

EnOcean-DALI-Controller, series BL, light controller

Interfaces: 1x DALI master, 1x EnOcean master bi-directional

Supply voltage: 230 V AC



The BL-201 EnOcean-DALI-Controller provides one DALI master with an integrated DALI power supply for the direct connection of up to 17 slaves (Iout max.= 34 mA), without a separate DALI power supply. Also an EnOcean wireless transceiver is integrated. This allows the smart and easy integration and combination of DALI ballasts and EnOcean wireless technology. The BL-201 is supplied by 230 V AC line voltage.

Technical data

Interfaces and I/O

DALI master

Number	1 (master)
Output current DALI	Max. 34 mA
Output voltage	16V DC (+/- 5%)
Galvanic isolation	Yes
Connection technology	2 screw terminals, max. 1.5mm ² inflexible, max. 1.0mm ² flexible with cable end sleeves

EnOcean master

Number	1 (master, bi-directional)
Transceiver	TCM310
Transmit / receive	Yes / yes
Antenna	Integrated

Power supply

Supply voltage	230 V AC
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User interfaces

Service button	1
Service LED	1, red

Environmental conditions

Supply voltage	230 V AC / 50 Hz
Power consumption	Typ. 1.6 W, max. 2.5 W
Operating temperature	+5°C to +50°C
Storage temperature	+5°C to +50°C
Humidity	10% to 95%, non condensing

Standards

EN	EN 61000-6-2 EN 61000-6-3 EN 60950:2011
Approvals	CE

Short description

Power supply

The BL-201 is supplied directly by line voltage (230 V AC).

DALI master

The BL-201 provides a DALI master according to the DALI specification. Also a DALI power supply for direct connection of up to 17 slaves is integrated ($I_{max} = 34 \text{ mA}$).

EnOcean Master / bi-directional

The integrated transceiver TCM310 allows the bi-directional communication with EnOcean sensors and control units according to the EnOcean profile specification EEP 2.1.

Service button / service LED

BL-201 has a service button to teach in a sensor or a control unit (actually no function in FLEX option). By the internal red service LED, several status information will be displayed.

Functionality of the controller and gateways / software options

There are different software options available. The hardware is always the same, different functionality is always realized by adopted software. The BL-201 with fixed functionality can be controlled by an EnOcean switch or also by a control unit. In case of FLEX option, the functionality of the controller will be configured using the PC-Software BL-PC-FLEX. The functionality is described as follows:

BL-201-00-868 UP BROADCAST: Single rocker to control DALI ballasts **On / Off / Dim** via broadcast

Push service button $\leq 1 \text{ sec.}$:	Sets BL-201 into learn-mode, service LED is steady on: a) EnOcean switch is pressed: Switch is paired with BL-201 b) Control Unit sends a telegram according EEP "A5-38-9": Control Unit is paired
Push Service button $\geq 2 \text{ sec.}$:	Service-LED will turn on for 1 sec.: No more switch / control unit is paired with the BL-201.
Keypress rocker top short:	Switch on all ballasts on DALI line
Keypress rocker bottom short:	Switch off all ballasts on DALI line
Keypress rocker top long:	Brighten of ballasts until key is released or 100% is reached.
Keypress rocker bottom long:	Dim of ballasts until key is released or 0% is reached.
Control unit sends telegram:	Data byte 2 of the telegram will be send to the DALI slaves by DALI DAPC / broadcast command to dim all connected slaves (0x00 = 0% dim level, 0xFE = 100%).

BL-201-01-868 UP 2x ADR: Double-rocker to control 2 addressed DALI ballasts, **no broadcast**, for example **cold / warm white**:

Push service button ≤ 1 sec.:	Sets BL-201 into learn-mode, service LED is steady on: EnOcean switch is pressed for 3 sec.: Switch is paired with BL-201
Push Service button ≥ 2 sec.:	Service-LED will turn on for 1 sec.: No more switch / control unit is paired with the BL-201.
Push Service button ≥ 5 sec.:	Service-LED will turn on again for 1 sec.: DALI slaves will be addressed. First two addresses on the DALI line will be configured to address 0 and 1.
Keypress, rocker 1 / 2 , short top	Switch on ballast with address 0 / 1 on DALI line
Keypress, rocker 1 / 2 , short bottom:	Switch on ballast with address 0 / 1 on DALI line
Keypress, rocker 1 / 2 , long top:	Brighten of ballast with address 0 / 1 until key is released or 100% is reached.
Keypress, rocker 1 / 2 , long bottom:	Dim of ballasts with address 0 / 1 until key is released or 0% is reached.

