

SpaceLogic KNX USB Interface DIN Rail

Product information and Application description

This document gives you product information about the SpaceLogic KNX USB Interface DIN Rail, MTN6502-0101 and describes the ETS application KNX USB Interface 7132 /1.0.

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Safety information

Important information

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service, or maintain it. The following special messages may appear throughout this manual or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of either symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that accompany this symbol to avoid possible injury or death.

DANGER

DANGER indicates a hazardous situation which, if not avoided, **will result in** death or serious injury.

Failure to follow these instructions will result in death or serious injury.

WARNING

WARNING indicates a hazardous situation which, if not avoided, **could result in** death or serious injury.

CAUTION

CAUTION indicates a hazardous situation which, if not avoided, **could result in** minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury.

For your safety

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Safe electrical installation must be carried out only by qualified electrical personnel. Qualified electrical personnel must prove profound knowledge in the following areas:

- Connecting to installation networks
- Connecting several electrical devices
- Laying electric cables
- Connecting and establishing KNX networks
- Safety standards, local wiring rules and regulations

Failure to follow these instructions will result in death or serious injury.

Product information

The SpaceLogic KNX USB Interface DIN Rail (referred to below as **KNX USB interface**) is a data interface between a PC or laptop and the KNX installation bus. It can be used as a programming interface for ETS® Software Version 3 (or higher) and supports KNX long frames. Long telegrams enable a faster download to devices that can receive these telegrams.

The LEDs on the device indicate the operating status and communication errors on the bus. The USB connector is galvanic isolated from the KNX bus.

KNX Security

The KNX standard was extended by KNX Security to protect KNX installations from unauthorized access. KNX Security reliably prevents the monitoring of communication as well as the manipulation of the system.

KNX Data Security describes encryption at the telegram level. This means that the telegrams are encrypted on the KNX bus.


The KNX USB interface supports the so-called KNX long frames (long telegrams) and is therefore compatible with KNX security telegrams.

In the KNX specification, USB interfaces are regarded as local devices that do not require additional protection. Access to the USB interface is therefore the same as access to the KNX bus. This means that KNX USB interfaces should not be publicly accessible.

The device can be used with and without KNX security.

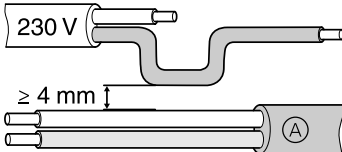
Installation and connection

The device is designed for installation on a DIN rail with a width of 1 unit (18 mm).


DANGER

HAZARD OF ELECTRIC SHOCK AND DEVICE DAMAGE

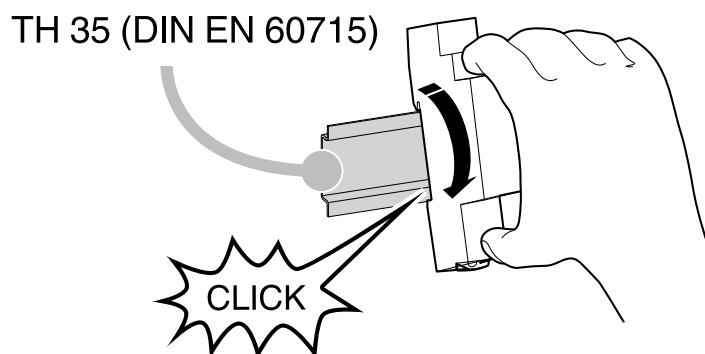
- Ensure a safety clearance of minimum 4 mm between the individual cores of the 230 V supply cable and the KNX line ^(A), in accordance with IEC 60664-1.



