

SIEMENS



SIMATIC ET 200SP – ENGINEERED WITH TIA PORTAL

The powerful IO system for compact control cabinets

[siemens.com/et200sp](https://www.siemens.com/et200sp)

TIA and ET 200SP – efficient interaction between all components



The GOEBEL XTRASLIT 2 is an innovative slitter rewinder and sets standards for highly productive processing of paper, film and foil, and flexible packaging materials.

Higher productivity and availability

As one of the world's leading manufacturers of slitter rewinders for the paper and foil processing industry, GOEBEL relies on Siemens technology when it comes to special machine building. The machines, which are developed and built in Germany, meet the highest demands in terms of production and reliability. With the new XTRASLIT 2, GOEBEL has developed an even more versatile slitter rewinder.

This machine ensures maximum efficiency and winding quality thanks to a unique cutting and winding principle. A particularly high level of flexibility is permitted by the modular machine concept with a host of technical equipment features. The Siemens components installed by GOEBEL include: the drive system, HMI operator panels, S7 controllers and IO devices.

Thanks to an improved depth of diagnosis, GOEBEL can increase the availability of the machine by up to 15%. Fast error diagnostics shorten any downtimes and therefore significantly improve productivity for customers.



From the planning phase to the commissioning, GOEBEL can now produce a machine up to three times faster than before.

Harald Knechtel, Managing Director for Sales and Marketing

Compact design and significantly faster commissioning

The particular advantage of SIMATIC ET 200SP for GOEBEL is its compact design in the control cabinet, which saves up to 50% of the space required. The interaction of the ET 200SP with the other components in the machine enables commissioning times to be shortened by about 20%.

Harald Knechtel, Sales Director at Goebel Schneid- & Wickelsysteme GmbH, points out the extremely short response times of PROFINET, while open, flexible communication open up new and innovative concepts.

The highlights of SIMATIC ET 200SP

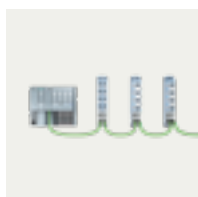


Distributed Controller

The SIMATIC ET 200SP Open Controller has been equipped with safety functionality for the first time. The powerful new CPU 1515SP PC F now enables standard and fail-safe automation tasks to be handled by a single device. The distributed controller combines the functions of a PC-based software controller with visualization, Windows applications and central I/Os (inputs/outputs) in one compact device.

The new CPU 1516pro-2 PN of the SIMATIC ET 200pro Distributed Controller also performs standard and safety automation tasks in a single device – up to performance level (PL) e. The new CPUs are supplemented with the latest SIMATIC S7-1500 technology.

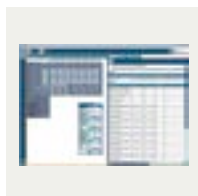
[siemens.com/distributed-controller](https://www.siemens.com/distributed-controller)



SIMATIC ET 200AL

Thanks to their high IP65/67 degree of protection, compact design, minimal space requirements and low weight, the compact SIMATIC ET 200AL modules are specially designed for distributed control electronics in tight spaces and applications involving motion. By means of a front or lateral screw connection they can be mounted in all orientations. The modules can be incorporated in the automation network via PROFINET, PROFIBUS or by the integration of ET 200SP. The new modules are available with M12 connection technology, higher output current and greater spacing from one another. In accordance with SIL 2, actuators can now be safely shut down in groups via the ET 200AL outputs.

[siemens.com/et200al](https://www.siemens.com/et200al)



PRONETA V2.3

PRONETA simplifies the commissioning and configuration of your PROFINET network. The topology of your network is read automatically. The address parameters of the SIMATIC ET 200SP station are either changed manually, or the parameters accepted from a template. I/O modules can be parameterized, controlled and monitored with the aid of PRONETA. The test results are clearly logged.

