SIEMENS

Ingenuity for life

Engineered with TIA Portal

The powerful IO system for compact control cabinets

SIMATIC ET 200SP

siemens.com/et200sp

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

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

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

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

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 4 kW in three setting ranges and are installed on a distributed basis in the control cabinet, e.g. in plant and machine construction. 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

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

3 – IO modules

Digital input and output modules

	Article No.
DI 8x24VDC BA	6ES7131-6BF00-#AA0*
DI 8x24VDC SRC BA	6ES7131-6BF60-0AA0
DI 4x120...230VAC ST	6ES7131-6FD00-0BB1
DI 8x24VDC ST	6ES7131-6BF00-#BA0*
DI 16x24VDC ST	6ES7131-6BH00-#BA0*
DI 8x24VDC HF (add-on function: module-internal shared input)	6ES7131-6BF00-0CA0
DI 8xNAMUR HF	6ES7131-6TF00-0CA0
DI 8x24VDC HS (add-on function: counting and oversampling)	6ES7131-6BF00-0DA0
DQ 8x24VDC/0.5A BA	6ES7132-6BF00-#AA0*
DQ 8x24VDC/0.5A SNK BA	6ES7132-6BF60-0AA0
DQ 4x24VDC/2A ST	6ES7132-6BD20-#BA0*
DQ 4x24...230VAC/2A ST	6ES7132-6FD00-#BB1*
DQ 8x24VDC/0.5A ST	6ES7132-6BF00-#BA0*
DQ 16x24VDC ST	6ES7132-6BH00-#BA0*
DQ 4x24VDC/2A HF (add-on function: module-internal shared output)	6ES7132-6BD20-0CA0
DQ 8x24VDC/0.5A HF (add-on function: module-internal shared output)	6ES7132-6BF00-0CA0
DQ 4x24VDC/2A HS (add-on function: PWM, oversampling and valve control)	6ES7132-6BD20-0DA0
RQ 4x24VDC/2A CO ST	6ES7132-6GD50-0BA0
RQ 4x120VDC230VAC/5A NO ST	6ES7132-6HD00-#BB1*
RQ 4x120VDC230VAC/5A NO MA ST (IO simulation module with manual operation)	6ES7132-6MD00-0BB1

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...20mA HART	6ES7134-6TD00-0CA1
AI Energy Meter ST (230/400V)	6ES7134-6PA01-0BD0
AI Energy Meter ST (277/480V)	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 8x24VDC HF	6ES7136-6BA00-0CA0
F-DQ 4x24VDC/2A HF	6ES7136-6DB00-0CA0
F-PM-E 24VDC/8A PPM ST	6ES7136-6PA00-0BC0
F-RQ 1x24VDC/24...230VAC/5A	6ES7136-6RA00-0BF0
F-CM AS-i Safety ST	3RK7136-6SC00-0BC1

* »#«: if 0 = PU 1, if 2 = PU 10

3 – IO modules

Communication modules		
		Article No.
	CM 4xIO-Link ST	6ES7137-6BD00-0BA0
	CM 1xPtP ST (ASCII, 3964R, USS, Modbus)	6ES7137-6AA00-0BA0
	CM AS-i Master ST	3RK7137-6SA00-0BC1
	CM DP Master (for controllers)	6ES7545-5DA00-0AB0
	CP 1542SP-1 (expansion of IE interface)	6GK7542-6UX00-0XE0
	CP 1542SP-1 IRC (connection of RTUs)	6GK7542-6VX00-0XE0
	CP 1543SP-1 (IP security)	6GK7543-6WX00-0XE0
	ET 200AL BU-Send	6ES7193-6BN00-0NE0
	ET 200AL BA-Send 1xFC	6ES7193-6AS00-0AA0

Technology and special modules		
		Article No.
	TM Count 1x24V	6ES7138-6AA00-0BA0
	TM PosInput 1 (SSI, 5V-count)	6ES7138-6BA00-0BA0
	TM 1xSIWAREX WP321 ST (weighing module)	7MH4138-6AA00-0BA0
	TM Timer DIDQ 16x24V	6ES7552-1AA00-0AB0
	TM Pulse 2x24V	6ES7138-6DB00-0BB1

Also available as SIPLUS extreme ET 200SP for use in extreme environmental conditions.
More information here: siemens.com/siplus-extreme

3 4

1 – BusAdapter

	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

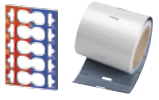
	Article No.
IM155-6PN ST with server module and BusAdapter 2xRJ45	6ES7155-6AA00-0BN0
IM155-6PN ST with server module, without BusAdapter	6ES7155-6AU00-0BN0
IM155-6PN HF with server module, without BusAdapter	6ES7155-6AU00-0CN0
IM155-6DP HF with server module (6ES71936PA000AA0) and DP connector (6ES7972-0BB700XA0)	6ES7155-6BA00-0CN0
IM155-6PN BA with server module and integrated RJ45	6ES7155-6AR00-0AN0
IM155-6PN HS with server module, without BusAdapter	6ES7155-6AU00-0DN0
CPU 1510SP-1PN (SIMATIC Memory Card required)	6ES7510-1DJ00-0AB0
CPU 1512SP-1PN (SIMATIC Memory Card required)	6ES7512-1DK00-0AB0
CPU 1510SP F-1PN (SIMATIC Memory Card required)	6ES7510-1SJ00-0AB0
CPU 1512SP F-1PN (SIMATIC Memory Card required)	6ES7512-1SK00-0AB0
CPU 1515SP PC (incl. HMI)	6ES7677-2AA...
CPU 1515SP PC F (incl. HMI)	6ES7677-2FA...

