

SIEMENS



SIMATIC S7-1200 Basic Controllers, Basic Panels and TIA Portal.

The difference is in the combination

[siemens.com/s7-1200](https://www.siemens.com/s7-1200)

SIMATIC S7-1200 Basic Controllers

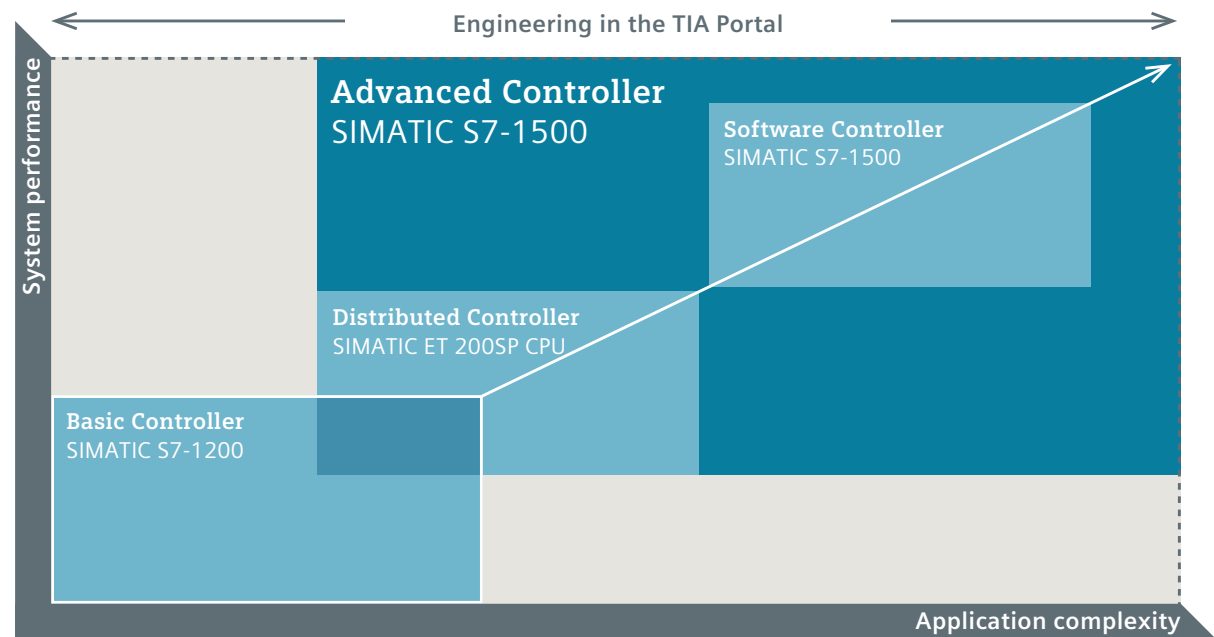
All-in-one!

Thanks to their wide range of technological functions and integrated IOs, as well as featuring a compact, space-saving design, SIMATIC S7-1200 Basic Controllers are the intelligent choice for everyday automation tasks within the scope of small projects. Thanks to standardized remote control protocols, you can connect SIMATIC S7-1200 controllers directly to your control station without any programming.

A further decisive benefit is the integration of SIMATIC controllers into the Totally Integrated Automation Portal (TIA Portal), with every SIMATIC controller having recourse to a shared database, a standardized operator concept and centralized services. This reduces your engineering overhead and your engineering time.

In addition, the user-friendly and innovative operation of the TIA Portal and integrated system diagnostics also contribute to efficient working.

SIMATIC controllers support automation solutions that are scalable in performance and functionality, and thus cost-efficient for any individual application. For more complex tasks, SIMATIC S7-1500 controllers seamlessly continue the functionality of the SIMATIC S7-1200 series, ensuring uniform sequences and thus maximum efficiency in engineering, operation, and maintenance.



Scalable performance and functionality for consistent and efficient engineering: SIMATIC S7-1500 devices build on the functionality of the SIMATIC S7-1200 Controllers, making later expansions simpler and more cost-effective.



SIMATIC S7-1200 Basic Controllers are the ideal choice for simple and autonomous tasks in the low to mid performance ranges. These compact devices are characterized by minimal space requirements, telecontrol capability and integrated technology modules for measuring, weighing and counting, so that no other special modules are required.

SIMATIC S7-1200 controllers offer you the following

- **High flexibility and modular design**
CPU can be expanded with further I/O without additional space requirements
- **Integrated technology**
Optimized for loop control, weighing, high-speed counting, telecontrol and identification
- **High level of operator convenience in engineering**
- **Networking**
The integrated PROFINET interface ensures scalability and flexibility
- **Security Integrated**
Comprehensive access, copy and manipulation protection
- **Integrated diagnostics**
Diagnostics messages are displayed in plain text in the TIA Portal, on the CPU Web server, in the SIMATIC app, and on the HMI
- **Safety Integrated**
Failsafe CPUs can execute both standard and safety related programs



Block libraries – a secure investment

“I can take program blocks for technological functions that I created for the SIMATIC S7-1200, and also use them for larger projects on the SIMATIC S7-300/400, or in future on the S7-1500. Block libraries are our most important investment today.”

Claus Niedermann,
Software specialist at Zebra Elektrotechnik



Programming in the TIA Portal

“I’ve had very little space on the control panel and I had to position it directly on the grab. That’s one of the reasons why the SIMATIC S7-1200 compact controller with CPU 1214C and three input and output modules was the perfect choice for this task, especially when combined with a SITOP power supply, SIRIUS switching devices, and fuses from Siemens.”

