

SIEMENS

Interface Module Adapter

SIMATIC S7-300, 400 and 1500



Innovation on economical base

When we are talking to our customers there always seems to be a common problem: many plants are still operating with automation systems of the previous generation and although the performance is still sufficient, it will become increasingly difficult to get spare parts and to have an efficient service in the future.

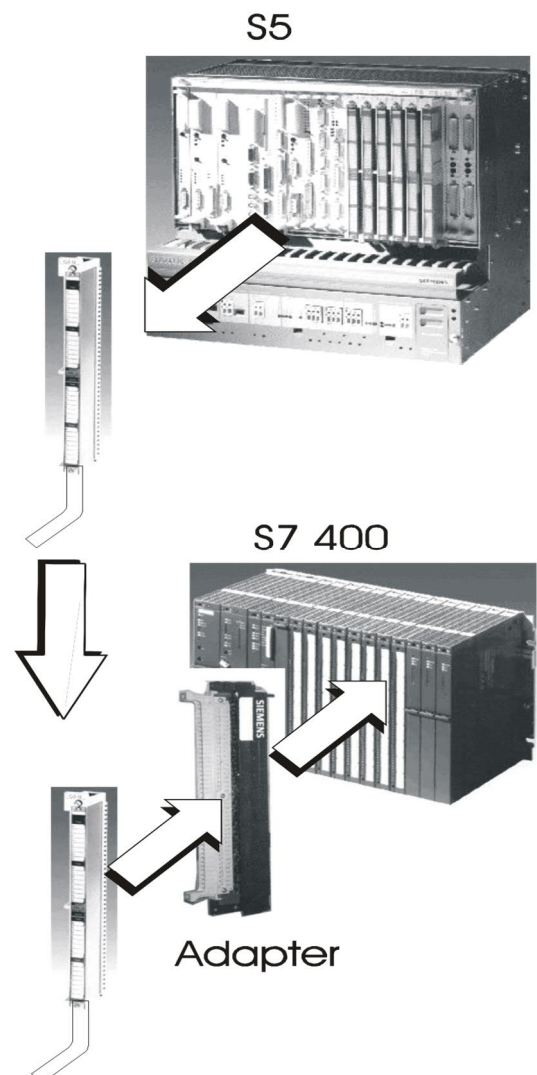
To be up to date, it will be necessary to replace the existing system with a modern unit. But quite often this decision is delayed by the fear of disruption of the running production and the inconvenience of long-term trouble shooting in case of incorrect wiring.

Retrofit at ease

The Interface Module Adapter for SIMATIC S7-300 or SIMATIC S7-400 links the old with the new, field proven production systems with the latest achievements in automation systems.

You simply take off the front plug of the I/O units, replace the automation system by a S7, plug in the IMA and fix the front plug back on to the adapter. All is done easily by plug-ins. And after actualisation of the STEP 7 software you can continue with you production.

Example: S7-400



Advantages are obvious

- There are low engineering costs in the hardware, only a replacement of the controller is necessary. All wiring remains at its place
- Schematic diagrams don't have to be revised; signal lists are automatically updated by the software.
- The shutdown time of the production is reduced.

This procedure not only saves a lot of time and money, but also reduces errors.

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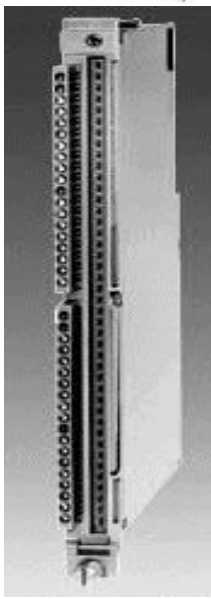
Types of controllers

The use of IMA is provided for the following controllers:



- S5 115 U
- S5 130 W/K
- S5 135 U
- S5 150 U
- S5 155 S/U
- S5 150 K

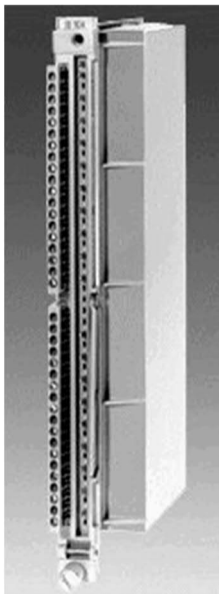
Automation device is the S7-300, S7-400 or S7-1500.



Digital Input:

The digital inputs are classified by the following technical features:

- Number of channels: 8/16/32
- Potential separation: internal / external
- Grouping of channels: 1/4/8/16/32
- Signal voltage: TTL/24V=60V=115V~/230V~
- Switching frequency
- Type of connector: Screw/Crimp 42/20-poles
- Space requirement: single / double space
- Interrupt signal
- Enable signal
- Unit encoding
- Address encoding



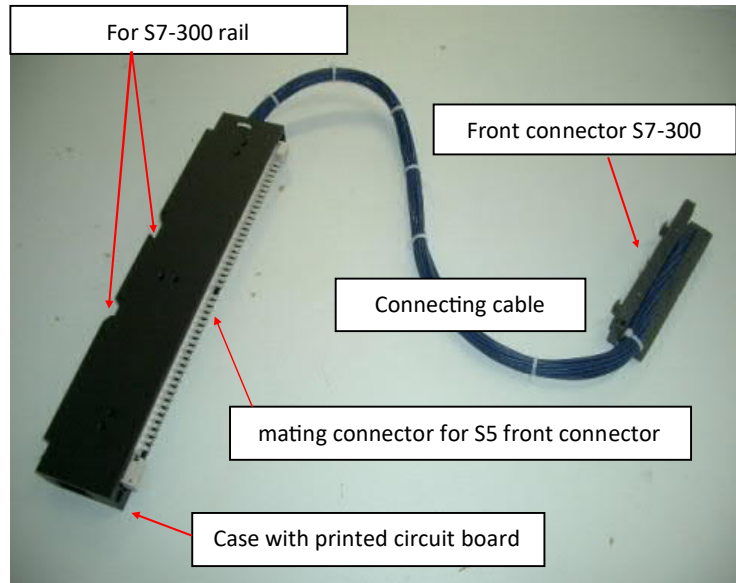
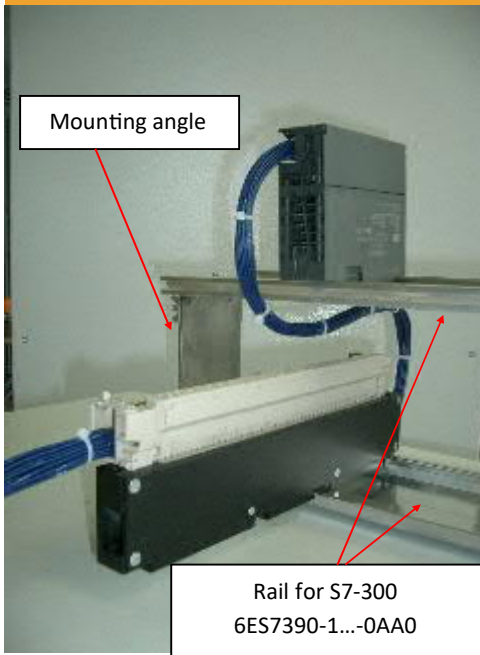
Digital Output:

The digital outputs are classified by the following technical features:

- Number of channels: 8/16/32
- Potential separation: internal / external
- Grouping of channels: 1/4/8/16/32
- Signal voltage: TTL/24V=60V=115V~/230V~
- Switching frequency
- Type of connector: Screw/Crimp 42/20-poles
- Space requirement: single / double space
- Short circuit protection: none / fuse / electronic
- Switching Capacity: 0,1/0,5/2A
- Voltage limitation
- Unit encoding
- Address encoding

All these specifications must be considered before replacement.

Structure S5 to S7-300



Technical data:

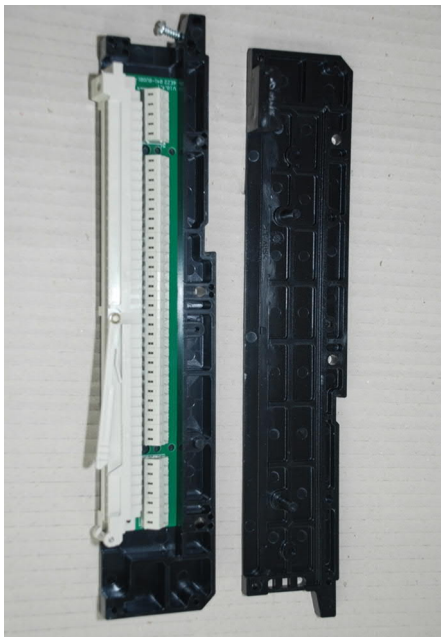
Case with printed circuit board : H x B x T = 330 x 27 x 70 mm

Connecting cable: l= 500mm

Mounting angle Set: H = 150 to 280 mm, B = 80 mm

S7-rail and S7-300 are not included.

Adapter open ended type / terminal adapter



Terminal adapter

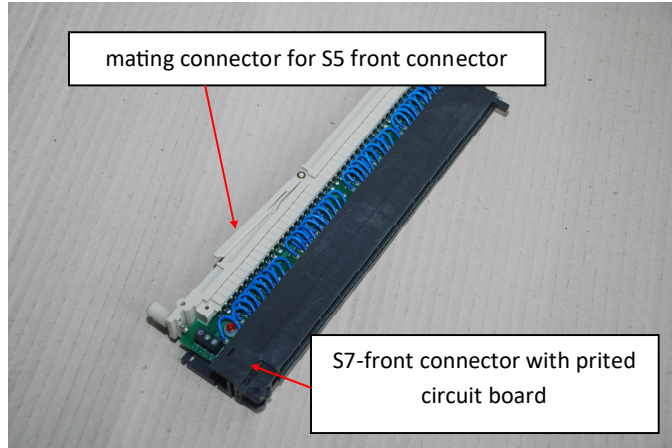
There are no adapters available for each possible combination.

By using the adapter with open cable end (cable length is 0,5m) or with terminals you can make patches and wiring according to your own requirements.



Open ended

Structure S5 to S7-400

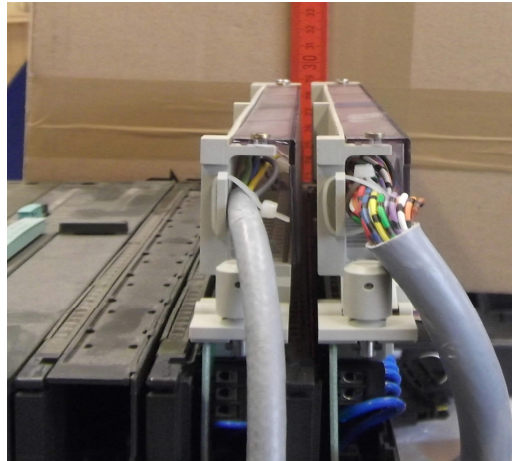
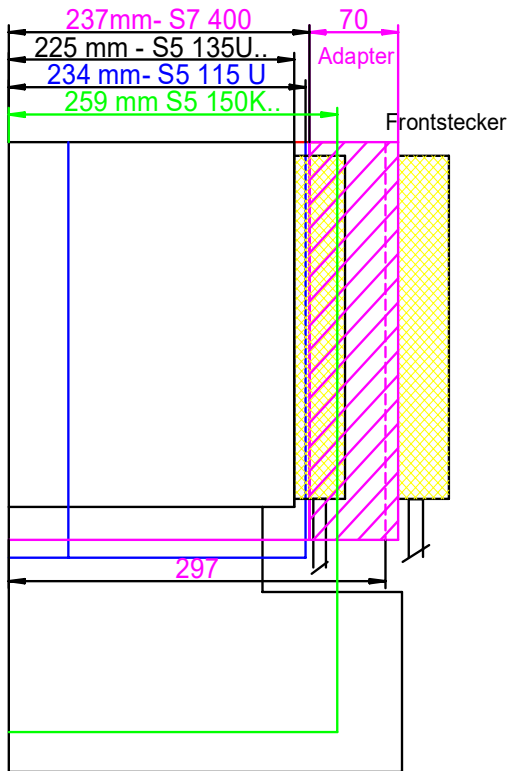


