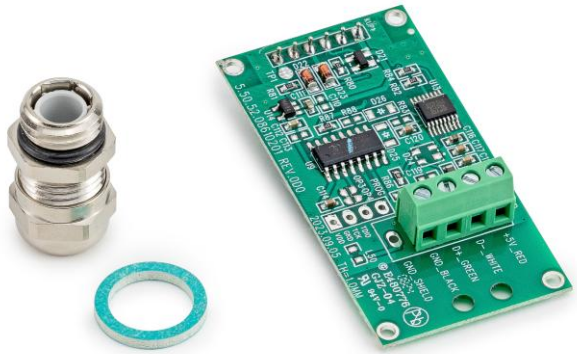
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Installation instructions
USB module

KERN KUM-03-EX2

Type TYKUM-03-EX2-A
Version 1.0
2026-03
en



i	You can also find the current version of these instructions online at https://www.kern-sohn.com/shop/de/DOWNLOADS/ Under the heading Operating instructions

en

USB module

Version 1.0 2026-03

Installation instructions

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1 Scope of delivery

- USB module
- Ferrite core
- Cable gland M12
- Flat gasket

2 General information and safety instructions

⚠ DANGER



Electric shock from touching live components

Electric shock leads to serious injury or death

⇨ Disconnect the appliance from the mains voltage before opening it.

⇨ Only carry out installation work on devices that are disconnected from the mains voltage.

NOTE



Electrostatic sensitive components

Electrostatic discharge (ESD) can cause damage to electronic components. Damaged components do not always lead to malfunctions immediately, but sometimes only after some time.

Therefore, take precautions for ESD protection before removing hazardous components from the packaging and carrying out work in the electronics area:

⇨ Ground yourself before touching electronic components (ESD clothing, wristband, shoes, etc.).

⇨ Only carry out work on electronic components at suitable ESD workstations (EPA) with suitable ESD tools (antistatic mat, conductive screwdrivers, etc.).

⇨ Only transport electronic components outside the EPA in suitable ESD packaging.

⇨ Never remove electronic components from their packaging if they are outside the EPA.

EX-SAFETY INSTRUCTIONS



⇨ Planning, installation, maintenance and repair may only be carried out by qualified specialist personnel with the necessary and up-to-date knowledge in the field of explosion protection. The requirements of EN 60079-14 and any country-specific regulations must be observed (e.g. in Germany the Technical Rules for Operational Safety TRBS 1203).

⇨ Observe the ATEX directives, the applicable standards and the local safety and accident prevention regulations for selection, installation, maintenance, repair and operation.

⇨ Only open the evaluation unit when it is de-energized.

⇨ Only open the evaluation unit if there is no potentially explosive atmosphere.

⇨ Do not connect or disconnect the connections when they are live. Exception: The intrinsically safe battery TYKR-04-EX2 may be plugged into and unplugged from the TKXC-TM-EX2-... evaluation unit in hazardous areas.

⇨ Additional devices are connected to the evaluation unit via interfaces with ignition protection type "ec" or "tc". The specified connected loads must be observed.

⇨ Only original spare parts from KERN may be used.

⇨ All connection cables must be laid securely. Tensile stress on the cable glands must be avoided.

