Handling-Shortinstruction V1.0 for

CONNECT-HS-Router + CONNECT-Router
industrial WiFi-router

Connectors:



WiFi

Power connection 24V DC

optional: SIM-card-slot for LTE

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

optional: remote-maintenance S1
optional: LTE status display

Power-ON

LAN-B: another subnet or client

on: WiFi active
flashing: WiFi-data transfer

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Power-ON

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

Power connection 24V DC

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WiFI

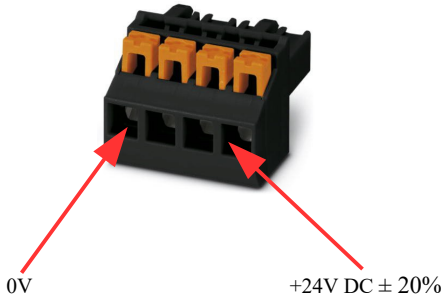
LAN-B: another subnet or client

optional: remote maintenance S1
optional: LTE status display

Power connection :

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

Assignment of voltage plug :



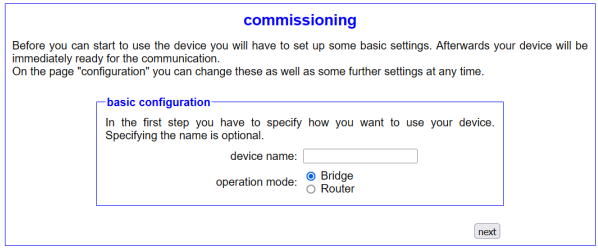
Initial start-up:

- CONNECT-Router 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:



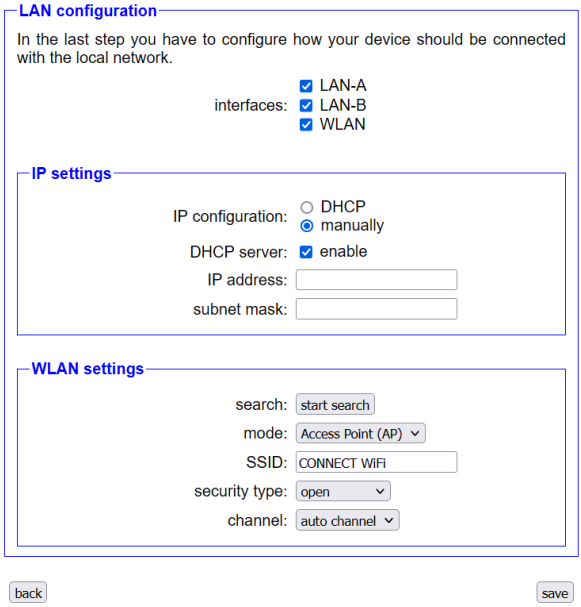
Basic configuration:

Assign a name to the device for identification

2 operating modes are possible with the CONNECT-Router :

- Bridge — Multiple interfaces connected to a common network
- Router — Separation between LAN and WAN (Internet) network

For operation mode Bridge:



LAN configuration:
Determine the interfaces that should be bridged

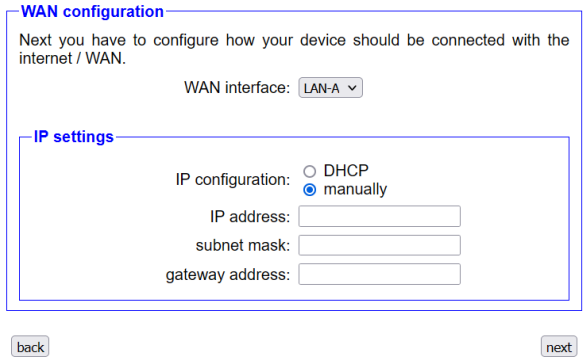
IP settings:

- IP configuration:	DHCP (parameters come from a DHCP master on the network) Manual (IP address + subnet mask fields must contain valid values)
- DHCP server:	Device is a DHCP server on the selected interfaces
- IP address:	IP address of the device
- subnet mask:	Subnet mask of the device

WLAN settings:

- Search:	Searches for accessible WiFI networks and lists them. By clicking on an entry, the selected WiFi network is used for connection	
- Modus:	Access-Point (AP) [the CONNECT-Router opens its own WiFi] Client [the CONNECT-Router connects to an existing WiFi network]	
- SSID:	Name of the connected or created network	
- Sicherheitsstufe:	Open	(no encryption)
	WEP	(either 5 or 13 ASCII/10 or 26 hexidecimal characters)
	WPA	(8-64 ASCII characters)
	WPA2	(8-64 ASCII characters)
	WPA/WPA2	8-64 ASCII characters (Independent automatic selection whether WPA or WPA2)
- Kanal:	Selection of the connection channel	

for operation mode Router:



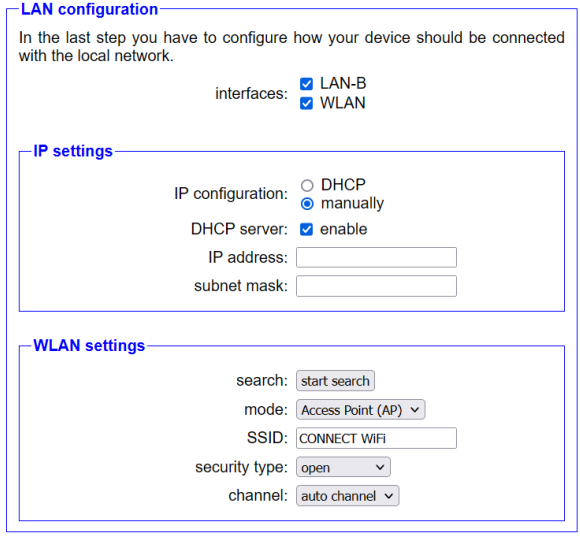
WAN interface: Set the WAN interface from LAN-A, LAN-B oder WLAN

