

Calibration Certificate**70380****Applicant**

Customer name

Automatismos Teinco S.L

Address

Manuel Costas Bastos, 38
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Spain

Order reference applicant

211005

Order reference TPF Control

70329

Instrument information

Instrument type

Data Logger Temperature

Serial number

M3T50221

Specifications see next page(s)

Calibration method

Measurements are made by immersing the device under test (DUT) together with a Platinum Resistance Thermometer into a well stirred liquid bath. The intended use of the DUT is for total exposure to the process temperature.

Environmental conditionsThe laboratory environment was maintained at $21^{\circ}\text{C} \pm 2^{\circ}\text{C}$ and $40\%\text{rh} \pm 20\%\text{rh}$.
The atmospheric pressure at the time of calibration was 1010 mBar.**Date (or period) of calibration**

13 July 2021

Results

The results of the calibration are presented on the following page(s).

UncertaintyThe reported uncertainty of measurement is based on the standard uncertainty multiplied by a coverage factor $k=2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.

The standard uncertainty of measurement has been determined in accordance with EA-4/02.

Traceability

The measurements have been executed using standards for which the traceability to (inter)national standards has been demonstrated towards the RvA.

Date

13 July 2021

Calibration Technician

Paul Vissers

Technical Manager

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Reproduction of the complete certificate is allowed.

Parts of the certificate may only be reproduced after written approval of the calibration laboratory.

This certificate is issued under the provision that the Raad voor Accreditatie does not assume any liability.

Calibration Certificate

70380

Instrument specification [Device Under Test]

Manufacturer	: Mesalabs	Range	: -20 to +140 °C
Model	: MPIII Temperature Logger	Resolution	: 0.001 °C
Serial number	: M3T50221	Tolerance	: -20 to +140 °C / ± 0.1 °C
		Calibration	: 13 July 2021

CALIBRATION RESULTS

INSTRUMENT READING		REFERENCE (ITS-90)	DEVIATION	UNCERTAINTY	RESULT
Nominal [°C]	Indicated [°C]	Indicated [°C]	DUT-REF [°C]	Calibration [°C]	
-20.000	-19.984	-20.004	0.020	0.017	PASS
-10.000	-10.001	-10.002	0.001	0.018	PASS
0.000	0.008	0.001	0.007	0.016	PASS
10.000	9.998	9.990	0.008	0.016	PASS
20.000	20.007	19.997	0.010	0.016	PASS
30.000	29.990	29.985	0.005	0.016	PASS
40.000	40.009	40.002	0.007	0.016	PASS
50.000	50.006	50.001	0.005	0.016	PASS
60.000	59.987	59.982	0.005	0.016	PASS
70.000	69.990	69.984	0.006	0.016	PASS
80.000	80.009	80.004	0.005	0.016	PASS
90.000	90.028	90.022	0.006	0.016	PASS
100.000	100.032	100.028	0.004	0.016	PASS
110.000	110.046	110.039	0.007	0.016	PASS
120.000	120.048	120.044	0.004	0.016	PASS
130.000	130.067	130.062	0.005	0.017	PASS
140.000	140.086	140.080	0.006	0.017	PASS

Note: 1. Any Pass/Fail determination is made without taking measurement uncertainty into account and is based on UUT performance against required tolerance only.