BSMART

TECHNICHAL DOCUMENT

K N X   D A L I   G A T E W A Y

BS-DA64-01

INTRODUCTION

Product Code	BS-DA64-01
DALI Line Output	1 x 64, Single Channel
Max. ECG Devices and DALI-2 Controls	64 Lighting, 63 DALI-2 Device
Display	2x16 LCD Display
Short-Circuit & Overvoltage Proof	Available
Power Supply	110-240 V AC 50/60 Hz
Power Consumption	6 W
DALI Line Current Con.	1 x 250 mA
DALI Voltage	Typical 19 V DC (12...20.5)
Bus Connection	1 x Ethernet and 1 x USB Port
Type of Protection	IP 20
Temperature Range	Operation (-5°C...45°C) Storage (-25°C...55°C)
Max. Air Humidity	< 90 RH
Colour	Light Grey and White
Dimensions	90 x 70 x 64.5 mm (H x W x D)
Certification	Certified
Configuration	Via Additional Software

DESCRIPTION

The BS-DA64-01 KNX DALI Gateway
Application Controller capable of controlling DALI-2 Lighting, DALI-2 Controls as well as BSMART's unique range of loads and controls which also connect to the DALI-2 network. DALI devices (ballasts, etc. ECGs) connected to the line are supplied with the internal DALI power supply. With the BS-DA64-01 single-channel device up to 1x64 DALI ballasts can be connected. With each DALI channel, 16 groups, 16 scenarios and 64 devices can be controlled. Control and power up to four DALI-2 networks with the DALI Gateway.
Scale up to large and complex projects by networking multiple DALI Gateway together using standard TCP/IP Ethernet connection.
Each DALI device can be controlled individually, in group or broadcast control. All programming data is stored within the system itself eliminating a central point of failure and the need to always program with the latest saved configuration file

Device Type 0 (DT0)	Fluorescent Lamp
Device Type 1 (DT1)	Self-Contained Emergency
Device Type 6 (DT6)	LED Lamp
Device Type 8 (DT8)	Colour Control

COMISSIONING FUNCTIONS

- Addressing operations can be done via additional software or manual buttons as a short address assignment.
- Faulty ballast detection.
- Faulty lighting detection.
- Commissioning and control via an embedded web server.
- DALI line device selection with the manual button.
- Remote software update via Ethernet connection.
- Emergency lighting test (according to EN 62386-202 standard).
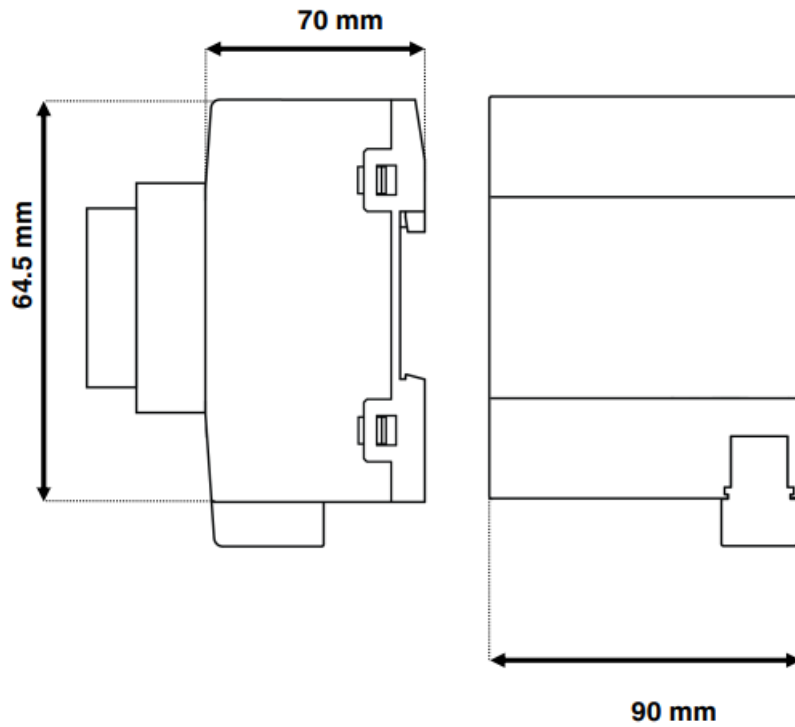
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GENERAL FUNCTIONS

Automatic DALI Device Addressing.
• Switching, Dimming and Brightness configure.
• Scene configure.
• DALI-2 Certified DALI Gateway application controller
• Built in LCD for DALI network testing and alerts display
• DALI Bus Voltage Failure Status.
• DALI Voltage Recovery Status.
• Can be networked together to form large scalable systems.
• Ballast and / or Lighting Error.
• Working log analysis with UDP.
• Broadcast control can be made with manually and software.
• Integration with other building systems.
• Tunable White color temperature control.
• RGB and RGBW color control.

