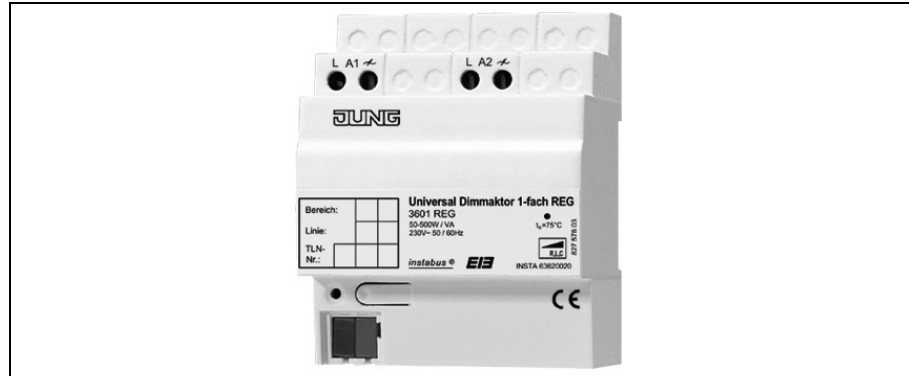


## Operating Instructions Universal dimming actuator single / dual



### 1. System information

This unit is a product of the instabus-EIB-System and corresponds to the EIBA Guidelines. Detailed technical knowledge acquired in instabus training courses is a prerequisite for the understanding of the system. The functions of the device are software-dependent. Detailed information on the software and the functions implemented and the software itself are available from the manufacturer's product data bank.

Planning, installation and commissioning of the device are effected with the help of EIBA-certified software

For the product database and technical descriptions please refer to the internet at [www.jung.de](http://www.jung.de) offering up-to-date information.

### 2. Function

Depending on the type of load connected, the single and the dual universal dimming actuator operate either in the phase cut-on or the phase cut-off mode and permit switching and dimming of incandescent lamps, HV-halogen lamps and LV halogen lamps via conventional transformers and Jung Tronic transformers. After the installation and connection to the mains, the dimming actuator detects and identifies the load automatically.

With resistive loads (incandescent and HV halogen lamps), the identification is indicated by short flickering of the lamp and lasts between 1 to 10 seconds depending on mains conditions. Telegrams received during the identification are executed when the procedure is terminated. Mains failures of more than 0.7 seconds cause the dimming actuator to shut off. On restoration of the supply, the actuator repeats the load detection procedure.

#### Short-circuit protection

Each output has its own short-circuit protection. In the event of a short-circuit in the identification phase, the actuator must re-identify the load after elimination of the short-circuit.

Phase cut-off operation (capacitive load, resistive load):

Shutoff of the output concerned with automatic restart after elimination of the short-circuit within 7 seconds. Thereafter, the actuator is shut off permanently until the next ON-telegram is received.

Phase cut-on operation (inductive load):

Shutoff of the output with automatic restart after elimination of the short-circuit within 100 ms. Thereafter, the actuator is shut off permanently until the next ON-telegram is received.

#### **Over-temperature protection**

Shutoff of the output when the ambient temperature is too high. After cooling, the dimming actuator re-detects the load automatically and adjusts itself to the brightness preset by the instabus EIB.

Load types: 230V incandescent lamps, HV halogen lamps

LV halogen lamps with Jung Tronic transformers

**or**

LV halogen lamps with conventional transformers

Conventional transformers must be loaded with at least 85% of their rated load.

The connected load, including transformer losses must not exceed the admissible overall load.

### **3. Characteristics**

- No-load protection.
- Switching and dimming behaviour presettable with parameters.
- Checkback for switching status and dimming value.
- Soft-On, Soft-Off and delayed dimming presettable with parameters.
- Light-fading mode and immediate brightness change.
- Lightscape operation possible.
- Behaviour on bus voltage return presettable.

Dual universal dimming actuator only:

- Connection of different phases to terminals A1 and A2.
- Asymmetrical loading possible (e.g.: channel 1 with 300 W/VA, channel 2 with 200 W/VA).
- The max. load for single-channel operation is 400 W/VA.

