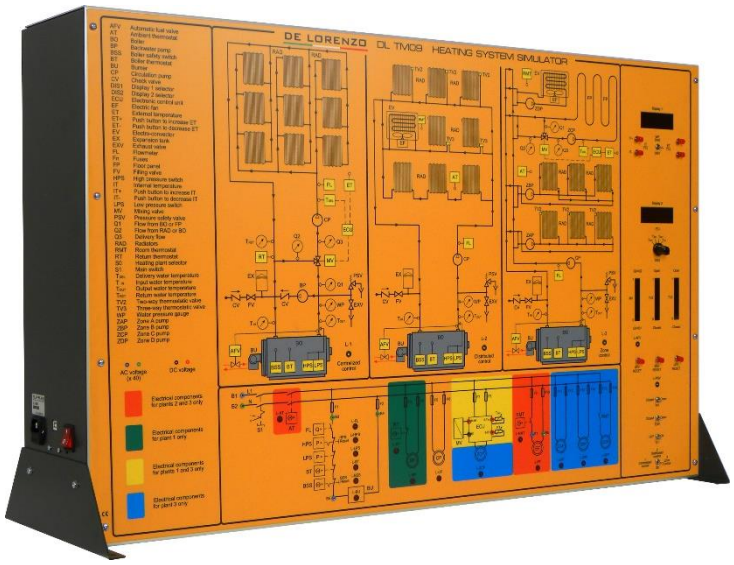
THERMOTRONICS

HEATING SYSTEMS



DL TM09

The simulator allows the study, the performing of experiments and the troubleshooting for the following systems:

- Central heating system
- Heating system with distributed regulation
- Zone heating system

These systems are reproduced on the panel, through a colour representation which allows a complete analysis of the fluid circuit, of its components and of the electrical/electronic circuit for control and regulation.

TRAINING OBJECTIVES

It is possible to simulate the behaviour of components and systems, on the basis of the operating conditions which can be monitored directly on the panel or through Personal Computer by teacher and students.

The Personal Computer constantly keeps under control the simulation in progress and displays its behaviour through analog and digital signals and meters; in this way the student, through measurements and tests, can go on with the troubleshooting.

Dimensions: 0.66 x 1.04 x 0.35 m.
Net weight: 16 kg.
Average training hours: 10 h.

The system is supplied with a Student Navigator software that allows students to perform their learning activities through a Personal Computer, without the need for any other documentation. Moreover, the Student Navigator is provided with an interface to the Laboratory Management software.

The zone heating system is composed of the

TECHNICAL DESCRIPTION

The central heating system is composed of the following main elements:

- Liquid or gas heat generator
- Forced circulation circuit, two pipes, with closed expansion tank and inverse return
- Electronic central regulation of the delivery temperature, on the basis of the external temperature, trough three- way mixing valve
- Re-circulation anti-condensate pump
- Boiler regulation thermostat and block thermostat
- Block pressure switch and safety valve
- Fuel interception valve

The heating system with distributed regulation is composed of the following main elements:

- Gas heat generator
- Forced circulation circuit, single pipe, with closed expansion tank and inverse return
- Regulation distributed on each user
- Two-way thermostatic valve
- Three-way thermostatic valves
- ON/OFF thermostats
- Boiler regulation thermostat and block thermostat

following main elements:

- Gas heat generator
- Forced circulation circuit, zone type, with closed expansion tank and direct return
- Zone A: single-pipe system
- Zone B: two-pipe system
- Zone C: floor system
- Zone D: air convection system
- Regulation with ambient thermostats for zones A, B, D
- Regulation with compensation of the delivery temperature, as a function of the external temperature, for system C
- Boiler regulation thermostat and block thermostat
- Block pressure switch and safety valve
- Fuel interception valve

- Block pressure switch and safety valve
- Fuel interception valve