



Product overview

for SIMATIC S7-1200 G2



SIMATIC S7-1200 G2 Basic Controller

Flexibly adaptable to your requirements

SIMATIC S7-1200 G2 controllers are the intelligent choice for compact automation solutions with integrated IOs and communication and technology functions for automation tasks in the low to medium performance range. They are available in standard and fail-safe versions.

<https://www.siemens.com/s7-1200G2>

System overview

The scalable SIMATIC S7-1200 G2 controllers have integrated inputs and outputs as well as communication options and are modularly expandable. Digital and analog input and output modules as well as a wide variety of communications modules enable flexible adaptation to the respective automation task. Thanks to integrated Motion Control functions, the controller family can be used for a wide range of applications in machine building, industry and special automation projects. Additional technology such as high-speed counters, pulse width modulation and pulse sequence outputs, makes possible applications such as temperature control, pump and fan control, conveyor technology and even packaging machines.

Efficient engineering

- The seamless integration of SIMATIC controllers into the shared engineering framework, TIA Portal, enables consistent data management, the smart library concept and a uniform operating philosophy. This makes it particularly easy to use the universally available functions.

High-performance controller

- State-of-the-art processing power, dedicated data communication and ample memory ensure high efficiency and scalability of all SIMATIC controllers.

Efficient Motion Control

- From simple Motion Control applications such as moving and positioning individual axes to more complex processing and handling applications with multiple coordinated motion axes. The integrated Motion Control functions in every SIMATIC S7-1200 G2 controller enable a multitude of applications in the low to medium performance range.

Safety Integrated

- The SIMATIC S7-1200 G2 Basic Controller can be easily expanded with fail-safe modules thanks to its modular signal board and signal module concept. Fail-safe automation is very easy to program, and PROFIsafe devices are connected via PROFINET.

Manifold diagnostics

- Integrated diagnostic functionality without additional programming effort with a uniform display concept – plain text information for error messages is available in TIA Portal, on the HMI and in the web server and can be retrieved via a smart query using Near Field Communication (NFC) and a mobile app. Commissioning times are shorter and production downtimes are minimized.

Security Integrated

- Secure communication, know-how protection, copy protection and access protection prevent manipulation and the opening and duplication of blocks by unauthorized persons, thus making cyber security a standard component of your automation.

A few steps to the right controller

Type of configuration, system performance, programming, Motion Control, system architecture, Do you already know which functions and performance features your controller should have? Then our function check will take you directly to the right SIMATIC controller in a few steps.

<https://www.siemens.com/controller>

Central processing units

	Article number	
	CPU 1212C CPU 1212C, AC/DC/RLY, 8DI/6DO CPU 1212C ,DC/DC/DC, 8DI/6DQ CPU 1212C ,DC/DC/RLY, 8DI/6DO CPU 1212FC ,DC/DC/DC, 8DI/6DQ CPU 1212FC ,DC/DC/RLY, 8DI/6DO CPU 1214C CPU 1214C, AC/DC/RLY, 14DI/10DO CPU 1214C, DC/DC/DC, 14DI/10DO CPU 1214C, DC/DC/RLY, 14DI/10DO CPU 1214FC ,DC/DC/DC, 14DI/10DQ CPU 1214FC ,DC/DC/RLY, 14DI/10DO	 6ES7212-1BG50-0XB0 6ES7212-1AG50-0XB0 6ES7212-1HG50-0XB0 6ES7212-1AF50-0XB0 6ES7212-1HF50-0XB0 6ES7214-1BH50-0XB0 6ES7214-1AH50-0XB0 6ES7214-1HH50-0XB0 6ES7214-1AF50-0XB0 6ES7214-1HF50-0XB0

Signal boards

	Article number	
	Digital inputs SB 1221 Signal Board, 8DI 24VDC 100kHz Digital outputs SB 1222 Signal Board, 8DQ 24VDC 100kHz Digital inputs/outputs SB 1223 Signal Board, 4DI/4DQ 24V 100kHz SB 1223 Signal Board, 4DI/4DQ 5V 200kHz Analog inputs SB 1231 Signal Board, 4AI SB 1231 RTD, AI 2x RTD SB 1231 TC, AI 4x TC Analog outputs SB 1232 Signal Board , 4AQ Analog inputs/outputs SB 1233 Analog I/O, 2AI/2AQ	 6ES7221-3BF50-0XB0 6ES7222-5BF50-0XB0 6ES7223-7BF50-0XB0 6ES7223-7AF50-0XB0 6ES7231-4HD50-0XB0 6ES7231-5PB50-0XB0 6ES7231-5QD50-0XB0 6ES7232-4HD50-0XB0 6ES7233-4HD50-0XB0