3 Installation

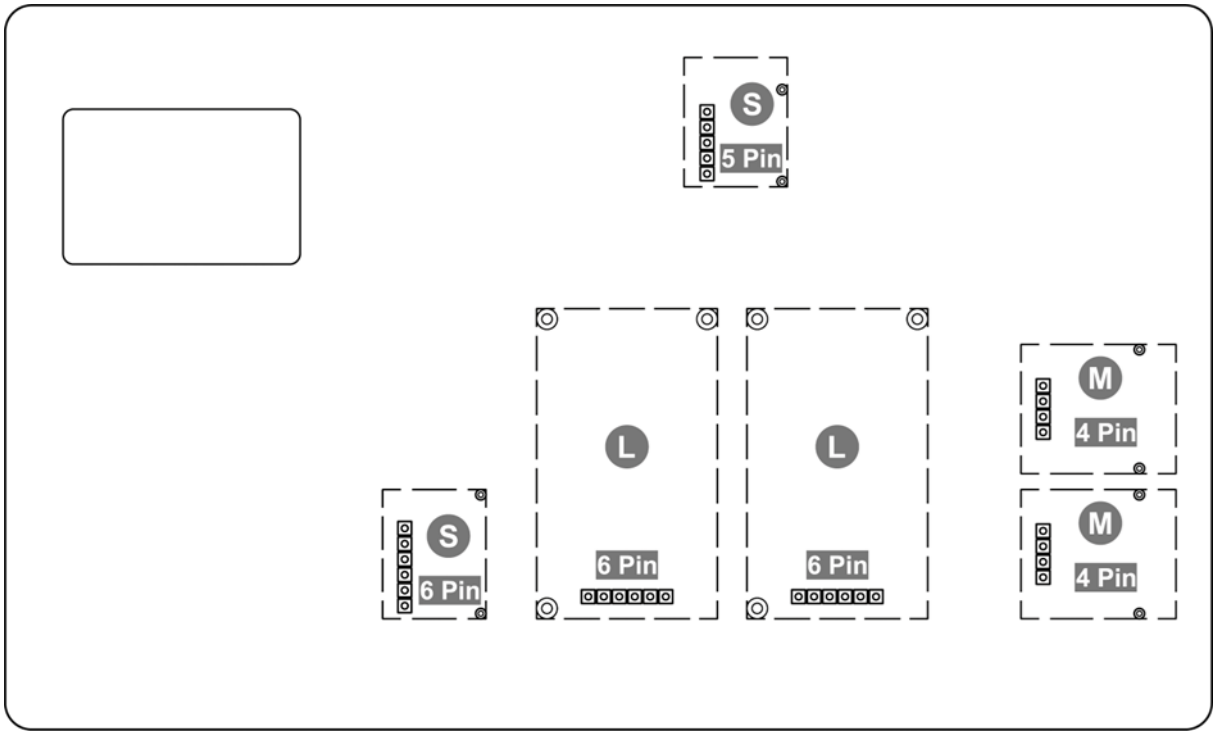
INFORMATION

- Always follow the instructions in this manual before starting work.
- The illustrations are examples that may differ from the actual product (e.g. positions of the components).
- The requirements of EN 60079-14 must be observed when installing and connecting a cable.
- The ignition protection type of the module is "increased safety".
- Use a shielded interface cable with a diameter of 3-6.5 mm
- The cable gland must be tightened to a tightening torque of 4 Nm.
- Tensile loads on the cable used should be avoided.
- The maximum permissible voltage values of the USB interface from 4.75 V to 5.25 V must be adhered to.
- The recommended maximum cable length is 5 m.

3.1 Opening the terminal

Opening the terminal is described in the respective installation instructions. Carry out the steps described there.

3.2 Overview of the circuit board



The illustration above shows examples of different slots. There are three slot sizes for optional modules: S, M, L. These have a specific number of pins.

The correct position for your module is determined by the size and number of pins (e.g. size L, 6 pins), which is described in the respective installation steps.

If there are several identical slots on the board, it does not matter which slot you select. The device automatically recognizes which module it is.

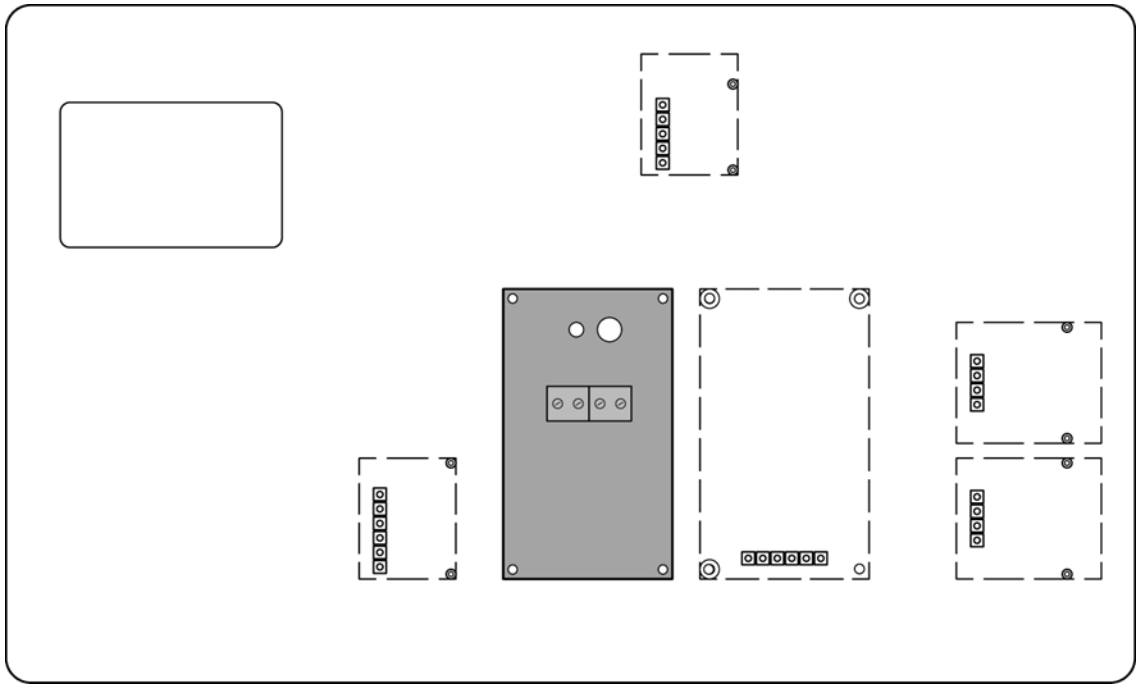
The TYKUM-03-EX2-A interface module is size L.

