KNX-USB

KNX-USB interface
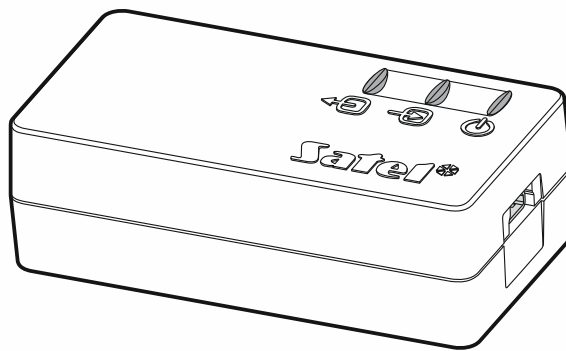
IMPORTANT

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The following symbols may be used in this manual:

i - note;

⚠ - caution.

The KNX-USB interface enables communication between the KNX bus and a computer for programming and monitoring devices on the bus by using the ETS program (version 5.5 or newer).

The KNX-USB interface can work in the bus logging mode, in which the history of events generated on the KNX bus is saved to the interface non-volatile memory. The KNX-USB Soft program allows you to enable / disable the bus logging mode and manage the interface memory. Information saved in the KNX-USB interface memory allows you to reproduce the telegram traffic on the KNX bus in off-line mode.

i | *You can download the "KNX-USB Soft" program from www.satel.eu.*

1. Features

- Communication with the KNX bus via integrated bus connector.
- Power supply from the KNX bus or from the computer USB port.
- Galvanic isolation of the KNX system and computer.
- Data transmission between the interface and the computer acc. to USB 2.0 standard.
- LEDs indicating the device status.
- Easy to connect and use.