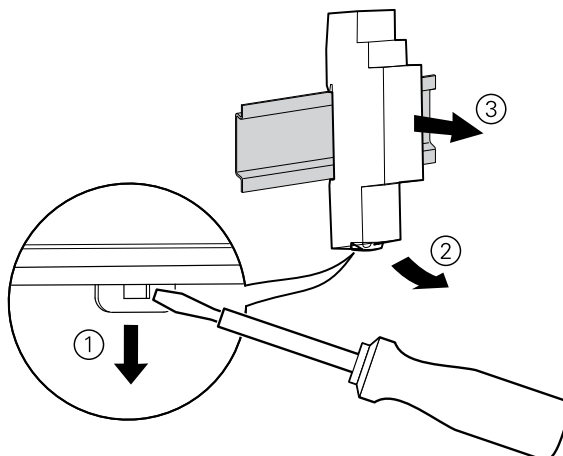
- Ensure that the installed devices have minimum basic insulation next to the device.

Failure to follow these instructions will result in death or serious injury.

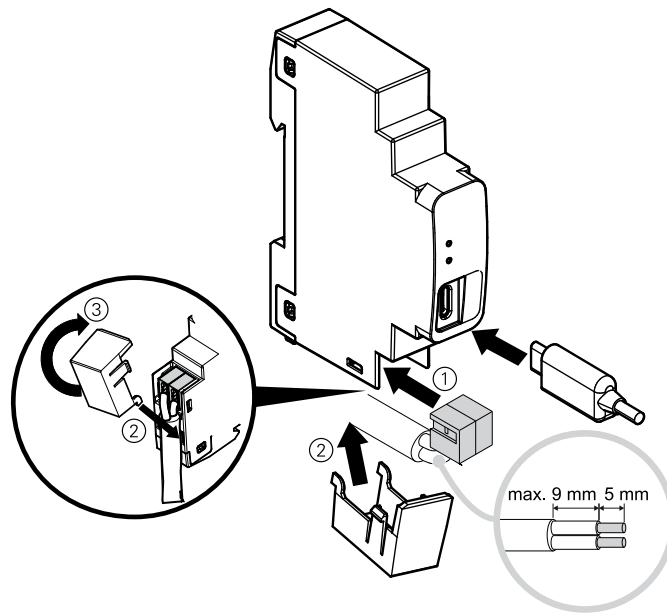
Installing



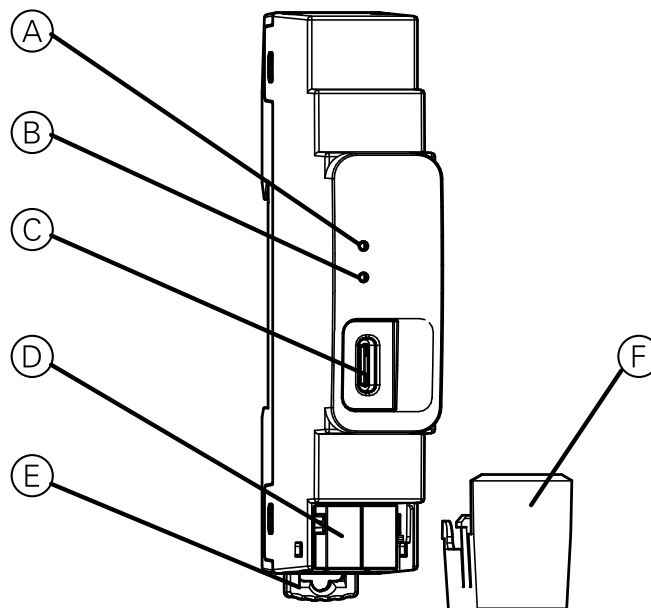
Removing



Connecting



Connections and operating elements



(A)	USB LED (multicolor)
(B)	KNX LED (multicolor)
(C)	USB connector (Type C)
(D)	KNX bus connector
(E)	Release lever for disassembly
(F)	Cable cover

