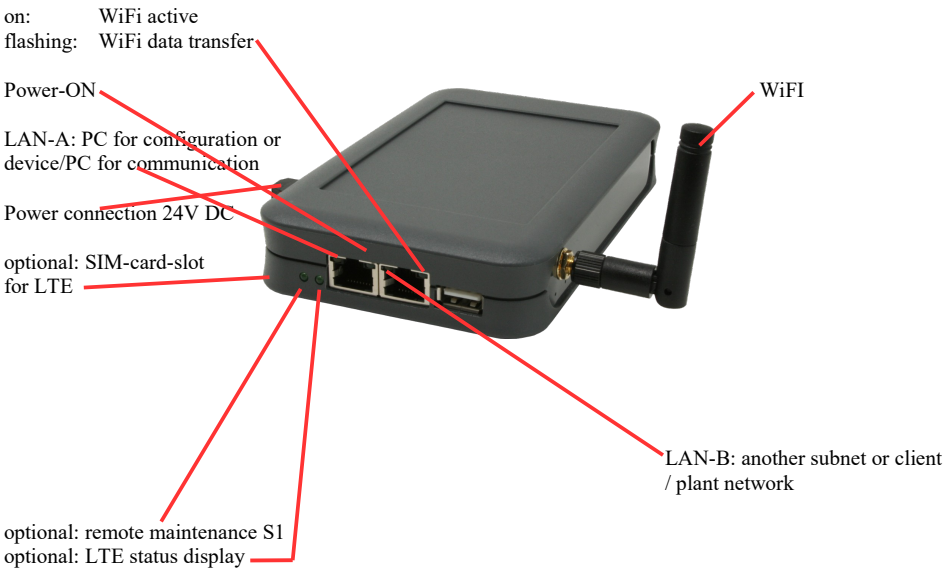
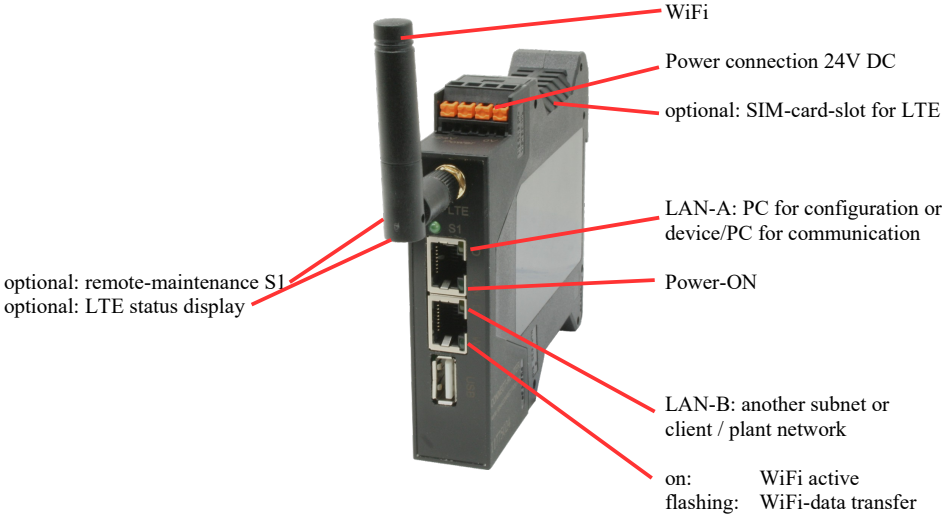


# Handling-Shortinstruction V1.0 for CONNECT protocol converter

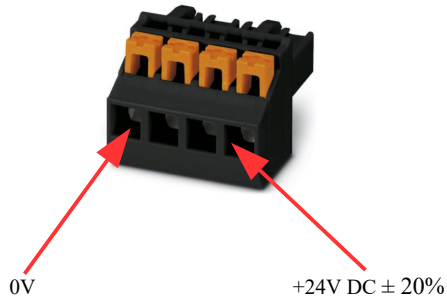
## Connectors:



## Power connection :

Voltage: 24 V DC  $\pm$  20%  
power consumption : 1,2W

## Assignment of voltage plug :



## Initial start-up:

- CONNECT protocol converter creates a WLAN network with an SSID „CONNECT WiFi“ with active DHCP master (laptop is automatically assigned an IP address)
- Connect laptop to this WiFi network and open with browser webserver with IP: <http://192.168.2.1>

or

- Connect the PC to the LAN port using a LAN cable
- PC must be in the 192.168.2.xxx subnet

## Starting page:

**commissioning**

Before you can start to use the device you will have to set up some basic settings. Afterwards your device will be immediately ready for the communication.  
On the page "configuration" you can change these as well as some further settings at any time.