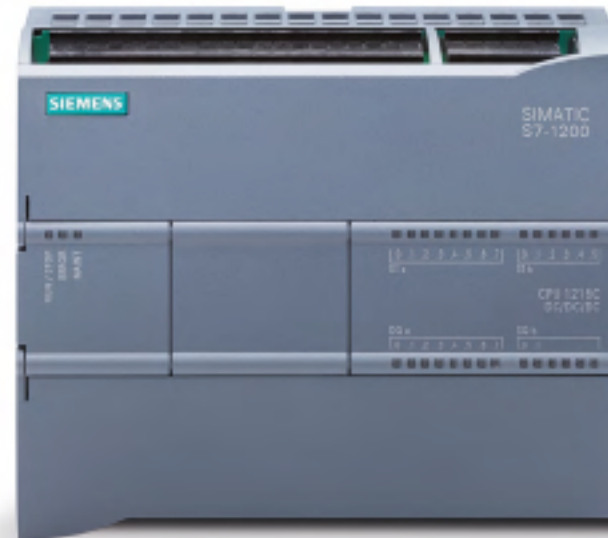
Jürgen Schäfer, HSE



The new SIMATIC S7-1200

New, compact CPU SIMATIC S7-1200 with more functionality and 125 KB of internal memory. Covers more motion applications with the addition of the Line Driver inputs/ outputs.

Free assignment of the PTO/PWM outputs and the HSC inputs can be freely assigned as well for greater flexibility. An integrated trace function has been added to give users a troubleshooting tool for determining how signals are interacting.



> Discover the new
CPU SIMATIC
S7-1217 in 3D



➤ More information about central processing units

The new Basic Panels

New SIMATIC HMI Basic Panels feature high-resolution touch display with 16:9 ratio for intuitive operation, innovative graphical user interface, integrated system diagnostics, PROFINET and PROFIBUS interfaces and USB interface for connecting to devices. Seamless integration of controller and HMI engineering software ensures maximum efficiency during development.



The TIA Portal

Efficient automation begins with efficient engineering. The TIA Portal Basic provides logic, visualization and network programming using proven navigation, icons and menus; these are for all screens. The automatic identification and upload concepts enable fast hardware configuration and documentation storage on the CPU. Tags are easily combined between editors, resulting in significant cost savings for development tasks. The symbols can be directly assigned to the hardware.



> Video "TIA Portal"



Networking

Application scalability and flexibility is achieved through the integrated PROFINET interface for programming, HMI connections, distributed I/O, and distributed drives. Also I-Device makes CPU to CPU as well as Master Slave architectures fast and simple.

PROFIBUS, Modbus RTU/TCP, CANopen and TCP/IP are available for open communications.

Telecontrol

With its comprehensive telecontrol range, Siemens provides the perfect solution to the growing demand for availability and efficiency. Thanks to the latest telecontrol technology, automated plants that are located far away from the control center can be efficiently monitored and controlled.



➤ More about Telecontrol



> Video "Network Link"



> Video "Ethernet"



> Video "iDevice"



Safety Integrated

The SIMATIC S7-1200 controller generation has been expanded by the fail-safe CPUs. The fail-safe CPUs are suitable for standard and Safety applications in machine and plant automation. The S7-1214 FC and S7-1215 FC has also been added to the series of fail-safe CPUs.

Moreover, the CPU provides comprehensive control functionalities, as well as the option of connecting drives via standardized PLC-open blocks.

The S7-1214- und S7-1215-F fail-safe controllers are certified for functional safety according to EN 61508 (version 2010) and are suitable for use in safety-related applications up to

SIL 3 according to IEC 62061 and PL e according to ISO 13849.

Additional password protection for the F-configuration and F-program is set up for IT security.

Identical look and feel for the engineering of safety functionalities within the TIA Portal saves time and improves security.

In the Step 7 Safety Advanced V13 engineering tool, the user creates programs with the same engineering and operating concept for standard and safety-related tasks. Data consistency functions automatically synchronize standard and safety-related program parts.



Design and handling

Integrated PROFINET/Ethernet port eliminates the need for additional proprietary programming cables and no expansion module is required. Modular signal boards can be connected directly to the front of the CPU without increasing the footprint of the CPU. This gives flexibility to help solve your application-specific requirements.

Removable connectors for the entire product range make CPU and signal module replacement fast and efficient.



> Video "Design and handling"



> Video "Connector"



> Video "Boardconcept"

Security integrated

Know-how protection

Algorithms can be protected against unauthorized access and modifications. Machines are protected from replication and your investments are protected.

Copy protection

On the SIMATIC Memory Card, individual blocks are linked to the serial number of the original memory card. This means that programs cannot be copied. They will only run with the intended memory card.

Access protection

The access protection functionality offers security against unauthorized project-planning changes. Permission levels can be used to grant separate rights to different user groups. Security CP 1543-1 gives enhanced access protection via an integrated firewall.

Manipulation protection

The system helps to protect the data being transmitted to the controller from unauthorized manipulation. The controller recognizes when a transmission of engineering data has been changed or comes from an unknown source.



Integrated technology

Versatility for each automation task

Integrated technology functions for counting and measuring tasks, control and motion control make the SIMATIC S7-1200 a versatile system, perfectly suited to many automation tasks.

PID control

The SIMATIC S7-1200 offers integrated compact controllers for manifold control-specific tasks: Universally deployable PID controllers for actuators with continuous or pulse-width modulated actuating signals, step controllers and a special temperature controller for active heating and cooling of a process.

