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Installation instructions Ethernet module

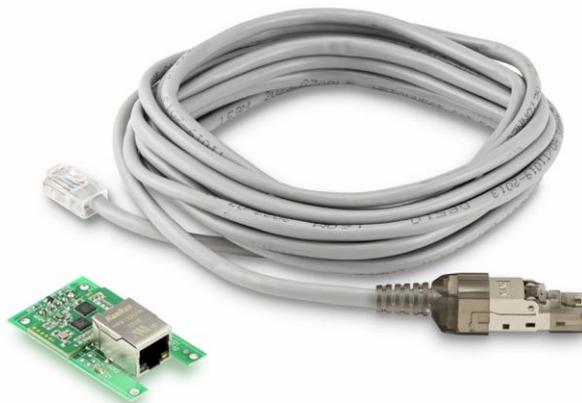
KERN KUM-04

Type TYKUM-04-A

Version 1.1

2025-01

GB



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

TYKUM-04-A-IA-e-2511



Ethernet module

Version 1.1 2025-01

Installation instructions

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1 Scope of delivery

- Ethernet module
- Interface cable (5 m)
- RJ45 plug

2 General information and safety instructions

⚠ DANGER



Electric shock due to contact with 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 appliances 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.

3 Technical data

CORE	TYKUM-04-A	
Network	Work mode	TCP server
	Network protocol	TCP/IP
	IP assignment	Static/DHCP
	Internet Protocol Version	IPv4

4 Default settings

Parameters	Standard setting
Static IP	192.168.178.150
Subnet mask	255.255.255.0
Gateway	192.168.178.1
Username	admin
Password	admin
Port	23

5 Installation

INFORMATION

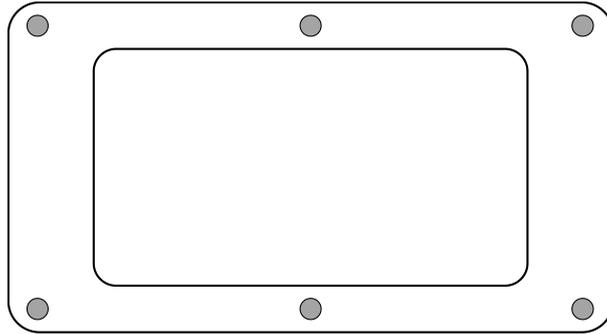


- Always follow the instructions in this manual before starting work.
- The illustrations are examples that may differ from the actual product (e.g. positions of the components).

5.1 Installing the interface in the housing

5.1.1 Opening the terminal

1. Disconnect the appliance from the mains voltage.
2. Loosen the screws on the back of the terminal.



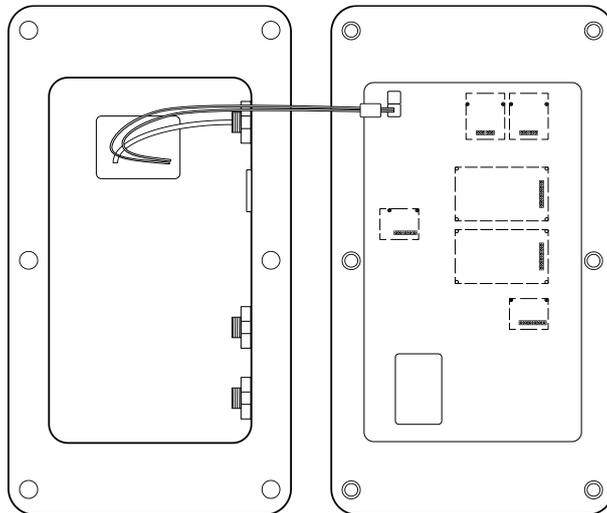
3.