### **4. Safety instructions**

**Attention: Electrical equipment must be installed and fitted by qualified electricians only.**

**Not suitable for safety disconnection of the load.**

**Switching off the dimming actuator does not isolate the load electrically from the mains.**

**When using conventional transformers, each transformer must be protected with a fuse on the primary side as specified in the manufacturer's instructions.**

**Use only safety transformers as per DIN VDE 0551.**

**Do not connect capacitive loads (e.g. Jung Tronic transformers) together with inductive loads (e.g. conventional transformers) to one and the same output.**

**Any non-observance of the safety instructions may cause fire or other hazards.**

### Important information

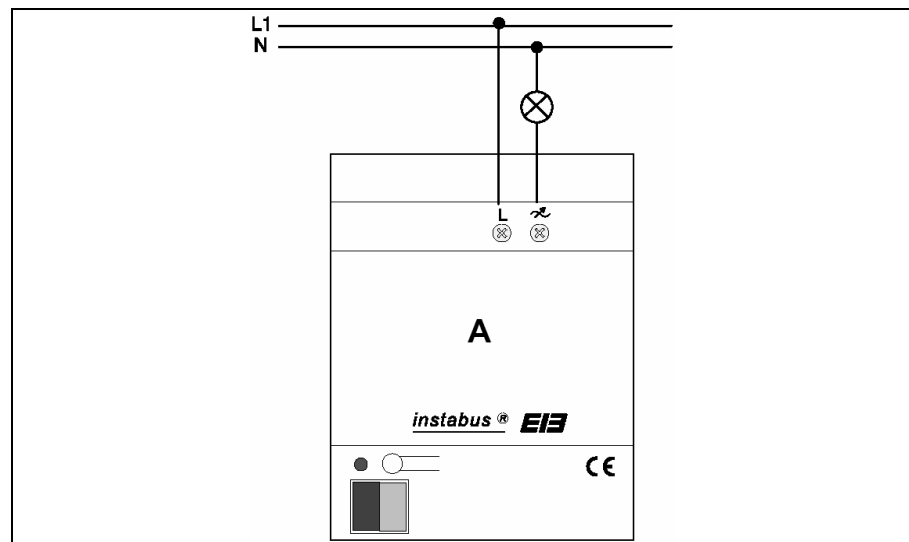
- With conventional transformers, the resistive part of the load must not exceed 50 %.
- After full utilization of the dimming actuator, the capacity can be further enlarged by connecting up to 10 power boost units to each channel.
- With Jung Tronic transformers: use Jung Tronic power boost units (built-in or DIN-rail models).
- With conventional transformers: use LV power boost units (built-in or DIN-rail models)
- Observe the technical connection guidelines of the power supply companies.
- Centralized telecontrol signals from power supply companies may cause brief flickering of the lamp in low dimming positions..

## 5. Connection

Single-channel universal dimming actuator:

Connection see figure A

The total power rating is 500 W/VA.

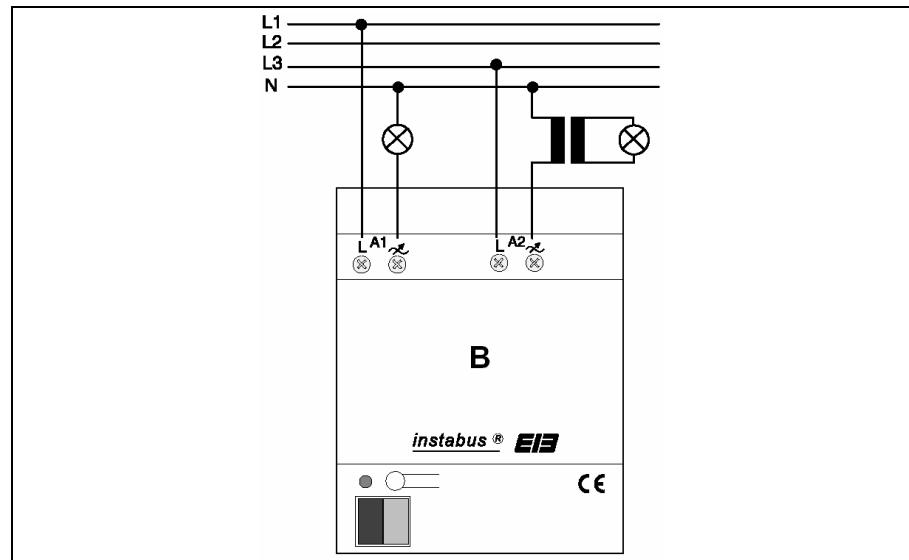


Dual-channel universal dimming actuator:

