

Analysa Temperature Control Systems

Optimised for sample analysis, and easy sample access. These systems feature large area ultra stable heating elements for isothermal applications where high rate of heating is less critical. To extend temperature range below ambient (to -196°C) the systems require a cooling option to be added.

Analysa Dynamics System

The LTS350 is an easy to use versatile heating/freezing stage, with simple microscope slide mounted sample loading. The Analysa systems are optimised for isothermal sample analysis applications where high speed heating and cooling are compromised by larger sample area with excellent thermal stability of less than 0.1°C. The stage consists of a large area temperature controlled element with a platinum resistor sensor embedded close to the surface for accurate temperature measurements. The sample is simply mounted on a standard microscope slide in direct contact with the polished heating element and can be manipulated 15mm in X and Y direction. The sample chamber is gas tight and has gas valves to control the environment inside whether it is inert gas or humidity.

To minimise the temperature gradient across the sample, the light aperture in the block is only 2.5mmØ. The temperature is programmed by the standalone TMS94 temperature programmer. Sophisticated tem-



perature profiles of up to 32 ramps can be set up with ranges of heating rates from 0.1°C/min to 30°C/min. The TMS94 can be used as a standalone programmer or connected via RS232 to PC enabling use of further features within the Linksys software. TMS94 firmware can be updated via email using the RS232 connection.

Specifications

- Temperature Range -196°C to 350 °C*
- Sample area of 38 mm x 62 mm
- 32 ramp temperature profile programming
- No PC required
- 15mm by 15mm X, Y manipulation as standard
- Sample holder for standard 76 by 26mm microscope slides
- Gas tight chamber for atmospheric control
- Swing out lid for easy sample loading
- Can be used with transmitted or reflected light
- Mounts directly to microscope table or substage
- Stage body size - 160 x 80 x 24 mm
- 100 ohm platinum sensor 1/10th din standard class B
- Temperature stability < 0.1°C
- Inner lid to increase temperature stability
- Direct injection of coolant into block
- Highly conductive metal for improved heat transfer
- Maximum heating / cooling rate of 30°C/min
- Response time of <1 second at 5°C/min at 50°C
- Objective lens minimum working distance 6mm
- Condenser lens minimum working distance 13.2

System Includes

LTS350 Hotstage
TMS94

Linkam Scientific Instruments Ltd ·
info@linkam.co.uk
www.linkam.co.uk
(+44)(0) 1737 363 476.
FAX (+44)(0) 1737 363 480

Analysa Computer Ready

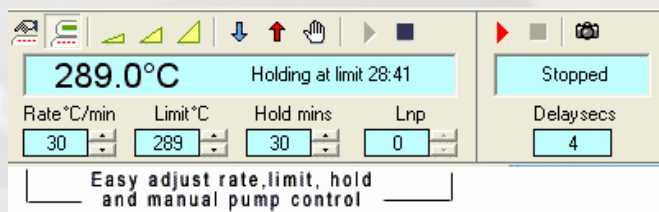
The LTS350 is an easy to use versatile heating/freezing stage, with simple microscope slide mounted sample loading. The Analysa systems are optimised for isothermal sample analysis applications where high speed heating and cooling are compromised by larger sample area with excellent thermal stability of less than 0.1°C. The stage consists of a large area temperature controlled element with a platinum resistor sensor embedded close to the surface for accurate temperature measurements. To minimise the temperature gradient across the sample, the light aperture in the block is only 2.5mmØ. The temperature is programmed by the intuitive Linksys software and controlled via the CI94 computer interface controller. Highly sophisticated temperature profiles of up to 100 ramps can be set up with ranges of heating rates from 0.1°C/min to 30°C/min.



Specifications

- Temperature Range -196°C to 350 °C
- 100 ramp per temperature profile programming
- Online temperature/time plot
- Sample area of 38 mm x 62 mm
- 15mm by 15mm X, Y manipulation as standard
- Sample holder for standard 76 by 26mm microscope slides
- Gas tight chamber for atmospheric control
- Swing out lid for easy sample loading
- Can be used with transmitted or reflected light
- Mounts directly to microscope table or substage
- Stage body size - 160 x 80 x 24 mm
- 100 ohm platinum sensor 1/10th din standard class B
- Temperature stability & accuracy to < 0.1°C

image shows Linksys 32 Temperature control tool bar



- Inner lid to increase temperature stability
- Direct injection of coolant into block
- Highly conductive metal for improved heat transfer
- Maximum heating / cooling rate of 30°C/min
- Response time of <1 second at 5°C/min at 50°C
- Objective lens minimum working distance 6mm
- Condenser lens minimum working distance 13.2mm

System Includes

LTS 350 Stage
CI 94 Computer Interface Controller and
Linksys 32 Temperature Programming Software.

