KNX-DALI Gateway
User Manual

KTS0-DALI

KTS0-DALI
KNX/DALI Gateway

CE

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Safety instructions

● Before installation, please read user manual carefully and observe relevant standards, directives, regulations and instructions.
● Electrical equipment must be installed and programmed by qualified technicians only.
● This device is manufactured according to the relevant technical specifications and have CE.
● For more information of this product, please contact the technical engineer of manufacturer.
● Users are not permitted to alter and maintain the product without the authorization of manufacturer.
● Failure to observe the instructions may cause damage to the device and result in fire or other hazards.

Product Overview

The KNX-DALI gateway KTS0-DALI is specifically designed for the KNX control system and serves as a protocol conversion gateway between the KNX system and the DALI system. As an interface between the KNX system and the DALI system, it can convert the signals from the KNX bus into information recognizable by the DALI system, such as the addresses of DALI ballasts and relevant commands, and send them to the DALI system, enabling the KNX system to control DALI devices. It can control functions like switching on/off, adjusting brightness, and changing color temperature, etc. At the same time, it can query the status of DALI ballasts and detect faults, and then feedback the information to the KNX bus.
The KTS0-DALI can connect up to 64 DALI ballasts at most. Each DALI ballast can be controlled for switching on/off, brightness adjustment, color temperature adjustment, etc. by using one KNX communication object. It also supports 16 group controls and 16 scene controls. The corresponding group address relationships between the KNX system and the DALI system have been already integrated inside the KTS0-DALI. There is no need to assign group addresses, and it is a plug-and-play device. Under the same KNX system, it can also be used in conjunction with the KTS series master units (including APP functions). The addresses of DALI ballasts can be queried and controlled via browsers or mobile devices, which is convenient for debugging.
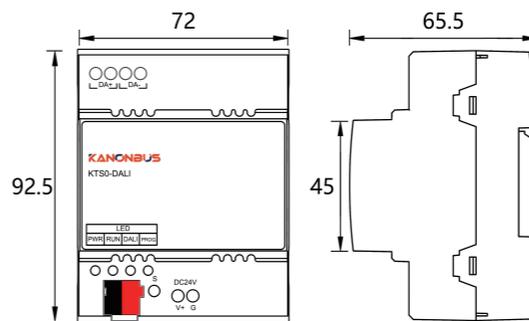
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Product Features

● It has a built-in DALI power supply unit and supports up to 64 DALI ballasts at most.
● The basic functions such as new address assignment, extended assignment, and address query for DALI drivers can be carried out through the ETS. Advanced functions, including single lamp information query, group control, scene control, data backup and restoration, can be realized via the KTS master unit with APP functions.
● Single lamp control: It can perform functions such as independent control of lamp switching on/off, relative dimming, absolute dimming, relative color temperature adjustment, absolute color temperature adjustment, RGBW/RGB+CCT control, status feedback, and fault alarm, etc.
● Group control: Technicians can assign each ballast to up to 16 groups through the KTS master unit. After the assignment, they can control the switching on/off, brightness, and color temperature of each group.
● Scene function: It supports 16 scenes, and the brightness and color temperature of the lights within the scenes can be set.
● It supports DALI2.0 and DT8.
● It has the functions of ballast fault detection and lamp fault detection.
● It has the function of DALI bus short-circuit detection.
● The corresponding group address relationships have been already integrated. There is no need to assign group addresses, and it is a plug-and-play device.
● The first position of the main group can be set through the ETS, which is convenient for connecting multiple KNX-DALI gateways within the KNX system.
● The functions such as the starting brightness, relative dimming speed, absolute dimming speed, maximum/minimum brightness, and dimming curve of DALI ballasts can be set through the ETS.
● It has the overall control function and can perform overall control over the switching on/off, brightness, color temperature, etc. of all the lamps on the DALI bus.
● The gateway has two-level cache, which can ensure that there is no packet loss when multiple lamps are controlled simultaneously.
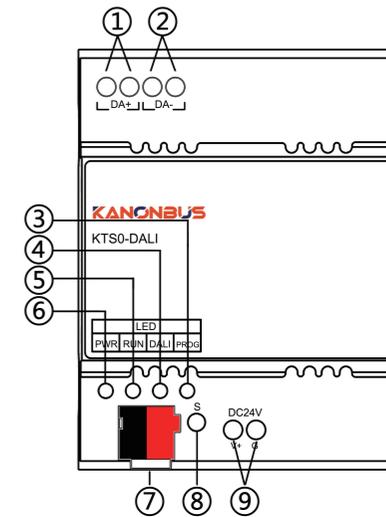
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Product dimensions

