

**ESD 100 B**

## Study of electrical, pneumatic and electro-pneumatic automation

The ESD 100 B is a modular board designed to ensure a very progressive training in the 3 fields of automation:

- Pneumatics,
- Electrics
- Electro pneumatics

*This modular bench is also available in a configuration with PLC (ref ESD 100 A)*

## Pedagogical purposes

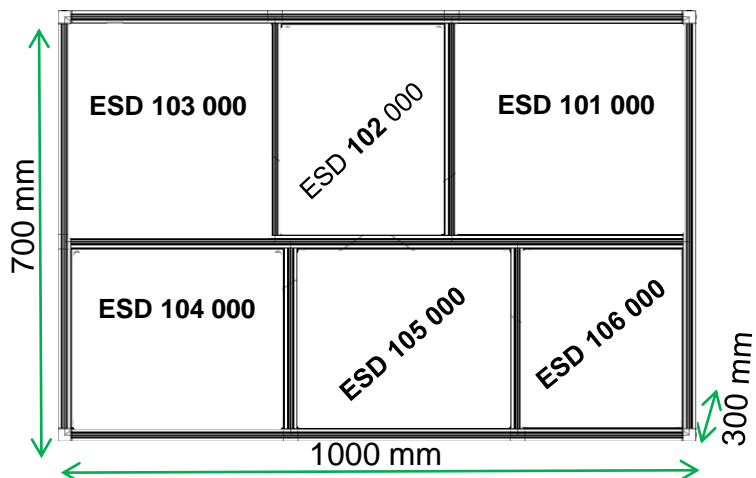
- Study of the components and their technology.
- Study of basic pneumatic logic functions.
- Wiring and simulation of pneumatic, electric and electro-pneumatic diagrams.

## Targeted trainings

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>▪ Vocational Training</li> <li>▪ Technical high schools</li> <li>▪ Polytechnics</li> </ul> | <ul style="list-style-type: none"> <li>▪ Technical Bachelor</li> <li>▪ Engineer schools</li> </ul> |
|---|--|

## ESD 100 000: Structure made of aluminium profile, with 6 locations

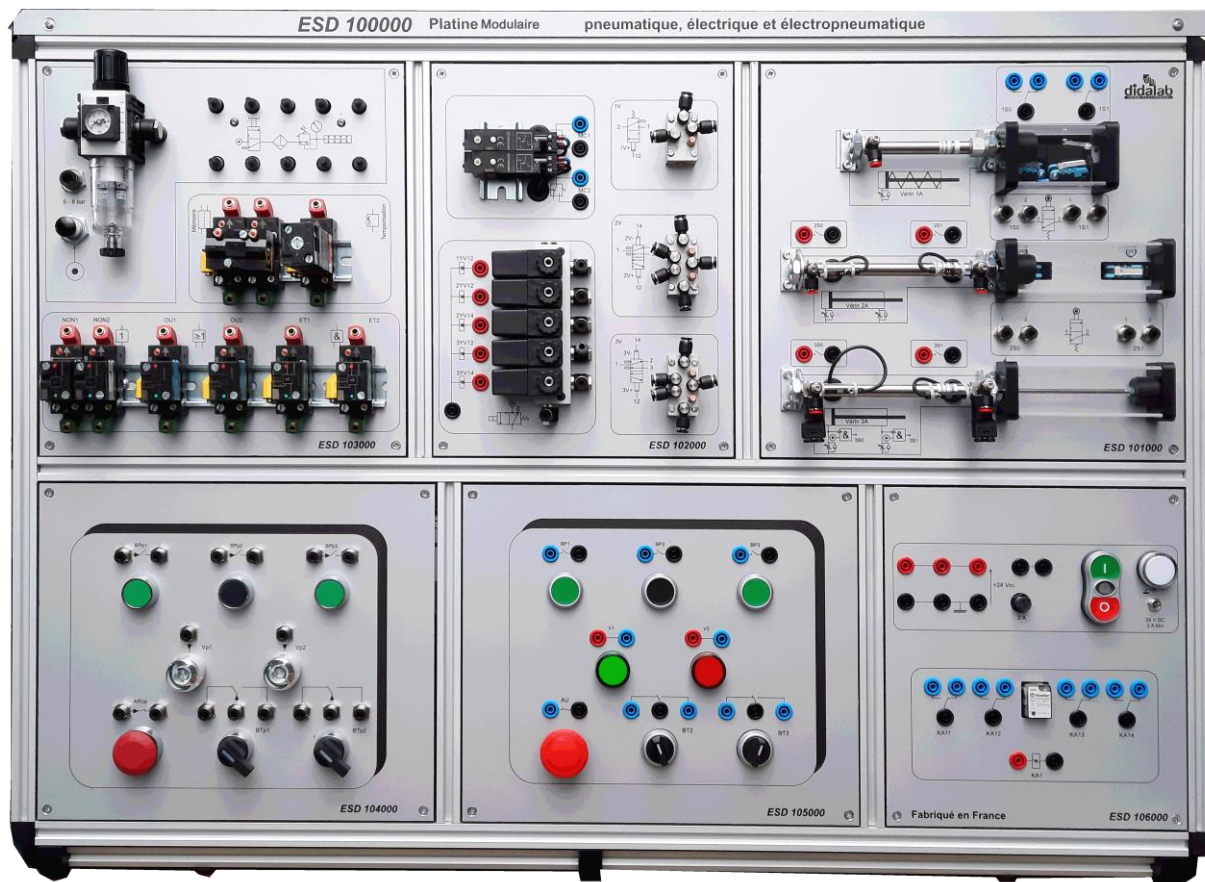
This structure made of aluminium profile can be put on a table,



