L-DALI   CEA-709/DALI Controller

LDALI-3E101, LDALI-3E102, LDALI-3E104

L-DALI controllers are multifunctional devices combining constant light control, sunblind control, and gateway functions between LONMARK and DALI (Digital Addressable Lighting Interface) systems. With alarming, scheduling, trending, and e-mail notification (AST™) the L-DALI Controller is a perfect solution for DALI lighting systems and for a smooth DALI integration into LONMARK Systems.

Constant Light Control with built-in Sunblind Control

The integrated Constant Light Controller (LONMARK Functional Profile #3050) handles DALI devices and CEA-709 nodes in the same way. Optionally, the integrated Sunblind Controller (LONMARK Functional Profile #6111) can interact with the Constant Light Controller to assure maximum comfort and energy efficiency. Sunblind actuators are also integrated as CEA-709 nodes.

An effective sun and anti-glare protection can be reached through active slat control and slat adjustment according to the sun position. Energy efficiency is ensured by linking room occupancy with light control and sun protection. If a room is unoccupied the L-DALI Controller opens or closes the sunblinds depending on the thermal requirements. This allows for instance to use the heat of the sun for heating in winter while in summer, the heat from the sun is reduced by the closed blinds to reduce the cooling load.

In addition to the constant light and sunblind control, any mathematical calculation and function as well as logical operation (boolean algebra) can be created on the device and process all available data points.

Advanced DALI Functions

L-DALI supports selected DALI presence detectors and light sensors with DALI ballasts. A list of currently supported devices can be found on www.loytec.com.

Fluorescent lamps must be operated about 100 hours with 100 % brightness before they may be dimmed. This burn-in process is monitored by L-DALI for each lamp. After 100 hours burn-in time the lamps constant light control is enabled.
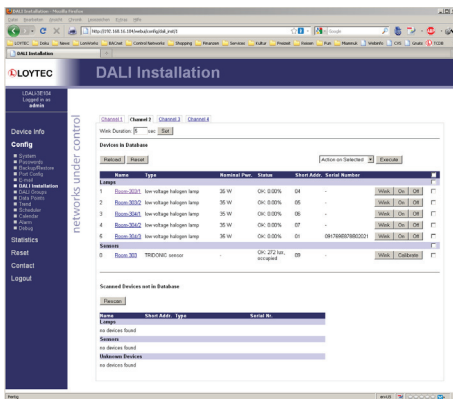
In emergency lighting systems, L-DALI can be used for testing the system. The results can be logged.

For maximum transparency in the lighting system L-DALI can record the operating hours of each lamp and also the projected energy consumption.

Defective DALI ballasts can easily be replaced directly through buttons on the L-DALI controller or via the Web interface. No software tool is necessary.
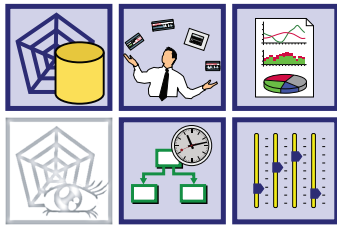
Smooth DALI integration in LONMARK Systems

The L-DALI Controller maps information from the DALI network to network variables (NVs) to control DALI ballasts or to display operating states. L-DALI represents a DALI-Master in the DALI network which can interact with selected DALI multi-sensors in Multi-Master mode.

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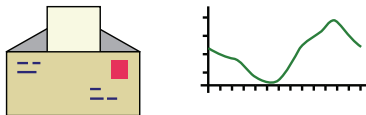## LDALI-3E101, LDALI-3E102, LDALI-3E104

Network Connection

The L-DALI lineup for LONMARK Systems features 1, 2, or 4 independent DALI channels. Up to 64 DALI-based luminaries per DALI channel can be controlled individually or via 16 groups. All luminaries are monitored for lamp or ballast defect.

