SIMATIC ET 200SP
Simple to use, smaller in size, stronger in performance

siemens.com/et200sp

Intuitive, efficient, proven –
TIA Portal redefines engineering

Answers for industry.
SIMATIC ET 200SP

Simple to use

**Easy station assembly**
Time saving from easy station setup and replacing modules as well as the terminal boxes during operation. The maximum configuration comprises 64 modules, i.e. 64x16 signals – on a width of only one meter. The mechanical coding of I/O modules with the base unit prevents module confusion during assembly. This ensures the prevention of faults.

**Rapid wiring**
The new arrangement and the push-in terminal make wiring and cable removal as easy as never before. Except for a screwdriver, no tools are required for the cables’ wiring and removal. The connections are gas-tight and thus corrosion-resistant.

**Reliable diagnostics**
SIMATIC ET 200SP continuously provides the user with detailed information on the system state via channel-accurate signal transfer on the I/O module. User do not need additional programming or bit deciphering for I/O module and channel diagnostics. Diagnostics are continuously available even during CPU stop when SIMATIC ET 200SP is controlled with S7-1500 CPU.

Smaller in size

**Effective footprint**
SIMATIC ET 200SP features a size smaller by roughly 50% compared to other distributed I/Os. With a height of approx. 115 millimeters, the system offers space for 16 channels with single-conductor connection (without AUX terminals). With 3-conductor connection with AUX terminals, the height amounts to 140 millimeters for 8 channels. The depth is approx. 75 millimeters. Leaving sufficient distance to the control cabinet door, SIMATIC ET 200SP complies with the standardized bending radii in control cabinets with a depth of 80 millimeters.

**Integrated power module**
To keep the size as small as possible, the power module for load group formation is integrated in the system with SIMATIC ET 200SP.

**Maximum transparency**
Despite the system’s compactness, the I/O modules allow for very transparent labeling. An innovative labeling system combines the most important information regarding module, wiring and channels.
Stronger in performance

**Communication with PROFINET and PROFIBUS**
High-performance automation solutions with distributed I/Os are only made possible through industrial communication. PROFINET represents the powerful Ethernet standard with minimum cycle times for automation. The isochronous mode of the SIMATIC ET 200SP backplane bus supports low-jitter data transfer – and thus allows for maximum precision. The interface module of SIMATIC ET 200SP is also available for connection to PROFIBUS.

**Hot swapping**
SIMATIC ET 200SP also facilitates hot swapping with multiple modules (multi hot swapping). This means that multiple modules can be simultaneously removed and replaced during ongoing operation. As a result, only affected modules fail instead of the entire station. This ensures reduced downtimes and increased productivity as the unaffected system components of SIMATIC ET 200SP remain in operation.

**Safety Integrated**
SIMATIC ET 200SP supports safety-related communication. The safety DI and DO modules are equivalent in size to the standard modules. Their functional safety is certified in accordance with EN 61508. They are rated for safety-related applications up to SIL3 in accordance with EN 62061 and PL e in accordance with ISO 13849. As a special highlight of SIMATIC ET 200SP fail-safe modules, the fail-safe addresses are assigned via engineering during commissioning. This simplifies the setup process and saves time.

New highlights

**SIMATIC ET 200SP Controllers: CPU 1510SP-1PN and CPU 1512SP-1PN**
SIMATIC ET 200SP CPUs with PROFINET feature the same functionalities as the S7-1511 / S7-1513 CPUs, e.g. integrated trace function, web server and fully symbolic programming. These CPUs come with 3 integrated Ethernet ports, 2 Ethernet connection ports can be flexibly selected by means of bus adapters as a cost saving feature. These CPUs can also be configured as interface modules with the iDevice functionality.

