ENGLISH

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BL-201-xx-868 EnOcean-DALI-Gateway

Assembly instructions and operating manual

Subject to change without prior notice.
Last change: 13.05.2014

Summary

The EnOcean-DALI-Gateway BL-201 provides the following interfaces:

- 1x bi-directional EnOcean-Master (868 MHz)
- 1x DALI Master for up to 10 slaves (max. 20 mA)
- 1x Service button (in the housing, left side)
- 1x Service LED red (in the front)
- 1x 230 V AC power supply

The BL-201 acts as a gateway between EnOcean sensors and actors and devices with a DALI interface, e.g. electronic ballasts.
Depending on the software version, the BL-201 has a different functionality. Main features are described in this document. More detailed documentation is available under www.deuta-controls.de.

Using the service button, the BL-201 can be paired with EnOcean devices, like rocker switches or sensors. The red service LED in the front shows different information related to the operating mode.

Scope of this operating manual / assembly instruction:

- BL-201-00-868 EnOcean-DALI-Gateway, 868 MHz, SW option 00
- BL-201-01-868 EnOcean-DALI-Gateway, 868 MHz, SW option 01
- BL-201-02-868 EnOcean-DALI-Gateway, 868 MHz, SW option 02
- BL-201-03-868 EnOcean-DALI-Gateway, 868 MHz, SW option 03

Standards

CE compliance:	2004/108/EG Electromagnetic compatibility R&TTE 1999/5/EC Radio and Telecommunications Terminal Equipment Directive
Product safety:	DIN EN 60950-1:2011 + A12 Cor. 1:2012 + Cor. 1:2012
EMC/EMI:	EN 61000-6-2:2005 EN 61000-6-3:2007 + A1:2011 + Cor 1:2012 EN 301 489-1:2011 V1.9.2 EN 301 489-3:2013 V1.6.1 EN 300 220-2:2012 V2.4.1

Technical data

Supply voltage:	230 V AC / 50 Hz
Supply current:	6 mA @ 230 V AC
Power consumption:	Typ. 1.4 W, max. 2.0 W
Output:	DALI+, DALI-, typ. 18 V DC / max. 20 mA
Transmit-/ receive frequency:	868 MHz / EnOcean
Connectors:	Screw terminals, max. 1.5 mm² inflexible, max. 1.0 mm² flexible with cable end sleeves
Housing material:	UL-V0, black
Protection class:	IP20 / indoor use only
Operating temp.:	+5 to +50 °C
Storage temp.:	+5 to +50 °C
Weight:	40 g

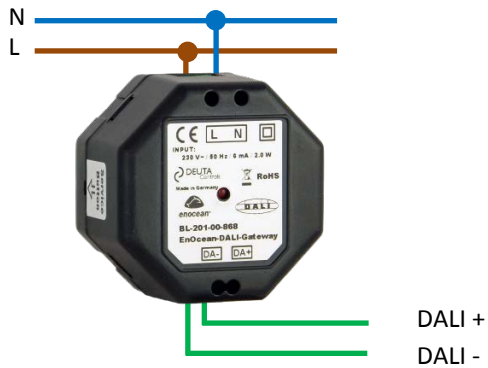
Safety instructions

Warning: Electrical equipment may only be installed by electrically skilled persons. The device must not be opened. All relevant interfaces are accessibly from the outside.
The device must not be used in applications related to life-sustaining measures or where any human being, animal or material asset might be menaced.

Electrical connections

The BL-201 has to be supplied by 230 V AC line voltage. For details refer to the technical data as specified in this document. The maximum cable cross-section is 1,5 mm² for inflexible or 1 mm² for finely stranded conductors..

Connection plan



Installation/ safety precautions

- The BL-201 is prepared for the installation in a flush-mounting box.
- No external 868 MHz antenna is necessary.
- There must be an easily accessible electrical separator to disconnect the power supply from the BL-201.
- There must be an over-current protection device in series with the BL-201 power supply (10A).
- Once the BL-201 is mounted, the user must not have direct access to the power supply connectors (230 V AC).
- BL-201 is not suitable to be used in IT networks (without a neutral conductor).
- The product label of the BL-201 must be visible after the installation.
- Mounting of the BL-201 has to be done while power is switched off.

Initial operation

Connect the BL-201 power supply voltage and the DALI lines according to the connection scheme. Take care of the safety instructions and precautions as described above.

Functional description

SW-Option V00 (BL-201-00-868):

Single rocker to control DALI ballasts On / Off / Dim via broadcast .

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 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%).

SW-Option V01 (BL-201-01-868):

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 top, short:
Switch on ballast with **address 0 / 1** on DALI line.

Keypress, rocker 1 / 2, bottom, short :
Switch off ballast with **address 0 / 1** on DALI line.

Keypress, rocker 1 / 2 top, long:
Brighten of ballast with **address 0 / 1** until key is released or 100% is reached.

Keypress, rocker 1 / 2 bottom, long:
Dim of ballasts with **address 0 / 1** until key is released or 0% is reached.

SW-Option V02 (BL-201-02-868):

Control unit interface, Colour Control (Device Type 8), 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.

Control unit sends telegram, function code 6:
Data byte 3 is used as fading time for all following colour transitions.

SW-Option V03 (BL-201-03-868):

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.

Control unit sends telegram, function code 6:
Data byte 3 is used as fading time for all following colour transitions (broadcast).

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