



Computerized Thermal Conductivity of Liquid (Product Code: HMTC12)



Features

- Extensive range of Experiments
- Comprehensive teaching manual
- One year warranty
- Esthetically designed and finished Rig.
- High Quality instrumentation
- To determine thermal conductivity of liquid.

Product Description

This equipment allows student to determine the thermal conductivity of a poor conducting liquid, like liquid glycerin. All the heat transfer experimental setup is of single unit, consists of a Powder Coated M.S Panel.



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Product / Component Specification

Pipe Specification	Diameter : 100mm Material : Brass Length : 90mm
Mica heater	Diameter : 90mm
Cooling Plate diameter	100mm
Thickness of liquid	40mm
Thermocouple	T type
Digital voltmeter	0-300 volts AC
Digital ammeter	0-5 Amps AC
Digital temperature	0-199.9 Deg (T Type)
Variac	0-2 Amps

Data Acquisition card

Analog Input	
Differential Channels	12
Resolution	12 bits
Sample Rate	200 Ks/s
Max Voltage	5 V
Number of Ranges	4
Simultaneous Sampling	Yes
On-Board Memory	5120 samples
Analog Output	
Channels	2
Digital I/O	
Input-Only Channels	30
Output-Only Channels	12
Timing	Software
Logic Levels	TTL
Maximum Input Range	0 V - 5V
Maximum Output Range	0 V - 3.3 V
Counter/Timers	
Counters	2
Max Source Frequency	84 MHz
Resolution	12 bits
Logic Levels	TTL
Total DC output Current on all I/O lines	130mA

Measurement of Temperatures at different points

Type	"K"
Range	0-300°C
Signal conditioning/transmitter	Standalone
Location	Water Inlet Temperature
Type	"K"
Range	0-300°C
Signal conditioning/transmitter	Standalone
Location	Water Outlet Temperature
Type	"K"
Range	0-300°C
Signal conditioning/transmitter	Standalone
Location	Sample Liquid Inlet Temperature
Type	"K"
Range	0-300°C
Signal conditioning/transmitter	Standalone
Location	Sample Liquid Outlet Temperature

Measurement of Voltage & Current

Type	Voltage Transducer
Range	0-300V
Signal conditioning/transmitter	Standalone
Type	Current Transducer
Range	0-10Amps
Signal conditioning/transmitter	Standalone