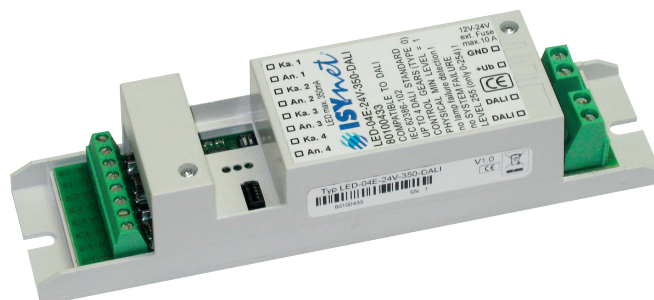


## Technical Data / Instruction Manual

# LED-04E-24V-350-DALI

Article no. 80100433

4-channel LED dimmer



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## 1. Notes on documentation

These instructions are intended for qualified personnel who are familiar with the assembly, installation and operation of the ISYnet system. It is essential that you read these operating instructions through before commissioning and keep them accessible for further use. SEEBACHER cannot accept any liability for damage or malfunctions resulting from failure to observe these instructions.

### 1.1. Retention of documents

These instructions and all other applicable documents are part of the product. They must be handed over to the device operator. The operator will store the documents so that they can be made available if necessary.

### 1.2. Symbols used

Observe the following safety and other instructions in the manual:



Handling instruction

The hand indicates that you should carry out an act.



Danger!

Immediate danger to life!



Attention!

General notes, useful information and special features


## 2. Safety instructions



Observe the following general safety instructions when installing and commissioning the device:

Assembly and installation of the ISYnet module may only be carried out by a qualified electrician. Other activities in connection with the ISYnet module, such as assembly and installation of system components with tested standard plug connections, as well as operation and configuration of the ISYnet module may only be carried out by trained staff.

Observe the electrical installation regulations of the country in which the device is installed and operated as well as its national accident prevention regulations. In addition, observe internal company regulations (work, operating and safety regulations).

 Before working on the ISYnet module system, it must be disconnected from the power supply and secured against being switched on again. After completion of the assembly, installation and maintenance work, an electrical check must be carried out! Check all protective conductor connections and the voltages at all connection plugs as well as at each individual module slot.

### 2.1. Intended usage

The module is exclusively suitable for regulation (control) in connection with ISYnet system components. Any other use is not intended. The limit values stated in the technical data must not be exceeded under any circumstances. This applies in particular to the permissible ambient temperature range and the permissible IP protection type. For applications with a higher required IP protection type, the ISYnet module must be installed in a housing or a cabinet with a higher IP protection type.

### 2.2. Predictable mishandling

The module must not be used in the following cases in particular:

- explosive area

When operating in explosive areas, sparking can lead to deflagration, fire or explosions.

### 2.3. Safe handling

This module corresponds to the state of the art and the recognised safety regulations. Each device is tested for function and safety before delivery.

Only operate this module in perfect condition in accordance with the operating instructions, the applicable regulations and directives of the country in which the device is installed and operated, and the applicable safety and accident prevention regulations.

This product is for lighting purposes only and may

- only be operated in conjunction with a suitable low-voltage power supply unit
  - must only be connected in accordance with protection class III (three)
  - only be operated permanently mounted on a suitable base (DIN rail mounting on DIN rail, switch cabinet)
  - only be operated on normal or non-flammable surfaces
  - only be operated in dry, i.e. not in damp or dirt-prone rooms or in areas with high humidity
  - are not exposed to strong mechanical stresses or heavy soiling
- Extreme environmental conditions impair the function of the product.

In addition to these safety instructions, you must also observe the special safety instructions listed in the individual chapters for the individual acts.

### 2.4. Qualification of staff

Assembly, commissioning, operation, maintenance, decommissioning and disposal may only be carried out by qualified staff. Work on electrical parts may only be carried out by a trained electrician in accordance with the applicable regulations and directives. Other activities in connection with the ISYnet module, such as assembly and installation of system components with tested standard plug connections, as well as operation and configuration of the ISYnet module may only be carried out by trained staff.

### 2.5. Changes to the product

Unauthorized modifications to the ISYnet module which are not described in this or the other applicable instructions can lead to malfunctions and are prohibited for safety reasons.

### 2.6. Use of spare parts and additional equipment

The module may be damaged if unsuitable spare parts and additional equipment are used. Only use original spare parts and additional equipment from the manufacturer.