Dimensions adapter

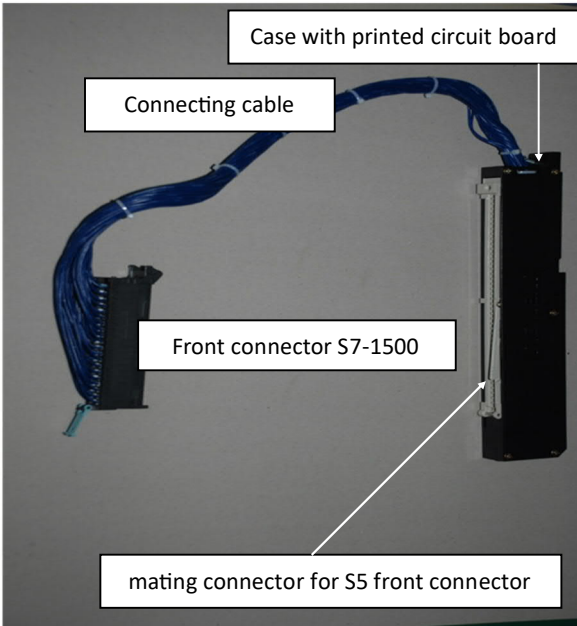
H x B x T = 290 x 25 x 70 mm

Mounting depth:

- S7 400: 237mm+70mm Adapter
- S5 150U 225mm
- S5 150K 259mm
- S5 115U 234mm



Structure S5 to S7-1500



Technical data:

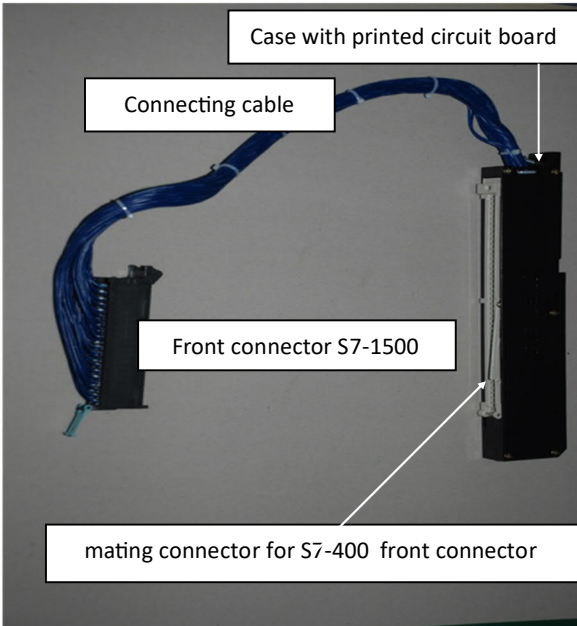
Case with printed circuit board : H x B x T = 330 x 27 x 70 mm

Connecting cable: l= 500mm

Mounting angle Set: H = 150 to 280 mm, B = 80 mm

S7-rails and S7-1500 are not included.

Structure S7-400 to S7-1500



Technical data:

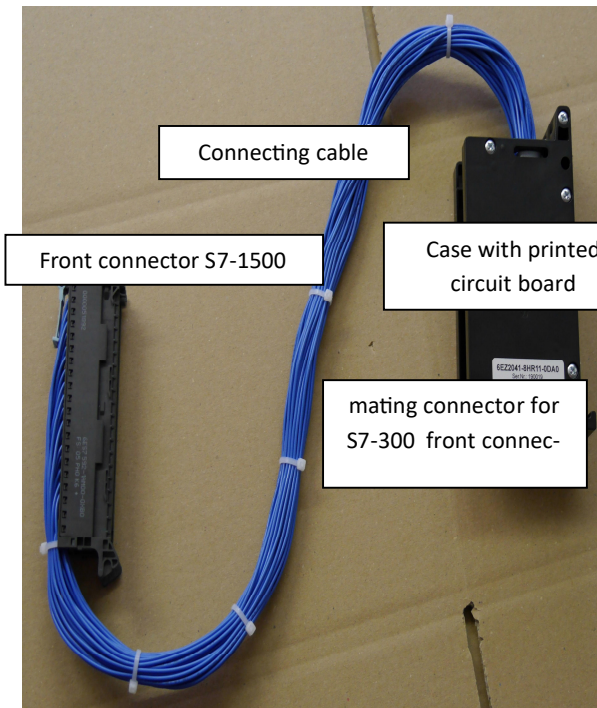
Case with printed circuit board : H x B x T = 330 x 27 x 70 mm

Connecting cable: l= 500mm

Mounting angle Set: H = 150 to 280 mm, B = 80 mm

S7-rails and S7-1500 are not included.

Structure S7-300 to S7-1500



Technical data:

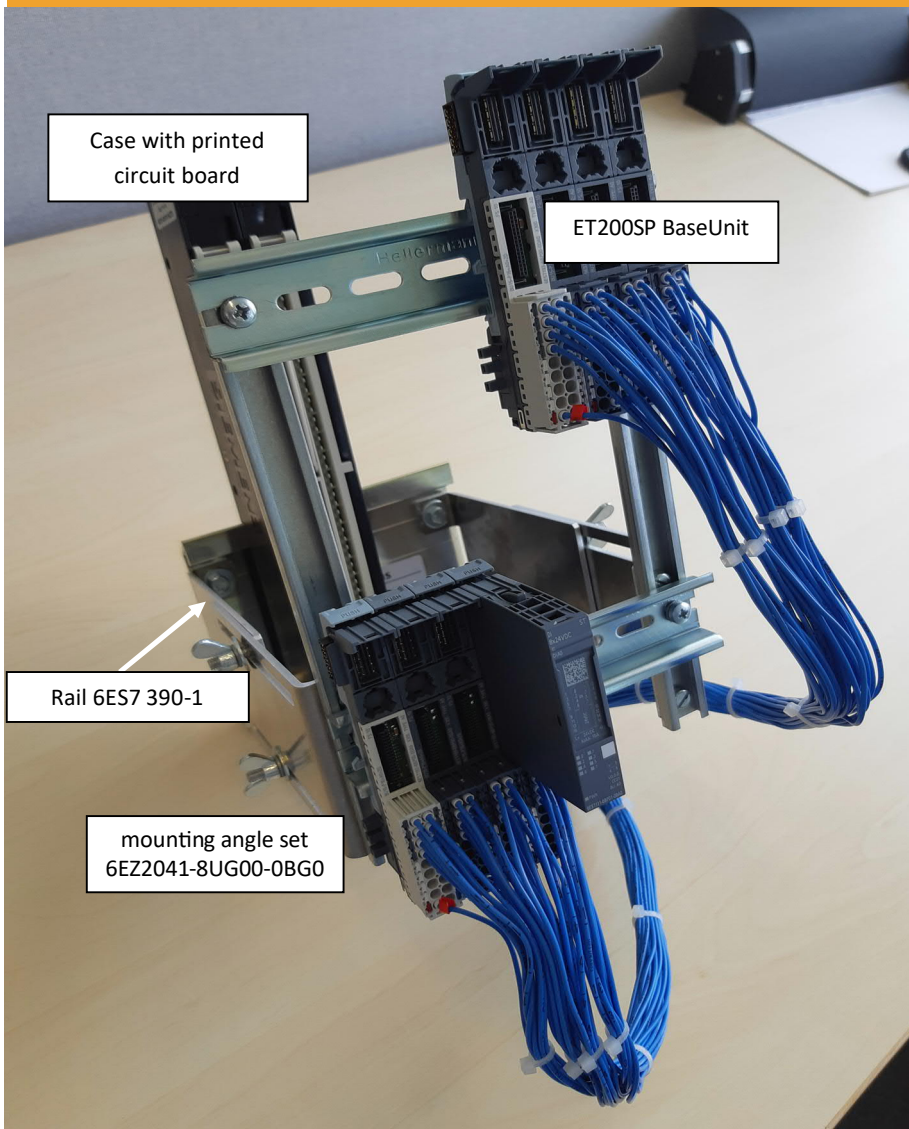
Case with printed circuit board : H x B x T =

Connecting cable: l= 500mm

Mounting angle Set: H = 150 to 280 mm, B = 80 mm

S7-rails and S7-1500 are not included.

Structure S5-135/155U to ET200SP



The adapter consists of:

- Case with printed circuit board and S5-mating plug
- Connecting cable: l=600mm
- ET200SP BaseUnits

Technical data:

Case with printed circuit board : H x B x T = 330 x 27 x 70 mm

Mounting angle Set: H = 150 to 280 mm, B = 80 mm

Profile rails and ET200SP-modules are not included



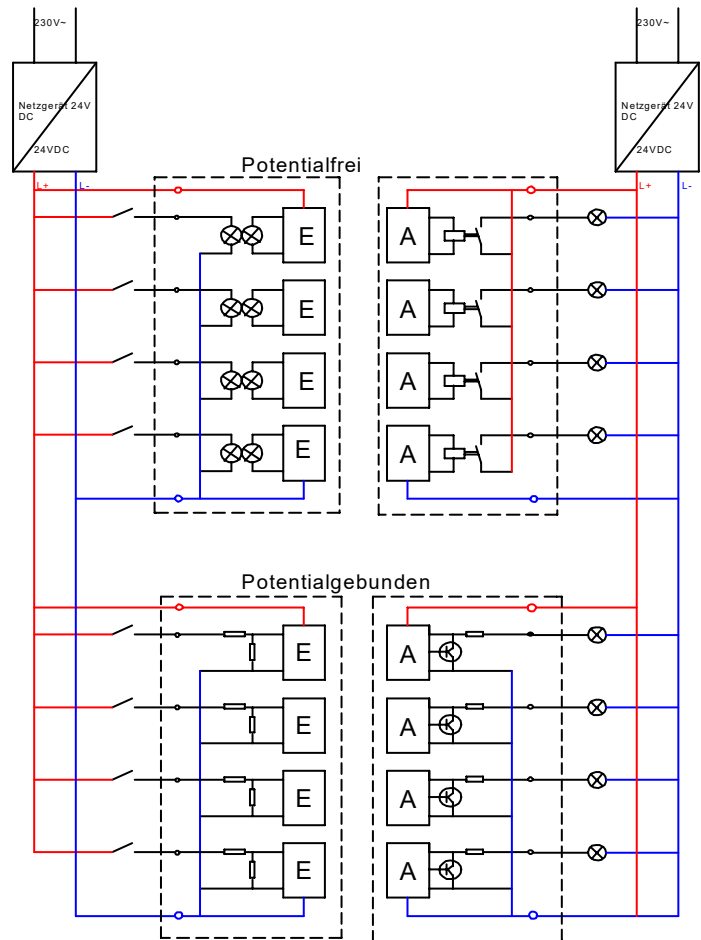
Powersupply

Separation of potentials

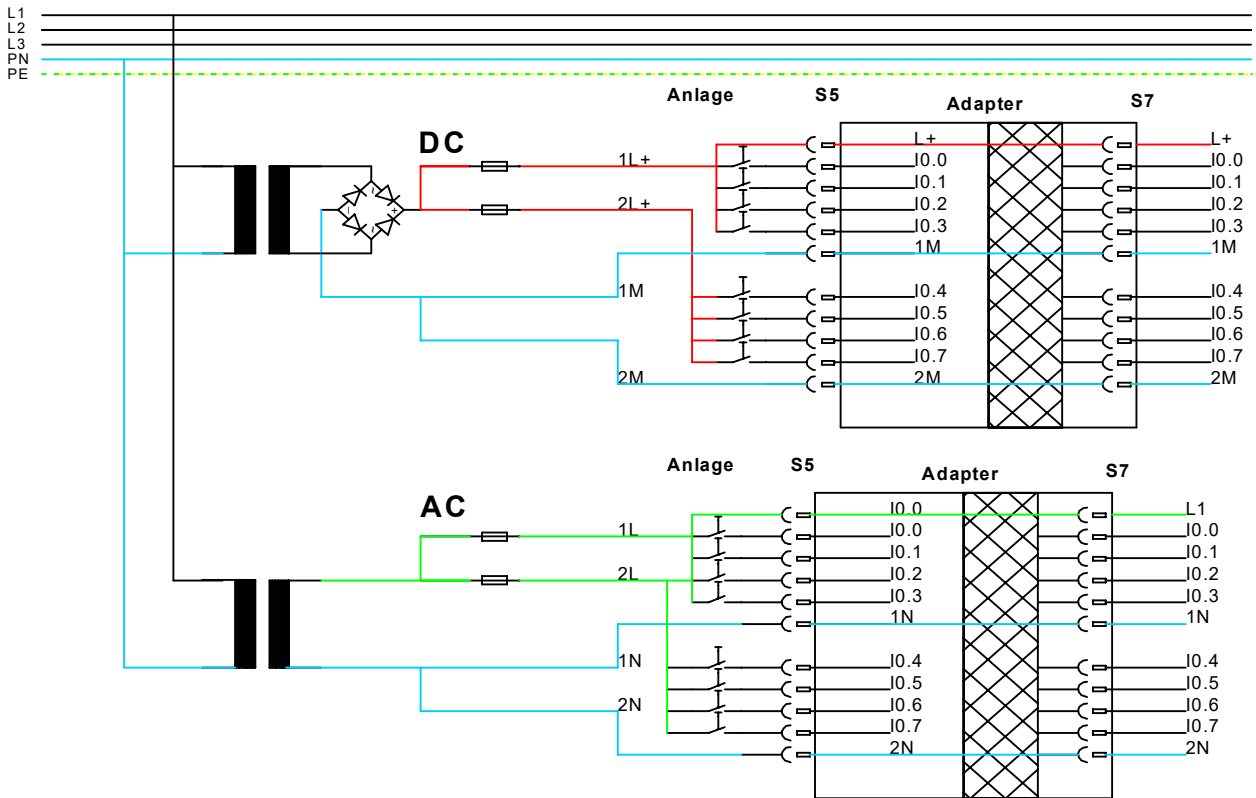
There are floating or non-floating IOs. In both cases the power for the module has to be supplied by the user.

