Lighting Driver LD6

Zigbee/BLE Driver for Smart Lighting

Specifications
The LD6 is a radio controlled smart lighting driver which can be integrated into your luminaires, furniture, or installed in suspended ceilings, etc.

Multi-Channel Feature
Equipped with 6 channels, the LD6 is suitable for RGB, RGBW or WW/CW illuminants. With all 6 channels being configurable it offers the most versatile lighting options. The RGB/RGBW colour control allows for a continuous adjustment of countless colour shades.
The „Tunable White" option is able to reproduce natural light such as daylight, workspace light and even pleasant living room light by continuously mixing cool and warm white – making it perfectly suited for daylight simulations (HCL).

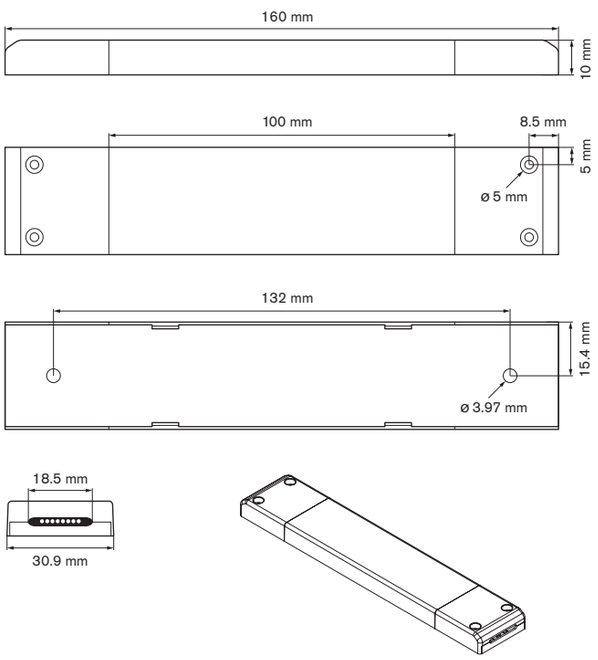
Configuration options:

- Up to 6 channels of monochromatic dimmable light output
- Up to 3 channels of tunable white light
- Up to 1 channel of R/G/B/CW/WW
- Up to 1 channel of R/G/B/A/CW/WW
- Any viable mix of the above, e.g. 2 x dimmable light, 2 x tunable white, or 1 RGBW + 2 dimmable

A member of the ubisys BLEND/Z family: LD6 combines native Zigbee 3.0 wireless mesh technology with ubiquitous Bluetooth wireless links.

Further Features
- Control via smartphone and tablet with the ubisys app (possible via BLE without gateway)
- Zigbee router
- Control via Zigbee-capable buttons/switches
- Integration in scenes and groups
- Integration in scheduled actions
- Integration in automations like HCL (Human Centric Lighting)

Dimensions



Commissioning
Zigbee Initial Commissioning (Brand New Device)
1. Connect the unit to a power source (according to the connections).
2. Open a Zigbee network: when using the ubisys gateway, tap **Configuration** -> **Basic Configuration** -> **Open for new devices** in the ubisys app (if you are using third-party gateways or apps, follow the corresponding procedure).
3. The Zigbee network is open and the device joins.
4. The device appears in the component list: **Configuration** -> **Basic Configuration** -> **Components**.

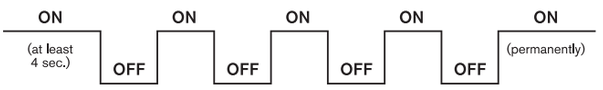
BLE Initial Commissioning (Brand New Device)
Follow the instructions in the ubisys app or another app that supports the Zigbee Direct standard *).

*) Available with ratification of the standard.