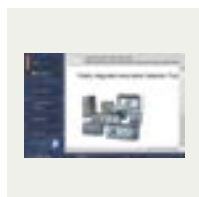
[siemens.com/proneta](https://www.siemens.com/proneta)



ET 200SP motor starters

The discretely modular ET 200SP motor starters in the SIMATIC ET 200SP IO system are the solution for starting and protecting motors of up to 5.5 kW in four setting ranges and are installed on a distributed basis in the control cabinet, e.g. in plant and machine construction. The new SIMATIC ET 200SP motor starters can be supplied in both the standard and fail-safe versions. Engineering is performed via the TIA Portal or STEP 7. The advantages of the system are the lower costs during configuration and installation by means of prewired load feeders. The flexible SIMATIC ET 200SP modular concept with its permanent wiring and hot-swapping features also forms the basis for the motor starters.

[siemens.com/motorstarter](https://www.siemens.com/motorstarter)



TIA Selection Tool Cloud

The TIA Selection Tool offers you wizards to help select the required devices and networks. In addition, there are configurators for selecting modules and accessories, as well as checking for correct function. The TIA Selection Tool generates a complete ordering list from your product selection or configuration. The TIA Selection Tool is now also available as a web version.

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



Safety Integrated

The SIMATIC ET 200SP also permits safety-related communication. The safety modules for DI and DO correspond to the size of the standard modules. Functional safety is certified according to EN 61508. They are designed for safety-related use up to SIL 3 according to EN 62061 and PL e according to ISO 13849. One special feature of the F modules of SIMATIC ET 200SP is that the F addresses are assigned via the engineering during commissioning. This simplifies the setup process and saves time.

[siemens.com/simatic-safety](https://www.siemens.com/simatic-safety)

1 BusAdapter



Digital input and output modules

| | Article No. |
|---|--------------------|
| BA 2xRJ45 | 6ES7193-6AR00-0AA0 |
| BA 2xFC | 6ES7193-6AF00-0AA0 |
| BA 2xSCRJ | 6ES7193-6AP00-0AA0 |
| BA SCRJ/RJ45 media converter (FOC – copper) | 6ES7193-6AP20-0AA0 |
| BA SCRJ/FC | 6ES7193-6AP40-0AA0 |
| BA 2xLC | 6ES7193-6AG00-0AA0 |
| BA LC/RJ45 | 6ES7193-6AG20-0AA0 |
| BA LC/FC | 6ES7193-6AG40-0AA0 |

2 Interface modules and CPU



Digital input and output modules

| | Article No. |
|---|--------------------|
| IM155-6PN ST with server module and BusAdapter 2xRJ45 | 6ES7155-6AA00-0BNO |
| IM155-6PN ST with server module, without BusAdapter | 6ES7155-6AU00-0BNO |
| IM155-6PN HF with server module, without BusAdapter | 6ES7155-6AU00-0CNO |
| IM155-6DP HF with server module (6ES71936PA000AA0) and DP connector (6ES7972-0BB700XA0) | 6ES7155-6BA00-0CNO |
| IM155-6PN BA with server module and integrated RJ45 | 6ES7155-6AR00-0ANO |
| IM155-6PN HS with server module, without BusAdapter | 6ES7155-6AU00-0DNO |
| CPU 1510SP-1PN (SIMATIC Memory Card required) | 6ES7510-1DJ01-0AB0 |
| CPU 1512SP-1PN (SIMATIC Memory Card required) | 6ES7512-1DK01-0AB0 |
| CPU 1510SP F-1PN (SIMATIC Memory Card required) | 6ES7510-1SJ01-0AB0 |
| CPU 1512SP F-1PN (SIMATIC Memory Card required) | 6ES7512-1SK01-0AB0 |
| CPU 1515SP PC (incl. HMI) | 6ES7677-2AA... |
| CPU 1515SP PC F (incl. HMI) | 6ES7677-2FA... |