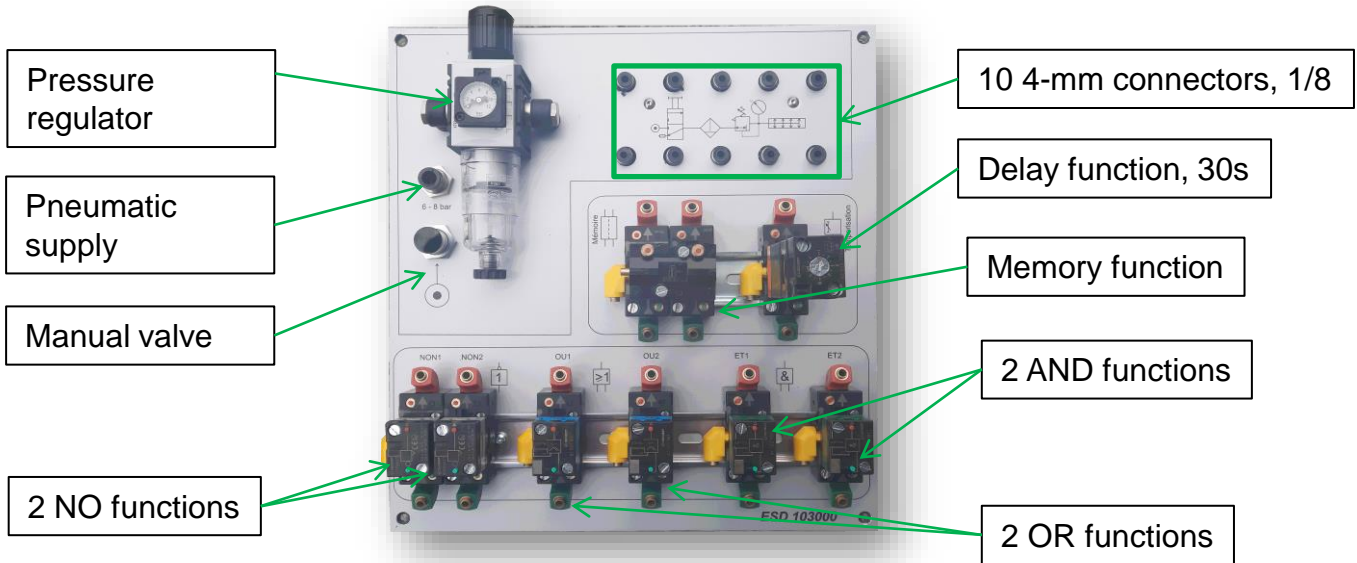
- ESD 103 000 : Pneumatic functions module
- ESD 102 000 : Electropneumatic interface module
- ESD 101 000 : Cylinders module (electric and pneumatic limit switches)
- ESD 104 000 : Pneumatic HMI module
- ESD 105 000 : Electric HMI module
- ESD 106 000 : Electric power supply module