L-DALI Controller for LONMARK Systems can be connected either to an Ethernet/IP channel (LONMARK IP-852) or a TP/FT-10 channel. The provided static NV interface includes the following profiles:

- Lamp Actuator #3040
- Light Sensor #1010
- Occupancy Sensor #1060
- Constant Light Controller #3050
- Sunblind Controller #6111

The device configuration is either done with the L-DALI Configuration Tool (Used as stand-alone tool or as LNS® plug-in) or via the integrated Web server. All data points are available in a tree structure on the integrated Web server to be displayed or set using a standard Web browser.
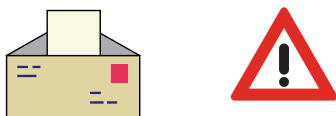
Local Data Storage, Data Provision and Reporting

L-DALI Controllers can store trend and event logs locally. In addition, trend and event logs can be read via FTP as CSV files or sent as an e-mail attachment. For long-term data storage the LWEB-801 Server with SQL database connection is available. The LWEB-801 Server can also process e-mails sent by the L-DALI Controllers with the trend and event log data attached in CSV format. LWEB-801 Server stores the information in the SQL database. LWEB-830 Dream Report is provided optionally for analyzing and presenting the data.

Scheduler

Schedulers and calendars located on the L-DALI Controllers are configured with the L-DALI Configuration Tool and parameterized via the integrated Web server. Remote access to other LOYTEC devices, which also host schedulers is possible. Centralized management of schedulers on one or multiple distributed L-DALI Controllers is done with the LWEB-820 Master Schedule Configurator.

Alarming

The L-DALI Controllers support alarming functionality according to the LONMARK profile definition. Alarms are available via the integrated Web server. Alarm logs are stored on the device and synchronized to an available LWEB-801 Server. Alarm logs can be read via FTP as CSV file from the L-DALI Controller or forwarded event-driven to any recipients via e-mail.
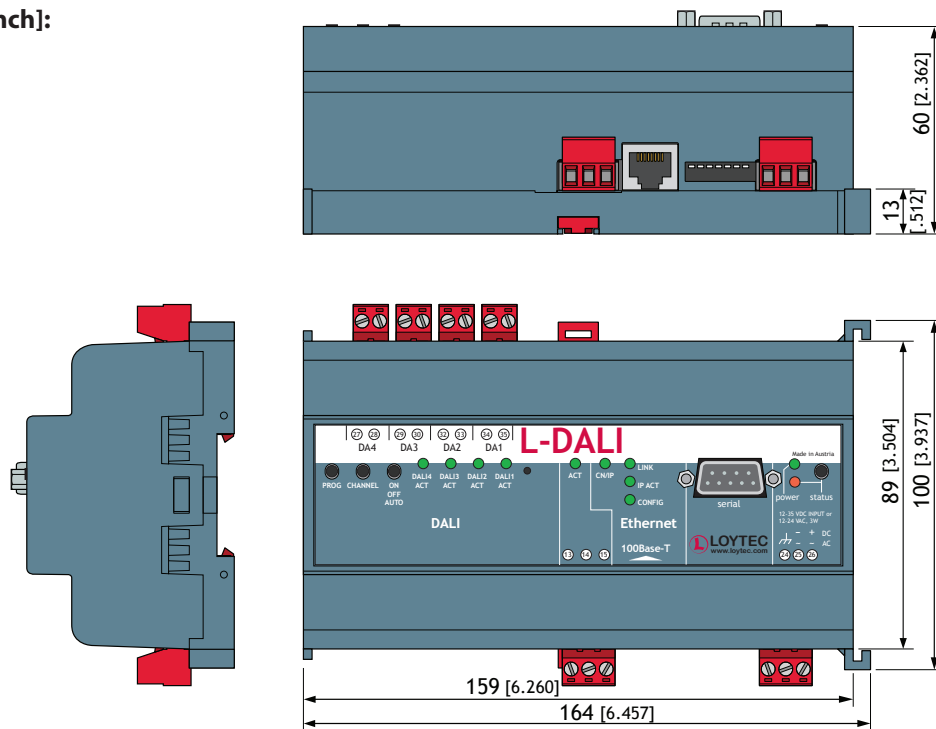
DALI Power Supply

