

CGW-KNX-01-B

Casambi KNX DALI Hybrid Gateway



PRODUCT DESCRIPTION

The Casambi KNX DALI Hybrid Gateway (CGW-KNX-01-B) is a ready-made integration solution that enables seamless control and configuration of 64 Casambi wireless luminaires from any KNX building automation system. It bridges KNX and Casambi via a packaged combination of a KNX-DALI Gateway and a Casambi DALI Gateway Controller, delivered as a single product. When installed, KNX ETS software recognizes Casambi luminaires as standard DALI devices, allowing KNX switches, sensors, touch panels, and scene controllers to operate Casambi networks reliably – including dimming, tunable white (TW) and RGB control, depending on project setup.

Designed for commercial, hospitality, and residential projects, the Hybrid Gateway gives integrators a validated, low-risk way to add wireless Casambi lighting to any KNX-based solution, avoiding the need to manually combine separate KNX-DALI and Casambi hardware.

CGW-KNX-02-B

Casambi KNX DALI Dual Hybrid Gateway



PRODUCT DESCRIPTION

The Casambi KNX DALI Dual Hybrid Gateway (CGW-KNX-02-B) is a high-capacity integration interface designed to seamlessly connect Casambi wireless lighting networks with KNX-based building automation systems. This Dual variant features two independent DALI buses, enabling control of up to 128 Casambi luminaires (2 × 64), making it ideal for medium-to-large KNX projects requiring higher channel density or multiple lighting zones.

For detailed guidance on installation and device configuration, please refer to the Casambi Operating Instructions for the KNX DALI Hybrid Gateway and KNX DALI Dual Hybrid Gateway, as well as the Casambi App User Guide.



Warning!



Hazardous voltages. Risk of electric shock or fire. Only qualified professionals should make the connections. Disconnect the mains power supply and verify its absence prior to installation.

TECHNICAL DATA (KNX-DALI)**KNX**

- KNX medium: TP 256
- KNX commissioning mode: S-mode
- Rated voltage KNX: 21 ... 32 VDC SELV
- Current consumption KNX: 4.5 ... 5.0 mA
- Connection type for bus: Device conn. terminal

Input

- Rated voltage: 110 ... 240 VAC or VDC
- Mains frequency: 50 / 60 Hz

DALI Output (per channel)

- Rated voltage (typ.): 16 VDC
- Guaranteed current: 148 mA
- Max. current: 250 mA
- Addressable DALI devices: 64 per channel (max.)
- Addressable DALI sensors: 32 per channel (max.)
- DALI transmission rate: 1.2 kBit/s
- DALI protocol: EN 62386
- Duration of the starting operation: 20s (max.)
- DALI protocol: EN 62386

Operating conditions

- Ambient temperature, t_a : -5 °C to +45 °C
- Storage temperature: -25 °C to +70 °C

Mechanical data

- Dimensions (w/o KNX cover): 93,7 x 72,0 x 72,0 mm
(with KNX conn. cover): 100,0 x 72,0 x 72,0 mm
- Installation width: 72 mm (DIN)
- Weight:
 - CGW-KNX-01: 161 g
 - CGW-KNX-02: 171 g
- Degree of protection: IP20 (indoor use only)

Connectors

- Connector type: Screw terminal
(PZ1 | Slot 4 mm)
- Screw fastening torque (max.): 0,8 Nm
- Wire range, solid/ stranded: 0,5 – 4,0 mm²
- Wire range, stranded w/ferrule: 0,5 – 2,5 mm²
- Wire strip length: 8 mm
- DALI cable length: <300 m (S=1,5 mm²)

Insulation

- Casing to DALI: Reinforced
- DALI to Mains: SELV

Certifications

- CE certified
- DALI-2 certified
- KNX certified

TECHNICAL DATA (DALI-CASAMBI)**Input**

- Voltage range: 9,5–22,5 VDC
- Input current when idle, I_{idle} : 5 mA
- Peak input current, I_{peak} : 30 mA
- Max. DALI bus current: 250 mA
- Standby power: < 0,1 W

Radio transceiver

- Operating frequencies: 2402...2480 MHz
- Maximum output power: +8 dBm

Operating conditions

- Ambient temperature, t_a : -20 to +55 °C
- Max. case temperature, t_c : +65 °C
- Storage temperature: -25...+75 °C
- Max. relative humidity: 0...80 %, non-condensing