Motion control functions

The SIMATIC S7-1200 offers positioning functionality for controlled and position-controlled axes. This allows stepper motor drives, frequency converters or servo drives to be operated at the S7-1200 via the integrated pulse interfaces, analog outputs or PROFINET / PROFIBUS. Incremental position encoders can be read in via the integrated high speed counters.

High speed inputs and outputs

The SIMATIC S7-1200 disposes of high-speed counters for frequencies up to 1 MHz. This allows the connection of incremental encoders, rapid detection of process events or the measuring of the frequency.

TRACE

All CPUs support the TRACE functionality. User programs and motion applications can be diagnosed precisely and drives can be optimized.

[↗ More about PID control](#)

[↗ More about motion control functions](#)

[↗ More about technology](#)



System diagnostics

Downtime mitigation is realized from machine failures with visualization of all SIMATIC hardware's integrated system diagnostics. This is achieved by simply configuring what you want by checking the box for wire break or high/low range. Efficient fault analysis is achieved through plain text diagnostics displayed in the TIA Portal, on CPU Web server, on the HMI via Active X control and no code is required.



> Video "Diagnostics"



Product details



> Power module



> Communication



> Central processing units



> Signal modules



> Signal modules



> Accessories



Central processing units

> More about Fail-safe modules

> More about SIPLUS extrem

Standard modules

CPU 1211C



50 KB, DI 6x24 V DC, DO 4x24 V DC
or 4xRLY, AI 2x10 bits 0–10 V DC

DC/DC/DC Art. No.: **6ES7 211-1AE40-0XB0**

AC/DC/RLY Art. No.: **6ES7 211-1BE40-0XB0**

DC/DC/RLY Art. No.: **6ES7 211-1HE40-0XB0**

CPU 1212C



75 KB, DI 8x24 V DC, DO 6x24 V DC
or 6xRLY, AI 2x10 bits 0–10 V DC

DC/DC/DC Art. No.: **6ES7 212-1AE40-0XB0**

AC/DC/RLY Art. No.: **6ES7 212-1BE40-0XB0**

DC/DC/RLY Art. No.: **6ES7 212-1HE40-0XB0**

CPU 1214C



100 KB, DI 14x24 V DC, DO 10x24 V DC
or 10xRLY, AI 2x10 bits 0–10 V DC

DC/DC/DC Art. No.: **6ES7 214-1AG40-0XB0**

AC/DC/RLY Art. No.: **6ES7 214-1BG40-0XB0**

DC/DC/RLY Art. No.: **6ES7 214-1HG40-0XB0**

CPU 1215C



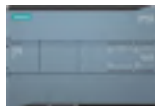
125 KB, DI 14x24 V DC, DO 10x24 V DC
or 10xRLY, AI 2x10 bits 0–10 V DC,
AO 2x10 bits 0 to 20 mA

DC/DC/DC Art. No.: **6ES7 215-1AG40-0XB0**

AC/DC/RLY Art. No.: **6ES7 215-1BG40-0XB0**

DC/DC/RLY Art. No.: **6ES7 215-1HG40-0XB0**

CPU 1217C



150 KB, DI 10x24 V DC, 4x1.5 V differential
DO 6x24 V DC, 4x1.5 V differential AI 2x10 bits
0–10 V DC, AO 2x10 bits 0–20 mA Line driver
for (1 MHz ±1.5 V)

DC/DC/DC Art. No.: **6ES7 217-1AG40-0XB0**



Fail-safe

Fail-safe central processing units S7-1200

- One controller, one engineering and one communication for standard and fail-safe automation
- Easy and rapid localization of faults through granular fault messages in plain text, also via WEB-Server world wide
- Simply extend your existing program with safety



Fail-safe modules

CPU 1214 FC

125 KB, DI 14x24 V DC, DO 10x24 V DC or 10xRLY,
AI 2 x 10 Bits 0 – 10 V DC

DC/DC/DC Art. No.: 6ES7 214-1AF40-0XB0

DC/DC/RLY Art. No.: 6ES7 214-1HF40-0XB0

CPU 1215 FC

150 KB, DI 14x24 V DC, DO 10x24 V DC or 10xRLY,
AI 2 x 10 bits 0 – 10 V DC, AO 2 x 10 bits, 0 – 20 mA

DC/DC/DC Art. No.: 6ES7 215-1AF40-0XB0

DC/DC/RLY Art. No.: 6ES7 215-1HF40-0XB0



SIPLUS extreme

Tougher than the standard

Individually adapted products, systems and solutions for any aspect in automation and drive engineering, for a reliable operation under difficult to extreme conditions.

Depending on the application, for example, we prepare the devices for:

- Ambient temperatures from -40/25 °C to +60/70 °C
- Condensation, increased humidity, increased degree of protection (dust, water)
- Increased mechanical load

We provide highest operational safety based upon IA/DT standard devices.

In the SIPLUS extreme line we only offer devices which successfully passed the additional in-factory quality testing. This dual-selection approach ensures safety against early failure.