2. Description
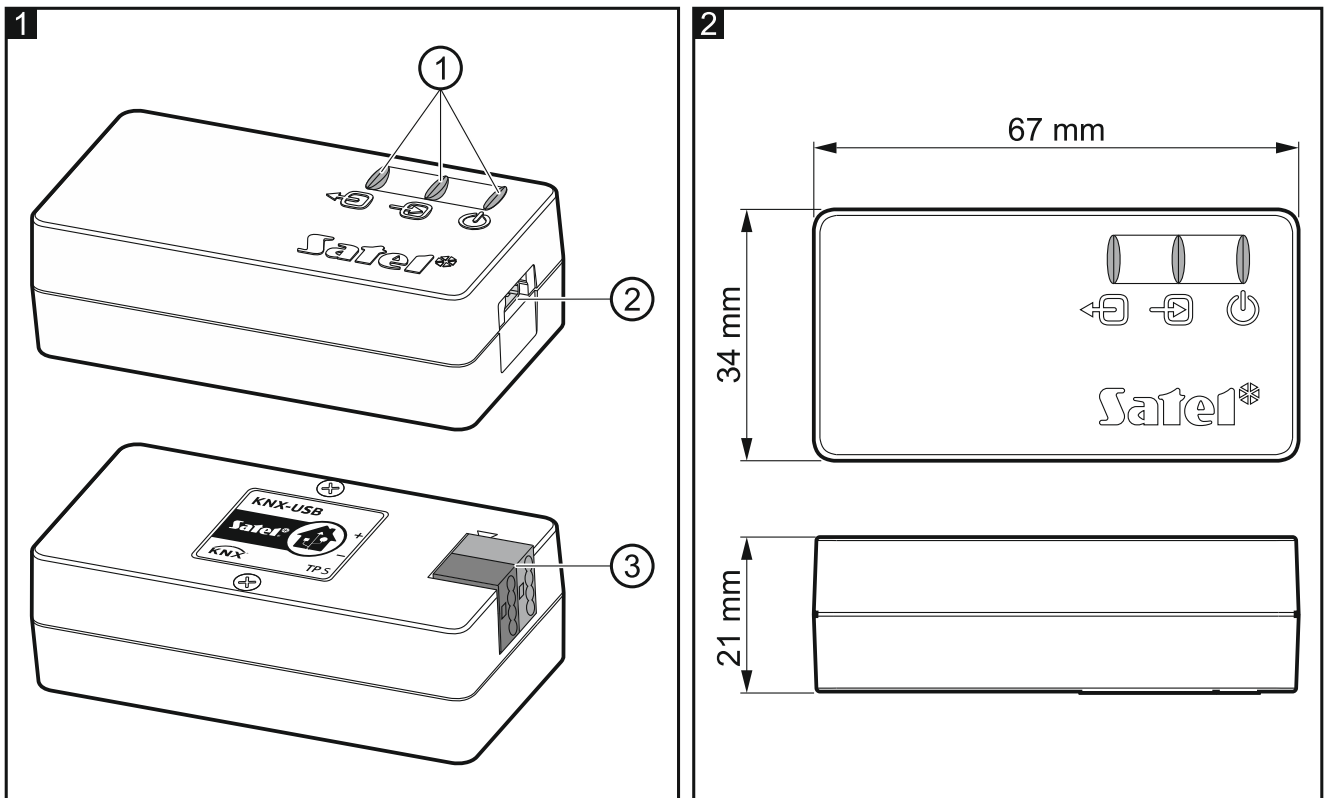
① LEDs:

⇐🖃 – green LED indicating connection to the KNX bus:

    ON   – OK,

    flashing– data exchange in progress.

🖃⇒ – green LED indicating connection to the computer:

    ON   – OK,

flashing– data exchange in progress.

⏻ – red LED indicating power supply and operation in bus logging mode:

ON – power supply OK,

flashing– bus logging mode enabled.

Flashing of all LEDs indicates interface failure. The failure should be reported to the service.

② mini USB type B connector.

③ terminal for connecting the KNX bus.

3. Connecting
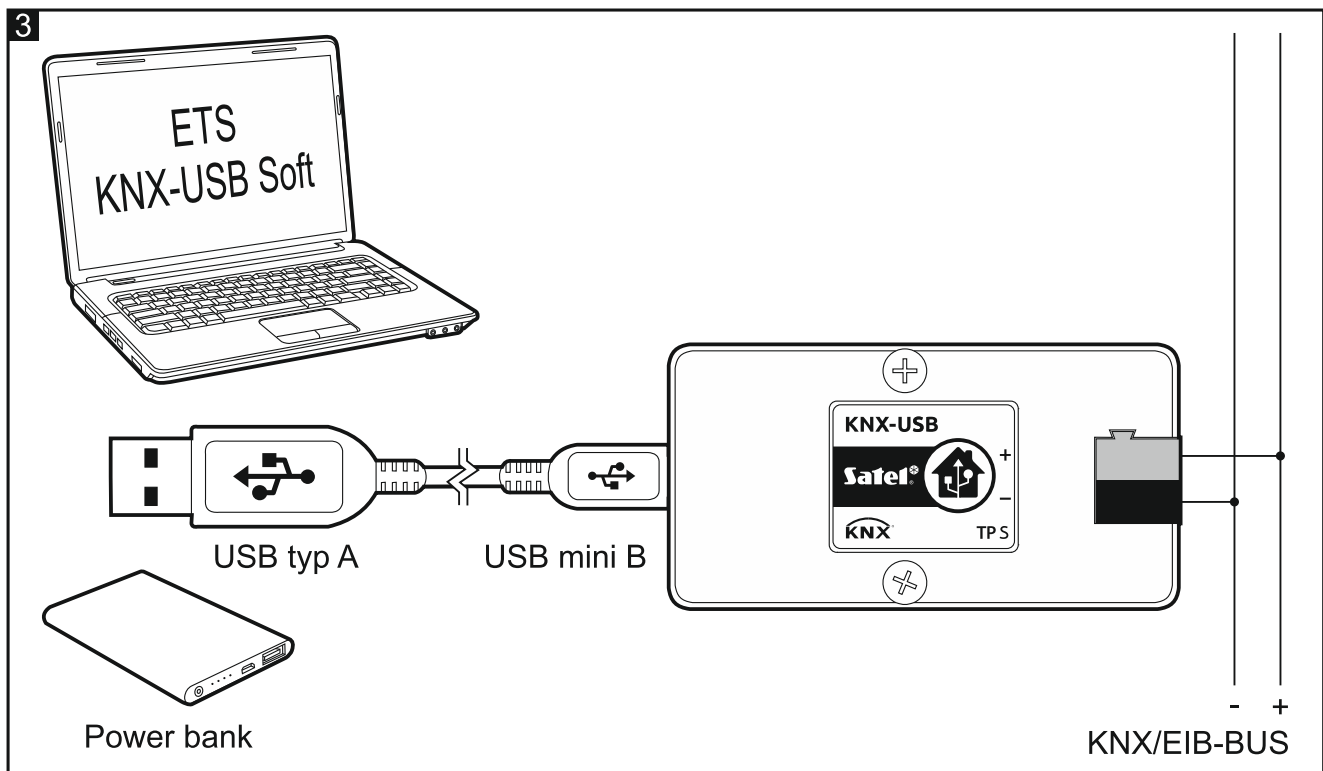
1. Using the connection terminal, connect the KNX bus cable to the interface (Fig. 3).
2. Use the included USB cable to connect the computer USB port to the interface mini USB port. The device will be automatically detected and installed in the computer's operating system (Microsoft Windows). In the ETS program, the interface will be added to the list of devices connected to the bus (Bus \ Connections \ Interfaces), where you can change its individual address.