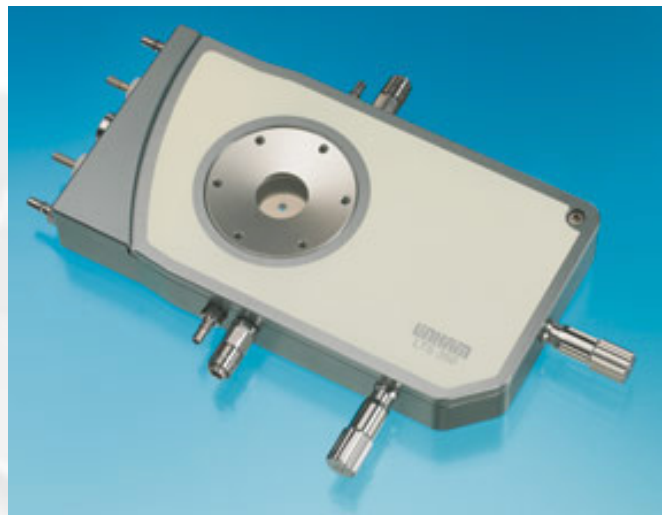
Linkam Scientific Instruments Ltd ·
info@linkam.co.uk
www.linkam.co.uk
(+44)(0) 1737 363 476.
FAX (+44)(0) 1737 363 480

Analysa System

The LTS350 is an easy to use versatile heating/freezing stage, with simple microscope slide mounted sample loading. The Analysa systems are optimised for isothermal sample analysis applications where high speed heating and cooling are compromised by larger sample area with excellent thermal stability of less than 0.1°C. The stage consists of a large area temperature controlled element with a platinum resistor sensor embedded close to the surface for accurate temperature measurements.

To minimise the temperature gradient across the sample, the light aperture in the block is only 2.5mmØ. The temperature is controlled by the TP94 controller which has a simple single line display and one ramp program consisting of a limit temperature and the rate of heating/cooling, limit temperature holding time is 999 minutes or when exit button is pressed.

The Analysa system is designed for those who require a basic temperature control microscopy system but refuse to compromise on temperature stability.



Specifications

- Temperature Range -196°C to 350 °C
- Sample area of 38 mm x 62 mm
- 1 ramp temperature profile programming
- No PC required
- 15mm by 15mm X, Y manipulation as standard
- Sample holder for standard 76 by 26mm microscope slides
- Gas tight chamber for atmospheric control
- Swing out lid for easy sample loading
- Can be used with transmitted or reflected light
- Mounts directly to microscope table or substage
- Stage body size - 160 x 80 x 24 mm
- 100 ohm platinum sensor 1/10th din standard class B
- Temperature stability < 0.1°C
- Inner lid to increase temperature stability
- Direct injection of coolant into block
- Highly conductive metal for improved heat transfer
- Maximum heating / cooling rate of 30°C/min
- Response time of <1 second at 5°C/min at 50°C
- Objective lens minimum working distance 6mm
- Condenser lens minimum working distance 13.2

System Includes

LTS350 Hotstage
TP94 Temperature Controller

Linkam Scientific Instruments Ltd ·
info@linkam.co.uk
www.linkam.co.uk
(+44)(0) 1737 363 476.
FAX (+44)(0) 1737 363 480

Analya Peltier

This peltier controlled system provides a turnkey solution for unrivalled temperature stability and control. Although the LTS120 stage has a narrower range in temperature than the other Analyza systems, the system does not require liquid nitrogen to cool and can reach temperatures as low as -40°C using just circulated cooling water* to achieve significant delta T values.

The LTS120 sample chamber is gas tight and features valves in order to control the internal environment in terms of humidity, slight vacuum or inert gas.

The stage consists of a large area temperature controlled element with a platinum resistor sensor embedded close to the surface for accurate temperature measurements. The sample is simply mounted on a standard microscope slide in direct contact with the polished heating element and can be manipulated 15mm in X and Y direction.

To minimise the temperature gradient across the sample, the light aperture in the block is only 2.5mmØ. The intuitive Linksys 32 temperature control software comes as part of the system and enables full PC programming of the temperature.

The system comes as a simple turn key solution easily



operated with little or no experience with temperature controlled stages.

There are stage clamps available to attach the stage to the substage of the microscope.

*(requires circulating water at 5°C to reach -40°C . -25°C is possible when using ECP supplied with the system)

Specifications

- Temperature Range -40°C to 120 °C
- Sample area of 40 mm x 40 mm
- 1 ramp temperature profile programming
- No PC required
- 15mm by 15mm X, Y manipulation as standard
- Sample holder for standard 76 by 26mm microscope slides
- Gas tight chamber for atmospheric control
- Swing out lid for easy sample loading
- Can be used with transmitted or reflected light
- Mounts directly to microscope table or substage
- Stage body size - 160 x 80 x 24 mm
- 100 ohm platinum sensor 1/10th din standard class B
- Temperature stability < 0.1°C
- Inner lid to increase temperature stability
- Direct injection of coolant into block
- Highly conductive metal for improved heat transfer
- Maximum heating / cooling rate of 30°C/min
- Response time of <1 second at 5°C/min at 50°C
- Objective lens minimum working distance 6mm
- Condenser lens minimum working distance 13.2

Analyza Peltier system includes:

LTS120 stage
PE94 Temperature controller
Linksys 32 software
ECP Water circulator

Linkam Scientific Instruments Ltd ·
info@linkam.co.uk
www.linkam.co.uk
(+44)(0) 1737 363 476.
FAX (+44)(0) 1737 363 480