



Email : sales@laboratoryinstrumentindia.com

**Product Name :**  
Heat Distribution And Control In Heating Systems

**Product Code :**  
LBNY-0005-12500018



#### **Description :**

The simple heating circuit with one subcircuit contains two flat radiators and is controlled by a temperature-led controller. A three-way mixing valve is the actuator. A complete domestic heating system can be set up using the trainer together with a hot water generator, Hot water passes through the radiators and heats the room air. It contains two heating circuits. A simulator is supplied for varying the outside temperature. The heating circuit with two subcircuits contains four radiators and two heating controllers. Both heating circuits are equipped with commercially available heating technology control devices. Solenoid valves enable control of the heat distribution in the two subcircuits. Each heating circuit contains a circulating pump.

#### **Learning objectives/experiments:**

- Hydronic balancing of heating circuits with multiple radiators
- Function and design of commercially available heating technology components
- Design of a room heating system with controller and actuator
- Temperature-led heating controller (outside temperature) with three-way mixing valve
- Measurement of differential pressures, temperatures and flow rates
- Energy calculation and evaluation of emitted heating capacity based on measured quantity of heat
- Simulator for varying outside temperature
- Function and design of a room heating system divided into sections
- Reading and comprehension of symbols and process schematics

#### **Technical Specification :**

Heating circuit (B) with 2 subcircuits contains 4 radiators, 1 circulating pump, 2 heating controllers, 2 solenoid valves

---

Heating circuit (A) with 1 subcircuit contains 2 flat radiators, 1 circulating pump, 1 heating controller with 3-way mixing valve and simulator for variation of outside temperature  
Flow control valves for hydronic balancing in heating circuit with 2 subcircuits measurement of flow rate and pressure  
Together with hot water generator: setup of a complete domestic heating system with 2 independent heating circuits  
Hot water connections with quick-release couplings  
9 measuring points for differential pressure and temperature.



**Laboratory Instrument India**