SAFETY PRECAUTIONS & IMPORTANT NOTES

• The device may only be installed and put into operation by a qualified
electrician or authorized personnel.
• For planning and construction of electric installations, the appropriate
specifications, guidelines and regulations in force of the respective country have to comply.
• Cable Connections: Ensure making correct connections for Black and Red wires.
• Input Voltage: The input voltage shall be 110-240 V AC.
• Installation only in dry locations and on a 35 mm DIN rail (TH 35).
• Rain, liquid and aggressive gas should not be allowed to be close to the device.
• Screw down strength is less than 0.4 Nm.
• Do not get AC 240 V voltage into Bus lines, it can damage all the devices in the system.

DIMENSIONS

- All values given in the device dimensions are in millimetres.
- The device can be used in an area of up to 4 modules.

MARKS

CE : BSMART KNX DALI Gateway complies with Electromagnetic Compatibility Directive (2014/30/EU), Low Voltage Directive (2014/35/EU) and Restricting the Use of Hazardous Substances Directive (2011/65/EU).
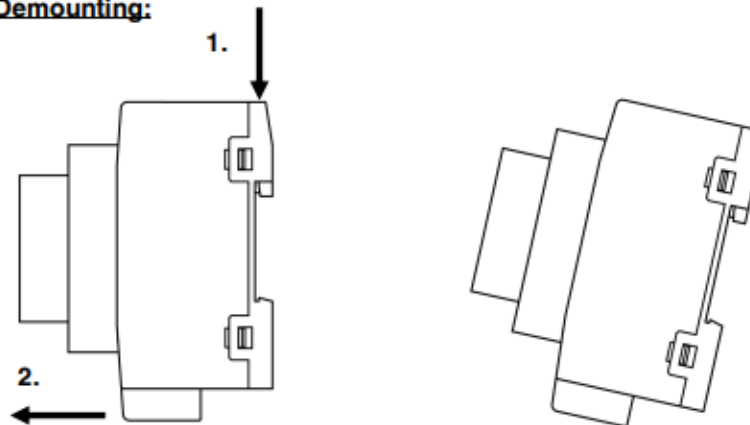
MOUNTING & DEMOUNTING PROCESSES
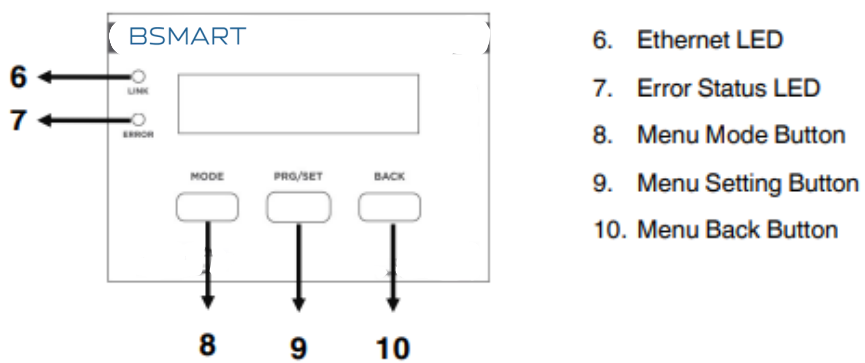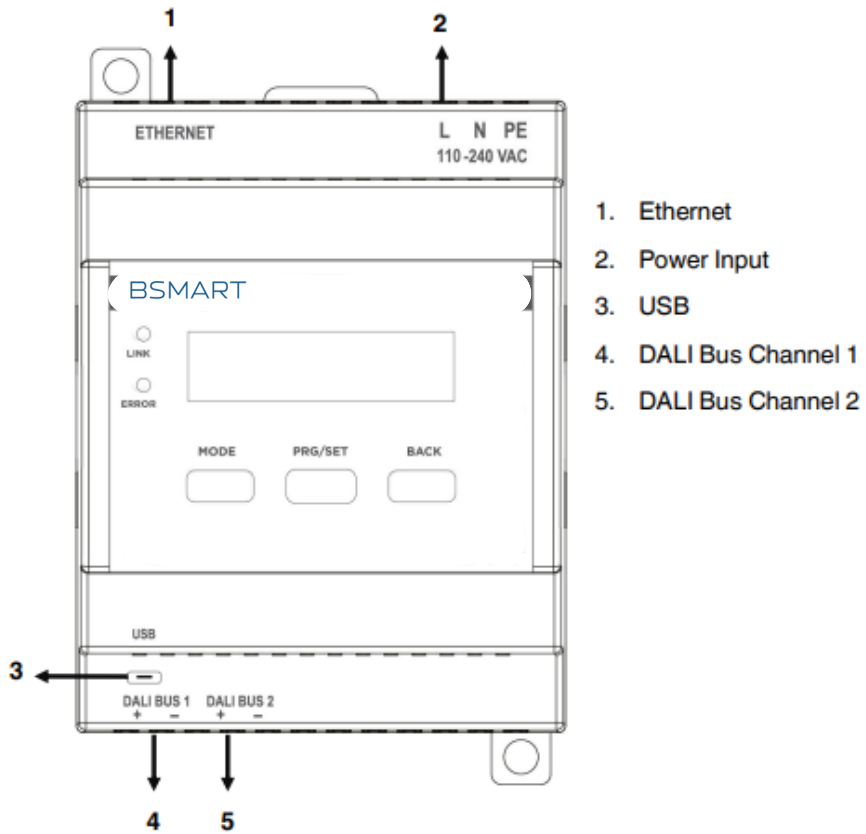
Mounting
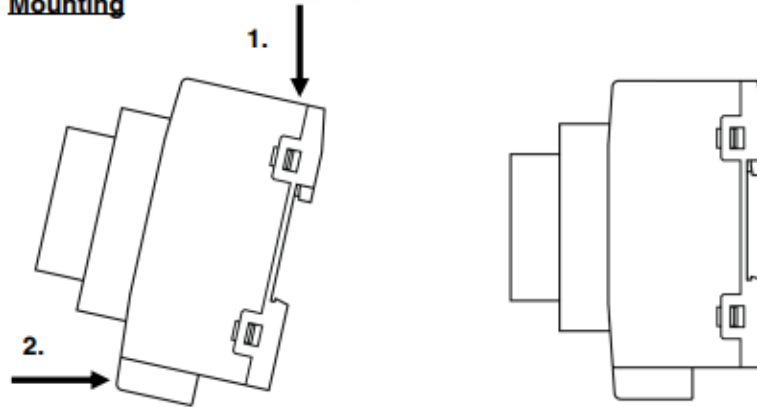
- First, the device is contacted to the DIN rail by holding it at an oblique angle.
