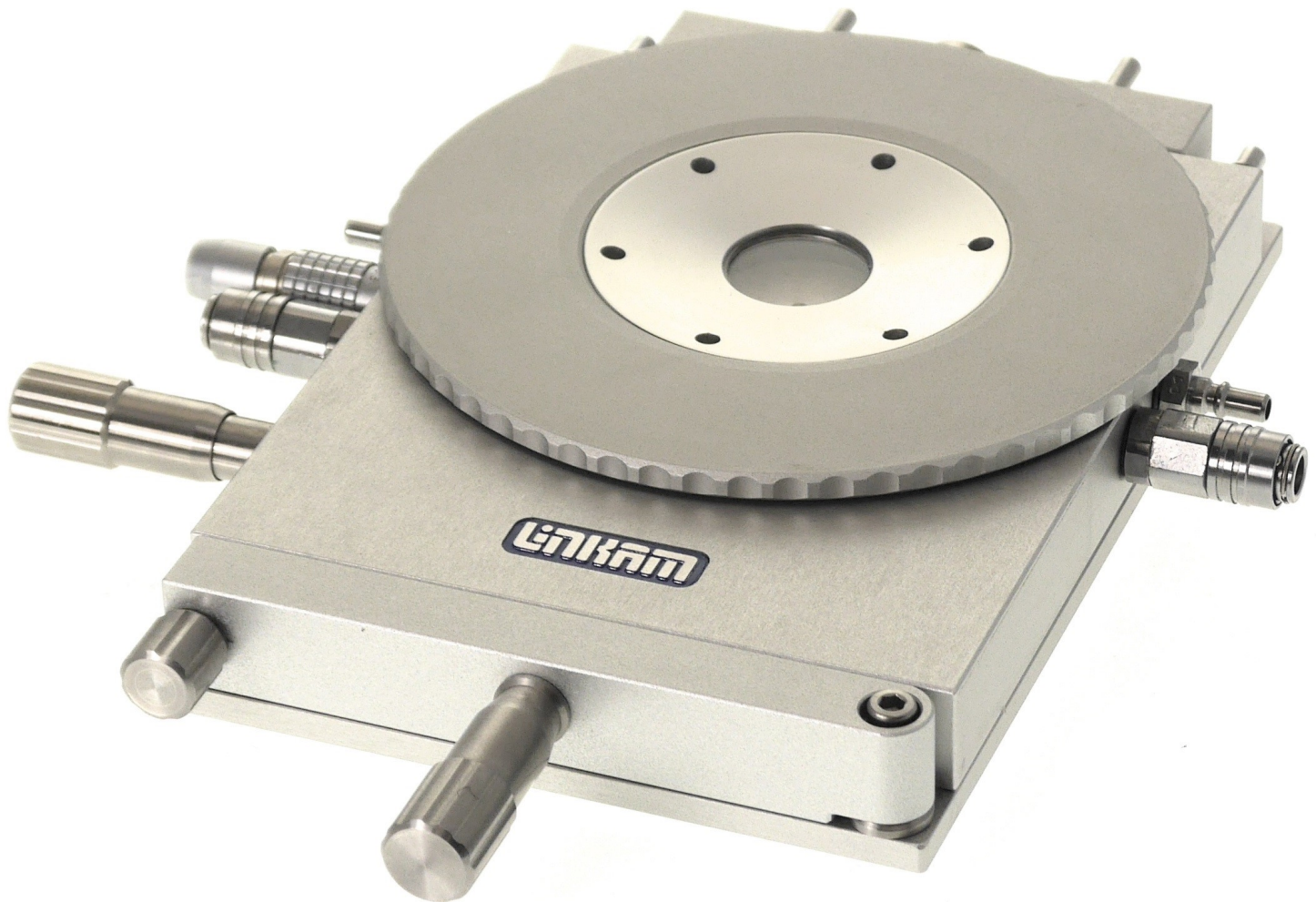


THMS600

Versatile Heating and Cooling



Heating and Freezing

Temperature range from -196°C
up to 600°C

Optical Techniques

Light Microscopy, Raman, X-ray,
Confocal and more

Rapid and Slow Heating

Wide range of heating rates from
 $150^{\circ}\text{C}/\text{min}$ to $0.01^{\circ}\text{C}/\text{min}$

Introducing the THMS600

Linkam's THMS600 is one of the most widely used heating and cooling stages available, thousands of our stages have been sold around the world to date. Used in many applications where high heating/cooling rates and high level accuracy and stability are needed, it has a temperature range of -196°C to 600°C.

Samples are quickly characterised by heating to within a few degrees of the required temperature at a rate of up to 150°C/min with minimal overshoot, then slowed down to a few tenths of a degrees per minute to closely examine sample changes. The entire experiment can be saved as a real time plot or exported for further analysis.