Another criterion is the short circuit protection of the signals. The outputs have to be tested for the rating of the pins and the printed conductor.

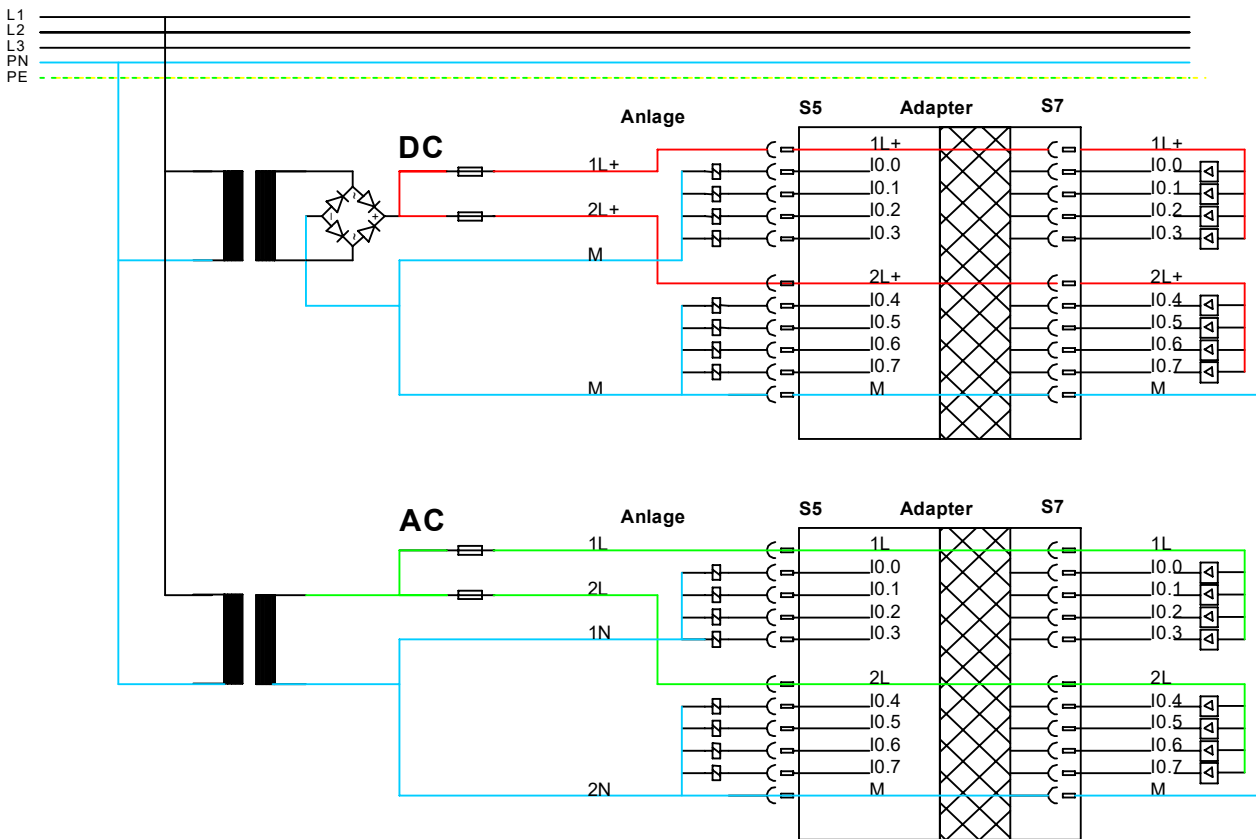
Therefore the power supply of signals is rooted in groups of 1/2/4/8/16.



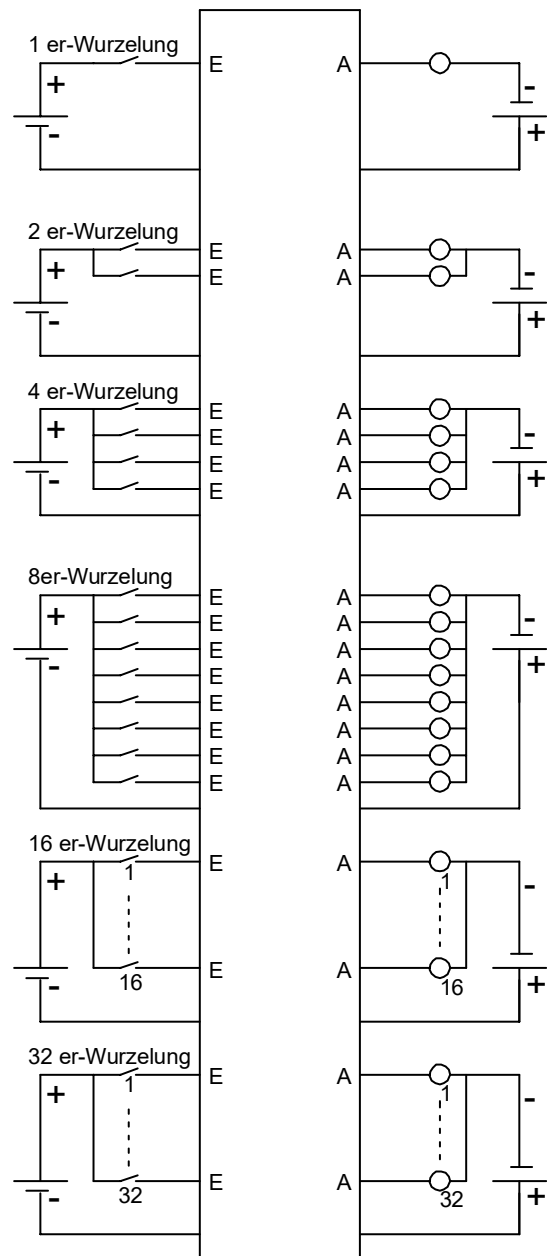
Powersupply of inputs



Powersupply of inputs



Rooting



Conditions of Sale

The Interface Module Adapters 6EZ2 041-.. are intended to be used between the front-plugs on the I-O-modules of an obsolete controller and a modern replacement controller SIMATIC S7. Hereby all installation remains at its place; only the controller and the respective software have to be substituted.

For the substitution of the up-to-now-used units the best matching units of S7- components were selected. However there remains a certain deviation in the specific performance. It is up to the user to check the limitations of his own installation, in particular the:

- Power supply
- Signal voltage
- Line-frequency
- Limits of I-O-definitions
- Rooting
- Number of channels
- Loading capacity
- Rating of connectors
- Signal switching frequency

If the S7-units do require an external application of +/- potentials and the old installation did not supply them, these potentials have to be brought to the terminal block on the adapter or to the S5 front connector .

If the power-rooting of the old installation is not corresponding to the new requirements, the user has to install the additional jumpers.

If the old installation was fed from different power sources, an equipotential bonding contactor has to be applied.

The enable –signal of the S5 units is not present in the S7-system in an identical way and may be considered on handling.

The parametering and selection of modes in the I/O units has to be done according to the requirements of the S7.

The vendor is not liable for damages that are caused by improper use of the Interface Module Adapters.

It is recommended to perform a field-test before the general switch-over of the new installation.

S5_115U -> S7_300

| S5 module | I/O | Voltage | Current | Adapter | S7 module |
|----------------|-----------|------------------------------|---------|--------------------|---------------------|
| 6ES5 420-7LA11 | 32 DI | 24 VDC | | 6EZ2041-8UG02-0DE0 | 6ES7 321-1BL00-0AA0 |
| 6ES5 430-7LA12 | 32 DI | 24 VDC | | 6EZ2041-8UG02-0DE0 | 6ES7 321-1BL00-0AA0 |
| 6ES5 431-7LA11 | 16 DI | 24/48 VUC | | 6EZ2041-8UG02-0DE1 | 6ES7 321-1CH00-0AA0 |
| 6ES5 432-7LA11 | 16 DI | 48-60 VUC | | 6EZ2041-8UG02-0DE1 | 6ES7 321-1CH00-0AA0 |
| 6ES5 434-7LA12 | 8 DI | 24 VDC | | 6EZ2041-8UG02-0DE2 | 6ES7 321-1CH00-0AA0 |
| 6ES5 435-7LA11 | 16 DI | 115 VUC | | 6EZ2041-8UG02-0DE3 | 6ES7 321-1FH00-0AA0 |
| 6ES5 435-7LB11 | 16 DI | 115 VUC | | 6EZ2041-8UG02-0DE4 | 6ES7 321-1FF01-0AA0 |
| 6ES5 435-7LC11 | 8 DI | 115 VUC | | 6EZ2041-8UG02-0DE5 | 6ES7 321-1FF10-0AA0 |
| 6ES5 436-7LA11 | 16 DI | 230 VUC | | 6EZ2041-8UG02-0DE3 | 6ES7 321-1FH00-0AA0 |
| 6ES5 436-7LB11 | 16 DI | 230 VUC | | 6EZ2041-8UG02-0DE4 | 6ES7 321-1FF01-0AA0 |
| 6ES5 436-7LC11 | 8 DI | 230 VUC | | 6EZ2041-8UG02-0DE5 | 6ES7 321-1FF10-0AA0 |
| 6ES5 441-7LA13 | 32 DO | 24 VDC | 0,5 A | 6EZ2041-8UG02-0DA0 | 6ES7 322-1BL00-0AA0 |
| 6ES5 451-7LA12 | 32 DO | 24 VDC | 0,5 A | 6EZ2041-8UG02-0DA0 | 6ES7 322-1BL00-0AA0 |
| 6ES5 451-7LA21 | 32 DO | 24 VDC | 0,5 A | 6EZ2041-8UG02-0DA0 | 6ES7 322-1BL00-0AA0 |
| 6ES5 453-7LA11 | 16 DO | 24-60 VDC | 0,5 A | 6EZ2041-8UG02-0DA1 | 6ES7 322-5GH00-0AB0 |
| 6ES5 454-7LA12 | 16 DO | 24 VDC | 2A | 6EZ2041-8UG02-0DA2 | 6ES7 322-1BF01-0AA0 |
| 6ES5 456-7LA11 | 16 DO | 115/230 VAC | 1A | 6EZ2041-8UG02-0DA5 | 6ES7 322-1FF01-0AA0 |
| 6ES5 456-7LB11 | 8 DO | 115/230 VAC | 2A | 6EZ2041-8UG02-0DA6 | 6ES7 322-5FF00-0AB0 |
| 6ES5 456-7LB11 | 8 DO | 115/230 VAC | | 6EZ2041-8UG02-1DA6 | 6ES7 322-1HF10-0AA0 |
| 6ES5 458-7LA12 | 16 DO | Rel | 0,5 A | 6EZ2041-8UG02-0DA7 | 6ES7 322-5HF00-0AB0 |
| 6ES5 458-7LB11 | 8 DO | Rel | | 6EZ2041-8UG02-0DA8 | 6ES7 322-5HF00-0AB0 |
| 6ES5 458-7LC11 | 16 DO | Rel | 5 A | 6EZ2041-8UG02-0DA9 | 6ES7 322-5HF00-0AB0 |
| 6ES5 482-7LA11 | 16DE/16DA | 24 VDC | | 6EZ2041-8UG02-0EA0 | 6ES7 323-1BL00-0AA0 |
| 6ES5 460-7LA13 | 8 AE | current and voltage metering | | 6EZ2041-8UG02-0AE1 | 6ES7 331-7KF02-0AB0 |
| 6ES5 460-7LA13 | 8 AE | only current metering | | 6EZ2041-8UG02-1AE1 | 6ES7 331-7NF00-0AB0 |
| 6ES5 460-7LA13 | 8 AE | only voltage metering | | 6EZ2041-8UG02-2AE1 | 6ES7 331-7NF00-0AB0 |
| 6ES5 465-7LA13 | 16 AE | current and voltage metering | | 6EZ2041-8UG02-0AE2 | 6ES7 331-7KF02-0AB0 |
| 6ES5 465-7LA13 | 8 AE | only PT100 | | 6EZ2041-8UG02-1AE2 | 6ES7 331-7PF01-0AB0 |
| 6ES5 465-7LA13 | 8 AE | only PT100 | | 6EZ2041-8UG02-2AE2 | 6ES7 331-1KF01-0AB0 |
| 6ES5 470-7LA13 | 8 AA | current and voltage output | | 6EZ2041-8UG02-0AA0 | 6ES7 332-5HD01-0AB0 |
| 6ES5 470-7LA13 | 8 AA | current and voltage output | | 6EZ2041-8UG02-1AA0 | 6ES7 332-5HF00-0AB0 |
| 6ES5 470-7LB13 | 8 AA | only voltage output | | 6EZ2041-8UG02-0AA0 | 6ES7 332-5HD01-0AB0 |
| 6ES5 470-7LB13 | 8 AA | only voltage output | | 6EZ2041-8UG02-1AA0 | 6ES7 332-5HF00-0AB0 |
| 6ES5 470-7LC13 | 8 AA | current and voltage output | | 6EZ2041-8UG02-0AA0 | 6ES7 332-5HD01-0AB0 |