4. KNX-USB Soft program

The KNX-USB Soft program allows you to switch the KNX-USB interface to the bus logging mode, in which the log of events generated on the KNX bus is saved to the non-volatile memory of the device. All events are saved to the memory, which enables the bus to be monitored in the same way as in the "Bus monitor" function of the ETS program.

i | *The KNX bus power loss and restore events are also saved to the non-volatile memory of the KNX-USB interface. The history of these events can be restored by exporting data from the interface memory to a CSV or XML file.*

If several KNX-USB interfaces are connected to the computer, the KNX USB Soft program will select the first one that is not used by another program.

In the bus logging mode, the interface does not support communication with the ETS program.

After switching to the bus logging mode, you can disconnect the interface from the computer. For protection against power failure, you can connect a power bank to the mini USB port of the interface. If a bus power failure occurs, the interface will remain in the bus logging mode instead of being shut down, and the bus loss and restore events will be saved to the interface non-volatile memory.

i *A history of up to 350,000 events can be saved to the non-volatile memory of the KNX-USB interface (the value was calculated for a telegram type 1.001 Switch). Reaching this value does not stop logging. Information about events with the oldest date is overwritten with information about events that are currently generated on the KNX bus.*

A power loss turns off the bus logging mode.

The interface powered from the KNX bus does not charge the energy bank connected to it.

In order to restore data that are saved in the non-volatile memory of the KNX-USB interface, they must be exported to a CSV (Microsoft Excel format) or XML (ETS program format) file.

