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Installation Instructions

RS-232-Module

KERN KUM-01

Type TYKUM-01-A
Version 1.2
2025-02
GB



The current version of these instructions can also be found online under:
<https://www.kern-sohn.com/shop/de/DOWNLOADS/>
under the rubric Instruction manuals

TYKUM-01-A-IA-e-2512



RS-232-Module
Version 1.2 2025-02
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1 Scope of delivery

- RS-232-Module
- Interface cable
- Ferrite core

2 General and safety information

⚠ DANGER



The electrical shock caused by touching live components

An electrical shock results in serious injury or death.

- ⇒ Before opening the device, disconnect it from the power source.
- ⇒ Only perform installation work on devices that are disconnected from the power source.

NOTICE



Electrostatically endangered structural components

Electrostatic Discharge (ESD) can cause damage to electronic components. A damaged component may not always malfunction immediately but may take some time to do so.

Make sure to take precautions for ESD protection before removing hazardous components from their packaging and working in the electronic area:

- ⇒ Ground yourself before touching electronic components (ESD clothing, wristband, shoes, etc.).
- ⇒ Only work on electronic components at suitable ESD workplaces (EPA) with suitable ESD tools (antistatic mat, conductive screwdrivers, etc.).
- ⇒ When transporting electronic components outside the EPA, only use suitable ESD packaging.
- ⇒ Do not remove electronic components from their packaging when they are outside the EPA.

3 Installation

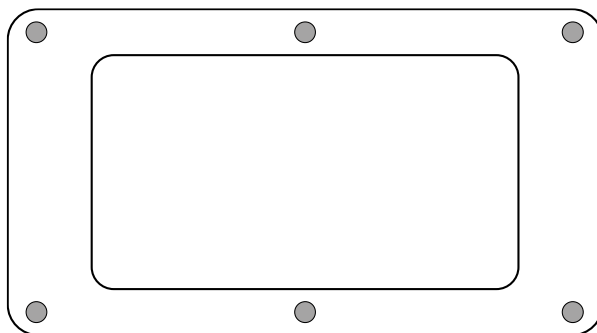
INFORMATION



- It is important to follow the instructions in this manual before starting work.
- The illustrations shown are examples and may differ from the actual product (e.g. positions of the components).

3.1 Opening the terminal

1. Disconnect the device from the power source.
2. Loosen the screws on the back of the terminal.



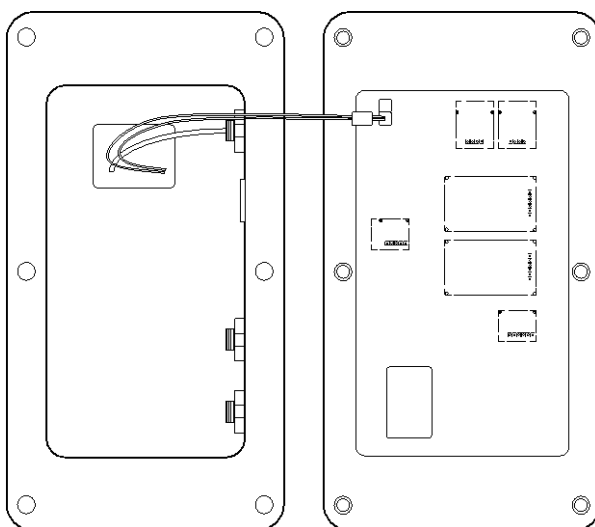
3.

