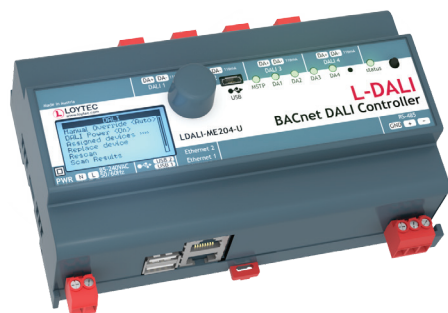


## LDALI-ME204-U, LDALI-ME201-U

Datasheet #89021218



L-DALI Controllers are multifunctional devices for constant light control and gateway functions between BACnet and DALI (Digital Addressable Lighting Interface) systems and they can host user specific graphical pages. 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 BACnet networks.

### Built-In or External DALI Power Supply

The L-DALI Controller LDALI-ME201-U comes with a built-in DALI power supply. It can supply one DALI channel with up to 230 mA. The DALI bus power can be switched on and off via web interface or LCD UI. Thanks to the switching power supply, the device can handle input voltages from 85 – 240 V AC, 50/60 Hz.

The L-DALI Controller LDALI-ME204-U needs an external DALI power supply to power up the DALI network. Power supplies are available for single channel or up to four channel DALI networks.

### BACnet/IP Connectivity

The L-DALI Controllers feature connectivity in BACnet networks via BACnet/IP or BACnet MS/TP. They also provide data exchange through Global Connections and support comprehensive AST™ functionality (Alarming, Scheduling, and Trending). Full L-WEB integration is supported as well.

Additionally, the L-DALI Controllers are equipped with two Ethernet ports including a built-in Ethernet switch.

### Local Operation and Override

The L-DALI Controllers come with a built-in backlit display (128x64) and a jog dial for local operation and override. Using the local operation, maintenance tasks (DALI device replacement, burn-in mode, etc.) can be executed without the need of any software tool.

### Constant Light Control

The integrated Constant Light Controller works with DALI and with BACnet devices. It supports various lighting control strategies based on presence and lux levels. Several parameters can be used to configure the Constant Light Controller for almost any use case.

### Device Configuration via Web Interface

The device configuration, commissioning, and parametrization of the connected DALI devices can be performed via the built-in web interface.

### Advanced DALI Functions

- **DALI Sensors**

The L-DALI Controllers support the integration of DALI multi-sensors for presence detection and light level recognition. In addition to the LOYTEC DALI multi-sensor LDALI-MS1, DALI sensors of well-known manufacturers can be selected from a list of tested devices.

- **DALI Pushbutton**

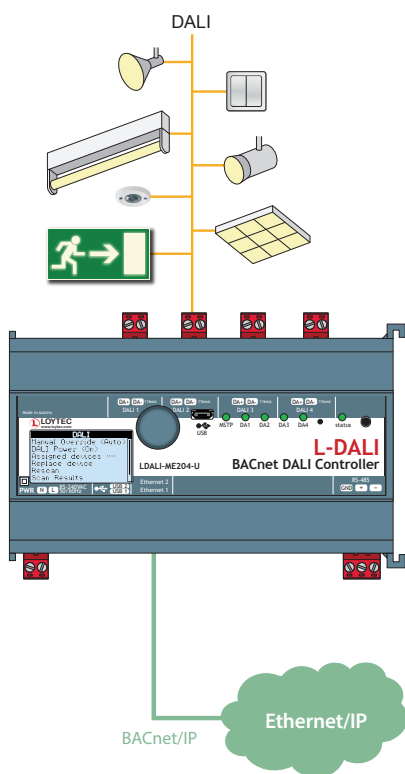
For manual operation, DALI pushbutton coupler and IR remote controls can be integrated into the system. Their functionality can be configured individually. In addition to controlling the lighting via DALI (dimming, scene recall, etc.) also commands can be sent into the building network with a single keystroke.

- **DALI Relay Modules**

Standard loads in the power grid can be controlled via DALI using DALI Relay Modules.

## BACnet/DALI Controller

# LDALI-ME204-U, LDALI-ME201-U



### • Auto Burn-In for Fluorescent Lamps

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 lamp's constant light control is enabled.

### • Automatic Test of Emergency Lighting Systems

In emergency lighting systems, L-DALI can be used for testing the system. The results can be logged.

### • Provision of Important Operational Parameters

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

### • DALI Device Replacement made Easy

Defective DALI ballasts can easily be replaced directly on the L-DALI Controller (LCD and jog dial) or via the web interface. No software tool is necessary.

