The benefits of DALI-2 with KNX

Advanced Automation

Integration offers complete automation and simplified management of lighting, HVAC and others like sunblinds, with unified user experience and synergies during the daily operation.

Scalability and Flexibility

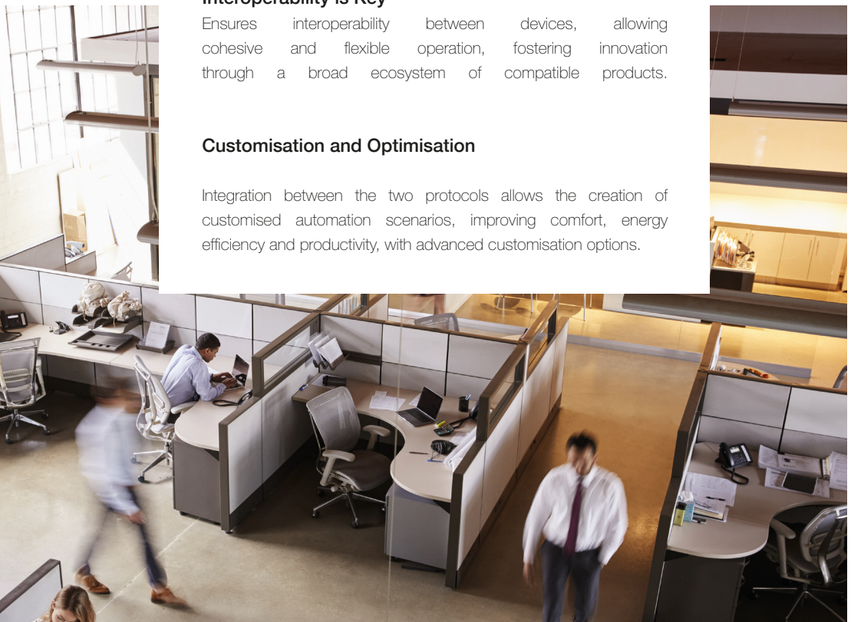
The combination facilitates the expansion of lighting control, allowing DALI-2 devices to be easily added to existing KNX networks.

Interoperability is Key

Ensures interoperability between devices, allowing cohesive and flexible operation, fostering innovation through a broad ecosystem of compatible products.

Customisation and Optimisation

Integration between the two protocols allows the creation of customised automation scenarios, improving comfort, energy efficiency and productivity, with advanced customisation options.



For 30 years Eelectron is, in the international scene, a role model of technological leadership in the application of the KNX, DALI, MQTT e BLE for **Building & Home evolution**.

Eelectron, with its branch offices in **Middle East, Asia** and **Europe**, products, applications and systems in **over 90 countries worldwide**.

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KNX Bluetooth DALI MQTT

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focus on DALI-2

Lighting control with DALI: The "**Digital Addressable Lighting Interface**" (DALI) is a communication protocol for lighting applications in buildings, independent of the manufacturer and defined in the IEC 62386 standard.

It is used for communication between **lighting control devices**, such as electronic ballasts, light sensors or motion detectors, ensuring the interoperability of the devices.

PD00A01DL2
DALI-2 Presence Detector **Standard**
with Lighting Control
B/W

PD00A02DL2
DALI-2 Presence Detector **MultiSensor**
Lighting
Temperature
Humidity
Sound
B/W

The Eelectron DALI-2 presence sensors STANDARD and MULTISENSOR include a **brightness sensor** for environmental lighting control. The MULTISENSOR version includes **humidity** and **temperature** sensors with the relative control algorithms and a **sound sensor** (dB) that can be used in rooms with parts not totally visible to the infrared sensor.

Both versions have a rear connector with **3 digital inputs** that can be connected to **buttons**.
In the MULTISENSOR version input 3 can be used, alternatively, with the **CO_2** Plugin sensor or the **VOC**+ eCO_2 plugin.

Plug-in for air quality

SM03E03ACC
Temperature sensor
VOC sensor and
CO sensor to measure
indoor air quality (IAQ)
B/W

SM03E02ACC
Temperature sensor,
VOC sensor and CO equivalent
(eCO) measurement
B/W

PRESENCE CONTROL | LIGHTING CONTROL | TEMPERATURE CONTROL | HUMIDITY CONTROL | SOUND SENSOR | AIR QUALITY

PB40A01DL2
Dali 2 Push Button Interface
4 INPUT

PB44A01DL2
Dali 2 Push Button Interface
4 INPUT/4 LED

The pushbutton interfaces integrate **up to four conventional lighted pushbuttons** into one DALI channel, managing **different buttons states**. The PB44A01DL2 version is equipped with **4 LEDs** which can be powered by connecting the interface to an auxiliary line, reducing consumption on the BUS.

Illuminating the Future: the power of DALI and KNX in Digital Lighting Solutions

IC01D03DAL
KNX DALI GATEWAY - 1 CHANNEL
MULTI MASTER APPLICATION CONTROLLER,
MQTT

The ICO1DO3DAL Gateway is a multi-master application controller for controlling electronic ballasts with DALI interface via the KNX installation bus. It supports ballasts (DALI1), devices (DALI- 2), as well as DALI-2 motion sensors and light sensors.

The additional Ethernet connection offers direct and secure communication with the gateway.
When commissioning, you can choose to use the integrated web server with MQTT is equally avaiable.

From simple execution of switching and dimming functions to complex colored light controls and human-centric lighting (**HCL**), ICO1DO3DAL offers a full range of functionality.

- Support of KNX Secure
- Support for Occupancy sensors (part 303)
- Support for Light sensors (part 304)
- Support for Self-contained emergency (part 202)
- Support for Discharge lamps (part 2)
- Support for Low voltage halogen (part 4)
- Support for Incandescent dimmer (part05)
- Support for Conversion to DC (1-1OV) interface (par206)
- Support for LED (pa 207)
- Support for Switching (pt 208)
- Support for Colour control (part 9, DT8)
  - Supports colour type xy coordinate
  - Supports colr type Tc
  - Supports colour type RGBWAF

IC01D01DAL

The DALI Gateway IC01D01DAL is a single master application controller for controlling electronic ballasts with DALI interface (in accordance with EN 62386) via the KNX installation bus. The device transforms switch and dim commands from the connected KNX system into DALI telegrams and status information from the DALI bus into KNX telegrams. The IC01D01DAL is equipped with one DALI output and 64 ECGs can be controlled, individually or in up to 16 DALI groups.

IC02D01DAL

The DALI Gateway IC02D01DAL is a device used to control electronic ballasts with DALI interface (in accordance with EN 62386) via the KNX installation bus. The device converts switching and dimming commands from the connected KNX system into DALI telegrams and status information from the DALI bus into KNX telegrams. The IC02D01DAL is equipped with two DALI outputs which are independent from one another. 64 ECGs can be controlled, individually or in up to 16 DALI groups, via each output.

DALI BroadCast is now available!

IC04B01DAL
The IC04B01DAL has **4** DALI outputs.
Up to **32 ECGs** can be connected to each output. The ECGs connected to a channel are controlled simultaneously via broadcast telegrams.

The power supply required for the **connected ECGs** comes directly from the device. Additional DALI power supplies are not required.

Colored light control with support for **Device Type 8 (DT-8)** ballasts and control via communication objects, **programmed by ETS tool.**

Colored light control depending on ballast sub-type:
Color temperature (DT-8 Sub-Type Tc)
RGB – HSV – RGBW (DT-8 Sub-Type RGBWAF)

Automatic change of the color temperature depending on the light value (Dimm-To-Cold).

Individual fault detection of lamps & ECG faults for each channel with alarm via comm. objects