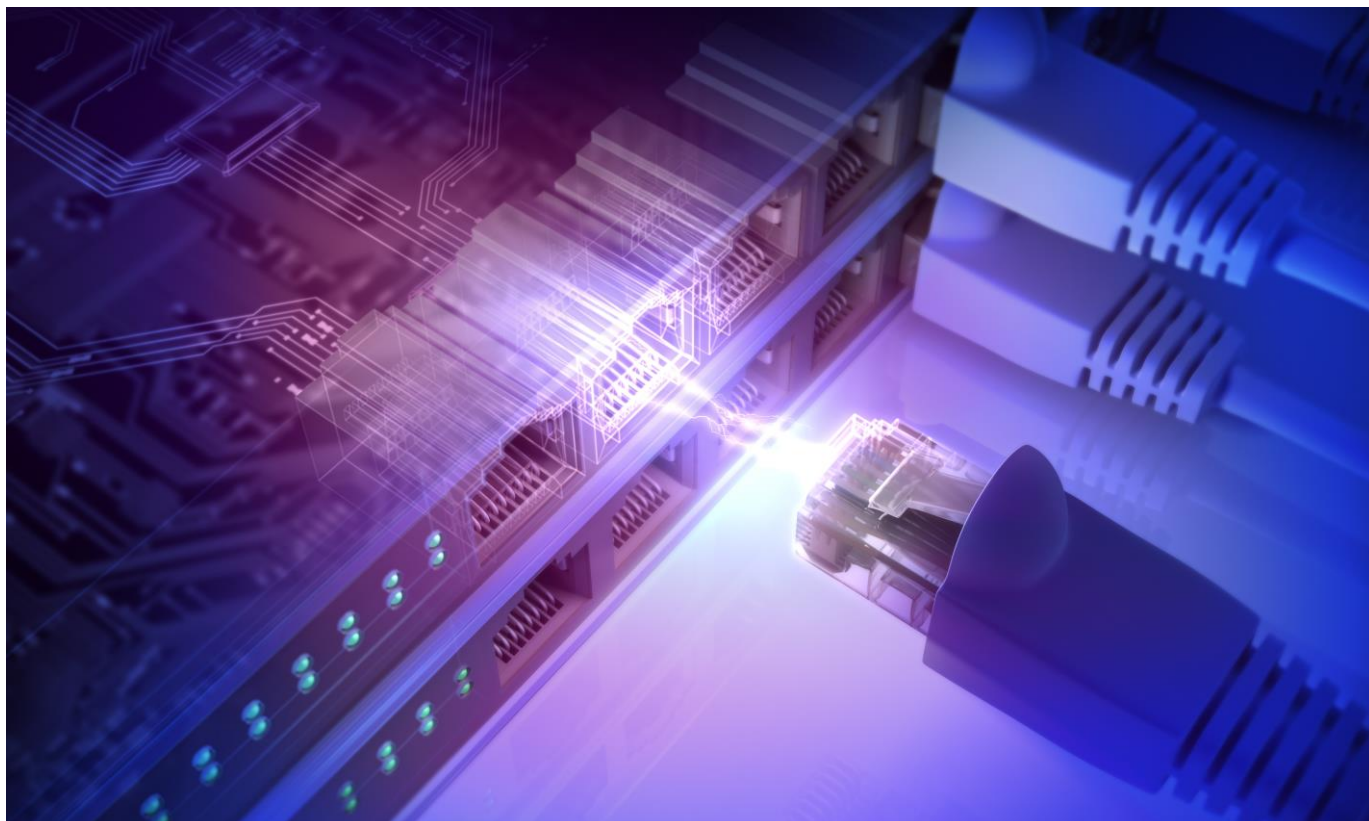


Festo Training and Consulting

From industry – for industry



DT551

CP Factory/CP Lab Training – Basics of Secure Networking in an Industrial Environment

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Communication networks are the spinal cord of Industry 4.0. With the increasing spread of digitalization in manufacturing, the establishment of networks has become an indispensable success factor, with the corresponding expertise required in an increasing number of professions. Before dealing with the important topic of security in operational technology (OT), it is important to first understand networking fundamentals.

This training delivers basic knowledge of Ethernet-based communication and provides answers to questions concerning network availability, network structuring, and OT security. Participants initially cover topic theory followed by practical, hands-on experience at workstations on our own professional learning systems: CP Factory/CP Lab. Both systems convey highly complex technologies and digital production methods, encapsulating comprehensive training on Industry 4.0/Industrial Internet of Things topics.

DT551
**CP Factory/CP Lab Training – Basics of
Secure Networking in an Industrial
Environment**

Training content

- Functions of Ethernet networks (Switching)
- Methods of addressing (Ethernet und IP)
- Analysis of Ethernet communication with Wireshark, using PROFINET and internet protocols as examples
- Topologies of networks and routing processes
- Virtual local area networks (VLAN)
- Ring structures and redundant structures to increase availability of networks
- Security risks of networked systems
- Firewall functions
- VPN coupling of networks
- Secure OPC UA connections
- Secure remote control of maintenance measures

Training outcomes

After completing this training course, the participants:

- can interpret network specifications and derive configurations for devices and network components
- understand the functions of the most important methods for secure communication
- can put them in relationship to the requirements for networks concerning availability and security

Target group

Vocational teachers and persons, who work with networked systems in production or design them and need in-depth knowledge

Duration

1 or 2 days

Please note that, currently, this training is only available at our Learning Factory in Denkendorf, Germany (in German or English language).



All Festo Didactic training courses offer the following additional benefits:

- Post-tests can additionally be used to monitor the training effectiveness
- Our trainings can be customized and carried out worldwide (on demand)
- Trainings take place with real industrial components, used in a safe environment
- Our trainers are certified according to our internal trainer qualification „Festo Certified Training Professional” and have many years of industrial experience