L-DALI Phase-Cut Dimmer Module

LDALI-PD1

Datasheet #89089701

DALI 2

DALI-2

The LDALI-PD1 module enables the control of phase-cut dimmed consumers via a DALI channel. Typical application scenarios are the integration of 230V LED-retrofit-bulbs or halogen lamps in DALI lighting applications.

The device supports a wide voltage range from 220-240 VA C 50/60Hz. The LDALI-PD1 is suitable for loads from 1VA up to 150VA. The load type (RL/RC) is automatically detected and used to select a suitable dimming-method (leading or trailing edge phase-cut). The dimming range is 3%-100%.

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 62386-205 (Device Type 4, "Incandescent lamp"). The LDALI-PD1 modules are directly connected to a DALI-channel and also supplied with energy by that channel. Thus in case of a system failure the intended state of the output is off.

The LDALI-PD1 is equipped with an open-circuit detection that indicates a lamp failure if no load is connected.

The LDALI-PD1 is designed for installation in distribution boxes or behind standard plugs in installation boxes.

Features

- Easy integration into LOYTEC L-DALI lighting system and LROC-40x room automation controllers
- Device configuration with the free LINX Configurator or via the built-in web server of the L-DALI controller
- Dimmable built-in phase-cut dimmer
- Automatic load detection and selection of leading or trailing edge phase-cut dimming
- Suitable for phase-cut dimmed consumers like dimmable retrofit LED and CFL lamps, halogen lamps, …
- Wide range voltage support (220-240 V AC 50/60Hz)
- Up to 64 LDALI-PD1 modules per DALI channel with sufficient dimensioned bus supply
- Supplied via DALI channel
- Electrically isolated between DALI and mains
- Open circuit detection
- DALI specification IEC 62386-102 and IEC 62386-205 supported
- Firmware update via DALI

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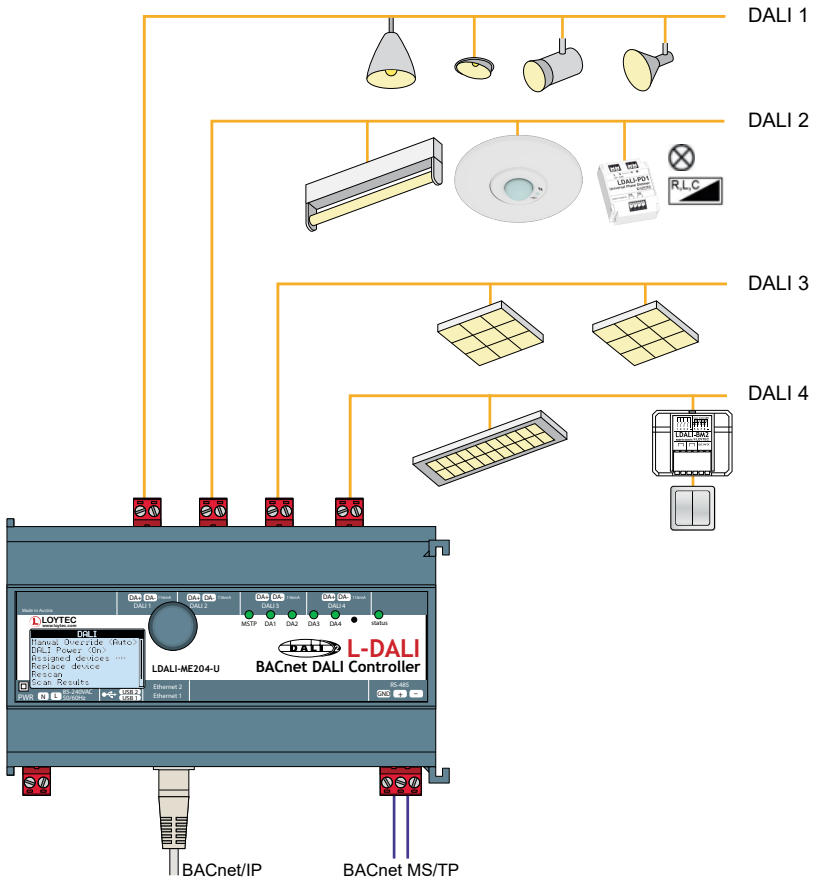
LDALI-PD1



