6.5618.000 Measuring set for temperature checking of a KF Oven or Oven Sample Processor

This measuring set is meant to be used for the validation of the core temperature of the heating block of a KF Oven or Oven Sample Processor.

The measuring set consists of:

- 6.1112.000 Heat sensor (Thermocouple type K, NiCr-Ni)
- 6.1253.010 Measuring insert for 774 heating block
- 6.2621.120 Allen wrench 1.5 mm

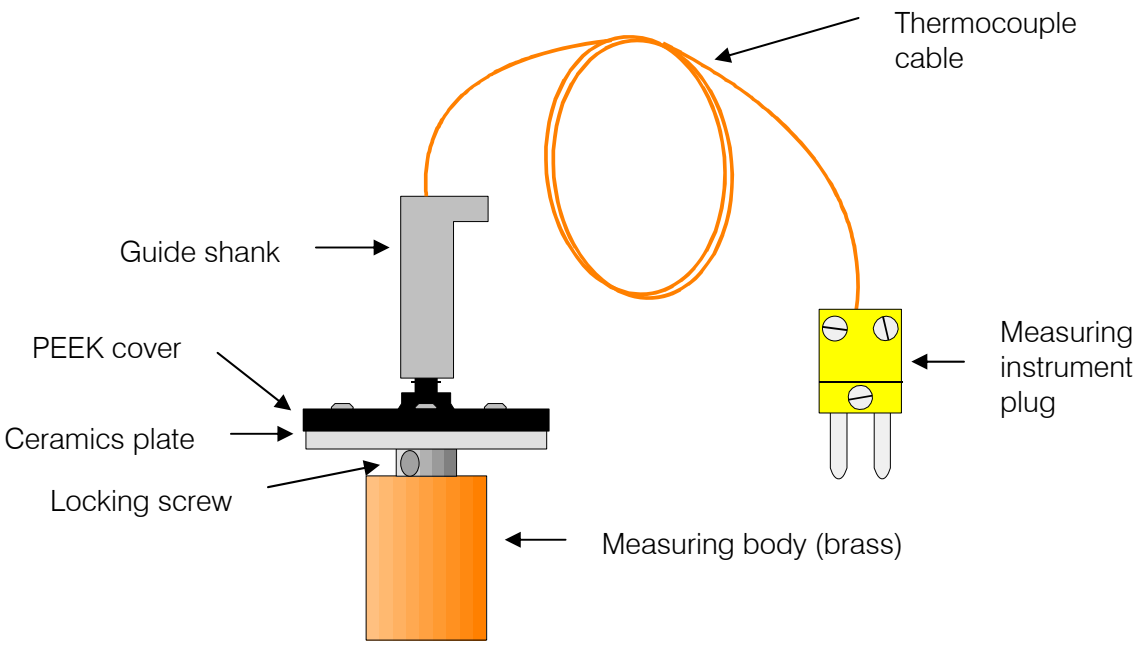
Requirements:

Temperature measuring instrument, standardized
(The 6.1112.000 thermocouple and the measuring instrument should be standardized by an official recognized measuring office.)

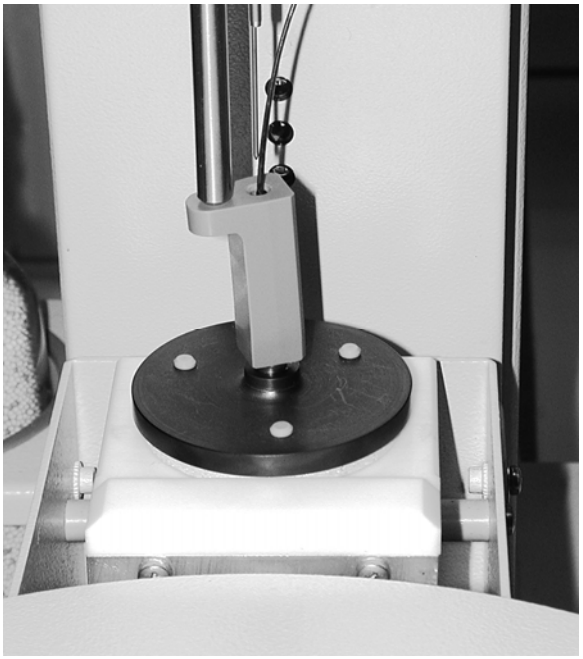
Measuring principle:

The measuring insert with the brass body is introduced into the heating block, instead of a sample vial. When the chosen temperature is reached, the core temperature of the heating block is measured by means of the temperature measuring instrument. The measured value can be compared to the temperature reading of the instrument.

If a significant deviation of the measured temperature values is recognized, the oven settings of the instrument must be adjusted. The 'temp. correction' setting in the configuration menu can be modified, see the user manual of the instrument.



Installation



Thermocouple inserted in the heating block of a 774 Oven Sample Processor

- Insert the measuring tip of the thermocouple through the guide shank into the measuring body as deep as possible.
- Fix the thermocouple with the locking screw. Use the allen wrench. Do not tighten the screw too much!
- In the case of a Oven Sample Processor remove the sample rack and raise the lift to rest position (0 mm).
- Introduce the measuring insert into the heating block as shown on the left. The guiding shank must be jammed under the guide rod of the working head.
- Fix the measuring insert. Hold the guide shank and turn the cover plate clockwise until the ceramics plate is seated tighly on the heating block.
- Plug the thermocouple to the temperature measuring instrument.

Measurement

- Enter the desired measuring temperature (e. g. 160 °C) on the instrument or in the 'Manual control' section of the software.
- Wait until the measuring temperature is reached, at least 15 minutes. The measuring body must be in thermal equilibrium with the heating block.
- Read the measured temperature from the measuring instrument and compare it to the display.
- Correct the oven settings (temp. correction) in the configuration of the instrument or in the software if necessary.

Limits

If the readings differ more than 2…4 °C (temperature range below 200 °C) or 3…6 °C (temperature range over 200 °C) resp. from the set temperature the configuration of the instrument allows to define a temperature correction.

Technical description

Thermocouple	Type K (NiCr-Ni)
Temperature range	-250 … +400 °C
Measuring instrument	A standardized temperature measuring instrument is needed, that is suited to thermocouples type K, e. g. FLUKE 51 K/J.