Operating instructions TBSUSBA

2BSecure for USB interfaces

615409001

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1. Introduction

2BSecure is a compact black box that is placed between a machine control (e.g. PLC or IPC) and the connected USB interface to prevent unauthorised access or cyber attacks.

2. Operating principle

When 2BSecure is installed properly, the USB interface is deactivated by default so that an unauthorised access is not possible. The activation happens manually via authorised personnel, either directly via the control (e.g. via password) or via a key switch or RFID system connected in between (see 6. Application examples). 2BSecure for USB supports two service modes:

- Data (green): Data transmission is activated
- Charging (blue): Charging function is activated

3. Installation

3.1 Preparation

- Please make sure that the machine control (e.g. PLC or IPC) is switched off.
- Please check if all necessary components are at hand (2BSecure, connecting cable, if applicable illumination ring and key switch or RFID system).

3.2 Connection

- Please connect output "X3" on 2BSecure with the USB-C interface of the control system.
- Then, connect input "X1" on 2BSecure with the USB-A interface or input "X2" on 2BSecure with the USB-C interface of a USB-compatible device. ATTENTION! Please do not connect USB devices to both inputs at the same time!

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- If applicable: Connect the cable VK_MLX4_MLX4_(300/800) with the illumination ring LR22K_24RGB_619 and port "X5" on 2BSecure.
- Then, connect port "+24 V DC" and "GND" on "X4" of 2BSecure with a corresponding, switched off energy source.
- Lastly, connect the control inputs "DATA Enable" (data) and "Charge Enable" (charge) on "X4" of 2BSecure with the control system (e.g. PLC/IPC, key switch or RFID system; see 6. Application examples). The control system has to be deactivated by default (no energy supply on 2BSecure).

3.3 Activation

- Please switch on the machine control.
- Switch on the supply voltage (+24 V DC/GND).
- Now check the functionality of the USB interface. The illumination ring must glow red and there should be no connection/link between the USB-compatible device and the machine control.
- If there is a connection and/or the illumination ring glows green or blue, please check if the control input "DATA Enable" and/or "Charge Enable" on "X4" of 2BSecure is being supplied with energy. If that is the case, please switch off the energy supply and repeat above steps. Otherwise, please contact our support (see 9. Contact information).

4. Operation

4.1 Activation of the USB interface

- The USB interface is deactivated by default.
- Activation of data transmission:
  For data transmission, the control inputs "DATA Enable" AND "Charge Enable" must be supplied with energy (see 6. Application examples). The activation happens for example via:
  - the machine control (e.g. via password) or
  - a 3-position key switch * (switching on by turning the key, e.g. to the left) and correpsonding logical switching so that both contacts are being closed or
  - a RFID system * (switching on via transponder, please observe manual of the implemented system)
- Activation of charging function:
  For the charging function, the control input "Charge Enable" simply has to be supplied with energy (see 6. Application examples). The activation happens for example via:
  - the machine control (e.g. via password) or
  - a 3-position key switch * (switching on by turning the key, e.g. to the right) and corresponding logical switching so that only one contact is being closed or

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- a RFID system * (switching on via transponder, please observe manual of the implemented system)

