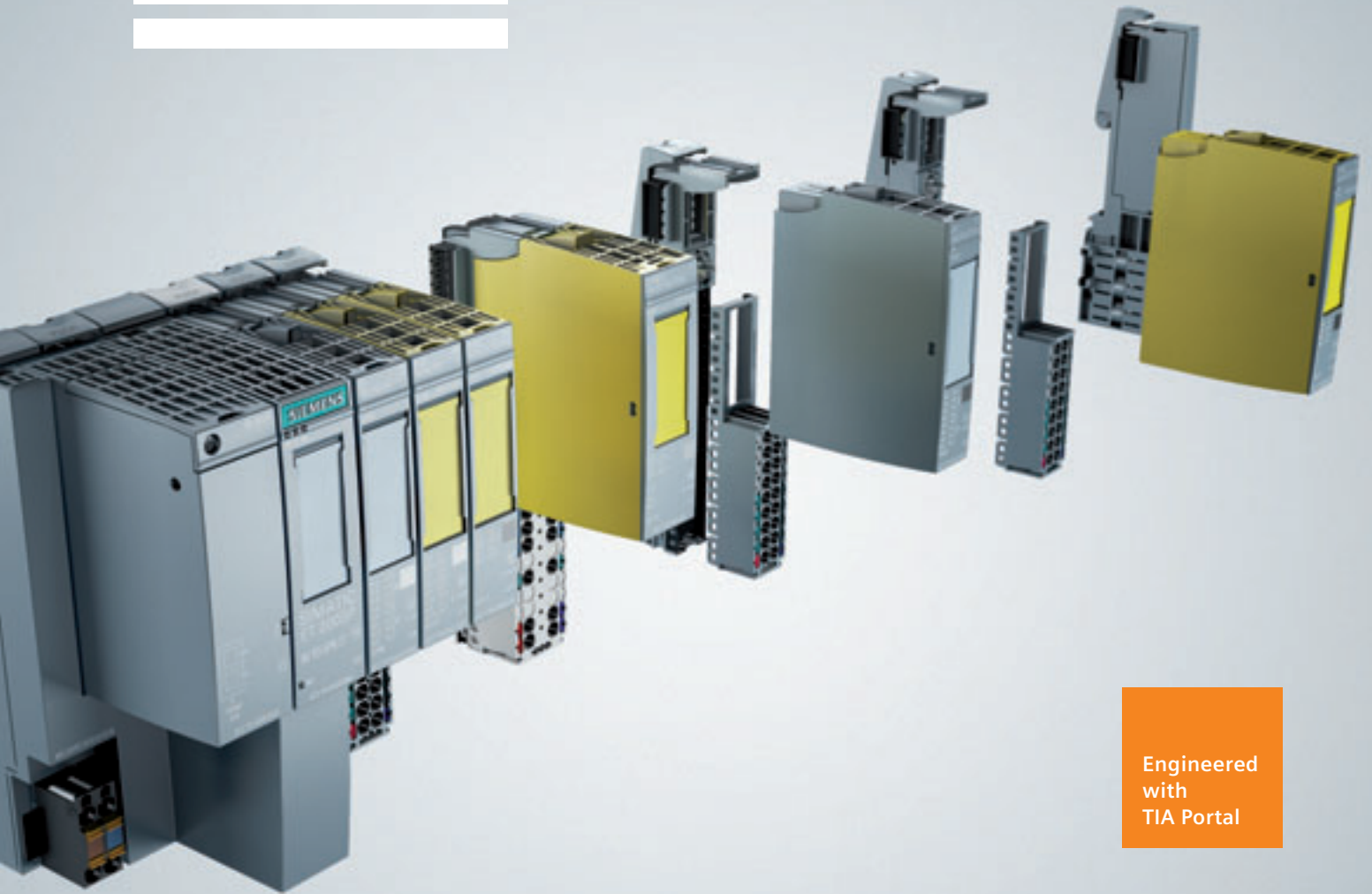


**SIEMENS**



Engineered  
with  
TIA Portal

[siemens.com/et200sp](http://siemens.com/et200sp)

# SIMATIC ET 200SP

Simple to use, smaller in size, stronger in performance



Intuitive, efficient, proven –  
TIA Portal redefines engineering

**Fluitronic**

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

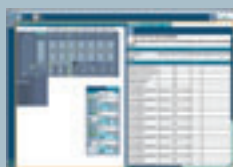
SIMATIC ET 200SP supports safety-related communication. The safety DI and DO modules are equivalent in size to the standard modules. Their functional safety is certified in accordance with EN 61508. They are rated for safety-related applications up to SIL3 in accordance with EN 62061 and PL e in accordance 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](http://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.

