CERTIFICATE OF CALIBRATION

ISSUED BY The Roxspur Measurement & Control Calibration Laboratory

Roxspur Measurement & Control Ltd
roxspur.com

2 Downgate Drive
Sheffield
South Yorkshire
S4 8BT

t: 0114 224 9205
f: 0114 224 9224

e:service@roxspur.com
i: www.roxspur.com

UKAS CALIBRATION
0043

Assessed Signatory

JON WATSON

Date of Issue: 24 October 2014 **Certificate Number** 60439

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

Date Received	15 October 2014
RM&C Order Ref.	L501225
Customer Order No.	44735
Calibration Date	24 October 2014

Equipment Information

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

Conditions

Lab Temperature	20.1 °C ± 2 °C	Department	TEMP - BATH AREA
Probe Type	Pt100	Engineer	SHAUN BOLDY
Probe Length	330 mm	Last Certificate Number	U47483T
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, 20 °C, 80 °C, 130 °C & 200 °C

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UKAS Accredited Calibration Laboratory No. 0043

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Calibration Results

Serial No: CE09/JN/10104-1 & 004606

Reference Temperature °C	Thermometer Reading °C	Measured Error °C	Measurement Uncertainty ± °C
-0.008	0.031	0.04	0.06
-49.988	-49.956	0.03	0.06
-19.959	-19.940	0.02	0.06
-0.003	0.040	0.04	0.06
4.028	4.069	0.04	0.06
20.033	20.075	0.04	0.06
80.339	80.386	0.05	0.06
129.983	130.028	0.05	0.06
199.921	199.950	0.03	0.06
-0.047	0.031	0.08	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.