

# I/O adapter 520ADD01

## Connections and settings

Application, characteristics and technical data have to be taken from the hardware data sheet:

520ADD01 data sheet 1KGT 150 868

## Operation

The I/O adapter 520ADD01 is used to connect RTU520 I/O modules to a RTU520 or RTU540 communication module.

Following RTU520 I/O modules could be connected to X1:

- 520AID01
- 520BID01
- 520BOD01
- 520AOD01
- 520PTD01


## Processing Functions

The I/O adapter is connected to the WRB I/O bus (wired OR bus) and generates the addresses for the connected I/O modules within the I/O assembly automatically.

## Settings

The jumper S1 is used to change the start address of the first I/O module connected to the 520ADD01. In position 2-3 an offset is calculated to the start address. So it is possible to add up to 8 I/O modules to the previous I/O assembly (see Fig. 6 and Fig. 7). In RTUtil500 configuration the parameter "8/8 addressing mode" has to be selected.

If max. 4 I/O modules are connected to the previous I/O assembly the jumper S1 is in position 1-2 (see Fig. 8). Thus no offset is added. This configuration is only possible with RTU540. In the RTUtil500 configuration the parameter "4/4/4/4 addressing mode" has to be selected at the I/O assembly.

 Parameter name	Default	Parameter location
Addressing mode	8/8	I/O assembly
<ul style="list-style-type: none"> <li>– 8/8: upto 8 I/O modules per I/O assembly, maximum 2 I/O assemblies per virtual I/O rack</li> <li>– 4/4/4/4: upto 4 I/O modules per I/O assembly, maximum 4 I/O assemblies per virtual I/O rack (not used with RTU520)</li> </ul>		

## Signaling

The module has two green LEDs for signaling the activity on the I/O bus.

## Connections

The RTU520 I/O modules are connected to the WRB I/O bus via connector X1. The previous adapter or a communication module is connected at X2 via the WRB I/O bus. The WRB I/O bus to the next I/O adapter is connected to X3 (see Fig. 2).

The usage of the adapter 520ADD01 within an RTU520 DIN rail configuration is shown in Fig. 6.

The usage of the adapter 520ADD01 within an RTU540 DIN rail configuration is shown in Fig. 7 and Fig. 8.

### ADVICE

To prevent damage on the connected modules de-energize the system before plugging or unplugging the I/O bus connectors.

### ADVICE

To prevent unintended disconnection of the I/O bus connectors end stops (e. g. BAM3 1SNK900001R0000) shall be used at both ends of the I/O assembly.

### ADVICE

The length of the WRB connection cable between two I/O adapters is limited to 30 cm.



Figure 1: 520ADD01 front plate

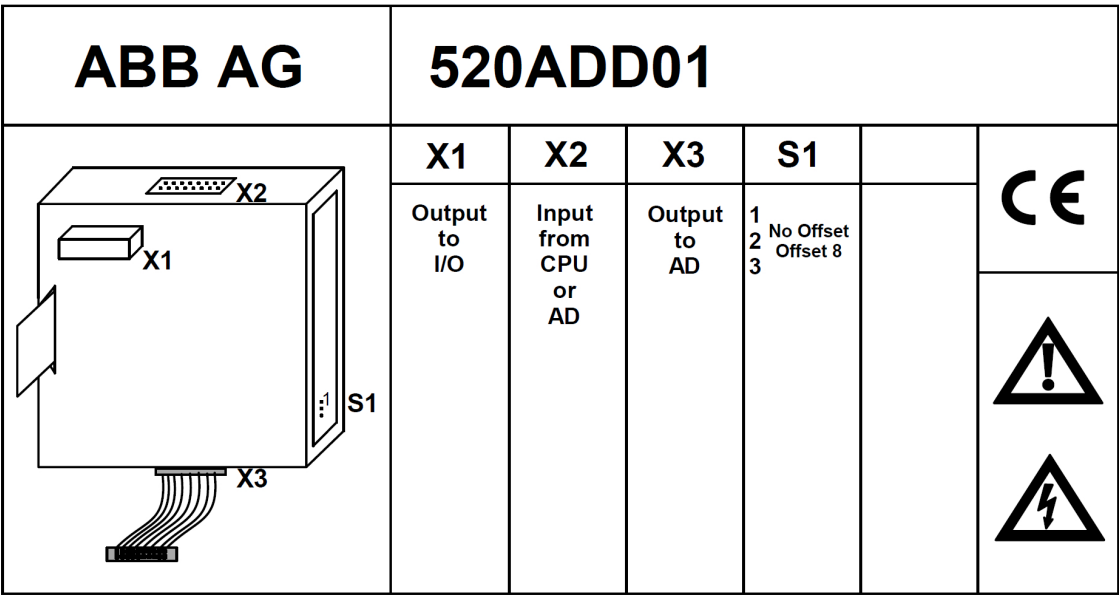


Figure 2: 520ADD01 label

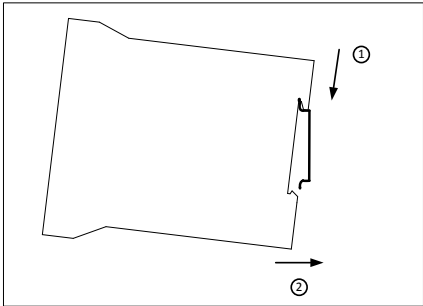


Figure 3: RTU520 DIN rail mounting - step 1

- 1 Insert upper edge into DIN rail and push downwards
- 2 Push lower edge towards DIN rail and snap in the module