S5_115U -> S7_300

| S5 module | I/O | Voltage | Current | Adapter | S7 module |
|--------------------|------|----------------------------|---------|--------------------|---------------------------|
| 6ES5 470-7LC13 | 8 AA | current and voltage output | | 6EZ2041-8UG02-1AA0 | 6ES7 332-5HF00-0AB0 |
| | | | | 6EZ2041-8UG02-0DU0 | open ended |
| | | | | 6EZ2041-8UG02-0DU1 | terminal adapter |
| Accessories | | | | 6EZ2041-8UG00-0BG0 | Mounting angle (2 pieces) |

- max. allowable 48V
- switched on 2 S7-modules
- only 16DI/DO
- only AC and switched on 2 S7-modules

- M must be wired
- N must be wired and switched on 2 S7-modules
- only AC in-phase

S5_115U -> S7_400

| S5 module | I/O | Voltage | Current | Adapter | S7 module |
|----------------|-------|------------------------------|---------|---------------------|---------------------|
| 6ES5 420-7LA11 | 32 DI | 24 VDC | | 6EZ2041-8UG05-0EU36 | 6ES7 421-1BL01-0AA0 |
| 6ES5 430-7LA12 | 32 DI | 24 VDC | | 6EZ2041-8UG05-0EU36 | 6ES7 421-1BL01-0AA0 |
| 6ES5 431-7LA11 | 16 DI | 24/48 VUC | | 6EZ2041-8UG65-0EU22 | 6ES7 421-7DH00-0AB0 |
| 6ES5 432-7LA11 | 16 DI | 48-60 VUC | | 6EZ2041-8UG65-0EU22 | 6ES7 421-7DH00-0AB0 |
| 6ES5 434-7LA12 | 8 DI | 24 VDC | | 6EZ2041-8UG05-0EU10 | 6ES7 421-7DH00-0AB0 |
| 6ES5 435-7LA11 | 16 DI | 115 VUC | | 6EZ2041-8UG55-0EU22 | 6ES7 421-1FH20-0AA0 |
| 6ES5 435-7LB11 | 16 DI | 115 VUC | | 6EZ2041-8UG55-0EU21 | 6ES7 421-1FH20-0AA0 |
| 6ES5 435-7LC11 | 8 DI | 115 VUC | | 6EZ2041-8UG55-0EU10 | 6ES7 421-1FH20-0AA0 |
| 6ES5 436-7LA11 | 16 DI | 230 VUC | | 6EZ2041-8UG55-0EU22 | 6ES7 421-1FH20-0AA0 |
| 6ES5 436-7LB11 | 16 DI | 230 VUC | | 6EZ2041-8UG55-0EU21 | 6ES7 421-1FH20-0AA0 |
| 6ES5 436-7LC11 | 8 DI | 230 VUC | | 6EZ2041-8UG55-0EU10 | 6ES7 421-1FH20-0AA0 |
| 6ES5 441-7LA13 | 32 DO | 24 VDC | 0,5 A | 6EZ2041-8UG05-0AU33 | 6ES7 422-1BL00-0AA0 |
| 6ES5 451-7LA12 | 32 DO | 24 VDC | 0,5 A | 6EZ2041-8UG05-0AU33 | 6ES7 422-1BL00-0AA0 |
| 6ES5 451-7LA21 | 32 DO | 24 VDC | 0,5 A | 6EZ2041-8UG05-0AU33 | 6ES7 422-1BL00-0AA0 |
| 6ES5 454-7LA12 | 16 DO | 24 VDC | 2A | 6EZ2041-8UG05-0AU22 | 6ES7 422-1BH11-0AA0 |
| 6ES5 455-7LA11 | 16 DO | 115 VAC | 2A | 6EZ2041-8UG45-0AU21 | 6ES7 422-1HH00-0AA0 |
| 6ES5 456-7LA11 | 16 DO | 230 VAC | 1A | 6EZ2041-8UG55-0AU22 | 6ES7 422-1FH00-0AA0 |
| 6ES5 458-7LC11 | 16 DO | Rel | 5A | 6EZ2041-8UG65-0AU22 | 6ES7 422-1HH00-0AA0 |
| 6ES5 460-7LA13 | 8 AE | only current metering | | 6EZ2041-8UG75-0EU11 | 6ES7 431-1KF00-0AB0 |
| 6ES5 460-7LA13 | 8 AE | only voltage metering | | 6EZ2041-8UG75-0EU12 | 6ES7 431-1KF00-0AB0 |
| 6ES5 465-7LA13 | 8 AE | only PT100 | | 6EZ2041-8UG75-0EU20 | 6ES7 431-7KF10-0AB0 |
| 6ES5 465-7LA13 | 8 AE | current and voltage metering | | 6EZ2041-8UG75-0EU21 | 6ES7 431-7QH00-0AB0 |
| 6ES5 465-7LA13 | 8 AE | current and voltage metering | | 6EZ2041-8UG75-0EU21 | 6ES7 431-0HH00-0AB0 |
| 6ES5 470-7LA13 | 8 AA | current and voltage outout | | 6EZ2041-8UG75-0AU11 | 6ES7 432-1HF00-0AB0 |
| 6ES5 470-7LB13 | 8 AA | only voltage output | | 6EZ2041-8UG75-0AU11 | 6ES7 432-1HF00-0AB0 |
| 6ES5 470-7LC13 | 8 AA | current and voltage outout | | 6EZ2041-8UG75-0AU11 | 6ES7 432-1HF00-0AB0 |

Attention: Front connector with double width needs more place!

S5_135_155U --> S7_300

| S5 module | I/O | Voltage | Current | Adapter | S7 module |
|----------------|------------|------------------------------|---------|--------------------|---------------------|
| 6ES5 420-4UA14 | 32 DI | 24 VDC | | 6EZ2041-8UG01-0DE0 | 6ES7 321-1BL00-0AA0 |
| 6ES5 430-4UA14 | 32 DI | 24 VDC | | 6EZ2041-8UG01-0DE0 | 6ES7 321-1BL00-0AA0 |
| 6ES5 431-4UA12 | 16 DI | 24/60 VDC | | 6EZ2041-8UG01-0DE1 | 6ES7 321-1CH00-0AA0 |
| 6ES5 432-4UA12 | 32DI | 24 VDC | | 6EZ2041-8UG01-0DE2 | 6ES7 321-1BL00-0AA0 |
| 6ES5 434-4UA12 | 32DI Namur | 24 VDC | | 6EZ2041-8UG01-0DE6 | 6ES7 321-7TH00-0AB0 |
| 6ES5 435-4UA12 | 16 DI | 24/60 VDC | | 6EZ2041-8UG01-0DE3 | 6ES7 321-1CH00-0AA0 |
| 6ES5 436-4UA12 | 16 DI | 115/230 VAC | | 6EZ2041-8UG01-0DE4 | 6ES7 321-1FH00-0AA0 |
| 6ES5 436-4UB12 | 8 DI | 115/230 VAC | | 6EZ2041-8UG01-0DE5 | 6ES7 321-1FF10-0AA0 |
| 6ES5 441-4UA14 | 32 DO | 24 VDC | 0,5 A | 6EZ2041-8UG01-0DA0 | 6ES7 322-1BL00-0AA0 |
| 6ES5 451-4UA14 | 32 DO | 24 VDC | 0,5 A | 6EZ2041-8UG01-0DA0 | 6ES7 322-1BL00-0AA0 |
| 6ES5 453-4UA12 | 16DO | 24VDC | 2A | 6EZ2041-8UG01-0DA7 | 6ES7 322-1BF01-0AA0 |
| 6ES5 453-4UA12 | 16DO | 24VDC | 0,5 A | 6EZ2041-8UG01-0DA1 | 6ES7 322-5GH00-0AB0 |
| 6ES5 454-4UA14 | 16 DO | 24 VDC | 2A | 6EZ2041-8UG01-0DA2 | 6ES7 322-1BF01-0AA0 |
| 6ES5 456-4UA12 | 16 DO | 115/230 VAC | 2 A | 6EZ2041-8UG01-0DA3 | 6ES7 322-1FF01-0AA0 |
| 6ES5 456-4UB12 | 8 DO | 115/230 VAC | 2 A | 6EZ2041-8UG01-0DA4 | 6ES7 322-5FF00-0AB0 |
| 6ES5 457-4UA12 | 16 DO | max. 24VDC | 0,5A | 6EZ2041-8UG01-1DA6 | 6ES7 322-1BL00-0AA0 |
| 6ES5 458-4UC11 | 16 DO | Relais | 5 A | 6EZ2041-8UG01-0DA5 | 6ES7 322-1HH01-0AA0 |
| 6ES5 458-4UA12 | 16 DO | 60 VDC/ 48V AC | 0,5 A | 6EZ2041-8UG01-0DA6 | 6ES7322-5HF00-0AB0 |
| 6ES5 482-4UA11 | 16DI/16DO | 24 VDC | 0,5 A | 6EZ2041-8UG01-0EA0 | 6ES7 323-1BL00-0AA0 |
| 6ES5 482-4UA20 | 16DI/16DO | 24 VDC | 0,5 A | 6EZ2041-8UG01-0EA0 | 6ES7 323-1BL00-0AA0 |
| 6ES5 460-4UA13 | 8 AI | current and voltage metering | | 6EZ2041-8UG01-0AE0 | 6ES7 331-7KF02-0AB0 |
| 6ES5 460-4UA13 | 8 AI | only PT100 | | 6EZ2041-8UG01-1AE0 | 6ES7 331-7PF01-0AB0 |
| 6ES5 460-4UA13 | 8 AI | only current metering | | 6EZ2041-8UG01-2AE0 | 6ES7 331-7NF00-0AB0 |
| 6ES5 460-4UA13 | 8 AI | only voltage metering | | 6EZ2041-8UG01-3AE0 | 6ES7 331-7NF00-0AB0 |
| 6ES5 465-4UA13 | 16 AI | current and voltage metering | | 6EZ2041-8UG01-0AE2 | 6ES7 331-7KF02-0AB0 |
| 6ES5 465-4UA13 | 8 AI | only PT100 | | 6EZ2041-8UG01-1AE2 | 6ES7 331-7PF01-0AB0 |
| 6ES5 465-4UA13 | 8 AI | only PT100 | | 6EZ2041-8UG01-2AE2 | 6ES7 331-1KF01-0AB0 |
| 6ES5 470-4UA13 | 8 AO | current and voltage outout | | 6EZ2041-8UG01-0AA0 | 6ES7 332-5HD01-0AB0 |
| 6ES5 470-4UA13 | 8 AO | current and voltage outout | | 6EZ2041-8UG01-1AA0 | 6ES7 332-5HF00-0AB0 |
| 6ES5 470-4UB13 | 8 AO | only voltage output | | 6EZ2041-8UG01-0AA0 | 6ES7 332-5HD01-0AB0 |
| 6ES5 470-4UC13 | 8 AO | only voltage output | | 6EZ2041-8UG01-1AA0 | 6ES7 332-5HF00-0AB0 |

