

# KNX USB Interface 320 (Board)

## USB Interface for EIB/KNX bus (PCB without enclosure)

Data sheet

### Application area

This board is used to establish a connection between a PC and the installation bus EIB/KNX. It can be integrated into an existing system like an Industrial PC. The USB connector has a galvanic separation from the EIB/KNX bus. The circuit is compatible with KNX medium TP, the firmware supports protocol EMI1.

### Mechanical Data

- Dimensions (L x W x T): 72 x 40 x 15 mm, PCB 1.5 mm
- Weight: Approx. 20 g
- Installation: Must be mounted into an appropriate enclosure before connecting to USB or KNX.
- Drills suitable for screws with 2.2 mm  $\varnothing$

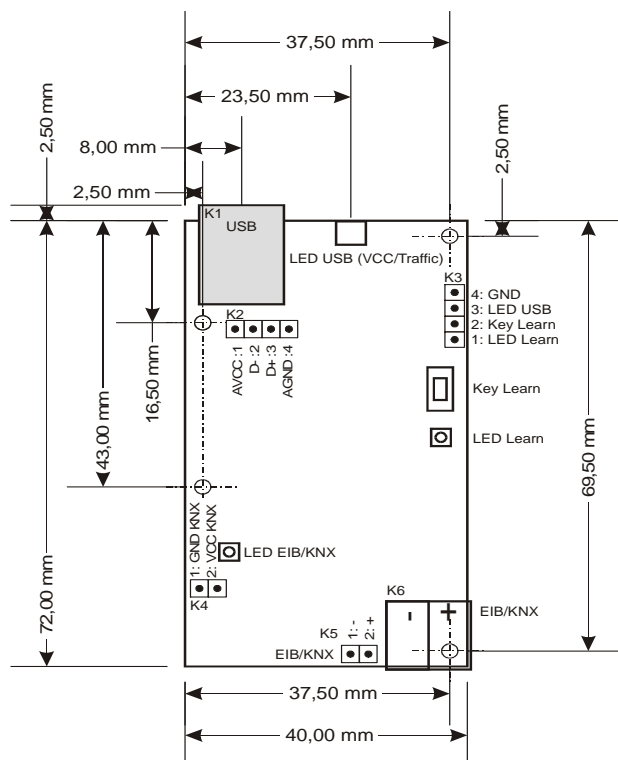


Figure 1: Position plan of drills, assignment of connectors

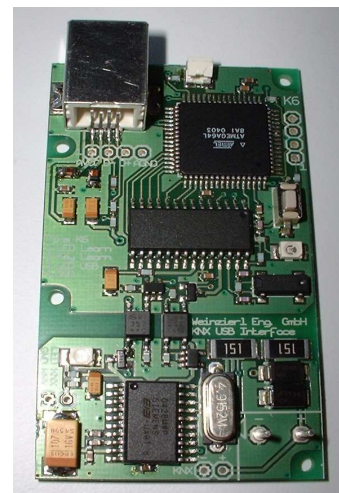


Figure 2: Photo of board

### Connectors

#### USB jack (K1)

- Connection of USB plug (B series)

#### USB connector (K2), alternative to K1

- 1: AVCC      Supply USB +5V
- 2: D-      Data line USB
- 3: D+      Data line USB
- 4: AGND      Ground USB

### Connector LEDs and learning button (K3)

- 1: LED learning mode: Connection of external learning LED to ground, multiplier (2,2 kOhm) equipped on board, identical function as learning LED on board;
- 2: Button for learning mode: Connection of external learning button to ground, identical function as learning key on board;
- 3: LED USB: Connection of external LED for signalling state of USB
  - LED steady light: USB supply is present, no communication;
  - LED flickers: Communication over USB;
  - LED off: Supply failed over USB, controller is not operating;
- 4: GND, Ground USB controller

### Connector signaling state EIB/KNX bus (K4)

- 1: GND KNX: Ground EIB/KNX bus
- 2: LED KNX: Connection of external LED for signalling state of EIB/KNX bus

### Connector EIB/KNX bus (K5): Pin connector, grid dimension 2,54 mm

- 1: EIB/KNX bus -
- 2: EIB/KNX bus +

### Connector EIB/KNX bus (K6): Standard connector EIB/KNX (Type 5.1, Wago)

## Technical data

### Electrical safety

- Safety extra low voltage SELV DC 24 V
- Device meets EN 50090-2-2

### EMC requirements

- Meets EN 61000-6-2, EN 61000-6-3 and EN 50090-2-2

### Environmental requirements

- Climate conditions: EN 50090-2-2
- Operating environmental temperature: - 5 ... + 45 °C
- Storage temperature: - 25 ... + 70 °C
- Rel. humidity (not condensing): 5 % ... 93 %

### CE qualification

- According to EMC directive (residential and functional building)
- Low voltage directive

### Supply

- The part of circuit for communication over USB is supplied by the connected PC / laptop, correct operation is signaled by the green LED (USB). Power consumption: < 200 mW
- The part of circuit for communication over EIB/KNX is supplied by EIB/KNX bus, correct operation is signaled by the green LED (KNX/EIB). Power consumption: < 300 mW

### Connectors

- Connector EIB/KNX;
- Connector USB: USB-B plug, line length max. 5 m;