An external DALI power supply is needed to power up the DALI network. Power supplies are available for two or up to four channel DALI networks.
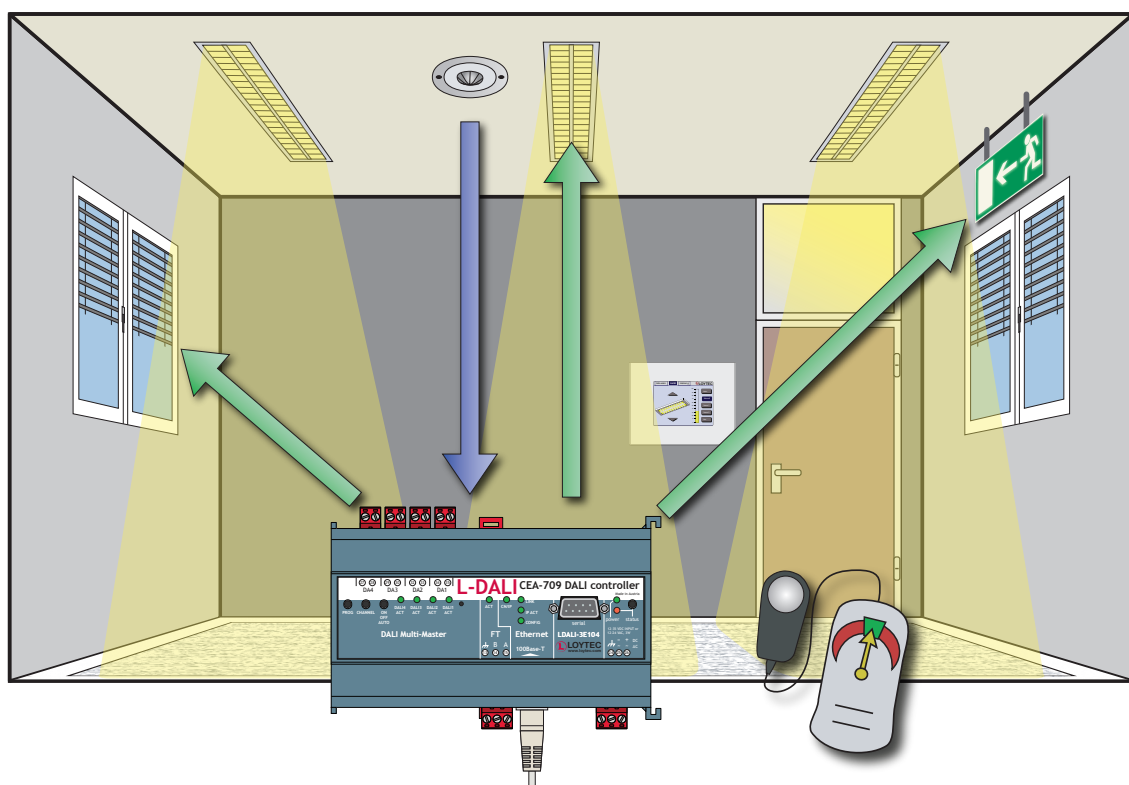
L-DALI   CEA-709/DALI Controller