BL-201-02-868 UP RGBW: Control unit interface, Device Type 8, Colour Control, RGBW via **broadcast**:

Push service button ≤ 1 sec.:	Sets BL-201 into learn-mode, service LED is steady on. Control unit sends a telegram according to EEP "A5-38-9" -> control unit is paired
Push Service button ≥ 2 sec.:	Service-LED will turn on for 1 sec.: No more control unit is paired with the BL-201.
Control unit sends telegram:	Function code 7: RGB value of the received frame is send to all connected Device Type 8 DALI slaves as dim level via broadcast command. Function code 6: Data byte 3 is used as fading time for all following colour transitions.

BL-201-03-868 UP RGB: Control unit interface for RGB lights:

Push service button ≤ 1 sec.:	Sets BL-201 into learn-mode, service LED is steady on: a) EnOcean switch is pressed: Switch is paired with BL-201 b) Control Unit sends a telegram according EEP "A5-38-9": Control Unit is paired
Push Service button ≥ 2 sec.:	Service-LED will turn on for 1 sec.: No more control unit is paired with the BL-201.
Push Service button ≥ 5 sec.:	Service-LED will turn on again for 1 sec.: DALI slaves will be addressed. First three addresses on the DALI line will be configured to addresses 0 to 2. In case of a combined RGB slave, this is usually as follows: 0=R, 1=G, 2=B.
Keypress rocker top short:	Switch on all ballasts on DALI line. Colour has to be controlled and set up by a control unit.
Keypress rocker bottom short:	Switch off all ballasts on DALI line. Colour has to be controlled and set up by a control unit.
Keypress rocker top long:	Brighten of ballasts until key is released or 100% is reached. Colour has to be controlled and set up by a control unit.
Keypress rocker bottom long:	Dim of ballasts until key is released or 0% is reached. Colour has to be controlled and set up by a control unit.
Control unit sends telegram:	Function code 7: RGB value of the received telegram is send to all connected DALI slaves as dim level: DB3 / red to DALI ADR. 0, DB2 / green to DALI adr. 1 and DB1 / blue to DALI adr. 2. Function code 6: Data byte 3 is used as fading time for all following colour transitions (broadcast).

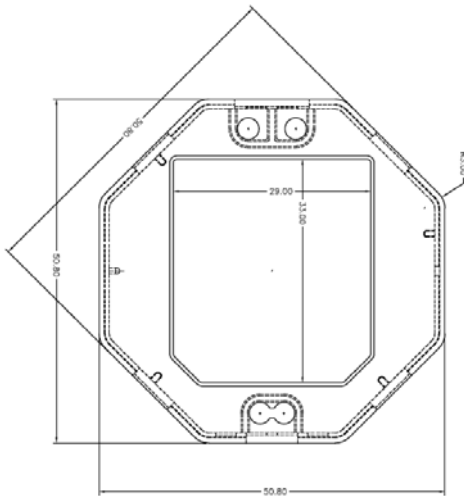
Option V10 (BL-201-10-868): FLEX, configurable by PC-software BL-PC-FLEX

The functionality of the DALI-EnOcean-Controller with FLEX option is configured using the PC software tool BL-PC-FLEX.

In contrast to the other controller options, instead of fixed functions and assignments, the user can configure DALI groups and scenes. In the next step, he can assign EnOcean rockers to control single DALI ballast, groups, scenes etc.. The wireless communication and the programming between the PC and the BL-201 is realized using an USB EnOcean stick.

For a detailed description of the extensive functionality, please study the documentation of the PC software BL-PC-FLEX

Dimensions : 51 x 51 x 33 mm



Ordering information for BL-201

Short text	Ordering number	Description
BL-201-00-868 UP BROADCAST	11042	EnOcean-DALI-Controller series BL-201 function: DALI broadcast ON/OFF/DIM with single rocker 230 V AC, 868 MHz, in-wall housing
BL-201-01-868 UP 2x ADR	10945	EnOcean-DALI-Controller series BL-201 function: 2 DALI addresses ON/OFF/DIM with double rocker 230 V AC, 868 MHz, in-wall housing
BL-201-02-868 UP RGBW	10985	EnOcean-DALI-Controller series BL-201 function: DALI broadcast RGBW Device Type 8 Colour control, PLC interface 230 V AC, 868 MHz, in-wall housing
BL-201-03-868 UP RGB	11064	EnOcean-DALI-Controller series BL-201 function: RGB via 3 data bytes, PLC interface 230 V AC, 868 MHz, in-wall housing
BL-201-10-868 UP FLEX	11214	EnOcean-DALI-Controller series BL-201 function: Free configurable using BL-PC-FLEX PC-software 230 V AC, 868 MHz, in-wall housing

Version 10, 05.05.2016