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Operating instructions

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Operating instructions

① DALI output terminal (polarity-free)
② DALI output wiring (polarity-free)
③ PROG.: Programming button indicator light. When the programming button is pressed, this indicator light turns white. After the physical address is successfully downloaded, it will go out automatically. It can also be turned on/off through the ETS software. The indicator light remains on when assigning and searching for DALI ballasts, and it goes out after the operation is completed.
④ DALI: DALI indicator light. After the auxiliary power supply is connected, the green indicator light remains on. When control operations are carried out, status changes occur, or when assigning/searching for ballast addresses, the indicator light will flash.
⑤ RUN: KNX bus indicator light. After the auxiliary power supply is connected, the yellow indicator light remains on.
⑥ PWR: Operation indicator light. After the auxiliary power supply is connected, the yellow indicator light remains on.
⑦ KNX bus terminal: Connect to the KNX system.
⑧ Programming button: Press it to program the physical address of the device.
⑨ DALI auxiliary power supply connection: Connect to a DC24V power supply. V+ is the positive pole, and G is the negative pole.

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Product parameters

Bus parameters	
Power supply	KNX power,21V~30V DC
Transmission medium	KNX TP
Bus rated current	≤10mA
Auxiliary Power Input	
Supply voltage	24V DC
Rated power	8W
DALI load output	
Number of Output Channels	1
Number of DALI Ballasts	64
Load voltage	16V~18V DC
Wire Diameter-Distance(mm²-m)	0.5mm²-100m
	0.75mm²-150m
	1.0mm²-200m
	1.5mm²-300m

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Product parameters

LED indicator light	
BUS	KNX system indicator light
POWER	Working indicator light
RUN	Operating indicator light
DALI	DALI indicator light
Product Info	
Dimensions	72mm×92.5mm×65.5mm
Type of protection	IP20
Operation	0℃~70℃
Storage	-25℃~70℃
Installation method	Rail-mounted installation
Programming Mode	S mode/Web mode

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Programming instructions

ETS:
1.Select the corresponding ETS project file and import it into ETS5.
2.Add the device to the project created in ETS5.
3.Press the programming button of the device. Download the physical address through ETS5. After the download is completed, the red LED indicator will turn off.
4.Open the device database. After setting its parameters, download the application.
5.After changing the physical address of the device, repeat "Step 3".
6.After modifying the parameter settings, repeat "Step 4" to implement new functions.
7.The ETS database file of KTS0 - DALI can be used to set parameters such as the first digit of the group address, starting brightness, dimming speed, and dimming curve.
KTS:
Under the same KNX system, when used in conjunction with KTS master units/gateway products with APP functions, you can log in to the Web page via a computer or mobile phone to perform functions such as address assignment, address search, scene setting, and group setting for DALI ballasts:
1.Please use browsers without IE kernel for function settings, such as Firefox and Chrome.
2.Login address: 192.168.1.232/dali/
3.Click "+" to add KTS0 - DALI.
4.Click the added gateway, which contains "Address Assignment", "Address Search" and group information:
●Address Assignment: It includes "New Assignment" and "Extended Assignment", which are used for setting up a new DALI system and maintaining an existing DALI system respectively.
●Address Search: It is used to search for an existing DALI system. The searched DALI ballasts will be displayed on the page.

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Programming instructions

● Group information: Click to view the group information.
● Scene setting: Click to set the scenes.
5. Short - press the light icon to turn the light on/off. Long - press it to perform grouping. You can also turn the grouped lights on/off on the "Group information" page.
6. Meanings of the colors of the light icons:
● Green icon: The light is on.
● Gray icon: The light is off.
● Red icon: The light has a fault.
● Red border: The ballast has a fault.
● Red icon + red border: Both the light and the ballast have faults.
Note: 192.168.1.232 is the default address of the KTS master unit/gateway. If it is modified, please replace it with the new IP address.

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