## Standard Configuration

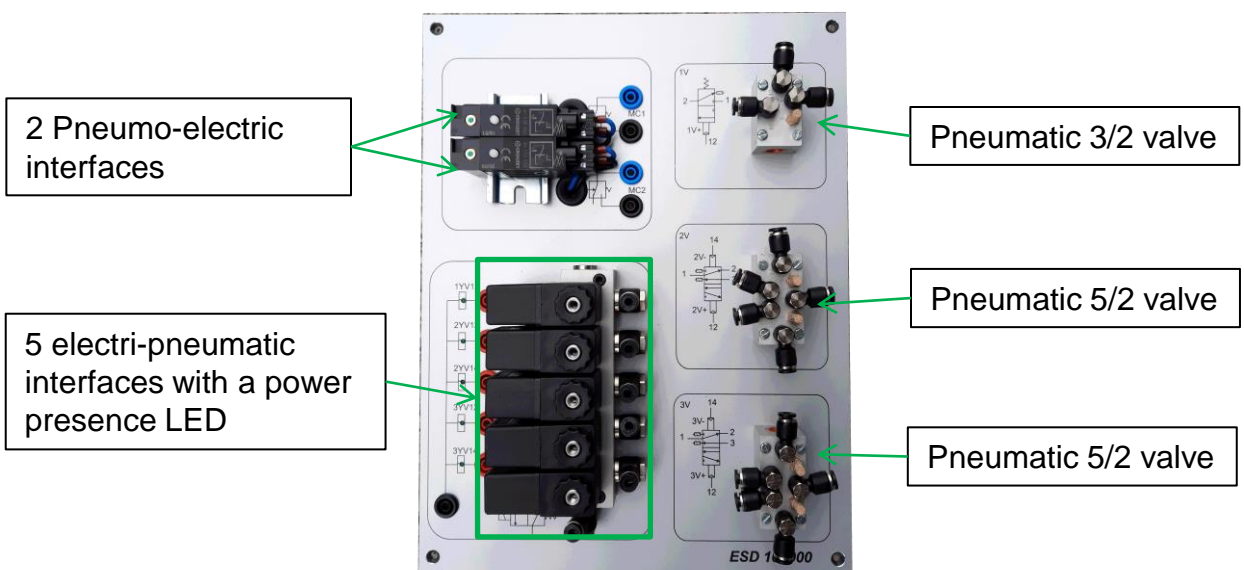
## ESD 100 B: Modular bench for the study of Pneumatic, electrical, electropneumatic Technologies



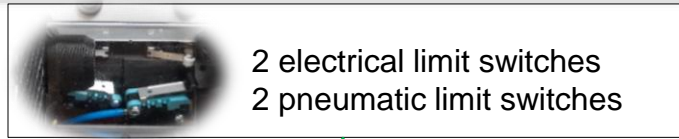
## ESD 103 000 : Pneumatic functions module