NOTE



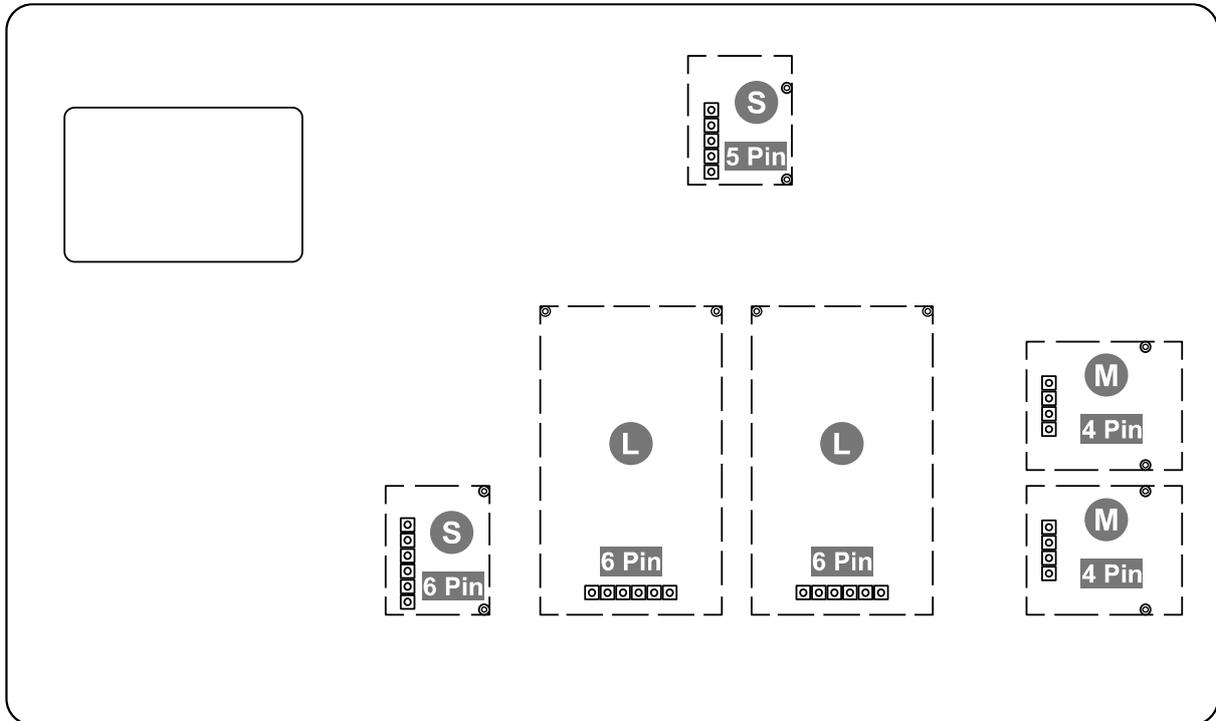
⇒ Make sure that you do not damage any cables (e.g. by tearing them off or pinching them).

Carefully open both halves of the terminal.



5.1.2 Overview of the circuit board

The circuit board of certain display devices offers several slots for KERN accessories, with which you can expand the range of functions of your device if required. You can find information on this on our homepage: www.kern-sohn.com



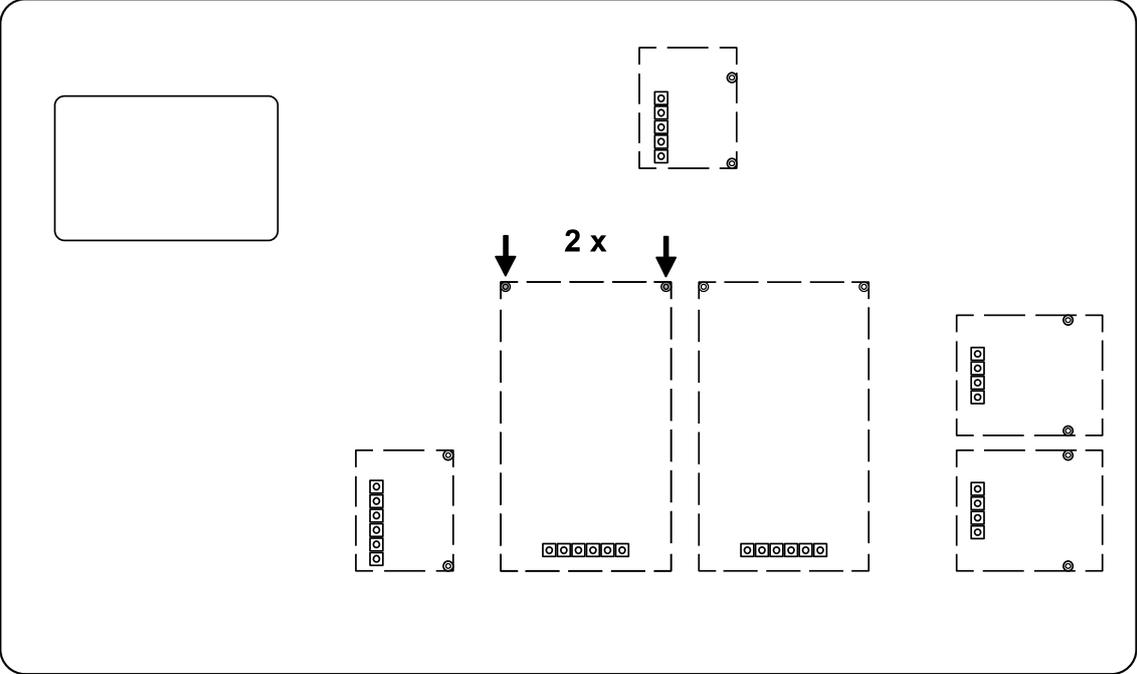
The illustration above shows examples of different slots. There are three slot sizes for optional modules: S, M, L. These have a specific number of pins.