3 IO modules



Digital input and output modules

| | Article No. |
|--|---------------------|
| DI 8x24 V DC BA | 6ES7131-6BF00-#AA0* |
| DI 8x24 V DC SRC BA | 6ES7131-6BF60-0AA0 |
| DI 4x120...230 V AC ST | 6ES7131-6FD00-0BB1 |
| DI 8x24 V DC ST | 6ES7131-6BF00-#BA0* |
| DI 16x24 V DC ST | 6ES7131-6BH00-#BA0* |
| DI 8x24 V DC HF (add-on function: module-internal shared input) | 6ES7131-6BF00-0CA0 |
| DI 8xNAMUR HF | 6ES7131-6TF00-0CA0 |
| DI 8x24 V DC HS (add-on function: counting and oversampling) | 6ES7131-6BF00-0DA0 |
| DQ 8x24 V DC/0,5 A BA | 6ES7132-6BF00-#AA0* |
| DQ 8x24 V DC/0,5 A SNK BA | 6ES7132-6BF60-0AA0 |
| DQ 4x24 V DC/2 A ST | 6ES7132-6BD20-#BA0* |
| DQ 4x24...230 V AC/2 A ST | 6ES7132-6FD00-#BB1* |
| DQ 8x24 V DC/0,5 A ST | 6ES7132-6BF00-#BA0* |
| DQ16x24 V DC/0,5 A BA | 6ES7132-6BH00-0AA0 |
| DQ 16x24 V DC ST | 6ES7132-6BH00-#BA0* |
| DQ 4x24 V DC/2 A HF (add-on function: module-internal shared output) | 6ES7132-6BD20-0CA0 |
| DQ 8x24 V DC/0,5 A HF (add-on function: module-internal shared output) | 6ES7132-6BF00-0CA0 |
| DQ 4x24 V DC/2 A HS (add-on function: PWM, oversampling, and valve control) | 6ES7132-6BD20-0DA0 |
| DQ4x24...230 V AC/2 A HF (add-on function: power control) | 6ES7132-6FD00-0CU0 |
| RQ 4x24 V DC/2 A CO ST | 6ES7132-6GD50-0BA0 |
| RQ 4x120 V DC 230 V AC/5 A NO ST | 6ES7132-6HD00-#BB1* |
| RQ 4x120 V DC 230 V AC/5 A NO MA ST (IO simulation module with manual operation) | 6ES7132-6MD00-0BB1 |



1

2



Analog input and output modules

| | Article No. |
|--|---------------------|
| AI 8xI 2/4-wire BA | 6ES7134-6GF00-0AA1 |
| AI 8xU BA | 6ES7134-6FF00-0AA1 |
| AI 2xI 2/4-wire ST | 6ES7134-6GB00-0BA1 |
| AI 2xU ST | 6ES7134-6FB00-0BA1 |
| AI 4xU/I 2-wire ST | 6ES7134-6HD00-#BA1* |
| AI 4xI 2-/4-wire ST | 6ES7134-6GD00-0BA1 |
| AI 2xU/I 2/4-wire HF (add-on function: scaling of the measured values) | 6ES7134-6HB00-0CA1 |
| AI 4xRTD/TC 2-/3-/4-wire HF | 6ES7134-6JD00-#CA1* |
| AI 8xRTD/TC 2-wire HF | 6ES7134-6JF00-#CA1* |
| AI 2xU/I 2/4-wire HS (add-on function: oversampling) | 6ES7134-6HB00-0DA1 |
| AI 4xI 2-wire 4...20 mA HART | 6ES7134-6TD00-0CA1 |
| AI Energy-Meter ST (230/400 V) | 6ES7134-6PA01-0BD0 |
| AI Energy-Meter ST (277/480 V) | 6ES7134-6PA20-0BD0 |
| AQ 2xI ST | 6ES7135-6GB00-0BA1 |
| AQ 2xU ST | 6ES7135-6FB00-0BA1 |
| AQ 4xU/I ST | 6ES7135-6HD00-0BA1 |
| AQ 2xU/I HF | 6ES7135-6HB00-0CA1 |
| AQ 2xU/I HS (add-on function: oversampling) | 6ES7135-6HB00-0DA1 |



Fail-safe modules

| | Article No. |
|----------------------------------|--------------------|
| F-DI 8x24 V DC HF | 6ES7136-6BA00-0CA0 |
| F-DQ 4x24 V DC/2 A HF | 6ES7136-6DB00-0CA0 |
| F-PM-E 24 V DC/8 A PPM ST | 6ES7136-6PA00-0BC0 |
| F-RQ 1x24 V DC/24...230 V AC/5 A | 6ES7136-6RA00-0BF0 |
| F-CM AS-i Safety ST | 3RK7136-6SC00-0BC1 |



