

EIB DALI interface GE 141 **5WG1 141-4AB01**

Product and functional description



The EIB DALI interface GE 141 (DALI = Digital Addressable Lighting Interface) enables up to 64 DALI actuators (electronic ballasts with DALI interface) to be operated. They can be switched and dimmed in up to 16 channels. It is possible to assign an actuator to a channel. Up to 64 actuators can be assigned to a channel. The individual electronic ballasts are allocated to the channels during commissioning with ETS (EIB Tool Software) (refer to the application program description).

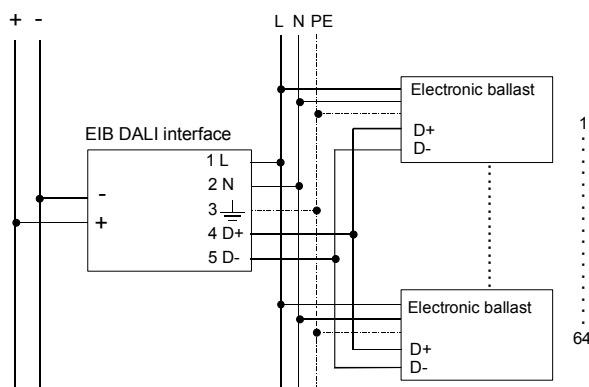
The EIB DALI interface also allows scenes to be implemented. There are 10 individual scenes available. When assigning parameters using ETS, the individual channels are assigned to the scenes. The individual values of the scenes can be modified via *instabus EIB* push buttons. With the help of ETS, the application program is selected, the specific parameters and addresses are assigned and transferred into the EIB DALI interface GE 141.

Application programs

01 07 EIB DALI interface 801801

- 16 channels for switching on/off, dimming, set-value
- functions on the event of bus voltage failure/recovery can be set in parameter list
- initial value on switching on can be preselected
- allows state to be read via bus
- allows to transfer status signals from the channels (collective alarm of the electronic ballasts per channel)
- allows time switch operation on one level or on two levels
- allows to assign the electronic ballast to the channels via ETS
- 16 scenes available

Connection example



Installation instructions

- The device can be inserted in devices and housings and used as a surface-mounted device.

WARNING

- The device may only be installed and commissioned by an authorised electrician.
- When connecting the device, it should be ensured that the device can be isolated.
- It should be noted that 230 V devices which are combined with the device must indicate a basic insulation of 250 V to the mains. Otherwise a distance of 4 mm must be maintained. Additional insulation should be used in case of doubt.
- The prevailing safety and accident regulations should be observed.
- The device may not be opened.
- The DALI bus may not be operated with other control devices.
- Only devices with a DALI interface may be operated.

General note

- Any faulty devices should be sent to the local Siemens office.

Technical data

Power supply

Via the mains connection and also via the bus line

- Nominal mains voltage:
AC 110-240 V, 50-60 Hz
DC 110-240 V
- Max. nominal current: 150 mA

Outputs

- Potential-free DALI output in accordance with IEC 60929
Max. voltage: 20 V short-circuit-proof

Operating elements

1 learning button: For toggling between normal mode and addressing mode

Display elements

1 red LED:
For checking the bus voltage and for displaying normal mode/addressing mode

Connections

- Mains voltage connections and DALI screw terminals:
Insulation strip length: 7...8 mm
The following conductors or conductor cross-sections are permitted:
 - 0.5 ... 4 mm² solid
 - 0.5 ... 2.5 mm² finely stranded
 - Solid conductor up to 1.5 mm² can be directly looped through on the terminal

WARNING

When looping through the mains voltage connections (terminals 1 to 3), it should be noted that the maximum terminal current of 16 A may not be exceeded.

- Bus line, screwless bus terminal:
0.6 ... 0.8 mm \varnothing solid

Mechanical data

- Housing: plastic
- Dimensions (W x H x D): 42 x 32 x 274.5 mm
- Weight: approx. 200 g
- Fire load: approx. 4200 kJ \pm 10%
- Installation: inserted in device, screw fixing

Electrical safety

- Degree of pollution (according to IEC 60664-1): 2
- Type of protection (according to EN 60529): IP 20
- Overvoltage category (according to IEC 60664-1): III
- Bus: safety extra-low voltage SELV DC 24 V
- Device complies with EN 50 090-2-2 and IEC 60664-1

Reliability

Failure rate: 522 fit at 40°C

EMC requirements

Complies with EN 61000-5-2, EN 61000-6-3 and EN 50090-2-2

Ambient conditions

- Climatic withstand capability: EN 50090-2-2
- Ambient operating temperature: -5 ... +45°C
- Storage temperature: 25 ... +70°C
- Relative humidity (not condensing): 5% to 93%

Approval

KNX/EIB certified

CE mark

In accordance with the EMC guideline (residential and functional buildings) and the low voltage guideline

Location and function of the display and operating elements

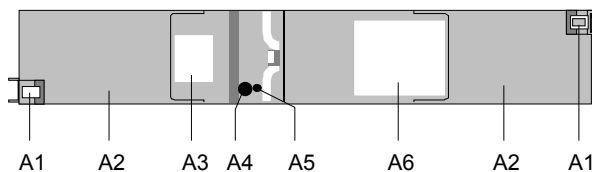


Diagram 1: Location of the display and operating elements

- A1 Lever for snapping the hinged cover in place
- A2 Hinged covers for the terminal compartment
- A3 Sticker for labelling the physical address
- A4 Learning button for toggling between normal and addressing mode for transferring the physical address
- A5 LED for displaying normal mode (LED off) or addressing mode (LED on); it is automatically extinguished once the physical address has been transferred; the device is then reset to normal mode
- A6 Nameplate