## ESD 102 000 : Electropneumatic interface module



## ESD 101 000 : Cylinders module (electric and pneumatic limit switches)

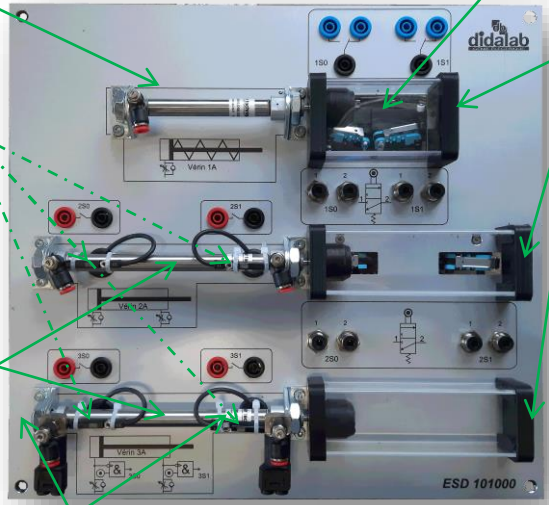
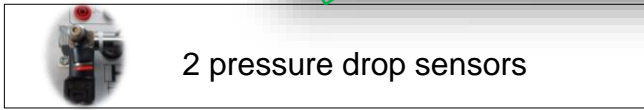
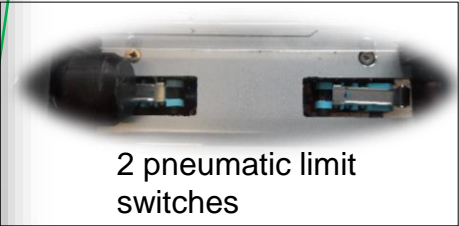


Single acting cylinder

4 reed switches

2 double acting cylinders

Protection covers



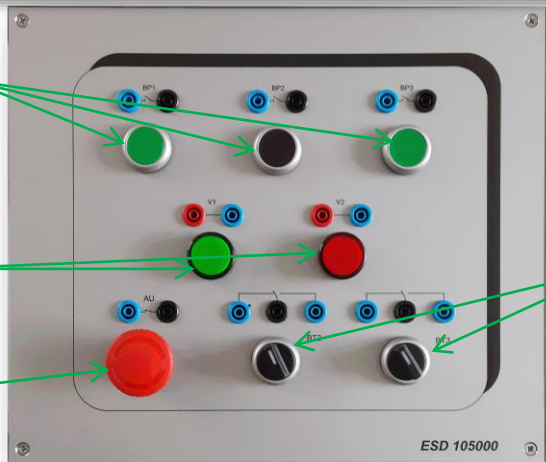
## ESD 105 000 : Electric HMI module

2 green push-buttons  
1 black push-button

1 green light  
1 red light

1 Emergency stop button

2 2-position switches



## ESD 104 000 : Pneumatic HMI module

2 green push-buttons  
1 black push-button

1 Emergency stop button



2 lights

2 2-position switches

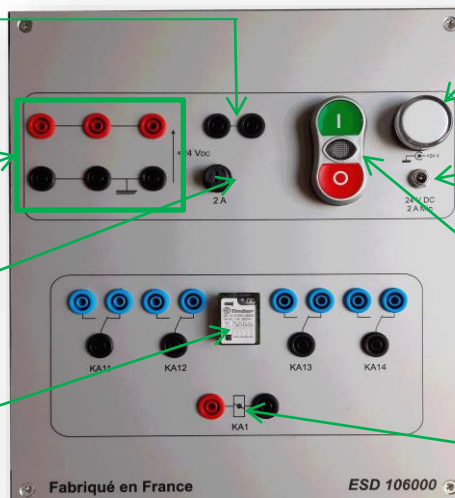
## ESD 106 000 : Electric power supply module