NOTICE



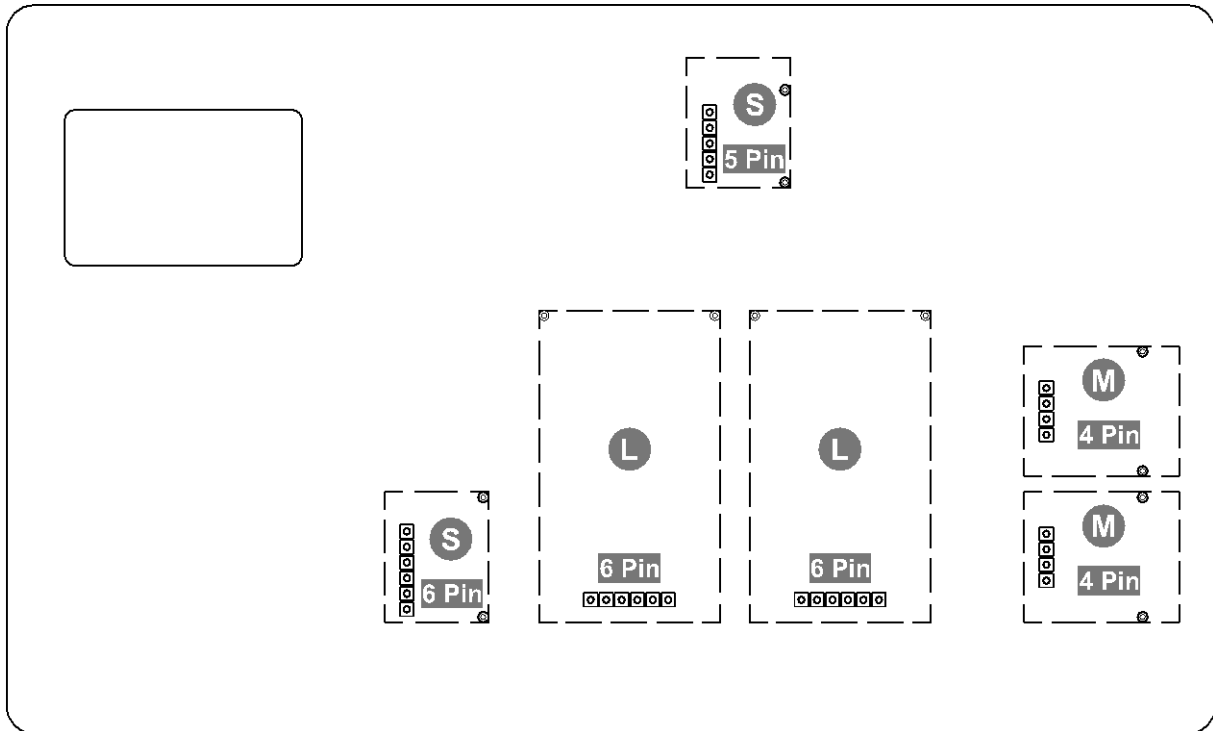
- ⇒ Make sure that you do not damage any cables (e.g. by tearing them off or pinching them).

Carefully open both halves of the terminal.



3.2 Overview of the circuit board

The circuit board of certain display devices offers several slots for KERN accessories, which allow you to extend the range of functions of your device if necessary. Information on this can be found on our homepage: **www.kern-sohn.com**



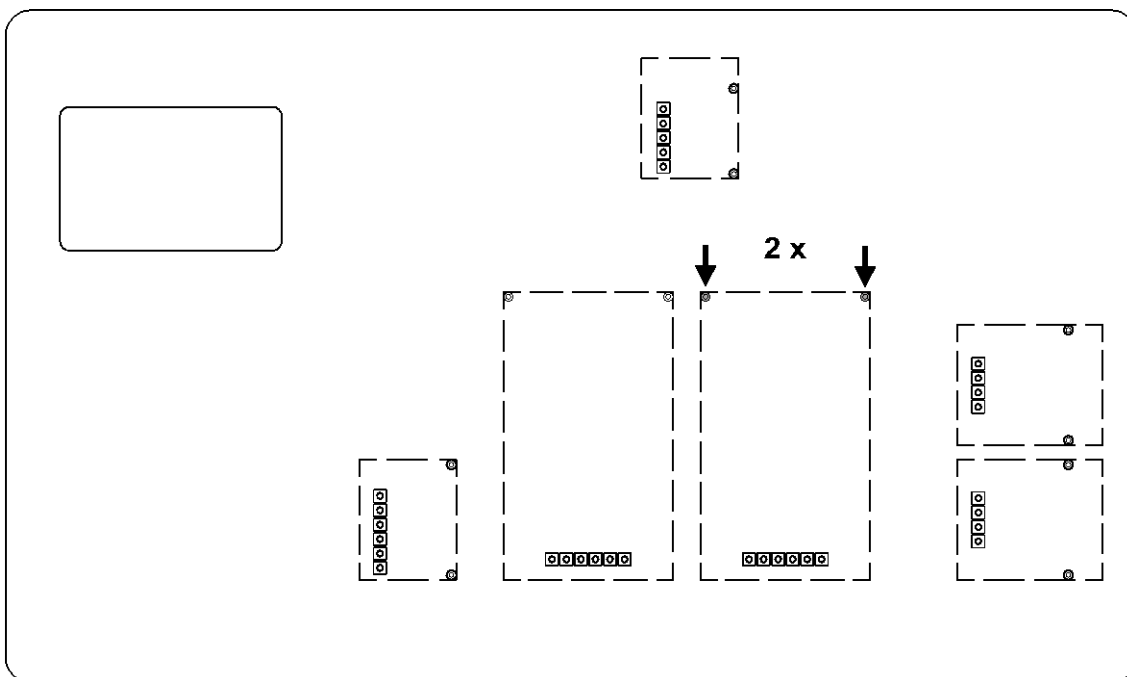
The illustration above shows examples of the various slots. There are three slot sizes for optional modules: S, M, L. These have a certain number of pins.

