Product Information

ABB i-bus® EIB / KNX

DALI Gateways
DG/S 1.1
DG/S 8.1

Intelligent Installation Systems

Modern Lighting Technology in Building Engineering

DALI the digital standard in lighting technology

The demands placed on modern lighting technology vary widely. Where as in earlier times it was simply just a matter of providing light, modern requirements such as comfort, ambiance, functionality and conservation of energy are now defining factors. Furthermore, modern lighting systems are frequently integrated into the facility management of the building in order to monitor the status of the entire lighting installation. It is often the case that a complex lighting management system is required in order to optimally utilize the full system capability. These requirements can often not be sufficiently met by the traditional 1…10 V technology, or only at considerable extra expense. The DALI standard was developed against this backdrop in conjunction with leading manufacturers of lamp ballasts. It describes and defines the digital interface DALI (Digital Addressable Lighting Interface) for lighting technology equipment.

DALI has become established as an independent standard in the field of lighting technology. The range of ballasts, transformers, dimmers and relays with DALI interfaces is decisively influencing modern lighting engineering.

With the ABB i-bus® DALI Gateways DG/S 8.1 and DG/S 1.1 it is possible to integrate DALI compatible devices into EIB / KNX intelligent installation systems. Thus all functions of the DALI standard while at the same time enjoying all the advantage of a modern home and building control system.

Proven Technology with Simple Commissioning

The 8-fold DALI Gateway DG/S 8.1

The 8-fold DALI Gateway caters specially for the installation habits of the well known 1…10 V technology and fully sets aside the need for commissioning of the DALI devices. However, the benefits of the DALI technology are still utilised in the EIB / KNX world.

- No DALI addressing / commissioning required
- Light groups determined via the cabling installation
- 8 independent DALI channels
- 128 DALI slaves, max. 16 per channel
- Common channel control and monitoring (broadcast)
- Syncronised switching and dimming
- 16 lightscenes
- Scene dimming
- Channel based lamp and ballast fault indication
- Channel based lamp “burn-in” function
- Integrated DALI power supply

Through the omission of the DALI addressing procedure, the 8-fold gateway is the ideal solution for areas in which the individual luminaries are not all visible from one location:

- Offices leading off corridors
- Hotel rooms
- Patients rooms in hospitals
- Patients rooms in old peoples’ homes

Symbiosis between Lighting Technology and Building Automation

Individual lighting control with the 1-fold DALI Gateway DG/S 1.1

The 1-fold DALI gateway can individually address up to 128 DALI slaves and supply them with the DALI voltage supply via two DALI output channels. 64 DALI slaves can be individually and directly switched on/off, dimmed and the brightness level set via EIB / KNX. Further functions are possible using individual coded address-control for each slave.

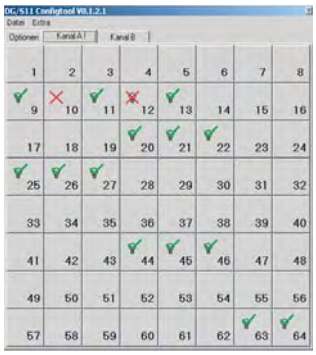
- Automatic DALI addressing by the DG/S 1.1
- Individual DALI addressing with the DGS11 software tool
- Main channel: 64 DALI slaves can be controlled individually
- Additional channel: 64 DALI slaves with coded address control
- Individual lamp and ballast fault detection
- Individual activation of a lamp “burn-in” times
- 15 lightscenes
- Group building via EIB / KNX
- Dynamic mode with pre-turn off warning
- Compact design, 4 module widths

Due to the commissioning requirements of the DALI devices, the 1-fold gateway is especially suitable for rooms in which the individual luminaries are all visible from one location:

- Multi-purpose rooms
- Exhibition halls and sport arenas
- Museums and functional rooms
- Open-plan offices

