SIEMENS

Flyer

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SIMATIC ET 200SP HA

The optimal basis for the digital challenges of the process industry

Compact design, flexible connection possibilities, and high system availability due to redundant PROFINET connections: The distributed I/O system SIMATIC ET 200SP HA is perfectly suited for the requirements of the process industry – today, and in the digital plants of tomorrow!
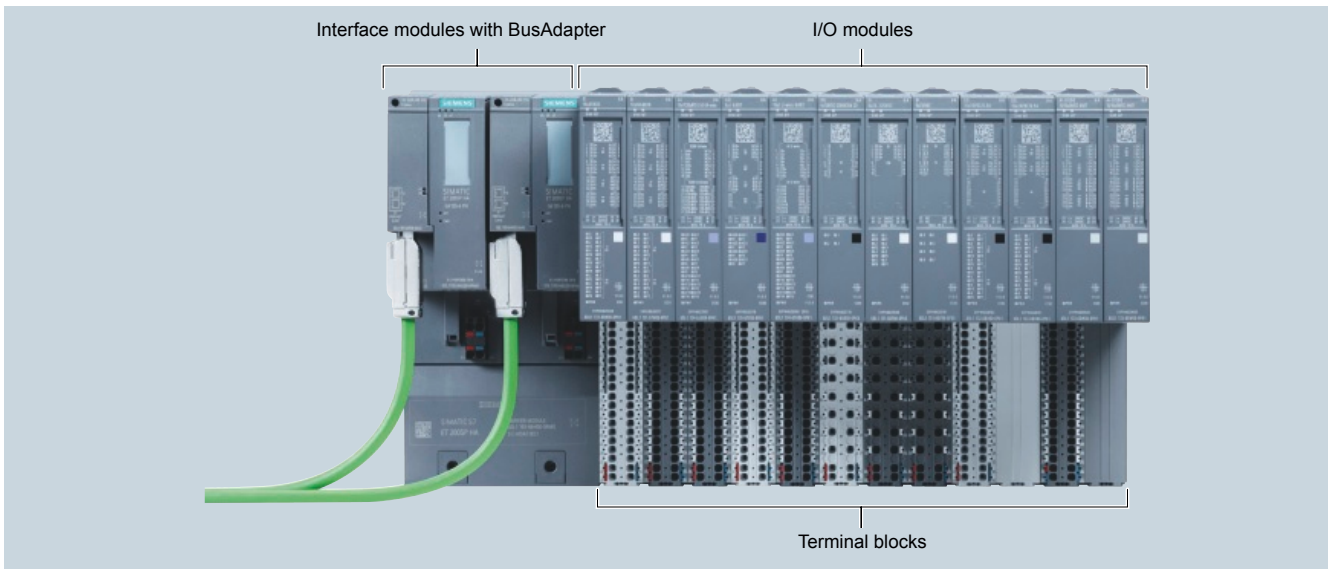
The innovative I/O system for the process industry

The SIMATIC ET 200 product family has long been a cornerstone for flexible, distributed solutions that can be customized for any automation task. The new concept of the SIMATIC ET 200SP HA combines this flexibility with highest system availability and an even smaller footprint. The new design allows up to a maximum of 56 I/O modules per station. An impressively high concentration of up to 32 channels on a module that is only 22.5 mm wide allows maximum space utilization in the control cabinet.

Redundant PROFINET interfaces enable the connection of high available controllers via two independent networks, via copper or fiber-optic cables. The system can be scaled and extended in small steps using a variety of available modules, e.g. with digital and analog I/Os as well as NAMUR, HART, and other protocols. All 24 V standard signals are connected via an identical terminal block type which supports a high degree of standardization for the control cabinets.

The SIMATIC ET 200SP HA is designed for installation in the control cabinet as well as for hazardous areas up to zone 2-22. The extended temperature range of -40 to +70 °C and the conformal coating of all components allow installation directly in the field.

Benefits at a glance

- **Availability**
  - Redundancy at the PROFINET interface (S2 or R1)
  - Terminal block with integrated I/O redundancy
  - Hot swapping online
  - Station expansion possible during operation

- **Ease of use**
  - Compact modules with permanent wiring
  - Identical terminal block for all 24 V standard signals
  - Tool-free connection using push-in terminals

- **Compact design**
  - Compact size with up to a maximum of 56 I/O modules per station
  - High channel density of up to 32 channels on a module that is only 22.5 mm wide
  - System integrated power bus

- **Seamless integration in SIMATIC PCS 7**

- **Communication standard using PROFINET**

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Design of the SIMATIC ET 200SP HA

Ease of use

The SIMATIC ET 200SP HA impresses with its especially simple installation and assembly. The new terminal block layout and the push-in technology make tool-free wiring possible.

Higher flexibility during the installation in the control cabinet is possible due to the separation of mechanical and electronical components, allowing the station to be pre-wired without I/O modules. Slot covers can be inserted on the integrated terminal blocks, which can be replaced at any time. In addition, the online station expansion of the SIMATIC ET 200SP HA offer advantages in terms of system flexibility and plant availability.

Benefit from the seamless integration in SIMATIC PCS 7. The SIMATIC ET 200SP HA with the Advanced Process Library offers flexible and simple online parameterization and selection of up to four HART variables on each channel of an I/O module.

Maximum availability

Plant downtime considerably reduces the economic efficiency of process plants. Redundant, flexible components significantly increase the availability of the plant. Besides operating the SIMATIC ET 200SP HA station redundantly via the PROFINET interface, there is also the possibility of a redundant set up of the I/O modules. This is realized by using a terminal block for integrated I/O redundancy which results in both economy of space and cost efficiency. With the new design and its standardized terminal blocks, redundant and single wiring are related to the same wiring effort.

Functions

- **Compact I/O modules**
  - Up to 32 channels on a 22,5 mm wide module
  - Up to 56 modules per station

- **Ready for the field**
  - For installation in hazardous areas up to zone 2-22
  - Extended temperature range (-40 to +70 °C)
  - Enhanced interference immunity according to NAMUR recommendation NE21
  - Conformal coating of all components
  - Can be used up to an altitude of 4 000 meters

- **Wide range of module types**
  - 16×AI / 8×AO HART, 16×DI, 16×DO etc.

- **Standard I/O terminal block**
  - For all 24 V signals AI, AO, DI, DO

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