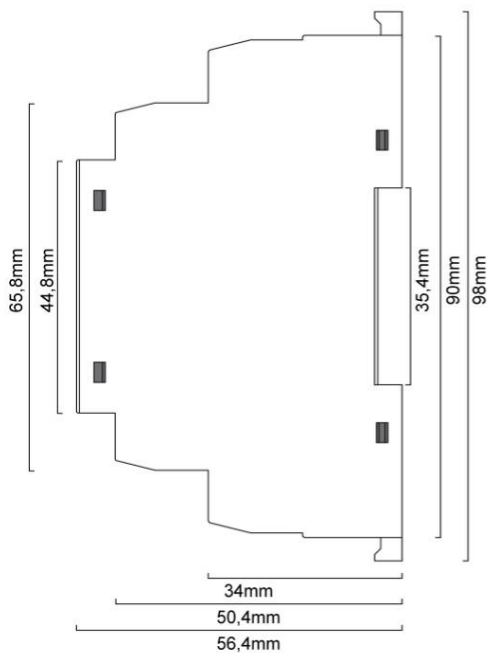


Specification, Characteristics

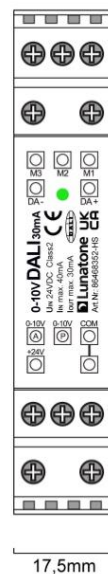
type	0-10V / DALI Converter
article number	86468352-HS
electrical data	
supply voltage	24V
typ. current consumption	4mA + current for DALI output
input	0-10V, passive or active
output	DALI I _{max} =30mA
function	signal converter, selection of dim characteristic with jumper
environmental conditions	
storing and transportation temperature	-20°C ... +75°C
operating ambient temperature	-20°C ... +60°C
general data	
mounting	DIN rail
dimensions	98mm x 18mm x 56 mm
protection class	II in intended use
protection degree housing	IP40
protection degree terminals	IP20

terminals

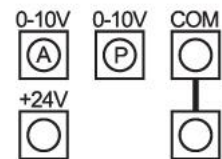
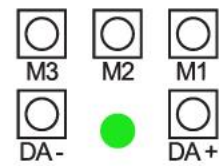
connection type	screw connector
wire size solid core	0,5 ... 2,5 mm ² (AWG20 ... AWG14)
Wire size stranded wired	0,5 ... 2,5 mm ² (AWG20 ... AWG14)
wire size using wire end ferrule	0,25 ... 1,5 mm ²
stripping length	7 mm / 0,27 inch
locking torque	0,5Nm
release of wire	open screw



