

Operating instructions

1 Safety instructions



Electrical devices may only be mounted and connected by electrically skilled persons.

Serious injuries, fire or property damage possible. Please read and follow manual fully.

Danger of electric shock. Always disconnect before carrying out work on the device or load. In so doing, take all the circuit breakers into account, which support dangerous voltages to the device and or load.

These instructions are an integral part of the product, and must remain with the end customer.

2 Device components

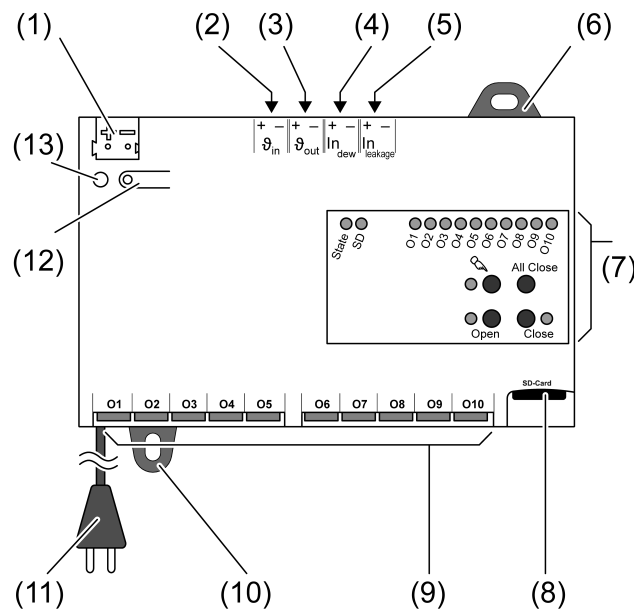


Figure 1: Front view

- (1) Bus connection
- (2) Connection of the temperature sensor for the flow (accessories)
- (3) Connection of the temperature sensor for the return (accessories)
- (4) Connection of the dew point sensor (accessories)
- (5) Connection of the leakage sensor (accessories)
- (6) Fastening strap for surface mounting
- (7) Status LED and keypad
- (8) Slot for SD card
- (9) Connection of valve drives (accessories)
- (10) Fastening strap for surface mounting
- (11) Mains connection
- (12) Programming button
- (13) Programming LED

3 Function

System information

This device is a product of the KNX system and complies with the KNX directives. Detailed technical knowledge obtained in KNX training courses is a prerequisite to proper understanding.

The function of this device depends upon the software. Detailed information on loadable software and attainable functionality as well as the software itself can be obtained from the manufacturer's product database. Planning, installation and commissioning of the device are carried out with the aid of KNX-certified software. The latest versions of product database and the technical descriptions are available on our website.

Intended use




- Activation of electrical motorised valve drives in heating circuit distributors, e.g. of under-floor or wall heating systems (for type, see accessories)
- Surface-mounting in heating circuit distributors or mounting on DIN rail according to DIN EN 60715 in electrical sub-distribution units

Product characteristics


- Up to 10 valve drives can be connected (for type, see Accessories)
- Adaptive temperature control for each individual heating circuit
- Status LED for each drive (display of closed/not closed)
- Manual operation for construction site operation
- Connection for temperature sensors for the hot water flow and return (see accessories)
- Suitable for heating and cooling operation
- Automatic hydraulic calibration
- Connections for leakage sensor and dewpoint sensor (see accessories)
- Slot for memory card (accessories)

4 Operation

Continuous manual mode


- Activate: Press the  button for approx. 5 s.
LED  lights up, LED **O1** flashes.
- Deactivate: Press the  button for approx. 5 s.

Short-time manual operation

- Activate: Press the  button briefly.

Automatic return to bus operation 5 s after last operation


Operating an output in manual mode

- Keep pressing the  button until the LED of the selected output **O1...O10** flashes.
- Open valve: Press the **Open** button.
Close valve: Press the **Close** button.
LED **Open** on: Valve opened.
LED **Close** on: Valve closed.

Close all valves

- Activate permanent manual operation.
- Press **All Close** button.

Block/enable individual outputs

- Activate permanent manual operation.
- Keep pressing the  button until the LED of the selected output flashes.
- Press the **Open** and the **Close** button simultaneously for at least 5 s.

Blocked outputs: The Status LEDs O1...O10 flash rapidly.

Unblocked outputs: The Status LEDs O1...O10 flash slowly.

5 Information for electrically skilled persons



DANGER!

Mortal danger of electric shock.

Disconnect the device. Cover up live parts.

