WEINZIERL

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 KNX. It can be integrated into an existing system like an Industrial PC. The USB connector has a galvanic separation from the 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.
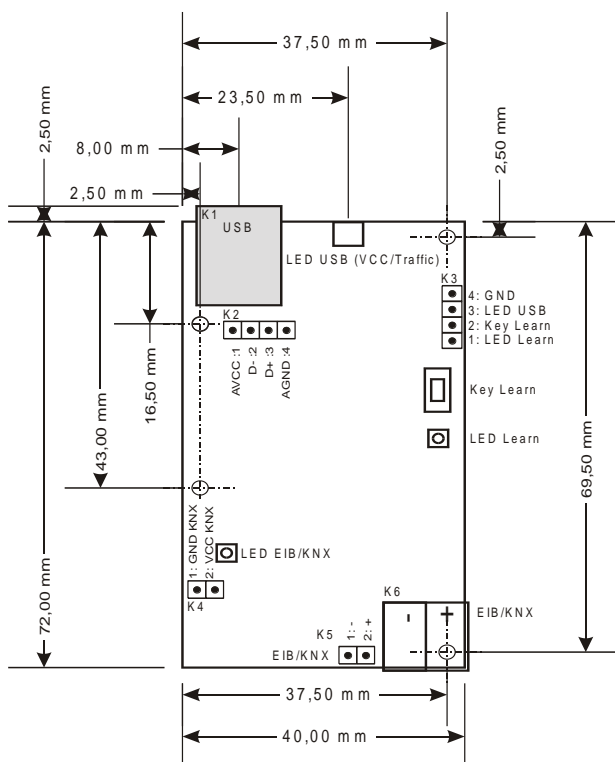- Drills suitable for screws with 2.2 mm ø

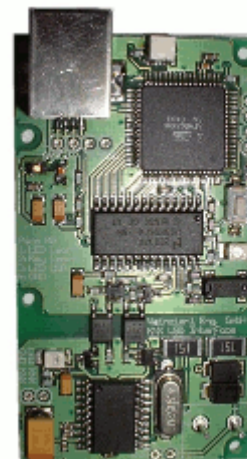Figure 1: Position plan of drills, assignment of connectors

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 KNX bus (K4)
- 1: GND KNX: Ground KNX bus
- 2: LED KNX: Connection of external LED for signalling state of KNX bus

Connector KNX bus (K5): Pin connector, grid dimension 2,54 mm
- 1: KNX bus -
- 2: KNX bus +

Connector KNX bus (K6): Standard connector 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 KNX is supplied by KNX bus, correct operation is signaled by the green LED (KNX). Power consumption: < 300 mW

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