There are a wide range of versions available for this stage, including pressure, electrical sample measurement and sample holders to mount the stage vertically in infrared or x-ray spectrometers.

A system requires the THMS600 stage and a T96-S temperature controller, which is available with either LINK software for computer control or LinkPad touch screen for stand alone control. For cooling below ambient temperatures, an LNP96-S liquid Nitrogen cooling pump is available.



Features

WIDE RANGE TEMPERATURES

The temperature capabilities range from -196°C (with the addition of a LNP96) up to 600°C, for a versatile range of experiments.

RAPID HEATING RATES

The T96 controller allows the stage to heat samples at a maximum rate of 150°C/minute and as slow as a few tenths of a degree per minute.

HIGH DEGREE OF ACCURACY & STABILITY

The embedded high quality Pt100 platinum sensor guarantees high accuracy and stability throughout the temperature range.

VARIOUS OPTICAL TECHNIQUES

Whether you need to perform Raman spectroscopy, X-ray microscopy or confocal, the THMS600 can handle it.

QUICK RELEASE GAS PORTS

Simple and easy stage purging to allow atmospheric composition control.

XY MANIPULATORS

Sample position can be precisely controlled 16mm in XY directions via the precision ground manipulators.

Application Examples

The versatile nature of the THMS600, with its many options and configurations, means it can be tailored to suit a variety of applications:

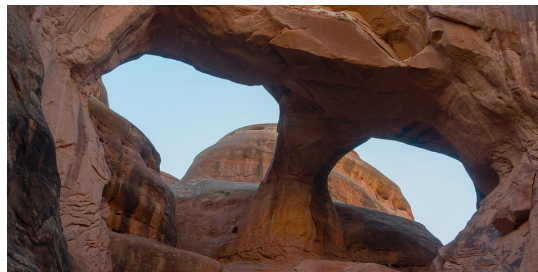
Geology

The THMS600 is used by many leading universities and institutes to advance paleoclimatic research. Other examples include:

Fluid Inclusions

Oxidation studies

Thermal Maturation



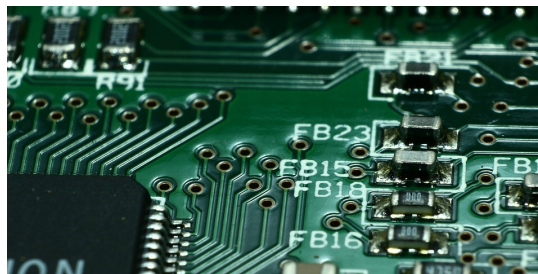
Electrical

The THMS600 has many applications within the electrical field including:

Semi-Conductor

Liquid Crystal

2D Materials



Materials

Within the materials field the THMS600 is used for a variety of studies, from polymer research and the oxidation of rocks, to the forensic analysis of glass samples. Other examples include:

Melting Point Analysis

Crystallisation

Cloud Point Analysis



Technical Specification

Temperature Range

-196°C (with the addition of an LNP96) up to 600°C

Heating Rates

0.01°C/min to 150°C/min

Temperature Stability

<0.01°C

XY Manipulation

16mm

Sample Size

22mm diameter

Objective Lens Working Distance

4.8mm

Compatibility

Reflected & transmitted light microscopes, Confocal, Raman Spectroscopy and X-ray options

Discover More...



Control Options

Take control of your experiment with LINK software for Windows, or the stand alone LinkPad touch screen.

Both share a unified user interface for ease of use and in addition to temperature can control or monitor many of the other stage parameters such as vacuum, humidity, tensile force and shear force (dependent of stage type and sensors). A profile with up to 100 ramps can be entered, allowing simulation of complex real world processes.

In addition, LINK provides logging functions and real time graphical feedback. It also supports a number of modules to further enhance your system, including LINK Imaging Module for synchronised image capture, LINK Extended Measurements module for recording the measurement of key features in your images, LINK 21CFR11 Module for data regulatory compliance and LINK TASC providing image analysis based thermal analysis.



Humidity

The RH95 Relative Humidity Controller provides environmental sample control to Linkam's range of temperature stages. It provides precise control in a compact, self-contained package with no requirement for dry air supply. The RH% is accurately controlled between 10%-90% (temperature range ambient to 85°C).



Imaging Station

The Imaging Station is compatible with all Linkam heating and cooling stages. It has been specially designed with a pivoted mechanism to allow greater access to your samples. There are reflected and transmitted light options available and it is compatible with a range of long working distance objective lenses.


Contact Details

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We make scientific instruments that help characterise materials from polymers to biological tissue and metals to composites. Our instruments are used for research by the world's most advanced scientific organisations and companies. Each of our instruments are designed and manufactured in-house by our team of highly experienced electronics, software and mechanical design engineers. We design and develop solutions for sample characterisation by collaborating with the best scientists in the world. Will you be next?

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