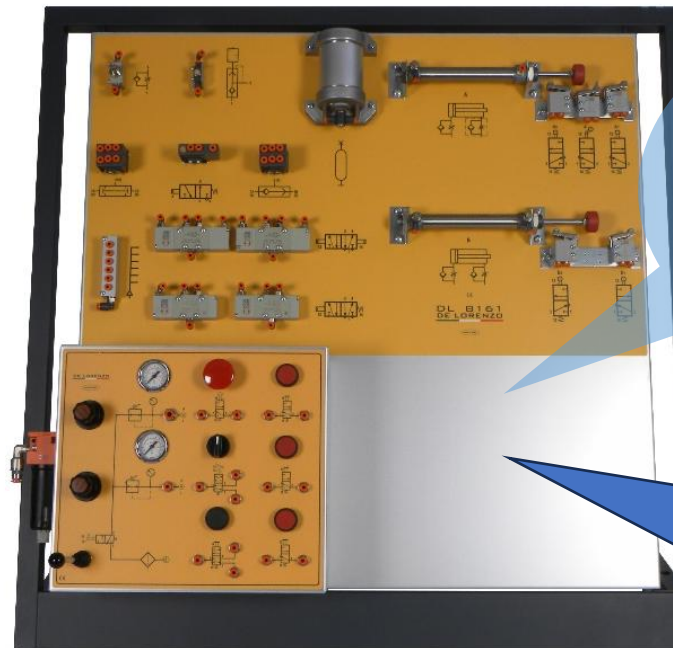




BASIC PNEUMATIC TRAINER



Who is it for?

- Automation Technician
- Automatic Systems Maintenance Tech.
- Mechatronics Tech.

With this trainer the students can perform more than

30 experiments

DL 8161

This compact trainer has been designed to implement complete application programs on pneumatic automation. It can be used for demonstrations and experiments in the pneumatic field.

It is a collection of interconnected components using compressed air to do work for automated equipment, and it is suggested as a workstation for two/three students to be placed on any table.

It is a slightly inclined stand composed of two fixed sections. The lower one includes all the components necessary for compressed air treatment such as filter, regulators, manometers, and manually operated pneumatic valves, and the upper one on which are mounted the main pneumatic components such as valves pneumatically operated of different types, cylinders, pneumatic limit switches, among others.

All the components are mounted and identified through clear symbols.

TECHNICAL FEATURES

The lower section (Air Supply Unit) includes:

- 1 filter with automatic discharge dehumidifier,
- 1 manually controlled pneumatic valve 3/2-NC with lever for general pneumatic supply,
- 2 regulators,
- 2 manometers/pressure gauges, 0 ÷ 10 bar,
- 1 manually controlled pneumatic valve 3/2-NC with mushroom-head push button,
- 3 manually controlled pneumatic valves 3/2-NC with fat push button each,
- 1 manually controlled pneumatic valve 5/2-NC/NO with fat push button,
- 1 manually controlled pneumatic valve 5/2-NC/NO with selector short lever.



AUTOMATION AND CONTROL



The upper section includes:

- 1 distributor/6 positions,
- 1 micro flow regulator, unidirectional, in line,
- 1 quick exhaust valve with micro regulator in line,
- 1 tank, ¼ LT,
- 2 OR logic elements,
- 1 NOT logic element,
- 2 AND logic elements,
- 2 pneumatically operated bistable 5/2 valves,
- 2 pneumatically operated monostable valves 5/2, with spring return,
- 2 double acting magnetic cylinders (Ø20mm, l=100mm),
- 3 micro flow unidirectional regulators, assembled on the cylinders,
- 4 mini-valves with mechanical/manual drive, with roller lever, 3/2-NC,
- 1 mini-valve with mechanical/manual drive, with unidirectional lever, 3/2-NC.

TRAINING PROGRAM

With this trainer, the students can perform a huge number of experiments starting from basic applications and reaching at the end complex configurations, allowing them to understand how the pneumatic system converts force into potential energy driving for example an actuator such as a cylinder with kinetic energy.

The course is mainly divided into the following areas:

- Circuits driving only one cylinder with unstable and stable direct and indirect controls, and semiautomatic/automatic sequences (Single/Continuous),
- Circuits with speed adjustment of a Double Acting (DA) cylinder,
- Circuits with fundamental logic functions,
- Circuits with delay elements,
- Circuits with two cylinders with sequences without blocking signals,
- Circuits with emergency control,
- Circuits with combinational and sequential logic controls,
- Circuits with memory.

SUPPLIED ACCESSORIES

The trainer is supplied with the following accessories:

- Flexible tubes enough for connecting to an external main air supply and for carrying out all the exercises included in the manual,
- Pipes cutter,
- Pipes extractor,
- T-fittings and stoppers.

Supplied complete with detailed manuals including a service manual and two practical manuals for both the student and the teacher.



ACCESSORY SUGGESTED (NOT INCLUDED)

To perform the practices, it is suggested the compressor **DL 8110SLZ** that has excellent qualities such as:

- Very low noise level,
- Tank capacity: 24 litres,
- Max. working pressure: 8 bar or 116 PSI,
- Motor power: 0.34 kW or 0.45 HP,
- Noise level: 40 dB,
- Weight: 25 kg,
- Dimensions: 40 x 40 x 60 (h) cm.