4 – Base Units

Base Unit type A0	
	Article No.
16 push-in, 2 infeeds jumpered, DI dig./analog, max. 24 V DC/10 A	6ES7193-6BP00-#BA0*
16 push-in, 10 AUX, 2 infeeds jumpered, DI dig./analog, max. 24 V DC/10 A	6ES7193-6BP20-#BA0*
16 push-in, 2 infeeds separate, DI dig./analog, max. 24 V DC/10 A	6ES7193-6BP00-#DA0*
16 push-in, 10 AUX, 2 infeeds separate, DI dig./analog, max. 24 V DC/10 A	6ES7193-6BP20-#DA0*
Base Unit type A1	
	Article No.
16 push-in, 2 infeeds jumpered, temperature, max. 24 V DC/10 A	6ES7193-6BP00-0BA1
16 push-in, 2x5 add. term. + 2 infeeds, temperature, max. 24 V DC/10 A	6ES7193-6BP40-0BA1
16 push-in, 2 infeeds separate, temperature, max. 24 V DC/10 A	6ES7193-6BP00-0DA1
16 push-in, 2x5 add. term. + 2 infeeds, temperature, max. 24 V DC/10 A	6ES7193-6BP40-0DA1
Base Unit type B0, C1, D0 and F0	
	Article No.
Base Unit type B0, 12 push-in, 4 AUX, up to 230 V	6ES7193-6BP20-0BB0
Base Unit type B1, 12 push-in, up to 230 V	6ES7193-6BP20-0BB1
Base Unit type C0, 6 push-in, 2 AUX, for AS-i, Safety	6ES7193-6BP20-0DC0
Base Unit type C1, 6 push-in	6ES7193-6BP20-0BC1
Base Unit type D0, 12 push-in	6ES7193-6BP00-0BD0
Base Unit type F0, 8 push-in	6ES7193-6BP20-0BF0

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



	Article No.
10 color-coded labels	6ES7193-6CP...
500 labeling strips, light gray	6ES7193-6LR10-0AA0
500 labeling strips, yellow	6ES7193-6LR10-0AG0
1,000 labeling strips 10 DIN A4, 100 labels per sheet, light gray	6ES7193-6LA10-0AA0
1,000 labeling strips 10 DIN A4, 100 labels per sheet, yellow	6ES7193-6LA10-0AG0
160 reference ID labels	6ES7193-6LF30-0AW0
5 BU cover, 15 mm	6ES7133-6CV15-1AM0
5 BU cover, 20 mm	6ES7133-6CV20-1AM0
5 shield contacts (terminal and shield support), max. 2 conductors	6ES7193-6SC00-1AM0
SIMATIC Memory Card (4, 12, 24, 256 MB, 2 GB)	6ES7954-8L...

Motor starter

	Article No.
Direct starter 0.3 – 1.0 A	3RK1308-0AB00-0CP0
Direct starter 0.9 – 3.0 A	3RK1308-0AC00-0CP0
Direct starter 2.8 – 9.0 A	3RK1308-0AD00-0CP0
Reversing starter 0.3 – 1.0 A	3RK1308-0BB00-0CP0
Reversing starter 0.9 – 3.0 A	3RK1308-0BC00-0CP0
Reversing starter 2.8 – 9.0 A	3RK1308-0BD00-0CP0
Base Unit type motor starter (MS)	3RK1908-0AP00-...
3DI/LC module	3RK1908-1AA00-0BP0
BU cover, 30 mm	3RK1908-1CA00-0BP0
Cover for infeed bus	3RK1908-1DA00-2BP0
Additional mechanical bracket	3RK1908-1EA00-1BP0
Ancillary fans	3RW4928-8VB00

* »#«: if 0 = PU 1, if 2 = PU 10

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.

TIA and ET 200SP – efficient interaction between all components

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.

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.

"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

Published by
Siemens AG 2016
Digital Factory
P.O. Box 48 48
90026 Nuremberg, Germany
Article No.: DFFA-B10149-00-7600
Printed in Germany
Dispo 06318

Siemens provides automation and drive products with industrial security functions that support the secure operation of plants or machines. They are an important component in a holistic industrial security concept. With this in mind, our products undergo continuous development. We therefore recommend that you keep yourself informed with respect to our product updates and use only the current versions. For more information, go to:
http://support.automation.siemens.com
where you can register for a product-specific newsletter.

For the secure operation of a plant/machine, it is also necessary to take suitable protective measures (e.g. cell protection concept), and to integrate the automation and drives components into a holistic, state-of-the-art industrial security concept for the entire plant/machine. Any third-party products that may be in use must also be taken into account. For further information, please visit:
www.siemens.com/industrialsecurity

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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