* Schlegel offers corresponding products

4.2 Disabling of the USB interface

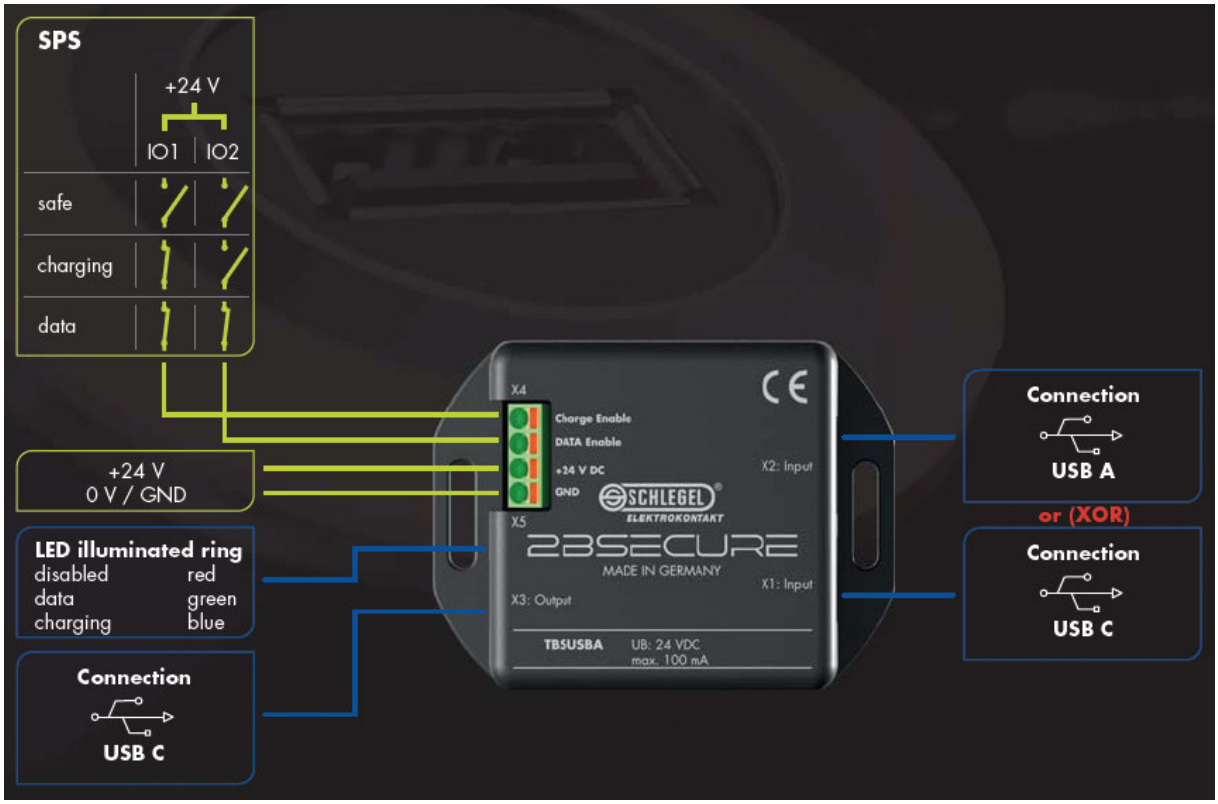
- Disable the system in accordance with the activation in reverse order.

5. Technical data

- Connections: 1x USB-A, 2x USB-C
- Rated voltage: +24 V DC
- Dimensions: 66.5 x 50 x 20 mm
- Further technical data is available in the datasheet.