i *If you want to change the separator used in the CSV file, you can do it in the Windows "Control Panel".*
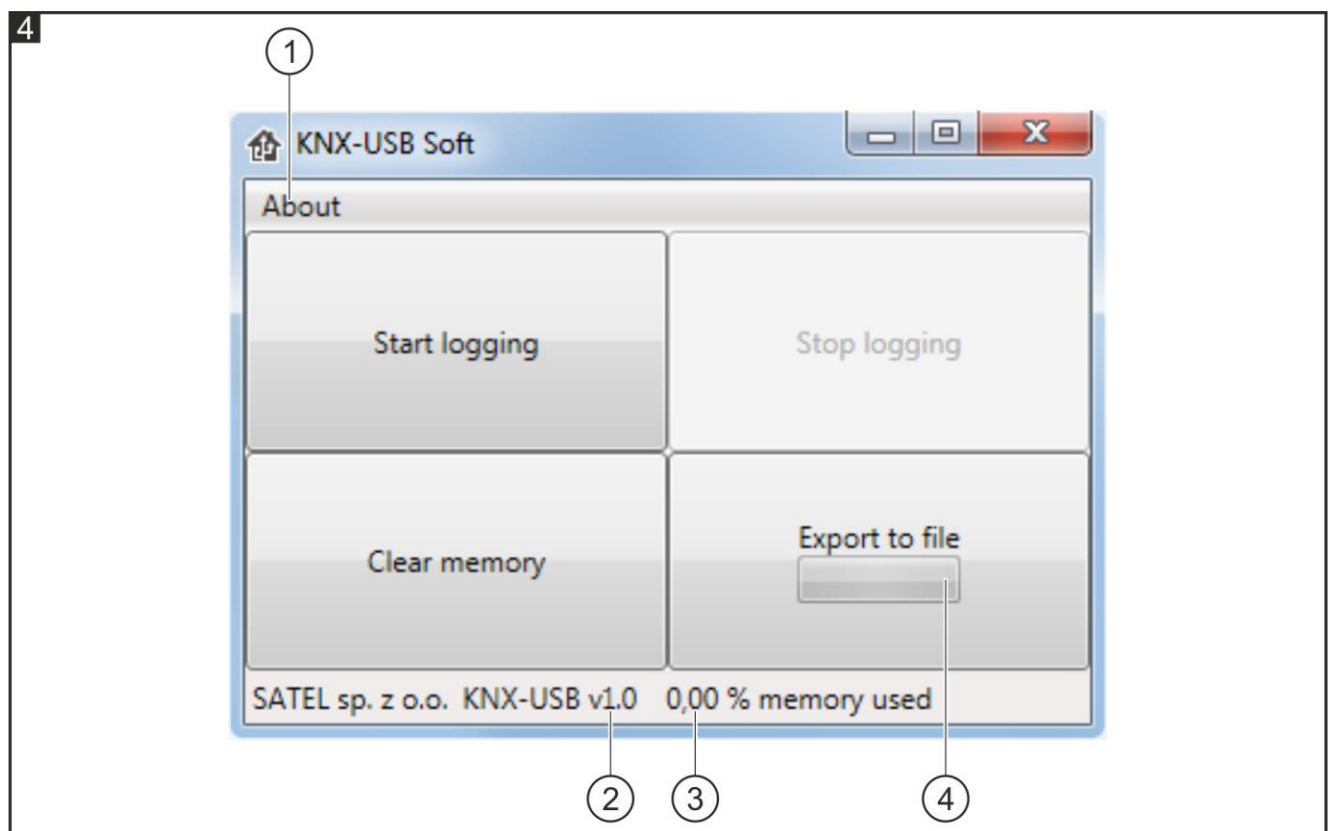
① click to open the window with information about the KNX-USB Soft program.

② information about the firmware version of the KNX-USB interface.

③ information about the amount of the interface non-volatile memory used by the data.

④ information on the progress of writing data from interface non-volatile memory to a file.

Buttons

Start logging – click to enable bus logging mode in the interface.

Stop logging – click to disable bus logging mode in the interface.

Clear memory – click to clear the non-volatile memory of the interface.

Export to file – click to start exporting data from the non-volatile memory of the interface to a file. The window will open in which you can give a name and choose the format (CSV or XML) and file location.

5. Specifications

Power supply

USB voltage .... 5 VDC

Current consumption from USB .... < 30 mA

Maximum power consumption from USB .... 0.3 W

Type of USB connector .... mini USB type B

KNX bus voltage .... 20…30 VDC

Current consumption from KNX bus .... < 20 mA

Maximum power consumption from KNX bus .... 0.6 W

Other parameters

Maximum length of USB cable .... 5 m

Operating temperature range .... -5°C...+45°C

Storage/transport temperature range .... -25°C...+70°C

IP code IP20

Enclosure dimensions .... 67 x 34 x 21 mm

Weight .... 108 g