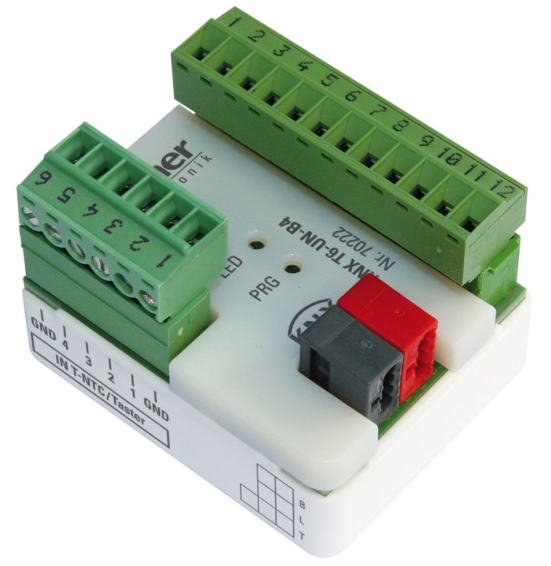
KNX T6-UN-B4
Temperature evaluation unit

Technical specifications and installation instructions
Item number 70222



1. Description

The **Temperature evaluation unit KNX T6-UN-B4** has six inputs for T-100 or T-130 temperature sensors and four analogue/digital inputs, which can for example be used for buttons or T-NTC temperature sensors. The temperature measurement values for all inputs can be processed with external measurement values to provide a combined value (total temperature, average temperature).

All measured values can be used for the control of threshold value-dependent switching outputs. Six PI controllers control the heating and cooling (one- or two-stage). Logic gates can be used to set up additional operations.

Functions:

- **6 temperature inputs for T-100 or T-130 sensors**
- **4 analogue/binary inputs**, for example for buttons or T-NTC temperature sensors
- **Combined value calculation** for all connected temperature sensors (proportion of internal measurement value and external value can be set as a percentage)
- **Threshold values** can be adjusted per parameter or via communication objects
- **6 PI controllers for heating** and **cooling** (one- or two-stage).
- **4 AND and 4 OR logic gates** with 4 for each input. 16 logic inputs (in the form of communication objects) can be used as inputs for the logic gates. The output of each gate can be configured optionally as 1-bit or 2 x 8-bit

Configuration is made using the KNX software ETS. The **product file** can be downloaded from the Elsner Elektronik website on **www.elsner-elektronik.de** in the "Service" menu.

1.1. Deliverables

- Temperature evaluation unit

Optional accessories:

(not included in the deliverables):

- T-100 (no. 30517) or T-130 (no. 30518) temperature sensors for temperature inputs
- T-NTC temperature sensor (no. 30516) for analogue/binary inputs

1.2. Technical data

Housing	Plastic
Colour	white
Assembly	Installation
Degree of protection	IP 20
Dimensions of evaluation electronics	approx. 38 × 47 × 32 (W × H × D, mm)
Weight	approx. 40 g
Ambient temperature	Operation -30…+70°C, storage -55…+125°C
Ambient humidity	max. 95% RH, avoid condensation
Operating voltage	KNX bus voltage
Bus current	max. 8 mA
Data output	KNX +/- bus connector terminal
Group addresses	max. 1024
Assignments	max. 1024
Communication objects	333
Inputs	6× temperature sensor 4× analogue/binary

The product conforms with the provisions of EU directives.

2. Installation and start-up

Installation, testing, operational start-up and troubleshooting should only be performed by an authorised electrician.

CAUTION!
Live voltage!
There are unprotected live components inside the device.

- Inspect the device for damage before installation. Only put undamaged devices into operation.
- Comply with the locally applicable directives, regulations and provisions for electrical installation.
- Immediately take the device or system out of service and secure it against unintentional switch-on if risk-free operation is no longer guaranteed.

Use the device exclusively for building automation and observe the operating instructions. Improper use, modifications to the device or failure to observe the operating instructions will invalidate any warranty or guarantee claims.
Operate the device only as a fixed-site installation, i.e. only in assembled condition and after conclusion of all installation and operational start-up tasks, and only in the surroundings designated for it.
Elsner Elektronik is not liable for any changes in norms and standards which may occur after publication of these operating instructions.

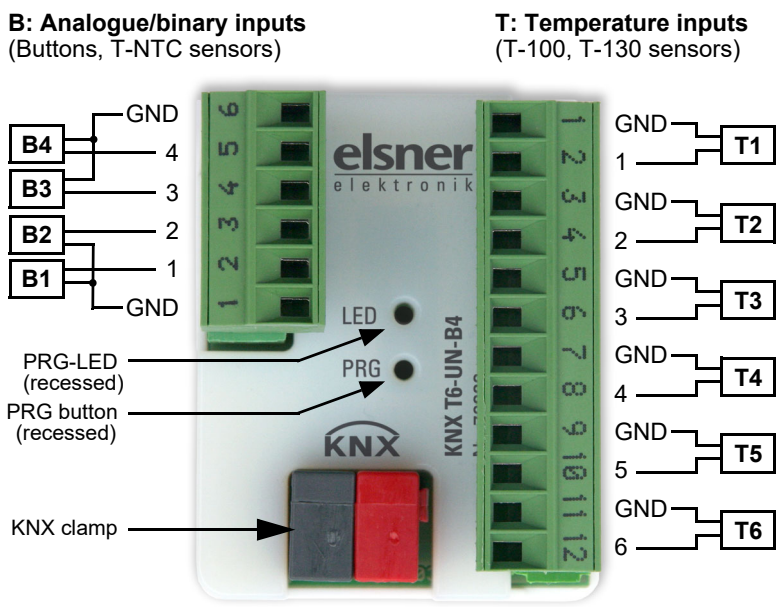
2.1. Installation position

The evaluation electronics of the sensor is installed in a socket. When selecting an installation location for the measuring sensor, please ensure that the measurement results are affected as little as possible by external influences. Possible sources of interference include:

- Direct sunlight
- Drafts from windows and doors
- Warming or cooling of the building structure on which the sensor is mounted, e.g. due to sunlight, heating or cold water pipes
- Connection lines which lead from warmer or colder areas to the sensor

Temperature variations from such sources of interference must be corrected in the ETS in order to ensure the specified accuracy of the sensor (temperature offset).

2.2. Connection



The cables of the T-100, T-130 and T-NTC temperature sensors can be extended to a maximum of 10 m.

3. Commissioning

Never expose the device to water (e.g. rain) or dust. This can damage the electronics. You must not exceed a relative humidity of 95%. Avoid condensation.

After the bus voltage has been applied, the device will enter an initialisation phase lasting a few seconds. During this phase no information can be received or sent via the bus.

4. Addressing of the device at the bus

The device is supplied with the bus address 15.15.255. You can program another address into the ETS by overwriting the 15.15.255 address or by teaching via the programming button.

5. Disposal

After use, the device must be disposed of in accordance with the legal regulations. Do not dispose of it with the household waste!