



DALI PWM Interface

Datasheet

DALI to PWM Interface

DT5 Converter Module for the integration of PWM controlled drivers in DALI lighting systems

Art. Nr. 86458508-100

DALI PWM Interface

Overview

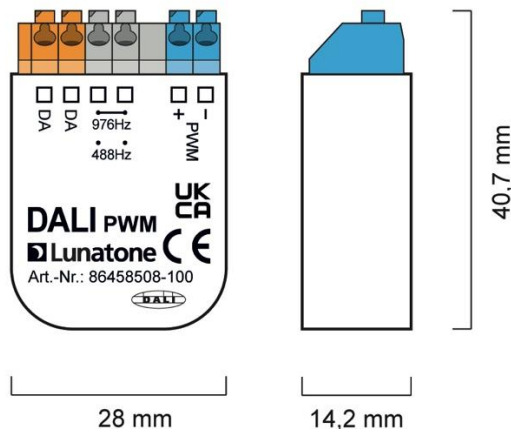
- module converting DALI dimming commands into PWM signal
- the module is especially designed to operate with dimmable LED-Driver (with PWM control input, e.g. Meanwell HLG, HLN, NPF or LPF series)
- provides advantage of fail-safe digital signal data communication compared to types with analog output voltage
- transformation of DALI 8-Bit arc power level into PWM signal from 0% to 100%
- Selection of linear or logarithmic dimming curve (DT5)
- Output range selectable between 0-100% and 10-100% (DT5)
- maximum output current of 100mA (current sink), hence it is possible to connect many PWM controlled drivers
- maximum voltage of 60V at output
- PWM-frequency can be selected by jumpers (488Hz/976Hz)
- The module is supplied directly by the DALI signal line
- galvanic isolation between DALI-input and PWM-output



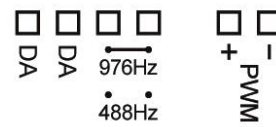
Specification, Characteristics

type	DALI PWM 100mA
article number	86458508-100
electrical data	
supply	via DALI signal line
typ. current consumption DALI	3.1 mA
input	DALI
output	0%-100% PWM 100mA (sink), 60VDC max. PWM-Frequency: 488Hz/976Hz 10%
general data	
geometry (l/w/h)	41mm / 28.0mm / 14 mm (details see page 3)
weight	~10g
protection degree housing	IP40
protection degree terminals	IP20
environmental conditions	
storing and transportation temperature	-20°C ... +75°C
operational ambient temperature	-20°C ... +75°C

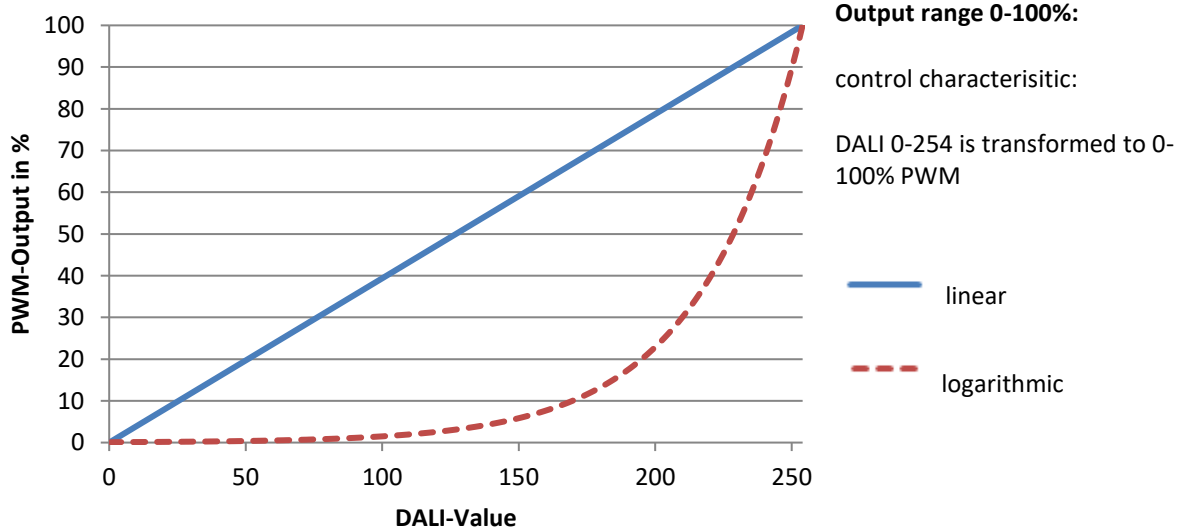
terminals	
connection type	spring terminal connector
wire size solid core	0,5 ... 1,5 mm ² (AWG20 ... AWG16)
wire size fine wired	0,5 ... 1,5 mm ² (AWG20 ... AWG16)
wire size using wire end ferrule	0,25 ... 1 mm ²
stripping length	8,5 ... 9,5mm / 0,33 ... 0,37inch
actuation type	push button