Communication boards

	Article number
	CB 1241 Comm Board, RS485 6ES7241-1CA50-0XB0

Battery boards

	Article number
	BB 1297 Battery Board CPU S7-1200 G2 6ES7297-4AX50-0XA0

 : Safety-related component

* By clicking on the article number, you will be taken to the product in the TIA Selection Tool cloud.

Digital modules



Digital input SM 1221

SM 1221 Digital Input , 16DI

Article number

6ES7221-1BH50-0XB0

Digital output SM 1222

SM 1222 Digital Output, 16DQ

6ES7222-5BH50-0XB0

SM 1222 Digital Output, 16RLY

6ES7222-5HH50-0XB0

Digital I/O SM 1223

SM 1223 Digital I/O, 8DI/8DO

6ES7223-5BH50-0XB0

SM 1223 Digital I/O, 8DI/8RLY

6ES7223-5PH50-0XB0

SM 1223 Digital I/O, 16DI/16DO

6ES7223-5BL50-0XB0

SM 1223 Digitale E/A, 16DI/16DO Sink

6ES7223-5BL50-1XB0

SM 1223 Digital I/O, 16DI/16DO

6ES7223-5PL50-0XB0

Analog modules



SM 1231 analog input module

SM 1231 Analog Input, 8AI

6ES7231-4HF50-0XB0

SM 1231 RTD, AI 4x RTD

6ES7231-5PD50-0XB0

SM 1231 TC, AI 8x TC

6ES7231-5QF50-0XB0

SM 1232 analog output module

SM 1232 Analog Output, 8AQ

6ES7232-4HF50-0XB0

Analog inputs/outputs SM 1233

SM 1233 Analog I/O, 4AI/4AQ

6ES7233-4HF50-0XB0

Simulation modules

Article number

S7-1200 G2 Simulator SIM1274, 8 DI

6ES7274-1XF50-0XA0

S7-1200 G2 Simulator SIM1274, 14 DI

6ES7274-1XH50-0XA0

Communication modules



CM 1241 Comm Module, RS232/422/485

6ES7241-1EA50-0XB0

Compact Switch Module CSM 1277 G2

6GK7277-1AA50-0AA0

: Safety-related component

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Power supplies



	Article number
SIMATIC PM1207/1AC/24VDC/5A	6EP3333-4SB00-3AX0
SIMATIC PM1207/1AC/24VDC/5A/EX	6EP3333-4SC00-3AX0

Accessories



	Article number
Memory card	
SIMATIC S7 memory card, 4 MB	6ES7954-8LC04-0AA0
SIMATIC S7 Memory Card, 12 MB	6ES7954-8LE04-0AA0
SIMATIC S7 Memory Card, 24 MB	6ES7954-8LF04-0AA0
SIMATIC S7 Memory Card, 256 MB	6ES7954-8LL04-0AA0
SIMATIC S7 Memory Card, 2 GB	6ES7954-8LP04-0AA0
SIMATIC S7 Memory Card, 32 GB	6ES7954-8LT04-0AA0
Standard rail	
Stand.sectional Rail 35mm, Length 483mm	6ES5710-8MA11
Stand.sectional Rail 35mm, Length 530mm	6ES5710-8MA21
Stand.sectional Rail 35mm, Length 830mm	6ES5710-8MA31
Stand.sectional Rail 35mm, Length 2m	6ES5710-8MA41
END HOLDER, GRAY	8WH9150-0CA00
Replacement cover caps	
Door kit CPU 1212 (2/package)	6ES7291-1AA50-0XA0
Door Kit CPU 1214 (2/Pack)	6ES7291-1AB50-0XA0
Door Kit Signal Module, 30 mm (2/Pack)	6ES7291-1BA50-0XA0

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Subject to change