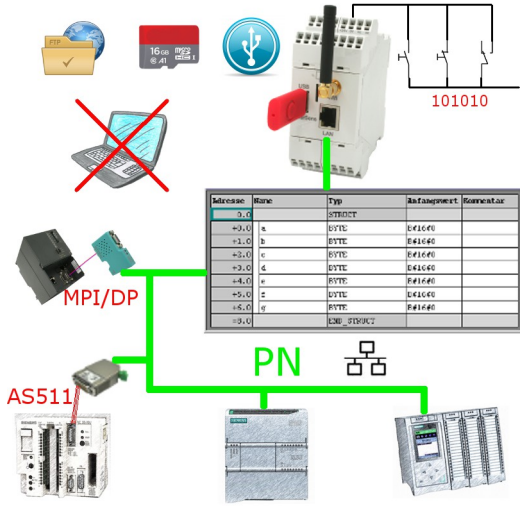
Handling short instructions for

Data backup S5/S7-PLC on USB-Stick/SD card



Connection of the device

The EtherSens is supplied with voltage (24V DC +/-20%) via the clamping connections.
Please note that a USB-Stick or SD card is required for a backup of a data block.

Using a digital IO trigger

When you want to use a digital IO as a trigger for backing up or restoring a data block you will have to connect the appropriate signal to the device.

Important: By default only the digital IOs with odd numbers (1, 3, 5, 7, 9, 11) are configured as inputs. The trigger signal must be connected to inputs only!

Access to the device

The access to device can be done via WLAN (SSID “EtherSens WiFi” - IP address 192.168.1.58) or via LAN (IP address 192.168.1.59).
Please open the web interface of the device and log in on the device via the menu item “log in” (without a password), so you can start the configuration.

Important: Please make sure that before you start with the further configuration the network and WLAN parameters fits to your network and PLC. You can change this parameters on the menu item “system” → “network and WiFi”.

>> Further information about the respective configurations parameters can be found in the manual of the EtherSens within the chapter “Web server”.

Enabling the USB connector

If you want to store the backup of the data block on a USB-Stick you will first have to enable the USB connector. For this please navigate to the page “System” → “USB” and select the operation mode “use LTE module and USB storage stick on EtherSens” and save this setting.

Create PLC connection

On the EtherSens you will first have to create the connection to the PLC. For this please navigate to the page "process" → "devices" and fill in the last line of the table as follows:

name: *freely selectable*
interface: RFC1006
network interface: interface where the controller is connected to
IP address: *see table*
rack: *default value see table*
slot: *default value see table*

controller type and access type	needed hardware	IP address	rack	slot
S7-200 via PPI	S7-LAN	IP from S7-LAN	0	2
S7-300/400 via MPI/DP	S7-LAN	IP from S7-LAN	0	2
S7-300/400 via Ethernet-CP	-	IP from PLC	0	2
S7-1200/1500 via Ethernet	-	IP from PLC	0	1
LOGO! via Ethernet	-	IP from PLC	0	1
S5 via PG port	S5-LAN++	IP from S5-LAN++	0	2

Next you have to click on the + symbol to add the entry and finally on the "save" button.

Create PLC trigger

If you want to control the backup action of a data block via the PLC you will have to add a trigger value on the device. For this please navigate to the page "process" → "process values" and fill in the last line of the table:

sampling rate: 1 second *(higher or lower as needed)*
name: *freely selectable*
chart color: -
change checking: not set
record: not set
view web: set *(optional)*

Afterwards you have to click on the + symbol to add the entry. Now a dialog should be opened where you can select the previously created PLC connection as a device. As soon as you have confirmed this dialog another dialog with some further parameters will be shown:

register: trigger bit from PLC *(z. B. M120.4)*
format: bool
type: read
power fail value: not set

Finally you have to click on the "Save" button.
If you also want to control the restore action via the PLC you will have to create a second trigger value. The steps are the same as described above.

Create Backup/Restore block

In the next step you will have to define the data block which should be backed up and restored from the device. Please navigate to the page “process” → “DB backup/restore” and fill in the last line of the table:

en.:	set
name:	*freely selectable*
PLC:	previously created PLC connection
number:	number of the data block
offset:	byte offset of the data which should be backed up from the data block
length:	length of the data which should be backed up from the data block
storage place:	storage place for the backup of the data block

Next you have to click on the + symbol to add the entry and finally on the “save” button.

Create backup/restore action

In the last step you will have to configure the link between the trigger and the backup/restore. Please navigate to the page “process” → “limit values”. For the action to save the data block you will have to fill in the last line of the table as follows:

en:	set
value:	previously created PLC trigger or digital input
limit type:	==
limit value:	x1
action type:	counter
action counter:	0
action:	backup DB
action value:	previously created backup/restore entry
ack:	-

Next you have to click on the + symbol to add the entry and finally on the “save” button.
With the same procedure as described above you can now also create the action for restoring a data block.

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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