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.

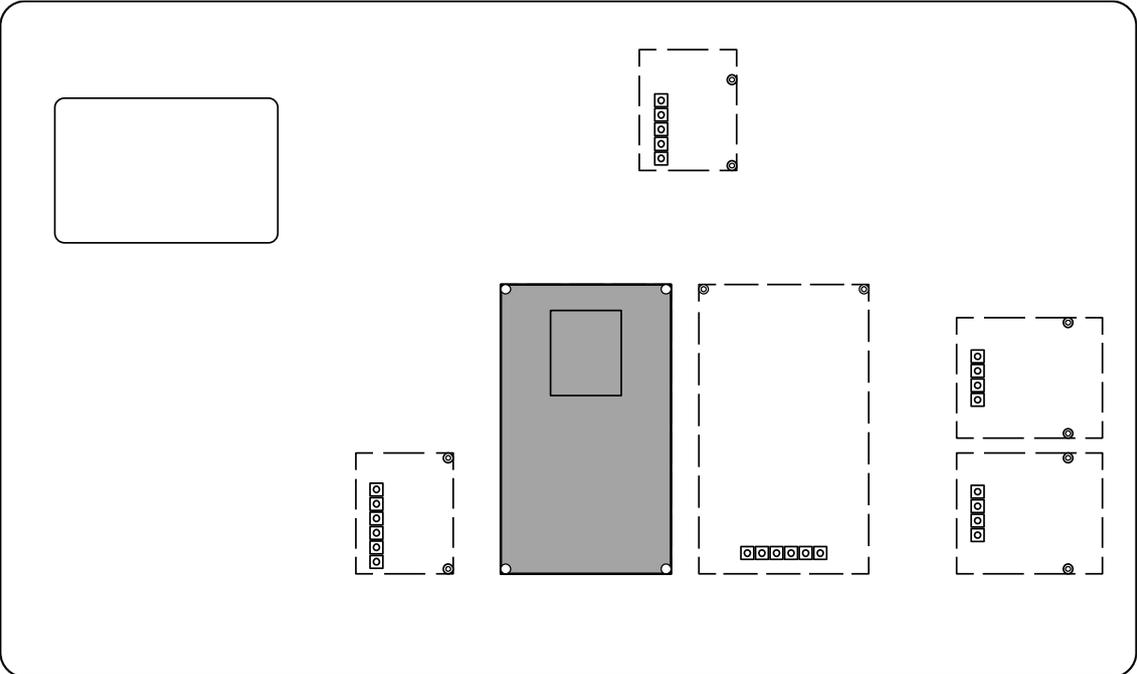
If there are several identical slots on the board, it does not matter which slot you select. The device automatically recognises which module it is.