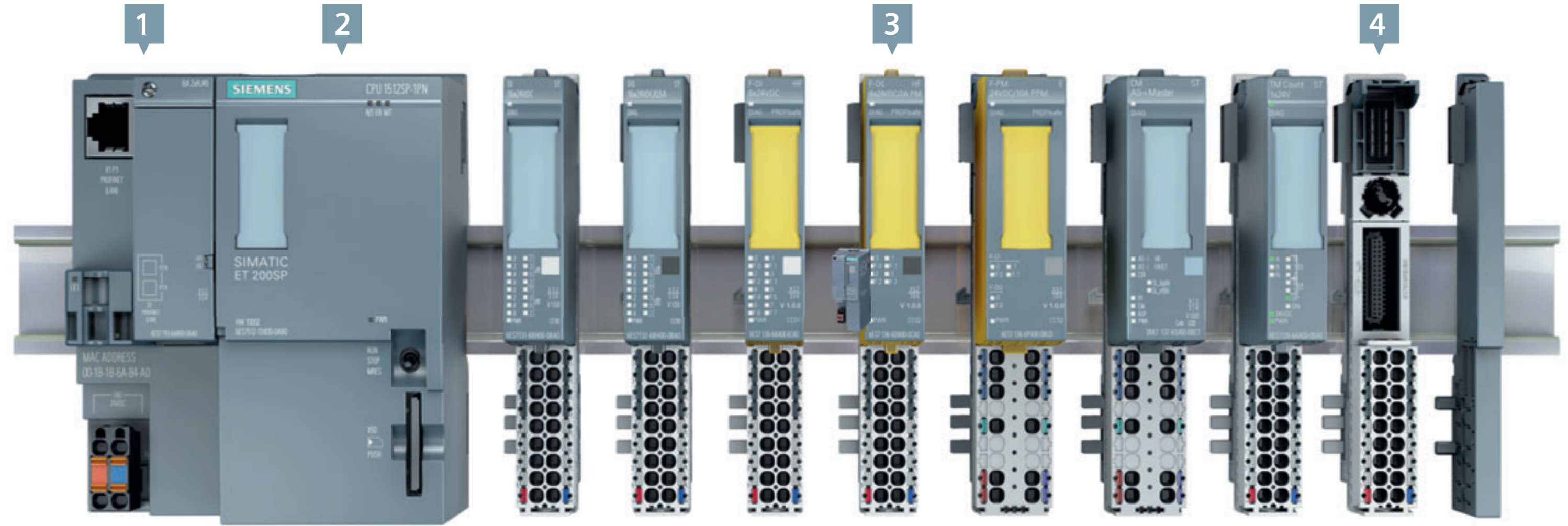
[www.siemens.com/tia-selection-tool](http://www.siemens.com/tia-selection-tool)

