

## LDALI-RM5, LDALI-RM6

Datasheet #89076925



The LDALI-RM Relay Modules enable the control of consumers without DALI interface. Typical application scenarios are the integration of non-DALI luminaires (with 1 – 10V or no control interface) or other loads like fans in toilets or washrooms and motors for partition walls or screens in DALI lighting applications.

The built-in relay contact can be used for currents of up to 10 A or loads of up to 2.500 VA, respectively. It supports a wide voltage range of 120 – 277 V AC and up to 30 V DC. Zero cross switching technology is used to be able to handle the large in-rush currents typically found in lighting applications. For legacy dimmable ballasts the LDALI-RM modules are also equipped with a 1 – 10 V interface, which can be used together with the relay contact to control these types of loads via DALI.

Together with the LOYTEC DALI controllers or LROC-40x room automation controllers, the LDALI-RM modules act as programmable switching output modules. The integration of the module in the DALI network follows the same simple steps as the integration of a DALI lamp. The device supports the DALI specification IEC 62386-208 (Device Type 7, “switching function”) for non-dimmable loads and the DALI specifications IEC 62386-206 (Device Type 5, “converter”) for loads dimmable via the 1 – 10 V interface, respectively (max. 50 mA current sink). The LDALI-RM modules are directly connected to a DALI channel and also supplied with energy by that channel.

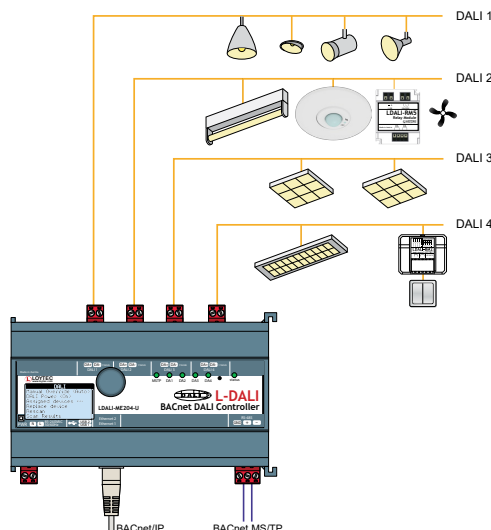
As a unique safety feature the relay state for fault conditions can be configured: In case of a loss of power on the DALI bus, the relay will switch to the position as defined with the DALI configuration register “System Failure Level”.

The LDALI-RM module comes with two housing options: While the LDALI-RM5 is designed for installation in distribution boxes or behind standard plugs in installation boxes, the LDALI-RM6 allows installation on US-style fixtures or junction box ½” knockouts (“spud-mount”).

## Features

- Easy integration into LOYTEC L-DALI lighting systems and LROC-40x room automation controllers
- Device configuration with the free L-INX Configurator or via the built-in web server of the L-DALI controller
- Programmable switching output for standard consumers in the power grid
- Universal voltage support (120 – 277 V AC)
- Up to 64 LDALI-RM Relay Modules per DALI channel with sufficient dimensioned bus supply
- Supplied via the DALI channel
- Potential-free, bi-stable relay make contact
- Analog 1 – 10 V Interface for legacy dimming lamps
- DALI-2 certified
- DALI specification IEC 62386-208 (Device Type 7 – Switching Function) supported
- DALI specification IEC 62386-206 (Device Type 5 – Converter) supported
- Selection of the desired device type via operating mode (0x0: Switching Function (default); 0x80: Converter)
- Configurable relay position in case of power loss
- Zero cross switching function
- Firmware update via DALI

# LDALI-RM5, LDALI-RM6



## Specifications

Type	LDALI-RM5	LDALI-RM6
Dimensions (mm)	51 x 41 x 21 (L x W x H), DIM066	51 x 51 x 21 (L x W x H), DIM066
Installation	Junction box	Connected to Junction box with knock outs
Purpose of Control	Operating control	
Construction of Control	Independently mounted control	
Feature of automatic action:	Type 1	
Rated Impulse Voltage	2500 V	
Overvoltage category	II	
Power supply	DALI bus, idle 3.5 mA / 3 mA (1-10 V connected / not connected) (@16 V DC), typ. 6 mA (@16 V DC), max. 11 mA (inrush current)	
Operating conditions	0 °C to 50 °C, 10 – 90 % RH, non-condensing, degree of protection: IP20	
Interfaces	1 x DALI, protected against overvoltage (mains voltage) 1 x Analog interface 1 – 10 V	
DALI protocol conformance (IEC 62386 parts)	101 ed2, 102 ed2, 208 ed1 (switching) in operating mode 0x0 101 ed2, 102 ed2, 206 ed1 (converter) in operating mode 0x80	
Connection wires profile	0.5 – 1.5 mm <sup>2</sup> [AWG 24 – 16]	
Wire stripping length	8 mm [0.31 in]	
Max. switching power	2 500 VA @ 250 V AC; 300 W @ 30 V DC	
Nominal switching capacity AC	10 A, 120 V AC (general purpose); 30 000 cycles 10 A, 250 V AC (resistive); 100 000 cycles 10 A, 277 V AC (electronic ballast); 6 000 cycles 8 A, 277 V AC (general purpose); 30 000 cycles	
Nominal switching capacity DC	10 A, 30 V DC	
Relay contact switching voltage	120 – 277 V AC / 30 V DC	
Switching cycle	150000	
Min. switching interval	500 ms	
Max. average switching frequency	20 times/min	
Interface (1 – 10 V)	Current sink max. 50 mA Output voltage range: 0.5 – 10 V	
Certificate	DALI-2, cULus	
For use with	LOYTEC controllers supporting a DALI interface	