### Smooth DALI Integration into BACnet Networks

The L-DALI Controller maps information from the DALI network to BACnet objects that are used 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.

### DALI Network Interface

The LDALI-ME204-U device is equipped with 4 independent DALI channels. The LDALI-ME201-U device is equipped with 1 DALI channel. 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.

### BACnet Interface

The following BACnet server objects are supported:

- Analog Output objects to control DALI ballasts, groups, and channels
- Multi-State Output objects for scene control of DALI groups and channels
- Analog Input objects providing feedback from DALI ballast, groups, and channels
- Analog Input objects providing status information from DALI groups and channels
- Accumulator objects providing estimated energy usage of DALI groups and channels
- Analog Input objects providing lux level information from supported DALI sensors
- Binary Input objects providing occupancy information from supported DALI sensors
- Loop objects providing constant light controller functionality

All data points are available on the web server in a tree structure and can be displayed and set via a web browser.

## LDALI-ME204-U, LDALI-ME201-U

## Features

- DALI integration into BACnet networks
- Supports up to 64 DALI devices and 16 DALI groups per DALI channel
- Integrated DALI bus power supply, 16 VDC, 230 mA (LDALI-ME201-U only)
- Manual operation using the jog dial and local access to information about device status and data points in clear text and symbols
- 128x64 graphic display with backlight
- Built-in web server for device configuration
- Test and assignment of DALI devices on the web interface
- Replacement of DALI devices without additional software tools
- Supports up to 16 DALI sensors
- Supports up to 64 DALI pushbuttons
- Supports the control of standard loads in the power grid via LDALI-RM1 Relay Modules
- Integrated Constant Light Controller
- Supports lamp burn-in mode
- Supports periodic testing of DALI emergency lights
- Integrated DALI Protocol Analyzer
- Compliant with ANSI/ASHRAE 135-2012 and ISO 16484-5:2012 standard
- Supports BACnet/IP or BACnet MS/TP
- Alarming, Scheduling, and Trending (AST™) locally or embedded in L-WEB (building management)
- Event-driven e-mail notification
- Supports Global Connections
- Built-in OPC XML-DA server
- Stores customized graphical pages
- Visualization of customized graphical pages through LWEB-900 (building Management), LWEB-803 (Monitoring and Control), or LWEB-802 (Web Browser)
- Stores user-defined project documentation
- Dual switched or separated Ethernet ports
- Supports SMI (Standard Motor Interface) through LSMI-804
- Connection to EnOcean wireless devices via LENO-80x Interface
- Supports WLAN through LWLAN-800 Interface

## Specifications

| Type                 | LDALI-ME204-U   | LDALI-ME201-U  |
|----------------------|---|--|
| Dimensions (mm)      | 159 x 100 x 75 (L x W x H), DIM006  |  |
| Installation         | DIN rail mounting following DIN 43880, top hat rail EN 50022  |  |
| Power supply         | 85-240 V AC   | 85-240 V AC, 50/60 Hz, typ. 7.5 W                      |
| Operating conditions | 0 °C to 50 °C, 10–90 % RH @ 50 °C, non condensing, degree of protection: IP40, IP20 (terminals)   |  |
| DALI channels        | 4   | 1 with integrated DALI bus power supply 16 VDC, 230 mA |
| Interfaces           | 2 x Ethernet (100Base-T):<br>OPC XML-DA, OPC UA,<br>BACnet/IP*,<br>HTTP, FTP, SSH, HTTPS, Firewall, VNC, SNMP<br>1 x RS-485 (ANSI TIA/EIA-485):<br>BACnet MS/TP*<br>2 x USB-A:<br>WLAN (needs LWLAN-800),<br>EnOcean (needs LENO-80x)<br>SMI (needs LSMI-804) |  |
|                      | * Either BACnet/IP or BACnet MS/TP  |  |
| Tools                | L-INX Configurator and configuration via web interface  |  |

