Installation of CSE-H55N for Kostal inverters (rev 1.5)

Installation and configuration of converter CSE-H55N for Kostal inverters.

Rev 1.5	25. Jan 2013	Initial english release.

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1. Equipment

The following equipment is installed:

- A CSE-H55N converter
- A 5V DC/AC converter power adaptor
- A RS-485 cable (appr. 1 meter)
- A number of CAT-5 cables (1 for each inverterer)

The following equiment should be available at the site:

- A complete pv-plant including panels and inverters.
- Internet access (via router or similar)
- Power plug for converter
- An indoor place for installing the converter or possible put the inverter inside the converter housing.

The following equipment may be useful during install and test:

- A laptop with Windows XP or newer
- ezTCP ezManager v3.2B available on the laptop
  (http://www.eztcp.com/en/download/ezmanager.php)
- Network switch
- 3G router *(or a smart phone hotspot)*
- CAT-5 cables
- Spare RS-485 cables

2. Installation

Install the parts on the following order:

Cables (se chapter "Cables between CSE-H55N and inverters")

1. Insert a CAT-5 cable between converter and router (internet)
2. Power on converter.
3. Check converter is connected to the internet.
4. Power off converter.
5. Insert CAT-5 cables between all inverters (except if only a single inverter is used) in the RS-485 network.
6. Insert RS-485 cable into the converter.
7. Insert RS-485 cable into the initial inverter.
8. Power on converter.

A stable internet connection is required. A RS485 network scan will be initiated upon the first connection. The time used may vary from a number of minutes up to an hour, depending on the number of inverters.

NOTICE!!

Kostal Pico has a built in terminator. Terminator may need to be set, but initially leave it as is.
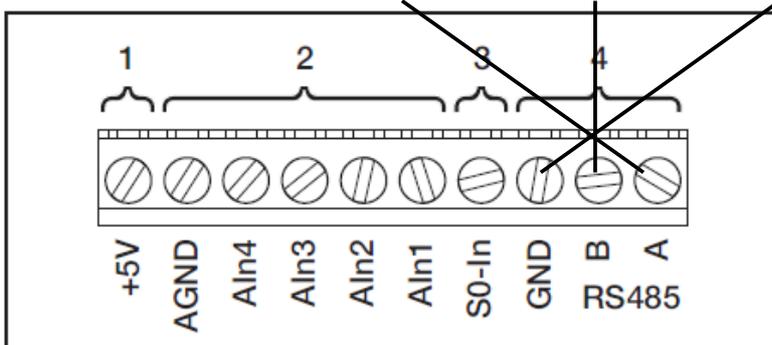
3. Cable between CSE-H55N and inverters

Before connecting the Converter to the Inverter, you must turn off the inverter, and also the safty relay!
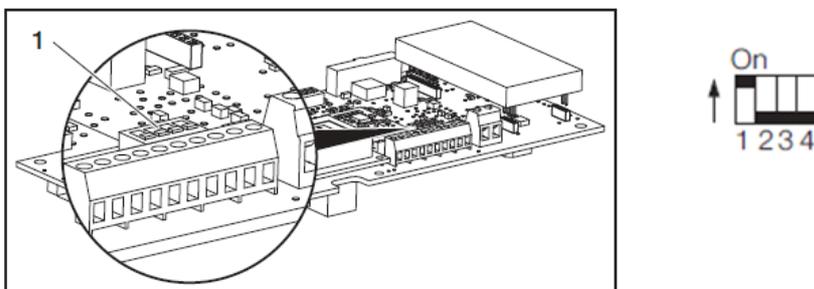
RS485 cable between inverter and CSE-H55N

Open inverter, locate the RS-485 terminals and connect cable to Converter as show below.
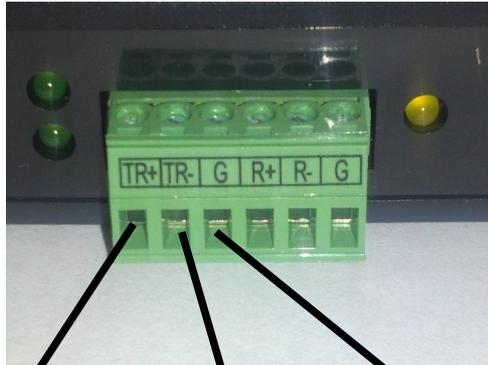
Blue (TR+) White/Blue (TR-) Orange (G)

In some cases you need to terminate the DIP-Switch. Switch 1 should then be set on.

Try installation first without setting the DIP-Switch!

DIP-Switch is located right above the RS485 terminals.

4. Troubleshooting

It may be a good idea to use a smart phone or a browser to monitor current status. Use the QR-barcode or name found on the converter label. *Remember to write exactly as written – including spaces.* The smart phone is required to be online on the internet if used for test.

- A red cross in `Converter` indicates the converter is not connected to the internet. See *"Installation CSE-H55N internet".*

- A green checkmark in `Converter` and a red cross in `Inverter`. See below*.*

No inverter found

The converter is required to be online on the internet. If the converter is offline then this chapter will not be helpful. When a change is made the converter should be restarted (power off, power on) to ensure the internet connection is reestablished.

- The terminator switch should be set.

- The cable should be correctly inserted into the converter (blue into TR+, blue/white into TR-, orange and orange/white into G).

- I am certain all the cables are inserted correctly! *Replace converter cable*.

- In rare cases the inverters are born with identical network addresses. This will cause a network conflict. The identification is set at the factory but may be configured on new inverters. *In this a case it should be determined if a network address can be changed (maybe a firmware upgrade is necessary). As an alternative an additinal converter may be used or the inverter is replaced. It may be necessary to contact Kostal and ask for a access code.*

- In rare cases the inverter is in a state of error and the there is no reply during a network scan. A *possible solution is to change the network address (if possible) to a new value and save. This "resets" the problem and may solve the problem. After the reset the inverter should be visible during a network scan.*

- Use ezManager to determine if there is communication on the the serial connection *See "Installment CSE-H55N internet".*