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wDALI
RM8 0-10V PWM

Datasheet

wDALI interface to 0-10V with switch-on relay

wireless expansion of a DALI-system with 0-10V ballast

Art.Nr. 89453852 (RM8 0-10V PWM)

wDALI RM8 0-10V PWM Interface

Overview

- Wireless DALI-line espansion for ballasts with PWM control input

- The ballasts can be switched on and off by DALI-commands

- 2 components: a transmitter unit connected to the DALI-line and a receiver module with 0-10V PWM output and relay

- Integrated relay for switching ballast supply

- advantage of fail-safe digital signal data communication compared to types with analog output voltage, suitable for electronic ballast with PWM control input (e.g. Meanwell HLG, HLN, NPF or LPF series)

- transformation of DALI light level into PWM output signal from 0% to 100%

- DALI DT5: selection of linear or logarithmic dimming curve

- DALI DT5: output range selection (0-100% / 10-100% PWM)

- maximum output current of 1mA (current sink)

- the relay contact depends on the light level, at 0 the relay is opened, at any other value it is closed

- The transmitter unit is powered directly by the DALI-line, the receiver is powered by mains

- configuration via DALI-Cockpit software tool
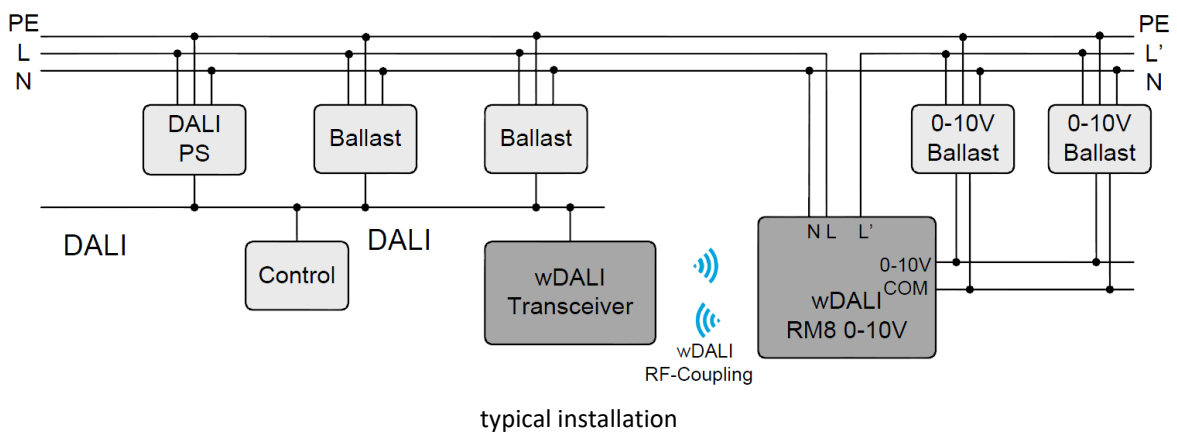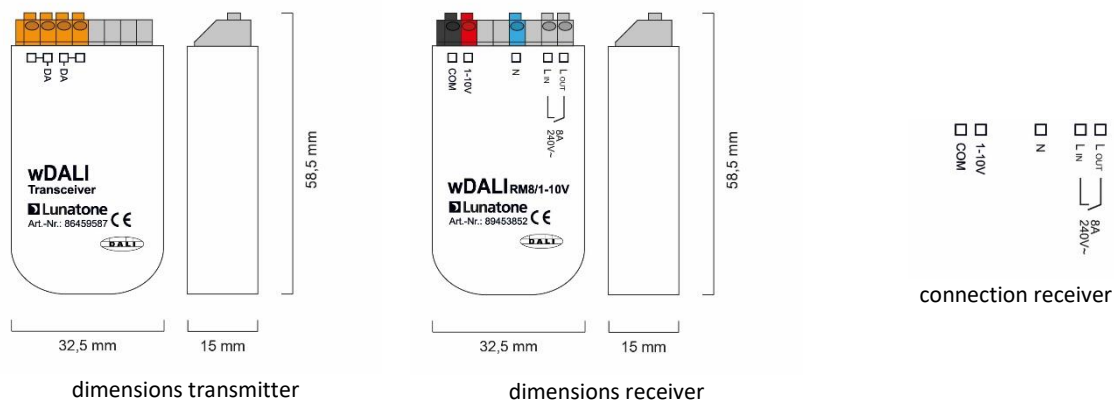
Specification, Characteristics

type	wDALI RM8 0-10V PWM
article number	89453852

electrical data transmitter:

supply	via DALI-line
typ. current consumption	3.8mA
input	DALI
power on behaviour	programmable, here the Power On is the return of the DALI-line supply voltage
frequency-range	2.4 GHz

technical data transmitter:

dimensions	59mmx33mmx15mm
housing	back box
connecting wire cross section	0.5-1.5 mm^2
storing and transportation temperature	-20°C … +75°C
operational ambient temperature	-20°C … +75°C
protection class	IP20

electrical data receiver:

supply	210-250VAC / 50-60Hz
output	0-100% PWM (16Bit, 488Hz), current sink 1mA
nominal load	1000VA
max. switching current	8A
max. inrush current	80A
relay data	1 n/o, max. 30000 switching cycles at nominal load (resistive) max. switching frequency 1Hz
frequency range	2,4 Ghz

technical data receiver:

