CERTIFICATE OF CALIBRATION

ISSUED BY ROTRONIC INSTRUMENTS (UK) LTD

DATE OF ISSUE: 19th January 2021 **CERTIFICATE NUMBER:** 37981

UKAS CALIBRATION 0766

rotronic MEASUREMENT SOLUTIONS

Calibrated by: G Thompson

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Dates Measurements Performed:
17th to 19th January 2021
Calibration Procedure Used: RUKP2

Customer Details	: Signatrol Limited, Unit E2, Green Lane Business Park, Tewkesbury,
	: Gloucestershire, GL20 8SJ
Customer's Order Number	: 46152
Rotronic Ref Number	: 37981
Instrument Description	: Humidity and temperature generator with chilled mirror hygrometer control
Manufacturer	: Michell Instruments
Model Type (s)	: OptiCal
Serial Number (s)	: 071476/154675/153905

The Chamber 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, inserted into the chamber, 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 the instruments display and are given in the table below. The calibration was conducted in controlled laboratory conditions of 23 °C ± 2 °C. The temperature scale used is ITS-90.

Applied Dew Point (°C)	Calibration Uncertainty Dew Point *(°C)	Calculated Relative Humidity (%rh)	Calibration Uncertainty * (%rh)	Applied Temperature setpoint (°C)	Calibration Uncertainty * (°C)	Observed Dew/Frost Point (°C)	Instrument Error Dew Point (°C)	Applied Relative Humidity setpoint (%rh)	Indicated Relative Humidity (%rh)	Instrument Error (%rh)	Measured Temperature of Optical (°C)
-9.82	±0.17	11.6	±0.5	21.2	±0.17	-9.6	-0.2	10.0	10.7	-0.9	21.1
0.88	±0.17	25.8	±0.5	21.2	±0.17	1.0	+0.1	25.0	26.0	+0.2	21.1
10.79	±0.17	51.5	±0.8	21.2	±0.17	10.9	+0.1	50.0	52.0	+0.5	21.1
16.99	±0.17	77.2	±1.2	21.0	±0.17	17.2	+0.2	75.0	78.4	+1.2	21.1
19.90	±0.17	92.0	±1.4	21.0	±0.17	20.1	+0.2	90.0	93.4	+1.4	21.2

* 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.