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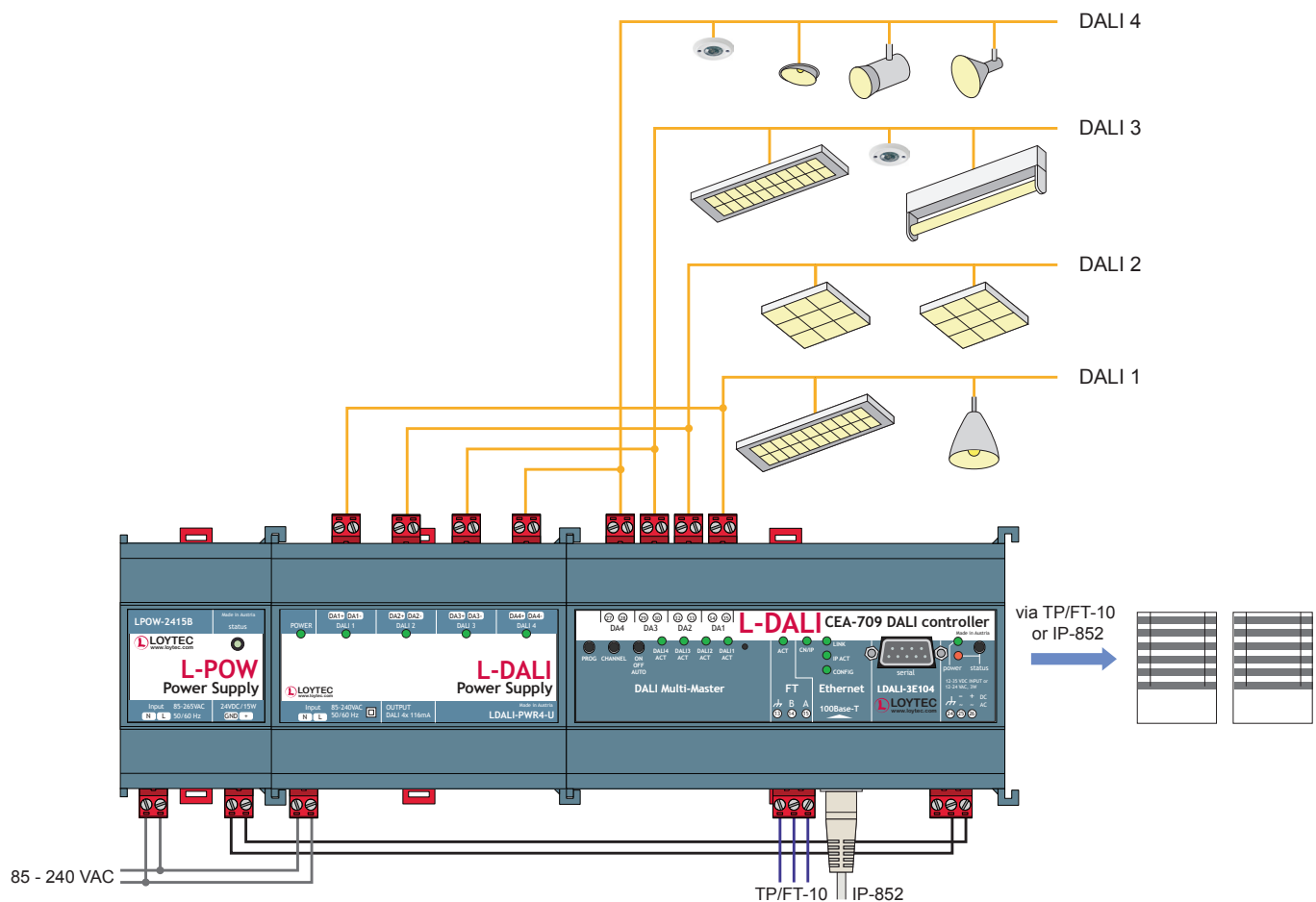**Dimensions in mm [inch]:**

Features:

- Integrated Constant Light Control
- Integrated Sunblind Control
- Gateway functions for DALI integration in LonMark Systems
- Supports up to 64 DALI devices and 16 DALI groups per DALI channel
- Integrated Web server for the device configuration and for monitoring of data points
- Test and assignment of the DALI devices via the Web interface

- Replacement of DALI devices without additional software tools
- DALI commissioning with unique ballast ID (GTIN/SNR)
- Compliant with CEA-709, CEA-852, ISO/IEC 14908-1 standard (LonMark Systems)
- Supports TP/FT-10 or IP-852 (Ethernet/IP)
- Integrated DALI protocol analyzer
- Supports periodic testing of emergency lights
- Supports lamp burn-in mode

L-DALI CEA-709/DALI Controller

LDALI-3E101, LDALI-3E102, LDALI-3E104

Specification			
Dimensions (mm)	159 x 100 x 60 (L x W x H)		
Power supply	12-35 VDC / 12-24 VAC ±10 %, typ. 2 W		
Interfaces	1 x Ethernet (100Base-T) LONMARK IP-852, HTTP, FTP, OPC XML-DA 1 x TP/FT-10 (LONMARK System)		
Types	LDALI-3E101	LDALI-3E102	LDALI-3E104
DALI channel	1	2	4
LONMARK Functional Profiles	Lamp Actuator #3040, Light Sensor #1010, Occupancy Sensor #1060, Constant Light Controller #3050 Sunblind Controller #6111		
Tools	L-DALI Configuration Tool, Configuration via Web interface with Browser		
Resource limits			
DALI devices per DALI channel	64	Scene Control	16 groups per DALI channel
DALI groups per DALI channel	16	Broadcast Scene	1 per DALI channel

Order number	Configuration
LDALI-3E101	CEA-709 DALI Controller for 1 DALI channel
LDALI-3E102	CEA-709 DALI Controller for 2 DALI channels
LDALI-3E104	CEA-709 DALI Controller for 4 DALI channels
LDALI-PWR2-U	DALI Power Supply, 85-240 V, 50/60 Hz, Output: 2 x 16 VDC, 116 mA (DALI bus)
LDALI-PWR4-U	DALI Power Supply, 85-240 V, 50/60 Hz, Output: 4 x 16 VDC, 116 mA (DALI bus)
LPOW-2415B	Power Supply with external power connector 24 VDC, 15 W