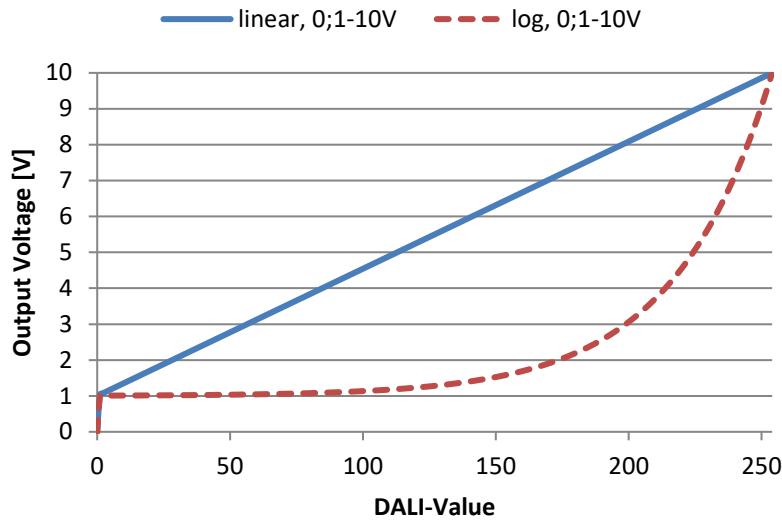| dimensions	59mm / 33 mm / 15mm
Housing	Dose
connecting wire cross section	0.5-1.5 mm²
storing and transportation temperature	-20°C … +75°C
operational ambient temperature	-20°C … +60°C
protection class	IP20

dimensions transmitter

dimensions receiver

connection receiver
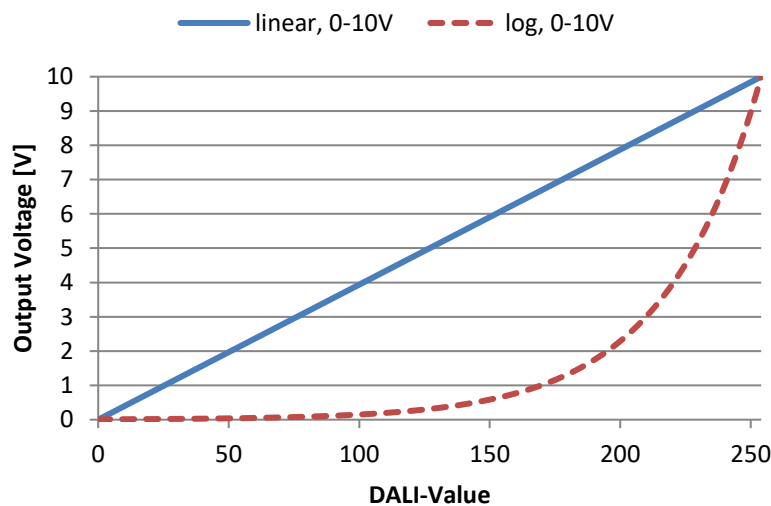

typical installation

Output Voltage Range: 1-10V:

control characteristic:

DALI 0 (=OFF) correlates with a voltage bleow 0,5V.

DALI 1-254 is transformed to a 1-10V output voltage (10%-100% PWM pattern).

linear

logarithmisch (Werkseinstellung)

Chart: Output Voltage [V] vs DALI-Value — linear, 0;1-10V and log, 0;1-10V

Output Voltage Range: 0-10V:

control characteristic:

DALI 0-254 is transformed into a 0-10V output voltage (0%-100% PWM pattern).

linear

logarithmisch

Chart: Output Voltage [V] vs DALI-Value — linear, 0-10V and log, 0-10V

Note: the voltage values given in the control characteristics are valid only in the case that 10VDC are applied to the output

Installation

- the transmitter is supplied by the DALI-line (typical current consumption is 3.8mA)
- the connection to the DALI-line is polarity-free
- the DALI-input is protected against overvoltage (up to mains voltage)
- the receiver unit can switch load currents of up to 8A and is suitable for loads up to 1000VA
- The 0-10V PWM control output is suitable for sink currents up to 1mA

- at the terminals wires with cross-section from 0,5 to 1,5mm^2 can be connected
- the components of the wDALI RM8 0-10V are suitable for back box mounting
- receiver range depending on structural conditions (outdoors up to 300m)

Function

- Simple addressing and configuration with the DALI Cockpit software tool
- Switching on/off of to the DALI-line wirelessly connected ballasts
- DALI Device Type 5 support: linear and logarithmic control characteristic, selectable output voltage range 0-10V / 1-10V
- The relay contact is coupled to the light level. If light level is 0, relay is open, at any other value (1-254) the relay is closed
- At system failure the 0-10V output keeps the last level. After power cycling the receiver the 0-10V signal goes to the last active level.

Purchase Order Information

Art. Nr. 89453852: wDALI RM8 0-10V PWM, DALI DT5, PWM-output 1mA, relay: 1000VA/8A/80A, 1 no, back box

Additional Information

Datasheets and manuals
https://jumitech/produkter

DALI-Cockpit – free configuration tool from Lunatone for DALI systems
http://lunatone.at/en/downloads/Lunatone_DALI-Cockpit.zip

Contact

Technical Support: support@jumitech.dk

Requests: salg@jumitech.dk

www.jumitech.dk

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Disclaimer

Subject to change. Information provided without guarantee. The datasheet refers to the current delivery.

The function in installations with other devices must be tested for compatibility in advance.