Communication modules

Communication modules

➤ **CM 1241 RS232**

Art. No.: **6ES7 241-1AH32-0XB0**



➤ **CM 1241 RS422/485**

Art. No.: **6ES7 241-1CH32-0XB0**

➤ **CM 1243-2 AS-i master**

Art. No.: **3RK7 243-2AA30-0XB0**

➤ **DCM 1271 AS-i Data decoupling**

Art. No.: **3RK7 271-1AA30-0AA0**



➤ **CM 1242-5 PROFIBUS DP slave**

Art. No.: **6GK7 242-5DX30-0XE0**

➤ **CM 1243-5 PROFIBUS DP master**

Art. No.: **6GK7 243-5DX30-0XE0**

Communications processors

➤ **CP 1242-7 GPRS**

Art. No.: **6GK7 242-7KX30-0XE0**



**CP 1243-7 LTE –
available 02/2015**

Art. No.: **6GK7243-7KX30-0XE0**

➤ **CP 1243-1 Security**

Art. No.: **6GK7 243-1BX30-0XE0**

➤ **CP 1243-1 DNP3
DNP3 protocol**

Art. No.: **6GK7 243-1JX30-0XE0**

➤ **CP 1243-1 IEC
IEC 60870-5-104 protocol**

Art. No.: **6GK7 243-1PX30-0XE0**

➤ **RF120C RFID/code reader**

Art. No.: **6GT2 002-0LA00**

Communications board

➤ **CB 1241 RS485**

Art. No.: **6ES7 241-1CH30-1XB0**

Telecontrol

➤ **TS Adapter IE Basic**

Art. No.: **6ES7 972-0EB00-0XA0**

TS Module

➤ **TS module modem**

Art. No.: **6ES7 972-0MM00-0XA0**

➤ **TS module ISDN**

Art. No.: **6ES7 972-0MD00-0XA0**

➤ **TS module RS232**

Art. No.: **6ES7 972-0MS00-0XA0**

➤ **TS module GSM**

Art. No.: **6GK7 972-0MG00-0XA0**



➤ **Quad-band GSM antenna
ANT794-4MR**

Art. No.: **6NH9 860-1AA00**

Telecontrol server

➤ **Telecontrol Server Basic 8**

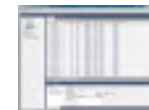
Art. No.: **6NH9 910-0AA20-0AA0**

➤ **Telecontrol Server Basic 64**

Art. No.: **6NH9 910-0AA20-0AB0**

➤ **Telecontrol Server Basic 256**

Art. No.: **6NH9 910-0AA20-0AC0**



Signal modules

Signal modules – digital



SM 1221 DC

- ↗ DI 8x24 V DC Art. No.: **6ES7 221-1BF32-0XB0**
- ↗ DI 16x24 V DC Art. No.: **6ES7 221-1BH32-0XB0**



SM 1222 DC

- ↗ DO 8x24 V DC 0.5 A Art. No.: **6ES7 222-1BF32-0XB0**
- ↗ DO 16x24 V DC 0.5 A Art. No.: **6ES7 222-1BH32-0XB0**

SM 1222 RLY

- ↗ DO 8xRLY 30 V DC/250 V AC 2 A Art. No.: **6ES7 222-1HF32-0XB0**
- ↗ DO 16xRLY 30 V DC/250 V AC 2 A Art. No.: **6ES7 222-1HH32-0XB0**
- ↗ DO 8xRLY switchover
30 V DC/250 V AC 2 A Art. No.: **6ES7 222-1XF32-0XB0**

SM 1223 DC/DC

- ↗ DI 8x24 V DC, DO 8x24 V DC 0.5 A Art. No.: **6ES7 223-1BH32-0XB0**
- ↗ DI 16x24 V DC, DO 16x24 V DC 0.5 A Art. No.: **6ES7 223-1BL32-0XB0**

SM 1223 DC/RLY



- ↗ DI 8x24 V DC, DO 8xRLY
30 V DC/250 V AC 2 A Art. No.: **6ES7 223-1PH32-0XB0**
- ↗ DI 16x24 V DC, DO 16xRLY
30 V DC/250 V AC 2 A Art. No.: **6ES7 223-1PL32-0XB0**

SM 1223 AC/RLY

- ↗ DI 8x120/250 V AC, DO 8xRLY 30 V
DC/250 V AC 2 A Art. No.: **6ES7 223-1QH32-0XB0**

Signal modules – analog

SM 1231 AI

- ↗ AI 4x13 bits ± 10 V DC, ± 5 V DC,
 ± 2.5 V DC or 4–20 mA Art. No.: **6ES7 231-4HD32-0XB0**
- ↗ AI 8x13 bits ± 10 V DC, ± 5 V DC,
 ± 2.5 V DC or 4–20 mA Art. No.: **6ES7 231-4HF32-0XB0**
- ↗ AI 4x16 bits ± 10 V DC, ± 5 V DC,
 ± 2.5 V DC, $\pm 1,25$ V DC or 4–20 mA Art. No.: **6ES7 231-5ND32-0XB0**

SM 1231 RTD

- ↗ AI 4xRTDx16 bits Art. No.: **6ES7 231-5PD32-0XB0**
 - ↗ AI 8xRTDx16 bits Art. No.: **6ES7 231-5PF32-0XB0**
- Types: Platinum (Pt), copper (Cu), nickel (Ni) or resistance element

SM 1231 TC

- ↗ AI 4xTCx16 bits Art. No.: **6ES7 231-5QD32-0XB0**
 - ↗ AI 8xTCx16 bits Art. No.: **6ES7 231-5QF32-0XB0**
- Types: J, K, T, E, R, S, N, C, TXK/XK(L); voltage range: ± 80 mV

SM 1232 AO

- ↗ AO 2x14 bits ± 10 V DC or 4–20 mA Art. No.: **6ES7 232-4HB32-0XB0**
- ↗ AO 4x14 bits ± 10 V DC or 4–20 mA Art. No.: **6ES7 232-4HD32-0XB0**

SM 1234 AI/AO

- ↗ AI 4x13 bits ± 10 V DC, ± 5 V DC,
 ± 2.5 V DC or 4–20 mA,
AO 2x14 bits ± 10 V DC or 4–20 mA Art. No.: **6ES7 234-4HE32-0XB0**



