

Operating instructions 4-fold universal radio-control dimmer REG



1. Safety instructions

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

Failure to observe the instructions may cause damage to the device and result in fire or other hazards.

Before working on the device or on the load, disconnect the supply voltage (by cutting out the circuit breaker) to avoid the risk of an electric shock.

The device is not suited for safe disconnection of the mains supply.

Shutting off the device does not separate the load electrically from the supply.

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If inductive transformers are used, each transformer must be fuse-protected on the primary side in accordance with the manufacturer's instructions. Use only safety transformers in acc. with EN 61558-2-6 (VDE 0570 Part 2-6)

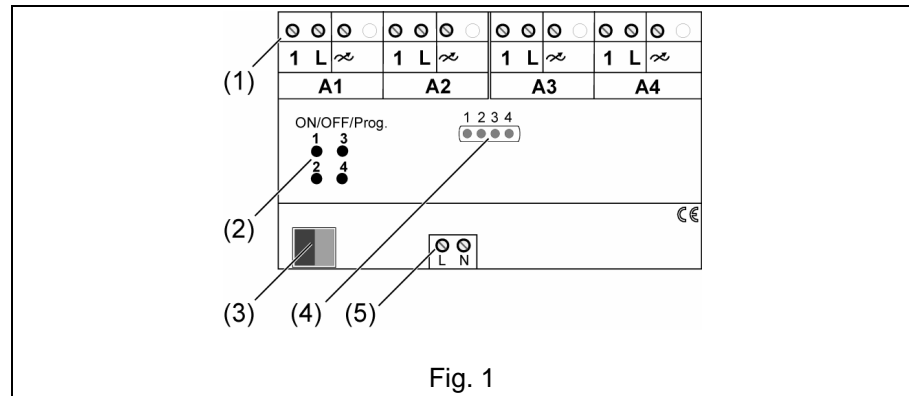
Do not connect energy-saving lamps to the device.

Do not connect luminaires with integrated dimmer to the device.

Do not connect any electronic lamps, e.g. switchable or dimmable compact fluorescent lamps or LED lamps. Device can be damaged.

These operating instructions are part of the product and must be left with the final customer.

2. Device layout



- (1) output and extension terminals
- (2) programming buttons
- (3) connecting terminal for rail-mounted radio-control receiver
- (4) LED
- (5) mains supply connecting terminal

3. Function

Designated use

- Only for switching and dimming of 230 V incandescent lamps, 230 V halogen lamps and LV halogen lamps with inductive transformers or with TRONIC transformers.
- Installation on DIN rail in small distribution boards.

4. Product features

- Radio-controlled switching and dimming in combination with the rail-mounted radio-control receiver. Connection of radio-control receiver with 2-wire line.
- Operation from extensions or with buttons on the device itself. Automatic selection of the dimming principle compatible with the load type.

Load types	electrical characteristics	Dimming principle
230 V incandescent lamps	Resistive load	Phase cut-off
230-V-halogen-lamps	Resistive load	phase-cut off
LV-halogen lamps with TRONIC transformers	Capaactive load	phase-cut off
LV halogen lamps with inductive transformers	Induktive load	phase-cut-on

- protected against short-circuits and over-temperature conditions
 - 4 independent outputs
 - switch-on brightness can be stored for each output
 - each output can be incorporated into up to 5 light-scenes
 - constant light control available
 - can be combined with radio-control presence detectors and radio-control movement detectors
- ① Telecontrol signals from the power supply companies may cause flickering of the lamps. This is not a defect of the product.

5. Operation

A suitable radio-control transmitter has been programmed into the device (start-up).

Switching the lights on and off

- Press the ON and OFF key of a programmed transmitter briefly

Dimming the lights

The light is on.

- Press the ON and OFF key of a programmed transmitter longer.

Switching on the lights with minimum brightness

The light is off.

- Press the ON button longer.
- The light switches on and brightens.

Recalling a light-scene

The light-scene key of the radio-control transmitter has been programmed into the device (start-up).

- Press the light-scene key briefly.

Storing a light-scene

The light-scene key of the radio-control transmitter has been programmed into the device (start-up).

- Select the desired brightness.
- Press the light-scene key for at least 3 s.

The old light-scene is recalled.

After about 3 s the new light-scene is called up and stored.

- Release the key.

The light-scene is now stored.

