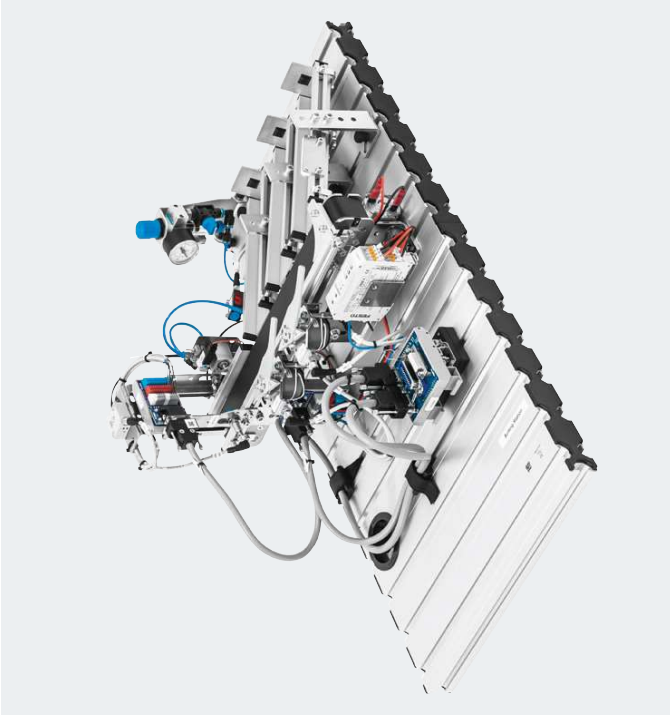


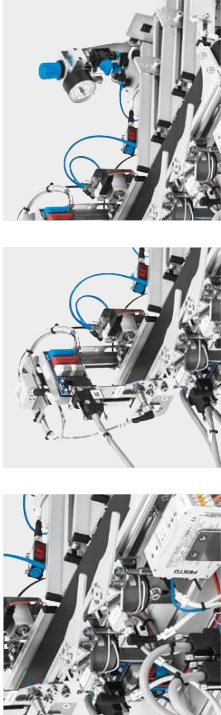
Sorting station

Combining opto and inductive sensors



The MPS sorting station D tackles a number of topics, including combining different types of sensor to detect materials. The station controls a sorting process based on workpiece properties.

The station sorts workpieces onto three material slides. A diffuse sensor detects when a workpiece is placed in the station and triggers transportation of the workpiece to the sorting point: A pneumatic stopper (short-stroke cylinder) stops the workpiece while the conveyor keeps running, and passes it on for sorting onto one of three material slides. Opto and inductive sensors detect the workpiece properties and distinguish between workpieces based on their color and material. A electric deflector sorts the workpiece onto the correct material slide. A retro-reflective sensor monitors the fill levels of the material slides.



Sorting station D, mounted	8046325
Additional equipment, also order:	
MPS trolley 700 x 350	8033590
Control console, SysLink	195764
EduTrainer Universal → Pages 166 – 167	
2x I/O data cable with SysLink connectors IEEE 488	34031
Recommended accessories:	
Simulation box, digital	170643
I/O data cable with SysLink connectors (IEEE 488), crossover	167106
PA workpiece set	554301
The most important components at a glance:	
1x Aluminium profile plate, 700 x 350 mm, with cable guide	170395
1x Conveyor module, 350 x 40 mm, DC motor	8032692
1x End curve	On request
1x Detection module	8044527
3x Slide module	653393
1x Separator module, electrical	532952
1x Stopper, simple, with valve	8046324
1x Start-up valve with filter control valve	540691
1x Cable holder with hook-and-loop fastener (pack of 10)	8034300
1x C interface	8025738
1x Quick-Fix clamping adapter	8026327

Technical data

- Operating pressure: 600 kPa (6 bar)
- Power supply: 24 V DC
- Square/round workpiece dimensions: max. 40 mm
- 8 digital sensors
- 4 digital actuators



Sorting station with additional equipment

Training content

- Familiarization with the various functions of the MPS sorting station D
- Gaining insight into handling technology and common sorting processes
- Acquisition of basic PLC programming skills
- Introduction to pneumatic control systems
- Introduction to how sensors and actuators work and are used, in particular diffuse sensors, fiber-optic-through-beam sensors, fork light barriers and inductive proximity sensors
- Executing processes based on measurements recorded by sensors
- Controlling a DC motor using a motor controller
- Preparation and commissioning of a mechatronic system

Benefits

- The highly modular nature of the station makes it incredibly versatile and allows it to be used for many different types of project work.
- The station can be used individually or together with other stations at various points in a system or process.
- With the aid of this station, students will acquire specialist skills in the fields of materials detection, combining sensors, and programming sorting functions.

Recommended training media

- Courseware**
 - Complete overview → page 270

For example:

- eLearning course**
 - PLC Programming



- GRAFCET

- eTheory course**
 - CIROS – First steps

eLab course

- Basics of PLC Programming



- CIROS – Basics of 3D Simulation

Workbook

- MPS Sorting station D

Evaluation

- Basics of PLC Programming
- Basics of GRAFCET Programming

User Guides

- CIROS – Installation Instructions