

LINSEIS DILATOMETER L75 V series

Single Push Rod or Dual Push Rod Models



Measuring systems

“absolute”
measuring system



Quartzglass



Al2O3

“differential”
measuring system



The LINSEIS dilatometers of the series L75V are built up with high quality and accuracy, using highprecision LVDT-sensors (differential transformers). With this sensor technology you will get a indefinitely sensor resolution.

The advantage of the vertical dilatometers is that, between the sample and the measuring system there is no friction, because the sample is held between push rod and the end of the measuring system. It is standing free.

In the vertical mode of operation you can put in additional protection disks, between the sample and the measuring system, in order to avoid contamination of the measuring systems which will result in wrong measurements.

Another advantage is, that the vertical dilatometer needs only half the space of a horizontal dilatometer.

With the L75V series dilatometer you can make static and dynamic measurements under vacuum and under oxidizing and reducing atmospheres. You can reach a very good vacuum of 10^{-5} mbar.

As this dilatometer has a very good vacuum tightness, it is suitable for measurements under hydrogen atmospheres. This is very important for the development of fuel cells (SOFC).

All instruments are delivered with automatic zero setting and automatic pressure control.

Due to the modular construction of the dilatometer you can use several furnaces and measuring systems. Three standard furnaces are available: 1000°C/1400°C/1600°C. An additional low temperature furnace with a measuring range from ...150°C up to +500°C can also be used.

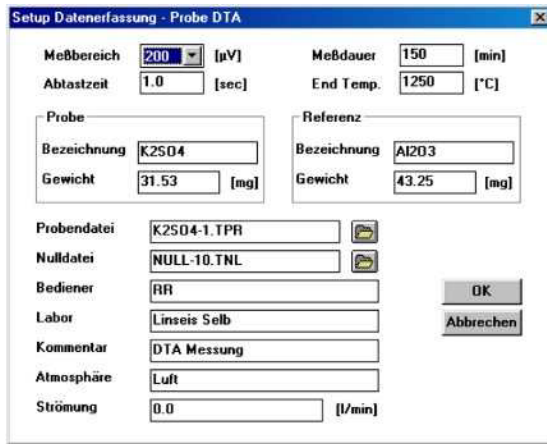
For the dilatometers of the serie L75V there are options available as follows:

- Use of more furnaces with swivel mounting, necessary for faster cycle times in quality control.
- Digital display of the sample and the furnace temperature
- Automatic furnace lift after the measurement is ready

LINSEIS

Linseis Software for Dilatometers

picture 1: menu for the documentation set-up



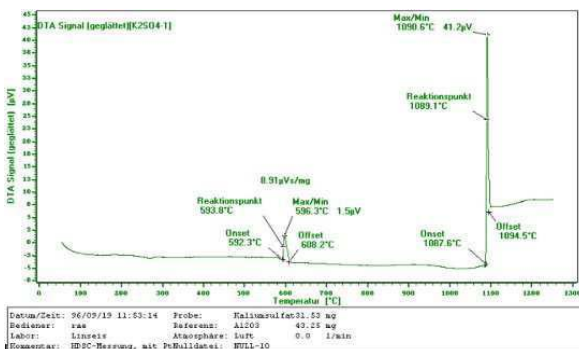
All LINSEIS Thermal Analysis Instruments are controlled through a sophisticated Windows® software. The complete program consists of three sections; temperature control, data acquisition, and data evaluation. Essential sample information is entered in the data acquisition section.

Data Acquisition section

Essential data for each sample test includes; operator, laboratory, atmosphere, gas flow, material, sample file name, zero file name, comments, sample length, measuring range, max. temperature, duration of run, sampling frequency, heating and cooling rates, number of cycles.

All menus are easily understood and intuitive. The software is quickly mastered with minimal training needed.

picture 2: the evaluation menu



Evaluation section

The evaluation is part of the complete windows software. It features a number of functions enabling a full evaluation of all types of data. All evaluation and data collection can be performed simultaneously. Data can be corrected using zero and calibration correction. Data evaluations include; absolute length change, relative length change, and coefficient of thermal expansion. A mean curve with statistical analysis can be performed on multiple curves. Graphical displays can be printed on all windows compatible printers or plotters. Data can be displayed and printed in a table format. The software also includes an ASCII export feature.



Amplifier of the L75 series with integrated automatic load control.

Adjustable load 0 - 1000 mN.

Due to the design of the amplifier all cables are connected to the rear. This allows a clean front panel.