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.

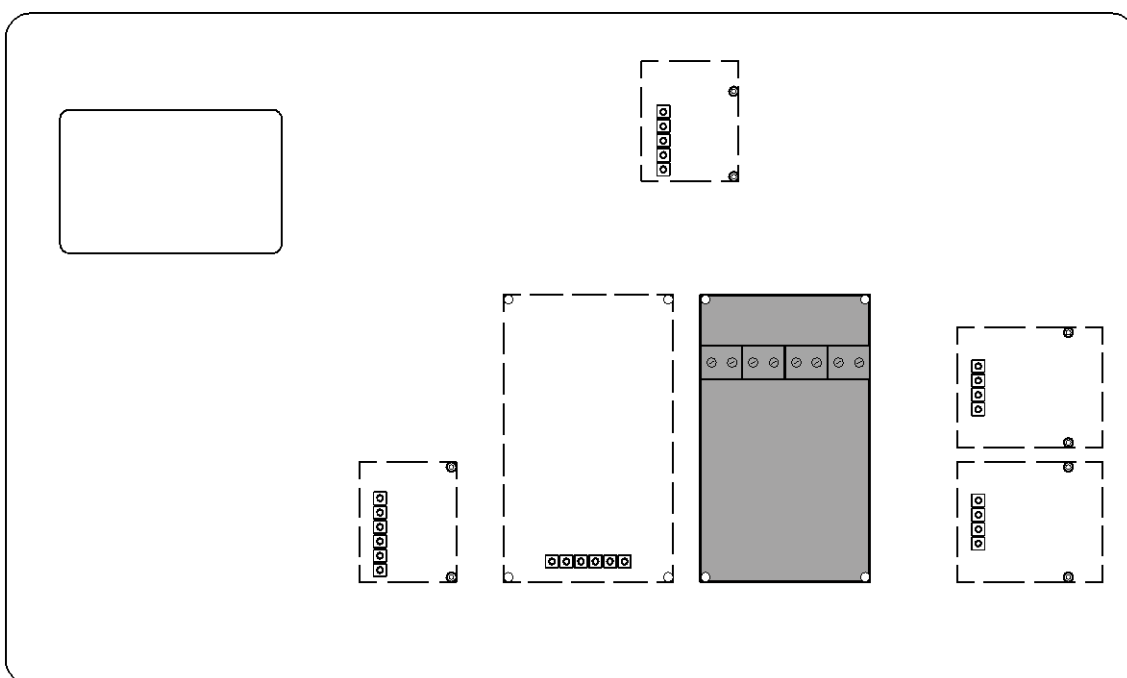
If you have several identical slots on the board, it does not matter which slot you select from these. The device automatically recognises which module it is.

