KNX S-B4T-UP
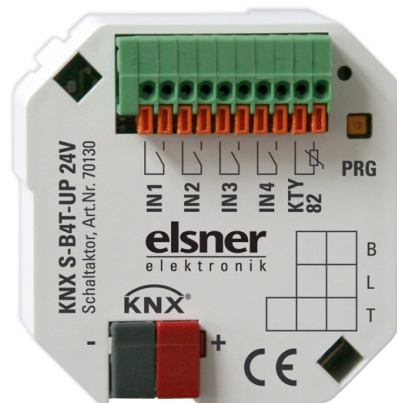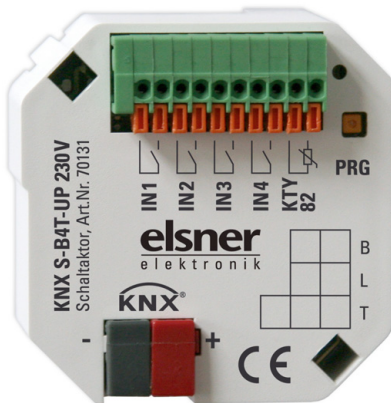## Actuators for 230 V or 24 V

Technical specifications and installation instructions

Item numbers 70130, 70131

Technical support: +49 (0) 70 33 / 30 945-250

1. Description

The **Actuator KNX S-B4T-UP** controls shadings (blinds, awnings, roller shutters) or windows. The automatic for this may be provided externally or internally. An internal automatic offers numerous options for blocking, locking (e. g. master–slave) and priority settings (e. g. manual–automatic). Scenes may be stored and recalled via the bus.

Four binary inputs may be used for direct operation (e. g. manual push-buttons) or as bus inputs. There is an additional input for a temperature sensor.

Functions:
- For drive mechanism of **shading** or **window**
  KNX S-UP 230 V: For 230 V motor
  KNX S-UP 24 V: For 24 V polarity changer motor
- **4 binary inputs**
- **1 temperature sensor input**
- **8 channel scene control** for operating position (for blinds also slat position)
- **Slat tracking** for blinds according to the position of the sun
- **Position memory** (operating position) with a 1 bit object (Storage and recall e. g. with push-button)
- **Position feedback** (operating position, for blinds also slat position)
- Control by **internal or external automatic**
- Setting of the priority of manual or automatic control by time or via communication object
- **Mutual locking** of two drives by means of zero position sensors avoids collisions e. g. of shading and window (master–slave)
- Blocking objects and alarm messages have different priority so that safety functions always are higher-ranking (e. g. wind blocking)

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

1.1. Technical data

Housing	Plastic material
Colour	White
Mounting	In-wall (in socket Ø 60 mm, 60 mm deep)
Protection category	IP 20
Dimensions	approx. 50 x 51 x 41 (W × H × D, mm)
Weight	230 V version: approx. 90 g 24 V version: approx. 70 g
Ambient temperature	Operation -20...+70°C, storage -30...+85°C
Ambient air humidity	5...80% R. H., avoid condensation
Operating voltage	Available for 230 V AC or for 24 V DC

Current	At the bus: 10 mA At 24 V DC: 40 mA At 230 V AC: 2 mA AC
Output	1 x Drive mechanism 230 V version: max. 500 W, fused with microfuse T6.3 A 24 V version: max. 50 W
Inputs	4 x Binary input (for potential-free contacts) 1 x Temperature sensor input (for T-KTY82)
Max. cable length	Binary inputs: 50 m Temperature sensor: 10 m
Data output	KNX +/- bus terminal plug
BCU type	Own micro controller
PEI type	0
Group addresses	max. 200
Allocations	max. 200
Communication objects	125

The product conforms with the provisions of EU directives.

1.2.   Structure

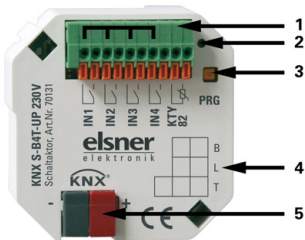### 1.2.1. Structure 230 V AC version

Fig. 1: Front side
1   Connecting plug terminal binary In-
    puts.
    1, 3, 5 + 7 (from left) by-passed internal-
    ly
2   Programming LED
3   Programming key (PRG)
4   Inscription space
5   KNX plug terminal +/-

Fig. 2: Rear side
1   Connecting plug terminal for voltage
    supply and drive mechanism
2   Microfuse T6,3 A

1.2.2. Strucure 24 V DC version

Fig. 3: Front side
1   Connecting plug terminal binary Inputs.
    1, 3, 5 + 7 (from left) by-passed internally
2   Programming LED
3   Programming key (PRG)
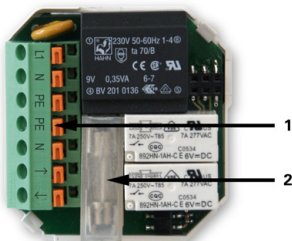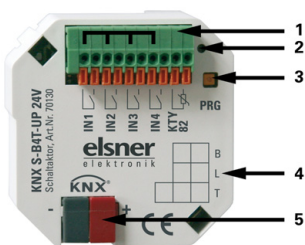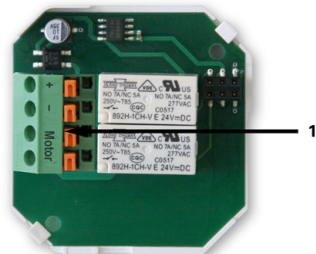4   Inscription space
5   KNX plug terminal +/-

Fig. 4: Rear side
1   Connecting plug terminal for voltage supply and drive mechanism

2.   Installation and commissioning

2.1.   Installation notes

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

DANGER!
Risk to life from live voltage (mains voltage)!
There are unprotected live components within the device.
• VDE regulations and national 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. Connection

The actuators are installed in a flush-type socket. The connection is accomplished by a KNX connection clamp at the KNX data bus. Furthermore, a voltage supply (230 V AC or 24 V DC, depending on the version) is necessary. The physical address is allocated by the KNX software. For this purpose, the actuator is provided with a programming key with control LED.

2.3. Notes on installation and comissioning

Never expose actuators to water (rain) or dust. This might damage the electronic system. A relative air humidity of 80% must not be exceeded. Avoid bedewing.

After the auxiliary 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.

For KNX devices with safety functions (e.g. wind or rain blocks), it is important to establish periodical monitoring of the safety objects. The optimal ratio is 1:3 (example: if the weather station sends a value every 5 minutes, the actuator must be configured for a monitoring period of 15 minutes).