Lunatone

4-20mA to DALI Converter

Mains supplied
with DALI PS 30mA

Datasheet

Interface

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

Art. Nr. 86468334-230-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 is supplied with mains voltage (230V).
- 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.
- **4-20mA input and DALI bus are galvanically isolated from each other as well as from the mains.**

Specification, Characteristics

type	4-20mA / DALI Converter
article number	86468334-230-HS

input: 4-20mA	
input type	4-20mA, load 10Ohm
terminals	4-20mA, COM, M3, M2, M1
functionality	signal converter selection of dim characteristic with jumper, see page 4

input: L, N	
input type	Mains galvanically isolated from DALI and 4-20mA input
terminals	L, N
input voltage range	110Vac … 230Vac
max. input current	40mA (@120Vac), 20mA (@240Vac)
input supply frequency	50Hz / 60Hz
max. power consumption	4 Watt

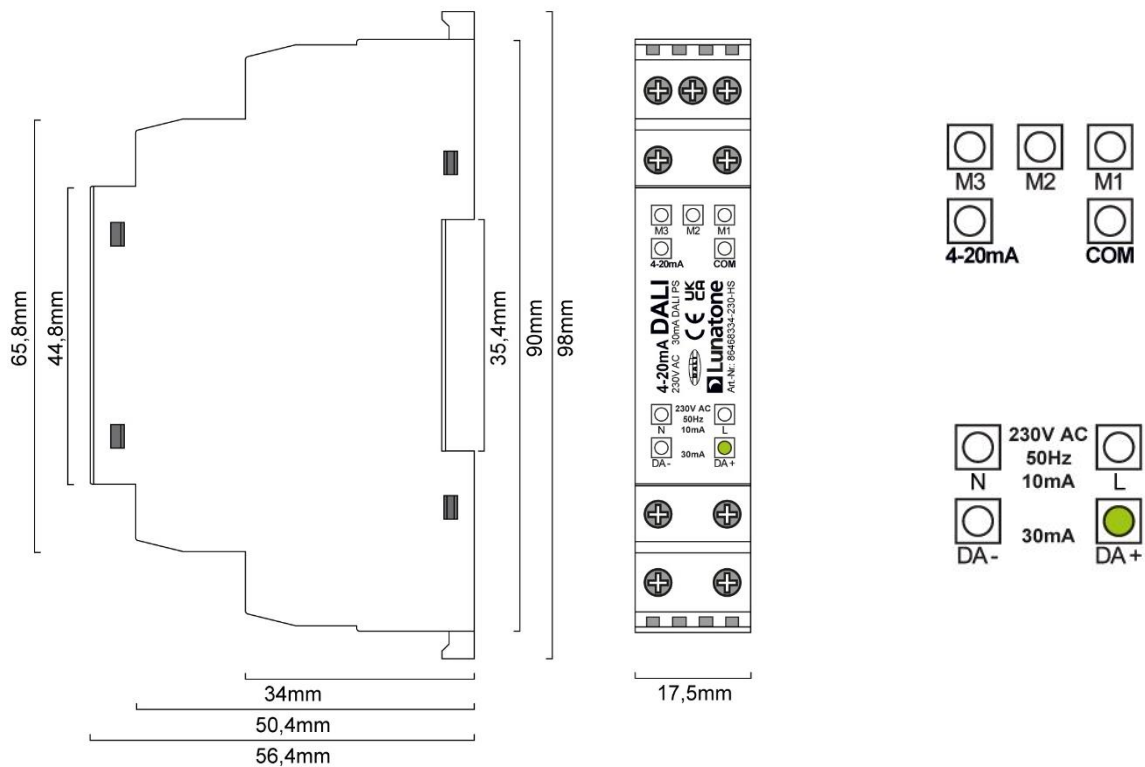| output: DA+, DA-	
output type	DALI
terminals	DA+, DA-
output voltage range	12Vdc … 20,5 Vdc
guaranteed DALI supply current	I_max 30mA
Max. DALI output current	I_max 30mA
Open circuit proof	yes
short circuit proof	yes

Galvanic isolation	DALI galvanically isolated from 4-20mA input and mains
Typ. current consumption	4mA + current for DALI output

environmental conditions:

storing and transportation temperature	-20°C … 75°C
operating ambient temperature	-20°C … 60°C
rel. humidity, none condensing	15% … 90%

