

Datasheet #89059020



The LDALI-RM Relay Modules enable the control of standard consumers via a DALI channel. Typical application scenarios are the integration of non-DALI luminaires 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 – 347 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 an 0-10 V and 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 0 - 10 V and 1 – 10 V interface, respectively. 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”.

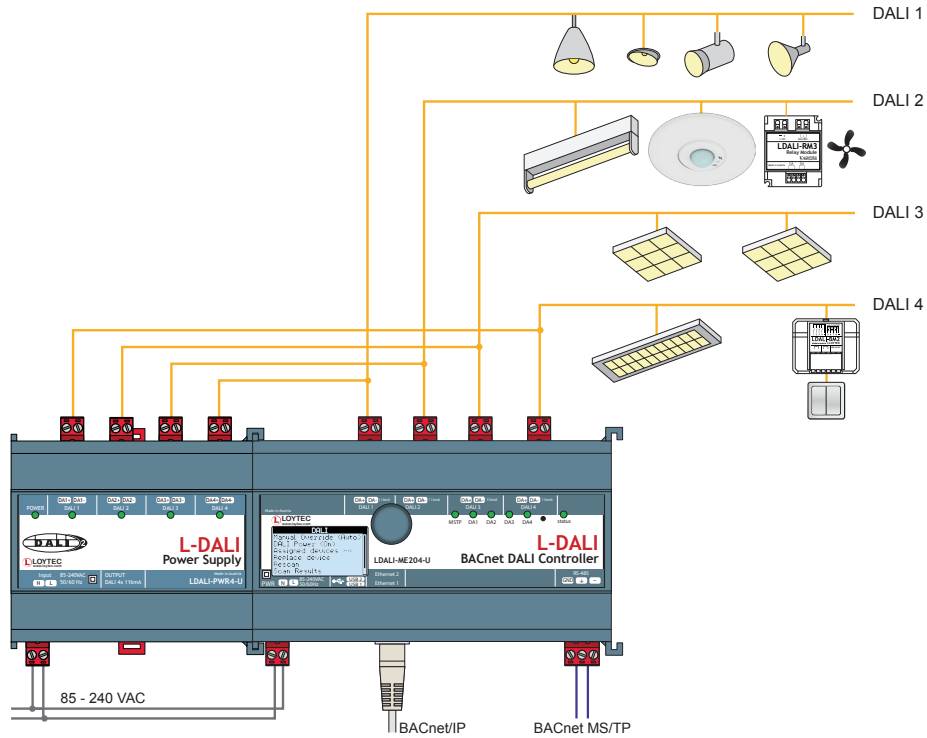
The LDALI-RM module comes with two housing options: While the LDALI-RM3 is designed for installation in distribution boxes or behind standard plugs in installation boxes, the LDALI-RM4 allows installation on US-style fixtures or junction box ½” knockouts (“spud-mount”).

## Features

- Easy integration into LOYTEC L-DALI lighting systems and LROC-40x room automation controllers
- Device configuration with the free L-DALI 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 – 347 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 Interface 0 – 10 V and 1 – 10 V for legacy dimmable lamps
- DALI specification IEC 62386-208 (Device Type 7 – Switching Function) supported
- DALI specification IEC 62386-206 (Device Type 5 – Converter) supported
- Configurable relay position in case of power loss
- Zero cross switching function

L-DALI Relay Module

LDALI-RM3, LDALI-RM4



Specifications

Type	LDALI-RM3	LDALI-RM4
Dimensions (mm)	51 x 41 x 21 (L x W x H), DIM042	51 x 51 x 21 (L x W x H), DIM042
Power supply	DALI bus, typ. 3.4 mA (0-10V/1-10V connected), respectively 2 mA (0-10V/1-10V not connected) at 16 V DC	
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 0 – 10 V or 1 – 10 V	
DALI protocol conformance (IEC 62386 parts)	101 ed2, 102 ed2, 208 ed1 (switching) or 206 ed1 (converter)	
For use with	LDALI-3E101-U, LDALI-3E102-U, LDALI-3E104-U, LDALI-ME201-U, LDALI-ME204-U, LDALI-PLC4, LROC-40x	