Signal boards



➤ SB 1221 DC 200 kHz

DI 4 x 5 V DC Art. No.: **6ES7 221-3AD30-0XB0**

DI 4 x 24 V DC Art. No.: **6ES7 221-3BD30-0XB0**

➤ SB 1222 DC 200 kHz

DO 4 x 5 V DC 0.1 A Art. No.: **6ES7 222-1AD30-0XB0**

DO 4 x 24 V DC 0.1 A Art. No.: **6ES7 222-1BD30-0XB0**

➤ SB 1223 DC/DC

DI 2 x 24 V DC/DA 2 x 24 V DC 0.5 A Art. No.: **6ES7 223-0BD30-0XB0**

➤ SB 1223 DC/DC 200 kHz

DI 2 x 5 V DC/DA 2 x 5 V DC 0.1 A Art. No.: **6ES7 223-3AD30-0XB0**

DI 2 x 24 V DC/DA 2 x 24 V DC 0.1 A Art. No.: **6ES7 223-3BD30-0XB0**

➤ SB 1232 AO

AO 1 x 12 bits ± 10 V DC or 0–20 mA Art. No.: **6ES7 232-4HA30-0XB0**

➤ SB 1231 AI

AI 1 x 12 bits ± 10 V DC, ± 5 V DC,
 ± 2.5 V DC or 0–20 mA Art. No.: **6ES7 231-4HA30-0XB0**

➤ SB 1231 RTD

AI 1 x RTD x 16 bits, type: platinum (Pt) Art. No.: **6ES7 231-5PA30-0XB0**

➤ SB 1231 TC

AI 1 x TC x 16 bits, types: J, K
voltage range: ± 80 mV Art. No.: **6ES7 231-5QA30-0XB0**

Signal modules – fail-safe



➤ SM 1226 F-DO 2 x Relay

F-DO 2 x 5 A Art. No.: **6ES7 226-6RA32-0XB0**
30 V DC/250 V AC

➤ SM 1226 F-DO 4 x 24 V DC

F-DO 4 x 2 A Art. No.: **6ES7 226-6DA32-0XB0**
24 V DC



➤ SM 1226 F-DI 16 x 24 V DC

F-DI 16 x 24 VDC Art. No.: **6ES7 226-6BA32-0XB0**



Engineering Framework



➤ SIMATIC STEP 7 Basic V13

Art. No.: 6ES7 822-0AA03-0YA5

➤ SIMATIC STEP 7 Professional V13

Art. No.: 6ES7 822-1AA03-0YA5



➤ Software Update Service SIMATIC STEP 7 Basic

Art. No.: 6ES7 822-0AA00-0YL0

Upgrade SIMATIC STEP 7 Basic V11–V12 to V13

Floating license

Art. No.: 6ES7 822-0AA03-0YE5



Accessories

↗ BB 1297

Battery board (long-term backup of the real-time clock (RTC))

Art. No.: **6ES7 297-0AX30-0XA0**

SIMATIC memory card



↗ 4 MB (optional)

Art. No.: **6ES7 954-8LC02-0AA0**

↗ 2 MB (optional)

Art. No.: **6ES7 954-8LE02-0AA0**

↗ 24 MB (optional)

Art. No.: **6ES7 954-8LF02-0AA0**

256 MB (optional)

Art. No.: **6ES7 954-8LL02-0AA0**

2 GB (optional)

Art. No.: **6ES7 954-8LP01-0AA0**

Digital input simulators



↗ Simulator (8 positions for CPU 1211C/1212C)

Art. No.: **6ES7 274-1XF30-0XA0**

↗ Simulator (14 positions for CPU 1214C/1215C)

Art. No.: **6ES7 274-1XH30-0XA0**

↗ Simulator (14 positions for CPU 1217C)

Art. No.: **6ES7 274-1XK30-0XA0**

↗ Analog input simulators

Potentiometer: for all CPUs

Art. No.: **6ES7 274-1XA30-0XA0**

↗ Expansion cable for signal module



2.0 m

Art. No.: **6ES7 290-6AA30-0XA0**

CSM 1277



4-port unmanaged switch, 4 x RJ45 sockets,
10/100 Mbit/s

Art. No.: **6GK7 277-1AA10-0AA0**

Technology

↗ IO-Link

SM 1278 IO-Link master

Art. No.: **6ES7 278-4BD32-0XB0**

↗ SIWAREX weigh beams WP 231 SIWAREX

Static scales

Art. No.: **7MH4 960-2AA01**

↗ WP 241 SIWAREX

Conveyor scale

Art. No.: **7MH4 960-4AA01**



Power modules

↗ PM 1207



Input: 120/230 V AC, 50/60 Hz, 1.2 A/0.67 A,
output: 24 V DC/2.5 A

Art. No.: **6EP1 332-1SH71**



HMI

➤ KP300 Basic mono PN



Operation using keys, 3" FSTN display, monochrome, modifiable backlighting color (white, red, green, yellow)

Art. No.: **6AV6 647-0AH11-3AX0**

➤ KP400 Basic color PN



Operation using touch screen + keys, 4" TFT LCD display, 65536 colors

Art. No.: **6AV6 647-0AJ11-3AX0**

➤ KTP400 Basic



Operation using touch screen + keys, 9" TFT LCD display, 65536 colors

Art. No.: **6AV2 123-2DB03-0AX0**

➤ KTP700 Basic



Operation using touch screen + keys, 7" TFT LCD display, 65536 colors, PROFINET or PROFIBUS