Specifications	
Type	**LDALI-PD1**
Dimensions (mm)	51 x 41 x 21 (L x W x H), DIM042
Power supply	DALI bus, idle 3 mA (@16 V DC), typ. 6 mA (@16 V DC), max. 11mA (inrush current)
Voltage	220-240 V AC, 50/60Hz
Operating conditions	0°C – 50°C, 10 – 90% RH, non-condensing, degree of protection: IP20
Interfaces	1 x DALI, protected against overvoltage (mains)
DALI protocol conformance (IEC 62386 parts)	101 ed2, 102 ed2, 205 ed1
Terminal blocks	Push terminals
Connection wires profile	0.2 – 1.5 mm^2 [AWG 24 – 12]
Wire stripping length	8 mm [0.31 in]
Load range	1 VA – 150 VA (RC, RL, RLC)*
Maximum wire length to luminaire	25 m
For use with	LDALI-3E10x, LDALI-ME20x, LDALI-PLCx, LROC-40x, LIOB-591

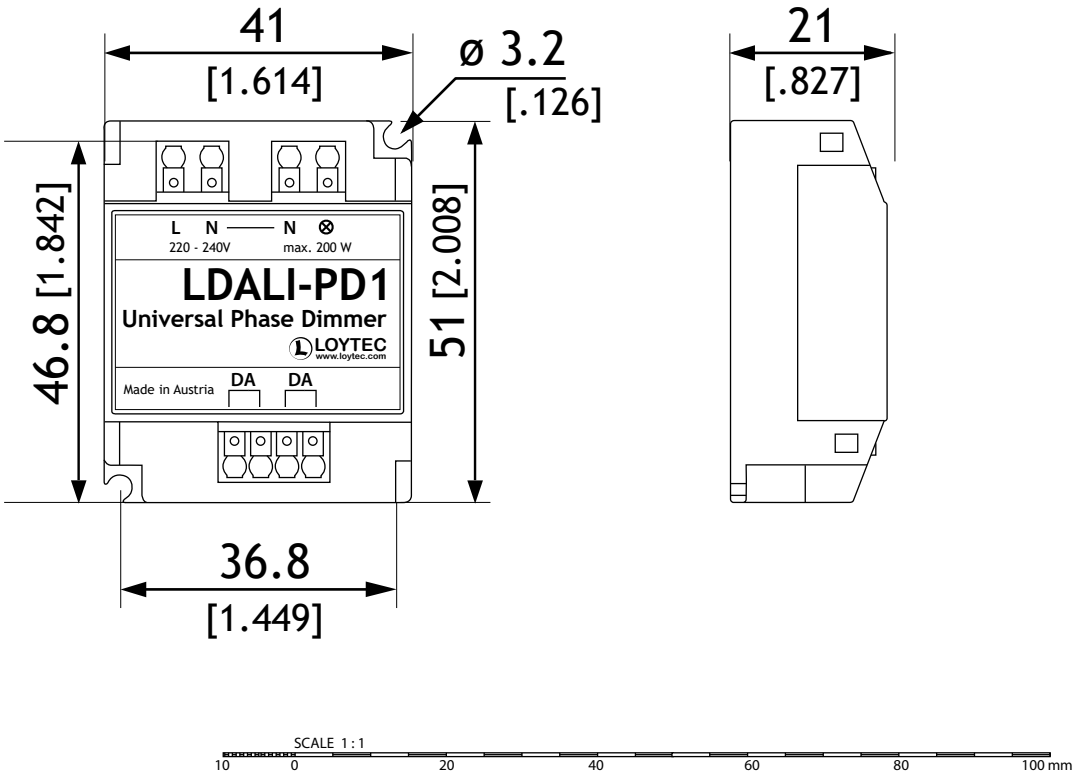
* Note: LED/CFL lamps up to a rated power of 25W may have a power factor of 0.5 only.

Resource limits	
Number of LDALI-PD1	64 per DALI channel, with sufficient dimensioned DALI bus power supply

Order number	Product description
LDALI-PD1	DALI phase-cut dimmer module

Dimensions of the devices in mm and [inch]

DIM042 LDALI-PD1



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