

The compact, low-cost process control system for small applications –
SIMATIC PCS 7 BOX



simatic

PCS 7

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SIMATIC PCS 7 opens up new dimensions in process control!

PCs are increasingly being used for automation tasks. Quite often, the resources of these ever more powerful devices are not fully utilized. What could make more sense than packaging the advantages of a process control system for small applications in a compact, PC-based solution?

SIMATIC PCS 7, the trendsetter of all process control systems, opens up new industrial sectors and applications with the unique SIMATIC PCS 7 BOX system. It has been specially designed for small process applications and plants, such as pilot plants, laboratories or package units and thus especially suitable for OEMs in the process industries.

SIMATIC PCS 7 BOX combines all the components of a classic process control system (DCS) – visualization and engineering system, fieldbus, SQL-based archiving system, together with an integrated HW controller – in the compact design of an industrial PC. PCS 7 BOX is a full-fledged member of the SIMATIC PCS 7 family and utilizes all the standard components of the SIMATIC PCS 7 and also features complete scalability and seamlessly compatible expandability and networking capability. It goes without saying that all the excellent characteristics of SIMATIC PCS 7, such as 21 CFR Part 11 compatibility, expandability with the S88-compatible SIMATIC BATCH and the S95-compatible SIMATIC IT, are of course also available with the SIMATIC PCS 7 BOX.

Thanks to the compact dimensions and lack of cabling between the automation system (AS), operator system (OS) and engineering system (ES) components, new application possibilities are now possible. In addition to the use of the standard PCS 7 components, the SIMATIC PCS 7 BOX is based on an industrial PC with an integrated HW controller, the WinAC Slot 416 CPU.

Since all open and closed-loop control tasks are run on a PCI card with a separate power supply inserted in the PC, automation functionality is also guaranteed should the PC have problems or have to be switched off.



And best of all, the SIMATIC PCS 7 BOX can be expanded without restriction and without compatibility problems, because it uses standard SIMATIC PCS 7 components. It can therefore be expanded with more hardware and software components at any time.

The decisive advantage for the user: if requirements become more sophisticated, should a pilot plant, for example, be upgraded into a production plant, the entire solution can be expanded with more control system components. And it goes without saying that SIMATIC PCS 7 BOX can be integrated into already existing SIMATIC PCS 7 plants.

In this way, existing know-how is retained and time-consuming, high-overhead new software does not have to be created nor personnel retrained.



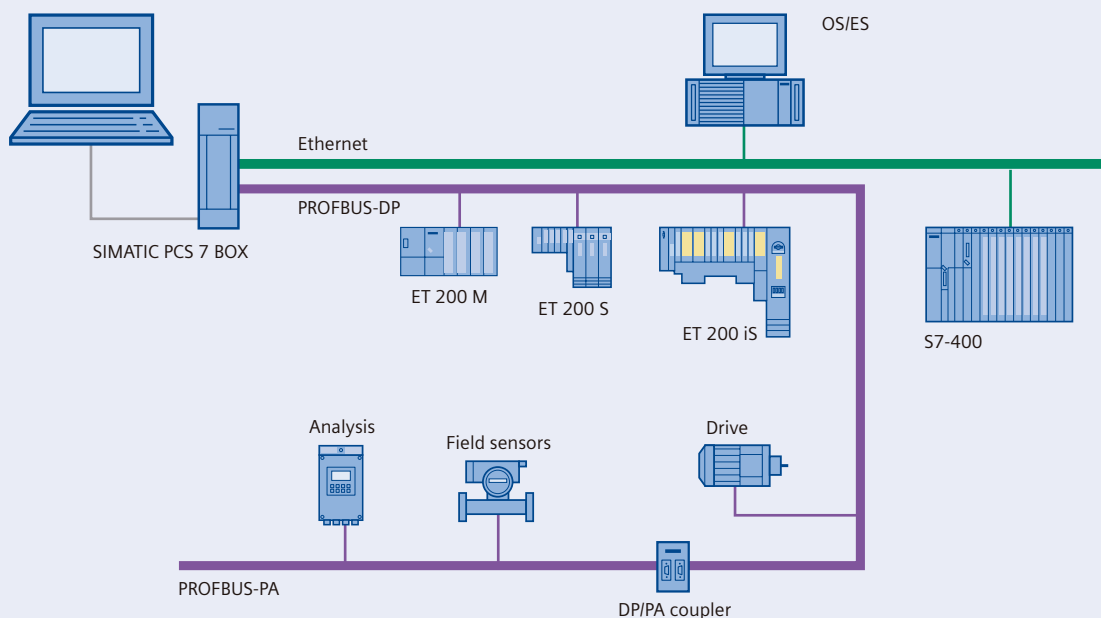
And what about communication? No problem!