Factory Reset
Power-Cycle Sequencing Factory Reset
It is possible to instigate a factory reset using a special power-cycle sequence without having access to the device itself (only to its power supply). The only requirement is a simple on/off sequence in a 1-second rhythm:

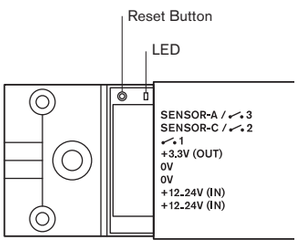
1. The device has to be powered up for at least 4 seconds.
2. Power off for a second.
3. Power on for a second.

Repeat steps 2.-3. in the aforementioned **1-second rhythm** another 3 times, and with the last sequence keep the device powered up (see illustration).



4. The device will automatically reboot to the original factory settings.

Factory Reset via Button
To reset the device to its factory fresh settings (e.g. in order to join it to another network afterwards), press the button on the front of the PCB for more than 10 seconds until the LED starts flashing rapidly. Only use electrically isolated tools to press the button.



Configuration
For integration into the smart home radio network, the LD6 has to be configured first. Direct access to the LD6 is not necessary for configuration. That means that network configuration can also be done after successful electrical installation. It is best to hold the 16 digit serial number of the LD6 in the construction plan during installation. This allows you to allocate the device at a later point.
When connected to power, the LD6 automatically logs into an open Zigbee network. After that it can be configured via a commissioning tool (e.g. ubisys Network Manager), the ubisys smartphone app or any other Zigbee compliant solution, e.g. Philips hue bridge and app, Amazon Echo with built-in Smart Home hub, IKEA TRÅDFRI, etc.

Technical Information

Rated voltage input	12 VDC – 24 VDC
Rated voltage output	12 VDC – 24 VDC
Rated current output (single channel)	6 A max.
Rated current output (combined all channels)	12 A max.
Output protection	Short-circuit, overtemperature, overload, overvoltage, over-current
Radio technologies	• Zigbee 3.0 in 2.4 GHz ISM band, IEEE 802.15.4 channels 11-26, 0…8dBm transmitting power • Bluetooth Low Energy (BLE)
Environment temperature	-20°C – +45°C

Technologies, Certifications and Environmental Contribution

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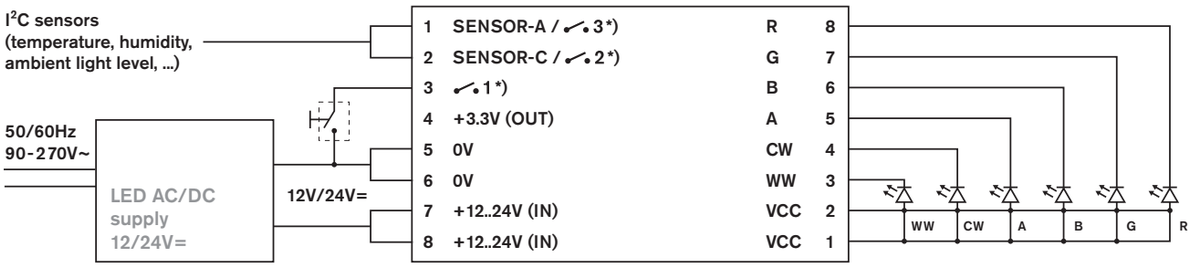
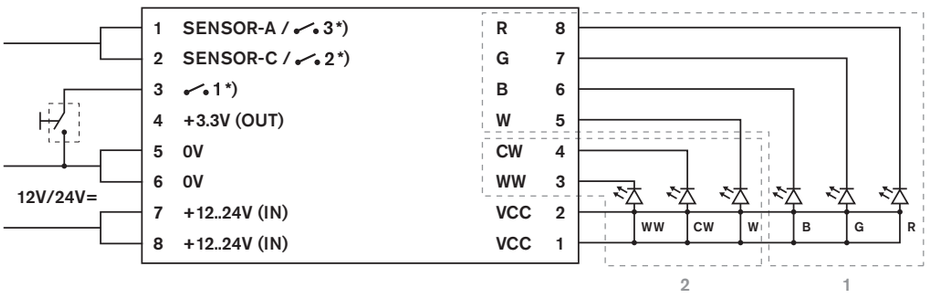
Connections

