LTS420

Optimised Isothermal Sample Analysis

Large Heating Area
Ideal for larger samples of up to 53.5mm x 43mm

Variable Heating Rates
From 0.01°C/min to 50°C/min, ideal for state transition experiments

Swing Out Lid
For easier and quicker sample loading

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Introducing the LTS420

The LTS420 hotstage is optimised for isothermal analysis of larger samples where high speed heating and cooling and excellent thermal stability are required.

It is an easy to use, versatile heating and freezing stage. The LTS420 features a 53.5mm x 43mm area silver block with a platinum resistor sensor embedded close to the surface for accurate temperature measurements.

The sample can be simply mounted on a standard microscope slide which is held in contact with the heating block and can be manipulated 15mm in both an X and Y direction. The sample chamber is gas tight and has valves to purge with either inert gas or humid air.

A system requires the LTS420 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.

Optional electrical connections and probes are available.

Features

Large Silver Heating Block
The large silver heating block provides excellent temperature uniformity and it enables high heating and cooling rates (0.01°C/min to 50°C/min) with quick response times, ideal for state transition experiments.

Swing Out Lid
The swing mechanism of the lid allows greater access and easier loading of samples.

XY Manipulators
Sample position can be precisely controlled 15mm in XY directions via the precision ground manipulators.

High Degree of Accuracy & Stability
A temperature stability of 0.01°C is ensured by the platinum resistor sensor, guaranteeing accuracy when monitoring small sample changes.

Electrical Connections
Optional electrical connections enable electrical measurements to be carried out on the sample.

Humidity
Add the RH95 controller to your system to control between 5%-90% RH at point of sample.

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Application Examples

The versatile nature of the LTS420 allows the system to be tailored to a suit a variety of applications including:

Food

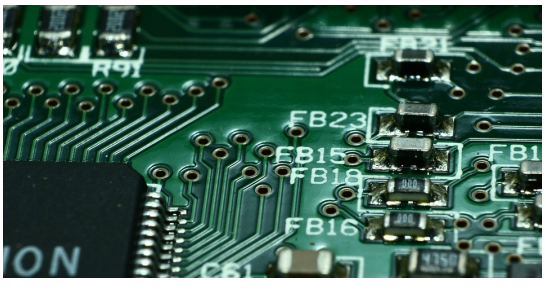
The LTS420 is used by various multi-national consumer goods companies and food scientists to study many applications, these include:

Crystallisation | Thermal Analysis | Emulsification

Electrical

The LTS420 is used worldwide by scientists and companies for electrical sample characterisation, these include:

Semi-conductors | Liquid Crystal | 2D Materials



Materials

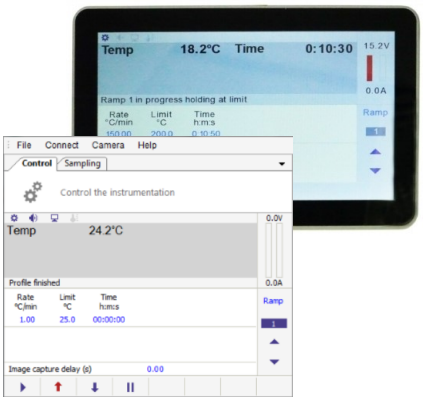
Within the materials field, the LTS420 has many applications from early in the research development cycle to manufacturing and quality control. Other examples include:

Melting Point Analysis | Crystallisation | Cloud Point Analysis

Technical Specification

Temperature Range	-196°C (with the addition of a LNP96) to 420°C
Heating Rates	0.01°C/min to 50°C/min
Temperature Stability	<0.01°C
Sample Area	53.5mm x 43mm
Objective Lens Working Distance	6.5mm
Compatibility	Reflected & transmitted light

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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