

**ENGINEERED WITH TIA PORTAL** 

# SIMATIC ET 200 -

The I/O system for both inside and outside the control cabinet



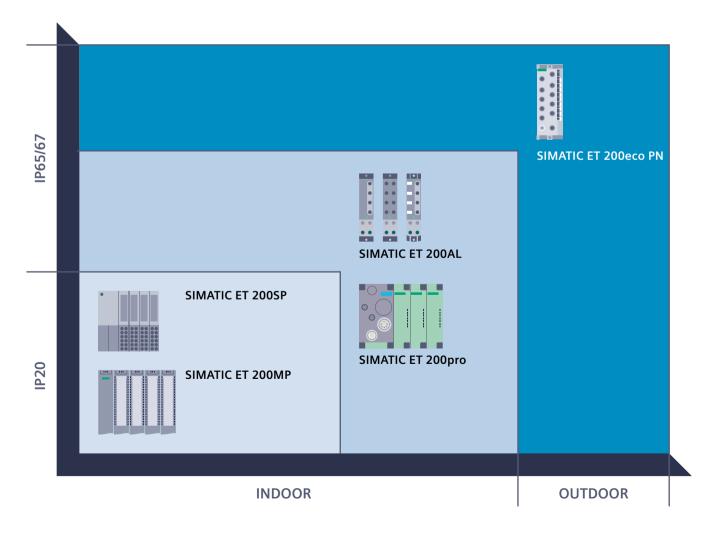
# Overview of the SIMATIC ET 200 range

### Flexible solutions with degree of protection IP20

With the SIMATIC ET 200, the widest range of I/O systems is available to you for solutions in the control cabinet. The modular design makes it possible to scale and expand the ET 200 systems easily and in small steps: digital and analog inputs/outputs, intelligent modules with CPU functionality, safety engineering, motor starters, frequency converters, and diverse technology modules.

### Rugged and powerful with degree of protection IP65/67

The SIMATIC ET 200 systems with the high degree of protection IP65/67 are small, rugged, and powerful. They are ideal for use in harsh industrial environments, directly at the machine. The time-saving setup enables the most flexible implementation of automation solutions.



# **SIMATIC** ET 200eco PN

Block I/O for extremely challenging environments





Application area – maximum ruggedness for extremely challenging ambient conditions

SIMATIC ET 200eco PN is a compact block I/O with PROFINET connection with IP65/ IP67 degree of protection for cabinet-free installation directly at the machine. Due to

its fully-sealed zinc die-cast housing, the ET 200eco PN is mechanically very rugged and resistant to vibrations, dust, oil or humidity, and thus also suitable for use outdoors. Due to the ATEX approval, the ET 200eco PN can also be used in hazardous areas up to zone 2.

#### **IO-Link Master**

With the IO-Link specification V1.1, the current device and master parameters can be automatically transferred to the IO-Link device in the event of a device replacement – without additional application effort. Using the "Autostart function", devices can be directly put into operation without any previous configuration.

## SIMATIC ET 200AL

The rugged I/O system for effortless mounting anywhere





#### **Application area**

The SIMATIC ET 200AL has a high IP65/67 degree of protection, a particularly compact design, a small space requirement and low weight. It has been specially designed for distributed control electronics in confined spaces and applications involving motion. This makes SIMATIC ET 200AL modules very robust and the perfect choice for moving

applications with 5 g (continuously) and a maximum of 10 g.

### **Safety**

Via the outputs of the SIMATIC ET 200AL modules, actuators can be switched off in groups in a safety-related manner according to PL d.

### Maximum flexibility - IO-Link, freely parameterizable hybrid modules & counting function

With the IO-Link specification V1.1, the current device and master parameters can be automatically transferred to the IO-Link device in the event of a device replacement — without additional application effort. Thanks to freely parameterizable hybrid modules with integrated counting function, the ET 200AL thus offers maximum flexibility in many areas of application

## System characteristics

Do you need your I/O system to be as individual as your requirements? With SIMATIC ET 200, we offer you a multifunctional, modular, finely scalable system for distributed automation: for solutions in the control cabinet or without a control cabinet directly at the machine, as well as for applications in hazardous areas. All products can be integrated in the automation system via PROFIBUS or PROFINET.

### Standard and safety technology in one system

The TIA Portal makes the integration of safety technology into your automation solution easier and more efficient than ever before. Shared controllers, shared engineering, and the shared use of existing communication structures for standard and safety functions ensure an excellent cost-benefit ratio.



### High-speed parameter assignment for motion functionalities – for both standard and high-end motion applications

With the aid of technology objects, typical motion processes can be programmed and tested just once, then reused as often as required. In addition to control tasks, the technology objects also include communication with the converter and its parameter assignment. In this way, motion control makes a considerable contribution to shorter engineering and maintenance times.



### Maximum industrial suitability – due to extremely rugged design

Each standard product from the SIMATIC range is characterized by the highest quality and ruggedness and is perfect for use in industrial environments.



SIPLUS extreme or the product families ET 200pro, ET 200AL and ET 200eco PN are available for more challenging and extreme operating conditions. These include an increased degree of protection (IP67), extended temperature ranges, and exceptional environmental stress.

### Fast and easy commissioning

Quick commissioning saves time, money, and effort – and speeds up the time-to-market. With the aid of the free PC-based software tool PRONETA, we offer you support when commissioning the PROFINET network of machines. The tool automatically reads the topology of the network and indicates all connected PROFINET devices so that their configuration can be performed promptly.



### Fast troubleshooting by means of integrated system diagnosis

Configuration of the diagnosis is a user-friendly procedure, integrated in the system and activated with a single click. The new, uniform display concept enables plain text error messages to be displayed identically in the TIA Portal, on the HMI, in the web server, and on the SIMATIC S7-1500 display. The efficient fault analysis and the fast troubleshooting speed up commissioning and minimize production downtimes.



### Wide range of functions

The ET 200 system enables a multitude of functions to the covered. Both digital and analog input and output modules are available. With this system, communication can also be connected via an IO Link. Modules are also available for special applications such as weighing or energy management. With "option handling", customer-specific versions of a previously configured maximum setup can be easily created, without any necessary project adaptations, which increases flexibility and saves costs.



#### Simple cabling in all circumstances

Due to the separation of mechanical and electronic components, permanent wiring is possible, i.e. the station can be pre-wired before installation or start-up. Thanks to push-in technology, both processes can be realized very quickly and easily, without the need for any special tools. This means that rewiring and fault repair are possible during operation.



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### **Discover the SIMATIC ET 200**

- Space-optimized setup inside and outside the control cabinet with optimum usability
- Modules for the solution of the most precise measurement tasks and integrated technological functions
- IO-Link master for all relevant ET 200 families

Find out more: siemens.com/io-system