

## Operating Instructions Objectregulator with integrated 4-way push-button interface



### 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. Do not connect external voltages to the inputs. Risk of damage to the device. SELV potential on the KNX bus line is no longer ensured. These operating instructions are part of the product and must be left with the final customer.**

### 2. Function

#### System information

This device is a product of the KNX system and complies with KNX directives. Detailed technical knowledge obtained in KNX training courses is a prerequisite to proper understanding. The functionality of this device depends on the software. Detailed information on software versions and attainable functionality as well as the software itself can be obtained from the manufacturer's product database. Planning, installation and commissioning of the unit is effected by means of KNX-certified software. The full functionality with KNX commissioning software is available from version ETS3.0d onwards. The product database, technical descriptions, conversion programs and other utilities are always available in their latest versions in the Internet under [www.jung.de](http://www.jung.de).

#### Designated use

- Single-room temperature regulation in KNX installations
- Flush-mounted installation in hollow or in solid walls.

#### Product features

The regulator compares the actual room temperature to the preset reference temperature and adjusts heating and cooling installations in accordance with the respective energy requirements.

- Measurement of the room temperature and comparison with the temperature reference value
- Reference value preset by selecting the mode of operation
- Operating modes ,comfort‘, ,standby‘, ,night-time‘, ,frost/heat protection‘
- Heating and cooling
- Heating and cooling at basic and backup levels
- Operation exclusively via the bus
- Pushbutton interface with four potential-free inputs or two outputs, e.g. for window contacts, pushbuttons, LEDs, etc.
- Input functions: Switching, dimming, shutter control, light-scene extension, brightness or temperature value transmitter
- Option: external temperature sensor for room temperature measurement

### 3. Information for qualified electricians

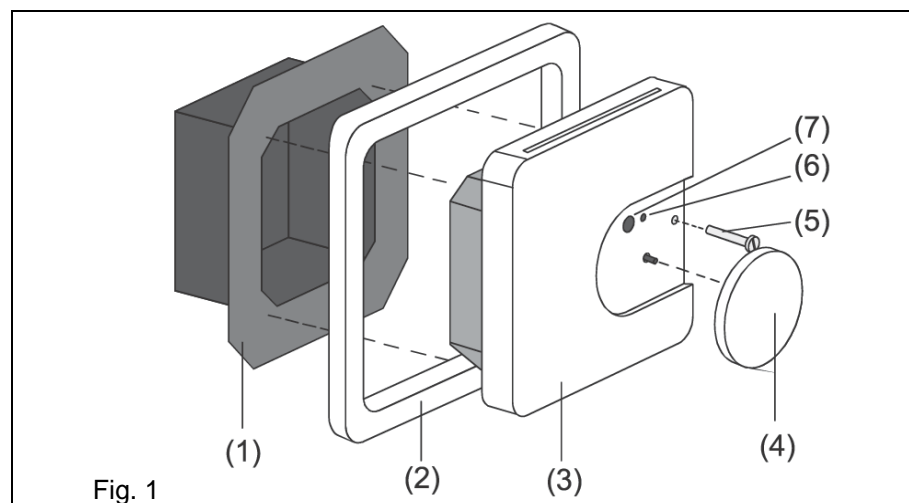
#### **DANGER!**

**Electric shock in case of accidental contact with live parts. Electric shocks may be fatal. Before working on the device, disconnect the supply voltage and cover up live parts in the working environment.**

#### 3.1. Fitting and electrical connection

##### Fitting and connecting the device

The device is composed of a terminal insert with supporting ring and electronic attachment module (Fig. 1). Do not use the regulator together with other electrical devices in the same combination since the heat produced by these devices may influence the temperature measurement of the regulator. Do not use the regulator in the vicinity of heat sources such as electric ranges, refrigerators, draughts of air or insolation to avoid wrong temperature measurements.