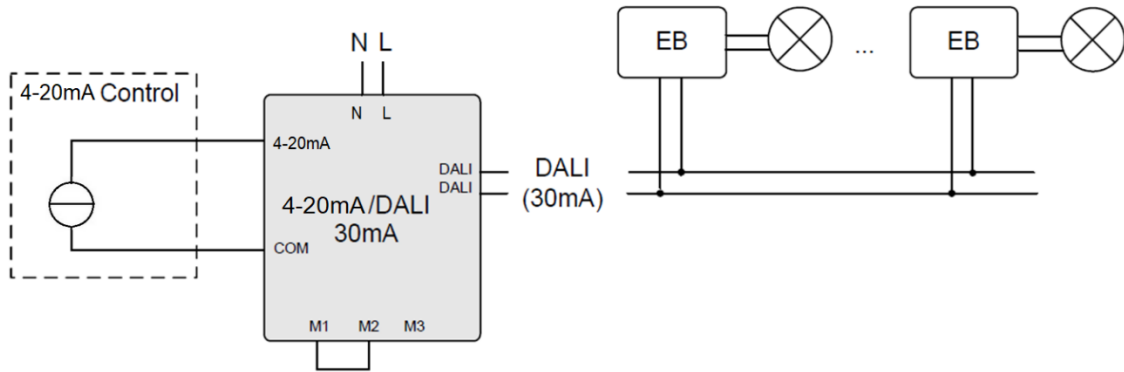**mechanical data:**

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

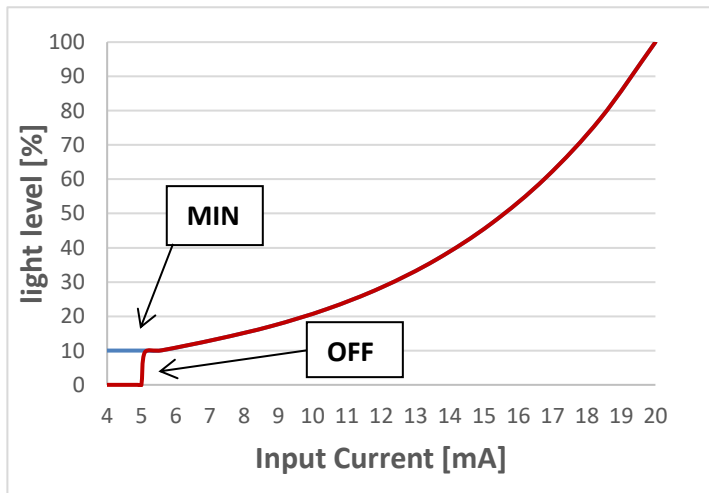geometry   connection plan

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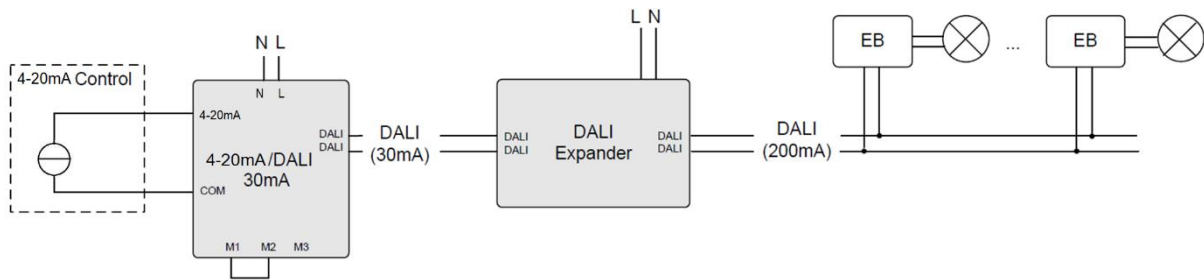
MIN/OFF:
The behaviour below 5mA can be selected: either the device switches off (OFF - red) or it sends the minimum level (MIN - blue).

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))

Purchase Information

Art.Nr. 86468334-230 -HS: 4-20mA to DALI Converter, mains supplied, integrated 30mA bus power supply, configurable conversion characteristic, DIN rail

Accessories:

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

Contact

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www.lunatone.com

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-a-z/

DALI-Expander
https://www.lunatone.com/en/product/dali-expander/

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.