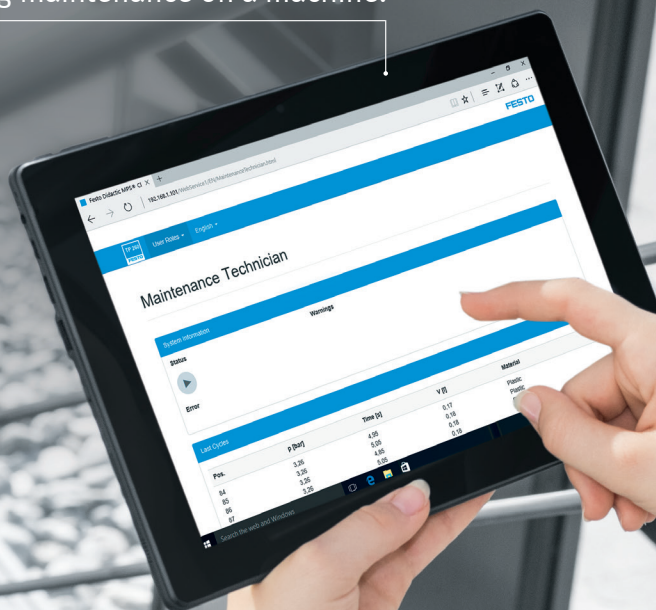


# Digitalization in Pneumatics

## Training Package TP 260

**FESTO**

This person is not surfing the net.  
She is performing maintenance on a machine.



### Highlights

- Learn the essential fundamentals of digitalization, step-by-step
- Digital applications taught on the basis of electro-pneumatics knowledge
- Programmable Logic Control (PLC): only basic knowledge required
- Get to work right away with plug and play functions
- Lots of exercises for putting the newly acquired knowledge to use
- Simple startup with preinstalled software on the mini PC

### Digitalization in industry

Digitalization with new devices has become a fixture of our daily lives. We use computers, smart phones, and tablets to access necessary information anywhere, at any time.

The digital transformation in industry is no different. For example, digitalization has improved methods of production and maintenance. Consequently, workers face the challenge of expanding their knowledge beyond conventional maintenance to include new expertise, to prepare themselves for the Industrial Internet of Things.

### Staying competitive

Digitalization in industry allows workers to access any necessary machine data regardless of location. If this function is used wisely, it can lead to a substantial increase in production efficiency and quality.

### Vocational training

Now is the right time for electrical professionals, millwrights, and mechatronics technicians to learn about digitalization:

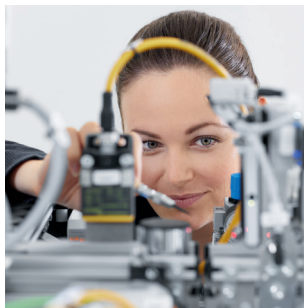
- Condition monitoring
- Smart maintenance
- Setting up a network
- Data analyses
- Human-machine communication (HMC)



# Industrial Internet of Things

## Conventional production versus digital

### TP 260 in vocational training



#### Classwork

The apprentices and students learn about digitalization through group work. To learn the basics, they work with sensor technology and communication components. They also make decisions about which data are relevant for the purposes of predictive maintenance and troubleshooting.

#### Skills

The following skills are taught in the TP 260 training:

- Equipping a conventional machine with digital functions
- Selecting the correct sensors to capture data
- Effective troubleshooting and predictive maintenance

#### A clear advantage

The apprentices and students first simulate a conventional production environment, and then the same environment again but this time with digital support. At the end, they see the advantages of digitalization:

- Warning before faults occur
- Automatic fault localization
- Easy access to circuit diagrams
- Visual condition monitoring

### Components and variants of the training package



#### Components

Control: Siemens S7-1200 or LOGO! with analog inputs and outputs

- Desktop PC acting as a server, with pre-installed TP 260 software. This software has been specifically developed for each controller
- Faulty components for the simulation of production failures

#### Variants

The basic prerequisite is TP 201, Fundamentals of Electropneumatics. TP 260 is available with the Siemens S7-1200 control (**order number: 8107242**) or with LOGO! control (**order number: 8083380**). It can be used on Learnline or Learntop L workstations.

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