

LDALI-ME204-U, LDALI-ME201-U

interface. To use the L-DALI with an existing SCADA solution all run-time values and parameters can be accessed via BACnet, OPC (XML/DA and UA) and Modbus TCP.

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-MS2, DALI sensors of well-known manufacturers can be selected from a list of tested devices.

- **DALI Push Button**

For manual operation, DALI push button coupler and IR remote controls can be integrated into the system. Their functionality can be configured individually. In addition to controlling 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.

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

- **Collection of Important Operational Parameters**

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

- **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 and Modbus Networks

The L-DALI Controller maps information from the DALI network to BACnet objects or Modbus registers that are used to control DALI ballasts or to display operating states.

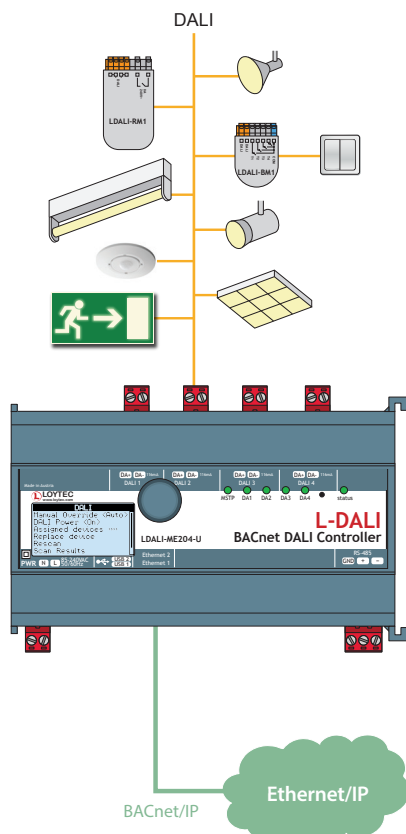
DALI Network Interface

L-DALI represents a DALI-Master in the DALI network which can interact with selected DALI multi-sensors in Multi-Master mode. 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