Two Paths Leading to One Objective

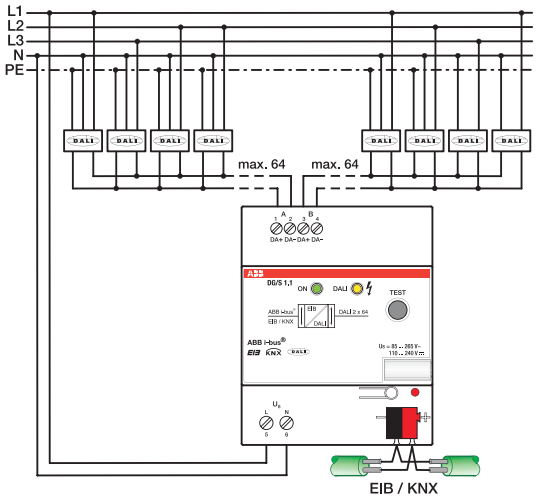
Flexible and intuitive commissioning

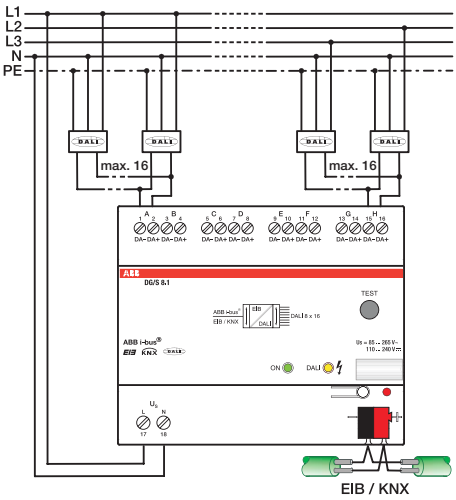


The 1-fold DALI gateway DG/S 1.1 combines the highest level of flexibility with a minimum of cabling and commissioning expenditure. 64 DALI slaves can be connected to each of the two DALI channels. During the initialisation phase, that is automatically implemented by the gateway, all of the DALI slaves are addressed and allocated in an ascending and unarranged sequence to EIB / KNX communication objects. The 64 DALI slaves in the main channel can now be assigned of any EIB / KNX group address and controlled via ABB i-bus®. The DGS11 software tool allows a manual and individual re-addressing and test of the DALI slaves.

- Readdressing of the DALI slaves via ‘drag and drop’
- Visualisation of all DALI slaves connected to the DG/S 1.1
- Status display (lamp and ballast faults)
- Testing of the DALI slaves at any brightness level
- ETS not required

Technical Data





	DALI Gateway, 1-fold, DG/S 1.1	DALI Gateway, 8-fold, DG/S 8.1
Operating voltage	85…265 V AC, 50/60 Hz 110…240 V DC	85…265 V AC, 50/60 Hz 110…240 V DC
DALI outputs according to DIN IEC 60929 Annex E	1 main channel: Individual addressing, individual control 1 additional channel: Individual addressing, coded address control	8 equivalent channels: Common control and monitoring of all slaves on the channel (broadcast)
Number of DALI slaves	Main channel: Max. 64 Additional channel: Max. 64	Max. 16 per channel (Max. 128 per device)
Cable length per output	Max. 300 m (cable cross-section 1.5 mm²)	Max. 300 m (cable cross-section 1.5 mm²)
Installation	Modular installation device for 35 mm mounting rails to DIN EN 60715	Modular installation device for 35 mm mounting rails to DIN EN 60715
Dimensions	4 modules at 18 mm, 90 x 72 x 64 mm (H x W x D)	6 modules at 18 mm, 90 x 108 x 64 mm (H x W x D)
EIB / KNX	to DIN EN 50090	to DIN EN 50090

Ordering Information

Type	Description	MW *	Order Code	**bbn 40 16779 EAN**
DG/S 1.1	DALI Gateway, 1fold, MDRC	4	2CDG 110 026 R0011	**58583 5**
DG/S 8.1	DALI Gateway, 8fold, MDRC	6	2CDG 110 025 R0011	**58582 8**

* MW = Module width = 18 mm

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Your EIB-Partner