

LETI-1

Thermal Expansion Experiment Unit



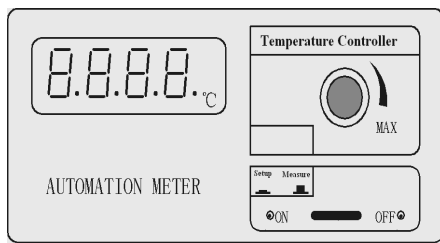
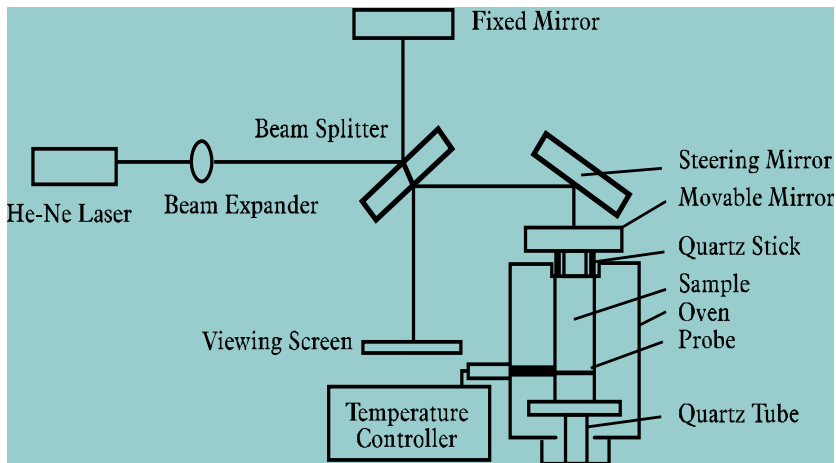
- *Compact structure*
- *Various type of short sample*
- *Low power consumption*
- *High accuracy*

This unit utilizes a Michelson interferometer to determine the linear expansion coefficient of the sample materials very accurately. With an oven for the thermal expansion and a mirror attached to the sample acting as a movable mirror in a Michelson interferometer, this specially design unit makes use of the interference pattern to determine the linear expansion by counting fringes.

Specifications

He-Ne Laser	1.0 mW@632.8 nm
Sample	Copper, aluminum and steel
Sample Length	150 mm
Heating Range	18~ 60°C, temperature controlled
Temp. Measuring Accuracy	0.1 °C
Power Consumption	50 W
Error of Linear Expansion Coefficient	< 3%

Instrument schematic



Parts included

Description	Specification	Qty
Thermal Expansion Experiment Unit		1
He-Ne Laser	1 mw@632.8nm	1
Plane Mirror	with quartz tube and connector, include one spare	2
Power Cable	220V, with plug	1
Lift Tool	with M4 screw	1
Aluminum Alloy Sample	LY12, L =150mm	1
Copper Alloy Sample	H62, L =150mm	1
Steel Sample	45 steel, L =150mm	1
User's Guide		1