5.1.3 Installation of the module

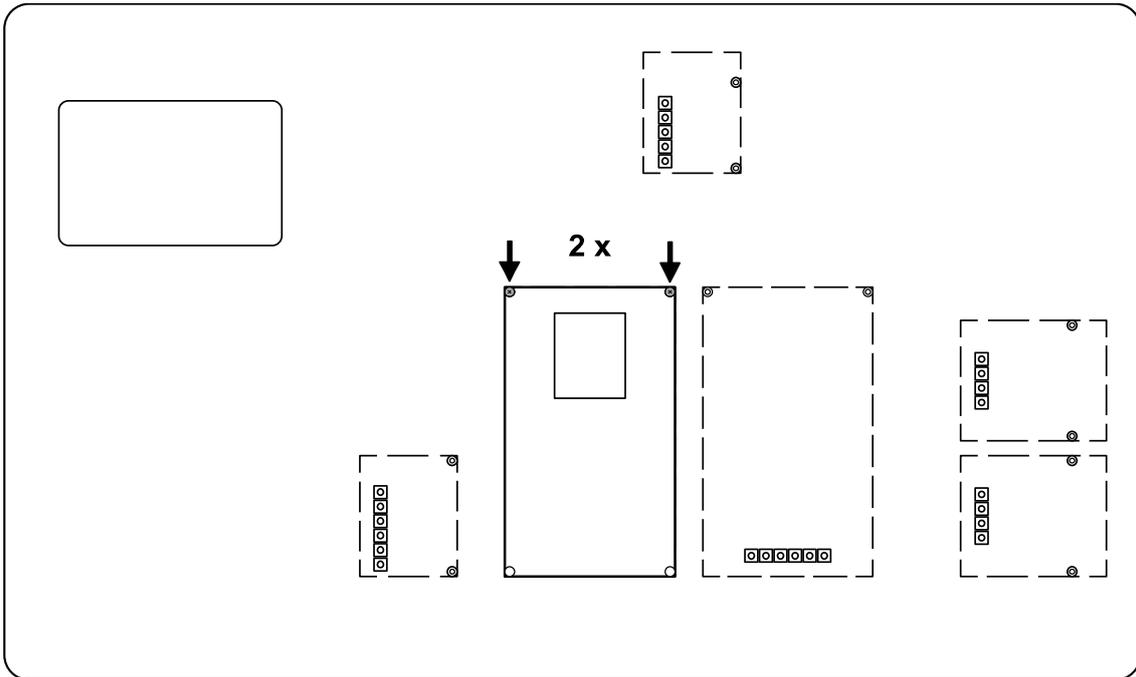
- 1. Open the terminal (see section).5.1.1
- 2. Remove the module from the packaging.
- 3. Unscrew the screws from the sleeves of a **size L, 6-pin slot**.



- 4. Attach module.



5. Fasten the module with the screws.



6.

