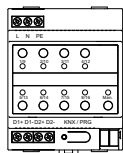


## SpaceLogic KNX DALI Gateway Basic REG-K/2/16/64

### Operating instructions



Art. no. MTN6725-0004

### For your safety

#### ⚠ ⚠ DANGER

#### HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Safe electrical installation must be carried out only by skilled professionals. Skilled professionals must prove profound knowledge in the following areas:

- Connecting to installation networks
- Connecting several electrical devices
- Laying electric cables
- Connection and setup of KNX networks
- Connection and setup of DALI networks
- Connection and setup of emergency lighting systems
- Safety standards, local wiring rules and regulations

**Failure to follow these instructions will result in death or serious injury.**

### Getting to know the Gateway

The KNX DALI Gateway Basic REG-K/2/16/64 (referred to below as the **gateway**) connects the KNX bus to the DALI bus. Lights with DALI electronic ballasts can therefore be integrated into a complete KNX system in the form of a subsystem and operated using the wide range of KNX devices available.

The device converts switching and dimming commands of the connected KNX system into corresponding DALI telegrams or status information from the DALI bus into KNX telegrams.

The gateway comes with two separated DALI channels (D1 and D2)

The electronic ballasts can be switched, dimmed or set to a defined value in 16 groups for each gateway.

#### **i** Notes

- Single Master Application Controller (EN 62386-103). The device may only be operated in DALI lines with electronic ballasts connected and not with other DALI control units within the line (no multi-master operation).
- The power required for up to 64 connected electronic ballasts is supplied directly from the gateway. No additional DALI power supply is required, nor is this permissible.
- The special interface for configuration of the DALI segment is designed as a DCA (Device Control App) for the ETS5. Note that, in addition to the product database (knxprod file), a corresponding ETS app (et-sapp file) is also installed. Both files are available in the KNX online catalogue and on the manufacturer website.
- DALI devices for single-battery emergency lights of device type DT-1 can be read by the gateway and switched and operated via DALI telegrams if required. DALI commands for starting and reading test results are not supported.

#### Product features

- 2 independent DALI channels
- Addressing of 16 DALI groups per channel
- Flexible DALI commissioning concept in ETS5
- Coloured light control with the support of ballasts of device type 8
- Coloured light control depending on ballast subtype:
  - Colour temperature (DT-8 subtype Tc)
  - XY colour (DT-8 subtype XY)
  - RGB (DT-8 subtype RGBWAF)
  - HSV (DT-8 subtype RGBWAF)
  - RGBW (DT-8 subtype RGBWAF)
  - DT-8 subtype PrimaryN is **not** supported
- Support of timer programmes for control of groups by value and/or colour
- Various operating modes for groups such as continuous operation, night mode, staircase mode
- Integrated operating hours counter for each group, with alarm once the end of the service life has been reached
- Individual fault detection with objects for each individual light/electronic ballast
- Complex evaluation of faults at group/device level with fault number and fault rate calculation
- Fault threshold monitoring with individually adjustable threshold values
- Scene module for comprehensive programming of scenes
- Quick exchange function for simple replacement of individual defective electronic ballasts
- Manual operation of group and broadcast telegrams via operating buttons on the device
- Signalling of fault states and statuses via LEDs on the device

### Starting up the gateway

Several steps are necessary to start up the gateway fully:

- ① Wire the DALI segment
- ② Connect the gateway to DALI and KNX bus
- ③ Connect the gateway to the mains voltage
- ④ Load the ETS application programme (.knxprod) and install the ETS app (.etsapp)
- ⑤ Configure the ETS parameters and objects
- ⑥ Assign the ETS-DCA DALI groups
- ⑦ Start up the ETS-DCA DALI
- ⑧ ETS download of application



For a precise description of the start-up procedure, read these operating instructions and the latest application description.

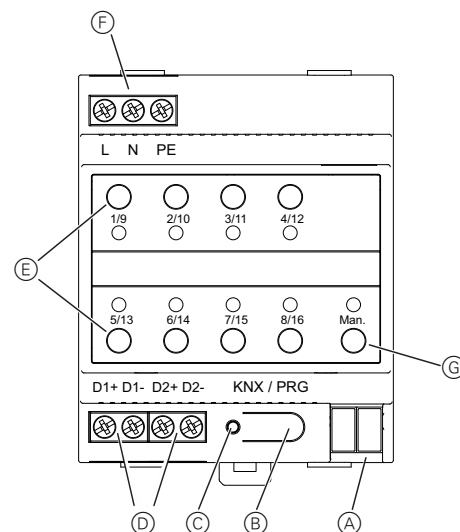
It is installed on a TH35 DIN rail acc. to EN 60715, with the bus connection made via a bus connecting terminal.

Network and DALI cables are connected via screw terminals on the device.

### Connections, displays and operating elements

The appliance connections as well as the programming button and programming LEDs required for KNX commissioning can only be accessed in the distribution board when the cover is removed.

Manual mode buttons can be operated and indicator LEDs read with the distributor cover closed.



