

Pneumatics, Electro-pneumatics & Hydraulics

The **Feedback** Pneumatic, Electro-pneumatic and Hydraulic Trainers are essential to any training programme for mechanical, electrical or multi-skilled technicians. These cost-effective and fully portable systems can be used for a variety of course requirements at technician and degree level, and offer complete systems that are ready for use, without the need for development time. Components are ready mounted on the training panels and connections are made using simple 4mm push-in fittings. The complete assembly, test and disassembly of circuits is rapid, easy and efficient, thus maximising the time putting theory into practice. Each training system is built inside a custom made, aluminium framed lockable storage case, complete with a screen printed component mounting panel with all relevant symbols to ISO1219-1.

Features

- Easy to use
- Genuine Industrial components
- Simple connections
- Wide range of components

Advantages

- Low cost
- Eliminates need for tools
- Compact & portable
- Versatile

Benefits

- Improved quality of training
- Professional appearance
- Supplied ready to use
- Robust storage case eliminates risk of damage

Pneumatics Trainer 36-100

Curriculum Coverage

Circuits that can be covered using the Pneumatics Trainer are outlined below. The circuits that may be constructed include (but are not restricted to) the following: -

Circuits based around Single acting cylinder control:

- with extend speed control
- with retract speed control
- with extend and retract speed control
- with 'OR', 'AND', 'YES' & 'NOT' functions

Circuits based around Double acting cylinder control:

- direct
- direct with extend and retract speed controls
- indirect
- indirect with extend and retract speed controls
- with semi-automatic circuit and speed control
- with semi-automatic circuit (reverse operation)
- with automatic circuit and speed control
- with slow speed extend and rapid retract
- with Time delay
- with 'OR' function and Time delay
- with 'AND' function and Time delay
- with auto cycle, speed control and memory
- with 'MEMORY' function
- with 'OR' and 'MEMORY' function with speed control
- with 'AND' and 'MEMORY' function with speed control
- with 'NOT' and 'MEMORY' function with speed control
- with Time delay using 'YES' function
- with 'OR' and Time delay using 'YES' function
- with 'OR' and 'AND' functions, semi-auto circuit



Circuits based around 2 cylinder circuit

- with automatic control - repeat pattern
- with automatic control - with slow and fast speed controls
- with automatic control - Time delay
- with 'AND' function

2 cylinder, 2 group Cascade circuit

System Requirements

Air Compressor 36-110

Gives 17 litre/min displacement, with 8 bar maximum pressure, power consumption 1.1A. 0.5 litre reservoir, Weight 12kg. Noise level 35dB(A)/1m, voltage 230/50Hz Single phase. Dimensions: L - 220 x W - 335 x H - 410.

Mechatronics

Electro-Pneumatics Trainer 36-200



System Requirements

Air Compressor 36-110

Gives 17 litre/min displacement, with 8 bar maximum pressure, power consumption 1.1A. 0.5 litre reservoir, weight 12kg. Noise level 35dB(A)/1m, voltage 230/50Hz Single phase. Dimensions: L - 220 x W - 335 x H - 410.

Power Supply 36-210

240V ac 50Hz. Single phase in, with 24V dc output rated at 2.4A short circuit and overload protected, illuminated ON/OFF switch on front panel, with two 4mm sockets. Fuse holder mounted into rear of unit.

Curriculum Coverage

Circuits that can be covered using the Electro-Pneumatic Trainer are outlined below.

- Lamp (indicator) control - direct & indirect
- Solenoid (coil) control - direct & indirect
- Single acting cylinder control - direct & indirect
- Relay control

Circuits based around

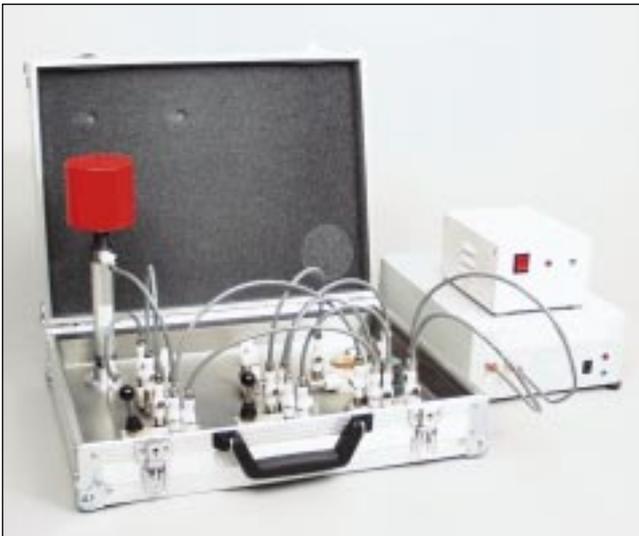
Double acting cylinder control:

- with solenoid/spring valve - direct
- with solenoid/solenoid valve - direct & indirect
- with solenoid/spring valve - indirect
- with latching circuit
- with semi-automatic circuit
- with automatic circuit
- with 'OR' function - direct & indirect
- with 'AND' function direct & indirect
- with 'OR' & 'AND' function - indirect
- with Automatic and latching circuit

Circuits based around 2 cylinder circuit with Automatic control:

- direct with repeat pattern
- 2 cylinder circuit with Automatic control - indirect with repeat pattern
- 2 cylinder circuit with Automatic control - indirect with non-repeat pattern

Hydraulics Trainer 36-500



Curriculum Coverage

Circuits that can be covered using the Hydraulics Trainer are outlined below. The circuits that may be constructed include (but are not restricted to) the following:

- Directional control
- Speed control
- Pressure control
- Single acting cylinder control
- Double acting cylinder control with 4/2 way valve
- Double acting cylinder control with 4/3 way valve
- Metering 'IN'
- Metering 'OUT'
- Weight loading of cylinder
- Motor control with speed control in one direction
- Motor control with speed control in both directions

All components are fitted with quick action, self-seal couplings and mounted ready for use (except pressure gauge). The Hydraulic fluid is water. The Hydraulics Trainer includes a hydraulics power pack.

For further information on these and other equipment in the Feedback range please contact

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