Art. No.: **6AV2 123-2GB03-0AX0**

Art. No.: **6AV2 123-2GA03-0AX0**

➤ KTP900 Basic



Operation using touch screen + keys, 7" TFT LCD display, 65536 colors, PROFINET or PROFIBUS

Art. No.: **6AV2 123-2JB03-0AX0**

➤ KTP1200 Basic



Operation using touch screen + keys, 12" TFT LCD display, 65536 colors, PROFINET or PROFIBUS

Art. No.: **6AV2 123-2MB03-0AX0**

Art. No.: **6AV2 123-2MA03-0AX0**

Current information can be found at: [siemens.com/basic-panels](https://www.siemens.com/basic-panels)



Identification

SIMATIC RF200



RFID system in the HF range, compact and cost-effective, simple connection to automation system

Art. No.: **6GT2821-**

More product information available at www.siemens.com/rf200

SIMATIC RF300



RFID system in the HF range, large data memory and fast acquisition, simple connection to automation system

Art. No.: **6GT2801-**

More product information available at www.siemens.com/rf300

SIMATIC RF600



RFID system in the UHF range, reliable and flexible SIMATIC integration and connection to PC/IT

Art. No.: **6GT2811-**

More product information available at www.siemens.com/rf600



Getting started has never been easier!

The perfect match: SIMATIC S7-1200, Basic Panels and TIA Portal.

SIMATIC S7-1200 Starter Kits make it quick and easy to implement your simple automation tasks. In addition to our 4 tried-and-true SIMATIC S7-1200 Starter Kits in conjunction with SIMATIC Basic Panels and Engineering in the TIA Portal, we are also offering an additional package with SIMATIC RF200, created to provide flexible and economical solutions in industrial identification. Benefit from the numerous advantages of our Starter packages!

A package full of benefits

- **SIMATIC S7-1200:** a flexible and modular controller with a signal board concept allowing you to add I/O without the need for additional space
- **New Basic Panels:** high-resolution touch displays for intuitive operation, integrated system diagnostics and more
- **TIA Portal:** the key to utilizing the full performance capability of Totally Integrated Automation. The software optimizes all operational, machine and process sequences and is especially user-friendly due to a familiar user interface, simple functions and complete data transparency
- **Integrated technology:** a new compact PID V2.0 optimized for stable and consistent loop control during restart and error responses cover our range of SIMATIC S7-1200 Starter Kits
- **Hardware and modularity:** compact and modular system that, in conjunction with the small size of the communication and signal boards, saves space and delivers top quality
- **Networking:** no additional proprietary programming cables and no expansion module is required thanks to the integrated PROFINET/Ethernet port
- **Security integrated:** know-how protection, copy protection and access protection prevent unauthorized third parties from opening and duplicating blocks and keep your algorithms and processes safe
- **Integration of drives and motion control:** flexible connection via PROFINET, PROFIBUS, Modbus TCP or CANopen; up to 16 PROFINET drives can be connected to a single CPU
- **System diagnostics:** fewer downtimes caused by machine failures



> The powerful HF RFID system from Siemens



Getting started

Maximum transparency for greater efficiency

Industrial identification is required more and more frequently due to the rise in productivity and efficiency in production. For this purpose, RFID systems in the RF range are being increasingly used in manufacturing.

The powerful SIMATIC RF200 RFID system from Siemens offers a particularly simple and open identification solution for applications in the low to medium performance range. The product range comprises cost-efficient RF readers that are ideal for use in small assembly lines or in intralogistics.

Your benefits:

- High reliability thanks to contactless data transmission/writing – extended read/write ranges
- Fully automatic and high-speed identification, with 100% transmission integrity
- Uniform system integration for fast and easy linking to the application
- Wide range of data storage units which can be reused at any time – for your individual application, e.g. automotive industry, warehouses, logistics etc.
- Optimization of production for efficient logistics – saving time and costs



SIMATIC S7-1200 Starter Kit



- CPU 1212C AC/DC/RLY
- Input Simulator
- SIMATIC STEP 7 Basic in the TIA Portal
- IE TP Cord 2 m
- Documentation Collection CD and more ...

➤ Article No.: **6ES7 212-1BD34-4YB0**

SIMATIC S7-1200 + HMI KP300 Basic Panel Starter Kit



- CPU 1212C AC/DC/RLY
- Input Simulator
- KP300 Basic mono PN
- SIMATIC STEP 7 Basic in the TIA Portal
- IE TP Cord 2 m
- Documentation Collection CD and more ...

➤ Article No.: **6AV6 651-7HA01-3AA4**

SIMATIC S7-1200 + HMI KTP400 Basic Panel Starter Kit



- CPU 1212C AC/DC/RLY
- Input Simulator
- KTP400 Basic
- SIMATIC STEP 7 Basic in the TIA Portal
- IE TP Cord 2 m
- Documentation Collection CD and more ...

➤ Article No.: **6AV6 651-7KA01-3AA4**



SIMATIC S7-1200 + HMI KTP700 Basic Panel Starter Kit



- CPU 1212C AC/DC/RLY
- Input Simulator
- KTP700 Basic
- SIMATIC STEP 7 Basic in the TIA Portal
- IE TP Cord 2 m
- Documentation Collection CD and more ...