5.1 Fitting and electrical connection

Mounting instructions

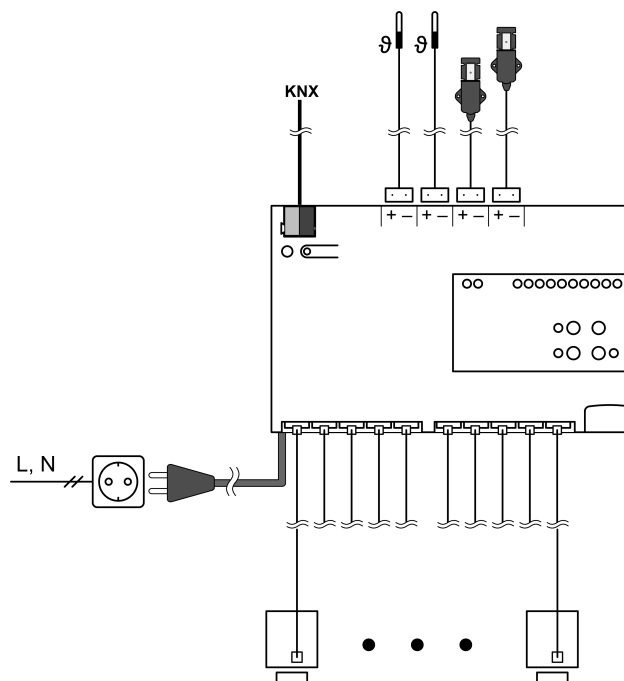


Figure 2: Connections - Overview

- The device is suitable for surface mounting, e.g. within a heating circuit distributor.
- When routing the bus, network and sensor cables, do not form any loops with the heating water circuits (Figure 3).
- Route the power cables at a distance to the heating water lines.
- Place a socket for the power supply.
- Do not exceed the cable length to the heating valves and sensors.
- Protect against moisture and dust.
- Do not exceed the ambient temperature.

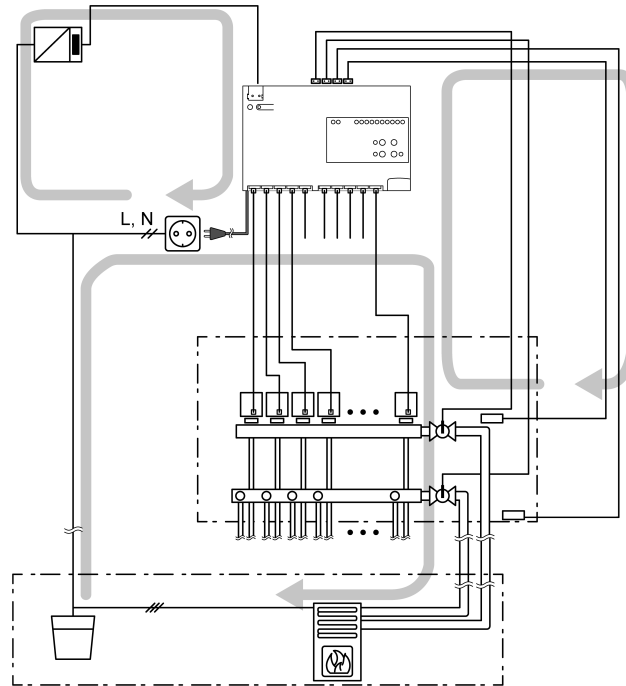


Figure 3: Cable routing - avoid conductor loops!

Fitting the device

- Mount the device on a DIN rail in the subdistributor.
- or -
- Fasten the device with the fastening straps (6) and (10) in the heating circuit distributor, e.g. with screws \varnothing 3 mm x 15 mm.

Connecting the device

- Connect the bus cable to the bus connection (1).
- Connect the valve drives to the output terminals (10).
- Connect the mains connection (11) to the socket.

If the device is to calibrate the heating circuits automatically and hydraulically:

- Connect the temperature sensors for the feed and return to the terminals (2) and (3).
Device connection terminal + = Data; Device connection terminal – = GND, Vcc (if available)
- i** Mount the temperature sensors e.g. with immersion sleeve or with a ball cock with a temperature sensor connection.
- Optional: Connect dew point sensor to terminal (4).
- Optional: Connect the leakage sensor to terminal (5).

5.2 Commissioning

Load the address and the application software

- Switch on the bus voltage.
- Press the programming button.
- Load the physical address into the device.
- Load the application software into the device.
- Note the physical address on the device.

6 Technical data

Rated voltage

AC 230 V~

Heating Actuator PRO

Mains frequency	50 / 60 Hz
Standby current consumption	approx. 8 ... 17 mA
Protection class	II
Ambient temperature	-5 ... +45 °C
Storage/transport temperature	-25 ... +70 °C
Relative humidity	max. 93 % (no condensation)
Degree of protection	IP20
KNX medium	TP256
Commissioning mode	S-mode
Rated voltage KNX	DC 21 ... 32 V SELV
Current consumption KNX	2.7 ... 7.5 mA
Dimensions W×H×D	approx. 144x90x50 mm
Fitting width	144 mm / 8 module
Sensor connection	
Finely stranded with conductor sleeve	0.5 ... 1.0 mm ²
Memory card	Micro SDHC, max. 32 GB
Formatting	FAT32

7 Accessories

Valve drive for Heating Actuator PRO	5504-1011
Dew sensor	2190-1021
Leakage sensor	2190-1011

Suitable temperature sensors from ESERA (www.esera.de):

Stainless steel sleeve / 1 m cable / PUR; Art. No. 11106-1-OKS

Stainless steel sleeve / 2 m cable / PUR; Art. No. 11106-2-OKS

Screw-in sleeve M10 / 2 m cable; Art. No. 11107-2-OKS

Stainless steel sleeve / 1 m / PVC; Art. No. 11137-1-OKS (not intended for industrial applications)

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