S5_135_155U --> S7_300

| S5 module | I/O | Voltage | Current | Adapter | S7 module |
|--------------------|------|----------------------------|---------|--------------------|---------------------------|
| 6ES5 470-4UC13 | 8 AO | current and voltage outout | | 6EZ2041-8UG01-0AA0 | 6ES7 332-5HD01-0AB0 |
| | | | | 6EZ2041-8UG01-0DU1 | terminal adapter |
| | | | | 6EZ2041-8UG01-0DU0 | open ended |
| Accessories | | | | 6EZ2041-8UG00-0BG0 | Mounting angle (2 pieces) |

max. allowable 48V
switched on 2 S7-modules
only 16DI/DO
only AC and switched on 2 S7-modules

M must be wired
N must be wired and switched on 2 S7-modules

S5_135_155U --> S7_400

| S5 module | I/O | Voltage | Current | Adapter | S7 module |
|----------------|-------|------------------------------|---------|---------------------|---------------------|
| 6ES5 420-4UA14 | 32 DI | 24 VDC | | 6EZ2041-8UG07-0EU36 | 6ES7 421-1BL01-0AA0 |
| 6ES5 430-4UA14 | 32 DI | 24 VDC | | 6EZ2041-8UG07-0EU36 | 6ES7 421-1BL01-0AA0 |
| 6ES5 431-4UA12 | 16 DI | 24/60 VDC | | 6EZ2041-8UG07-0EU20 | 6ES7 421-7DH00-0AB0 |
| 6ES5 432-4UA12 | 32DI | 24 VDC | | 6EZ2041-8UG07-0EU33 | 6ES7 421-1BL01-0AA0 |
| 6ES5 436-4UA12 | 16 DI | 115/230 VAC | | 6EZ2041-8UG57-1EU23 | 6ES7 421-1FH20-0AA0 |
| 6ES5 436-4UB12 | 8 DI | 115/230 VAC | | 6EZ2041-8UG57-1EU20 | 6ES7 421-1FH20-0AA0 |
| 6ES5 441-4UA14 | 32 DO | 24 VDC | 0,5 A | 6EZ2041-8UG07-0AU36 | 6ES7 422-1BL00-0AA0 |
| 6ES5 441-4UA14 | 32 DO | 24 VDC | 0,5 A | 6EZ2041-8UG07-0AU37 | 6ES7 422-7BL00-0AB0 |
| 6ES5 451-4UA14 | 32 DO | 24 VDC | 0,5 A | 6EZ2041-8UG07-0AU37 | 6ES7 422-7BL00-0AB0 |
| 6ES5 451-4UA14 | 32 DO | 24 VDC | 0,5 A | 6EZ2041-8UG07-0AU36 | 6ES7 422-1BL00-0AA0 |
| 6ES5 454-4UA14 | 16 DO | 24 VDC | 2 A | 6EZ2041-8UG07-1AU23 | 6ES7 422-1BH11-0AA0 |
| 6ES5 456-4UA12 | 16 DO | 115/230 VAC | 2 A | 6EZ2041-8UG57-1AU23 | 6ES7 422-1FH00-0AA0 |
| 6ES5 458-4UC11 | 16 DO | Relais | 5 A | 6EZ2041-8UG67-0AU23 | 6ES7 422-1HH00-0AA0 |
| 6ES5 460-4UA13 | 8 AI | only current metering | | 6EZ2041-8UG77-0EU11 | 6ES7 431-1KF00-0AB0 |
| 6ES5 460-4UA13 | 8 AI | only voltage metering | | 6EZ2041-8UG77-0EU12 | 6ES7 431-1KF00-0AB0 |
| 6ES5 460-4UA13 | 8 AI | only PT100 | | 6EZ2041-8UG07-1AE0 | 6ES7 431-7KF10-0AB0 |
| 6ES5 460-4UA13 | 8 AI | Strom- und Spannungsmessung | | 6EZ2041-8UG07-0AE0 | 6ES7 431-1KF10-0AB0 |
| 6ES5 465-4UA13 | 8 AI | only PT100 | | 6EZ2041-8UG77-0EU20 | 6ES7 431-7KF10-0AB0 |
| 6ES5 465-4UA13 | 16 AI | current and voltage metering | | 6EZ2041-8UG77-0EU21 | 6ES7 431-0HH00-0AB0 |
| 6ES5 465-4UA13 | 16 AI | current and voltage metering | | 6EZ2041-8UG77-0EU21 | 6ES7 431-7QH00-0AB0 |
| 6ES5 470-4UA13 | 8 AO | only current output | | 6EZ2041-8UG77-0AU11 | 6ES7 432-1HF00-0AB0 |
| 6ES5 470-4UC13 | 8 AO | only current output | | 6EZ2041-8UG77-0AU11 | 6ES7 432-1HF00-0AB0 |
| 6ES5 470-4UA13 | 8 AO | only voltage output | | 6EZ2041-8UG77-0AU12 | 6ES7 432-1HF00-0AB0 |
| 6ES5 470-4UB13 | 8 AO | only voltage output | | 6EZ2041-8UG77-0AU12 | 6ES7 432-1HF00-0AB0 |
| 6ES5 470-4UC13 | 8 AO | only voltage output | | 6EZ2041-8UG77-0AU12 | 6ES7 432-1HF00-0AB0 |

Attention: Front connector with double width needs more place!

S5_130_150K --> S7_300

| S5 module | I/O | Voltage | Current | Adapter | S7 module |
|--------------------|-------|-----------|---------|--------------------|---------------------------|
| 6ES5 420-3BA11 | 32 DI | 24 VDC | | 6EZ2041-8UG03-0DE0 | 6ES7 321-1BL00-0AA0 |
| 6ES5 430-3BA11 | 32 DI | 24 VDC | | 6EZ2041-8UG03-0DE0 | 6ES7 321-1BL00-0AA0 |
| 6ES5 431-3BA11 | 16 DI | 24-60 VDC | | 6EZ2041-8UG03-0DE1 | 6ES7 321-1CH00-0AA0 |
| 6ES5 442-3AA11 | 32 DO | 24 VDC | 10 mA | 6EZ2041-8UG03-0DA0 | 6ES7 322-1BL00-0AA0 |
| 6ES5 444-3AA11 | 16 DO | 24 VDC | 2 A | 6EZ2041-8UG03-0DA1 | 6ES7 322-1BF01-0AA0 |
| 6ES5 445-3AA12 | 32 DO | 24 VDC | 0,5 A | 6EZ2041-8UG03-0DA2 | 6ES7 322-1BL00-0AA0 |
| 6ES5 450-3AA11 | 32 DO | 24-60 VDC | 0,12 A | 6EZ2041-8UG03-0DA2 | 6ES7 322-1BL00-0AA0 |
| 6ES5 451-3AA11 | 16 DO | 24 VDC | 0,5 A | 6EZ2041-8UG03-0DA3 | 6ES7 322-1BH01-0AA0 |
| Accessories | | | | 6EZ2041-8UG00-0BG0 | Mounting angle (2 pieces) |

max. allowable 48V

N must be wired and switched
on 2 S7-modules

M must be wired

Info:
There is only a remaining stock.
Adapter 6EZ2041-8UG03-xxxx only available on request

S5_130_150K --> S7_400

| S5 module | I/O | Voltage | Current | Adapter | S7 module |
|----------------|-------|-----------|---------|--------------------|---------------------|
| 6ES5 420-3BA11 | 32 DI | 24 VDC | | 6EZ2041-8UG08-0DE0 | 6ES7 421-1BL01-0AA0 |
| 6ES5 430-3BA11 | 32 DI | 24 VDC | | 6EZ2041-8UG08-0DE0 | 6ES7 421-1BL01-0AA0 |
| 6ES5 431-3BA11 | 16 DI | 24-60 VDC | | 6EZ2041-8UG08-0DE1 | 6ES7 421-7DH00-0AA0 |
| 6ES5 442-3AA11 | 32 DO | 24 VDC | 10 mA | 6EZ2041-8UG08-0DA1 | 6ES7 422-1BL00-0AA0 |
| 6ES5 444-3AA11 | 16 DO | 24 VDC | 2 A | 6EZ2041-8UG08-0DA2 | 6ES7 422-1BH11-0AA0 |
| 6ES5 445-3AA12 | 32 DO | 24 VDC | 0,5 A | 6EZ2041-8UG08-0DA0 | 6ES7 422-1BL00-0AA0 |
| 6ES5 450-3AA11 | 32 DO | 24-60 VDC | 0,12 A | 6EZ2041-8UG08-0DA0 | 6ES7 422-1BL00-0AA0 |
| 6ES5 451-3AA11 | 16 DO | 24 VDC | 0,5 A | 6EZ2041-8UG08-0DA3 | 6ES7 422-1BH11-0AA0 |

M must be wired

Info:
 There is only a remaining stock.
 Adapter 6EZ2041-8UG08-xxxx only available on request