The compact, stand-alone SIMATIC PCS 7 BOX system can be connected in the usual way to the Industrial Ethernet system bus and thus be integrated into the communication of your entire plant. In the SIMATIC PCS 7 network, communication to other SIMATIC PCS 7 components such as AS, OS or ES as well as to batch or MES applications is available via the Ethernet interface incorporated in the Box PC. The process I/O is linked via the two PROFIBUS-DP interfaces integrated in the Slot CPU 416 as well as the SIMATIC ET 200 distributed standard I/O devices.

The standard SIMATIC PCS 7 BOX version comprises a pre-installed complete system with the ES, AS and OS components installed on a single system:

- SIMATIC Box PC 620
- WinAC Slot 416 (integrated)
- 2 MB memory card (integrated)
- Win AC power supply extension board (integrated)
- Engineering license for SIMATIC PCS 7 AS library
- Engineering license for SIMATIC PCS 7 OS: single station for 250 process objects

The SIMATIC PCS 7 BOX is also available as a pure runtime system (without ES) with OS and AS on the PC. License (including runtime) is for the SIMATIC PCS 7 AS and OS for 250 process objects.



SIMATIC PCS 7 BOX – The advantages at a glance

- All components of a control system united on an industrial PC: Automation system (AS), operator station (OS) and engineering system (ES)
- Ideal for familiarization with process control systems or for autonomous small installations
- Can be used in package units as an integrated AS/OS for on-site operation
- Uses standard engineering tools of the SIMATIC PCS 7 process control system
- FDA compliant: The entire SIMATIC PCS 7 system functionality can be utilized
- Seamless integration into SIMATIC PCS 7
- Compact design with slim dimensions
- Cabling between the individual components (AS, OS, ES) becomes superfluous

Technical data

Operator station	
Software Licenses	SIMATIC PCS 7 OS Software Single Station V6.0 (preinstalled) PO250/RT 8K (can be expanded with PowerPack to 2000 PO)
Engineering station	
Software Licenses	SIMATIC PCS 7 engineering software V6.0 AS/OS for 250 PO (can be expanded with PowerPack on 2000 PO)
Automation section	
Slot PLC module	
CPU	WinAC Slot 416 V3.4
RAM	1.6 + 1.6 Mbytes (integrated)
Load memory	256 Kbytes (integrated)
Memory card	2 MB RAM module (installed)
PROFIBUS-DP	12 Mbit/s
Dimensions	PCI card (3/4 long) preinstalled
Power supply	PS extension board, independent of PC
Industrial PC	
SIMATIC Box PC 620	
CPU	P III 1.26 GHz
RAM	1 GB
Second level cache	256 Kbytes
Hard disk	60 Gbytes
Disk drive	1.44 Mbytes
DVD-ROM/CD-RW	8/8/24-speed (Combo drive)
Graphics	UXGA-LCD controller on AGP bus, 1280 x 1024 at 85 Hz
Ethernet	Integrated 10/100 Mbit/s Ethernet interface (RJ45)
PROFIBUS-DP	12 Mbit/s
USB	2 x (high current)
Expansions	PC Card PCMCIA type III
Power supply	DC 24 V
Operating system	Windows 2000 Professional

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