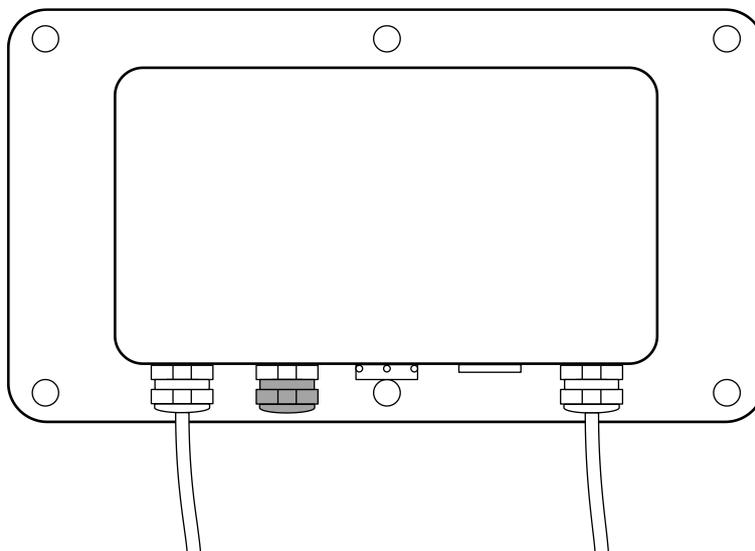
NOTE



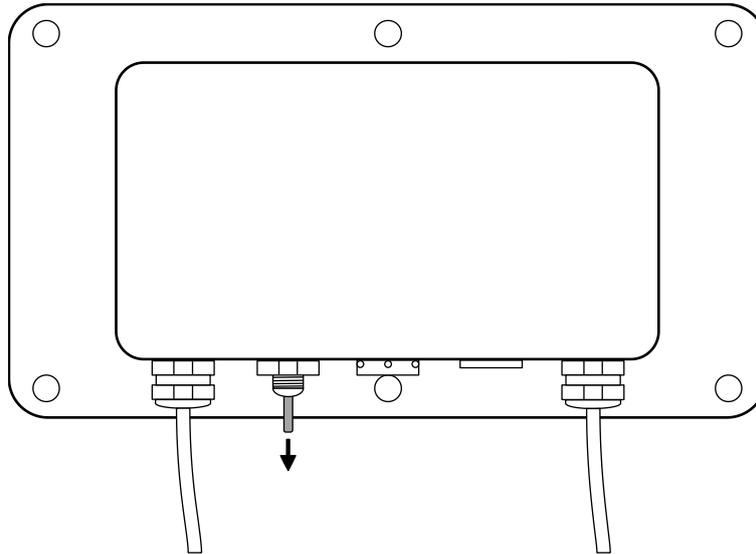
⇒ Do not open the pressure equalisation screw on the terminal. This can be recognised by the condensation holes in the screw head. Removing it can lead to moisture in the device and thus to damage.

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

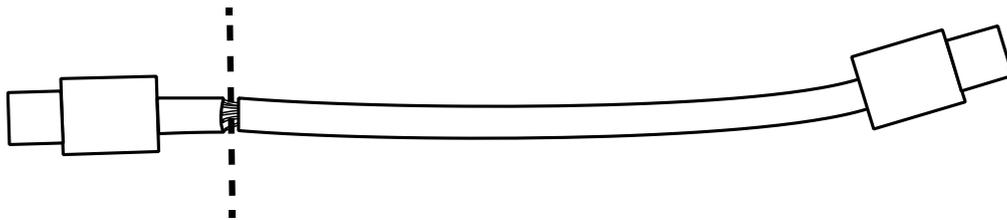
As standard, there is a free prepared cable gland with a sealing cap on the terminal. An additional cable gland is closed with a screw. Optional accessories are required to use this cable entry. You can find information on this on our homepage: www.kern-sohn.com



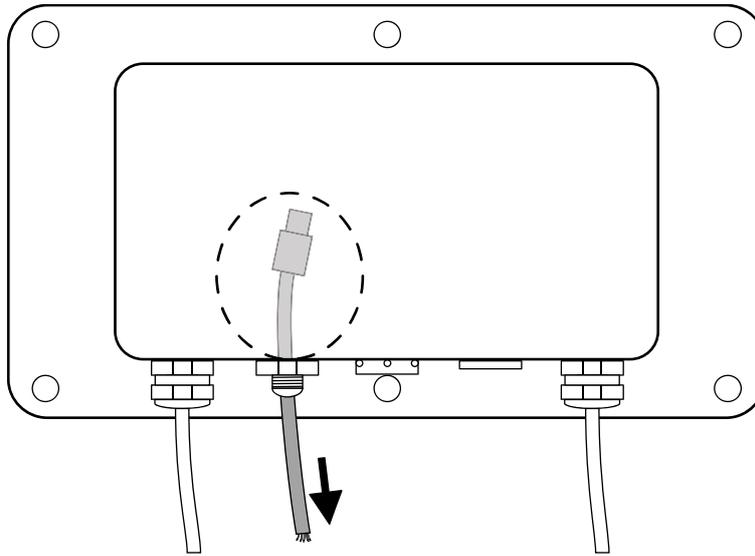
7. Remove the sealing pin from the cable gland.



8. Disconnect the interface cable on one side and expose the cable cores.

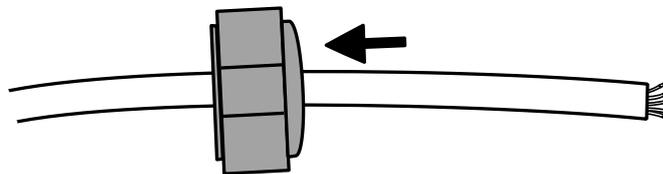


9. Feed the interface cable with the cable cores through the cable gland from the inside so that the Ethernet plug is inside the housing.