Storing the switch-on brightness

The device can store a different switch-on brightness for each output. In the as-supplied state, the switch-on brightness is set to maximum.

- Turn down the lights to the desired brightness.
- Press the programming button (2) of the corresponding output for more than 4 s.

The light is switched off briefly and then dimmed to the switch-on brightness level

- ① The stored switch-on brightness level is not lost after mains voltage failures.

5.1. Device operation with a programming button

The outputs can be switched on and off with the programming button (2) of the corresponding output.

Device operation from an extension unit

- With a two-wire extension unit, device operation is the same as with a radio-control transmitter.
The switch-on brightness is stored by a press on the center of the rocker of the extension unit for more than 4 seconds.
- Switching and dimming of the device can also be achieved with a mechanical pushbutton. In this case, directional dimming is not possible. A second long press on the mechanical pushbutton reverses the dimming direction. Storing of a switch-on brightness is not possible.

5.2. Light contro

A light control system can be implemented when this device is used in combination with a radio-control presence detector. A detailed description of such system is provided in the operating instructions of the radio-control presence detector.

5.3. Information for qualified electricians



DANGER!

Electric shock in case of accidental contact with live parts. Electric shocks can be fatal.

Disconnect the power supply before working on the device.

5.4. Fitting and electrical connection

Connecting and fitting the dimmer

Observe the admissible temperature range. Ensure sufficient cooling.
The total length of the bus lines between the rail-mounted devices must not exceed 3 m.

- Fit the device by snapping it onto a mounting rail in acc. with DIN EN 60715. The connecting terminals must be at the top.
- Connect the device with the rail-mounted radio-control receiver (6) or with other rail-mounted radio-control actuators via a bus line at terminal (3).

- ① Pay attention to the correct polarity of the bus lines. Incorrect polarity results in malfunction.

- ① The bus line used should be a shielded twisted pair cable with a conductor diameter of 0.8 mm and designed for a withstand voltage of 2.5 kV AC.

Examples of admissible bus line cables:

YCM 2x2x0,8 or J-Y(St)Y 2x2x0.8

Observe the technical data.

Observe the Technical Operating Conditions of the power supply companies

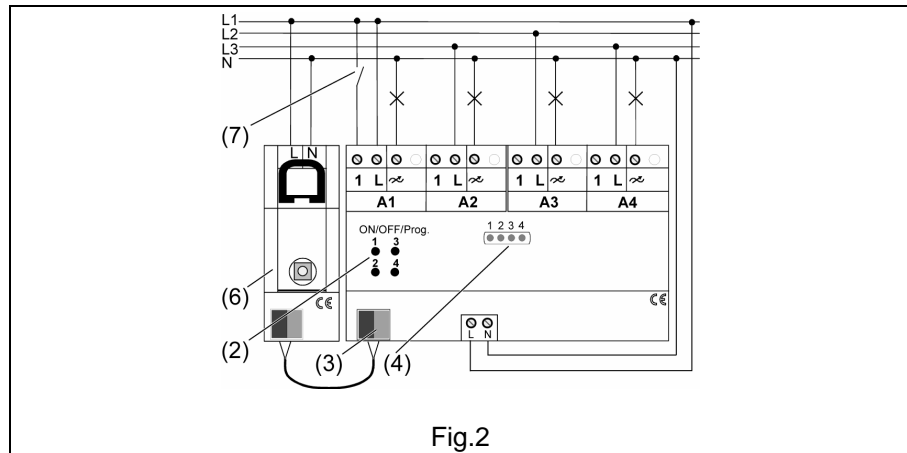


Fig.2



CAUTION!

Risk of irreparable damage caused by connecting wrong loads to the device.

Risk of irreparable damage to dimmer and load.

Connect only specified loads (Technical data)

- Connect the device as shown in the wiring example (Fig. 2).
- ① When the load capacity of an output is exhausted, the power rating of the device can be increased with power boosters. The boosters must be selected to match the dimmers and the load. For more information see the instructions of the respective power booster



CAUTION!

Risk of irreparable damage caused by incorrect wiring of the extension input.

The output and the extension unit can be irreparably damaged. Connect the output and the pertaining extension to the same phase conductor.