Safety shunt

24-Vdc power distribution

Fusible 2A

4-contact relay



Power presence indicator

24-Vdc power supply connector

ON/OFF switch with light

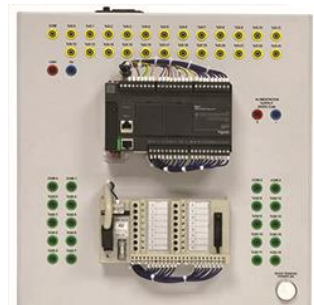
Relay power supply with on-LED

## Optional extra : PLC modules *(non included)*

ESD 003 B : Siemens® S7-1200 PLC,  
pedagogical

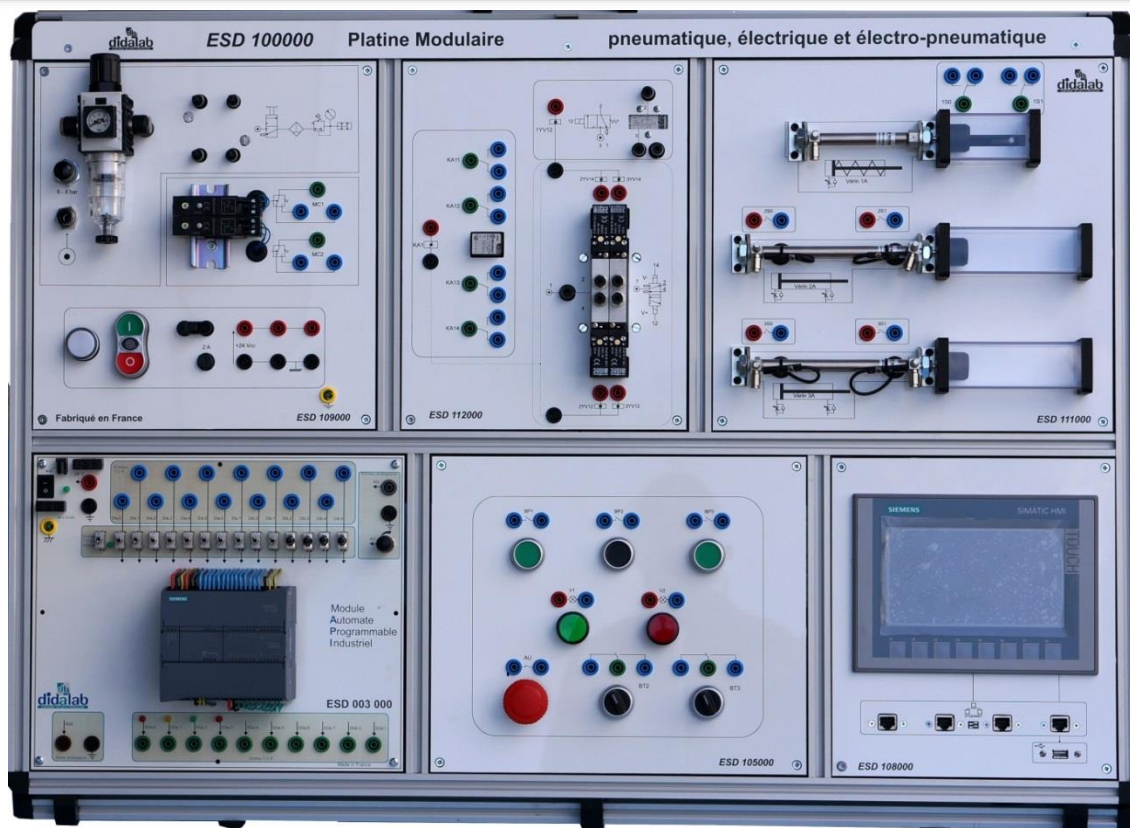


ESD 006 B : Schneider®  
M221 PLC, pedagogical

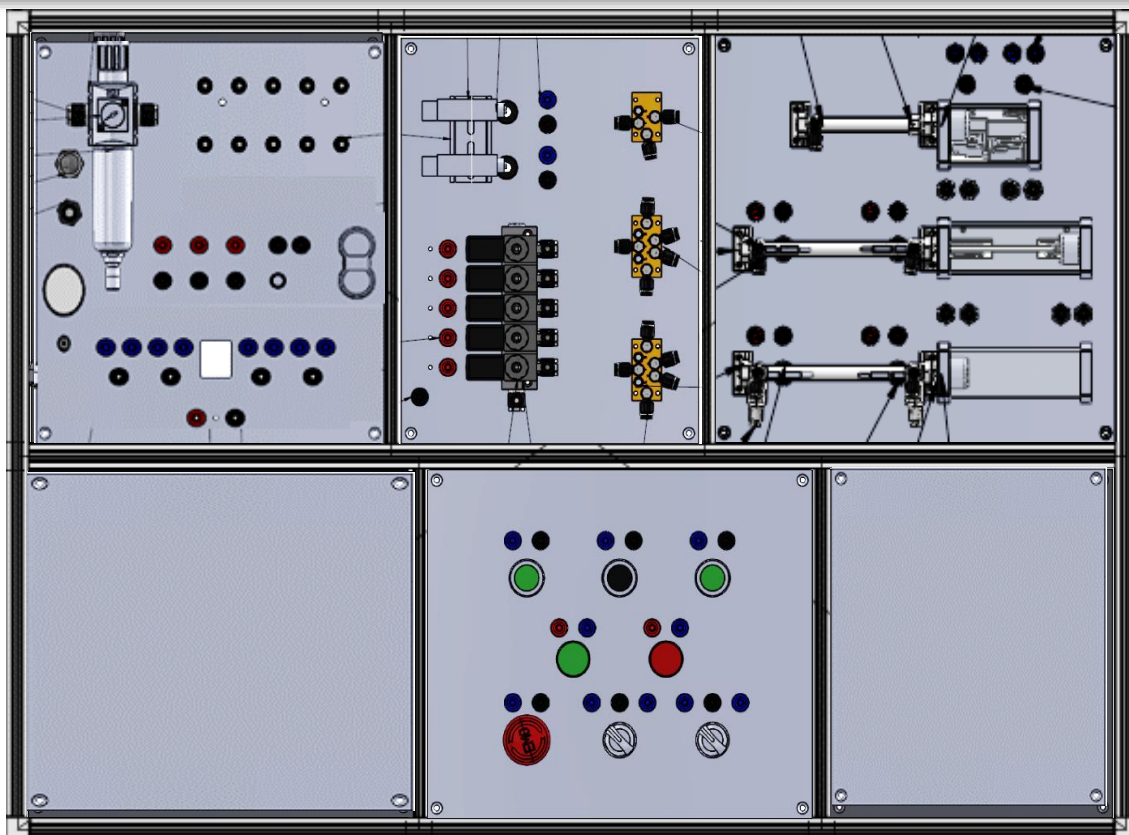


## Other configurations

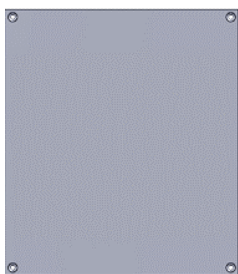
ESD 100 A: Modular bench with PLC for the study of Pneumatic, electrical, electropneumatic Technologies ([documentation here](#))



## Other example of configuration



**ESD 190 000 : Blank module**



**EGD 000 025 : Low noise compressor**



**Standard Configuration:**

**ESD 100 B: Modular training bench for the study of pneumatic and electro pneumatic technologies**

Reference	Description	Qty
ESD100000	Structure made of aluminium profile, with 6 locations for pneumatic, electrical and electropneumatic modules.	1
	supplied with two Ø4-mm, 25-m hoses (1 red + 1 blue), 1 pipe cutter, one 2-m Ø 8-mm hose	1