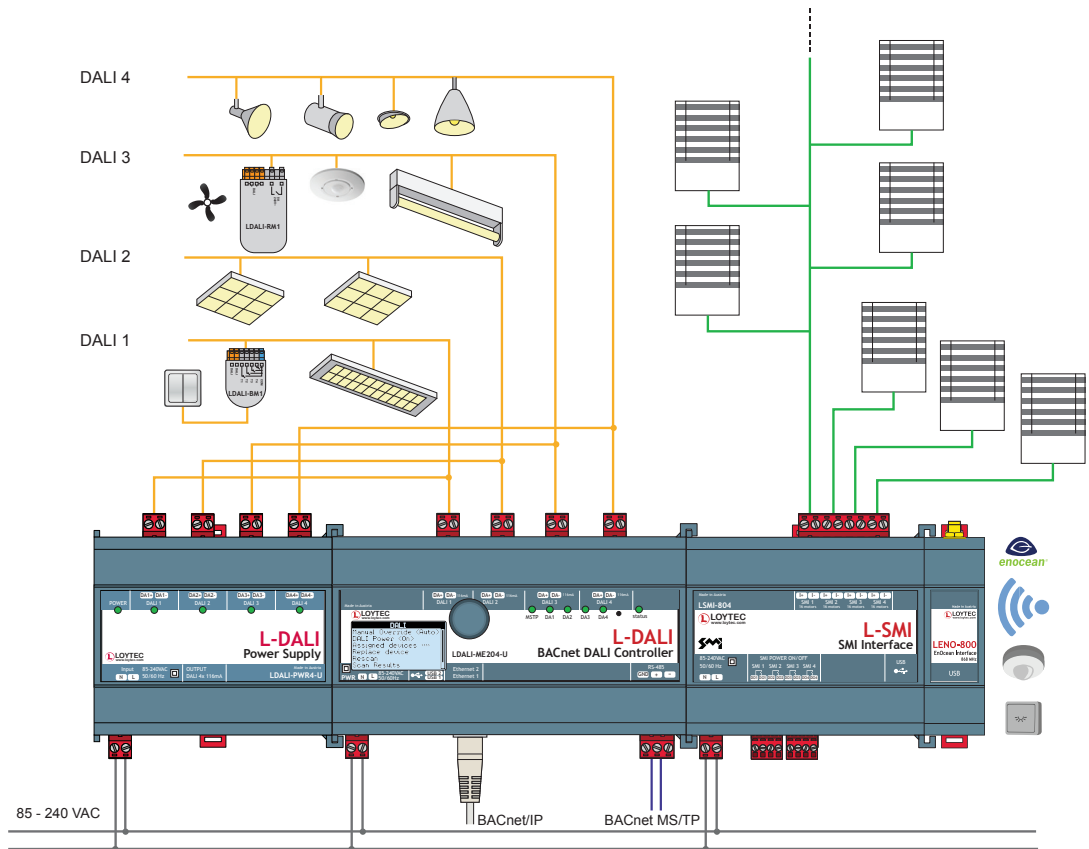
BACnet/DALI Controller

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channels

- Analog Input objects providing status information from DALI groups and channels
- Accumulator objects providing estimated energy usage of DALI groups and channels
- Multi-State Output objects to issue commands (start/stop emergency test or burn-in, change color temperature, etc.) to DALI ballasts, groups and channels
- Analog Input objects providing battery status of emergency ballasts, groups
- 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
- Binary Input objects providing button information from supported DALI buttons
- Various objects to control sunblinds

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



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Features

- DALI integration into BACnet networks
- Supports up to 64 DALI ballasts and 16 DALI groups per DALI channel
- Supports up to 16 DALI sensors per DALI channel
- Supports up to 64 DALI push buttons per DALI channel
- Integrated DALI bus power supply, 16 VDC, 230 mA guaranteed supply current, 250 mA max. supply current (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 via LCD and jog dial
- Supports the control of standard loads in the power grid via LDALI-RM1 Relay Modules
- Integrated Constant Light Controller
- Integrated Sunblind 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
- BACnet Client Function (Write Property, Read Property, COV Subscription)
- B-BC (BACnet Building Controller) functionality, BTL certified
- Alarming, Scheduling, and Trending (AST™) locally or embedded in L-WEB (building management)
- Event-driven e-mail notification
- Supports Local and Global Connections
- Built-in OPC XML-DA and OPC UA 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
- Modbus TCP (Master or Slave)
- Supports SMI (Standard Motor Interface) through LSMI-804
- Connection to EnOcean wireless devices via LENO-80x Interface
- Supports WLAN through LWLAN-800 Interface