Connection see figure B

The connection of different phases to terminals A1 and A2 as well as the simultaneous operation of capacitive or resistive loads, e.g. in channel 1, and of inductive loads, e.g. in channel 2 is possible. (see figure B)

With a max. single-channel load of 400 W/VA, the total load rating is 600 W/VA.

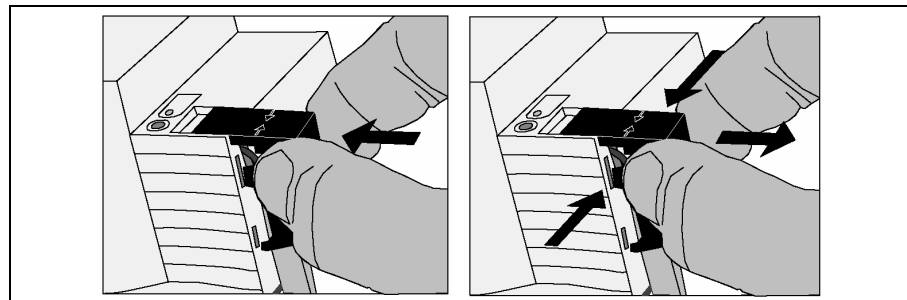


**Important:** Any non-observance of the load distribution may lead to over-temperature shut-off of the outputs.!

## 6. Cap

Slide the cap with the bus wires at the bottom over the bus terminal (fig. C) until it is heard to engage. To remove the cap, push sideways and withdraw (fig. D).

The cap can be supplied as an extra part (Art. no. 2050 K).



The cap can be supplied as an extra part (Art. no. 2050 K).

## 7. Technische Daten

instabus EIB supply voltage	:21 - 32 V DC
instabus EIB power rating	max. 150 mW
Mains supply:	AC 230 V, 50/60 Hz
Total power dissipation	max. 4.5 W
Connection:	
Instabus EIB	instabus terminal
Main:	screw terminals
	1.5 – 4 mm <sup>2</sup> solid wire or
	2 x 1.5 – 2.5 mm <sup>2</sup> solid wire
	0.75 – 4 mm <sup>2</sup> stranded

without wire end ferrule or  
0.5 – 2.5 mm<sup>2</sup> stranded with wire end  
ferrule

Single-channel universal dimming actuator

power rating : 500 W/VA

## Dual-channel universal dimming actuator

max. overall power rating (both channels) : 600 W/VA

max. single-channel loading : 400 W/VA

Minimum load rating per channel used : 50 W/VA

Ambient temperature : -5 °C ... +45 °C

Max. housing temperature : TC = 75 °C

Storage temperature : -25 °C ... +70 °C

Installation width : 72 mm (4 modules)

Technical specifications subject to change.

## 8. Guarantee

Our products are under guarantee within the scope of the statutory provisions.

**Please return the unit postage paid to our central service department giving a brief description of the fault:**

ALBRECHT JUNG GMBH & CO. KG

Service-Center

Kupferstr. 17-19

D-44532 Lünen

Service-Line: +(49) 23 55 . 80 65 51

Telefax: +(49) 23 55 . 80 61 65

E-Mail: mail.vka@jung.de

### General equipment

Service-Line: +(49) 23 55 . 80 65 55

Telefax: +(49) 23 55 . 80 62 55

E-Mail: mail.vkm@jung.de

### KNX equipment

Service-Line: +(49) 23 55 . 80 65 56

Telefax: +(49) 23 55 . 80 62 55

E-Mail: mail.vkm@jung.de



The CE-Sign is a free trade sign addressed exclusively to the authorities and does not include any warranty of any properties.