**basic configuration**

In the first step you have the possibility to specify a name for your device.

device name:

## Basic configuration:

Assign a name to the device for identification

Connection to company network:

**internet configuration**

Next you have to configure how your device should establish a connection to the internet.

router interface:

**IP settings**

IP configuration:  DHCP  
 manually

IP address:

subnet mask:

gateway address:

Determine the interface to which the company network is connected

**IP settings:**

- IP-configuration: DHCP (Parameters come from a DHCP master on the network)  
Manuell (IP address + subnet mask fields must contain valid values)
- IP address: IP address of the device
- subnet mask: Subnet mask of the device
- gateway address: Gateway address of the device

Connection to plant network:

**peripheral configuration**

In the last step you have to configure how your device should be connected with the plant network, where the H1 participants are connected to.

interface:

**IP settings**

IP configuration:  DHCP  
 manually

DHCP server:  enable

IP address:

subnet mask:

Determine the interface to which the plant network is connected

**IP settings:**

- IP-configuration: DHCP (Parameters come from a DHCP master on the network)  
Manuell (IP address + subnet mask fields must contain valid values)
- DHCP server: Device is on this interface itself a DHCP server, parameterization of the server in the menu configuration when first configuration is finished.
- IP address: IP address of the device (optional for H1-nets)
- subnet mask: Subnet mask of the device (optional for H1-nets)

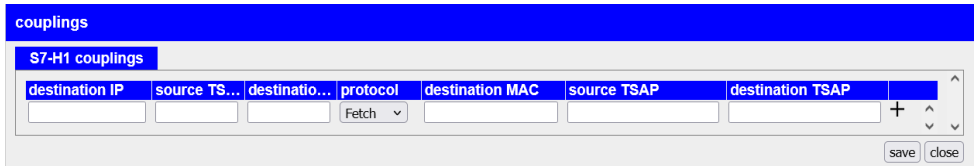
After the configured data has been adopted, the device automatically restarts and uses the entered data.

### Defining the S7-H1 assignment:

After the device has booted up again after the initial configuration, the S7-H1 implementation must be parameterized.

To do this, click in the webserver on the button  (couplings) and define the possible connections you need.

Each connection, whether FETCH or WRITE, must be created separately. Confirm each entry with the "+"- symbol and finally, click "save" to apply all entries to the configuration:



destination IP	source TSAP	destination TSAP	protocol	destination MAC	source TSAP	destination TSAP
			Fetch			

There are two basic options for the S7-H1 implementation:

- a separate free IP-address for each connection in the network (requires many free IP-addresses for many connections)

destination IP: IP address of this connection (must not already be used in the network)  
source TSAP: source TSAP of this connection, may also be empty/not required  
destination TSAP: destination TSAP of this connection, may also be empty/not required  
protocol: Fetch or Write (read or write connection)  
destination MAC: MAC address of the participant to whom this connection is to be established  
format: AA:BB:CC:DD:EE:FF  
source TSAP: source TSAP of this connection as defined in the CP of the S5-PLC  
destination TSAP: destination TSAP of this connection as defined in the CP of the S5-PLC

TSAP generally enter as a HEX number, e.g. 0102 or 4831 without additions !!!

- a common IP-address for each connection and differentiation by source/destination TSAP (IP-address can be that of the device or a separate free IP-address in the network)

destination IP: IP address of this connection (may also be empty => device IP-address is used)  
source TSAP: source TSAP of this connection, may also be empty/not required  
destination TSAP: target TSAP of this connection, required to distinguish between connections  
protocol: Fetch or Write (read or write connection)  
destination MAC: MAC address of the participant to whom this connection is to be established  
Format: AA:BB:CC:DD:EE:FF  
source TSAP: source TSAP of this connection as defined in the CP of the S5-PLC  
destination TSAP: destination TSAP of this connection as defined in the CP of the S5-PLC

TSAP generally enter as a HEX number, e.g. 0102 or 4831 without additions !!!