geometry

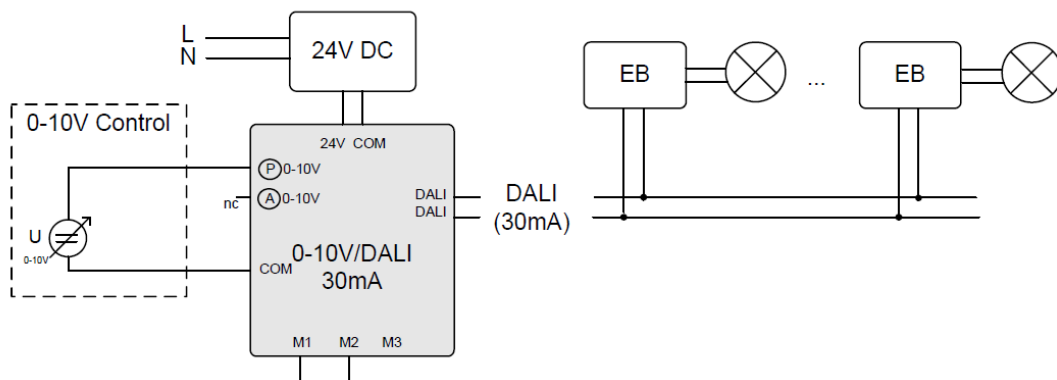


17,5mm

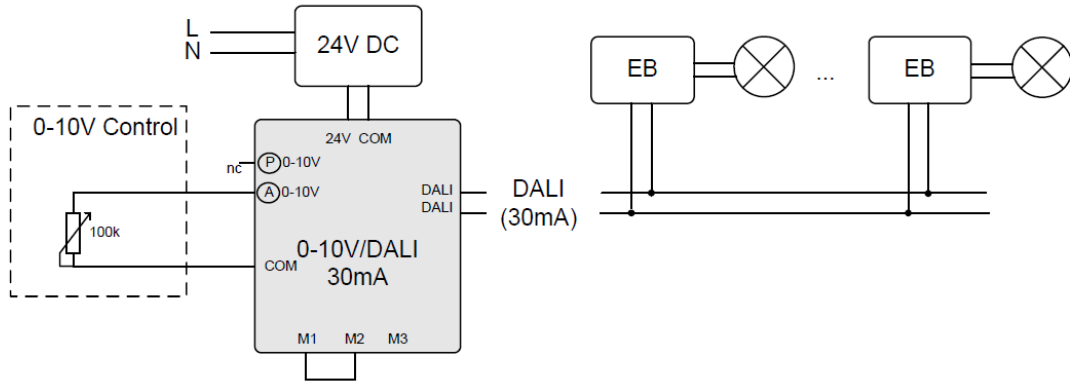


connection plan

Typical Application

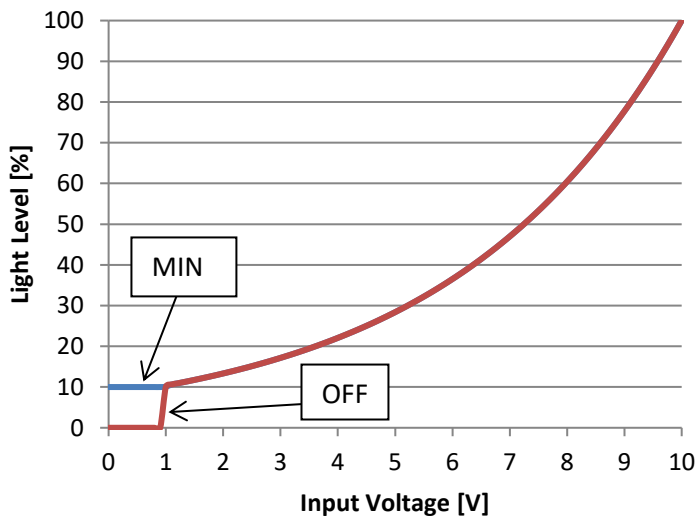


typical application with 0-10V voltage on input P (input passive, 0-10V control = source)



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

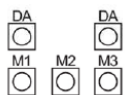
For a better visualisation only the characteristics of the 10% types are shown on the left.

ON/OFF

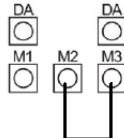
As behaviour below 1V the device can either switch OFF (red) or send the minimum level (blue).

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

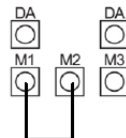
Dim Characteristic Selection by Jumper on M1 ... M3



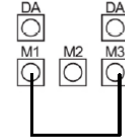
V1:
Dimming: 1%-100%
below 1V: OFF
(equivalent to red characteristic with light level 1% at 1V)



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

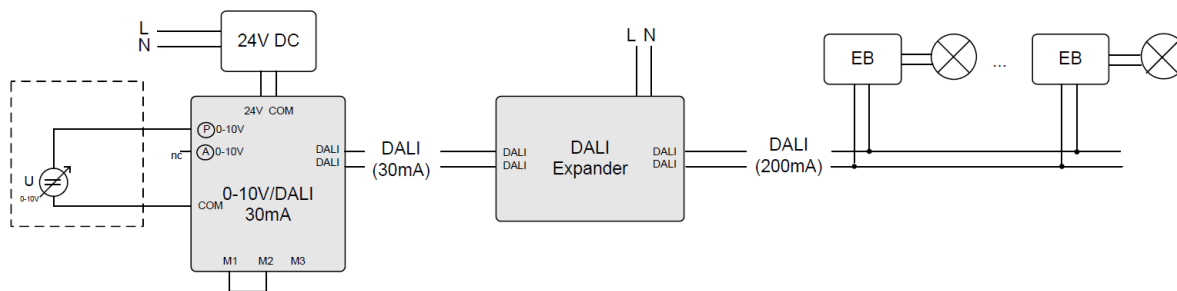


V3:
Dimming: 1%-100%
below 1V: Min (1%)
(equivalent to blue characteristic with light level: 1% at 1V)



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 – DALI system configuration tool, free when using a Lunatone interface device
<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-az/>

DALI-Expander

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

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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.