## BACnet/DALI Controller

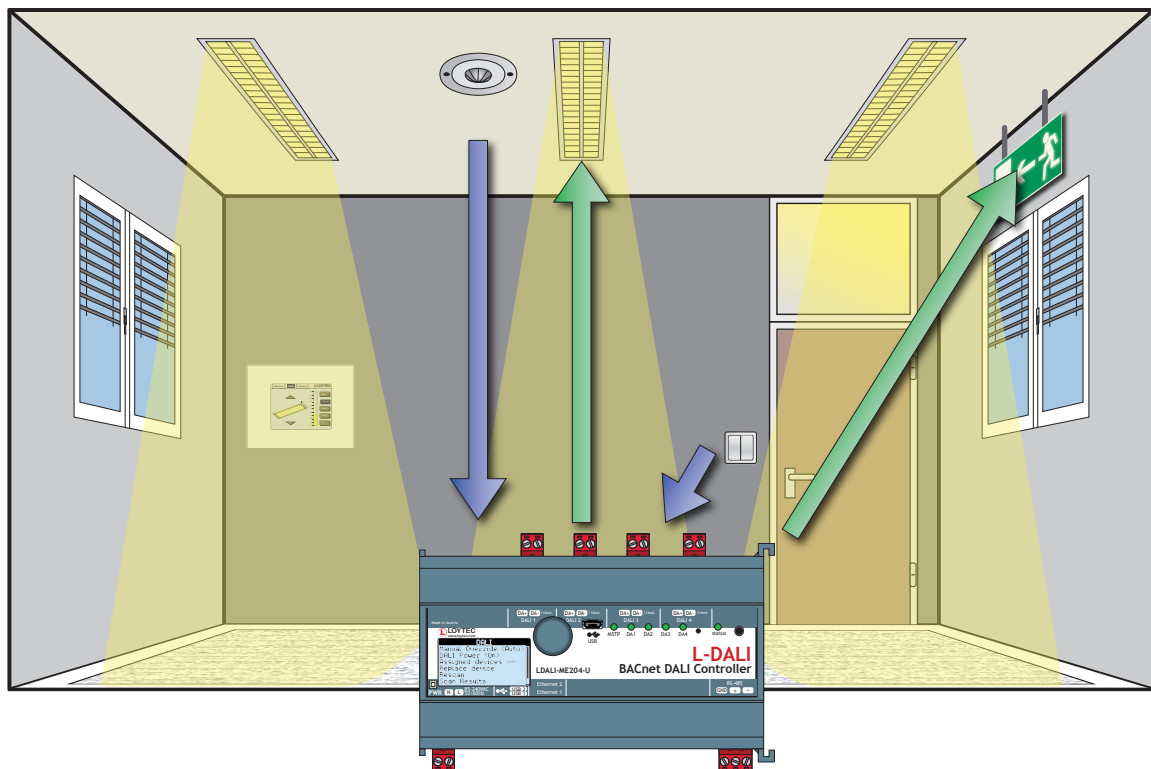
## LDALI-ME204-U, LDALI-ME201-U

## Resource limits

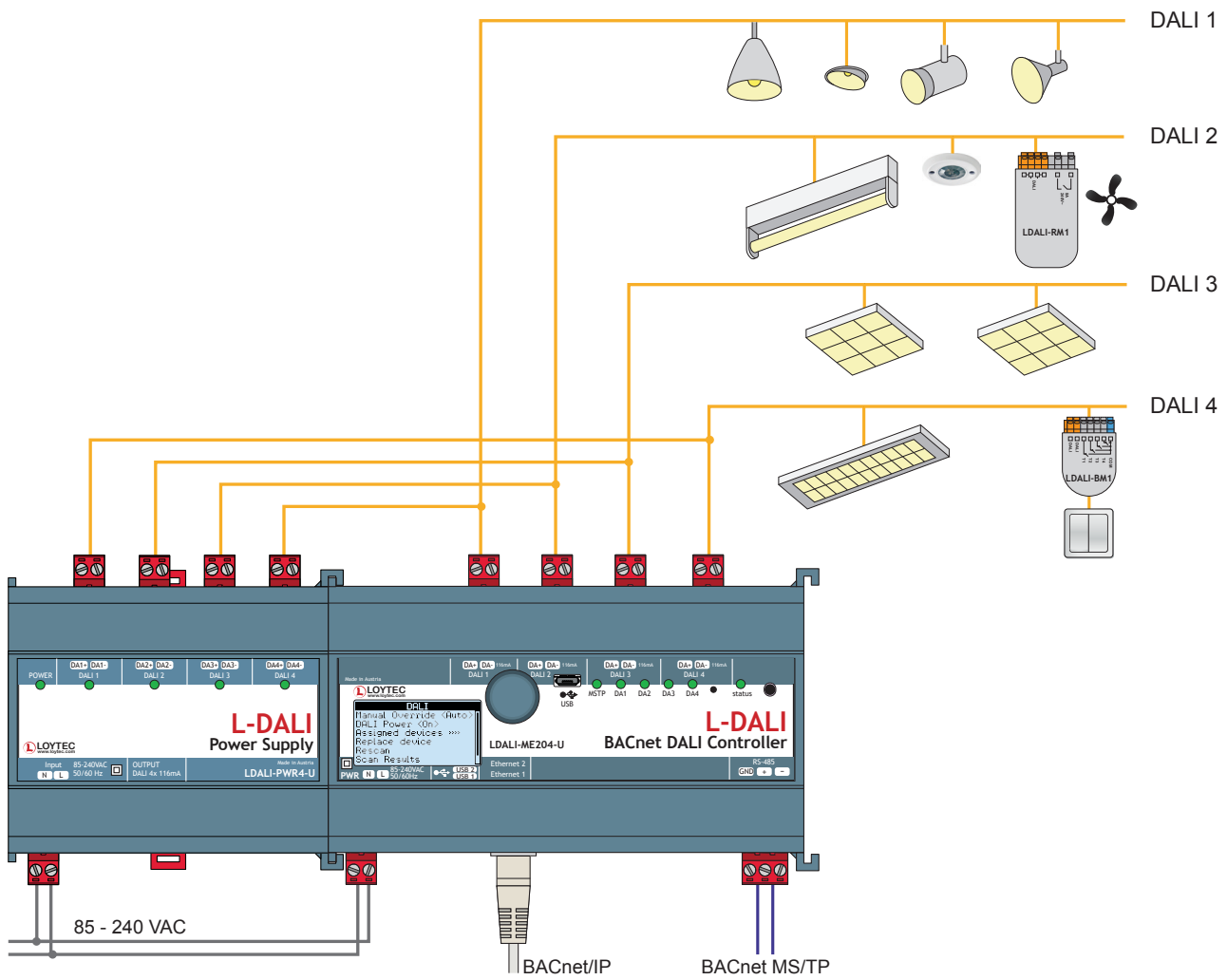
|                                   |                          |                             |   |
|-----------------------------------|--------------------------|-----------------------------|---|
| DALI devices per DALI channel     | 64                       | BACnet client mappings      | 1 000                                     |
| DALI groups per DALI channel      | 16                       | BACnet scheduler objects    | 25 per DALI channel                       |
| DALI sensors per DALI channel     | 16                       | BACnet calendar objects     | 25  |
| DALI pushbuttons per DALI channel | 64                       | BACnet notification classes | 32  |
| Scene control                     | 16 scenes per DALI group | Trend logs                  | 25 per DALI channel (max. $\approx$ 1 MB) |
| Math objects                      | 100                      | Data points in trend log    | 16 per DALI channel                       |
| Alarm logs                        | 10                       | E-mail templates            | 100                                       |
| OPC data points                   | 2 000                    | Connections (Local/Global)  | 1 000 / 250                               |
