

Humidity Controller

The Lacerta Technology **Humidity Controller** is a unique and flexible solution to deliver an accurate relative humidity for multiple applications.

Gas, normally air, is pumped through a desiccant built into the instrument. A valve, controlled by a humidity sensor placed in the sample chamber, is used to divert some gas flow through a water reservoir before being pumped through to the sample. This feedback function ensures good control and provides a real humidity value in the sample chamber.



Features

- Data output via Excel
- Easy tie in with other equipment
- Unique “sample chamber” humidity feedback control
- Easy portability with compact design
- Heated transfer line to avoid condensation

Applications

- AFM
- DMA / TMA
- Rheometry
- Spectroscopy
- Thermogravimetry

Specifications

Humidity Range:	10% to 85% (25°C) 10% to 85% (85°C) – Chamber dependant		
Temperature Range:	5°C to 85°C Care must be taken regarding dew points for low temperature studies		
Optimum sample chamber volume:	200 cc (Approx)		
Instrument Footprint:	178mm depth x 365mm width x 350mm height		
Instrument Weight:	14 kg		
Connections:	Electrical Interface	85 to 264V AC, 150VA	1 USB input
Conformance:	Low Voltage Directive 73/23/EEC and 93/68/EEC EMC Directive 2004/108/EC Conformity Mark	EN61010-1 EN61326-1 CE	2001 2006 2003

Packing List

Humidity Controller
 2 x Humidity Sensor Assembly (calibrated)
 Heated Line
 Humidity Sensor Lead

1kg desiccant
 Software CD
 Connection cables

Examples of Lacerta Humidity Controller performance

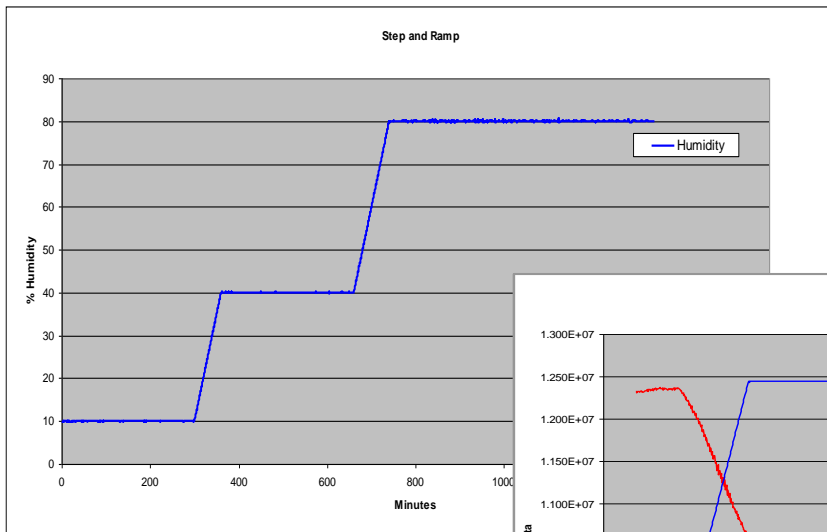


Figure 1

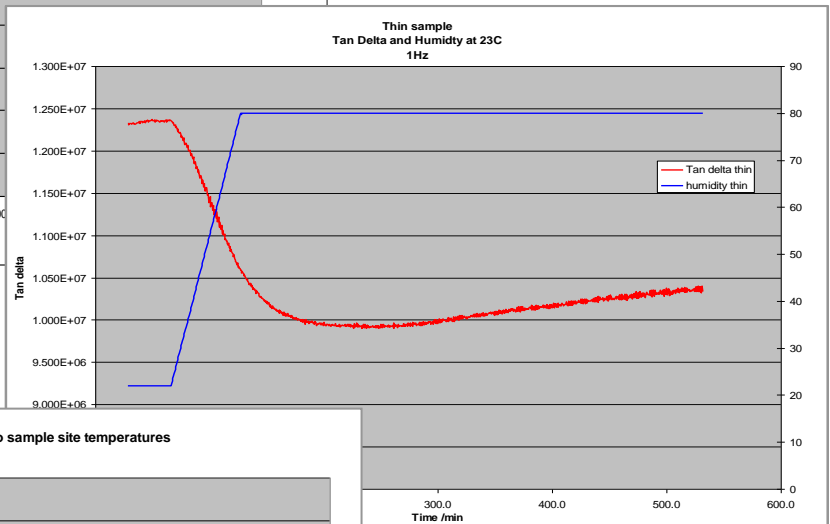


Figure 2

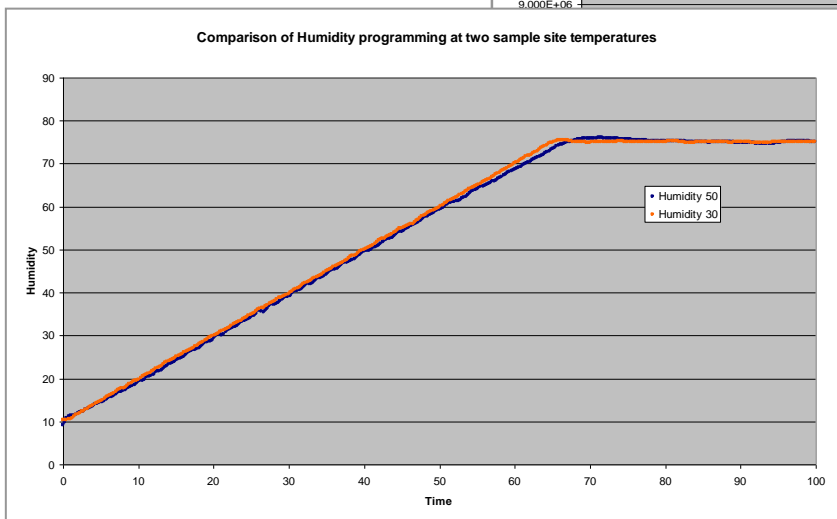


Figure 3

Figure 1 illustrates excellent control and steps from 10% to 80% relative humidity.

Figure 2 shows the effect of increasing humidity on the modulus of a thin polymer film. This example was taken from a Lacerta humidity controller connected to a Triton DMA.

Figure 3 is an overlay of two humidity scans at two different chamber temperatures.