

# DESIGO S7 – industrial building automation



Answers for infrastructure.

**SIEMENS**





## DESIGO S7 – high reliability and availability in building automation

Get the best of both worlds – with the flexible, energy-efficient DESIGO™ automation system based on SIMATIC S7 automation stations. DESIGO S7 provides greater security, speed and redundancy for industrial and high-availability applications in building automation.

To meet the requirements of industrial markets and customers, DESIGO S7 also extends the DESIGO product portfolio with the addition of SIMATIC S7 automation stations. The internationally recognized standard of the BACnet™ protocol provides a simple, uniform solution for combining SIMATIC S7 automation stations with the DESIGO building automation system. This is made possible by a powerful BACnet/IP communications processor.

In this way, existing SIMATIC S7 automation stations and industrial communication standards can also be used with DESIGO.

# SIMATIC S7 with BACnet/IP communication

## ■ DESIGO and SIMATIC S7 in one system

By adding SIMATIC S7 automation stations, DESIGO S7 extends the product portfolio of the DESIGO building automation system. This extension is the best way to meet market and customer requirements in the industrial and infrastructure sectors.

It also makes it possible to carry out projects where programmable logic controllers (PLC) are required at the automation level. This means that now the DESIGO portfolio can meet stricter technical requirements such as redundancy, intrinsic safety in areas subject to explosion risk, and high availability.

## ■ BACnet/IP communications processor

The CP 343-1 BACnet communications processor enables cross-discipline building automation. It also acts as the interface between the building automation system and automation stations. DESIGO PX and SIMATIC S7 programmable logic controller (PLC) can be used simultaneously in systems and buildings. The communications processor communicates with DESIGO INSIGHT via BACnet/IP. It also allows direct peer-to-peer data exchange between DESIGO PX and SIMATIC S7 to ensure transparent and problem-free communication.

## ■ DESIGO S7 Building Solution

Cost-efficient installation, commissioning and maintenance as well as reduced training costs are now possible thanks to predefined solutions with HVAC libraries, tried and tested modules and a standard look and feel. The "Solution" service package allows you to use SIMATIC S7 automation stations with HVAC functions in a DESIGO system. The S7-HVAC library is modeled on the DESIGO PX library. CFC and the SIMATIC Manager are used as a graphic planning tool. Communication is via BACnet/IP.

## ■ DESIGO S7 Building Integration

Using BACnet communication, the "Integration" service package allows you to integrate an existing SIMATIC S7-300 into a DESIGO system. And it can be done easily and economically via the communications processor CP 343-1 BACnet – which means fewer interfaces and less project planning work. The data from the automation stations is mapped to BACnet objects via a tool. Tested BACnet functions ensure standardized communication.

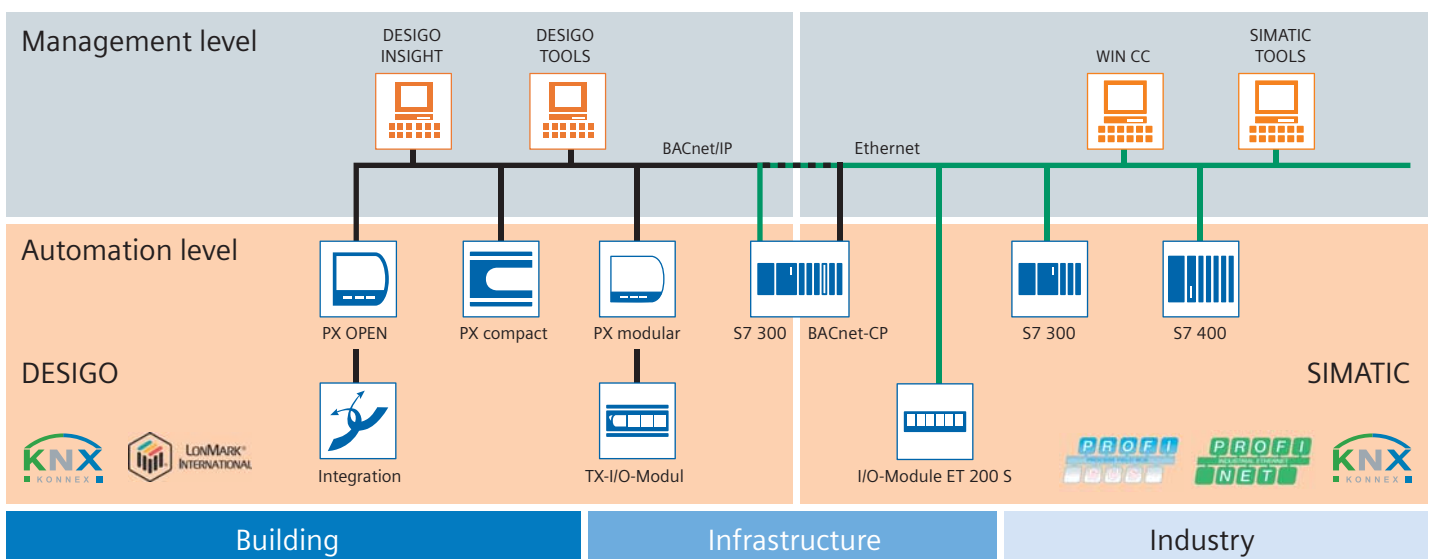
## ■ Application areas for DESIGO S7

- PLC requirements at the automation level
- Pharma, Food & Beverage and industry
- Infrastructure (airports, tunnels, hospitals)
- Semiconductors, clean rooms
- Totally Integrated Automation (TIA) – communication with the process automation system
- Totally Integrated Power (TIP) – communication with power distribution systems

## Highlights

- Use of SIMATIC S7 and DESIGO in an integrated building automation system with BACnet/IP
- Reliability, speed and redundancy for high-availability applications in building automation
- Cost savings and reduced time expenditure due to tried and tested solutions
- Peer-to-peer data exchange between DESIGO PX and SIMATIC S7
- Use of industrial communications standards with DESIGO (PROFIBUS, PROFINET, ASI)
- Flexible and open system thanks to BACnet communication

## BACnet/IP and PROFINET on shared Ethernet



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The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

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