

CERTIFICATE OF CALIBRATION

ISSUED BY ROTRONIC INSTRUMENTS (UK) LTD

DATE OF ISSUE: 2nd July 2018

CERTIFICATE NUMBER: 32410r



rotronic

MEASUREMENT SOLUTIONS

Calibrated by: G Thompson

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

Approved Signatory: C Aicken

Page 1 of 1

Dates Measurements Performed:

28th & 29th June 2018

Calibration Procedure Used: RUKP2

Customer Details	: Signatrol Ltd, Unit E2, Green Lane Business Park, Tewkesbury, : Gloucestershire, GL20 8SJ
Customer's Order Number	: 45599
Rotronic Ref Number	: 32410
Instrument Description	: Humidity and temperature probe
Manufacturer	: Rotronic AG
Model Type (s)	: HC2-S
Serial Number (s)	: 60508298

The hygrometer was calibrated by comparison against a chilled mirror hygrometer certified as traceable to National Standards. The hygrometer was also calibrated in terms of temperature by comparison with platinum resistance thermometers, which are traceable to national standards. The applied relative humidity was calculated using the measured dew point and the measured temperature. The indicated values were taken from Rotronic software HW4 and are given in the table below. The calibration was conducted in an environmental chamber. The calibration was conducted in controlled laboratory conditions of 23 °C ± 2 °C. The probe under calibration was fully immersed. The temperature scale used is ITS-90.

This certificate (32410r) has been issued to replace 32410 due to an error on the original.

Applied Dew Point (°C)	Calibration Uncertainty Dew Point *(°C)	Calculated Relative Humidity (%rh)	Calibration Uncertainty * (%rh)	Applied Temperature (°C)	Calibration Uncertainty * (°C)	Indicated Relative Humidity (%rh)	Instrument Error (%rh)	Indicated Temperature (°C)
-8.89**	±0.17	11.49	±0.5	21.05	±0.17	10.92	-0.57	21.05
7.90	±0.17	42.68	±0.7	21.06	±0.17	42.57	-0.11	21.07
16.45	±0.17	74.94	±1.2	21.06	±0.17	75.26	+0.32	21.05

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

** Ice was observed on the reference hygrometer.

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 SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory. (TSDC26 Issue 9)