S5_135_155U --> S7_1500

| S5 module | I/O | Voltage | Current | Adapter | S7 module |
|----------------|-------|-------------------------------------|---------|--------------------|---------------------|
| 6ES5 420-4UA14 | 32 DI | 24 VDC | | 6EZ2041-8UG11-0DE0 | 6ES7 521-1BL00-0AB0 |
| 6ES5 430-4UA14 | 32 DI | 24 VDC | | 6EZ2041-8UG11-0DE0 | 6ES7 521-1BL00-0AB0 |
| 6ES5 431-4UA12 | 16 DI | 24/60 VDC | | 6EZ2041-8UG11-0DE1 | 6ES7 521-1BH00-0AB0 |
| 6ES5 432-4UA12 | 32DI | 24 VDC | | 6EZ2041-8UG11-0DE2 | 6ES7 521-1BL00-0AB0 |
| 6ES5 436-4UA12 | 16 DI | 115/230 VAC | | 6EZ2041-8UG11-0DE4 | 6ES7 521-1FH00-0AA0 |
| 6ES5 436-4UB12 | 8 DI | 115/230 VAC | | 6EZ2041-8UG11-0DE5 | 6ES7 521-1FH00-0AA0 |
| 6ES5 441-4UA14 | 32 DO | 24 VDC | 0,5 A | 6EZ2041-8UG11-0DA0 | 6ES7 522-1BL00-0AB0 |
| 6ES5 451-4UA14 | 32 DO | 24 VDC | 0,5 A | 6EZ2041-8UG11-0DA0 | 6ES7 522-1BL00-0AB0 |
| 6ES5 453-4UA12 | 16 DO | 20-30V DC | 0,5A | 6EZ2041-8UG11-0DA6 | 6ES7 522 1BF00-0AB0 |
| 6ES5 453-4UA12 | 16 DO | 24 VDC | 2A | 6EZ2041-8UG11-0DA7 | 6ES7 522-5EH00-0AB0 |
| 6ES5 454-4UA14 | 16 DO | 24 VDC | 2 A | 6EZ2041-8UG11-0DA1 | 6ES7 522-1BH00-0AB0 |
| 6ES5 454-4UA14 | 16 DO | 24 VDC | 2 A | 6EZ2041-8UG11-0DA2 | 6ES7 522-1BF00-0AB0 |
| 6ES5 456-4UA12 | 16 DO | 115/230 VAC | 2 A | 6EZ2041-8UG11-0DA3 | 6ES7 522-5FF00-0AB0 |
| 6ES5 456-4UA12 | 16 DO | 115/230 VAC | 2 A | 6EZ2041-8UG11-0DA4 | 6ES7 522-5HF00-0AB0 |
| 6ES5 456-4UB12 | 8 DO | 115/230 VAC | 2 A | 6EZ2041-8UG11-1DA3 | 6ES7 522-5FF00-0AB0 |
| 6ES5 456-4UB12 | 8 DO | 115/230 VAC | 2 A | 6EZ2041-8UG11-1DA4 | 6ES7 522-5HF00-0AB0 |
| 6ES5 458-4UC11 | 16 DO | Relais | 5 A | 6EZ2041-8UG11-2DA4 | 6ES7 522-5HF00-0AB0 |
| 6ES5 458-4UC11 | 16 DO | Relais | 5 A | 6EZ2041-8UG11-0DA5 | 6ES7 522-5HH00-0AB0 |
| 6ES5 460-4UA13 | 8 AI | voltage metering / PT100 | | 6EZ2041-8UG11-0AE0 | 6ES7 531-7KF00-0AB0 |
| 6ES5 460-4UA13 | 8 AI | voltage metering / PT100 | | 6EZ2041-8UG11-0AE0 | 6ES7 531-7NF10-0AB0 |
| 6ES5 460-4UA13 | 8 AI | current- metering 2-wire-transducer | | 6EZ2041-8UG11-2AE0 | 6ES7 531-7KF00-0AB0 |
| 6ES5 460-4UA13 | 8 AI | current- metering 2-wire-transducer | | 6EZ2041-8UG11-2AE0 | 6ES7 531-7NF10-0AB0 |
| 6ES5 460-4UA13 | 8 AI | current- metering 4-wire-transducer | | 6EZ2041-8UG11-3AE0 | 6ES7 531-7KF00-0AB0 |
| 6ES5 460-4UA13 | 8 AI | current- metering 4-wire-transducer | | 6EZ2041-8UG11-3AE0 | 6ES7 531-7NF10-0AB0 |
| 6ES5 465-4UA13 | 16 AI | voltage metering | | 6EZ2041-8UG11-0AE2 | 6ES7 531-7KF00-0AB0 |
| 6ES5 465-4UA13 | 16 AI | voltage metering | | 6EZ2041-8UG11-0AE2 | 6ES7 531-7NF10-0AB0 |
| 6ES5 465-4UA13 | 16 AI | current- metering 2-wire-transducer | | 6EZ2041-8UG11-1AE2 | 6ES7 531-7KF00-0AB0 |
| 6ES5 465-4UA13 | 16 AI | current- metering 2-wire-transducer | | 6EZ2041-8UG11-1AE2 | 6ES7 531-7NF10-0AB0 |
| 6ES5 465-4UA13 | 16 AI | current- metering 4-wire-transducer | | 6EZ2041-8UG11-2AE2 | 6ES7 531-7KF00-0AB0 |
| 6ES5 465-4UA13 | 16 AI | current- metering 4-wire-transducer | | 6EZ2041-8UG11-2AE2 | 6ES7 531-7NF10-0AB0 |
| 6ES5 465-4UA13 | 16 AI | PT100 measuringmodule 6ES5498-1AA11 | | 6EZ2041-8UG11-3AE2 | 6ES7 531-7KF00-0AB0 |
| 6ES5 465-4UA13 | 8 AI | PT100 | | 6EZ2041-8UG11-4AE3 | 6ES7 531-7PF00-0AB0 |
| 6ES5 470-4UA13 | 8 AO | current-- / voltage metering | | 6EZ2041-8UG11-0AA0 | 6ES7 532-5HD00-0AB0 |
| 6ES5 470-4UB13 | 8 AO | current- / voltage metering | | 6EZ2041-8UG11-0AA0 | 6ES7 532-5HD00-0AB0 |
| 6ES5 470-4UC13 | 8 AO | current- / voltage metering | | 6EZ2041-8UG11-0AA0 | 6ES7 532-5HD00-0AB0 |

S5_135_155U --> S7_1500

| S5 module | I/O | Voltage | Current | Adapter | S7 module |
|----------------------|-----------|--------------------------------------|---------|---|---------------------------|
| 6ES5 470-4UA13 | 8 AO | current- / voltage metering | | 6EZ2041-8UG11-1AA0 | 6ES7 532-5HF00-0AB0 |
| 6ES5 470-4UB13 | 8 AO | current- / voltage metering | | 6EZ2041-8UG11-1AA0 | 6ES7 532-5HF00-0AB0 |
| 6ES5 470-4UC13 | 8 AO | current- / voltage metering | | 6EZ2041-8UG11-1AA0 | 6ES7 532-5HF00-0AB0 |
| width of module 25mm | | | | | |
| 6ES5 420-4UA14 | 32 DI | 24 VDC | | 6EZ2041-8UG21-0DE0 | 6ES7 521-1BL10-0AA0 |
| 6ES5 430-4UA14 | 32 DI | 24 VDC | | 6EZ2041-8UG21-0DE0 | 6ES7 521-1BL10-0AA0 |
| 6ES5 431-4UA12 | 16 DI | 24-60VDC | | 6EZ2041-8UG21-0DE1 | 6ES7 521-1BH10-0AA0 |
| 6ES5 431-4UA12 | 16 DI | 24-60VDC | | 6EZ2041-8UG21-1DE1 ground is bridged | 6ES7 521-1BH10-0AA0 |
| 6ES5 432-4UA12 | 32 DI | 24VDC | | 6EZ2041-8UG21-0DE2 | 6ES7 521-1BL10-0AA0 |
| 6ES5 432-4UA12 | 32 DI | 24V | | 6EZ2041-8UG21-1DE2 | 6ES7 521-1BL10-0AA0 |
| 6ES5 441-4UA14 | 32 DO | 24 VDC | 0,5A | 6EZ2041-8UG21-0DA0 | 6ES7 522-1BL10-0AA0 |
| 6ES5 451-4UA14 | 32 DO | 24 VDC | 0,5A | 6EZ2041-8UG21-0DA0 | 6ES7 522-1BL10-0AA0 |
| 6ES5 482-4UA11 | 16DI/16DO | 24 VDC | 0,5A | 6EZ2041-8UG21-0EA0 | 6ES7 523-1BL00-0AA0 |
| 6ES5 460-4UA13 | 8 AI | voltage metering | | 6EZ2041-8UG21-0AE0 | 6ES7 531-7QD00-0AB0 |
| 6ES5 460-4UA13 | 8 AI | current metering / 4-wire-transducer | | 6EZ2041-8UG21-0AE1 | 6ES7 531-7QD00-0AB0 |
| 6ES5 460-4UA13 | 8 AI | current- metering 2-wire-transducer | | 6EZ2041-8UG21-0AE2 | 6ES7 531-7QD00-0AB0 |
| | | | | 6EZ2041-8UG01-0DU1 | terminal adapter |
| | | | | 6EZ2041-8UG01-0DU0 | open ended |
| Accessories | | | | 6EZ2041-8UG00-0BG0 | mounting angle (2 pieces) |



S7-1500 module with 0,5A
switched on 2 S7-1500 modules
max. 24 VDC

observe technical data

S5_115U --> S7_1500

| S5 module | I/O | Voltage | Current | Adapter | S7 module |
|----------------|-------|--|---------|--------------------|---------------------|
| 6ES5 420-7LA11 | 32 DI | 24 VDC | | 6EZ2041-8UG12-0DE0 | 6ES7 521-1BL00-0AB0 |
| 6ES5 430-7LA12 | 32 DI | 24 VDC | | 6EZ2041-8UG12-0DE0 | 6ES7 521-1BL00-0AB0 |
| 6ES5 431-7LA11 | 16 DI | 24/48 VUC | | 6EZ2041-8UG12-0DE1 | 6ES7 521-1BH00-0AB0 |
| 6ES5 434-7LA12 | 8 DI | 24 VDC | | 6EZ2041-8UG12-0DE2 | 6ES7 521-1BH00-0AB0 |
| 6ES5 435-7LA11 | 16 DI | 115 VUC | | 6EZ2041-8UG12-0DE3 | 6ES7 521-1FH00-0AA0 |
| 6ES5 435-7LB11 | 16 DI | 115 VUC | | 6EZ2041-8UG12-0DE4 | 6ES7 521-1FH00-0AA0 |
| 6ES5 436-7LA11 | 16 DI | 230 VUC | | 6EZ2041-8UG12-0DE3 | 6ES7 521-1FH00-0AA0 |
| 6ES5 436-7LB11 | 16 DI | 230 VUC | | 6EZ2041-8UG12-0DE4 | 6ES7 521-1FH00-0AA0 |
| 6ES5 441-7LA13 | 32 DO | 24 VDC | 0,5 A | 6EZ2041-8UG12-0DA0 | 6ES7 522-1BL01-0AB0 |
| 6ES5 451-7LA12 | 32 DO | 24 VDC | 0,5 A | 6EZ2041-8UG12-0DA0 | 6ES7 522-1BL01-0AB0 |
| 6ES5 451-7LA21 | 32 DO | 24 VDC | 0,5 A | 6EZ2041-8UG12-0DA0 | 6ES7 522-1BL01-0AB0 |
| 6ES5 453-7LA11 | 16 DO | 24-60 VDC | 0,5 A | 6EZ2041-8UG12-0DA1 | 6ES7 522-1BH00-0AB0 |
| 6ES5 454-7LA12 | 16 DO | 24 VDC | 2A | 6EZ2041-8UG12-1DA1 | 6ES7 522-1BH00-0AB0 |
| 6ES5 454-7LA12 | 16 DO | 24 VDC | 2A | 6EZ2041-8UG12-1DA2 | 6ES7 522-1BF00-0AB0 |
| 6ES5 454-7LB11 | 8 DO | 24 VDC | 2A | 6EZ2041-8UG12-0DA2 | 6ES7 522-1BF00-0AB0 |
| 6ES5 456-7LA11 | 16 DO | 115/230 VAC | 1A | 6EZ2041-8UG12-0DA3 | 6ES7 522-5FF00-0AB0 |
| 6ES5 456-7LA11 | 16 DO | 115/230 VAC | 1A | 6EZ2041-8UG12-0DA4 | 6ES7 522-5HF00-0AB0 |
| 6ES5 456-7LA11 | 16 DO | 115/230 VAC | 1A | 6EZ2041-8UG12-0DA5 | 6ES7 522-5FH00-0AB0 |
| 6ES5 456-7LB11 | 8 DO | 115/230 VAC | 1,5A | 6EZ2041-8UG12-1DA3 | 6ES7 522-5FF00-0AB0 |
| 6ES5 456-7LB11 | 8 DO | 115/230 VAC | 1,5 A | 6EZ2041-8UG12-1DA4 | 6ES7 522-5HF00-0AB0 |
| 6ES5 458-7LA12 | 16 DO | Rel. UC 30V | 0,5 A | 6EZ2041-8UG12-2DA4 | 6ES7 522-5HF00-0AB0 |
| 6ES5 458-7LB11 | 8 DO | Rel.AC250V | 5A | 6EZ2041-8UG12-3DA4 | 6ES7 522-5HF00-0AB0 |
| 6ES5 458-7LC11 | 16 DO | Rel.AC250V | 5A | 6EZ2041-8UG12-4DA4 | 6ES7 522-5HF00-0AB0 |
| 6ES5 460-7LA13 | 8 AI | voltage metering / PT100 / 2-wire-transducer | | 6EZ2041-8UG12-0AE1 | 6ES7 531-7KF00-0AB0 |
| 6ES5 460-7LA13 | 8 AI | voltage metering / PT100 / 2-wire-transducer | | 6EZ2041-8UG12-0AE1 | 6ES7 531-7NF10-0AB0 |
| 6ES5 460-7LA13 | 8 AI | current metering | | 6EZ2041-8UG12-1AE1 | 6ES7 531-7KF00-0AB0 |
| 6ES5 460-7LA13 | 8 AI | current metering | | 6EZ2041-8UG12-1AE1 | 6ES7 531-7NF10-0AB0 |
| 6ES5 460-7LA13 | 8 AI | current metering / 4-wire-transducer | | 6EZ2041-8UG12-2AE1 | 6ES7 531-7KF00-0AB0 |
| 6ES5 460-7LA13 | 8 AI | current metering / 4-wire-transducer | | 6EZ2041-8UG12-2AE1 | 6ES7 531-7NF10-0AB0 |