	1 flash drive with the technical and user guide, the pedagogical book with experiments.	1
ESD101000	Cylinders Module (1 simple acting cylinder, 2 double acting cylinders, ILS, pressure drop, rollers sensors,)	1
ESD102000	Interfaces module : 2 pneumoelectrical, and 5 electropneumatic	1
ESD103000	Pneumatic functions module (1 memory, 2 AND, 2 OR, 2 NOT, 1 temporisation)	1
ESD104000	Pneumatic HMI interface (1 Emergency stop button, 2 green lights, 2 2-position switches, 2 green push-buttons, 1 black push-button)	1
ESD105000	Electric HMI interface (1 Emergency stop button, green light, 1 red light, 2 2-position switches, 2 green push-buttons, 1 black push-button)	1
ESD106000	Electrical power supply module (1 white lightn 1 ON/OFF push-button, fuse)	1
PEM080030	Set of 10 patching cords, 1 m, black, Ø4-mm safety sockets, stackable	1
PEM080031	Set of 10 patching cords, 1 m, red, Ø4-mm safety sockets, stackable	1
PEM080032	Set of 10 patching cords, 1 m, blue, Ø4-mm safety sockets, stackable	1

*For any other configuration, please ask*

**ESD 100 A: Modular bench with PLC for the study of Pneumatic, electrical, electropneumatic Technologies ([documentation here](#))**

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