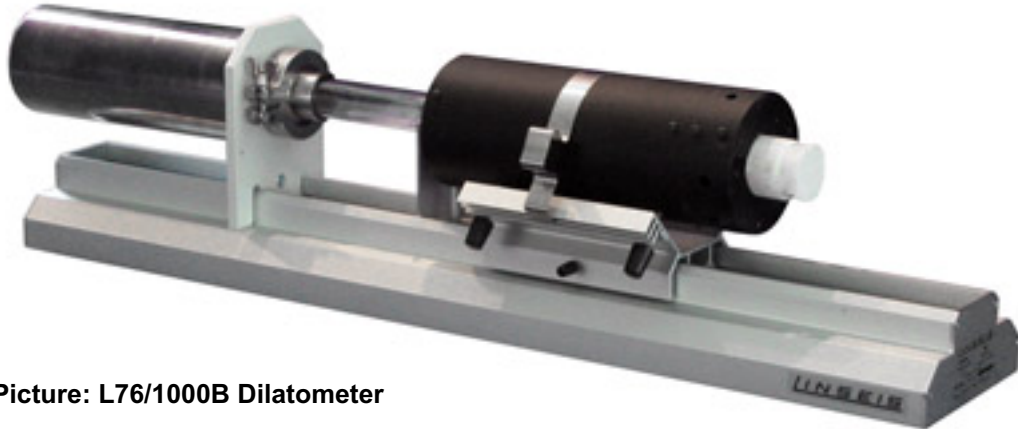


Low - Cost Dilatometer L76/1000B



Picture: L76/1000B Dilatometer

Linseis now offers a low cost single sample Dilatometer. The L76/1000B can be used for basic expansion or shrinkage measurements from RT up to 1000°C.

We are able to lower the cost on this unit by using universal components and eliminating the vacuum and atmosphere control option. The unit will measure expansion and /or shrinkage from room temperature to 1000°C in standard air.

The evaluation of data includes CTE, % expansion or shrinkage, absolute expansion or shrinkage, and more.

The sensor employed is an LVDT (linear variable differential transformer) which is very precise. This LVDT has theoretically an indefinite resolution. For this application the resolution is 14nm (nanometer). This is the same dimension as the wavelength of light.

This type of standard dilatometer is often used for quality control measurements in the glass or ceramic industry that normally are made inert gas flows or vacuum.

There are several advantages of the new low cost design. We have eliminated the need for water cooling on the furnace; also there is no need for a water circulating bath to maintain a constant temperature on the measuring head. The sensor module or measuring head is equipped with a sensor electronically regulates and maintains measuring head temperature slightly above room temperature.

Another very useful feature is the automatic zero setting of the LVDT sensor. This option eliminates and micrometer screws to adjust the LVDT zero position. The LVDT is positioned using an internal motor controlled via the software.

Different sample lengths are automatically adjust and can vary from nearly 0 to 50 millimeters in length.