EIB DALI interface GE 141**5WG1 141-4AB01****Installation and wiring**General description

The devices are suitable for insertion in housing or for separate installation and are fixed with two screws (hole distance 251 mm in the centre) with 4 mm \varnothing

Opening the terminal compartments (Diagram 2)

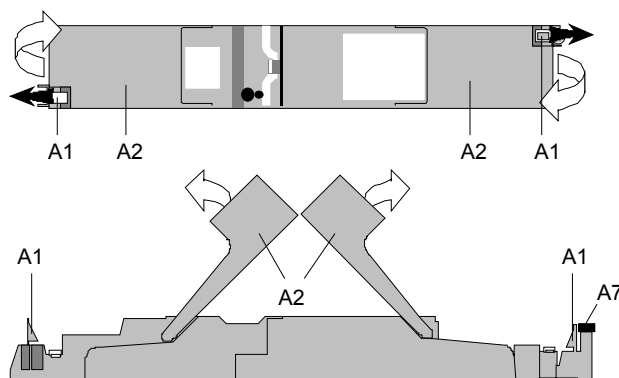
- Press the latching lever (A1) outwards (black arrows) and fold back the covers of the terminal compartments (A2).

Closing the terminal compartments (Diagram 2)

- Press the covers of the terminal compartments (A2) downwards and snap into place. Screw in the securing screw (A7).

**WARNING**

- When installing the device within arm's reach, screw the supplied screw (A7) into the hole provided.

Diagram 2: *Opening and closing the hinged covers*Removing the bus terminal (Diagram 3)

- The bus terminal (B3) is located in the left terminal compartment. It consists of two sections (B3.2 and B3.3), each with four terminal contacts. Care should be taken not to damage the two test sockets (B3.1) either by accidentally connecting them to the bus conductor or with the screwdriver (when trying to remove the bus terminal).
- Carefully insert the screwdriver in the wire entry slot in the grey section of the bus terminal (B3.3) and pull the bus terminal (B3) out of the built-in device. When removing the red section of the bus terminal, the grey section remains connected.

Note: Do not remove the bus terminal from underneath as there is a risk of shorting.

Plugging in the bus terminal (Diagram 3)

- Place the bus terminal (B3) in the guide slot and push the device downwards until it reaches the stop.

Connecting the bus cable (Diagram 3 "A")

- The bus terminal (B3) is suitable for solid conductors with 0.6 ... 0.8 mm \varnothing .
- Strip approx. 5 mm of the insulation from the conductor (B3.4) and plug in the terminal (B3) (red = +, black = -).
- The sheath of the bus cable should be fixed with the cable clip (B1) onto the housing of the built-in device. If a cable with shielding is used, it can be screwed in place on the terminal (B6) (Diagram 3).

The opening (B2) is used to locate an overvoltage protector. The connections are inserted into the bus terminal (Diagram 3) parallel to the bus line.

Disconnecting the bus cable (Diagram 3 "A")

- Remove the bus cable (B3) and the conductor (B3.4) of the bus cable by rotating them simultaneously backwards and forwards.

Connecting the mains voltage and DALI (Diagram 3 "B")

- Strip approx. 7 ... 8 mm of the insulation from the conductor (B4.1), plug in the terminals (B4) and tighten the screws (B4.2).
- The sheaths of the power supply and DALI cables should be fixed with the cable clip (B5) onto the housing of the built-in device.
- Terminal assignment:

1	L	Phase
2	N	Neutral conductor
3		Earth
4	D+	DALI +
5	D-	DALI -

Cross-sections:

- 0.5 ... 4 mm² solid
- 0.5 ... 2.5 mm² finely stranded

Disconnecting the mains voltage and DALI (Diagram 3 "B")

- Loosen the screw (B4.2) and pull the conductor (B4.1) out of the terminal (B4).

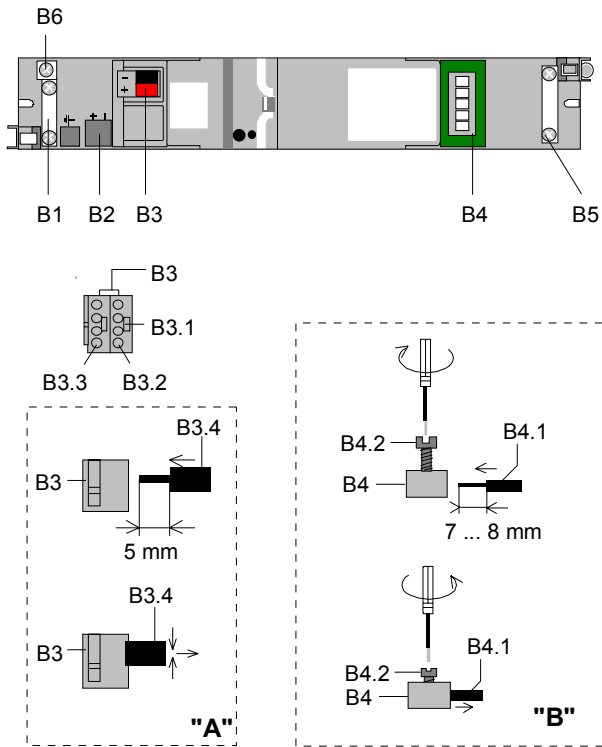


Diagram 3: Connections

Dimensions

Dimensions in mm

