KeContact

E10 Smart Energy Meter
IP Configuration guide
V 1.01

KEBA

Automation by innovation.

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Table of contents

1 Introduction 4
1.1 Purpose of the document 4
1.2 Requirements 4

2 Recommendations 5

3 Find the IP current address of your Energy meter 6

4 Set a fixed IP address for your Energy meter 7

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1 Introduction

This manual is valid for KeContact E10 energy meters.

1.1 Purpose of the document

This document is an extension to the product installation manual. It describes the additional installation work regarding the IP address assignment of the KeContact E10 energy meter.

1.2 Requirements

This document contains information for persons with the following requirements:

Target group	Required knowledge and abilities
Electrician	Person who, due to his or her special training, expertise and experience as well as knowledge of current standards, is able to assess the work performed and the possible hazards. Knowledge of: ● current valid safety information, ● the mode of operation of the charging station, ● the displays and operating elements of the charging station, ● basics of network technology, ● diagnostic options, ● systematic fault analysis and rectification, ● the setting options on the charging station.

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2 Recommendations

It is recommended that the KeContact E10 gets a **fixed IP address** (IP-binding) via the DHCP server (router, WLAN modem,…) of your local network.

Access your DHCP server and set a fixed IP address for the KeContact E10. To do this, please refer to the manual of your router.

You may need the MAC-address of the KeContact E10 that is printed on its type plate.

Information

The IP-binding feature is not supported by the DHCP server of a P30 x-series charging station. In this case please follow the instructions in the following chapters.

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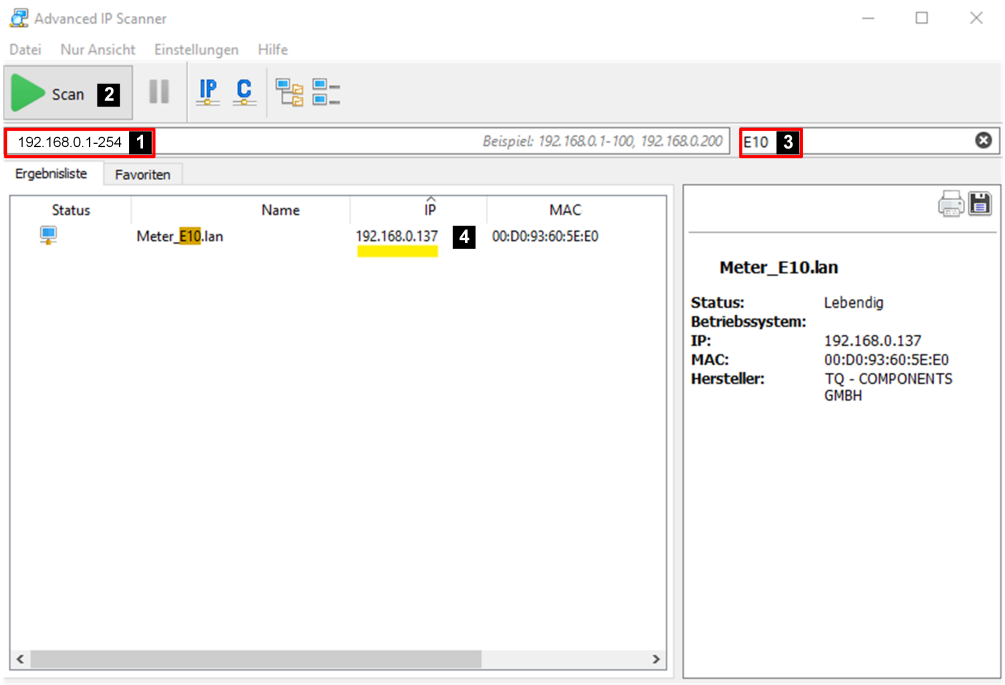
3 Find the IP current address of your Energy meter

Requirements

- In order to find out the IP address of your KeContact E10 energy meter, you need to know the **IP address range** of your local network. The IP address range depends on the used router (e.g. “192.168.0.x” or “192.168.42.x” for a P30 x-series network).
  Access your DHCP server (router) of your local network and look for the IP address range. To do this, please refer to the manual of your device.
- KeContact E10 must be powered up and connected to the local network.

Using the network scanner software

1) Download and install a suitable Network Scanner software.
   E.g the “**Advanced IP Scanner**” (https://www.advanced-ip-scanner.com/) is used for the following instructions.
2) Start the “Advanced IP Scanner” software tool.
3) Enter the IP address range of your local network (1). If the P30 x-series is the DHCP server, please enter “192.168.42.1-254”.
4) Click the “Scan” (2) button.
5) Enter “E10” in the text filter field (3).