- Then, it is pushed slightly from above in the direction of the 1st numbered arrow.
- Finally, the device is pushed slightly in the direction of the 2nd arrow and placed on the DIN rail to finish the mounting.

Demounting:

- First, the device is pushed slightly from above in the direction of the 1st numbered arrow.
- Then, the device is pulled slightly in the direction of the 2nd arrow.
- Finally, when the device is at a sufficient oblique angle, it is completely withdrawn from the DIN rail and the demounting is finished.

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FEATURES OF CONNECTORS & BUTTONS

1. Ethernet
2. Power Input
3. USB
4. DALI Bus Channel 1
5. DALI Bus Channel 2

6. Ethernet LED
7. Error Status LED
8. Menu Mode Button
9. Menu Setting Button
10. Menu Back Button

SINGLE CHANNEL BS-DA64-01

• BS-DA64-01 - KNX DALI Gateway Single Channel
device is supplied with 240 V AC mains voltage. The phase,
neutral and ground connections are shown in the figure (L, N,
PE).

• The positive (+) and negative (-) poles of the DALI
electronic control units (ECGs) should be connected correctly
via the single DALI line on the device to ensure DALI
communication.

• The supply voltages of the DALI electronic control units
are supplied from the mains and so the phase, neutral and
ground connections of the ECGs should be properly
connected.

DEVICE CONNECTION DIAGRAM