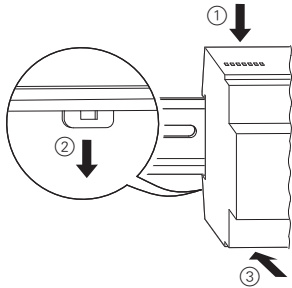
- Ⓐ KNX bus connecting terminal
- Ⓑ Programming button, normal/programming mode
- Ⓒ Programming LED, normal/programming mode
- Ⓓ DALI output terminals: D1 (channel 1) and D2 (channel 2)
- Ⓔ Operating buttons with a status LED (red) for each group (1-8 and 9-16) for manual mode (group operation/group status, broadcast and service functions)
- Ⓕ Mains connection
- Ⓖ Operating button with status LED (RGB) for activating manual mode



Further information on operation, operating modes and troubleshooting can be found in the application description.

## Mounting the Gateway

- 1 Position the gateway on the DIN rail.



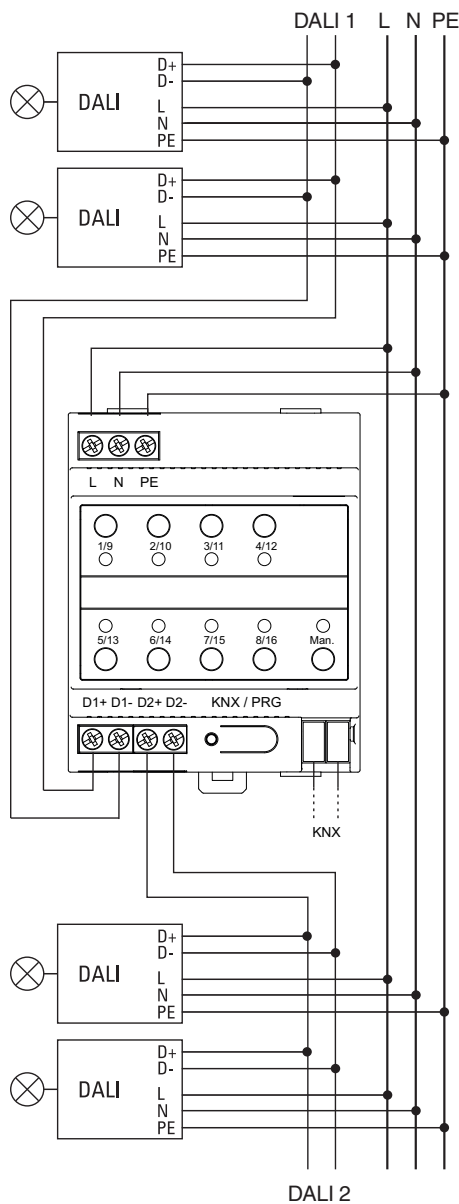
- 2 Attach the connecting cable for the DALI bus to the lower left terminals.

**i** The DALI control cables can be routed in a 5-core cable together with the wires for conducting mains voltage (single basic insulation is sufficient) in accordance with EN 60929. Ensure they are labelled clearly, however.

A maximum cable length of 300 m must not be exceeded for the entire DALI installation of a segment (recommended cross-section 1.5 mm<sup>2</sup>).

- 3 Connect the mains voltage.
- 4 Connect KNX.

**!** Double basic insulation must be used between the KNX installation and the mains voltage! For this purpose, additionally insulate the wires of the KNX cable as far as the bus connecting terminal using the enclosed shrink hose.



Once all connections are complete and the supply voltage has been switched on, the DALI line can be commissioned and programming carried out with the ETS.

**i** Please refer to the application description in order to perform these operations.

## Technical data

Supply voltage:	100-240 V AC/DC, 50-60 Hz
Power consumption:	max. 18 W
Power supply from KNX:	24 V DC (SELV), approx. 5 mA
Operating elements:	
Programming button:	Normal/programming mode
1 Manual mode button:	Activating manual mode
8x Group buttons:	Operation of the individual groups in manual mode
Display elements:	
Programming LED, red:	Normal/programming mode
LED RGB:	Manual mode and fault messages
8x LED, red:	Group statuses and fault messages
DALI:	
Outputs:	2
Type:	Single Master Application Controller (EN 62386-103) From firmware version 0.2.6 the gateway is certified according to EN 62386-101/-103 ed2 -> DALI-2 compatible
Number of electronic ballasts:	max. 64 ECGs per channel according to EN 62386-101 ed1 and ed 2
Output voltage:	typically 16 V DC, short-circuit proof max. 250 mA, basic insulation (no SELV)
Wire cross-section:	min. 1.5 mm <sup>2</sup>
Output current:	max. 250 mA, min. 128 mA
Shutdown delay:	600 ms after DALI short circuit shutdown occurs
Start-up attempt after shutdown:	5 s after short-circuit detection
Connections:	
Supply voltage:	Screw terminals 1-2.5 mm <sup>2</sup> single-core and multi-core
DALI bus:	Screw terminals 1-2.5 mm <sup>2</sup> single-core and multi-core
KNX:	Bus connecting terminal
Ambient operating temperature:	-5 °C to +45 °C
Relative humidity (non-condensing):	5% to 93%
Degree of contamination:	2
Overvoltage category:	III
Device width:	4 modules = approx. 72 mm

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