3.3 Installing the module

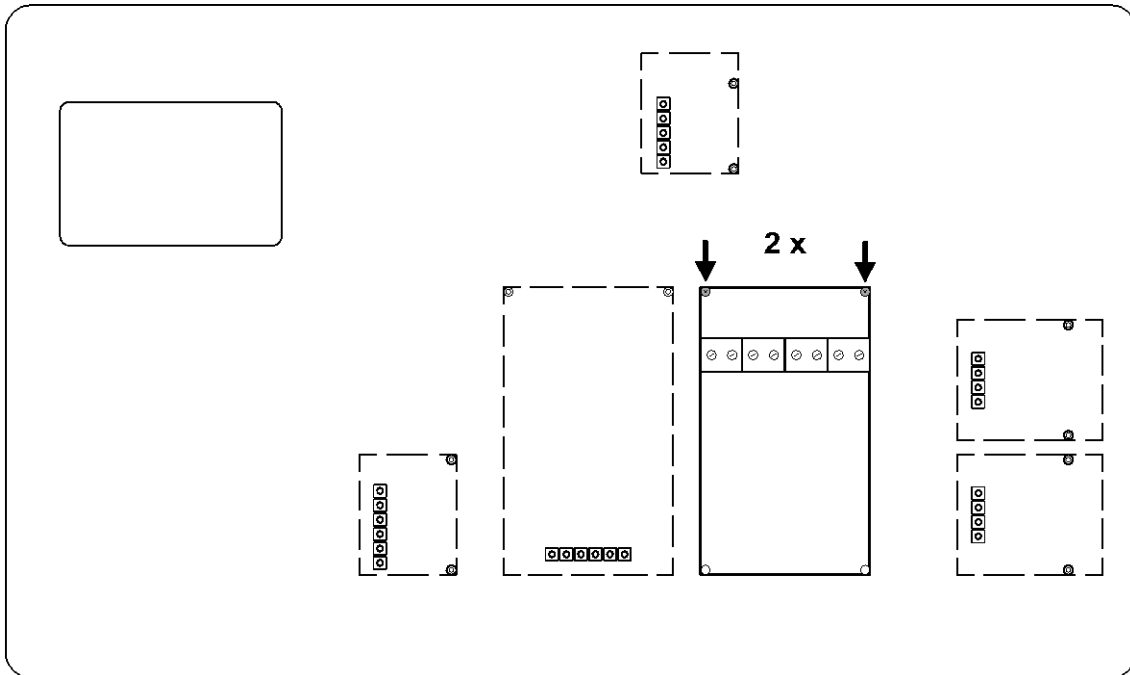
1. Open the terminal (see chapter 3.1).
2. Remove the module from the packaging.
3. Remove the screws from the sleeves of the slot **size L, 6 pin.**



4. Insert the module.



5. Secure the module with the screws.



6.

