RH95

Humidity Control of Your Sample Environment

Sensor at Sample
Accurate humidity measurements around the sample

Self Contained Desiccant System
Automated drying mechanism allows long-term testing, with no dry air supply needed

Multi-Chamber Compatibility
Compatible with Linkam stages and other third party chambers

Linkam Scientific Instruments

www.linkam.co.uk

+44 (0)1737 363476

info@linkam.co.uk

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Introducing the RH95

The control of water vapour in the environment around a sample is vital. The smallest change in RH% can have huge implications on the characteristics of a sample and how it behaves. The RH95 Relative Humidity Controller is designed to provide environmental sample control to the Linkam range of temperature stages. It provides precise control in a compact, self-contained package with no requirement for an external dry air supply.

When combined with a Linkam stage or other sealed chambers, the RH95 can be used to control the RH% between 5%-90% * (when temperature is between ambient to 85°C).

Unlike many other humidity systems, the feedback sensor is located at the sample block, ensuring accurate humidity control. The RH95 can be combined with light microscopy, Raman, FT-IR and X-ray to further characterise samples.

Features

Integrated Desiccant System
Ambient air is dried through a specially designed automatic recycling desiccant system, providing humidity control for months at a time, with no requirements for a costly dry air supply.

Inert Gas Regulator
Alongside dry air, the RH95 can now be pumped with dry nitrogen with the addition of the inert gas regulator.

Compact Design
The small size of the controller conserves vital benchtop space and provides a neat compact humidity system.

Sensor at Point of Sample
A sensor is mounted inside the chamber to create a feedback loop to the controller, ensuring precise control of RH between 5%-90% *.

Multi-Stage Compatibility
It is compatible with the Linkam heating stages THMS600 and LTS420, the TST350 tensile stage and other sealed chambers. The RH95 system is supplied with a small sealed chamber as standard.

Validation
A variety of certified salt solutions are available from Linkam to accurately validate the humidity sensors.

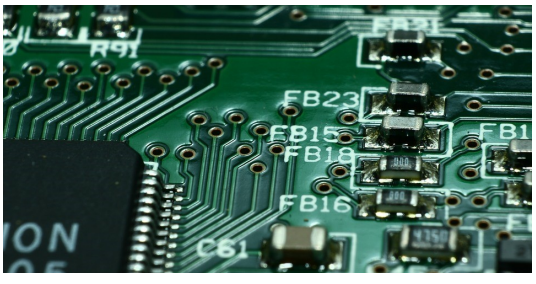
Application Examples

The RH95 has been used in combination with Linkam stages all around the world in a number of different applications. These include:

Materials Science

Leading multi-national companies are using the RH95 to study water ingress on internal electrical components. Further examples of applications include:

Corrosion	Conductivity	Absorption



Food Research

Within food research the RH95 system is being used by many well-known food and drink manufacturers to study food storage conditions. It can also be used for the following:

Long-term storage	Oral Processing	Microorganism growth

Pharmaceutical Industry

The RH95 has many applications within the pharmaceutical field from drug discovery to manufacturing and quality assurance. Other examples include:

Shelf life	Dissolution	Packaging

Technical Specification

Humidity Range	5% - 90% RH* (ambient up to 85°C)
Sensor Accuracy	+/- 1.8%
Stability	+/- 0.5% (at control value)
Size	135mm x 240mm x 264mm
Compatible Linkam Stages	TST350, THMS600, LTS420 and others
Sealed Chamber Capacity	Maximum 2000ml

* Dependent on stage type

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Discover More...

THMS600-H

The THMS600-H is based on our hugely popular THMS600 which is one of the most widely used heating and freezing microscope stages available. The THMS600-H is used in many applications where high heating/cooling rates and precise accuracy and stability are needed. The THMS600-H has a temperature range of -196°C to 600°C (ambient to 85°C when using the RH95).

LTS420-H

The LTS420-H hotstages are optimised for isothermal analysis of larger samples where high speed heating and cooling and excellent thermal stability are required. The LTS420-H is an easy to use, versatile heating and freezing stage, allowing accurate temperature measurements in the range of -196°C to 420°C (ambient to 85°C when using the RH95).

TST350-H

The TST350-H provides an ideal platform for analysing tensile properties of materials in relation to temperature. The precision ground stainless steel lead screws provide perfect alignment and a wide range of tensile force from 0N to 200N, making the TST350-H the perfect platform. The stage features an accuracy second to none and control ranging between -196°C to 350°C (ambient to 85°C when using the RH95).

Contact Details

Linkam Scientific Instruments
Unit 8
Epsom Downs Metro Centre
Tadworth
KT20 5LR
United Kingdom

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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