Technology and special modules

| | Article No. |
|---|--------------------|
| TM Count 1x24 V | 6ES7138-6AA00-0BA0 |
| TM PosInput 1 (SSI, 5V-Count) | 6ES7138-6BA00-0BA0 |
| TM 1xSIWAREX WP321 ST (weighing module) | 7MH4138-6AA00-0BA0 |
| TM Timer DIDQ 16x24 V | 6ES7552-1AA00-0AB0 |
| TM Pulse 2x24 V | 6ES7138-6DB00-0BB1 |



3

4



Communication modules

- CM 4xIO-Link ST
- CM 1xPtP ST (ASCII, 3964R, USS, Modbus)
- CM AS-i Master ST
- CM DP Master (for controllers)
- CP 1542SP-1 (expansion of IE interface)
- CP 1542SP-1 IRC (connection of RTUs)
- CP 1543SP-1 (IP security)
- ET 200AL BU-Send
- ET 200AL BA-Send 1xFC

Article No.

- 6ES7137-6BD00-0BA0
- 6ES7137-6AA00-0BA0
- 3RK7137-6SA00-0BC1
- 6ES7545-5DA00-0AB0
- 6GK7542-6UX00-0XE0
- 6GK7542-6VX00-0XE0
- 6GK7543-6WX00-0XE0
- 6ES7193-6BN00-0NE0
- 6ES7193-6AS00-0AA0



Potential Distribution

- PotDis-TB-P1-R
- PotDis-TB-P2-B
- PotDis-TB-n.c.-G
- PotDis-TB-BR-W
- PotDis-BU-P1/D-R
- PotDis-BU-P1/B-R
- PotDis-BU-P2/D-B
- PotDis-BU-P2/B-B

Article No.

- 6ES7193-6TP00-0TP1
- 6ES7193-6TP00-0TP2
- 6ES7193-6TP00-0TN0
- 6ES7193-6TP00-0TP0
- 6ES7193-6UP00-0DP1
- 6ES7193-6UP00-0BP1
- 6ES7193-6UP00-0DP2
- 6ES7193-6UP00-0BP2

* »#«: if 0 = VPE 1, if 2 = VPE 10

Also available as SIPLUS extreme ET 200SP for use in extreme environmental conditions.

More information here: [siemens.com/siplus-extreme](https://www.siemens.com/siplus-extreme)

4 Base Units



Base Unit type A0

| |
|---|
| 16 push-in, 2 infeeds jumpered, DI dig./analog, max. 24 V DC/10 A |
| 16 push-in, 10 AUX, 2 infeeds jumpered, DI dig./analog, max. 24 V DC/10 A |
| 16 push-in, 2 infeeds separate, DI dig./analog, max. 24 V DC/10 A |
| 16 push-in, 10 AUX, 2 infeeds separate, DI dig./analog, max. 24 V DC/10 A |

Article No.

| |
|---------------------|
| 6ES7193-6BP00-#BA0* |
| 6ES7193-6BP20-#BA0* |
| 6ES7193-6BP00-#DA0* |
| 6ES7193-6BP20-#DA0* |

Base Unit type A1

| |
|--|
| 16 push-in, 2 infeeds jumpered, temperature, max. 24 V DC/10 A |
| 16 push-in, 2x5 add. term. + 2 infeeds, temperature, max. 24 V DC/10 A |
| 16 push-in, 2 infeeds separate, temperature, max. 24 V DC/10 A |
| 16 push-in, 2x5 add. term. + 2 infeeds, temperature, max. 24 V DC/10 A |

Article No.

| |
|--------------------|
| 6ES7193-6BP00-0BA1 |
| 6ES7193-6BP40-0BA1 |
| 6ES7193-6BP00-0DA1 |
| 6ES7193-6BP40-0DA1 |



Base Unit type B0, C1, D0, F0, and U0

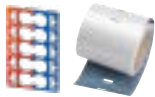
| |
|---|
| Base Unit type B0, 12 push-in, 4 AUX, up to 230 V |
| Base Unit type B1, 12 push-in, up to 230 V |
| Base Unit type C0, 6 push-in, 2 AUX, for AS-i, Safety |
| Base Unit type C1, 6 push-in |
| Base Unit type D0, 12 push-in |
| Base Unit type F0, 8 push-in |
| Base Unit type U0, 16 push-in, 2 infeeds separate* |
| Base Unit type U0, 16 push-in, 2 infeeds jumpered* |

