# **Equipment set TP 202 – Advanced level**

## Advanced electropneumatics training



## Electropneumatics, Advanced level. The next step!

This training package supplements the training aims of TP 201.

The new workbook contains a series of progressively complex project exercises based on actual industrial applications, an enhanced section on fundamentals, and a multimedia CD-ROM. The foundation for competent training. Place your order now!

The number and the design of components are specially tailored to the projects contained in the workbook so that the main training aims can be achieved with little outlay. Delivered in practical, Systainer-compatible equipment trays.

Components from the equipment set TP 201 are required to carry out the projects.

### Training aims

- Describing the structure and application of valve terminals
- Realizing sequence controls with signal overlap – solution according to the group method, sequence chain with spring-return valves, and sequence chain with bistable valves
- Describing and setting operating modes
- Describing the function and application of a predetermining counter
- Explaining and realizing an emergency stop function using spring-return valves
- Emergency stop conditions
- Explaining the function and application of a 5/3-way solenoid valve
- Describing and setting the operating mode 'Set'
- Troubleshooting in complex electropneumatic circuits

## Fundamentals of modern pneumatics – valve terminals

This training course helps you to lay the foundation for using valve terminals. Designed for a wide range of industries, requirements and applications, valve terminals are sturdy and durable – an investment in the future. The MPA valve terminal used consists of 2x 5/2-way solenoid valves and 2x 5/2-way double solenoid valves.

# Electrical emergency stop pushbutton

Safety engineering is an important topic, but one that is often neglected in training. The new TP 202 takes an in-depth look at the emergency stop function and also describes the emergency stop function under special conditions. After all, you don't want to end up with a pressure-less and voltage-less system after pressing the emergency stop button!

Complete equipment set TP 202 in equipment tray							
The most important components at a glance:							
1	1x Signal input, electrical	162242					
2	2x Relay, three-fold	162241					
3	1x Time relay, two-fold	162243					
4	1x Preset counter, electronic	1677856					
5	1x Emergency stop pushbutton, electrical	183347					
6	1x Proximity sensor, inductive, M12	548643					
7	1x Proximity sensor, capacitive, M12	548651					
8	1x Valve terminal with 4 valve slices (MMJJ)	540696					
9	2x Non-return valve, delockable	540715					
9	2x Non-return valve, delockable	540/15					

Aluminum profile plate → Page 39					
Compressor → Page 136					
Tabletop power supply unit → www.festo-didactic.com					
Power supply unit for mounting frame → Page 159					
4 mm Safety laboratory cables → Page 159					



#### Also order:

### Workbook



As a continuation of the basic level for electropneumatics, the advanced level includes twelve additional, challenging tasks which are suitable for the TP 202 equipment set. The documents are targeted at experienced pneumatics technicians. New features of this revised and updated edition include revised exercise sheets for practical use during instruction.

The workbook includes:

- Sample solutions
- Training notes
- Multimedia CD-ROM with graphics, photos of industrial applications, animations, and FluidSIM® circuit diagrams
- Exercise sheets for trainees

#### Campus license (→ Page 19):

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#### Supplementary media

- Design and simulation using FluidSIM<sup>®</sup>
- WBT Electropneumatics
- DVD Electropneumatics/ Electrohydraulics