S5_115U --> S7_1500

| S5 module | I/O | Voltage | Current | Adapter | S7 module |
|----------------|-------|--------------------------------------|---------|--|---------------------|
| 6ES5 465-7LA13 | 16 AI | voltage metering | | 6EZ2041-8UG12-0AE2 | 6ES7 531-7KF00-0AB0 |
| 6ES5 465-7LA13 | 16 AI | voltage metering | | 6EZ2041-8UG12-0AE2 | 6ES7 531-7NF10-0AB0 |
| 6ES5 465-7LA13 | 16AI | voltage metering | | 6EZ2041-8UG12-0AE3  | 6ES7 531-7LH00-0AB0 |
| 6ES5 465-7LA13 | 16AI | current metering | | 6EZ2041-8UG12-0AE3  | 6ES7 531-7MH00-0AB0 |
| 6ES5 465-7LA13 | 16AI | RTD 4-wire transducer | | 6EZ2041-8UG12-1AE2 | 6ES7 531-7KF00-0AB0 |
| 6ES5 465-7LA13 | 16AI | RTD 4-wire Transducer | | 6EZ2041-8UG12-1AE2 | 6ES7 531-7NF10-0AB0 |
| 6ES5 465-7LA13 | 16 AI | current metering / 2-wire-transducer | | 6EZ2041-8UG12-2AE2 | 6ES7 531-7KF00-0AB0 |
| 6ES5 465-7LA13 | 16 AI | current metering / 2-wire-transducer | | 6EZ2041-8UG12-2AE2 | 6ES7 531-7NF10-0AB0 |
| 6ES5 465-7LA13 | 16 AI | current metering / 4-wire-transducer | | 6EZ2041-8UG12-3AE2 | 6ES7 531-7KF00-0AB0 |
| 6ES5 465-7LA13 | 16 AI | current metering / 4-wire-transducer | | 6EZ2041-8UG12-3AE2 | 6ES7 531-7NF10-0AB0 |
| 6ES5 470-7LA13 | 8 AO | Current - / voltage metering | | 6EZ2041-8UG12-0AA0 | 6ES7 532-5HD00-0AB0 |
| 6ES5 470-7LB13 | 8 AO | Current - / voltage metering | | 6EZ2041-8UG12-0AA0 | 6ES7 532-5HD00-0AB0 |
| 6ES5 470-7LC13 | 8 AO | Current - / voltage metering | | 6EZ2041-8UG12-0AA0 | 6ES7 532-5HD00-0AB0 |
| 6ES5 470-7LA13 | 8 AO | Current - / voltage metering | | 6EZ2041-8UG12-1AA0 | 6ES7 532-5HF00-0AB0 |
| 6ES5 470-7LB13 | 8 AO | Current - / voltage metering | | 6EZ2041-8UG12-1AA0 | 6ES7 532-5HF00-0AB0 |
| 6ES5 470-7LC13 | 8 AO | Current - / voltage metering | | 6EZ2041-8UG12-1AA0 | 6ES7 532-5HF00-0AB0 |

S5_115U --> S7_1500

| S5 module | I/O | Voltage | Current | Adapter | S7 module |
|----------------------|-----------|--------------------------------------|---------|--|---------------------------|
| width of module 25mm | | | | | |
| 6ES5 420-7LA11 | 32 DI | 24 VDC | | 6EZ2041-8UG22-0DE0 | 6ES7 521-1BL10-0AB0 |
| 6ES5 430-7LA12 | 32 DI | 24 VDC | | 6EZ2041-8UG22-0DE0 | 6ES7 521-1BL10-0AB0 |
| 6ES5 431-7LA11 | 16 DI | 24 - 48 VUC | | 6EZ2041-8UG22-0DE1 | 6ES7 521-1BH10-0AA0 |
| 6ES5 431-7LA11 | 16 DI | 24 - 48 VUC | | 6EZ2041-8UG22-1DE1 ground connected | 6ES7 521-1BH10-0AA0 |
| 6ES5 441-7LA13 | 32 DO | 24 VDC | | 6EZ2041-8UG22-0DA0 | 6ES7 522-1BL10-0AA0 |
| 6ES5 451-7LA12 | 32 DO | 24 VDC | | 6EZ2041-8UG22-0DA0 | 6ES7 522-1BL10-0AA0 |
| 6ES5 451-7LA21 | 32 DO | 24 VDC | | 6EZ2041-8UG22-0DA0 | 6ES7 522-1BL10-0AA0 |
| 6ES5 482-7LA11 | 16DI/16DO | 24 VDC | | 6EZ2041-8UG22-0EA0 | 6ES7 523-1BL00-0AA0 |
| 6ES5 460-7LA13 | 8 AI | voltage metering | | 6EZ2041-8UG22-0AE0 | 6ES7 531-7QD00-0AB0 |
| 6ES5 460-7LA13 | 8 AI | current metering / 4-wire-transducer | | 6EZ2041-8UG22-0AE1 | 6ES7 531-7QD00-0AB0 |
| 6ES5 460-7LA13 | 8 AI | current metering / 2-wire-transducer | | 6EZ2041-8UG22-0AE2 | 6ES7 531-7QD00-0AB0 |
| | | | | 6EZ2041-8UG02-0DU1 | terminal adapter |
| | | | | 6EZ2041-8UG02-0DU0 | open ended |
| Accessories | | | | 6EZ2041-8UG00-0BG0 | mounting angle (2 pieces) |

switched on 2 S7-1500 modules

S7-1500 module with 0,5A

observe technical data of S7-modules

S7-1500 module with 24VDC



not with measuring range module 6ES5 498-1AA51

S7_300--> S7_1500

| S7-300 | I/O | Voltage | Current | Adapter | S7-1500 |
|-----------------------------|-----------|---|---------|--------------------|--------------------------------|
| 6ES7 321-1BL00-0AA0 | 32 DI | 24 VDC | | 6EZ2041-8HR11-0DE0 | 6ES7 521-1BL00-0AB0 |
| 6ES7 321-1BH01-0AA0 | 16 DI | 24VDC | | 6EZ2041-8HR11-2DE0 | 6ES7 521-1BH00-0AB0 |
| 6ES7 321-1FH00-0AA0 | 16DI | 120/230VAC | | 6EZ2041-8HR11-3DE0 | 6ES7 521-1FH00-0AA0 |
| 6ES7 321-7TH00-0AB0 | 16DI | 24VDC /Namur | | 6EZ2041-8HR11-5DE0 | 6ES7 521-7TH00-0AB0 |
| 6ES7 322-1BL00-0AA0 | 32 DO | 24 VDC | 0,5A | 6EZ2041-8HR11-0DA0 | 6ES7 522-1BL01-0AB0 |
| 6ES7 322-1BH01-0AA0 | 16DO | 24 VDC | 0,5A | 6EZ2041-8HR11-2DA0 | 6ES7 522-1BH01-0AB0 |
| 6ES7 322-1FH00-0AA0 | 16 DO | AC 230V 1A ST | | 6EZ2041-8HR11-4DA0 | 6ES7 522-5FH00-0AB0 |
| 6ES7 322-1HH01-0AA0 | 16 DO | rel. AC 120/230V | | 6EZ2041-8HR11-5DA0 | 6ES7 522-5HH00-0AB0 |
| 6ES7 322-1FF01-0AA0 | 8 DO | AC 120/230V | 2A | 6EZ2041-8HR11-6DA0 | 6ES7 522-5FF00-0AB0 |
| 6ES7 331-1KF02-0AB0 | 8 AI | voltage metering V | | 6EZ2041-8HR11-0AE0 | 6ES7 531-7KF00-0AB0 |
| 6ES7 331-7KF02-0AB0 | 8 AI | U / R / T-metering V | | 6EZ2041-8HR11-1AE0 | 6ES7 531-7KF00-0AB0 |
| 6ES7 331-1KF02-0AB0 | 8 AI | voltage metering mV | | 6EZ2041-8HR11-0AE1 | 6ES7 531-7KF00-0AB0 |
| 6ES7 331-7KF02-0AB0 | 8 AI | current metering / 4-wire- transducer | | 6EZ2041-8HR11-1AE1 | 6ES7 531-7KF00-0AB0 |
| 6ES7 331-1KF02-0AB0 | 8 AI | current metering / 4-wire- transducer | | 6EZ2041-8HR11-0AE2 | 6ES7 531-7KF00-0AB0 |
| 6ES7 331-7KF02-0AB0 | 8AI | current metering / 2-wire- transducer | | 6EZ2041-8HR11-1AE2 | 6ES7 531-7KF00-0AB0 |
| 6ES7 331-1KF02-0AB0 | 8 AI | current metering / 2-wire- transducer | | 6EZ2041-8HR11-0AE3 | 6ES7 531-7KF00-0AB0 |
| 6ES7 331-1KF02-0AB0 | 8 AI | R- / T-Metering | | 6EZ2041-8HR11-0AE4 | 6ES7 531-7KF00-0AB0 |
| 6ES7 332-5HF00-0AB0 | 8 AO | U- / I | | 6EZ2041-8HR11-0AA0 | 6ES7 532-5HF00-0AB0 |
| 6ES7 332-5HB00-0AB0 | 2 AO | U- / I | | 6EZ2041-8HR11-1AA0 | 6ES7 532-5NB00-0AB0 |
| 6ES7 332-5HD01-0AB0 | 4AO | U- / I | | 6EZ2041-8HR11-2AA0 | 6ES7 532-5HD00-0AB0 |
| width of module 25mm | | | | | |
| 6ES7 321-1BL00-0AA0 | 32 DI | 24 VDC | | 6EZ2041-8HR12-0DE0 | 6ES7 521-1BL10-0AA0 |
| 6ES7 321-1BH01-0AA0 | 16 DI | 24VDC | | 6EZ2041-8HR12-2DE0 | 6ES7 521-1BH10-0AA0 |
| 6ES7 321-1BH02-0AA0 | 16 DI | 24VDC | | 6EZ2041-8HR12-2DE0 | 6ES7 521-1BH10-0AA0 |
| 6ES7 321-7BH01-0AB0 | 16 DI | 24VDC | | 6EZ2041-8HR12-1DE0 | 6ES7 521-1BH10-0AA0 |
| 6ES7 322-1BL00-0AA0 | 32 DO | 24 VDC | 0,5A | 6EZ2041-8HR12-0DA0 | 6ES7 522-1BL10-0AA0 |
| 6ES7 322-1BH01-0AA0 | 16 DO | 24VDC | 0,5A | 6EZ2041-8HR12-1DA0 | 6ES7 522-1BH10-0AA0 |
| 6ES7 323-1BL00-0AA0 | 16DI/16DO | 24VDC | 0,5A | 6EZ2041-8HR12-0EA0 | 6ES7 523-1BL00-0AA0 |
| | | open ended cable cable length is 0.5m unshielded | | 6EZ2041-8HR10-1DU0 | 20 pole S7-300 front connector |
| | | open ended cable cable length is 0.5m unshielded | | 6EZ2041-8HR10-0DU0 | |
| Accessories | | | | 6EZ2041-8UG00-0BG0 | mounting angle (2 pieces) |

