



4-20mA to DALI Converter

24V supplied
with DALI PS 30mA

Datasheet

Interface



Interface for converting
4-20mA signals to DALI dim levels
24V supplied
integrated DALI-bus power supply

Art. Nr. 86468334-24-HS

4-20mA to DALI Converter 30mA - Interface

Overview

- Compact interface module for the conversion of 4-20mA control signals to DALI dim levels
- The interface module provides a 30mA DALI power supply for up to 10 standard DALI ballasts (30mA), up to 64 ballasts can be controlled with the help of a DALI-Expander
- The 4-20mA current value is sent Broadcast as a dimming value on the DALI bus
- A change in the 4-20mA input signal (>1%) is used as a trigger event
- The interface module requires a 12-24V power supply (e.g. 24V/300mA

Art.Nr. 24166012-24HS)

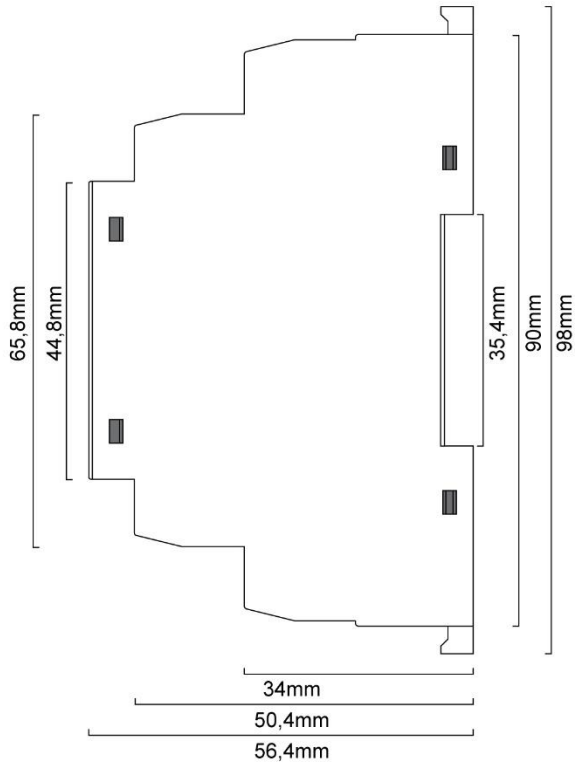
- Easy selection of the dim characteristic with the help of jumpers
- A 4-20mA line break is recognized and output accordingly on the DALI side.
- **A galvanic isolation between the ballasts connected to the DALI-output (30mA) and the 4-20mA signal input (and 24V supply input) can be realised with the help of a DALI-Expander.**



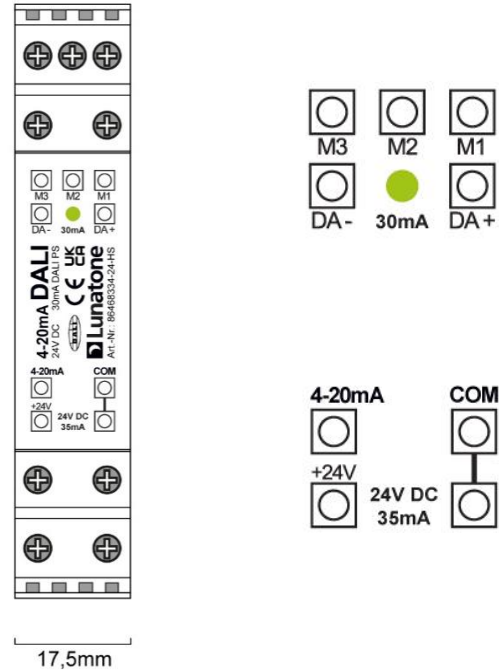
Specification, Characteristics

type	4-20mA / DALI Converter
article number	86468334-24-HS
electrical data:	
supply voltage	12V-24V, 35mA
typ. Current consumption	4mA + current for DALI output
input 4-20mA	load 100Ohm
output DALI	I _{max} 30mA
function	signal converter selection of dim characteristic with jumper, see page 4
environmental conditions:	
storing and transportation temperature	-20°C ... 75°C
operating ambient temperature	-20°C ... 60°C
rel. humidity, none condensing	15% ... 90%
mechanical data:	
mounting	DIN rail
dimensions (L x W x H)	98mm x 18mm x 56 mm
protection class	II in intended use
protection degree housing	IP40
protection degree terminals	IP20

diameter connection wire	0.5-2.5 mm ²
connection type	screw terminal
release of wire	open screw