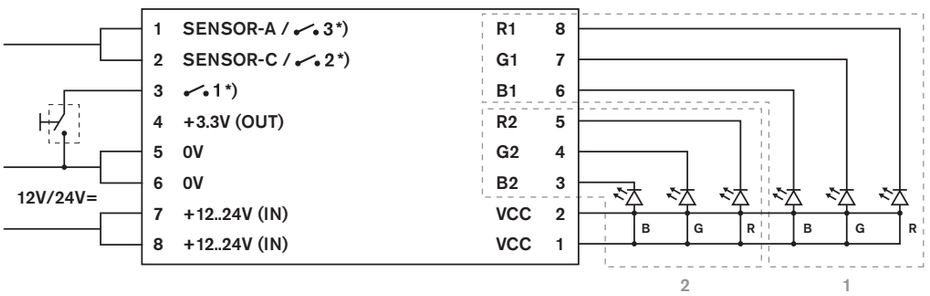
1 x Color (6 Primaries)



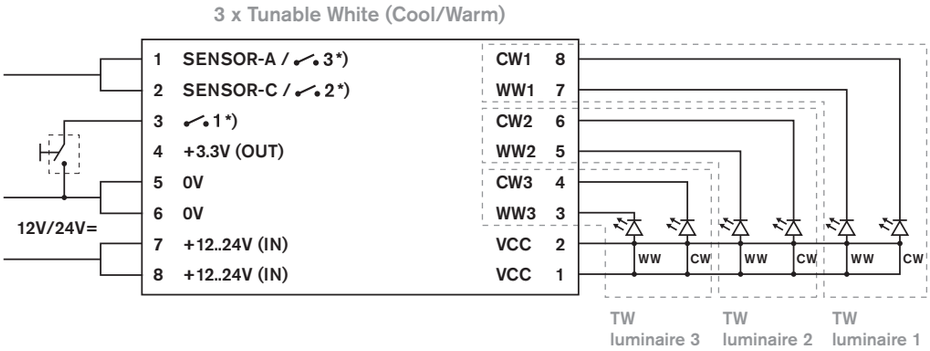
1 x Color (4 Primaries)
+1 x Tunable White (Cool/Warm)



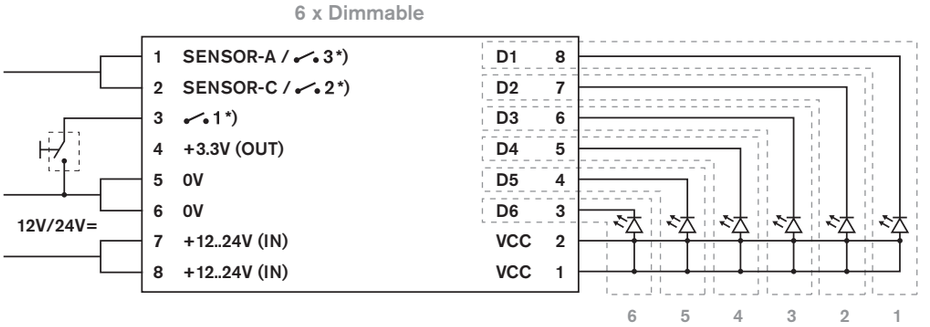
2 x Color (3 Primaries each)



3 x Tunable White (Cool/Warm)



6 x Dimmable



*) optional

Hazard notes
Installation should only be performed by a qualified electrician. Wrong wiring from not following instructions can cause unforeseen behavior, such as fire or destruction of the device. Prior to installation, disable voltage. Opening the unit or other devices voids the warranty.

Conformity
This device complies with the applicable directives and standards of the EU.

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