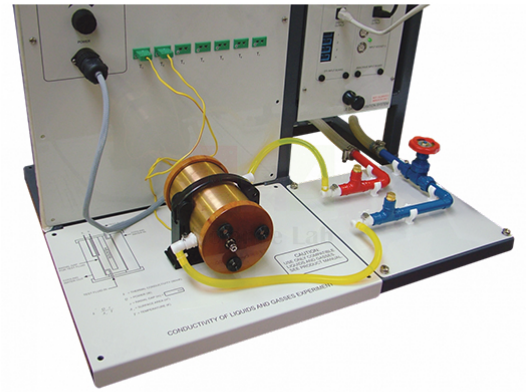
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Product Name :

Conductivity Of Liquid And Gases

Product Code :

SLE/EA/23



Description :

Conductivity Of Liquid And Gases (Product Code: SLE/EA/23) is a thermal conductivity apparatus used to measure how well a liquid or gas conducts heat across a thin layer between a heater and a water-cooled heat sink in engineering laboratories. Three concentric cylinders hold the electric heater, the test fluid and the cooling water, with thermocouples on both edges of the fluid layer. It is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEM and scientific instruments manufacturer in India, at its own factory in Ambala.

Key Details

Parameter	Detail
Arrangement	Three concentric cylinders
Heat source	Inner cylinder containing an electric heater
Test layer	Test liquid or gas forming a second, thin cylinder around the heat source
Heat sink	Third, water-cooled cylinder surrounding the other two
Heat path	Conduction from the heat source, through the test liquid or gas, to the heat sink
Temperature measurement	Thermocouples on the inside and outside edges of the test fluid cylinder
Mounting	Base plate with a clear schematic of the experiment layout
Product code	SLE/EA/23
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM
Country of origin	India (made in Ambala, Haryana)

What Is the Liquid and Gas Thermal Conductivity Apparatus Used For?

Students fill the thin annular gap with the chosen fluid, start the cooling water and heater, and wait for the thermocouple readings to settle. From the heat input and the temperature difference across the layer, they calculate the fluid's thermal conductivity using the equation for radial conduction through a cylindrical shell. The printed schematic on the base plate helps them identify each measuring point quickly.

Keeping the fluid layer thin limits convection, so heat crosses it mainly by conduction. Repeating the test with different fluids shows clearly why gases are far poorer conductors than liquids, a useful result for heat transfer and fluid-property courses using engineering lab equipment in India.

OEM Manufacturer

Jain Scientific Equipments Private Limited, trading as ScienceLab, is the OEM (original equipment manufacturer) of this conductivity apparatus and manufactures it at its own licensed factor
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