### 2.7. Liability notes

SEEBACHER accepts no liability or warranty whatsoever for damage and consequential damage caused by non-compliance with the technical regulations, instructions and recommendations. SEEBACHER shall not be liable for any costs or damage incurred by the user or third parties as a result of the use of this equipment, in particular improper use of the equipment, misuse or malfunction of the connection, malfunction of the equipment or connected devices.

SEEBACHER accepts no liability for printing errors.

### 3. Warranty



We provide warranty within the framework of the statutory provisions. These are limited to the intended use of the module and refer to the repair or replacement of the ISYnet module. Please send the device with an attached error description to our company address given below.

### 4. Declaration of Conformity



The valid declaration of conformity for the module can be requested from us free of charge by stating type and article no. as follows:

By phone: +49(0)8041/77776  
By fax: +49(0)8041/77772  
By mail: info@seebacher.de

### 5. Service address

#### Seebacher GmbH

Marktstrasse 57  
83646 Bad Tölz  
GERMANY

Phone: +49 (0) 80 41 / 77 77 6  
Fax: +49 (0) 80 41 / 77 77 2

www.seebacher.de  
info@seebacher.de

### 6. Maintenance / Care / Disposal



The product is maintenance-free. It is sufficient from time to time to remove any dust deposits. This may only be done in a power-free state.

#### Disposal (European Union)

Do not dispose of product in household waste! Products with this symbol



must be disposed of according to the EU directive WEEE 2012/19/ EU on waste electrical and electronic equipment at the local collection points for waste electrical and electronic equipment!

### 7. Storage



The product must be stored in a dry place, protected from dirt and mechanical stress. After damp or dirty storage, the product may only be operated after a condition check by an authorised electrician.

### 8. Assembly



(Only by certified electrician!)

Mount the product only when it is in a power-free state!

Switch off the power supply, check that there is no voltage, secure against being switched on again!

Only use suitable equipment (power supplies and LEDs that meet the electrical requirements of the device; low voltage or SELV!)

Check that there are no loose parts in the product. If this is the case and the presence of such parts is not explicitly described, do not install or commission the product.

Only use suitable cables and fixing screws.

#### Assembly site

- The product can be installed in any position in a casing to be determined by the electrician (DIN rail mounting, switch cabinet). Observe maximum ambient temperature!
- LEDs react sensitively to high temperatures! Before installation, consider the temperature to be expected at the operating location.
- Keep sufficient distance from flammable materials.

#### Assembly steps

(Read completely before assembly!)

- Mount the device in a suitable casing.
- Make the electrical connections according to the wiring diagram.
- Configure the DIP switches according to your requirements.
- Ensure that the LEDs are connected with the correct polarity.
- Only after a complete connection and a visual test by a qualified electrician, the system may be put under voltage. Otherwise there is a danger of destruction of the LEDs!

## 9. Product description

The LED dimmer was developed to control up to 4 LED lights 350mA. This makes it possible to control the brightness of the LEDs between 0 and 100% absolutely flicker-free. With 2 DIP switches, the DALI dimmer is preset to the channel operating mode (1-, 2-, 3- or 4-channel dimmer) and accordingly only requires the defined number of DALI addresses.

### Inputs / Outputs

- 4 outputs for Power-LEDs 350mA

### State indicator (factory setting)

	LED	State	Meaning
●	1x red	On	Dimmer is still in (default) delivery state
		Off	Dimmer is no longer in (default) delivery state, i.e. parameters were changed or dimmer was addressed

#### Please note:

The red LED is NOT an operating voltage or function indicator of the dimmer! It is located next to the DIP switches.

### Connections

- 1 connection for DALI-BUS
- 1 connection for external voltage supply LEDs
- 4 connections anodes (+) Power-LEDs
- 4 connections cathodes (-) Power-LEDs

### Design





- Plastic housing for lamp installation

### Parameterisation

- Dimming curves can be parameterised at the factory

## DIP switches

- Definition of control channels (CONTROL GEARS)