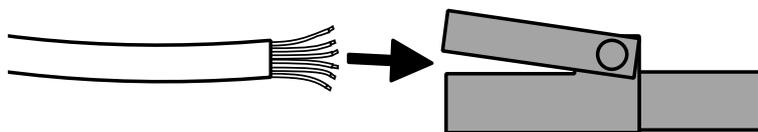


10. Pull the interface cable out of the housing so that approx. 15 cm of the cable remains in the housing.

11. Guide the sealing cap over the protruding interface cable.



12. Connect the RJ45 plug to the interface cable according to the cable colours.



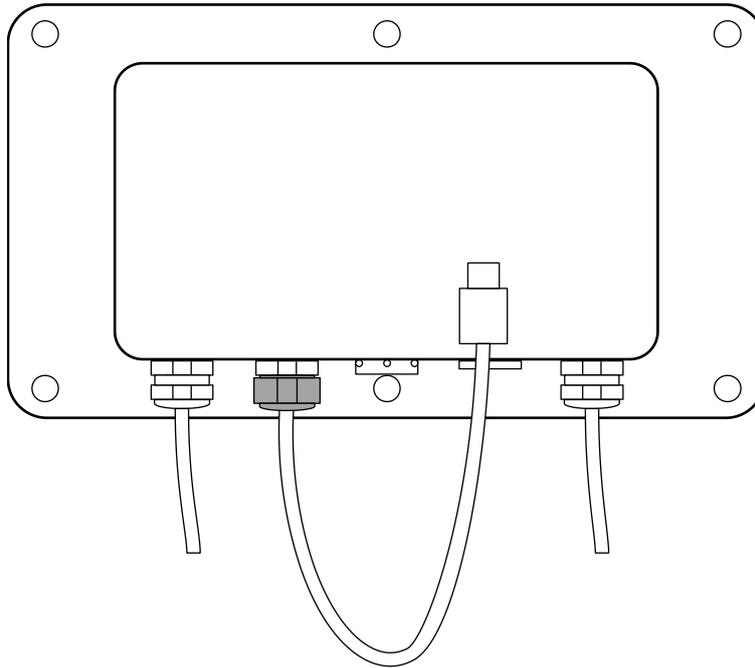
NOTE



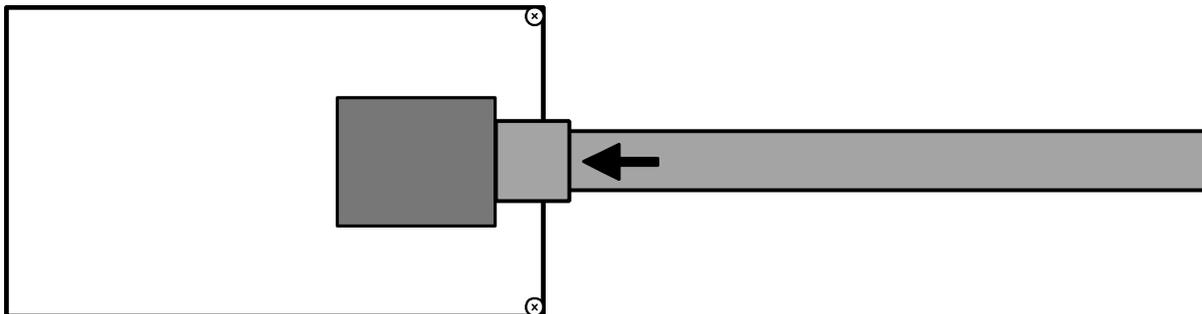
⇒ When installed in the factory by KERN, the wiring in the connector is carried out in accordance with T568B

Pin	Colour	Pin	Colour
1	White/Orange	5	White/Blue
2	Orange	6	Green
3	White/Green	7	White/Brown
4	Blue	8	Brown

13. Tighten the sealing cap of the cable gland.



14. Plug the interface cable into the Ethernet connection of the module.



15. The module has been installed.

5.1.4 Closing the terminal

1. Check module for tight fit.

2.



NOTE

- ⇒ 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 fold both halves of the terminal together.

3. Screw the terminal together.

5.2 Connecting the interface

1. Connect the Ethernet cable to the network/PC
2. Establish TCP connection
3. Use KCP commands to communicate with the scales

5.3 Setting the IP address

The interface is configured with a fixed IP address by default (see chap.4) There are the following options for configuring the IP address according to your own requirements.