observe technical data of S7-
modules

S7_400--> S7_1500

| S7-400 | I/O | Voltage | Current | Adapter | S7-1500 |
|---------------------|-------|--------------------------------------|---------|--------------------|---------------------|
| 6ES7 421-1BL01-0AA0 | 32 DI | 24VDC | | 6EZ2041-8HR21-0DE0 | 6ES7 521-1BL00-0AB0 |
| 6ES7 422-1BL00-0AA0 | 32 DO | 24VDC | | 6EZ2041-8HR21-0DA0 | 6ES7 522-1BL01-0AB0 |
| 6ES7 422-1BH11-0AA0 | 16 DO | 24VDC | 2A | 6EZ2041-8HR21-1DA0 | 6ES7 522-5HH00-0AB0 |
| 6ES7 422-1BH11-0AA0 | 16 DO | 24VDC | 2A | 6EZ2041-8HR21-1DA1 | 6ES7 522-1BF00-0AB0 |
| 6ES7 422-1HH00-0AA0 | 16 DO | UC30/230V | Rel. 5A | 6EZ2041-8HR21-2DA0 | 6ES7 522-5HF00-0AB0 |
| 6ES7 431-7QH00-0AB0 | 16 AI | current metering / 4-wire-transducer | | 6EZ2041-8HR21-0AE1 | 6ES7 531-7KF00-0AB0 |
| 6ES7 431-7QH00-0AB0 | 16 AI | current metering / 2-wire-transducer | | 6EZ2041-8HR21-0AE2 | 6ES7 531-7KF00-0AB0 |
| 6ES7 431-7QH00-0AB0 | 16 AI | U / R / T | | 6EZ2041-8HR21-0AE0 | 6ES7 531-7KF00-0AB0 |
| 6ES7 431-1KF00-0AB0 | 8 AI | current metering / 2-wire-transducer | | 6EZ2041-8HR21-1AE2 | 6ES7 531-7KF00-0AB0 |
| 6ES7 431-1KF00-0AB0 | 8 AI | current metering / 4-wire-transducer | | 6EZ2041-8HR21-1AE1 | 6ES7 531-7KF00-0AB0 |
| 6ES7 431-1KF00-0AB0 | 8 AI | U / R | | 6EZ2041-8HR21-1AE0 | 6ES7 531-7KF00-0AB0 |
| 6ES7 431-1KF20-0AB0 | 8 AI | voltage metering | | 6EZ2041-8HR21-2AE0 | 6ES7 531-7NF10-0AB0 |
| 6ES7 431-1KF10-0AB0 | 8 AI | voltage metering | | 6EZ2041-8HR21-2AE0 | 6ES7 531-7NF10-0AB0 |
| 6ES7 431-1KF20-0AB0 | 8 AI | current metering / 4-wire-transducer | | 6EZ2041-8HR21-2AE1 | 6ES7 531-7NF10-0AB0 |
| 6ES7 431-1KF10-0AB0 | 8 AI | current metering / 4-wire-transducer | | 6EZ2041-8HR21-2AE1 | 6ES7 531-7NF10-0AB0 |
| 6ES7 431-1KF20-0AB0 | 8 AI | current metering / 2-wire-transducer | | 6EZ2041-8HR21-2AE2 | 6ES7 531-7NF10-0AB0 |
| 6ES7 431-1KF10-0AB0 | 8 AI | current metering / 2-wire-transducer | | 6EZ2041-8HR21-2AE2 | 6ES7 531-7NF10-0AB0 |
| 6ES7 432-1HF00-0AB0 | 8AO | U / I | | 6EZ2041-8HR21-0AA0 | 6ES7 532-5HF00-0AB0 |

width of module 25mm

| | | | | | |
|---|-------|--------|--|--------------------|---------------------------|
| 6ES7 421-1BL01-0AA0 | 32 DI | 24VDC | | 6EZ2041-8HR22-0DE0 | 6ES7 521-1BL10-0AA0 |
| 6ES7 422-1BL00-0AA0 | 32 DO | 24 VDC | | 6EZ2041-8HR22-0DA0 | 6ES7 522-1BL10-0AA0 |
| open ended cable cable length is 0.5m unshielded | | | | 6EZ2041-8HR20-0DU0 | |
| Accessories | | | | 6EZ2041-8UG00-0BG0 | mounting angle (2 pieces) |

switched on 2 S7-1500 modules

| S5 Baugruppe | I/O | Voltage | Current | Adapter including BaseUnit | ET200SP | ET200SP I/O | Comment |
|--------------|-----|---------|---------|----------------------------|---------|-------------|---------|
|--------------|-----|---------|---------|----------------------------|---------|-------------|---------|



Observe potential groups of S5 and ET200SP

| DI | | | | | | | |
|----------------|-------|-----------|--|---------------------------|--------------------|--------------------|---|
| 6ES5 430-4UA14 | 32 DI | 24 VDC | | 6EZ2041-8HR41-0DE0 | 6ES7193-6BP00-0DA0 | 6ES7131-6BH01-0BA0 | 16DI /24VDC |
| | | | | | 6ES7193-6BP00-0BA0 | 6ES7131-6BH01-0BA0 | 16DI /24VDC |
| 6ES5 431-4UA12 | 16 DI | 24/60 VDC | | 6EZ2041-8HR41-1DE0 | 6ES7193-6BP00-0DA0 | 6ES7131-6BH01-0BA0 | 16DI /24VDC |
| | | | | | | | only 24VDC, rewire L+ S5: 16 potential groups, ET200SP: 1 potential group |
| 6ES5 432-4UA12 | 32DI | 24 VDC | | 6EZ2041-8HR41-2DE0 | 6ES7193-6BP00-0DA0 | 6ES7131-6BH01-0BA0 | 16DI /24VDC |
| | | | | | 6ES7193-6BP00-0DA0 | 6ES7131-6BH01-0BA0 | rewire L+ S5: 4 potential groups, ET200SP: 2 potential groups |
| 6ES5 420-4UA14 | 32 DI | 24 VDC | | 6EZ2041-8HR31-0DE0 | 6ES7193-6BP00-0DA0 | 6ES7131-6BF01-0AA0 | 8DI /24VDC |
| 6ES5 430-4UA14 | | | | | 6ES7193-6BP00-0BA0 | | |
| | | | | | 6ES7193-6BP00-0BA0 | | |
| | | | | | 6ES7193-6BP00-0BA0 | | |
| 6ES5 431-4UA12 | 16DI | 24-60VDC | | 6EZ2041-8HR31-1DE0 | 6ES7193-6BP00-0DA0 | 6ES7131-6BH01-0BA0 | 16DI /24VDC |
| | | | | | | | only 24VDC, S5- F+ connected to L+ |
| 6ES5 432-4UA12 | 32DI | 24 VDC | | 6EZ2041-8HR31-2DE0 | 6ES7193-6BP00-0DA0 | 6ES7131-6BH01-0BA0 | 16DI /24VDC |
| | | | | | 6ES7193-6BP00-0DA0 | 6ES7131-6BH01-0BA0 | S5- F+ connected to L+ S5: 4 potential groups, ET200SP: 2 potential groups |

| S5 Baugruppe | I/O | Voltage | Current | Adapter including BaseUnit | ET200SP | ET200SP I/O | Comment |
|--------------|-----|---------|---------|----------------------------|---------|-------------|---------|
|--------------|-----|---------|---------|----------------------------|---------|-------------|---------|

DO

| | | | | | | | | |
|----------------|-------|--------|-------|---------------------------|--------------------|--------------------|-----------------|--|
| 6ES5 441-4UA14 | 32 DO | 24 VDC | 0,5 A | 6EZ2041-8HR41-0DA0 | 6ES7193-6BP00-0DA0 | 6ES7132-6BH00-0AA0 | 16DO/24VDC/0,5A | |
| | | | | | 6ES7193-6BP00-0DA0 | 6ES7132-6BH00-0AA0 | | |

| | | | | | | | | |
|----------------|-------|--------|-------|---------------------------|--------------------|--------------------|-----------------|--|
| 6ES5 451-4UA14 | 32 DO | 24 VDC | 0,5 A | 6EZ2041-8HR41-0DA0 | 6ES7193-6BP00-0DA0 | 6ES7132-6BH01-0BA0 | 16DO/24VDC/0,5A | |
| | | | | | 6ES7193-6BP00-0DA0 | 6ES7132-6BH01-0BA0 | | |

| | | | | | | | | |
|----------------|-------|---------------|-------|---------------------------|--------------------|--------------------|--------------------|-----------------------------------|
| 6ES5 458-4UA12 | 16 DO | 60 VDC/48V AC | 0,5 A | 6EZ2041-8HR41-1DA0 | 6ES7193-6BP20-0BB1 | 6ES7132-6HD01-0BB1 | 4* RQ | observe technical data of modules |
| | | | | | 6ES7193-6BP20-0BB1 | 6ES7132-6HD01-0BB1 | 120VDC-230VAC / 5A | |
| | | | | | 6ES7193-6BP20-0BB1 | 6ES7132-6HD01-0BB1 | NO ST | |
| | | | | | 6ES7193-6BP20-0BB1 | 6ES7132-6HD01-0BB1 | | |

| | | | | | | | | |
|----------------|-------|---------------|-----|---------------------------|--------------------|--------------------|--------------------|--------------------------------------|
| 6ES5 458-4UC11 | 16 DO | Relais 230VAC | 5 A | 6EZ2041-8HR41-2DA0 | 6ES7193-6BP20-0BB1 | 6ES7132-6HD01-0BB1 | 4* RQ | observe technical data of S7-modules |
| | | | | | 6ES7193-6BP20-0BB1 | 6ES7132-6HD01-0BB1 | 120VDC-230VAC / 5A | |
| | | | | | 6ES7193-6BP20-0BB1 | 6ES7132-6HD01-0BB1 | NO ST | |
| | | | | | 6ES7193-6BP20-0BB1 | 6ES7132-6HD01-0BB1 | | |

| S5 Baugruppe | I/O | Voltage | Current | Adapter including BaseUnit | ET200SP | ET200SP I/O | Comment |
|--------------|-----|---------|---------|----------------------------|---------|-------------|---------|
|--------------|-----|---------|---------|----------------------------|---------|-------------|---------|

AI

| | | | | | | | |
|----------------|------|--------------------------|--|---------------------------|--------------------|--------------------|---------------------|
| 6ES5 460-4UA13 | 8 AI | Strom- /Spannungsmessung | | 6EZ2041-8HR41-0AE0 | 6ES7193-6BP00-0DA0 | 6ES7134-6HD01-0BA1 | 4 AI U/I 2-draht ST |
| | | | | | 6ES7193-6BP00-0BA0 | 6ES7134-6HD01-0BA1 | Spannungsmessung |

| | | | | | | | | |
|----------------|------|--------------------------|--|---------------------------|--------------------|--------------------|---------------------|--|
| 6ES5 460-4UA13 | 8 AI | Strom- /Spannungsmessung | | 6EZ2041-8HR41-0AE1 | 6ES7193-6BP00-0DA0 | 6ES7134-6HD01-0BA1 | 4 AI U/I 2-draht ST | not with measuring range module 6ES5 498-1AA51 |
| | | | | | 6ES7193-6BP00-0BA0 | 6ES7134-6HD01-0BA1 | Strommessung | |

| | | | | | | | |
|----------------|------|--------------------|--|---------------------------|--------------------|--------------------|------------------------|
| 6ES5 460-4UA13 | 8 AI | Widerstandsmessung | | 6EZ2041-8HR41-0AE2 | 6ES7193-6BP00-0DA0 | 6ES7134-6JD00-0CA1 | 4 AI RTD/TC 4-Draht HF |
| | | | | | 6ES7193-6BP00-0BA0 | 6ES7134-6JD00-0CA1 | Widerstandsmessung |

| | | | | | | | |
|----------------|------|--------------------|--|---------------------------|--------------------|--------------------|------------------------|
| 6ES5 460-4UA13 | 8 AI | Widerstandsmessung | | 6EZ2041-8HR41-0AE3 | 6ES7193-6BP00-0DA0 | 6ES7134-6JD00-0CA1 | 8 AI RTD/TC 2-Draht HF |
| | | | | | | | Widerstandsmessung |

AO

| | | | | | | | |
|----------------|------|--------------------------|--|---------------------------|--------------------|--------------------|-------------|
| 6ES5 470-4UA13 | 8 AO | Strom- /Spannungsmessung | | 6EZ2041-8HR41-0AA0 | 6ES7193-6BP00-0DA0 | 6ES7135-6HD00-0BA1 | 4 AO U/I ST |
| | | | | | 6ES7193-6BP00-0BA0 | | |

| | | | | | | | |
|----------------|------|--|--|---------------------------|--------------------|--------------------|-------------|
| 6ES5 470-4UB13 | 8 AO | | | 6EZ2041-8HR41-1AA0 | 6ES7193-6BP00-0DA0 | 6ES7135-6HD00-0BA1 | 4 AO U/I ST |
| | | | | | 6ES7193-6BP00-0BA0 | | |

ET200SP is not included