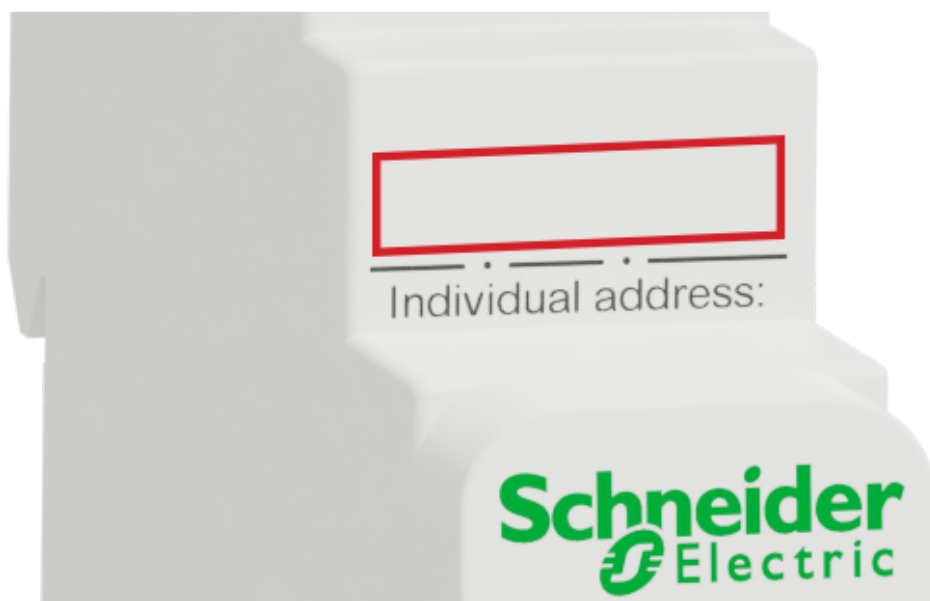
The KNX USB Interface is powered by the USB. An external power supply is not necessary.

NOTE: The device does not work without the USB connection.

KNX programming mode

The individual address of the Interface can be set locally via the ETS. The ETS is detecting the interface automatically. Therefore no programming button or LED is available on this device.

It is possible to write the programmed individual address on the labeling field with a non permanent marker or pencil. So it possible to change it, if needed.



Status display

Overview of the different indications of the USB LED

The USB LED [Ⓐ] lights up green if the device is connected to USB. This LED indicates telegram traffic on the USB by flickering.

USB communication failures are indicated by a short change of the LED color to red.

LED status	Meaning
LED lights green	USB active
LED flickers green	Telegram traffic on USB
LED shortly red	Communication failures on USB

Overview of the different indications of the KNX LED

The KNX ® LED lights up green if the device is successfully connected to the KNX bus. This LED indicates telegram traffic on the KNX bus by flickering.

KNX communication failures (for example, repetitions of telegrams or telegram fragments) are indicated by a short change of the LED color to red.

If the KNX USB Interface is set to **Bus Monitor** mode, the color of the LED changes to orange.

LED status	Meaning
LED lights green	KNX bus voltage available
LED flickers green	Telegram traffic on the KNX bus
LED shortly red	Communication failures on the KNX bus
LED lights orange	Interface is set to Bus Monitor mode
LED flickers orange	Telegram traffic on the KNX bus in Bus Monitor mode

Power saving mode (USB suspend)

If the PC or Laptop switches to suspend mode; also, connected USB devices will be suspended to save energy.

Computers running MS Windows ® 8.1 or higher may set unused peripherals to standby even during normal operation.

In suspend mode both LEDs of the KNX USB Interface are off.

A flashing pattern can occur if a program (for example, ETS) regularly checks the connected interfaces.

Factory default settings

The following configuration is set by factory default:

Individual device address: **15.15.255**

Technical data

Power supply	
Bus	via KNX Bus, < 3 mA
USB	via PC USB interface 5 V, <15 mA
Connection	
KNX	Bus connecting terminal
USB	USB socket (Type C)
USB cable length	Maximum 4 m
Dimensions (L x W x D)	100 x 18 x 66 mm
Device width	1 module = 18 mm

Interface settings with ETS

Within the ETS KNX interfaces can be selected and set up via the ETS menu **Bus Interfaces**.

After connecting the KNX USB Interface to the PC and the KNX bus, it automatically appears in the ETS within the menu **Bus** under **Discovered interfaces**.