3.3 Installing the module

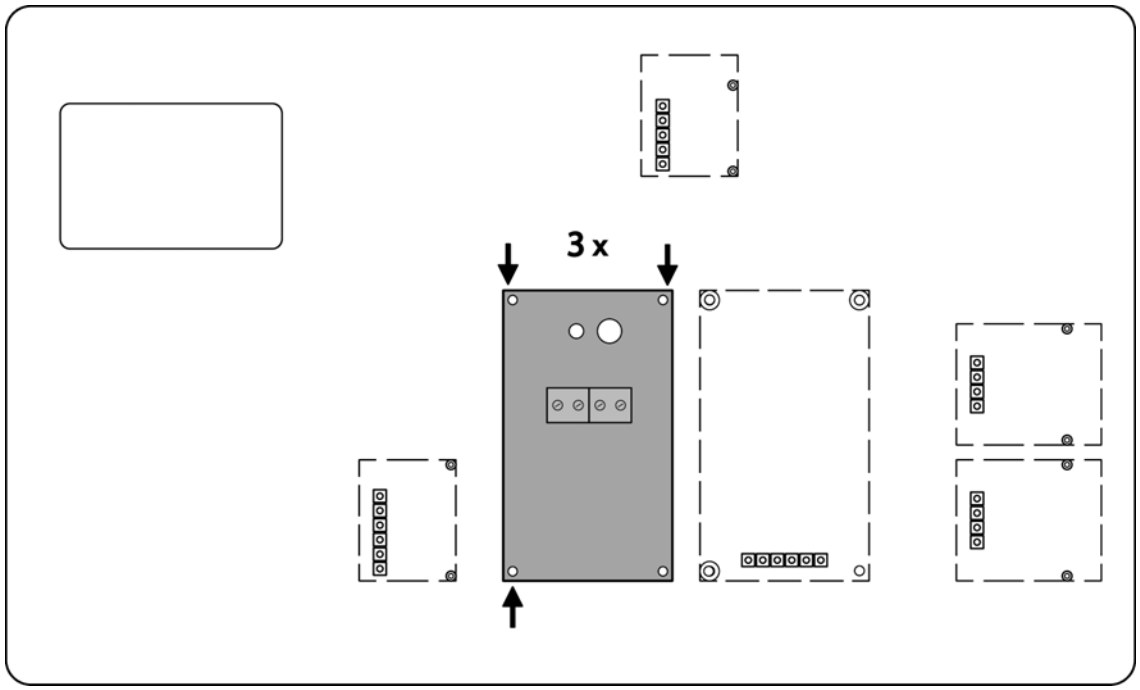
1. Open the terminal while observing the safety instructions in chapter 2 (see the terminal's installation instructions).

