CERTIFICATE OF CALIBRATION

ISSUED BY The Roxspur Measurement & Control Calibration Laboratory

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UKAS CALIBRATION
0043

Assessed Signatory

WARREN SMITH

Date of Issue: 26 October 2015 **Certificate Number** 81321

Customer: SIGNATROL LIMITED
UNIT E2
GREEN LANE BUSINESS PARK
GLOUCESTERSHIRE
GL20 8SJ

Date Received	16 October 2015
RM&C Order Ref.	L503072
Customer Order No.	44972
Calibration Date	26 October 2015

Equipment Information

Description	GALLENKAMP AUTOTHERM DIGITAL INDICATOR WITH PROBE		
Manufacturer	GALLENKAMP	Serial Number	CE09/JN/10104-1
Model Number	AUTOTHERM	Customer Inventory No.	CE1056
Calibrated Range	-50 °C to 200 °C	RM&C I.D. No.	RMC0023067
Scale / Resolution	0.01 °C		
Calibration Points	See Notes		

Conditions

Lab Temperature	21.0 °C ± 2 °C	Department	TEMP - BATH AREA
Probe Type	Pt100	Engineer	SHAUN BOLDY
Probe Length	330 mm	Last Certificate Number	60439
Probe Diameter	6 mm		
Min. Immersion Depth	200 mm		

Procedure : RM&C 023 DTI & RTD

The thermometer under test was allowed to equilibrate within a controlled, stable environment, the temperature of which was measured using traceable reference Platinum Resistance Thermometers. The following results indicate the measured test thermometer temperature against the measured temperature at the time of calibration. The measurement uncertainty was calculated in accordance with M3003 (Edition 3 – November 2012) and as such takes into account such factors as the calibration & drift of the reference standards, stability, repeatability and resolution of reference instruments and that of the unit under test.

The results are valid at the time of calibration only. The temperature scale used was ITS-90. All measurements are traceable to National Standards. Calibration has been carried out using Laboratory procedures (LAB-PROC-023) in accordance with BS EN ISO 17025. The results are valid at the time of calibration only and are "As Found" (i.e. No Adjustments Made).

Notes :

Probe Serial No: 004606 was calibrated in channel A at -50 °C, -20 °C, 0 °C, 4 °C, 25 °C, 50 °C, 120 °C & 250 °C
0.06 °C requirement

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UKAS Accredited Calibration Laboratory No. 0043

Certificate Number

81321

Calibration Results

Serial No: CE09/JN/10104-1 & 004606 in Ch A

Reference Temperature °C	Thermometer Reading °C	Measured Error °C	Measurement Uncertainty ± °C
-0.003	0.039	0.04	0.06
-49.972	-49.936	0.04	0.06
-20.037	-20.013	0.02	0.06
-0.007	0.025	0.03	0.06
4.030	4.062	0.03	0.06
25.029	25.071	0.04	0.06
50.045	50.084	0.04	0.06
120.063	120.103	0.04	0.06
249.919	249.967	0.05	0.06
-0.009	0.034	0.04	0.06

- End of Certificate -

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