**PRONETA**
PRONETA ensures eased commissioning and configuration of your PROFINET network. Your network’s topology is automatically read in. You can either change the address parameters of your SIMATIC ET 200SP station manually or use the parameters of a template. I/O modules can be parameterized, controlled and monitored with the help of PRONETA. The test results are logged in a clearly structured protocol.

www.siemens.com/proneta

**TIA Selection Tool**
The TIA Selection Tool offers assistants for the selection of desired devices and networks. Moreover, it provides configurators for the selection of modules and accessories as well as for the verification of correct operability. The TIA Selection Tool generates a complete order list on the basis of your product selection or product configuration.

www.siemens.com/tia-selection-tool
AI energy meter is not applicable to all countries with voltage requirements of > 460 V

**HS:** High Speed

**HF:** High Feature

**BA:** Basic

### 6ES7 138-6BA00-0BA0
- **TM 1xpos.input**
  - up to 1 MHz ST (SSI, 5V count)

### 6ES7 138-6AA00-0BA0
- **TM 1xcount**
  - 24V/ up to 200kHz ST

### 6ES7 545-5DA00-0AB0
- **CM DP master (for CPU and EC)**

### 6ES7 137-6AA00-0BA0
- **CM 1xPtP ST**
  - (ASCII, 3964R, USS, Modbus)

### 6ES7 137-6BD00-0BA0
- **CM 4xIO-Link ST**

### 6ES7 136-6RA00-0BF0
- **F-RQ**
  - 1x48VDC/230VAC/6A ST

### 6ES7 136-6PA00-0BC0
- **F-PM-E**
  - PPM

### 6ES7 136-6DB00-0CA0
- **F-DQ**
  - 4x24VDC/2A HF

### 6ES7 136-6BA00-0CA0
- **F-DI**
  - 8x24VDC HF

### Fail-safe modules

### 6ES7 135-6HB00-0DA1
- **AQ 2xU/I HS**

### 6ES7 135-6HB00-0CA1
- **AQ 2xU/I HF**

### 6ES7 134-6HB00-0CA1
- **AI 2xU/I 2-/4-wire HF**

### 6ES7 134-6JF00-0CA1
- **AI 8xRTD/TC 2-wire HF**

### 6ES7 134-6JD00-0CA1
- **AI 4xRTD/TC 2-/3-/4-wire HF**

### 6ES7 134-6HD00-0BA1
- **AI 4xU/I 2-wire ST**

### Analog input and output modules

### 6ES7 132-6GD50-0BA0
- **RQ 4x24VDC/2A CO ST**

### 6ES7 132-6BD20-0CA0
- **DQ 4x24VDC/2A HF**

### 6ES7 132-6FD00-0BB1
- **DQ 4x24VAC...230VAC/2A ST**

### 6ES7 132-6BF60-0AA0
- **DQ Sink 8x24VDC/0.5A BA**

### 6ES7 132-6BF00-0CA0
- **DQ 8x24VDC/0.5A HF**

### 6ES7 132-6BH00-0BA0
- **DQ 16x24VDC/0.5A ST**

### 6ES7 131-6TF00-0CA0
- **DI 8xNAMUR HF**

### 6ES7 131-6FD00-0BB1
- **DI 4x120VAC...230VAC ST**

### 6ES7 131-6BF00-0CA0
- **DI 8x24VDC HF**

### 6ES7 131-6BH00-0BA0
- **DI 16x24VDC ST**

### Digital input and output modules

### I/O modules

### 6ES7 134-6PA00-0BD0
- **AI energy meter ST**

### 7MH4138-6AA00-0BA0
- **TM 1xSIWAREX WP321 ST (analog)**

### Base units

### 6ES7 193-6BP40-0DA1
- **Base unit type A1, BU15-P16+A0+12D/T (White, New loadgroup)**

### 6ES7 193-6BP00-0DA1
- **Base unit type A1, BU15-P16+A0+2D/T (White, New loadgroup)**

### 6ES7 193-6BP00-0BA1
- **Base unit type A1, BU15-P16+A0+2B/T (Gray, Bridged to left BU)**

### Base unit type A1 (with temperature measuring)

### 6ES7 193-6BP20-0DA0
- **Base unit type A0, BU15-P16+A10+2D (White, New loadgroup)**

