

DALI RM16 2x0-10V

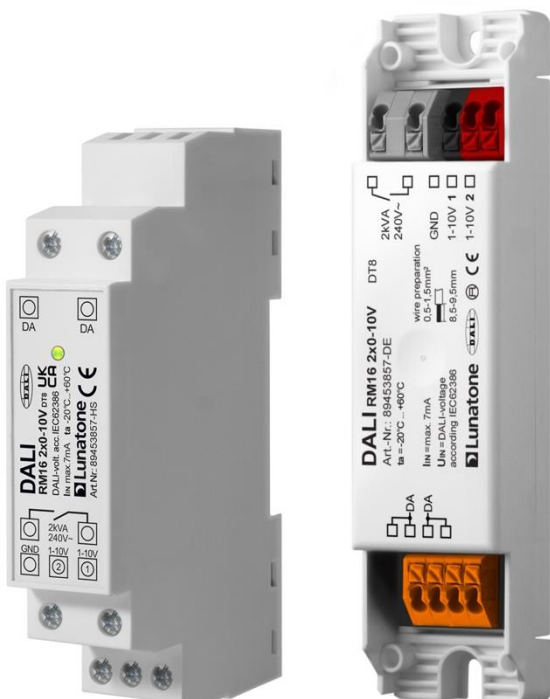
Datasheet

DALI DT8 2x1-10V with relay

DT8 DALI-interface module for the control of two 1-10V control inputs for tuneable white applications

Art. 89453857-HS (DIN rail)

Art. 89453857-DE (remote)



DALI RM16 2 x 0-10V Interface

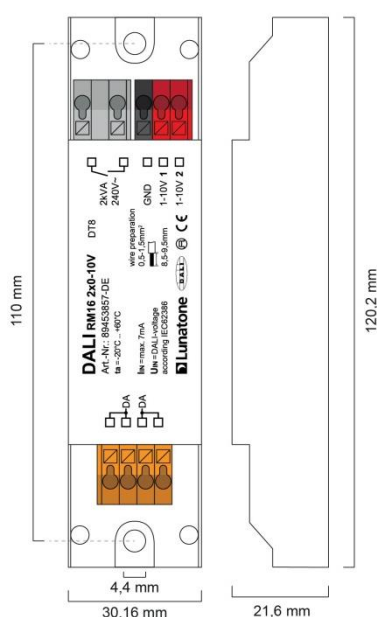
Overview

- For control of 2 LED-power supplies with 1-10V control input (e.g.: Meanwell HLG)
- Relay for switching on/off the supply of the LED power supplies
- Automatic calibration of the output signals
- DALI DT8 address (Colour Type Tc) can be assigned to groups and scenes
- output mode for 2 separate channels for CW and WW
- defined system failure state
- 1mA per output channel
- The state of the relay is coupled to the dim level, at each value>0 the relay is on
- relay is suitable for inrush currents up to 160A
- the module is supplied by the DALI-line, no additional supply required
- types for DIN rail mounting and remote ceiling/luminaire integration available
- galvanic isolation between DALI and 1-10V control output

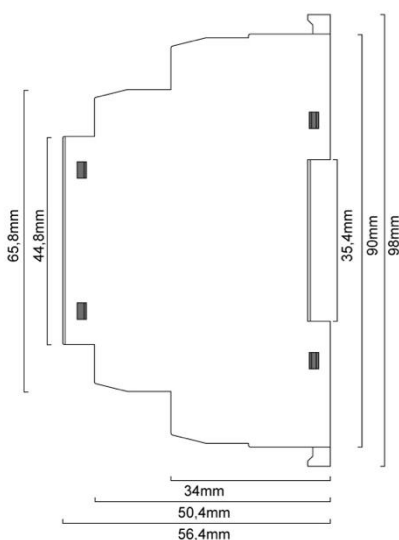
Specification, Characteristics

type	DALI RM16 2x0-10V DE		DALI RM16 2x0-10V HS	
article number	89453857-DE		89453857-HS	
electrical data				
supply	via DALI-line			
typ. current consumption DALI	ca. 7mA			
input	DALI			
output (1-10V)	channel 1: 1-10V analogue, current sink 1mA channel 2: 1-10V analogue, current sink 1mA			
switching voltage relay	250Vac/400Vac			
max. load relay	2000VA		2000VA	
circuit breaker	12A max		12A max	
max. switching current relay	8A		16A	
max. inrush current relay	160A		160A	
type of relay	1 normally open		1 normally open	
switching operations at nominal load, resistive	3x10 ⁴			
max. switching frequency relay	0.1 Hz (max. load)			
environmental conditions				
storage and transportation temperature	-20°C ... 75°C			
operating temperature	-20°C ... 65°C			
general data				
dimensions (l x w x h)	120mm x30mm x 22mm dimensions page 3		98mm x 18mm x 56mm dimensions page 3	
housing/mounting	remote		DIN rail	
protection degree housing	IP40			

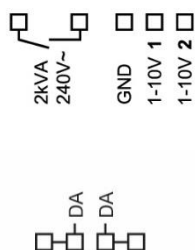
protection degree terminals	IP20	
terminals		
connection type	spring terminal connector	screw connector
wire size solid core	0,5 ... 1,5 mm ² (AWG20 ... AWG16)	0,5 ... 2,5 mm ² (AWG20 ... AWG14)
wire size fine wired	0,5 ... 1,5 mm ² (AWG20 ...AWG16)	0,5 ... 2,5 mm ² (AWG20 ...AWG14)
wire size using wire end ferrule	0,25 ... 1 mm ²	0,25 ... 1,5 mm ²
stripping length	8,5 ... 9,5 mm / 0,33 ... 0,37 inch	7 mm / 0,27 inch
locking torque	-	0,5Nm
release of wire	push button	open screw