2. Remove the module from the packaging.

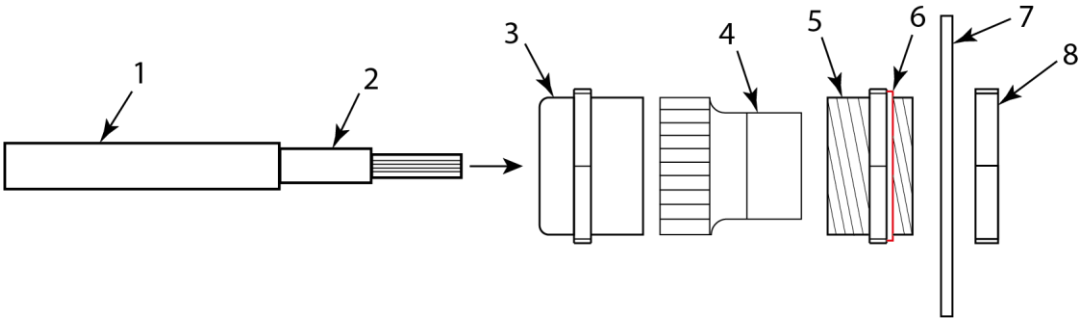
3. Insert the module into one of the two **size L, 6-pin** slots



4. Mount the module with the screws provided.



5. The cable gland is attached to the metal enclosure and the counter nut on one of the openings provided for M12 screw connections on the terminal enclosure.



Pos.	Naming
1	Cable sheath
2	Shield
3	Union nut
4	Plastic insert
5	Metal housing
6	Flat gasket
7	Housing
8	Locknut

6. Slide the union nut and plastic insert over the cable sheath until the right-hand edge of the insert is flush with the end of the cable sheath.

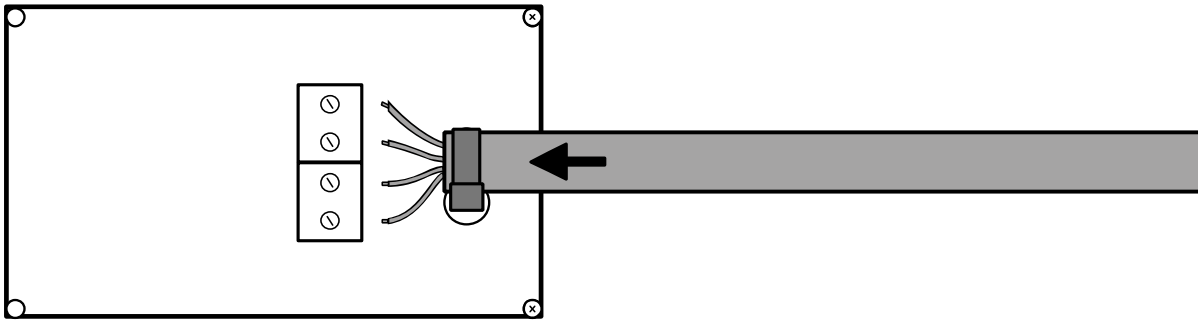
7. Unbraid the shield and lay it flat over the plastic insert. The of the shield must the right-hand part of the plastic insert with a smaller diameterlength not exceed , as otherwise the tightness of the screw connection could be compromised.



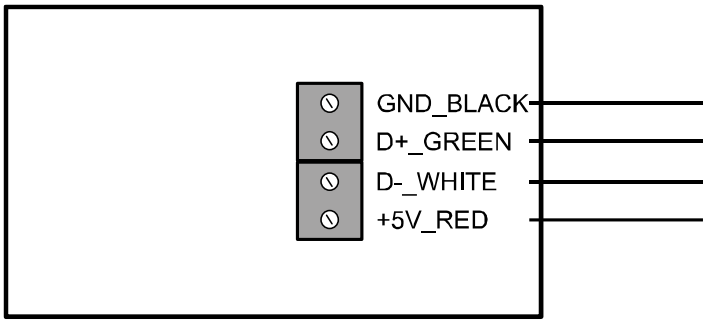
8. Insert the interface cable with the plastic insert and the union nut into the metal housing. The cable KERNs should protrude approx. 15 cm into the housing.