By clicking on the discovered interface it is selected as the current interface.

On the right side of the ETS window all specific information and options of the connection appear.

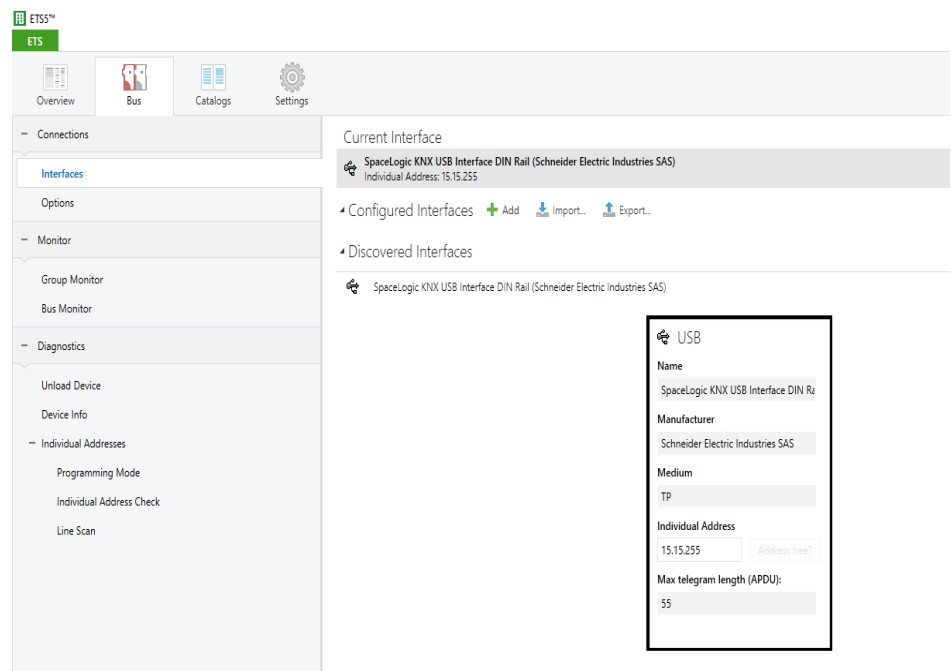
The individual address of the KNX USB Interface can be changed here.

To check if the address you want to assign is unique within your KNX installation you can click the button **Address free?**.

For a proper function of the KNX USB Interface it is essential to set a valid individual address (physical address), which must be:

- Unique in the installation.
- Match to the line where it is installed.

The KNX USB Interface just has one individual address for the device itself and for the USB communication.



ETS database

The ETS database (for ETS 4.2 or higher) can be downloaded from the product website at www.schneider-electric.com or via the KNX online catalogue.

The ETS entry in the project is not required to use the KNX USB Interface as programming interface. It is just a placeholder to show all installed devices in the topology.

ETS parameter dialog

The KNX USB device does not provide any parameter settings. The parameter dialog just shows a description page.

Bus monitor mode

The KNX USB Interface supports the **Bus Monitor** mode and can be used with ETS. In the **Bus Monitor** mode, all traffic on the KNX bus is shown including **ACK**, **NACK**, and **BUSY** characters.

Interfaces in the **Bus Monitor** mode are completely passively on the bus and therefore cannot be used simultaneously for other operations like download.

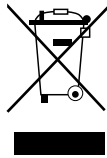
To monitor an ETS download within the same ETS, the **Group Monitor** can be used.

The **Group Monitor** uses the KNX USB Interface in normal operation mode (data link layer) and can be used in parallel to other bus operations.

In the **Group Monitor** also sending of telegrams is possible.

NOTE: In the **Group Monitor** mode, individual addressed telegrams which do not address the KNX USB Interface cannot be received.

WEEE directive



Dispose of the device separately from household waste at an official collection point.

Professional recycling protects people and the environment against potential negative effects.

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If you have any technical questions, please contact the Customer Care
Centre in your country
www.schneider-electric.com/contact

www.schneider-electric.com

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