I/O modules	
Digital input and output modules	
6ES7131-6BF00-0BA0	DI 8x24VDC ST
6ES7131-6BH00-0BA0	DI 16x24VDC ST
6ES7131-6BF00-0CA0	DI 8x24VDC HF
6ES7131-6FD00-0BB1	DI 4x120VAC...230VAC ST
6ES7131-6BF60-0AA0	DI SRC 8x24VDC BA
6ES7131-6TF00-0CA0	DI 8xNAMUR HF
6ES7132-6BD20-0BA0	DQ 4x24VDC/2A ST
6ES7132-6BF00-0BA0	DQ 8x24VDC/0.5A ST
6ES7132-6BH00-0BA0	DQ 16x24VDC/0.5A ST
6ES7132-6BF00-0CA0	DQ 8x24VDC/0.5A HF
6ES7132-6BF60-0AA0	DQ Sink 8x24VDC/0.5A BA
6ES7132-6FD00-0BB1	DQ 4x24VAC...230VAC/2A ST
6ES7132-6BD20-0CA0	DQ 4x24VDC/2A HF
6ES7132-6HD00-0BB0	RQ 4x120VDC-230VAC/5A NO ST
6ES7132-6GD50-0BA0	RQ 4x24VDC/2A CO ST
Analog input and output modules	
6ES7134-6GD00-0BA1	AI 4xI 2-/4-wire ST
6ES7134-6HD00-0BA1	AI 4xUII 2-wire ST
6ES7134-6JD00-0CA1	AI 4xRTD/TC 2-/3-/4-wire HF
6ES7134-6JF00-0CA1	AI 8xRTD/TC 2-wire HF
6ES7134-6HB00-0CA1	AI 2xUII 2-/4-wire HF
6ES7134-6HB00-0DA1	AI 2xUII 2-/4-wire HS
6ES7135-6HD00-0BA1	AQ 4xUII ST
6ES7135-6HB00-0CA1	AQ 2xUII HF
6ES7135-6HB00-0DA1	AQ 2xUII HS
Fail-safe modules	
6ES7136-6BA00-0CA0	F-DI 8x24VDC HF
6ES7136-6DB00-0CA0	F-DQ 4x24VDC/2A HF
6ES7136-6PA00-0BC0	F-PM-E PPM
6ES7136-6RA00-0BF0	F-RQ 1x48VDC/230VAC/6A ST
3RK7136-6SC00-0BC1	F-CM AS-i Safety ST
Communication modules	
6ES7137-6BD00-0BA0	CM 4xIO-Link ST
6ES7137-6AA00-0BA0	CM 1xPtP ST (ASCII, 3964R, USS, Modbus)
3RK7137-6SA00-0BC1	CM AS-i master ST
6ES7545-5DA00-0AB0	CM DP master (for CPU and EC)
Technology and special modules	
6ES7138-6AA00-0BA0	TM 1xcount 24V/ up to 200kHz ST
6ES7138-6BA00-0BA0	TM 1xpos.input up to 1 MHz ST (SSI, 5V count)
7MH4138-6AA00-0BA0	TM 1xSIWAREX WP321 ST (analog)
6ES7134-6PA00-0BD0	AI energy meter ST *

BA: Basic  
 ST: Standard  
 HF: High Feature  
 HS: High Speed  
 \* AI energy meter is not applicable to all countries with voltage requirements of > 460 V

Bus adapters	
6ES7193-6AR00-0AA0	BA 2xRJ45
6ES7193-6AF00-0AA0	BA 2xFC
6ES7193-6AP00-0AA0	BA 2xSCRJ (only from function class HF)
6ES7155-6BA00-0CN0	IM155-6DP HF, incl. server module (6ES71936PA000AA0) and DP plug (6ES7972-0BB700XA0)

Interface modules and CPU	
6ES7155-6AA00-0BN0	IM155-6PN ST, incl. server module and BA 2xRJ45
6ES7155-6AU00-0BN0	IM155-6PN ST, incl. server module without bus adapter
6ES7155-6AU00-0CN0	IM155-6PN HF, incl. server module without bus adapter
	CPU 1512SP-1PN



Base units	
Base unit type A0	
6ES7193-6BP00-0BA0	Base unit type A0, BU15-P16+A0+2B, (Gray, Bridged to left BU)
6ES7193-6BP20-0BA0	Base unit type A0, BU15-P16+A10+2B (Gray, Bridged to left BU)
6ES7193-6BP00-0DA0	Base unit type A0, BU15-P16+A0+2D (White, New loadgroup)
6ES7193-6BP20-0DA0	Base unit type A0, BU15-P16+A10+2D (White, New loadgroup)
Base unit type A1 (with temperature measuring)	
6ES7193-6BP00-0BA1	Base unit type A1, BU15-P16+A0+2B/T (Gray, Bridged to left BU)
6ES7193-6BP40-0BA1	Base unit type A1, BU15-P16+A0+12B/T (Gray, Bridged to left BU)
6ES7193-6BP00-0DA1	Base unit type A1, BU15-P16+A0+2D/T (White, New loadgroup)
6ES7193-6BP40-0DA1	Base unit type A1, BU15-P16+A0+12D/T (White, New loadgroup)