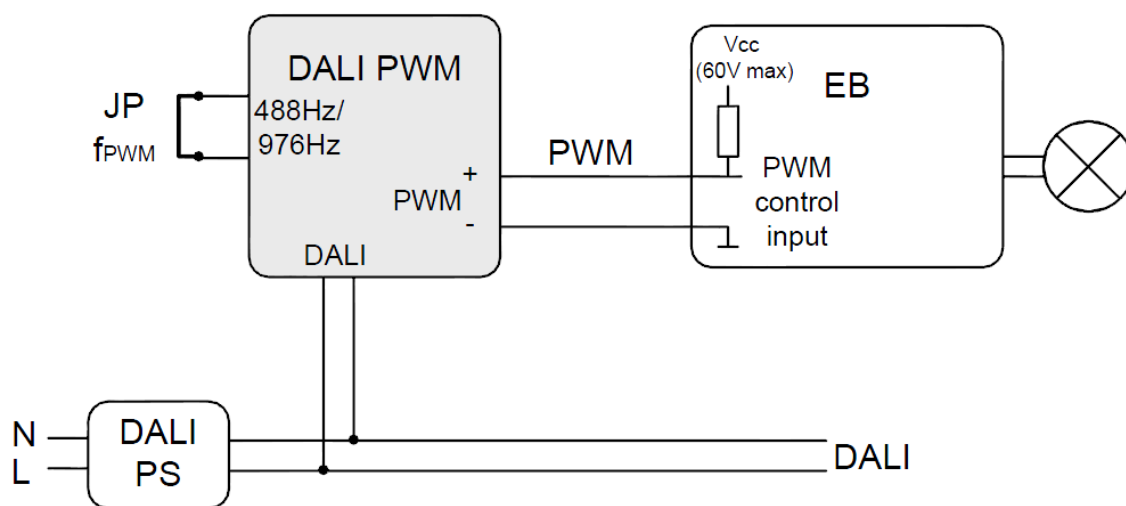
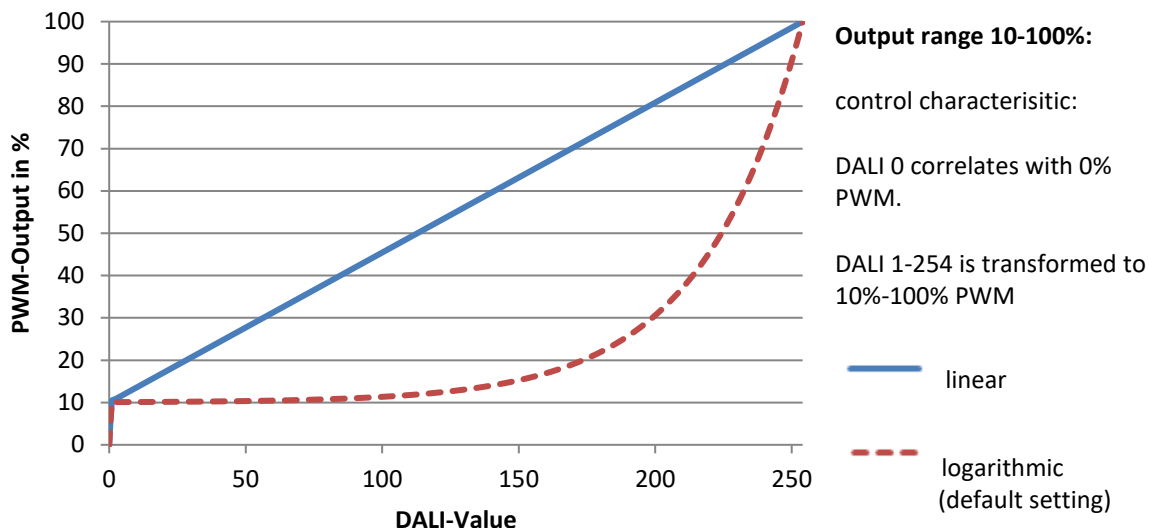


geometry



connection plan





typical structure

Connection

The interface is supplied directly via the DALI signal line. It must not be connected to the mains. A typical value of the current consumption is 3.1 mA. For supplying components on a DALI line the installation of a DALI power supply (DALI PS) is necessary. The connection to the DALI line is polarity free.

The PWM output supports sinking currents up to 100mA. Therefore multiple PWM controlled loads can be connected to the output. The voltage connected to the current sinking PWM output may not exceed 60VDC. The terminals allow cross sections of the connection wire from 0.5 to 1.5 mm².

Function

The DALI PWM interface converts the desired DALI dim level in a corresponding PWM-pattern. The conversion curve can be influenced as defined in the DALI DT5 standard (linear/logarithmic control characteristic, 0-100% or 10-100% output range). This relationship is clearly represented by the control characteristic diagram.

The maximum output current is 100mA (current sink).

With the help of a jumper the PWM-frequency on the output can be changed from 488Hz to 976Hz.

DALI instruction set

The DALI PWM is based on the standard for DALI control gear (IEC 62386-102) and device type 5 extension (IEC 62386-206).

Commands and functions referring to the SYSTEM FAILURE LEVEL are not supported. This parameter is used as the dim level that should be applied on the output in case of a DALI line outage. Since the DALI 0-10V is a bus powered device there is no possibility to apply a specific predefined signal on the output without being under power. In the case of a DALI-line outage 100% are applied on the output.

Purchase Information

article number: 86458508-100

DT5 interface module for conversion of DALI signals to a PWM signal (maximum output current 100mA), galvanic isolation between DALI-input and PWM output

similar components:

[DALI 0-10V PWM \(Art.Nr. 86458508-PWM\)](#)

with PWM output, galvanic isolation between DALI-input and PWM output

[DALI 0-10V LE \(Art.Nr. 86458508-LE\)](#) with analog output, suitable for 0-10V drivers with electrically isolated control input

[DALI 0-10V AN \(Art.Nr. 86458508-AN\)](#) with analog output, galvanic isolation between DALI input and 0-10V output, automatic calibration algorithm

Additional Information and Equipment

DALI-Cockpit – free configuration tool for DALI systems

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/>

Contact

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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.