Connectors

- Wire range, solid: 0,5–1,5 mm²
- Wire strip length: 6-8 mm

Mechanical data

- Dimensions: 40,4 x 36,3 x 14,0 mm
- Weight: 15 g
- Degree of protection: IP20 (indoor use only)

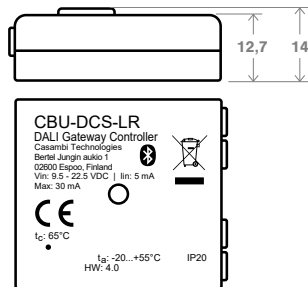
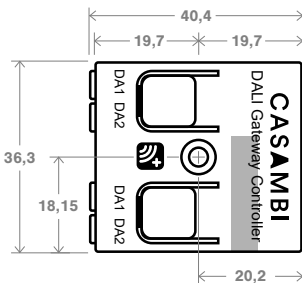
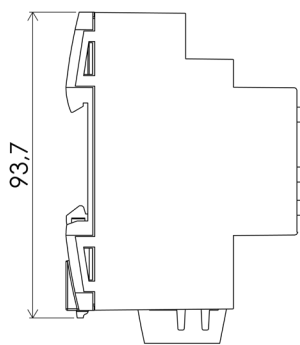
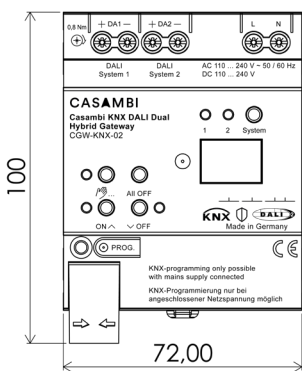
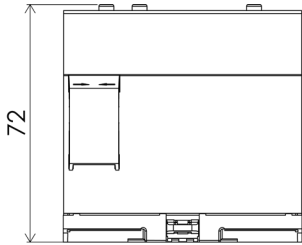
Insulation


- Casing to DALI: Reinforced

Certifications

- CE certified

DIMENSIONS (IN MM)



*t_c point is on bottom side •
 Antenna location

Mounting hole diameter 3,5mm

INSTALLATION

Make sure that the mains voltage is switched off when making any connections. Installation must be performed only by qualified and certified professionals according to local electrical regulations.

Intall KNX-DALI unit onto the DIN rail (EN60715 | 35mm) in electrical distribution box. Allow sufficient space for accessing KNX bus connector, DALI channel(s) terminals, mains supply terminals.

Attach the unit by position the upper mounting hooks

of the KNX-DALI unit over the upper lip of the DIN rail.

Press the lower side of the device towards the rail until the integrated spring-clip snaps into place.

Connect using standard KNX red/black bus cable using supplied connector block. Keep DALI wires separate from KNX bus conductors where possible.

Connect one or two DALI outputs depending on product version (Single | Dual). The DALI connectors on the KNX-DALI unit are marked with DA1|2+ (Positive) and DA1|2- (Common) marking.

The mains input connectors (110–240 VAC, 50/60 Hz or 110–240 VDC) are marked with “L” (Live) and “N” (Neutral). Avoid routing KNX twisted-pair cables parallel to mains cabling without separation; follow standard EMC practices.

Ensure wires do not obstruct the front-panel manual control buttons and LED indicators.

When installing the DALI Gateway Controller, remember that the unit contains a radio transceiver with an integrated antenna. To ensure optimal performance and wireless communication range, avoid mounting the device inside metal enclosures or locations where metal surfaces may shield the radio signal.

The unit can be installed with single cheese-headed screw. Do not use countersunk screws to avoid enclosure damage. Overtightening the screws may damage the enclosure.

Connect wires to the DALI terminals using spring-loaded contacts. DALI Gateway Controller doesn't have polarity requirements for DALI bus connection.

Ensure the CGW-KNX-01/-02 and DALI Gateway Controller(s) are not installed in environments where the ambient temperature exceeds the specified maximum.

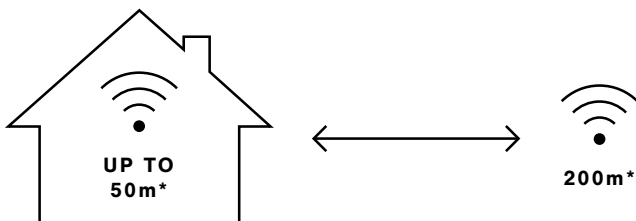
Warning!