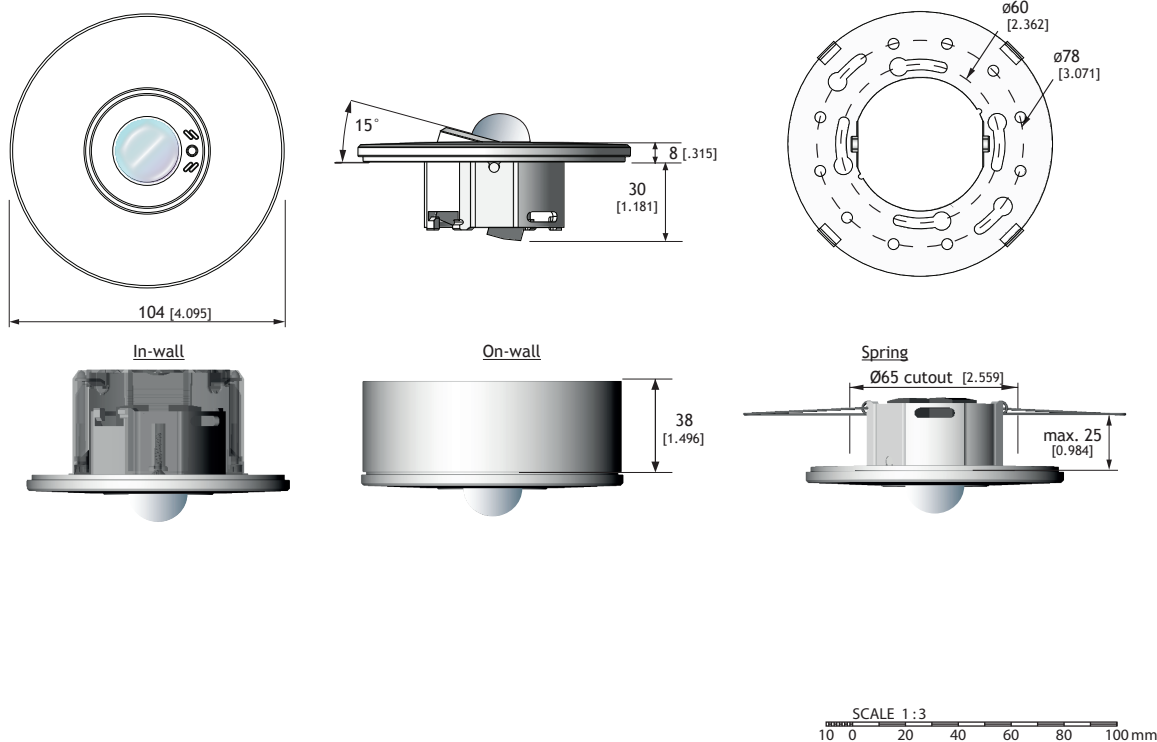
Resource limits

Number of LDALI-RM3/LDALI-RM4	64 per DALI channel, with sufficient dimensioned DALI bus power
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	2500 VA, 300 W
Nominal switching capacity AC	10 A, 120 V AC 10 A, 250 V AC 8 A, 277 V AC 6 A, 347 V AC
Nominal switching capacity DC	10 A, 30 V DC
Relay contact switching voltage	120 - 347 V AC / 30 V DC
Switching cycle	1.5 x 10 <sup>5</sup>
Min. switching interval	500 ms
Max. average switching frequency	20 times/min
Interface (0 – 10 V / 1 – 10 V)	current sink 1 mA

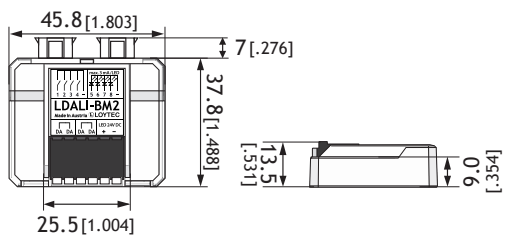
Order number	Product description
LDALI-RM3	DALI Relay Module 10 A, Analog Interface 0 – 10 V and 1 – 10 V
LDALI-RM4	DALI Relay Module 10 A, Analog Interface 0 – 10 V and 1 – 10 V, "spud-mount"

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

**DIM040** LDALI-MS2



**DIM041** LDALI-BM2



**DIM042** LDALI-RM3  
LDALI-RM4