➤ Article No.: **6AV6 651-7DA01-3AA4**



SIMATIC RF200 + SIMATIC S7-1200 Starter Kit



- SIMATIC RF210R reader
- SIMATIC RF260R reader
- Software & documentation
- MDS D100 transponder
- MDS D160 transponder
- Spacer for MDS D160
- MDS D428 transponder
- SIMATIC RF120C communication module
- Plug-in cable, pre-assembled
- SIMATIC S7-1211C
- SIMATIC S7-1200 POWER MODULE PM1207
- SIMATIC STEP7 Basic V13 (TIA PORTAL)

➤ Article No.: **6GT2096-4AA00-0AA0**



SIMATIC S7-1200 Fail-safe Starterkit

- CPU 1214 FC DC/DC/RLY
- SM1226 F-DI
- SM1226 F-DO
- Input Simulator
- SIMATIC STEP 7 Basic & STEP7 Basic
Safety in the TIA Portal
- IE TP Cord 2 m
- Documentation Collection CD
and more...

➤ Article No.: **6GT2096-4AA00-0AA0**



References

“We’ll probably save 30% to 40% of our time in development.”

Jimmy Bruner, Hurst Boiler & Welding

Hurst Boiler & Welding use the cutting-edge software TIA Portal and show that PROFINET, the open industrial Ethernet protocol, and SIMATIC S7-1200 fit their requirements perfect.

“I would take a guess that it was 25% engineering time savings and probably another 25% to 30% time savings commissioning the system.”

David Kostick, IMT Solar

IMT Solar is specialized in providing Quality Control equipment to the global Solar Energy Industry. Using SIMATIC S7-1200, SIMATIC Confort Touch Panels, WinCC Advanced Runtime, and TIA Portal saves them 30% or even more on their engineering time.

“In certain areas, the operational costs have dropped by no less than 60%.”

TMWV

Challenges such as a dependable water supply for the next decades call for a future-oriented solution like SIMATIC S7-1200. See what TMWV experienced.



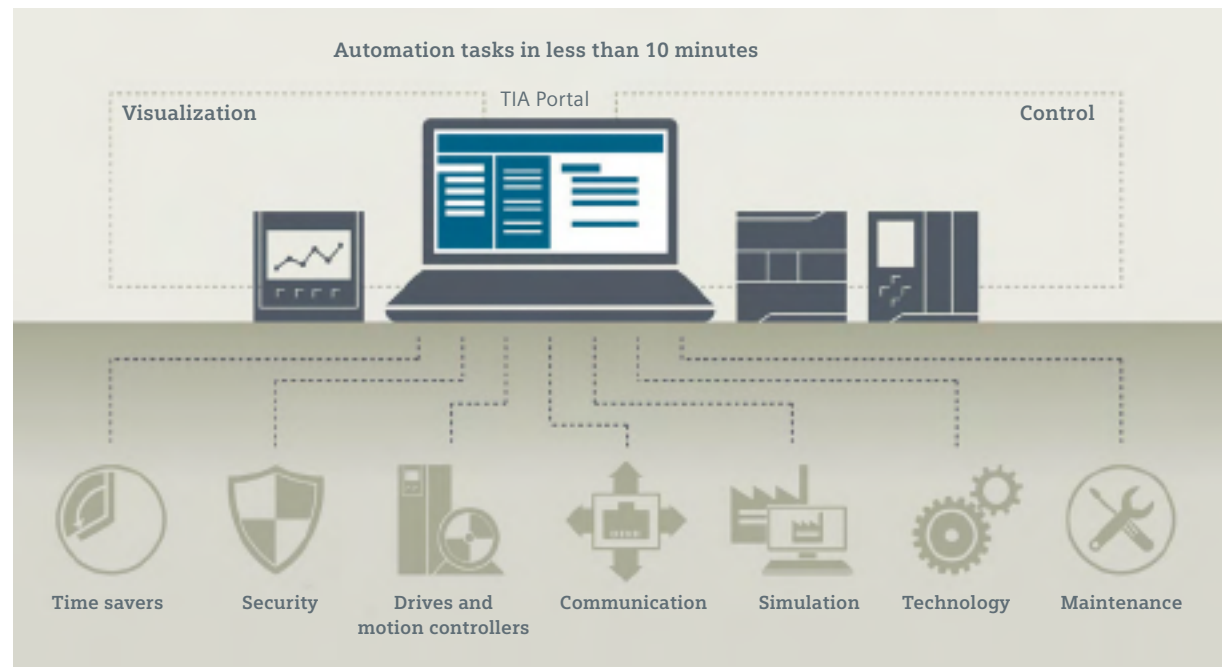
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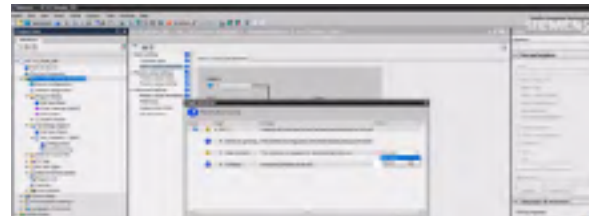
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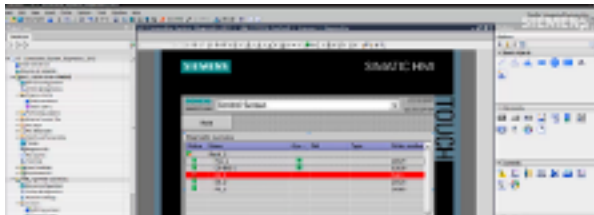
Discover engineering efficiency



Technology: AT 1 – Simple PID Commissioning

Simple movements like clamping, turning and pushing can add complexity to any automation system, and this is especially true if you have many multiples of them across your factory floor. Unfortunately this can consume valuable engineering time.

Simple PID Commissioning can be a huge advantage for any engineer, because you can quickly and efficiently configure and commission your PID loops. That way, you can focus on your application and not how to program it saving you valuable engineering time.