5.3.1 About KCP commands

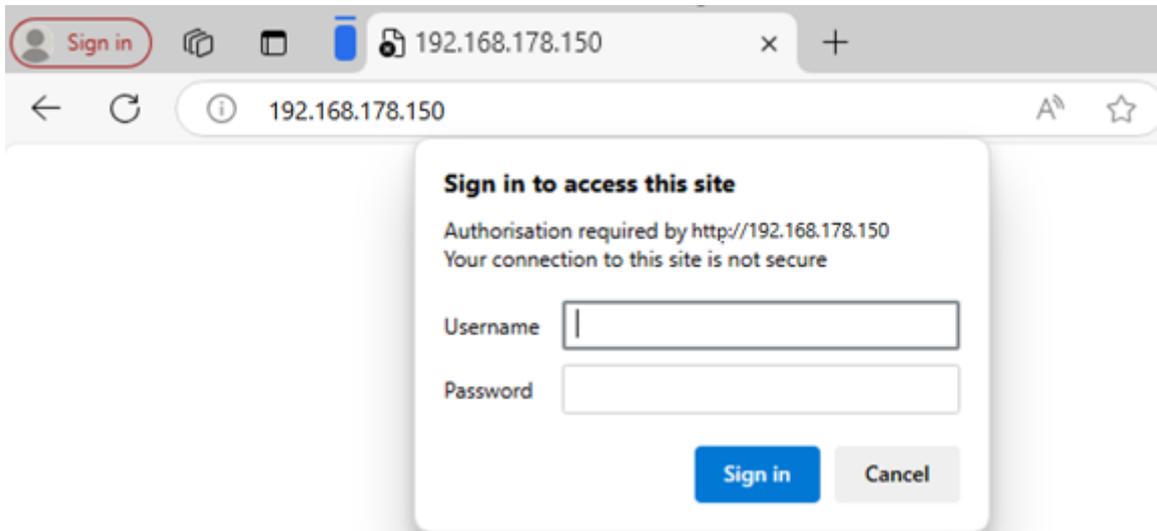
The KCP commands JNEA (IP address), JNEK (subnet mask) and JNEG (gateway) can be used to configure the IP address, subnet mask and gateway.

Please note that all three commands, JNEA, JNEK and JNEG, must be entered in strict sequence to finalise the Ethernet interface setting.

A detailed description can be found in the "KERN Communications Protocol" manual, available in the download area on our KERN homepage (www.kern-sohn.com)

5.3.2 Via the configuration page

The configuration page can be called up in the address bar under the IP address of the module.



After entering the user name and password (see section 4), the default settings can be changed.

USR
-IOT Experts-

Be Honest, Do Best!

parameter	Help
IP type: <input type="text" value="Static IP"/>	• IP type: StaticIP or DHCP
Static IP: <input type="text" value="192"/> . <input type="text" value="168"/> . <input type="text" value="178"/> . <input type="text" value="150"/>	• StaticIP: Module's static ip
Submask: <input type="text" value="255"/> . <input type="text" value="255"/> . <input type="text" value="255"/> . <input type="text" value="0"/>	• Submask: usually 255.255.255.0
Gateway: <input type="text" value="192"/> . <input type="text" value="168"/> . <input type="text" value="178"/> . <input type="text" value="1"/>	• Gateway: Usually router's ip address
DNS Server: <input type="text" value="208"/> . <input type="text" value="67"/> . <input type="text" value="222"/> . <input type="text" value="222"/>	• DNS IP: DNS gateway or Router's IP

NOTE



- ⇒ Username and password can also be changed on the configuration page under "Misc Config".
- ⇒ There is no reset function for the password. If this has been changed, it must be kept in a safe place.

6 Small breakdown service

Error	Remedy
Connection cannot be established	<ul style="list-style-type: none">• Ensure that the scales are switched on• Ensuring the cable connection• Check wiring at the plug
No communication possible after changing the IP address via KCP commands	<ul style="list-style-type: none">• Disconnect the scales from the power supply (mains + battery) for a few minutes and restart
Loss of IP address	<ul style="list-style-type: none">• Querying the IP address from the scale with a serial second interface via KCP command JNEA