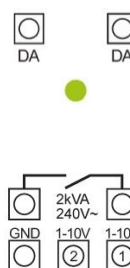
dimensions DALI RM16 2x0-10V DE



dimensions DALI RM16 2x0-10V HS

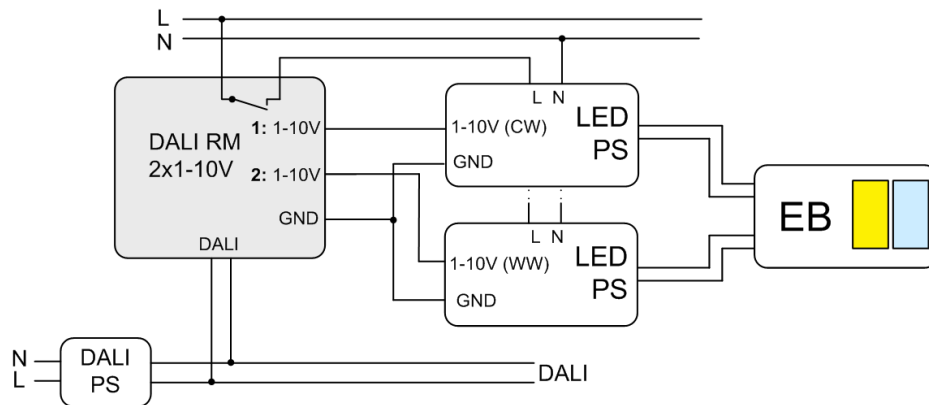


connection plan DALI RM16 2x0-10V DE



connection plan DALI RM16 2x0-10V HS

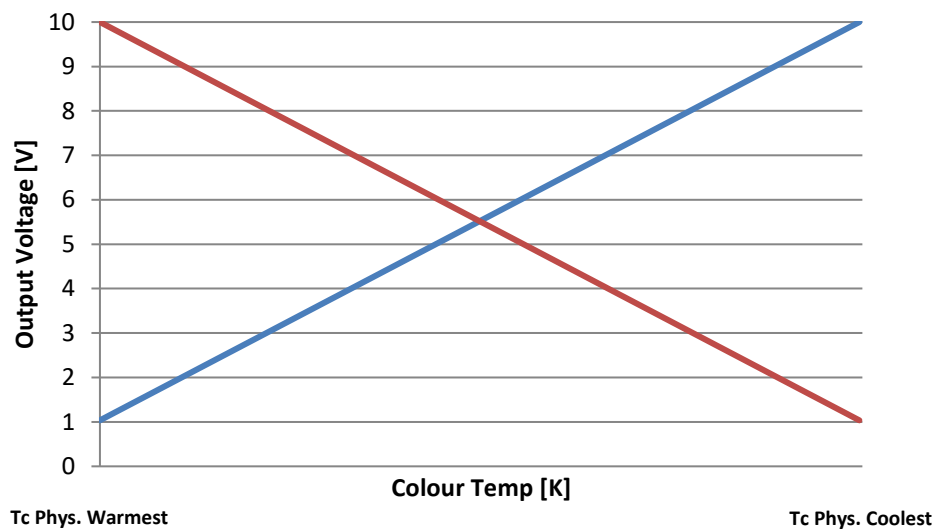
Typical Application



typical structure: control of two 1-10V LED-power supplies (one for CW, one for WW)

Control characteristic

Channel 1 (blue) for Coldwhite, Channel2 (red) for Warmwhite: output voltage at 100% light level over colour temperature (at lower light levels the output voltages are lower as well).



Hint: For a correct colour temperature the kelvin values of the used cold and warm luminaire should be entered as parameter TC PHYSICAL COOLEST and TC PHYSICAL WARMEST.

Hint: Outputs are passive. The supply of the 1-10V interface has to be provided by the connected LED power supply.

Installation

The module is supplied directly by the DALI-line (typ. current consumption 7mA). The connection to the DALI-line is polarity free.

The output can sink currents up to 1mA per channel.

The remote type is only suitable for switching currents up to 8A and nominal loads of up to 1000VA whereas the DIN rail version provides 16A and 2kVA. Both types are suitable for inrush currents up to 160A.

Function

The interface acts as DT8-module for tuneable white (type Tc) on the DALI-line. Light level and colour temperature are converted in two analogue 1-10V output voltages for the control of LED supplies with 1-10V control input (one for cold-white and one for warm-white). For details check the control characteristic.

The relay is coupled to the light level, is the level 0 the relay is off, at any other level (1-254) it is on.

The behaviour of the relay in case of a system failure can be defined. The options are On/Off and „keep actual state“. In case of a system failure the outputs are at 10V.

Furthermore with the DALI-Cockpit the following manufacturer specific features can be configured:

- output mode (CW/WW or light level/Tc)
- Exchange function of channel1 and channel2

- step size for commands Tc STEP COOLER and Tc STEP WARMER
- configurable reset behaviour of the AUTO ACTIVATION BIT
- option to ignore broadcast control- and configuration commands

DALI instruction set

The device is based on the standard for DALI Control Gear (IEC 62386-102) and Device Type 8 (IEC 62386-209). Since the device is bus powered there are the mentioned restrictions in case of a system failure. Furthermore the module supports the DALI2-command GOTO LAST ACTIVE LEVEL.

Auto Calibration Mode

The DALI RM 2x1-10V provides an automatic calibration mode for the 1-10V outputs (calibration on Power-Up, duration up to 2 minutes). The automatic calibration can be deactivated and/or be manually triggered in the DALI-Cockpit.

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-a-z/>

Contact

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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.