- Connect either 2-wire extension units or non-illuminated mechanical pushbuttons to terminal 1 of the respective output (7).
- Switch on the mains voltage.
The dimmer sets itself to the dimming mode suitable for the load.
- ① During load detection, the dimmer does not accept any control commands.
- ① In the case of resistive loads, the auto-detection cycle is characterized by brief flickering of the lamp and lasts between 1 and 10 seconds depending on power supply conditions.
- ① The device outputs (A1...A4) can be connected to different phase conductors.

6. Start-up

Programming a radio-control transmitter

The distance between the radio-control receiver and the transmitter to be programmed should be between 0.5 and 5 m.

The load is off.

Each output has one of the programming buttons (2) assigned to it.

- Press the programming button (2) assigned to the output concerned for abt. 4 s.

The device is now for abt. 1 min. in the programming mode and the corresponding LED (4) is flashing.

- Activate the transmitter and send a programming telegram (see transmitter operating instructions).

The LED lights up.

The transmitter has been programmed into the device.

- ① The light-scene key must be programmed separately (see transmitter operating instructions).

- ① During programming of a radio channel (e.g. handheld transmitter 'Komfort') any existing ALL-ON or ALL-OFF keys are programmed automatically.

- Press the programming button (2) assigned to the output concerned briefly.

The load is switched on and the dimmer is in the operating mode.

- ① The programming mode ends automatically after abt. 1 min.
- ① Each output accepts up to 30 programmed transmitters. When all memory locations are occupied, a transmitter already programmed must be deleted before a new one can be programmed.

7. Deleting individual transmitters

The load is off.

- Press the programming button (2) assigned to the output concerned for abt. 20 s.

After abt. 4 s: LED (4) starts flashing.

After abt. 20 s: LED (4) starts emitting short light pulses.

- Release the programming button during the next 6 s and press again for abt. 1 s.

The LED is on and the transmitters are being deleted.

The LED stops flashing after abt. 1 min or after a brief press on the button.

8. Appendix

8.1. Technical data

Rated voltage	AC 230 V ~
Frequency	50/60 Hz
Ambient temperature	0...+45 °C
Storage temperature	-25°C...+ 70 °C
Fitting width:	144 mm (8 modules)
Load rating up to 35 °C	max. 210 W/VA

① At temperatures above 35 °C, the connectable load must be reduced by 10 % for every 5 °C of temperature increase.

① All power ratings are inclusive of the transformer losses.

230 V incandescent lamps	50...210 W
230 V halogen lamps	50...210 W
LV halogen lamps with electronic transformers	50...210 W

① Troublefree operation can only be ensured with TRONIC transformers of our production.

LV halogen lamps with Inductive transformers:	50...210 VA
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① Operate inductive transformers with at least 85 % of their rated load.

Mixed loads, resistive-capacitive	50...210 W/VA
Mixed loads, resistive-inductive	50...210 W/VA

① max. The share of resistive loads must be at least 50 %. Otherwise risk of faulty auto-detection of the dimming mode.

Mixed loads, capacitive-inductive	not permissible
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The symbols used to identify dimmer loads designate the type of the electrical behaviour of loads connected to dimmers:

R = ohmic, L = inductive, C = capacitive

Number of transmitters to be programmed per output	max. 30
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Connection	
single-wire	1,5...4 mm ²
stranded wire without ferrule	0,75...4 mm ²
stranded wire with ferrule	0,5...2,5 mm ²

Connectable power boosters: see power booster instructions

Number of extension units	unlimited
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Overall length of extension line	max. 100 m
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8.2. To need help

Disconnect the power supply to the system.

The dimmer switches off, the load can be switched on again only after some time.

Cause: Over-temperature protection has triffered. Reduce the load connected to the dimmer.

The dimmer swiches off the load, the load remains off.

Cause: The short-circuit protection of the dimmer has triggered.

Remove the short-circuit

8.3. Accessories

Radio-control receiver REG

(rail-mounted device)

Art.-Nr.: FK 100 REG

8.4. 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: 0 23 55 . 80 65 51

Telefax: 0 23 55 . 80 61 89

E-Mail: mail.vki@jung.de

General (equipment)

Service-Line: 0 23 55 . 80 65 55

Telefax: 0 23 55 . 80 62 55


E-Mail: mail.vkm@jung.de

KNX equipment

Service-Line: 0 23 55 . 80 65 56

Telefax: 0 23 55 . 80 62 55

E-Mail: mail.vkm@jung.de

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