9. Tighten the union nut to the specified torque of 4 Nm.

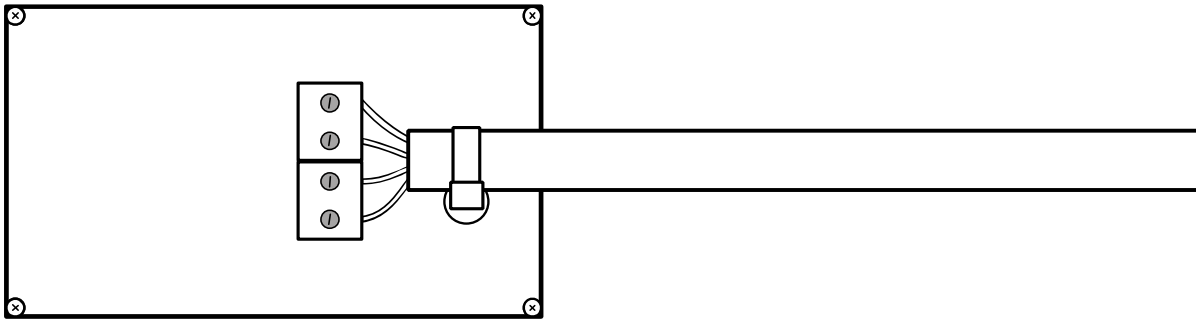
10. Insert the wires into the module's cable clamps



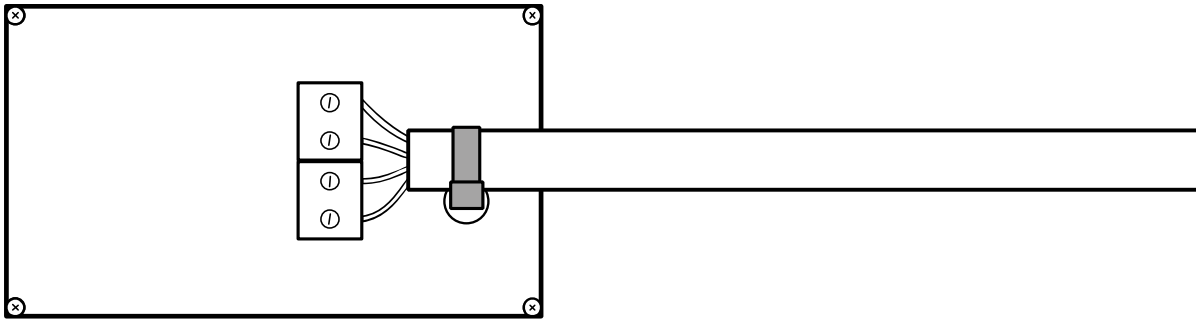
11. The colors printed on the circuit board may vary depending on the cable used and should be checked when connecting!



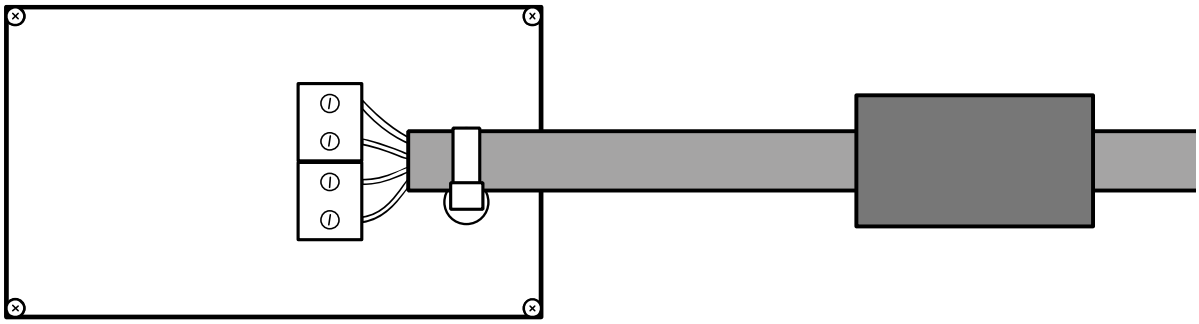
12. Slightly tighten the screws of the cable clamps so that the contact tips are fixed.



13. Close the cable tie.



14. Place the ferrite core around the cable and close.



15. The module has been installed.

3.4 Closing the terminal

1. Check module for tight fit.
2. Close the terminal as described in the KXC-TM-EX2 installation instructions

3.5 Setting up the interface

Communication parameters:

Communication parameters (baud rate, bits and parity) of the scale and printer / PC must match.

Interface: USB (factory setting)	
Baud rate	9600
Data bits	8
Stopbits	1
Parity	none

Please refer to the operating instructions for the respective explosion-protected display device for information on setting the communication parameters.

USB driver:

The driver required for the scale USBis already pre-installed on devices with the latest operating system.
If the system is not automatically recognized, you will receive the correct driver in the Downloads section at **www.kern-sohn.com**.

It is as a virtual port recognized and is assigned a correspondingly numbered connection.COM

Example (Microsoft Windows Device Manager):