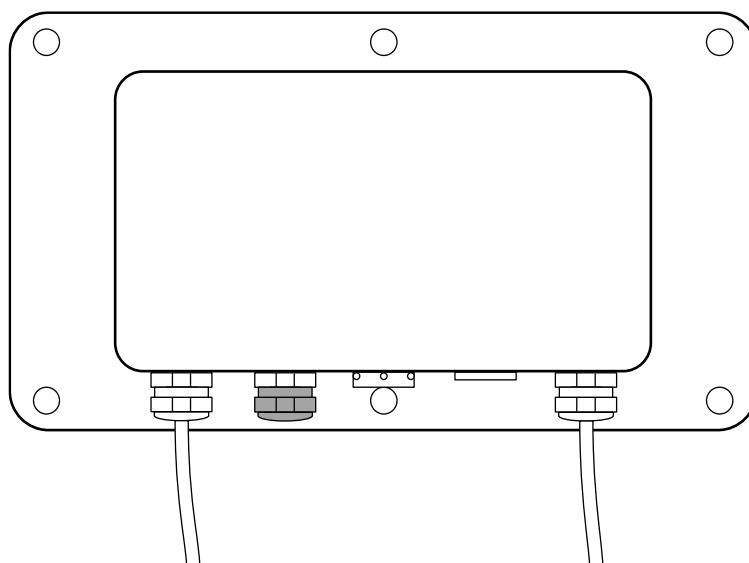
NOTICE



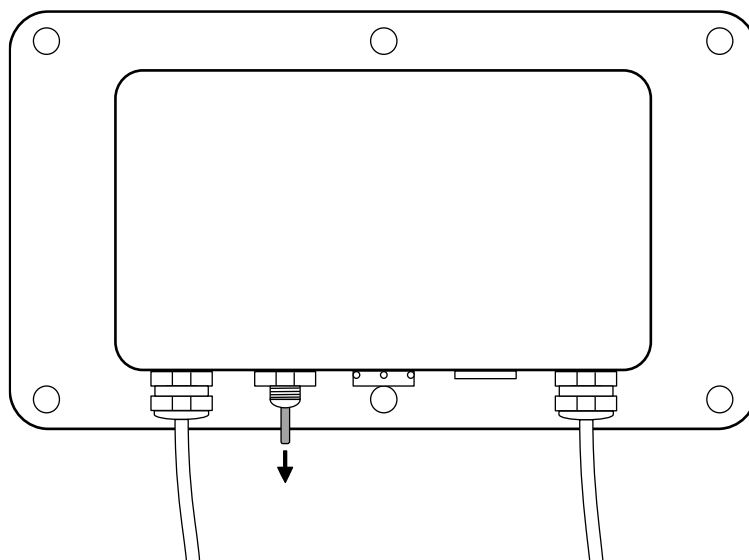
⇒ Do not open the pressure compensation screw on the terminal. This can be recognised by the condensation holes in the screw head. Removing it can lead to moisture in the device and therefore to damage.

Open a free sealing cap of a cable gland on the back of the terminal.

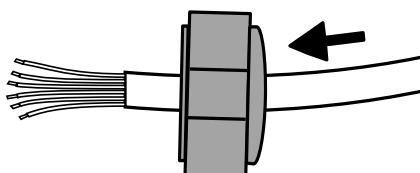
The standard version of the terminal has a free prepared cable gland with a sealing cap. An additional cable gland is closed with a screw. In order to use this cable gland, it is necessary to have optional accessories. Information on this can be found on our homepage: **www.kern-sohn.com**



7. Remove the sealing pin of the cable gland.



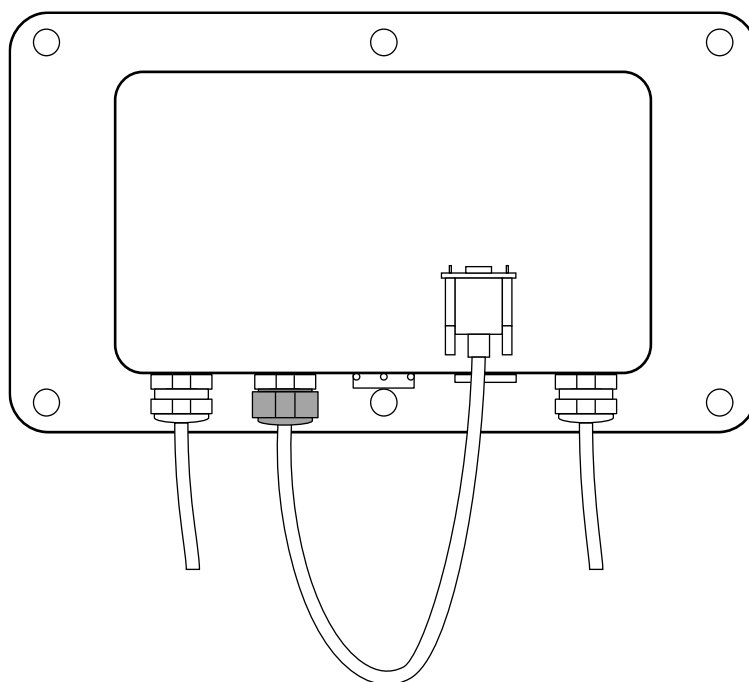
8. Use the cable cores to guide the interface cable through the sealing cap.



9. Use the cable cores to lead the interface cable through the cable gland from the outside so that the cable cores are inside the enclosure.

10. Insert about 15 cm of the interface cable into the enclosure.

11. Tighten the sealing cap of the cable gland.



12.

