EduKit PA
Unpack and away you go

The introduction to process and control technology

What is EduKit PA?
An experimental construction kit from Festo Didactic allowing you to learn plant engineering and process automation.

EduKit PA Basic
Manual measurement, control and regulation

EduKit PA Advanced
Automated measurement, open and closed loop control

Familiar processes as examples
In modern households many machines are automated: bread baking, washing machine, dish washer, ...

Industrial processes
Fully automated. Sensors, actuators and processors ensure a structured procedure.

Advantages of automation
• cost reduction
• invariable quality
• large quantities
• conversion of technological progress
• foreseeable, efficient and flexible processes

Energy saving
Intelligent automation is used to convey technology contents realistically:
• e.g. regulating the speed of the pump as required

2012.01.DSI
Didactic Short Information
Learning content for project work
Planning of projects:
• assignments of team tasks
• project schedule to be developed in various steps

Designing, assembly, attaching:
• compiling of sketches of the pipe connecting system
• designing an assembly plan
• physical assembly
• connecting the pump to the 24 V power supply
• inspecting the assignments
• developing inspection certificates

Condition Monitoring using Fluid Lab®-PA process
The software tool Fluid Lab®-PA process is particularly suitable for condition monitoring. Current control modes can be saved or printed in order to compare with later measurements.

Measurement, open and closed loop control as in industry:
• from elementary commissioning using the simulation box up to real PLC applications using the SysLink interface
• condition monitoring using Fluid Lab®-PA and EasyPort USB via an Easy OPC Driver and active x-control
• experimentation, configuration and optimisation of control processes (2-point, P-, PI- or PID-control)
• control using EasyPort USB together with FluidSIM®, C++, Visual Basic, Lab View
• energy monitoring by means of the optional DC wattmeter

Commissioning and data logging:
• commissioning of the system
• measured value acquisition at different valve positions, changing voltage at the pump or at variable filling levels of the tank
• monitoring of filling level, pressure and flow as well as time dependent behaviour

Presentation and documentation:
• writing of assembly instructions
• documentation of measured data acquisition
• interpretation of data graphically
• presentation of project schedule

Web Based Training
Studying and exploring the basics of process automation:
Using images of industrial applications, graphics of physical and technological principles and animated processes that you can control, you can easily learn the characteristics and specifics of process automation.

Learning by doing
Using the workbook, you will be guided in steps from manual to fully-automated measurement, open and closed loop control. With the aid of the educational objective control, the acquired knowledge can be checked and confirmed.

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