IP settings:

- IP configuration: DHCP (Parameters come from a DHCP master on the network)
  Manuell (fields IP Address + Subnet Mask + Gateway Address 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

LAN configuration:

Determine the interfaces that should be connected to the local network



IP settings:

- IP configuration: DHCP (Parameters come from a DHCP master on the network)
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- DHCP-Server: Device is a DHCP server on the selected interfaces
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WLAN settings:

- Search: Searches for accessible WiFI networks and lists them; by clicking on an entry, the selected WiFi network is used for connection
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  - WEP (either 5 or 13 ASCII/10 or 26 hexidecimal characters)
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  - WPA/WPA2 8-64 ASCII characters (Independent automatic selection whether WPA or WPA2)
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By “Save” the selected configuration is adopted. The device is ready for use in the specified operating mode after a short waiting period (maximum 10s).

You need the following operating modes for the following situations :

Situation	Operating mode	WLAN mode	Particularities
With a laptop around the S5/7 PLC + CONNECT-Router	Bridge	Access-Point	PLC via S5/7 LAN on LAN-A port, additional LAN participants on LAN-B port
Bring S5/7-PLC or LAN-participants into the existing WiFi network	Bridge	Client	PLC via S5/7-LAN / LAN-participant on LAN-A port, additional LAN-participant on LAN-B port
Create a separate subnet for connected devices	Router	Access-Point	LAN-A port to the company network, LAN-B port + WLAN to the machine network (Don't forget routes in the company network)
Extend LAN route Attention: 2 devices are required	Bridge	1. device Access-Point 2. device Client	One device as AP and the second as client

After selecting the configuration, save it in the device and after a short initialization time (max. 10s) the devices are ready for operation.

You can find out more about the operating modes in the device manual on the CONNECT-Router product page.

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.

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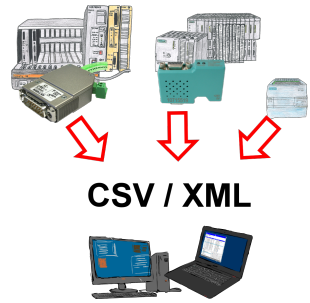
QR-Code Website:





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

PLC-data in Excel-readable file

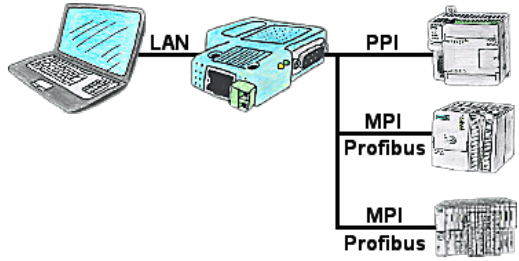


Save your PLC content, production-data in a file on your PC. This file, a CSV- or XML-file (depending on the license), can then be used e.g. further processed with Excel.

A file that includes all configured variables in an infinitely-long list with a suitable time-stamp, either controlled by the PC or via a PLC-trigger (depending on the license). No matter which Siemens-control, as soon as a network-connection is available, nothing stands in the way of recording.

With S7-LAN for PPI, MPI or Profibus or S5-LAN++ for S5-controllers, PLCs without a network-connection can also be addressed and recorded. And depending on the license are several parallel connections possible.

Programming of S7-PLC-devices via LAN



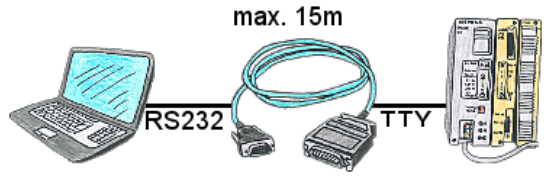
S7-PLC with PPI, MPI, Profibus connection, but data should be read/written via network?

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.

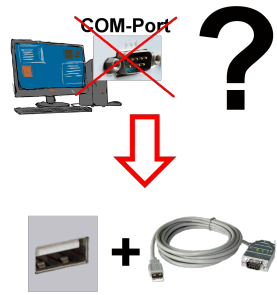
Serial communication with S5-PLC (CPU-assemblies 15pin)



S5-PLC communication from PC with serial COM-port and your programming package?

PG-Com-cable up to a length of 15m are the appropriate interface-product. Without special accessories, without external supply, plugged on PC and S5 PLC and work immediately. Connection with original Siemens-sliding-locking to S5-PLC, with screw-bolts on the PC. Function with S5-90U to S5-155U. Connection PLC-side 15pin, PC 9pin (adaptation to 25pin at any time possible).

Virtual COM port for PCs



Receive new PC and detected missing serial COM port, but it is mandatory?

With a USB-serial-converter, you create a virtual COM-port on your PC, which can also be recognized and used by most applications/apps. The only difference to a "real" physical COM-port is that there is no interrupt-number and address. Under Windows usually no problem. Applications that are still MSDOS-based such as Step5 of Siemens are not functioning with virtual COM-ports. This problem is solved with the available "S5-Patch". USB-serial-converter-cable also works with STEP5 from Siemens.

Not every USB-serial-converter supports all transfer parameters, most "cheap" only the format "8-N-1". USB-serial-converter-cable supports all possible transmission settings. To the cable you get the USB driver for your Windows-PC.

Two in the metal housing integrated LEDs shows the signal-flow with RXD- and TXD-display.