When designing and commissioning the DALI power system, ensure that no external DALI power supplies are connected to the Casambi KNX DALI (Dual) Hybrid Gateway. Make sure the DALI power supply is disabled in the D4i driver(s) before connecting them to the Gateway.

RANGE

The communication range in radio technology may ultimately vary depending on the design of the product in which the antenna is housed and on the environment in which it operates. In practice, this means a well-designed product from a radio point of view, with a good line of sight connection between nodes, can achieve radio coverage up to 50 meters indoors, and, in theory, up to 200 meters in the open air. Casambi uses a mesh network technology, whereby each Casambi unit, or Casambi Ready product, also acts as a repeater. Hence, longer ranges can be achieved by using multiple Casambi products within the network.



*The wireless range of a Casambi unit is dependent on several factors; how it has been integrated into a luminaire, where it has been installed; taking into consideration surrounding obstacles such as walls and other building materials that may block signals.

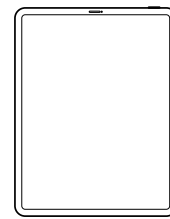
CASAMBI MESH-NETWORK COMPATIBILITY

There are different radio modes that can be selected when creating a network in the Casambi App: 'Balanced', 'Better Performance' and now 'Long Range' options. The DALI Gateway Controller enables long-range capabilities only when the long-range radio mode has been selected and all the other devices within the network are long-range capable. It will revert to the shorter, standard range when deployed in networks set to 'Balanced' or 'Better Performance' modes.

COMPATIBLE DEVICES



Compatible devices: Android and iOS Operating Systems. We support the latest OS versions for Android and iOS, and their last two major versions respectively.



Tablets



Smartphone



INTERNAL DALI BUS POWER SUPPLY

The Casambi KNX DALI (Dual) Hybrid Gateway is equipped with an integrated DALI bus power supply delivering a guaranteed 148 mA per DALI channel for reliable system operation.

The number of DALI operating devices and DALI sensors must be designed in such a way that the total current consumption of 148 mA per DALI system is not exceeded.

Observe polarity when connecting other devices to the DALI bus(es).

The DALI systems are supplied with power exclusively via the DALI Gateway. The connection of an additional power supply to one of the DALI systems is not permitted.

SCOPE OF SUPPLY

The Casambi KNX DALI Hybrid Gateway (CGW-KNX-01-B) is supplied with a single Casambi DALI Gateway Controller unit, based on the CBU-DCS-LR with a dedicated fixture profile.

The Casambi KNX DALI Dual Hybrid Gateway (CGW-KNX-02-B) is supplied with two Casambi DALI Gateway Controller units.

Note that a KNX Secure Device Certificate label with a machine-readable QR code is attached to the unit itself. It will be required for KNX Data Secure installation.

Each package is supplied with a KNX connector plastic cover and a Quick Start Guide.

COMMISSIONING

The device can be put into operation, after mounting of the device and connection of the KNX bus line, the mains supply and the DALI cables. The following procedure is generally recommended:

- Switch on the mains supply of the Gateway.
- Switch on the KNX bus voltage.
- Voltage check: When the programming button is pressed, the red programming LED must light up.
- Sign in to your Apple or Google account, then download and install the Casambi App from the respective App Store or Google Play Store appropriate for your device.
- Create the Casambi wireless network and add Casambi-enabled luminaires to it. Refer to Casambi App User Guide for details.
- Add the DALI Gateway Controller(s) to the Casambi wireless network. Depending on the product version purchased, your system may include either one or two DALI Gateway Controllers.
- Use the default configuration for the DALI Gateway Controller(s), or customize the settings in the Casambi App according to your application requirements.
- Configure and program the physical address with the help of the Engineering Tool Software (ETS).
- Download the Casambi Device Configuration App (DCA) for KNX DALI Hybrid Gateway from Casambi website.
- Download the application program via ETS when prompted by the DCA.
- Commission the DALI system using device-specific commissioning software - Device Configuration App (DCA).
- Complete the ETS programming according to your application requirements.
- Download the application program using the ETS again.

The KNX-DALI-Casambi Gateway system is ready for operation.