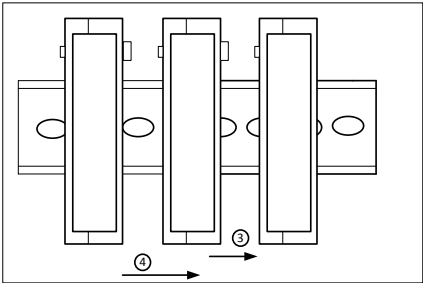


Figure 4: RTU520 DIN rail mounting - step 2

- 3 + 4:  
Shift one module connector into the other starting from right to left

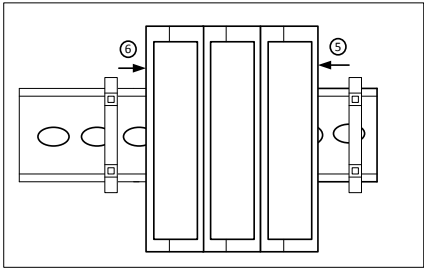


Figure 5: RTU520 DIN rail mounting - step 3

- 5 + 6:  
Mount end stops at the left and right side

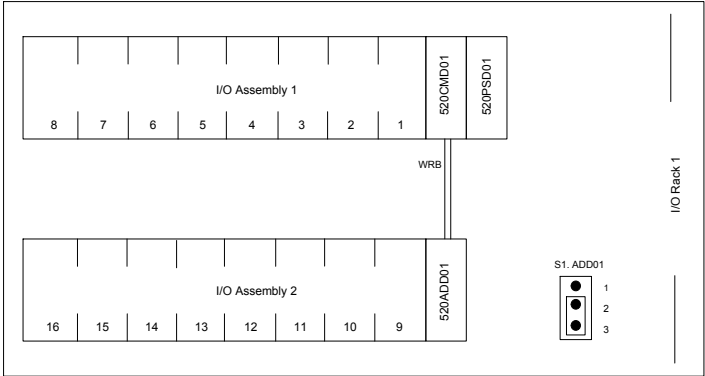


Figure 6: 520ADD01 used in RTU520

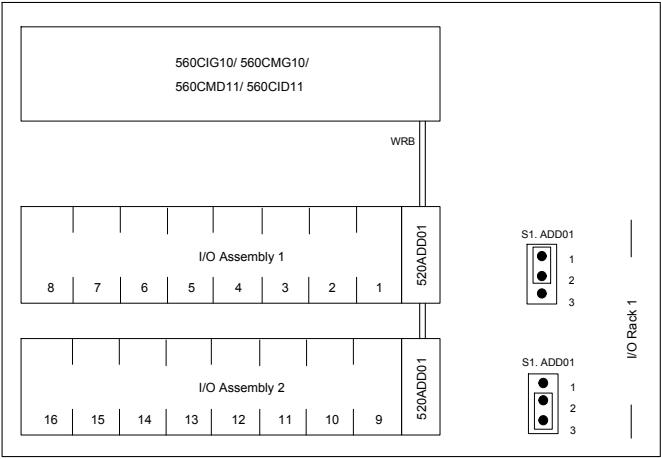


Figure 7: 520ADD01 used in RTU540 (560CMG10/ 560CIG10/ 560CMD11/ 560CID11)

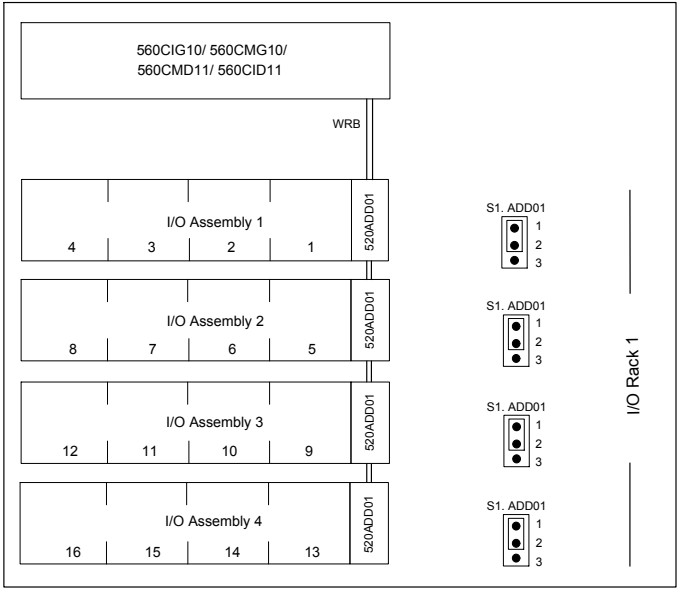


Figure 8: 520ADD01 used in RTU540 (560CMG10/ 560CMD11/ 560CIG10/ 560CID11)



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