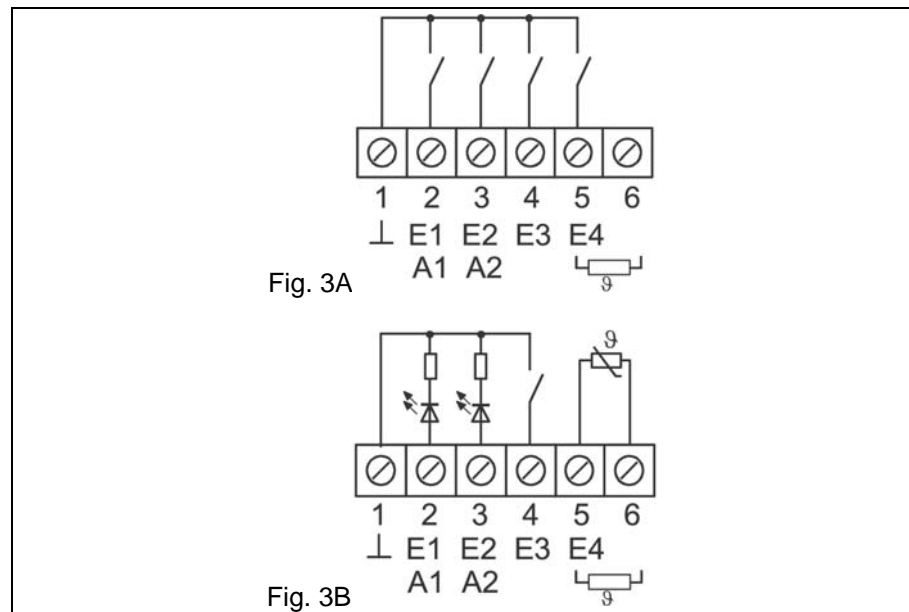
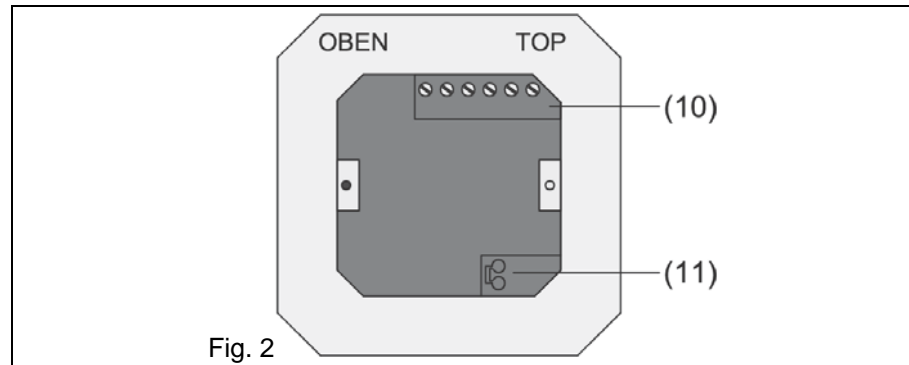
The optimal fitting height is about 1.5 m.

Install the device in a flush-mounting box as per DIN 49073 or in a surface-mounting box.

Recommendation: Use the deep type of box. Do not run input lines parallel to mains lines. Risk of undesired EMC irradiation disturbances.

Observe the laying specifications for SELV.

- Detach the the electronic attachment module (Fig. 1, 3) from the terminal insert (Fig. 1, 1).
- Connect the bus line to the terminal insert using the connecting terminals (Fig. 2, 11).
- Connect the binary inputs **E1...E4**: window contacts, pushbuttons with make or break contacts to the terminal strip (Fig. 2, 10) between terminals **1** and **2...5** (Fig. 3 A).
- Connect the binary outputs **A1...A2**: LEDs or electronic relays to the terminal strip (Fig. 2, 10) between terminals **1** and **2...3** (Fig. 3 B).



Lay the external temperature sensor in an empty cable duct. When laying the temperature sensor in the floor, use a sensor protection sleeve und seal it off against tiling adhesives and screed to prevent the sensor from

being damaged by these materials. Select the fitting location for the temperature sensor so that it can measure the temperature without being affected by external influences.

- Connect the external temperature sensor to the terminal strip (Fig. 2, 10) between terminals **5** and **6** (Fig. 3 B).
- ① The sensor connection can be extended to 50 m max. by using twisted pair cable, e.g. J-Y(St)Y-2x2x0.8. If the KNX bus line is used: use the second pair of conductors (yellow-white).
- Install the terminal insert (Fig. 1, 1) in the flushmounting box. Pay attention to the lettering **OBEN / TOP**. The bus connection (Fig. 2, 11) must be at the bottom.
- Place the design frame (Fig. 1, 2) on the terminal insert (Fig. 1, 1)
- Install the electronic attachment module in the correct position on the terminal insert.
- Remove the cover (Fig. 1, 4).
- Fix the electronic attachment module with the safety screw (Fig. 1, 5).
- Put the cover (Fig. 1, 4) back in place.

## 3.2. Commissioning

### Physical address and application software

Use the commissioning software from ETS2 version 1.2 onwards.

- Remove the cover (Fig. 1, 4).
- Press the programming button (Fig. 1, 7). The programming LED (Fig. 1, 6) is illuminated.
- Assign the physical address. The programming LED (Fig. 1, 6) is off.
- Note the physical address on the terminal insert and on the back of the electronic attachment module. To do so, perform the installation steps in reverse order.
- ① When carrying out painting and paperhanging work make sure the attachment modules are correctly matched with the inserts.
- Put the cover (Fig. 1, 4) back in place.
- Download the application software, parameters etc.

## 4. Technical data

KNX medium	TP1
Commissioning mode	S mode
KNX supply	21...32 V DC
KNX current rating	max. 7,5 mA
KNX connection	connecting terminal
Binary outputs	
Load types	LEDs or electronic relays
Output voltage / current	5 V / 0.8 mA
Cable type	
Binary inputs and outputs	J-Y(St)Y 2 x 2 x 0.8 mm

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Temperature sensor	ready-made connecting cable 0.75 mm <sub>2</sub> J-Y(St)Y 2 x 2 x 0.8 mm
Line length for binary inputs	max. 5 m
Line length for binary outputs	max. 5 m
Line length for temperature sensor	max. 50 m
Ambient temperature: -	5 °C ...+45 °C
Storage temperature	-25 °C ...+70 °C
Technical specifications subject to change.	

## 5. Accessoires

Temperature sensor	Ref.-no.: FF7.8
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## 6. Garantie

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  
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E-Mail: mail.vkm@jung.de

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