



One of the most commonly available systems to determine thermal conductivity for liquids and gas is the use of a cylinder with two adjacent, isothermal cylinders, separated by a small ring where the fluid under study is enclosed.

Training unit TC 06.1 simulates the same system, providing an opportunity for students to understand how thermal conductivity takes place whereas experimenting hands-on with the values for different samples of liquid and gas.

The tests allow to work out  $k$  thermal conductivity for samples of water, alcohol, oil, air, oxygen or carbon dioxide.

**LEARNING OBJECTIVES**

Practices and experience available in this equipment are:

- Heat conduction study in steady state in liquids and gases.
- Thermal conductivity determination in different fluids.

**TECHNICAL DATA**

- Box dimensions: 279 x 305 x 175 mm.
- Test area dimension: 510 x 300 x 320 mm.
- Resistance power: 150W
- Thermostat: 0.....105°C

**CHARACTERISTICS**

- 2x temperature indicator.
- On/off frontal button.
- Potenciometer.
- Power/ tension/ current indicator.
- Inlet/ outlet of the sample under test.
- Regulation valves.
- 2x temperature probe.
- Inlet regulation valve of the sample under test.
- Outlet regulation valve of the sample under test.
- Cold water cooling step valve.

**REQUIREMENTS**

- Power supply: 230W/50Hz
- Minimum water supply: 5l/min.
- Drain