

# CERTIFICATE OF CALIBRATION

ISSUED BY The Roxspur Measurement & Control  
Calibration Laboratory



0043

Page 1 of 2

Assessed Signatory

SHAUN BOLDY



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Date of Issue: 16 October 2019

Certificate Number 167177

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

Date Received 10 October 2019  
RM&C Order Ref. L509494  
Customer Order No. 45888  
Calibration Date 16 October 2019  
Next Calibration Due 15 October 2020

## Equipment Information

Description	GALLENKAMP AUTOTHERM DIGITAL INDICATOR WITH PROBE		
Manufacturer	GALLENKAMP	Serial Number	CE09/JN/10104-1 & 004606
Model Number	AUTOTHERM	Customer Inventory No.	CE1056
Calibrated Range	-50 °C to 190 °C	RM&C I.D. No.	RMC0023067
Scale / Resolution	0.001 °C		
Calibration Points	-50 °C, 0 °C, 30 °C, 130 °C & 190 °C		

## Conditions

Lab Temperature	21.0 °C ± 2 °C	Department	TEMP - BATH
Probe Type	Pt100	Engineer	SHAUN BOLDY
Probe Length	330 mm	Last Certificate Number	143914
Probe Diameter	6 mm		
Min. Immersion Depth	200 mm		

## Procedure : RM&C 023 DTI & RTD

RM&C 023: Digital Thermometer & RTD Probe – Issue 4 (Dec-2018)

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.

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.

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. The certificate may not be reproduced other than in full, except with the prior written approval of the issuing Laboratory.

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167177

Page 2 of 2

## Calibration Results

CE09/JN/10104-1 & 004606 in Ch A

Reference Temperature °C	Thermometer Reading °C	Measured Error °C	Measurement Uncertainty ± °C
0.000	0.054	0.054	0.06
-50.066	-50.020	0.046	0.06
0.000	0.049	0.049	0.06
30.051	30.110	0.059	0.06
130.016	130.090	0.074	0.06
190.039	190.094	0.055	0.06
-0.003	0.057	0.060	0.06

- The certificate of calibration only applies to the instrument(s) listed on page one of the certificate -  
- End of Certificate -

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