If you need assistance, please refer to the KNX-DALI unit product documentation and operating instructions, as well as the Casambi App User Guide, for details on configuring the Casambi network and Casambi-enabled luminaires.

DISPOSAL INSTRUCTIONS

In line with EU Directive 2002/96/EC for waste electrical and electronic equipment (WEEE), this electrical product must not be disposed of as unsorted municipal waste.

Please dispose of this product by returning it to the point of sale or to your local municipal collection point for recycling.



The symbol with the crossed-out wheeled bin indicates that the product must be disposed of separately from household waste at the end of its useful service life in order to enable correct treatment and recycling. At the end of its service life, the user must therefore take the device free of charge to the municipal collection points responsible for the separate collection of electrical and electronic waste or return it to the dealer. Separate collection for recycling helps to avoid possible negative impacts on the environment and health, and facilitates the reuse, recycling and/or recovery of the materials in the devices. Wherever possible, batteries and rechargeable batteries must be removed from the device prior to disposal.

FIXTURE PROFILES

Profile#	Profile name / in app description	Description	Remarks
9300*	DALI Gateway Controller	DALI Gateway Controller profile for Casambi KNX DALI Gateway product.	

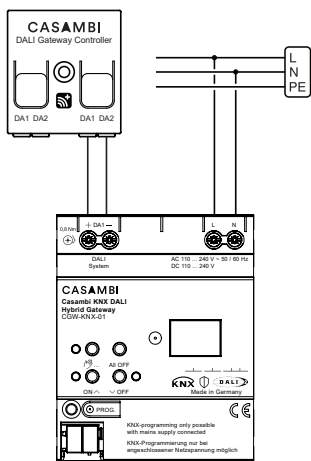
* Default profile for DALI Gateway Controller products delivered from the factory.

WIRING DIAGRAMS

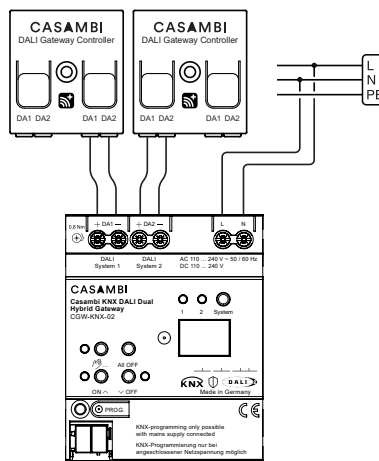
The wiring diagrams shown below are provided for illustrative purposes only. Actual wiring and connections may vary significantly depending on the specific application, system requirements, applicable standards, and the conditions at the installation site. Always ensure that the final wiring design is adapted to the concrete installation and complies with local regulations and best engineering practices.

Do not connect any DALI sensors or input devices to the DALI bus used by the DALI Gateway Controller. However, the DALI Gateway Controller may operate on a shared bus as one of multiple non-master devices, such as in configurations with multiple gateways or a combination of gateways and DALI drivers.

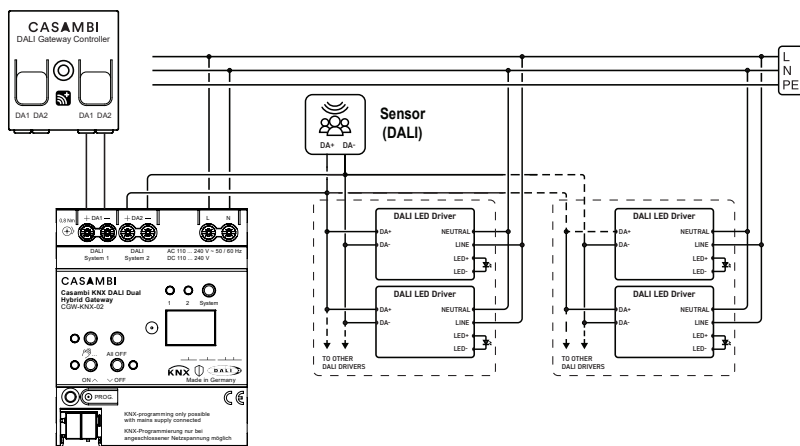
1.



2.



3.



Warning!



Do not connect any DALI sensors or input devices to the DALI bus used by the DALI Gateway Controller, as this may cause communication conflicts and unstable operation.