Specifications

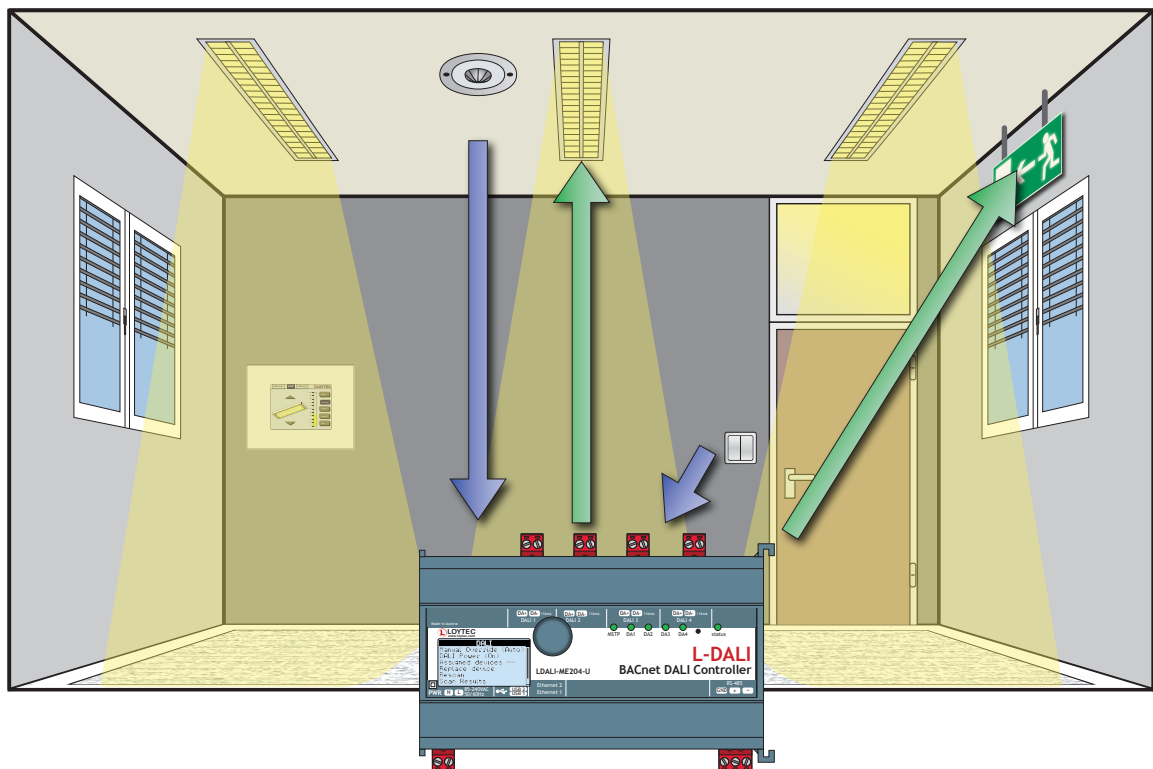
Type	LDALI-ME204-U	LDALI-ME201-U
Dimensions (mm)	159 x 100 x 75 (L x W x H), DIM035	
Installation	DIN rail mounting following DIN 43880, top hat rail EN 50022	
Power supply	85-240 V AC, 50/60 Hz	85-240 V AC, 50/60 Hz, typ. 7.5 W
Operating conditions	0 °C to 40 °C, 10–90 % RH, non condensing, degree of protection: IP40, IP20 (terminals)	
DALI channels	4	1 with integrated DALI bus power supply 16 VDC, 230 mA guaranteed supply current, 250 mA max. supply current
Interfaces	2 x Ethernet (100Base-T): OPC XML-DA, OPC UA, BACnet/IP*, Modbus TCP, HTTP, FTP, SSH, HTTPS, Firewall, VNC, SNMP 1 x RS-485 (ANSI TIA/EIA-485): BACnet MS/TP* 2 x USB-A: WLAN (needs LWLAN-800), EnOcean (needs LENO-80x) SMI (needs LSMI-804) * Either BACnet/IP or BACnet MS/TP	
Tools	L-INX Configurator and configuration via web interface	

BACnet/DALI Controller

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Resource limits			
DALI ballasts per DALI channel	64	BACnet client mappings	1 000
DALI groups per DALI channel	16	BACnet scheduler objects	100
DALI sensors per DALI channel	16	BACnet calendar objects	25
DALI push buttons per DALI channel	64	BACnet notification classes	32
Scene control	16 scenes per DALI group	Trend logs	512 (4 000 000 entries, ≈ 60 MB)
Math objects	100	Data points in trend log	1 000
Alarm logs	10	E-mail templates	100
OPC data points	10 000	Modbus data points	2 000
Connections (Local/Global)	2 000 / 250	Number of EnOcean devices	100
Number of L-WEB clients	32 (simultaneously)	EnOcean data points	1 000
SMI devices (per channel)	16		

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-MS2	DALI multi-sensor (presence detection, lux sensor, IR receiver, temperature sensor, humidity sensor, 3 digital inputs)
LDALI-BM1	Quadruple DALI pushbutton coupler
LDALI-BM2	Quadruple DALI pushbutton coupler
LDALI-RM1	DALI Relay Module 10 A, Analog Interface 0 – 10 V and 1 – 10 V
LDALI-RM2	DALI Relay Module 10 A, Analog Interface 0 – 10 V and 1 – 10 V, "spud-mount"
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



Dimensions of the devices in mm and [inch]

DIM035

- LDALI-3E101-U
- LDALI-3E102-U
- LDALI-3E104-U
- LDALI-ME201-U
- LDALI-ME204-U
- LDALI-PLC4