Innovative system diagnostics can help start-up and commissioning be fast and efficient, as well as mitigate downtime dramatically.

Global libraries can be a huge time saver for any engineer because they can create modularity for new projects since they are able to save the old automation components to the library and reuse for new applications.





Time Savers

Explore engineering innovations from Siemens latest developments in automation solutions and discover time savings in your daily work.



Controlling

One project to handle all automation devices – Controllers, HMIs and drives. TIA Portal helps new and experienced users to work as intuitively and as effectively as possible.



Visualization

Whether it's configuring hardware, parameterisation of a frequency converter or designing an HMI screen – TIA Portal makes it efficient and effective.



Communication

The option of communicating via MPI, PROFIBUS DP and TCP/IP ensures a high degree of flexibility for fast network and device configuration.



Drives and Motion

Simple drive and motion control can be a huge benefit for any engineer because you can quickly and efficiently add standard drives and motion to your application.



Technology

Through integrated technology you can focus on your application and not how to program it saving you valuable engineering time.



Maintenance

Along with plant operation, maintenance is an essential element of a plant's lifecycle. The plant's availability and respective costs are of vital importance.



Simulation

Integrated simulation and testing can give you the ability to test hardware configurations as well as code over and over again saving you valuable engineering time and project costs



Security

Security Integrated protects your investment. Unauthorized process value changes or code changes can have a huge negative impact to any automation system.

Find out more:

siemens.com/s7-1200

Discover the benefits of SIMATIC S7-1200:

- The new CPU 1217C
- SIMATIC S7-1200 automation tasks in less than 10 minutes
- Reference videos
- New firmware 4.1
- New: Safety Integrated for S7-1200

SIMATIC S7-1200 – see for yourself!



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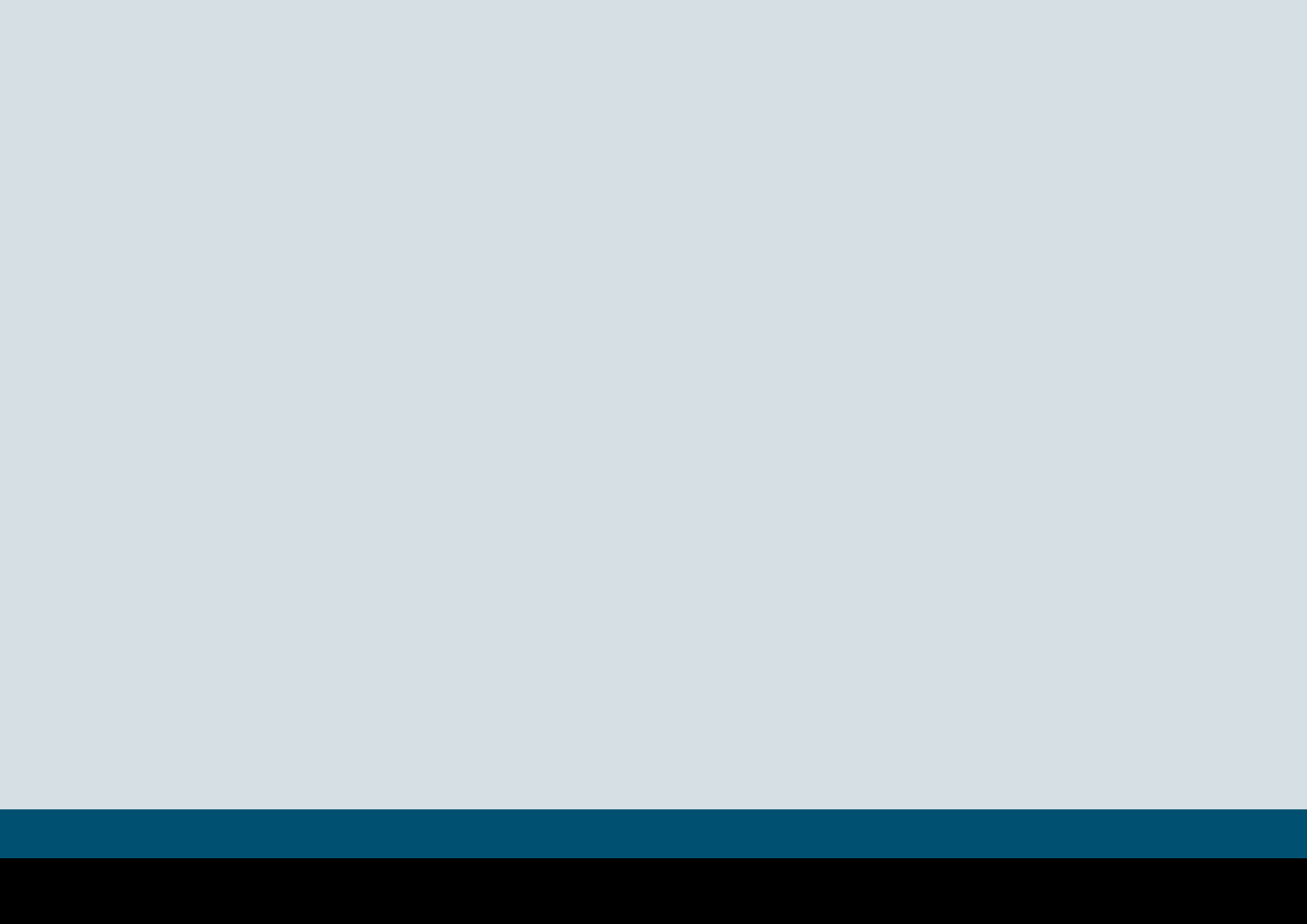
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