The current IP address of your KeContact E10 should show up (4). If it does not, please restart and / or reset your KeContact E10 as described in the KeContact E10 Installation manual).

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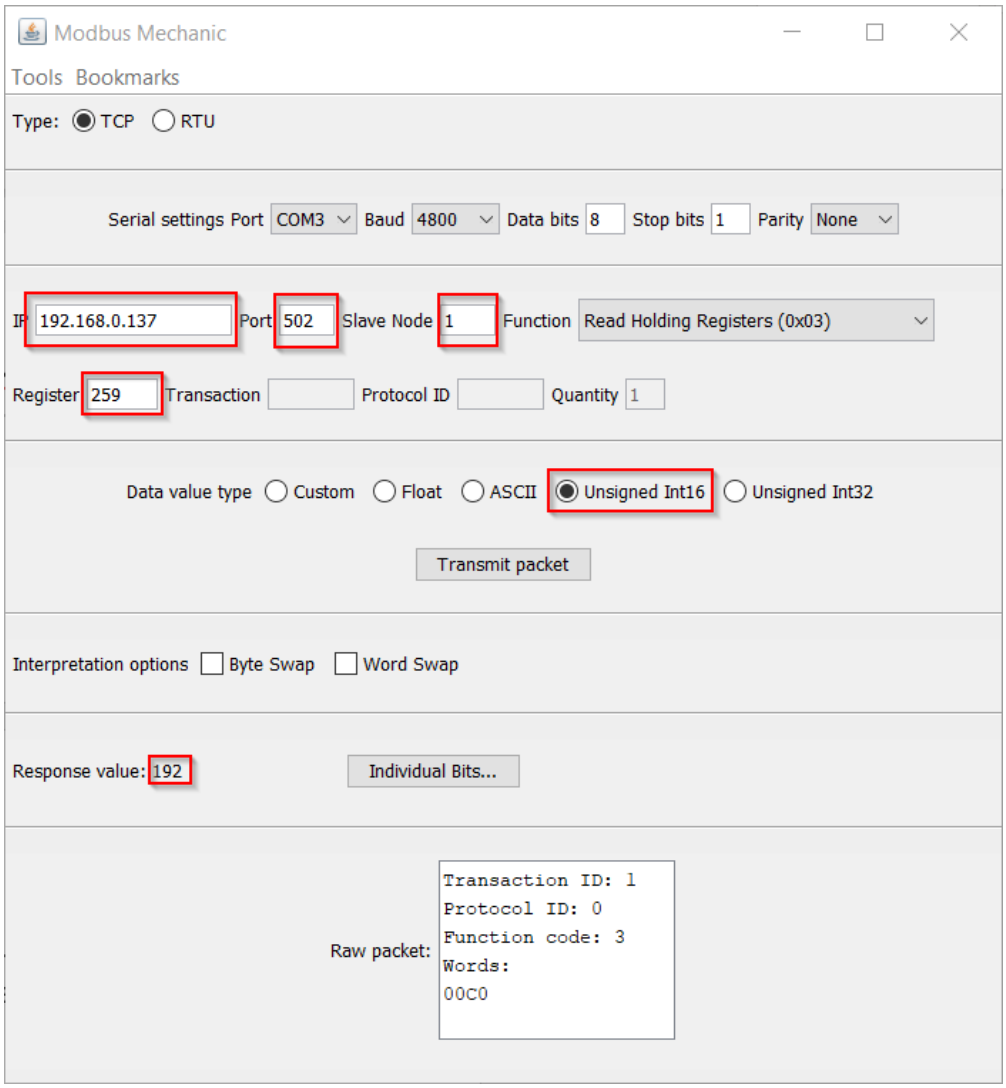
4 Set a fixed IP address for your Energy meter

If it is not possible to set a fixed IP address for the KeContact E10 via your DHCP-server (IP-binding), please follow these instructions.

Install the Modbus Mechanic software tool

1) If you don't have **Java Runtime** installed, please go to https://adoptium.net/de/ to download and install the latest “Temurin JDK”.
2) Then, download and extract the latest release of the **Modbus Mechanic** software tool at https://github.com/SciFiDryer/ModbusMechanic/releases and double click `ModbusMechanic.jar`.

Modbus Mechanic – read out current settings (optional)



1) Open the tool and enter the **IP address** previously shown in the “Advanced IP Scanner” tool for the KeContact E10 into the field “**IP**”.

