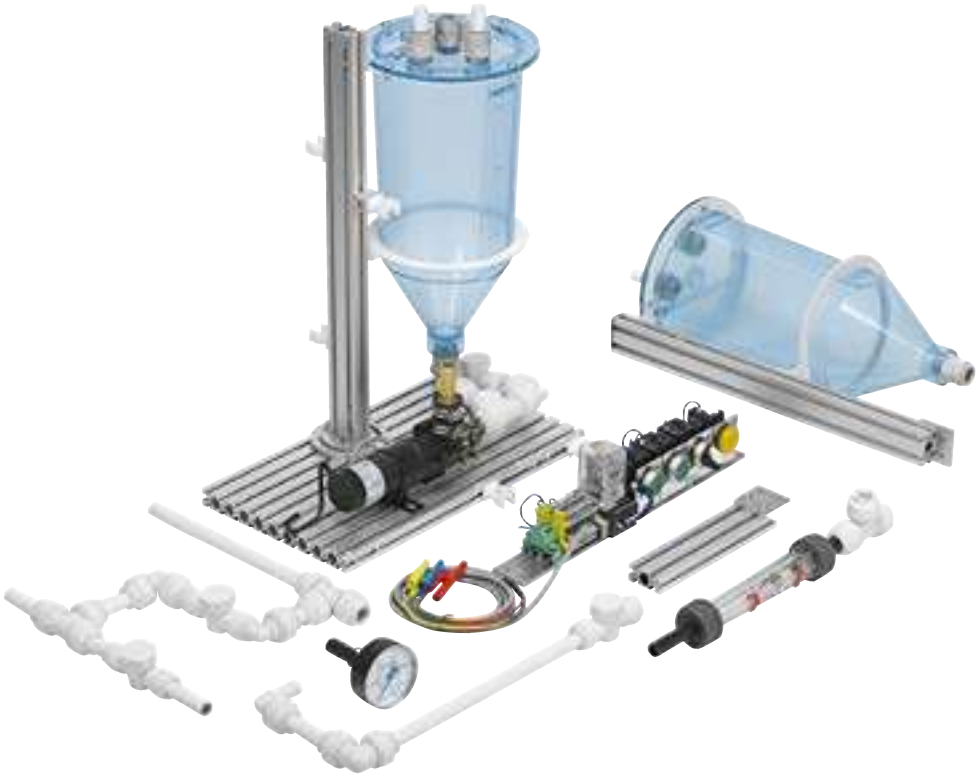
EduKit PA Basic



Unpack and Start Working

Description
The EduKit PA Basic teaches the basic principles of project work and the fundamentals of closed-loop control – manual measurement, open- and closed-loop control – without a PC or sophisticated control technology.

Your Benefits
– Handy, easy to transport and simple to set up
– Step by step construction of a functional system: start with a small setup – a tank – and finish the project with a level control system.
– Training documents available
– Easy to use and expandable
– Water acts as a non-hazardous teaching medium ideally suited for closed-loop control
– Consistent with other Festo Didactic systems

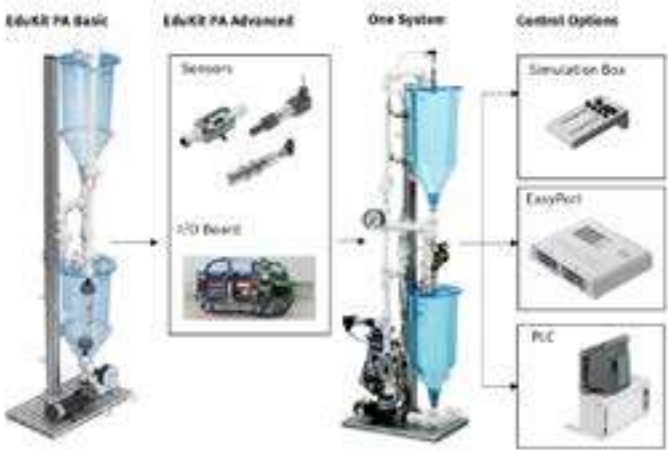
EduKit PA Basic	**549822**

The most important components at a glance:

Pump	170712
Tank, round	548596
Flow meter (rotameter)	548604

Required accessories, also order:

Tabletop power supply unit → page 64	
Pipe and tubing cutter	7658
Tool set	539767



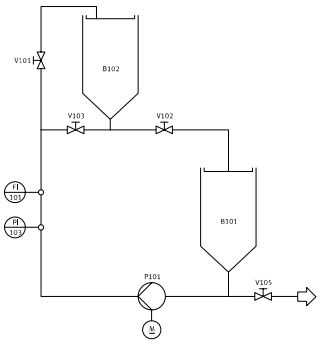
Learning Content for Project Work

Planning a project:
– Allocating tasks in teams
– Creating a project plan with different steps

Construction, assembly, connection:
– Creating sketches for the pipe connection system
– Producing an assembly diagram
– Mechanical assembly
– Electrical connection of pump to 24 V supply
– Checking activities
– Creating test logs

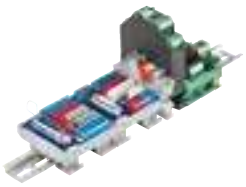
Commissioning and measured data acquisition:
– System start-up
– Recording measured values with changed valve position, changed voltage on the pump or different fill heights
– Observation of level, pressure, and flow, as well as time response

Presentation and Documentation:
– Creating assembly instructions
– Documenting measured values
– Graphical analysis
– Presenting project process



In addition to electrical pneumatic diagrams, you will also learn how to understand and describe a piping and instrumentation diagram.

EduKit PA Advanced

1


2


3


4


5


6


EduKit PA Advanced	**564631**

The most important components at a glance:

1 I/O board for EduKit PA	549823
2 Sensor, capacitive	549824
3 Sensor, ultrasonic	548689
4 Flow sensor, magnetic-inductive	8079872
5 Pressure sensor 0 – 400 mbar	549826
6 2/2-way solenoid valve	549827

Recommended accessories for control:

EasyPort USB	548687
I/O data cable with SysLink connectors (IEEE 488), 2.5 m	34031
Analog cable, parallel, 2 m	529141

The open interface provides various actuation options, e.g. controllers from Siemens, Festo, and Allen-Bradley.

Recommended software:

FluidLab-PA Closed-Loop → page 171
FluidLab-PA Process → page 170

Possibilities of expansion:

2-way ball valve	549828
Pinch valve, normally closed	8201244
Pinch valve, normally open	8201243
Float switch sensor, top	548597
DC wattmeter	8216170
IoT Kit for MPS PA	8162599

Description
The EduKit PA Advanced supplements the EduKit PA Basic modular product system with the topics of automated measurement, open and closed-loop control, sensors, and electrical interfaces. The EduKit PA Basic is required when using the components of the EduKit PA Advanced.

Recommended Learning Material

Workbooks
→ page 155



Campus license:

de	563969
en	563971
es	563973
fr	563975

Courses on Festo LX
→ Process Automation



→ Open- and Closed-Loop Control
→ Basic Principles of Closed-Loop Control Technology
→ Basics of Production Control



Pinch Valves
The two optional valves are 2/2 directional valves with stainless steel bodies. The valve assemblies include a tube plug-in fitting (15 mm) and a pneumatic plug-in connection tube (6 mm).



2-Way Ball Valve
2-way ball valve for EduKit PA with DFPD quarter-turn actuator, sensor box, Namur valve, solenoid coil and mounting.