

Process I/O

Central I/O for SIMATIC PCS 7

Central I/O modules

Overview



Signal modules from the SIMATIC S7-400 range can be used in the SIMATIC PCS 7 automation system if necessary. These are primarily an alternative to use of distributed I/Os in the case of small applications or systems with a small distributed configuration.

For SIMATIC PCS 7, the I/O modules listed in the Ordering data have been selected from the range of S7-400 signal modules.

Notes:

Apart from these selected modules it is also possible to use - with limitations in functions - all other I/O modules from the current range of S7-400 signal modules.

All process data from the I/O are available for PCS 7 engineering in the CFC, and can be graphically interconnected to the signal name in the signal list. Diagnostics information is generated automatically when using the I/O modules listed here.

When using other I/O modules, integration in SIMATIC PCS 7 is limited to the process data, i.e. the full scope of diagnostics functions is not automatically available. These modules can therefore only be used meaningfully in SIMATIC PCS 7 if the diagnostics capability can be omitted.

Online modifications and redundancy are not supported by the central I/O.

Ordering data

Article No.

SM 421 Digital Input Modules

- 32 inputs, 24 V DC
- 32 inputs, 120 V AC/DC
- 16 inputs, 24 V DC, with process/diagnostics interrupt
- 16 inputs, 24 to 60 V AC/DC, with process/diagnostics interrupt
- 16 inputs, 120/230 V AC/DC, inputs according to IEC 1131-2 Type 2

6ES7421-1BL01-0AA0

6ES7421-1EL00-0AA0

6ES7421-7BH01-0AB0

6ES7421-7DH00-0AB0

6ES7421-1FH20-0AA0

SM 422 Digital Output Modules

- 32 outputs; 24 V DC, 0.5 A
- 32 outputs; 24 V DC, 0.5 A; with diagnostics
- 16 outputs; 24 V DC, 2 A
- 16 outputs; relay contacts
- 16 outputs; 120/230 V AC, 2 A

6ES7422-1BL00-0AA0

6ES7422-7BL00-0AB0

6ES7422-1BH11-0AA0

6ES7422-1HH00-0AA0

6ES7422-1FH00-0AA0

SM 431 Analog Input Modules

- 16 inputs, non-floating, 13 bit
- 8 inputs, floating, 13 bit
- 8 inputs, floating, 14 bit, with linearization (RTD/TC)
- 8 inputs, floating, 14 bit
- 16 inputs, floating, 16 bit; hardware interrupt capability, with diagnostics interrupt
- 8 inputs, floating, 16 bit; hardware interrupt capability, for thermocouples, with diagnostics interrupt
- 8 inputs, floating, 16 bit; hardware interrupt capability, for thermal resistors, with diagnostics interrupt

6ES7431-0HH00-0AB0

6ES7431-1KF00-0AB0

6ES7431-1KF10-0AB0

6ES7431-1KF20-0AB0

6ES7431-7QH00-0AB0

6ES7431-7KF00-0AB0

6ES7431-7KF10-0AB0

SM 432 Analog Output Modules

- 8 outputs, floating, 13 bit; for ± 10 V, 0 to 10 V, 1 to 5 V, ± 20 mA, 0 to 20 mA, 4 to 20 mA

6ES7432-1HF00-0AB0

Front Connector (1 unit)

- With screw contacts
- With spring clamps
- With crimp contacts

6ES7492-1AL00-0AA0

6ES7492-1BL00-0AA0

6ES7492-1CL00-0AA0

Technical specifications

You can find the detailed technical data of the S7-400 modules at the following points:

- Catalog ST 70 or
- Industry Mall/CA 01 under "Automation engineering – Automation systems – SIMATIC industrial automation systems – Controllers – SIMATIC S7 modular controllers"