

CERTIFICATE OF CALIBRATION

ISSUED BY ROTRONIC INSTRUMENTS (UK) LTD

DATE OF ISSUE: 25th October 2012

CERTIFICATE NUMBER: 22315



rotronic
MEASUREMENT SOLUTIONS

Calibrated by: P Image

Approved Signatory: M Smith 

Unit 1a Crompton Fields, Crompton Way,
Crawley, West Sussex, RH10 9EE.

Telephone: 01293 571000

Email: service@rotronic.co.uk

Fax: 01293 571008

www.rotronic.co.uk

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Dates Measurements Performed:

25th October 2012

Calibration Procedure Used: RUKP20

Customer Details	: Signatrol Limited, 105 Church Street, Tewksbury, Gloucestershire, GL20 5AB
Customer's Order Number	: 44139
Rotronic Ref Number	: 22315
Instrument Description	: Humidity & Temperature Probe
Manufacturer	: Rotronic AG
Model Type	: HC2-S
Serial Number	: 60508 298

The hygrometer was calibrated using ROTRONIC non-saturated salt relative humidity (RH) standards, certified as traceable to National Standards. The probe of the hygrometer was subjected to the relative humidity generated by the RH standard inside a calibration chamber, and the values taken from the instruments display. The calibration was conducted in controlled laboratory conditions $23\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$. Rotronic HygroPalm 0044 was used to observe the results.

Applied Condition		Before Adjustment				After Adjustment			
%rh	Uncertainty %rh**	Indicated %rh	Error %rh	Indicated $^{\circ}\text{C}^*$	Ambient $^{\circ}\text{C}^*$	Indicated %rh	Error %rh	Indicated $^{\circ}\text{C}^*$	Ambient $^{\circ}\text{C}^*$
11.2	± 0.5	10.6	-0.6	23.0	23.0	11.2	0.0	22.7	22.6
50.1	± 1.1	49.0	-1.1	23.1	23.0	50.2	+0.1	22.9	22.8
75.4	± 1.3	74.7	-0.7	23.1	23.0	75.5	+0.1	23.1	23.1

* Not included within the scope of the UKAS accreditation

**The uncertainties quoted apply only to values obtained during the calibration and are not indicative of long-term stability of the instrument under calibration.

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor $k = 2$, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to recognised national standards and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory. (TSDC1 Issue 6)

CERTIFICATE OF CALIBRATION

ISSUED BY ROTRONIC INSTRUMENTS (UK) LTD

DATE OF ISSUE: 25th October 2012

CERTIFICATE NUMBER: 22315a



rotronic

MEASUREMENT SOLUTIONS

Calibrated by: G Thompson

Approved Signatory: M Smith 

Unit 1a Crompton Fields, Crompton Way,
Crawley, West Sussex, RH10 9EE.

Telephone: 01293 571000

Fax: 01293 571008

Email: service@rotronic.co.uk

www.rotronic.co.uk

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Dates Measurements Performed:

24th October 2012

Calibration Procedure Used:

RUKP2

Customer Details	: Signatrol Limited, 105 Church Street, Tewksbury, Gloucestershire, GL20 5AB
Customer's Order Number	: 44139
Rotronic Ref Number	: 22315
Instrument Description	: Humidity & Temperature Probe
Manufacturer	: Rotronic AG
Model Type (s)	: HC2-S
Serial Number (s)	: 60508 298

The probe was calibrated by comparison with platinum resistance thermometers, which are traceable to national standards, and the values taken from the instruments display. The calibration was conducted in a liquid temperature bath under controlled laboratory conditions $23\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$. The probe under calibration was immersed to a depth of 120mm. Rotronic HygroPalm 0044 was used to observe the results.

Applied Temperature $^{\circ}\text{C}$	Indicated Temperature ($^{\circ}\text{C}$)	Instrument Error ($^{\circ}\text{C}$)	Calibration Uncertainty ($^{\circ}\text{C}$)*
0.0	0.0	0.0	± 0.07
40.0	40.0	0.0	± 0.07

*The uncertainties quoted apply only to values obtained during the calibration and are not indicative of long-term stability of the instrument under calibration.

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor $k = 2$, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

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