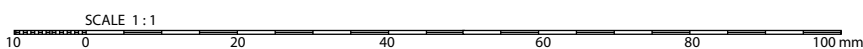
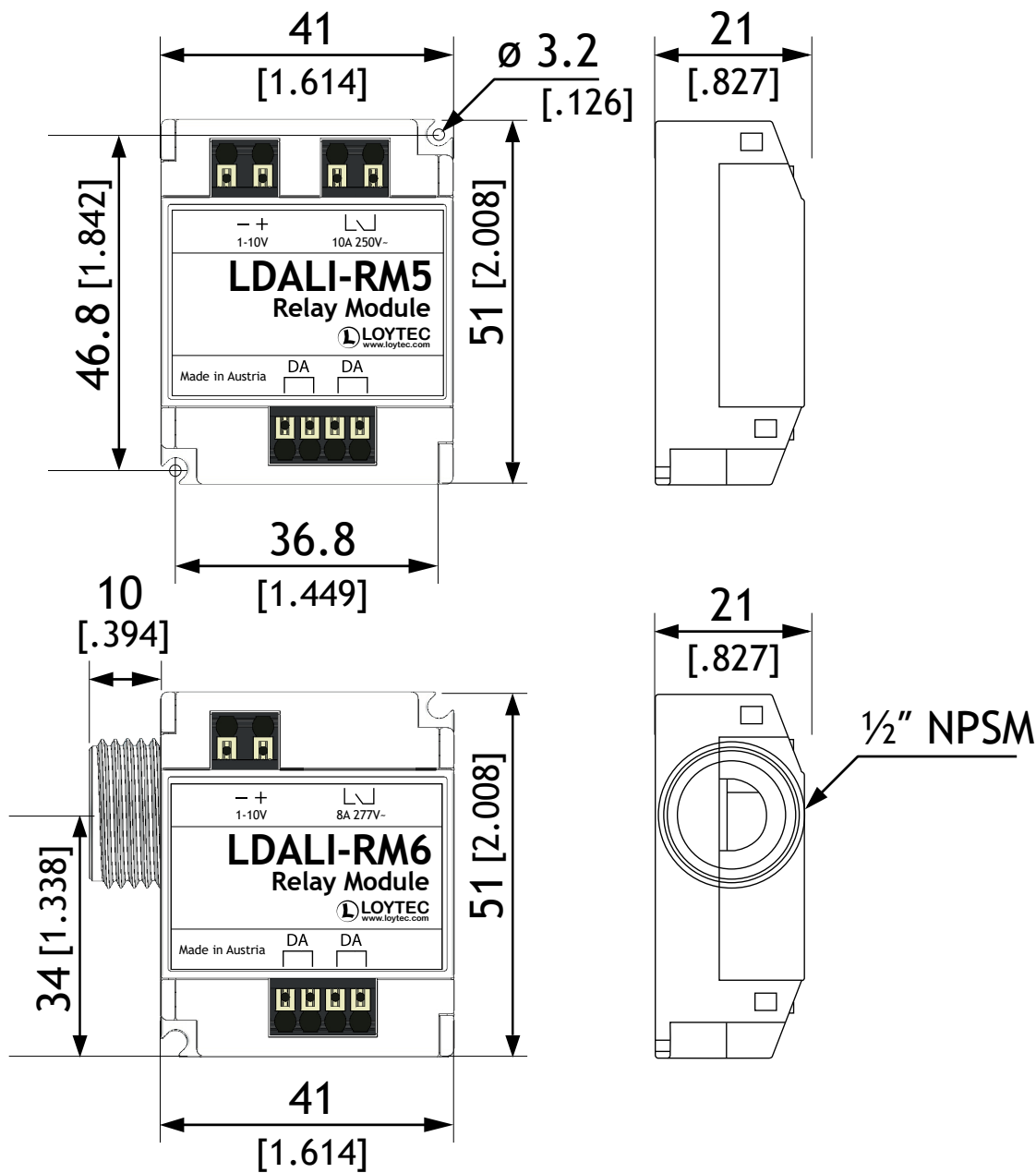
## Resource limits

Number of LDALI-RM5/LDALI-RM6	64 per DALI channel, with sufficient dimensioned DALI bus power
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Order number	Product description
LDALI-RM5	DALI Relay Module 10 A, Analog Interface 1 – 10 V
LDALI-RM6	DALI Relay Module 10 A, Analog Interface 1 – 10 V, "spud-mount"

## Dimensions of the devices in mm and [inch]

**DIM066**    LDALI-RM5  
                  LDALI-RM6



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