### 6ES7 193-6BP20-0BA0
- **Base unit type A0, BU15-P16+A10+2B (Gray, Bridged to left BU)**

### Base unit type A0, C1, D0 and F0

### 6ES7 193-6BP20-0BF0
- **Base unit type F0, BU20-P8+A4+0B (Gray, Bridged to left BU)**

### 6ES7 193-6BP00-0BD0
- **Base unit type D0, BU20-P12+A0+0B (Gray, Bridged to left BU)**

### 6ES7 193-6BP20-0BC1
- **Base unit type C1, BU20-P6+A2+4B (Gray, Bridged to left BU)**

### 6ES7 193-6BP20-0DC0
- **Base unit type C0, BU20-P6+A2+4D (White, New loadgroup)**

### 6ES7 193-6BP20-0BB1
- **Base unit type B1, BU20-P12+A0+4B (Gray, Bridged to left BU)**

### 6ES7 193-6BP20-0BB0
- **Base unit type B0, BU20-P12+A4+0B (Gray, Bridged to left BU)**

### Base unit type B0, C1, D0 and F0

### Bus adapters and DP plug

### 6ES7 155-6AU00-0CN0
- **IM155-6PN HF, incl. server module without bus adapter**

### 6ES7 155-6AA00-0BN0
- **IM155-6PN ST, incl. server module and BA 2xRJ 45**

### Engineering requirements

### 6ES7 954-8LP01-0AA0
- **SIMATIC memory card 2 GB (only required with CPU)**

### 6ES7 954-8LF01-0AA0
- **SIMATIC memory card 24 MB (only required with CPU)**

### 6ES7 954-8LE01-0AA0
- **SIMATIC memory card 12 MB (only required with CPU)**

### Additional Accessories

### 6ES7 193-6LF30-0AW0
- **160 equipment labeling plates**

### 6ES7 133-6CV20-1AM0
- **5 BU covers, max. 2 cables**

### 6ES7 133-6CV15-1AM0
- **5 BU covers, 20 mm**

### Labeling Accessories

### 6ES7 193-6LA10-0AA0
- **1000 labeling strips 10 DIN A4 paper sheets with**

### 6ES7 193-6LR10-0AG0
- **500 labeling strips, yellow**

### 6ES7 193-6LR10-0AA0
- **500 labeling strips, light gray**

### 6ES7 193-6CP86-2AC0
- **10 color coding plates, 2 AUX terminals, blue, CC86**

### 6ES7 193-6CP52-2MC0
- **10 color coding plates, color code CC52**

### 6ES7 193-6CP51-2MC0
- **10 color coding plates, color code CC51**

### 6ES7 193-6CP83-2AB0
- **10 color coding plates, 4 AUX terminals, blue, CC83**

### 6ES7 193-6CP82-2AB0
- **10 color coding plates, 4 AUX terminals, red, CC82**

### 6ES7 193-6CP81-2AB0
- **10 color coding plates, 4 AUX terminals, blue**

### 6ES7 193-6CP74-2AA0
- **10 color coding plates, color code CC74**

### 6ES7 193-6CP73-2AA0
- **10 color coding plates, color code CC73**

### 6ES7 193-6CP72-2AA0
- **10 color coding plates, color code CC72**

### 6ES7 193-6CP04-2MA0
- **10 color coding plates, color code CC04 (IO-Link)**

### 6ES7 193-6CP02-2MA0
- **10 color coding plates, color code CC02 (DQ 4 or 8)**

### Connection possible with integration in the hardware catalog to:

- STEP 7 via TIA Portal / STEP 7 V5.5 (except for CPU)/GSD/GSDML
- Otherwise via GSD/GSDML

### S7-1200, S7-1500, S7-300, S7-400, SIMOTION, SINUMERIK

Please refer to www.siemens.com/et200sp or the TIA Selection Tool
Discover everything about SIMATIC ET 200:

› Descriptive animations of ET 200SP functions
› Further details on design and modules
› All about PRONETA at www.siemens.com/proneta
› All about the TIA Selection Tool at www.siemens.com/tia-selection-tool

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