Article No.

| |
|--------------------|
| 6ES7193-6BP20-0BB0 |
| 6ES7193-6BP20-0BB1 |
| 6ES7193-6BP20-0DC0 |
| 6ES7193-6BP20-0BC1 |
| 6ES7193-6BP00-0BD0 |
| 6ES7193-6BP20-0BF0 |
| 6ES7193-6BP00-#DU0 |
| 6ES7193-6BP00-#BU0 |

You can find possible combinations of IO modules with the Base Units/interface modules or PC configurators at: www.siemens.com/et200sp or in the TIA Selection Tool.

Accessories



| |
|--|
| 10 color-coded labels |
| 500 labeling strips, light gray |
| 500 labeling strips, yellow |
| 1,000 labeling strips 10 DIN A4, 100 labels per sheet, light gray |
| 1,000 labeling strips 10 DIN A4, 100 labels per sheet, yellow |
| 160 reference ID labels |
| 5 BU-Cover, 15 mm |
| 5 BU-Cover, 20 mm |
| 5 shield contacts (terminal and shield support), max. 2 conductors |
| SIMATIC Memory Card (4, 12, 24, 256 MB, 2 GB) |

Article No.

| |
|--------------------|
| 6ES7193-6CP... |
| 6ES7193-6LR10-0AA0 |
| 6ES7193-6LR10-0AG0 |
| 6ES7193-6LA10-0AA0 |
| 6ES7193-6LA10-0AG0 |
| 6ES7193-6LF30-0AW0 |
| 6ES7133-6CV15-1AM0 |
| 6ES7133-6CV20-1AM0 |
| 6ES7193-6SC00-1AM0 |
| 6ES7954-8L... |



Motor starter



| |
|---|
| Direct starter (0.3 – 12 A) |
| Reversing starter (0.3 – 12 A) |
| Direct starter Failsafe (0.3 – 12 A) |
| Reversing starter Failsafe (0.3 – 12 A) |
| Base Unit type motor starter (MS) |
| 3DI/LC module |
| BU cover, 30 mm |
| Cover for infeed bus |
| Additional mechanical bracket |
| Ancillary fans |

Article No.

| |
|----------------------|
| 3RK1308-0A+00-0CP0** |
| 3RK1308-0B+00-0CP0** |
| 3RK1308-0C+00-0CP0** |
| 3RK1308-0D+00-0CP0** |
| 3RK1908-0AP00-... |
| 3RK1908-1AA00-0BP0 |
| 3RK1908-1CA00-0BP0 |
| 3RK1908-1DA00-2BP0 |
| 3RK1908-1EA00-1BP0 |
| 3RW4928-8VB00 |

* »#: if 0 = VPE 1, if 2 = VPE 10

** »+« replace in MLFB for required version: B for 0.3 – 1.0 A; C for 0.9 – 3.0 A; D for 2.8 – 9.0 A; E for 4.0 – 12.0 A

All about SIMATIC ET 200SP

- New: Complete solution with ET 200SP motor starters
- Communication processors for ET 200SP CPU
- More details on construction and modules

To be found at:

[siemens.com/et200sp](https://www.siemens.com/et200sp)

Published by Siemens AG

Smart Infrastructure
Electrical Products
Werner-von-Siemens-Str. 48 – 50
92224 Amberg, Germany

For the U.S. published by Siemens Industry Inc.

100 Technology Drive
Alpharetta, GA 30005, United States

Article No. SIEP-B10302-00-7600

Dispo 45601

TH S22-220349 DA 0822

Printed in Germany

© Siemens 2022

Subject to changes and errors. The information provided in this brochure contains merely general descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

All product designations may be trademarks or product names of Siemens AG or supplier companies whose use by third parties for their own purposes could violate the rights of the owners.

Security information

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens' products and solutions only form one elements of such a concept.

For more information about industrial security, please visit

<http://www.siemens.com/industrialsecurity>.