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2) Also enter **Port „502“** and **Node „1“**.
3) Switch the function to “**Read Holding Registers**” and set the **Data value type** to “**Unsigned Int16**”.

Read out current IP settings

1) Enter **259** in the Register field and click “**Transmit packet**”. This should show the first value of the currently set IP address. If an error is shown, check if the IP address of the KeContact E10 is correctly set. If not restart and / or reset the KeContact E10.
2) Repeat this process also for Register **260-262**.

Example: Read out IP address 192.168.0.137	Response value
Register 259	192
Register 260	168
Register 261	0
Register 262	137

Example: Read out subnet mask 255.255.255.0	Response value
Register 263	255
Register 264	255
Register 265	255
Register 266	0

DHCP assignment	Response value
Register 267	1 = enabled 0 = disabled

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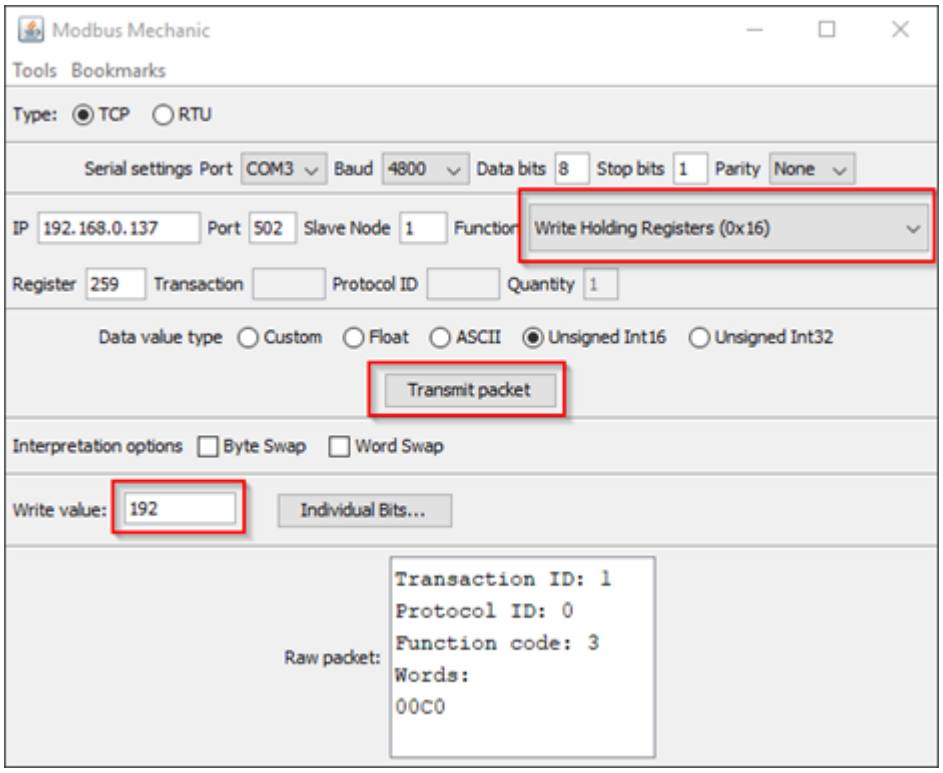
Modbus Mechanic - manually set a new IP address



1) Open the tool and enter the **IP address** previously shown in the “Advanced IP Scanner” tool for the KeContact E10 into the field “**IP**”.
2) Also enter **Port „502“** and **Node „1“**.
3) Switch the function to “**Write Holding Registers**”.
4) Enter **259** in the Register field.
5) Enter the first value of the desired IP address into the **Write value** field (e.g. 192) and click “**Transmit packet**”.
6) Repeat this process also for Register **260-262**.

Example: Write IP address 192.168.10.240	Write value
Register 259	192
Register 260	168
Register 261	42
Register 262	254

Subnet mask

If necessary the subnet mask can be changed via Register 263-266. In most cases 255.255.255.0 is ok.

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Information

- If the P30 x-series is used as the DHCP server, it is recommended to set the KeContact E10 IP address to a high value like “192.168.42.254”. In this case it is unlikely that the DHCP Server from the P30 x-series assigns this IP address to another client (charging station) in the network.

1) **Important:** Disable DHCP by changing Register **267** to value “**0**”. This will permanently set the IP address to the selected value.
2) Restart the KeContact E10 either via the reset button or changing Register **61615** to value “**1**”.
3) The Modbus Mechanic software tool should loose the connection and KeContact E10 should be reachable under the new IP address. You can verify this with the “Advanced IP Scanner” tool.

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