Handling-Shortinstruction V1.0 for

CONNECT protocol converter
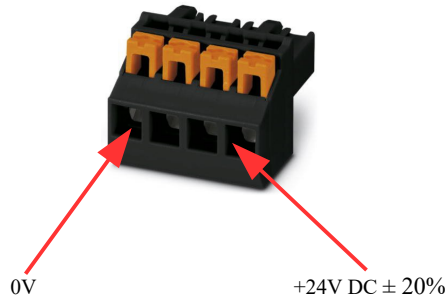
Connectors:

WiFi

Power connection 24V DC

optional: SIM-card-slot for LTE

LAN-A: PC for configuration or device/PC for communication

Power-ON

optional: remote-maintenance S1
optional: LTE status display

LAN-B: another subnet or client / plant network

on: WiFi active
flashing: WiFi-data transfer

on: WiFi active
flashing: WiFi data transfer

Power-ON

WiFI

LAN-A: PC for configuration or device/PC for communication

Power connection 24V DC

optional: SIM-card-slot for LTE

LAN-B: another subnet or client / plant network

optional: remote maintenance S1
optional: LTE status display

Power connection :

Voltage: 24 V DC ± 20%
power consumption :   1,2W

Assignment of voltage plug :

0V   +24V DC ± 20%

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: [   ]   │
└──┘

[next]

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: LAN-A ∨

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: LAN-B ∨

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:

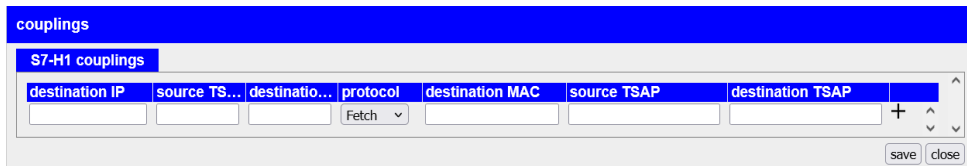|	
- IP-configuration:	DHCP (Parameters come from a DHCP master on the network)
	Manuell (IP address + subnet mask fields must contain valid values)
- DHCP server:	Device is on this interface itself an DHCP server, parameterization of the server in the menu configuration when first confiiguration is 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:

couplings							
S7-H1 couplings							
destination IP	source TS...	destinatio...	protocol	destination MAC	source TSAP	destination TSAP	
			Fetch ∨				+

save   close

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)
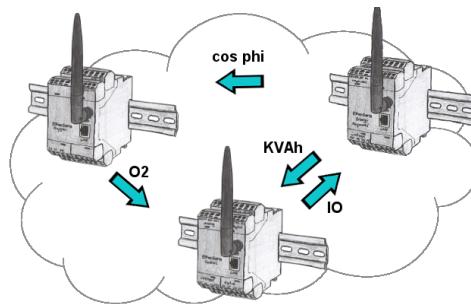
Menutree Website: **QR-Code Website:**

+ Products / docu / downloads
  + Hardware
    + Remote maintenance
      + S5
        + Internet
          + CONNECT devices
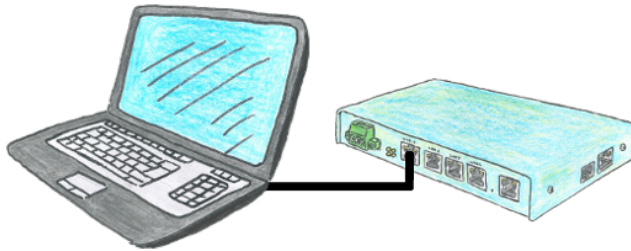   + Protocol converter S7-TCPIP <=> H1 (ISO)

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

EtherSens-cloud

By the EtherSens-cloud each EtherSens-device can exchange data, transfer data and forward to other devices. As if you use one device that records all necessary parameters centrally.

You would like to use a device that is small and handy and reasonably parameterizable yet? No problem, with the TELE-Router you fulfill all these requirements. The device is parameterizable via an integrated web server, connections self-explanatory.

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 occured message.
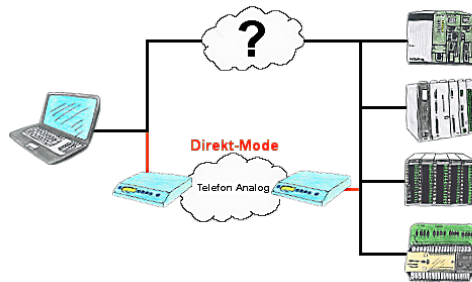
There is an unsupported control or data logger or converter integrated in your installation which protocol is not supported? No problem, the signs that the PC in the office sends will be transferred via telephone line by the Direct-mode , and on-site reproduced by the TP/TB. The way back is identical. So in that case there's also a communication to the electronic devices available.

Actual time for the PLC?
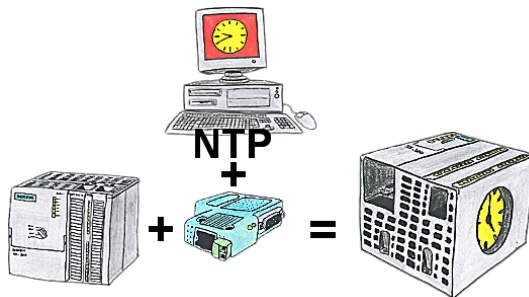
You need in your PLC a actual time? No problem, with the NTP-function the S7-LAN-module get from a NTP-(Time-)Server the actual time and transfers it direct into the configured PLC or for processing in a DB.
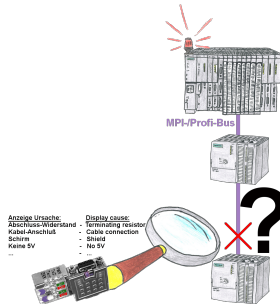
Bus problems and no reason apparent?

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.

Remote maintenance of centralized PLC-devices
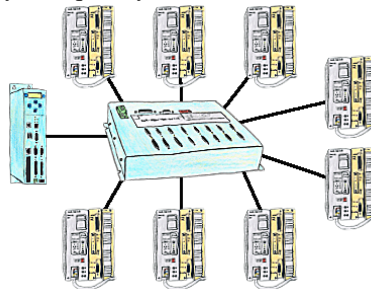
You have many PLC and you want to programm them central on one place? No problem, you have to connect them all to the KOR/MUX-Tele-Switch, connect it with the TP-II and after telephone connect you will be able with the PD-bus-selection of your Step5-software to go ONLINE. Of course the MOR/MUX-Tele-Switch is cascadable, so you can connect up to 30 PLCs to the devices.