6. Application examples

6.1 Connection with PLC



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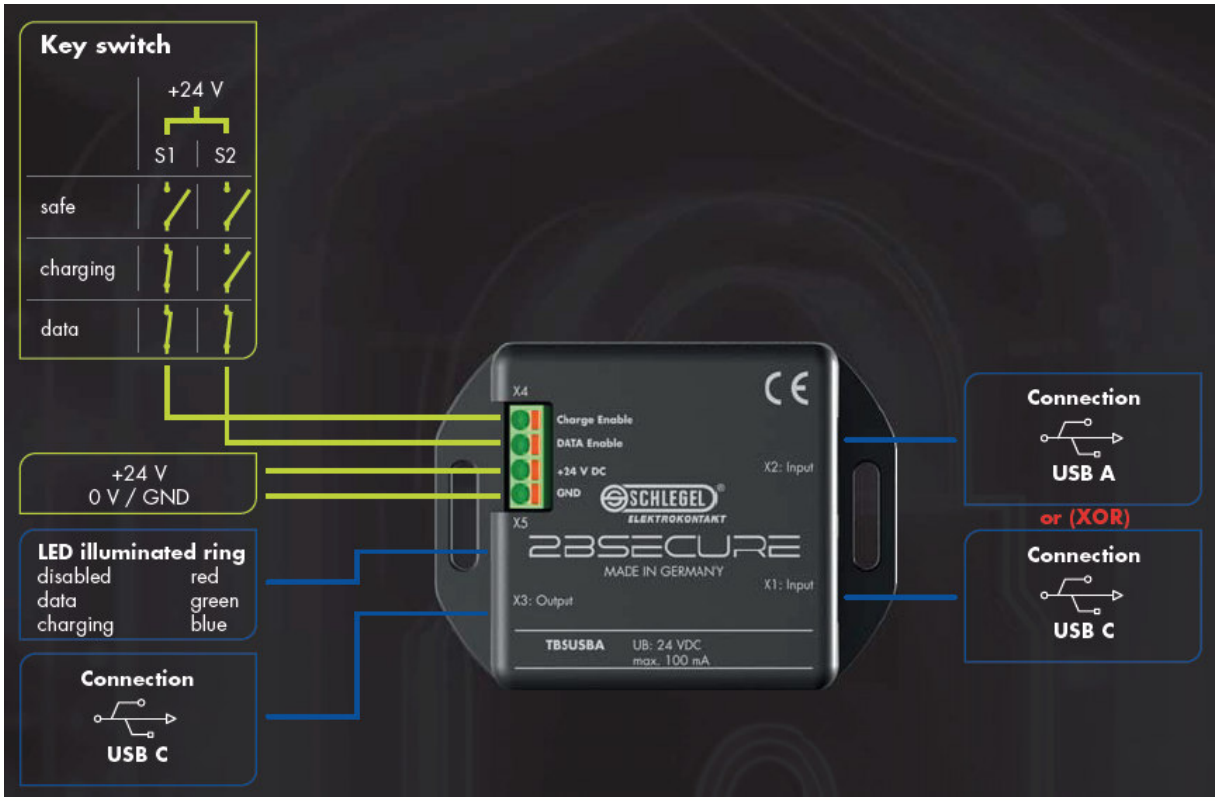
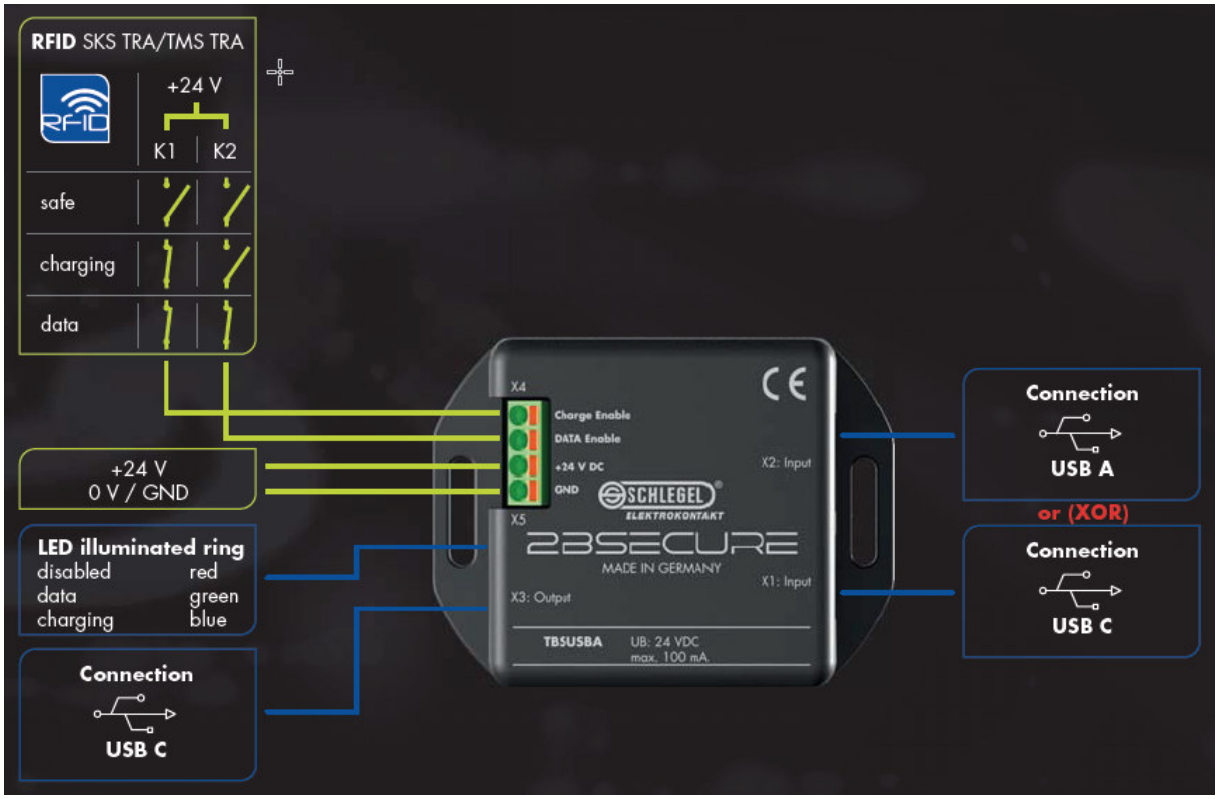
6.2 Connection with key switch



6.3 Connection with RFID



7. Intended use

2BSecure may only be operated and used as described in this manual. The use of the product is intended exclusively for typical applications under normal conditions. These include, for example, installations, machines, or devices in normally tempered, dry rooms. Any use outside the intended area of application, such as outdoor areas or harsh environments with extreme temperature or humidity, as well as modification of the system, is not permitted. We assume no guarantee or liability for inappropriate use.

8. Disposal

2BSecure is not subject to special disposal requirements. It may be disposed at the following locations:

- Recycling centres
- Special collection points for electronic waste

9. Contact information

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- Phone: +49 73 71 502-0
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