

CERTIFICATE OF CALIBRATION

ISSUED BY AVON-DYNAMIC CALIBRATION

Date of Issue 10 December 2020

Certificate Number K551253-1



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CALIBRATE MEASURE INNOVATE

For Signatrol Ltd
Unit E2, Green Lane Business Park
Tewkesbury
Gloucestershire
GL20 8SJ

Approved Signatory:
M.Hyde

<u>Customer Ref Number</u> :	CE1142	<u>Date of Calibration</u> :	10 December 2020
<u>Date of Receipt</u> :	07 December 2020	<u>Item Type</u> :	TC6622
<u>Item Serial Number</u> :	2002Z A 36 0145 A		
<u>Instrument Manufacturer</u> :	AOiP		
<u>Description</u> :	RTD Simulator		
<u>Specification Reference</u> :	Manufacturer's Specification		
<u>Procedure Reference</u> :	CLI055 & CLI131.		

Note

This certificate supersedes K551253, Due to Item Serial Number being incorrect. Calibrations marked ## (Not UKAS Accredited) in this Certificate have been included for Completeness

Calibrated By : M.Hyde

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor $\kappa = 2$, providing a coverage probability 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.

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UKAS ACCREDITED CALIBRATION LABORATORY No 0199

REPORT

The unit under test was allowed to stabilise for 24 hours in the laboratory environment prior to testing.

RTD Source: 4 Wire connection

<u>Range</u>	<u>Set Temperature</u>	<u>Measured Resistance</u>	<u>Calculated Temperature</u>	<u>Specification</u>	<u>Uncertainty of Measurement</u>
PT100	-200.00 °C	18.5460 Ω	-199.94 °C	± 0.14 °C	± 0.080 °C
	-100.00 °C	60.2814 Ω	- 99.94 °C	± 0.13 °C	± 0.080 °C
	-50.00 °C	80.3315 Ω	- 49.94 °C	± 0.13 °C	± 0.080 °C
	-25.00 °C	90.2181 Ω	- 24.93 °C	± 0.12 °C	± 0.080 °C
	0.00 °C	100.0277 Ω	0.07 °C	± 0.12 °C	± 0.080 °C
	25.00 °C	109.7584 Ω	25.06 °C	± 0.12 °C	± 0.080 °C
	50.00 °C	119.4233 Ω	50.07 °C	± 0.13 °C	± 0.080 °C
	100.00 °C	138.5298 Ω	100.06 °C	± 0.13 °C	± 0.080 °C
	150.00 °C	157.3478 Ω	150.06 °C	± 0.14 °C	± 0.080 °C
	200.00 °C	175.8787 Ω	200.06 °C	± 0.14 °C	± 0.080 °C
	250.00 °C	194.1220 Ω	250.07 °C	± 0.15 °C	± 0.080 °C
	300.00 °C	212.0746 Ω	300.06 °C	± 0.16 °C	± 0.080 °C
	350.00 °C	229.7354 Ω	350.06 °C	± 0.16 °C	± 0.080 °C
400.00 °C	247.1134 Ω	400.06 °C	± 0.17 °C	± 0.080 °C	

<u>Range</u>	<u>Set Temperature</u>	<u>Measured Resistance</u>	<u>Uncertainty of Measurement</u>
PT1000	-200.00 °C	185.221 Ω	± 0.0073 Ω
	-100.00 °C	602.574 Ω	± 0.0073 Ω
	-50.00 °C	803.102 Ω	± 0.0073 Ω
	-25.00 °C	901.947 Ω	± 0.0073 Ω
	0.00 °C	1000.105 Ω	± 0.0073 Ω
	25.00 °C	1097.351 Ω	± 0.0073 Ω
	50.00 °C	1193.999 Ω	± 0.0073 Ω
	100.00 °C	1385.095 Ω	± 0.0073 Ω
	150.00 °C	1573.277 Ω	± 0.0073 Ω
	200.00 °C	1758.609 Ω	± 0.0073 Ω
	250.00 °C	1941.018 Ω	± 0.0073 Ω
	300.00 °C	2120.533 Ω	± 0.0073 Ω
	350.00 °C	2297.188 Ω	± 0.0073 Ω
400.00 °C	2470.952 Ω	± 0.0073 Ω	

Laboratory Temperature: - 20°C ± 3°C

Laboratory Humidity: - 50% ± 20%rh

-End of Report-

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

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