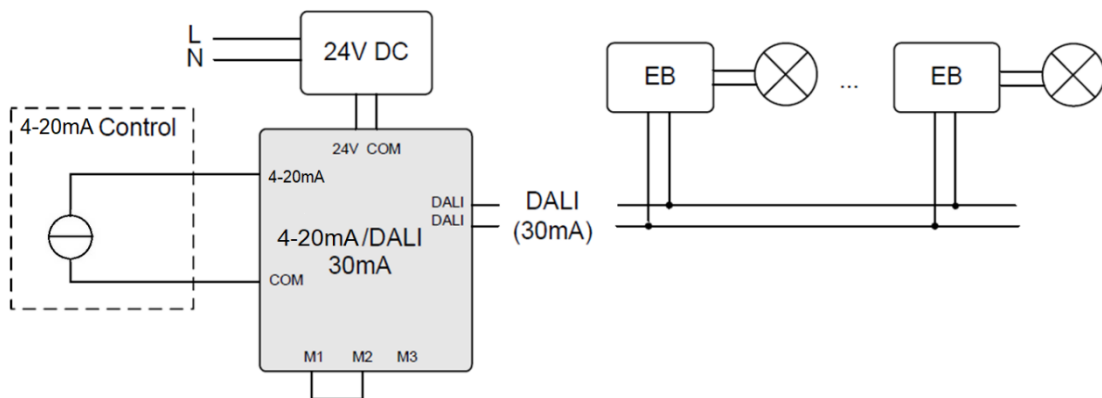


geometry



connection plan

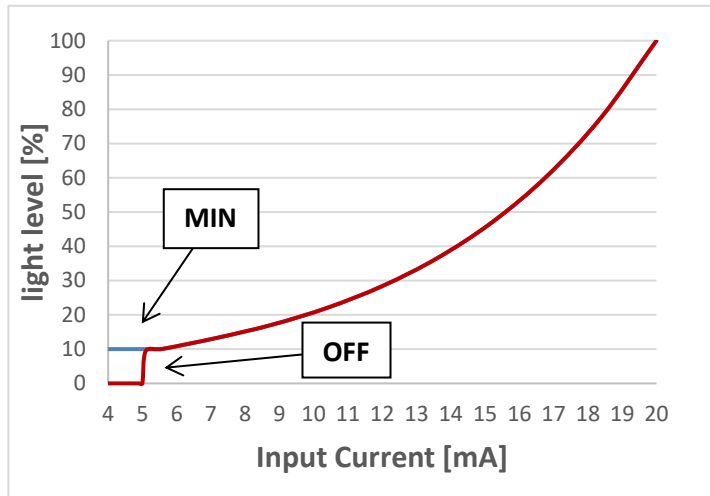
Typical Application



typical Application: Dali control with 4-20mA input

4-20mA / DALI Conversion

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



Conversion Curve:

The input range of 4-20mA is converted to the light level range of the connected DALI ballast

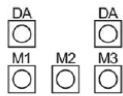
Depending on the configuration, it is mapped to 1% -100% or 10% -100% of the output power.

For the sake of clarity, only the characteristic curves with 10% light level are shown.

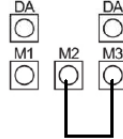
MIN/OFF:

The behaviour below 5mA can be selected: either the device switches off (OFF - red) or it sends the minimum level (MIN - blue).

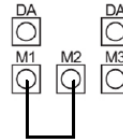
Selection of dim characteristics by placing jumpers at M1 ... M3



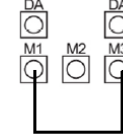
V1:
Dimming: 1%-100%
below 5mA: OFF
(similar to red characteristic but light level: 1% at 5mA)



V2:
Dimming: 10%-100%
below 5mA: OFF
(red characteristic)

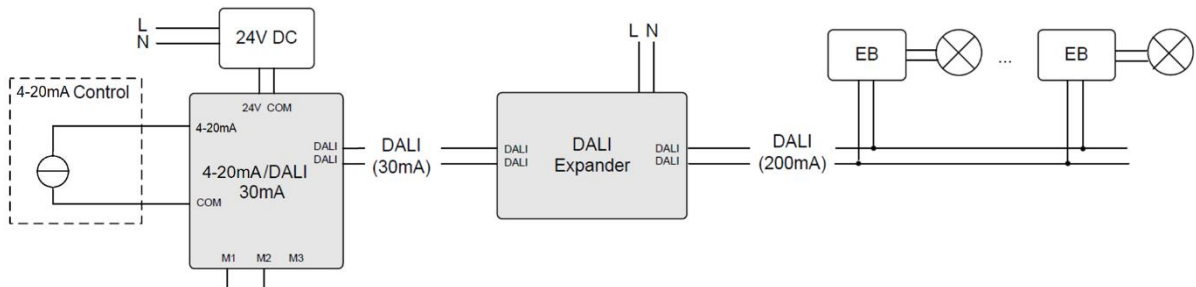


V3:
Dimming: 1%-100%
below 5mA: MIN (1%)
(similar to blue characteristic but light level: 1% at 5mA)



V4:
Dimming: 10%-100%
below 5mA: MIN (10%)
(blue characteristic)

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



Control of 64 DALI-luminaires with a 4-20mA to DALI converter and a DALI Expander (art. nr.: 89453847)

Safety notice

There is no galvanic isolation between 24V and control input 4-20mA. The 24 V supply used must have a safe galvanic isolation from the mains voltage (Class2). There is no galvanic isolation between the control bus and DALI, this can be achieved with a DALI Expander.

Notes UL

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. 86468334-24-HS: 4-20mA to DALI Converter, 24V supply, integrated 30mA DALI bus power supply, configurable conversion characteristic, DIN rail

Accessories:

Art. Nr.: 24166012-24HS, PS 24V DC, 300mA power supply, DIN rail, 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/produkt/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/>



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.