Once these connections have been created and saved, the S7-H1 implementation can be used. Changes to the basic configuration can be made in the webinterface in the "Configuration" menu.

More information about the configuration can be found in the device manual on the product page of the Protocol converter S7-TCPIP <=> H1 (ISO)

Under the web-address <https://www.process-informatik.de> are product specific documentations or software-driver/-tools available to download.  
If you have questions or suggestions about the product, please don't hesitate to contact us.

Process-Informatik Entwicklungsgesellschaft mbH

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**Menutree Website:**

+ Products / docu / downloads

+ Hardware

+ Remote maintenance

+ S5

+ Internet

+ CONNECT devices

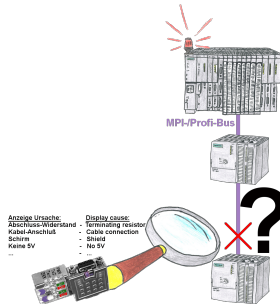
+ Protocol converter S7-TCPIP <=> ISO(H1)

**QR-Code Website:**



Please make sure to update your drivers before using our products.

## Bus-connector with diagnostic function



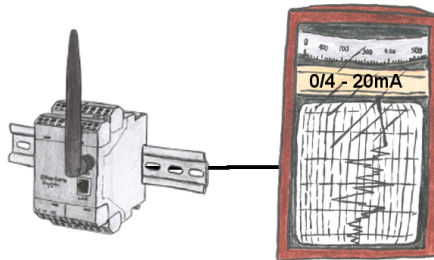
Bus problems and no reason apparent?

Connect the diagnostic-bus-connector to the "suspicious" PLC and read the possible cause of the fault using the blink-code:

- 5V voltage missing/out of specification
- possible short-circuit in the bus
- No bus-activity on the PLC
- Wrong termination
- Bus is open

...

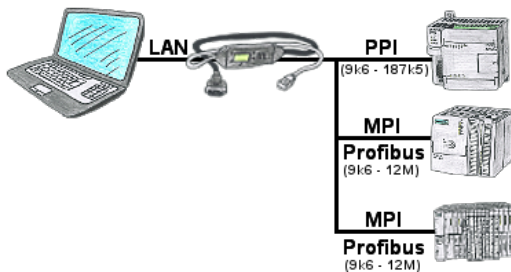
The bus-connectors of the "DiagConn"-series indicate all of these possible causes of the malfunction. The bus-connector is available in 90°, 45° and 0°-versions. The connectors can be attached instead of the "normal" bus-connectors. There does not have to be a fault, the plugs can generally also be used in the bus and you can later find the cause of any possible failures more easily and quickly.



By connecting a line-recorder to the EtherSens-device anyone without network-knowledge can visually capture and further process the log.



## Programming of S7-PLCs via LAN



S7-PLC with PPI, MPI, Profibus connection, but data should be read/written via network?

Ethernet-CP cannot be used because of the effort (hardware-configuration), price, space in the rack, availability. Plug S7-LAN-module/MPI-LAN-cable into a free bus-connector, assign the IP-address and the PLC can be reached via the network. There is no need to invest any more effort. The adapter can be parameterized via an integrated web-server or a configuration-tool. No changes to the S7-PLC are necessary to operate the adapter.

The adapter can also be used to implement PUT/GET-connections to other controls, but the PLC-program must be changed for this. Other PLCs can just as well read/write data from this controller via PUT/GET; nothing needs to be changed in the PLC program.

Automation very easy: Connect, parameterize and work.

## PLC-coupling (data exchange between PLC-devices)



Your pumping stations report the water levels of the central control via telephone network. The central office itself can of course transmit commands/messages to the substations as well. Thereto no dedicated line is required, a "normal" telephone connection is sufficient because the devices hangs up the line after occurred message.