DIP setting	Outputs / DALI-GEAR	A	B	C	D
DIP1: OFF DIP2: OFF	 Cathode 1 (Ka.1) GEAR A Cathode 2 (Ka.2) GEAR B Cathode 3 (Ka.3) GEAR C Cathode 4 (Ka.4) GEAR D	x	x	x	x
DIP1: OFF DIP2: ON	 Cathode 1 (Ka.1) GEAR A Cathode 2 (Ka.2) GEAR A Cathode 3 (Ka.3) GEAR B Cathode 4 (Ka.4) GEAR B	x x	x x		
DIP1: ON DIP2: OFF	 Cathode 1 (Ka.1) GEAR A Cathode 2 (Ka.2) GEAR A Cathode 3 (Ka.3) GEAR A Cathode 4 (Ka.4) GEAR A	x x x x			
DIP1: ON DIP2: ON	 Cathode 1 (Ka.1) GEAR A Cathode 2 (Ka.2) GEAR B Cathode 3 (Ka.3) GEAR C Cathode 4 (Ka.4) GEAR C	x	x	x x	

### Note:

After changing the DIP switches, the DALI addresses of the LED dimmer must be deleted again. Afterwards, it must be re-parameterised in the current configuration.

## 10. Technical data

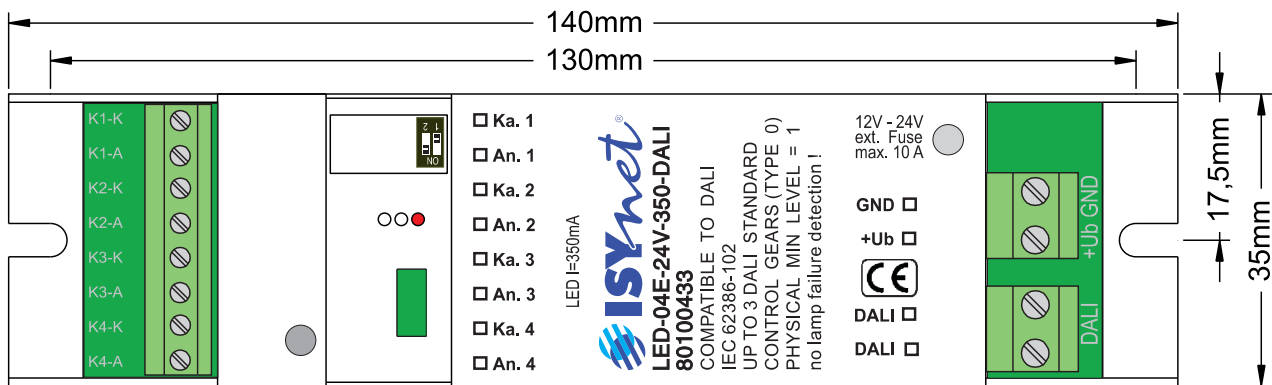
<b>Type designation</b>	<b>LED-04E-24V-350-DALI</b>
Article no.	80100433
Operating voltage	DALI-BUS supply, max. 2mA (total for 1-4 CONTROL GEARS), 12V to 24V DC pulse-proof for Power-LEDs
Current consumption	max. 400mA per LED circuit
Output power	4 circuits with 350mA each
BUS control	DALI compatible with DALI IEC 62386-102 4 DALI Standard CONTROL GEARS (DEVICE TYPE 0) PHYSICAL MIN LEVEL = 1 <b>Exceptions:</b> - no lamp failure detection - no SYSTEMFAILURE LEVEL „255“ only „0-254“
Cable length power supply to LED dimmer	max. 40m (observe max. permissible voltage drop for cross-section calculation of cable)
Cable length LED dimmer up to last LED	max. 50m (observe max. permissible voltage drop for cross-section calculation of cable)
Mounting	Floor duct, luminaire mounting or ceiling mounting
Dimensions	LxWxH 140x35x27mm
Weight	55g
Connection	Screw terminals 1.5mm <sup>2</sup>
Max. ambient temperature	+45°C
Storage temperature	-25°C to +70°C
Humidity	0-85% r. h. non-condensing
Protection class	IP10 when not installed
CE mark	Yes

## 10.1. Pin assignment

GND	Voltage input - for LED power supply
+Ub	Voltage input + for LED power supply
DALI	DALI-BUS connection 1
DALI	DALI-BUS connection 2

Ka. 1	Cathode (-) for Power-LED channel 1
An. 1	Anode (+) for Power-LED channel 1
Ka. 2	Cathode (-) for Power-LED channel 2
An. 2	Anode (+) for Power-LED channel 2
Ka. 3	Cathode (-) for Power-LED channel 3
An. 3	Anode (+) for Power-LED channel 3
Ka. 4	Cathode (-) for Power-LED channel 4
An. 4	Anode (+) for Power-LED channel 4

### View



## 11. Wiring diagram