NOTICE



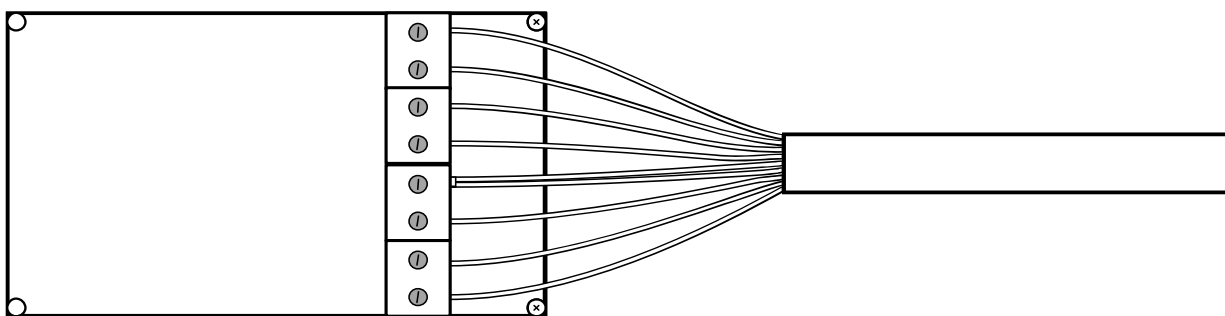
⇒ Make sure to use the correct colour coding (according to IEC 60757) when connecting to the cable terminals.

Insert the cable cores into the cable terminals of the module.

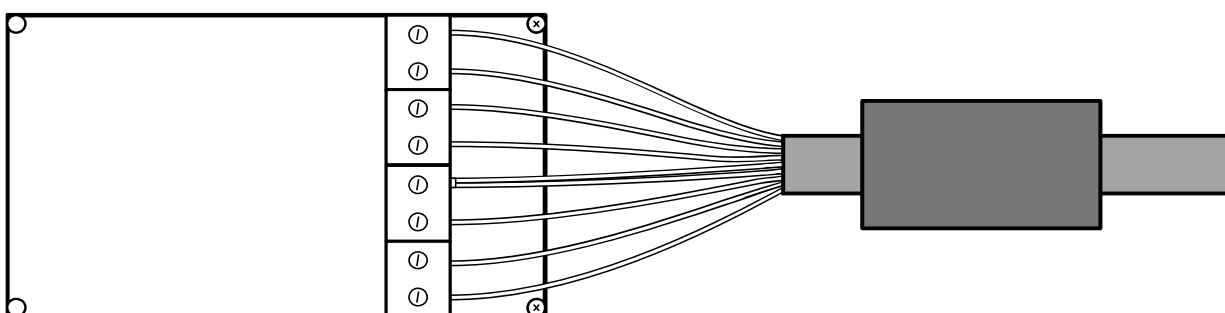
IEC 60757		Color
VT		purple
BU		blue
GN		green
YE		yellow
OG		orange
RD		red
BN		brown
BK		black

⊙	BEEP	_____
⊙	LEDY	_____
⊙	LEDG	_____
⊙	LEDR	_____
⊙	GND	_____
⊙	RXI	_____
⊙	TXO	_____
⊙	6.5V	_____

13. Carefully tighten the screws of the cable terminals so that the contact tips are fixed.



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



15. The module has been installed.

3.4 Closing the terminal

1. Check the module for a tight fit.

2.



NOTICE

- ⇒ Make sure that you do not damage any cables (e.g. by tearing them off or pinching them).
- ⇒ Make sure that any existing seals are in their intended place.

Carefully close both halves of the terminal.

3. Close the terminal by screwing it together.

3.5 Set up the interface

Pin assignment:

Pin no.:	Signal	Function
1	6.5 V	Supply voltage
2	TX_OUT	Output data
3	RX_IN	Receive data
4	N/A	N/A
5	GND	Signal Ground
6	LED R	Not CHECK_LOW (signal light for checkweighing)
7	LED G	Not CHECK_OK (signal light for checkweighing)
8	LED Y	Not CHECK_HIGH (signal light for checkweighing)
9	BEEP	Beeper (signal tone for checkweighing)

Communication parameters:

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

Interface: RS-232 (factory setting)	
Baud rate	9600
Data bits:	8
Stop bits	1
Parity	none