| Number of L-WEB clients           | 32 (simultaneously)      |                             |   |

## Order number Product description

|               |  |
|---------------|--|
| LDALI-ME204-U | BACnet/DALI Controller, 4 DALI channels                              |
| LDALI-ME201-U | BACnet/DALI Controller, 1 DALI channel, integrated DALI power supply |
| LDALI-PWR2-U  | DALI power supply unit for 2 DALI channels                           |
| LDALI-PWR4-U  | DALI power supply unit for 4 DALI channels                           |
| LDALI-MS1     | DALI multi-sensor (motion detection, brightness sensor, IR sensor)   |
| LDALI-BM1     | Quadruple DALI pushbutton coupler                                    |
| LDALI-RM1     | DALI Relay Module 8 A  |
| LDALI-RM2     | DALI Relay Module 8 A, Analog Interface 1 – 10V                      |
| LENO-800      | EnOcean Interface 868 MHz Europe                                     |
| LENO-801      | EnOcean Interface 902 MHz USA/Canada                                 |
| LENO-802      | EnOcean Interface 928 MHz Japan                                      |
| LWLAN-800     | Wireless LAN Interface IEEE 802.11 bgn                               |
| LSMI-804      | Standard Motor Interface for 64 motors, 4 SMI channels via USB       |



# LDALI-ME204-U, LDALI-ME201-U



Functions

L-WEB

L-ROC

L-INX

L-IOB

Gateways

L-VIS, L-STAT

L-DALI

Routers, NIC

Interfaces

Accessories