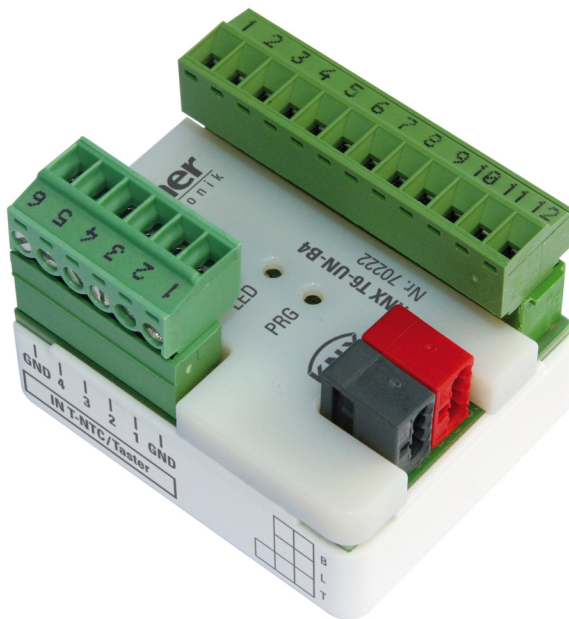




KNX T6-UN-B4

Temperature Evaluation Unit

Technical specifications and installation instructions



1. Description

The **KNX T6-UN-B4 temperature evaluation unit** 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).

The **KNX T6-UN-B4** provides six switched outputs with adjustable threshold values. 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)
- **6 switched outputs** with variable thresholds (thresholds are set optionally by parameters 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**, the data sheet and the manual can be downloaded from the Elsner Elektronik homepage 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
Protection category	IP 20
Dimensions of evaluation electronics	approx. 38 x 47 x 32 (W x H x 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
BCU type	Integrated microcontroller
PEI type	0
Group addresses	max. 1024
Assignments	max. 1024
Communication objects	333
Inputs	6x temperature sensor 4x analogue/binary

The product conforms with the provisions of EC guidelines:

- EMC Directive 2004/108/EC
- Low Voltage Directive 2006/95/EC

The following standards and/or technical specifications were applied:

- EN 50491-5-1 :2010
- EN 50491-5-2 :2011
- EN 61000-6-1 :2007
- EN 61000-6-3 :2007
- EN 301489-1 V1.8.1
- EN 300220-2 V2.1.2

2. Installation and start-up

2.1. Installation notes



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



CAUTION! **Live voltage!**

There are unprotected live components inside the device.

- National legal regulations are to be followed.
- Ensure that all lines to be assembled are free of voltage and take precautions against accidental switching on.
- Do not use the device if it is damaged.
- Take the device or system out of service and secure it against unintentional use, if it can be assumed, that risk-free operation is no longer guaranteed.

The device is only to be used for its intended purpose. Any improper modification or failure to follow the operating instructions voids any and all warranty and guarantee claims.

After unpacking the device, check it immediately for possible mechanical damage. If it has been damaged in transport, inform the supplier immediately.

The device may only be used as a fixed-site installation; that means only when assembled 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.

2.2. 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:

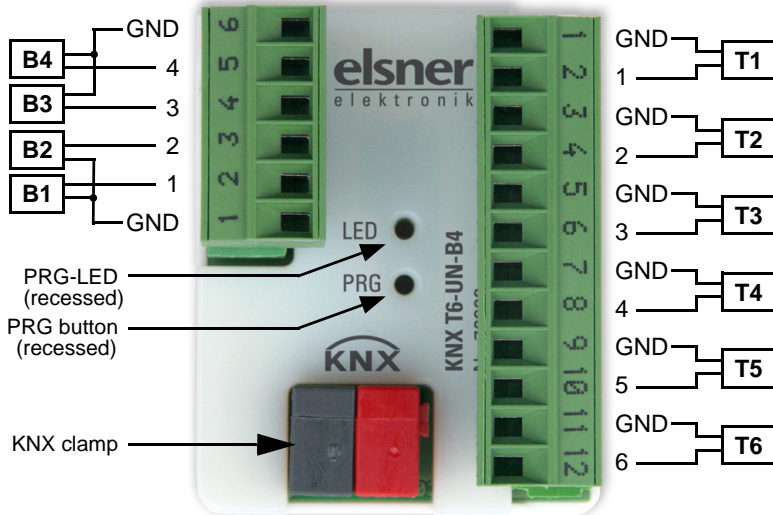
- Direct sunlight
- Drafts from windows and doors
- Warming or cooling of the building structure on which the sensor is mounted, e.g. due to sunlight, heating or cold water pipes
- Connection lines which lead from warmer or colder areas to the sensor

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).

2.3. Connection

B: Analogue/binary inputs
(Buttons, T-NTC sensors)

T: Temperature inputs
(T-100, T-130 sensors)



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

2.4. Notes on mounting and 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 via the bus.