Base units	
Base unit type B0, C1, D0 and F0	
6ES7193-6BP20-0BB0	Base unit type B0, BU20-P12+A4+0B (Gray, Bridged to left BU)
6ES7193-6BP20-0BB1	Base unit type B1, BU20-P12+A0+4B (Gray, Bridged to left BU)
6ES7193-6BP20-0DC0	Base unit type C0, BU20-P6+A2+4D (White, New loadgroup)
6ES7193-6BP20-0BC1	Base unit type C1, BU20-P6+A2+4B (Gray, Bridged to left BU)
6ES7193-6BP00-0BD0	Base unit type D0, BU20-P12+A0+0B (Gray, Bridged to left BU)
6ES7193-6BP20-0BF0	Base unit type F0, BU20-P8+A4+0B (Gray, Bridged to left BU)

For information regarding combination options between I/O modules and base units as well as interface modules, please refer to [www.siemens.com/et200sp](http://www.siemens.com/et200sp) or the TIA Selection Tool

Labeling Accessories	
6ES7193-6CP01-2MA0	10 color coding plates, color code CC01 (DI 8)
6ES7193-6CP02-2MA0	10 color coding plates, color code CC02 (DQ 4 or 8)
6ES7193-6CP03-2MA0	10 color coding plates, color code CC03 (AI 4)
6ES7193-6CP04-2MA0	10 color coding plates, color code CC04 (IO-Link)
6ES7193-6CP71-2AA0	10 color coding plates, color code CC71 (DI 8 with 10 AUX terminals), yellow-green
6ES7193-6CP72-2AA0	10 color coding plates, color code CC72 (DQ 4 or 8 with 10 AUX terminals), red
6ES7193-6CP73-2AA0	10 color coding plates, color code CC73 (AI 4 with 10 AUX terminals), blue
6ES7193-6CP74-2AA0	10 color coding plates, color code CC74 (IO-Link with 2x5 add-on terminals, 5x red, 5x blue)
6ES7193-6CP81-2AB0	10 color coding plates, 4 AUX terminals, yellow-green, CC81
6ES7193-6CP82-2AB0	10 color coding plates, 4 AUX terminals, red, CC82
6ES7193-6CP83-2AB0	10 color coding plates, 4 AUX terminals, blue, CC83
6ES7193-6CP51-2MC0	10 color coding plates, color code CC51
6ES7193-6CP52-2MC0	10 color coding plates, color code CC52
6ES7193-6CP84-2AC0	10 color coding plates, 2 AUX terminals, yellow-green, CC84
6ES7193-6CP85-2AC0	10 color coding plates, 2 AUX terminals, red, CC85
6ES7193-6CP86-2AC0	10 color coding plates, 2 AUX terminals, blue, CC86
6ES7193-6LR10-0AA0	500 labeling strips, light gray
6ES7193-6LR10-0AGO	500 labeling strips, yellow
6ES7193-6LA10-0AA0	1000 labeling strips 10 DIN A4 paper sheets with 100 labels each, light gray
6ES7193-6LA10-0AGO	1000 labeling strips 10 DIN A4 paper sheets with 100 labels each, yellow
6ES7193-6LF30-0AW0	160 equipment labeling plates

Additional Accessories	
6ES7133-6CV15-1AM0	5 BU covers, 15 mm
6ES7133-6CV20-1AM0	5 BU covers, 20 mm
6ES7193-6SC00-1AM0	5 shield terminals, max. 2 cables
6ES7954-8LC01-0AA0	SIMATIC memory card 4 MB (only required with CPU)
6ES7954-8LE01-0AA0	SIMATIC memory card 12 MB (only required with CPU)
6ES7954-8LF01-0AA0	SIMATIC memory card 24 MB (only required with CPU)
6ES7954-8LP01-0AA0	SIMATIC memory card 2 GB (only required with CPU)

**Engineering requirements**  
 STEP 7 via TIA Portal / STEP 7 V5.5 (except for CPU)/GSD/GSDML  
 Connection possible with integration in the hardware catalog to:  
 S7-1200, S7-1500, S7-300, S7-400, SIMOTION, SINUMERIK  
 Otherwise via GSD/GSDML

Discover more:

[siemens.com/et200sp](http://siemens.com/et200sp)

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](http://www.siemens.com/proneta)
- › All about the TIA Selection Tool at [www.siemens.com/tia-selection-tool](http://www.siemens.com/tia-selection-tool)

SIMATIC  
ET 200SP –  
take a look!



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