

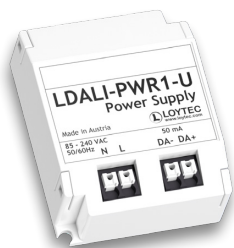
L-DALI Power Supply

LDALI-PWR1-U

BACnet
CEA-709

✓ DALI
OPC

Datasheet #89087901



The LDALI-PWR1-U is a DALI power supply for one channel with a guaranteed supply current of 50 mA (maximum supply current of 62 mA).

It is well suited as supply for small standalone DALI-systems with a limited amount of DALI-components or even for luminaire integration. A typical LOYTEC application is the supply of a DALI subsystem in a BT-mesh ecosystem (e.g. for a room), in which the sensor acts as DALI application controller and gateway to the mesh ecosystem. However, the LDALI-PWR1-U can also be used only to supply the LOYBT-MSx Bluetooth multisensors.

In applications with higher DALI currents up to 4 LDALI-PWR1-U can be used in parallel, resulting in a guaranteed supply current of 200 mA (maximum supply current of 248 mA).

Installation

The DALI channel is treated to be non-SELV (Safety Extra Low Voltage). Therefore the relevant installation regulations for low voltage apply. The cable of a DALI channel is either limited to a maximum length of 300 m using a minimum wire cross-section of 1.5 mm² (AWG15) or must ensure a maximal voltage drop of 2 V.

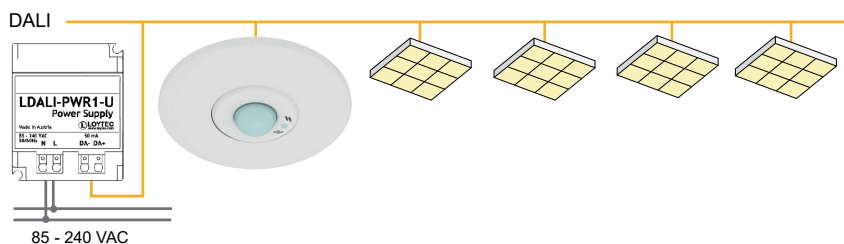
Wide Range Supply Voltage

The power supply accepts a wide range of supply voltage from 85–240 VAC, 50/60 Hz, and also features a starting-current limitation.

DALI Power Output

The DALI power output provides 16 V (11 V – 20.5 V) and 50 mA guaranteed supply current. The power output is isolated from mains by reinforced insulation. The power output is short circuit proof and shuts down if thermally overloaded.

The LDALI-PWR1-U is DALI-2 certified.

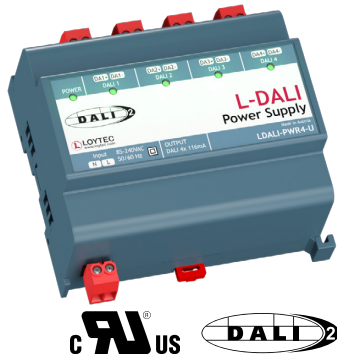


Specifications	
Dimensions (mm)	51 x 41 x 21 (L x W x H), DIM043
Installation	Installation in distribution boxes, mounting in false ceilings or luminaire integration
Power supply	85-240 V AC, 50/60 Hz, current limited startup, max. 1.7 W
Operating conditions	0 °C to 40 °C, 10 – 90 % RH, noncondensing, degree of protection: IP40, IP20 (terminals)
Interfaces	1 x 16 V DC (11 V – 20.5 V), 50 mA guaranteed supply current, 62 mA max. supply current, 30 ms start-up time, short-circuit proof, thermal overheat protection, reinforced insulation (not SELV) to the power line
Certificates	DALI-2

Order number	Product description
LDALI-PWR1-U	DALI power supply unit for 1 DALI channel, 50 mA

LDALI-PWR2-U, LDALI-PWR4-U

Datasheet #89023222



The DALI-2 power supplies LDALI-PWR2-U and LDALI-PWR4-U are used to power two or four DALI channels. Per channel, the power supplies provide a guaranteed supply current of 116 mA to power devices connected to the DALI channel.

In case the DALI devices connected to the channel consume more than the 116 mA, two DALI outputs of the power supplies can be used in parallel, resulting in a guaranteed supply current of 232 mA (maximum supply current of 250 mA).

Installation

The DALI channel is treated to be non-SELV (Safety Extra Low Voltage). Therefore the relevant installation regulations for low voltage apply. The cable of a DALI channel is either limited to a maximum length of 300 m using a minimum wire cross-section of 1.5 mm² (AWG15) or must ensure a maximal voltage drop of 2 V.

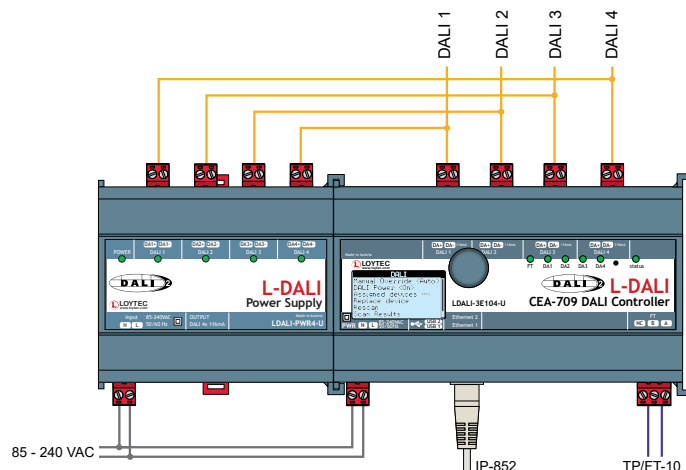
Wide Range Supply Voltage

The power supplies accept a wide range of supply voltage from 85-240 V AC, 50/60 Hz. They also feature a starting-current limitation.

DALI Power Outputs

The DALI power outputs provide 18 V (11 V – 20.5 V) and 116 mA guaranteed supply current. The power outputs are isolated from mains by reinforced insulation. The power outputs are short circuit proof and shut down if thermally overloaded. When a thermal overload occurs, the DALI control lamp switches off.

The LDALI-PWR2-U and LDALI-PWR4-U are DALI-2 certified.



Specifications	
Dimensions (mm)	107 x 100 x 60 (L x W x H), DIM023
Installation	DIN rail mounting following DIN 43880, top hat rail EN 50022
Power supply	85-240 V AC, 50/60 Hz, current limited start up, max. 12 W
Operating conditions	0 °C to 40 °C, 10 – 90 % RH, noncondensing, degree of protection: IP40, IP20 (terminals)
Interfaces	LDALI PWR2-U: 2 x 18 V DC (11 V – 20.5 V), each 116 mA guaranteed supply current***, 125 mA max. supply current, 7 ms start-up time, short-circuit-proof, thermal overheat protection, reinforced insulation (not SELV) to the power line LDALI PWR4-U: 4 x 18 V DC (11 V – 20.5 V), each 116 mA guaranteed supply current***, 125 mA max. supply current, 7 ms start-up time, short-circuit-proof, thermal overheat protection, reinforced insulation (not SELV) to the power line
Certificates	DALI-2
Order number	Product description
LDALI-PWR2-U	DALI power supply unit for 2 DALI channels
LDALI-PWR4-U	DALI power supply unit for 4 DALI channels

***With high DALI traffic (e.g. during DALI-scan) increased current consumption may occur depending on the devices connected. Therefore, according to IEC62386-101 it is recommended to take an additional current of at least 20% for dynamic processes into account in system design.