

# CERTIFICATE OF CALIBRATION

ISSUED BY: LAMBDA CALIBRATION LTD

DATE OF ISSUE: 20<sup>th</sup> August 2026

CERTIFICATE No: 1007142



0495

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**Lambda**  
CALIBRATION LTD

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APPROVED SIGNATORY

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Customer: DJB Labcare Ltd, Milton Keynes, MK16 9QS

Item No: 1632

Description: Calibrator

Model/Range: TC303

Manufacturer: Beamex

Date of Cal: 19/08/2026 to 20/08/2026

Basis: E-2000

Equipment Used: Multifunction Calibrator (LMMC-02), Bench Multimeter (LVD-40), Thermocouple Thermometer (LTHE-22), Thermocouple Probe (LTP-18)

Temp/Humidity: 20°C ± 2°C, <80%rh

## Visual /Operational Checks:

|                                 |                      |
|---------------------------------|----------------------|
| Unit Under Test (UUT) Condition | Functional           |
| Condition of Supplied Leads     | Functional           |
| Battery                         | Does not hold charge |

## Summary of Results:

|                         |                           |
|-------------------------|---------------------------|
| Pre Calibration Status  | Results reported as found |
| Post Calibration Status | Results reported as found |
| Adjustments             | No                        |
| Repairs                 | No                        |
| Comments                | -                         |

Measured results and measurement uncertainties are detailed on the following pages.

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. Unless otherwise stated: [1] The 'Compliance Statement' is based on 'simple acceptance' (result vs tolerance) with the relevant calibration uncertainty being no greater than the tolerance. [2] Reported activities were carried out at the address detailed in the header. [3] The results relate only to the items calibrated. 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. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

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## Reference Temperature Error

The UUT was left overnight to stabilise. The UUT indication from a calibrated thermocouple probe was compared to a laboratory reference probe.

| UUT Indication (°C) | Reference Temperature (°C) | Error (°C) |
|---------------------|----------------------------|------------|
| 20.9                | 20.79                      | 0.11       |

Reference probe reported temperature: 20.79°C

## Measurement Mode:

The UUT was set to T-Type thermocouple, reference temperature set to 0°C. Voltages equivalent to the Nominal Temperatures were applied.

| Nominal Temperature (°C) | Applied Voltage (mV) | UUT Indication (°C) |
|--------------------------|----------------------|---------------------|
| -190.0                   | -5.439               | -190.1              |
| -80.0                    | -2.788               | -80.1               |
| -50.0                    | -1.819               | -50.0               |
| -30.0                    | -1.121               | -30.0               |
| -10.0                    | -0.388               | -10.1               |
| 0.0                      | 0.000                | 0.0                 |
| 4.0                      | 0.156                | 4.0                 |
| 37.0                     | 1.486                | 36.9                |
| 50.0                     | 2.036                | 50.0                |
| 100.0                    | 4.273                | 99.9                |
| 150.0                    | 6.704                | 150.0               |
| 200.0                    | 9.288                | 200.0               |
| 250.0                    | 12.013               | 249.9               |
| 300.0                    | 14.862               | 300.0               |
| 390.0                    | 20.255               | 390.0               |

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## Simulation Mode

The UUT was set to T Type thermocouple simulate, with reference temperature set to 0°C. The UUT output voltage was measured.

| UUT Setting (°C) | Nominal Output (mV) | Measured Output (mV) | Equivalent Temperature (°C) |
|------------------|---------------------|----------------------|-----------------------------|
| -190.0           | -5.439              | -5.436               | -189.8                      |
| -80.0            | -2.788              | -2.785               | -79.9                       |
| -50.0            | -1.819              | -1.817               | -49.9                       |
| -30.0            | -1.121              | -1.119               | -29.9                       |
| -10.0            | -0.383              | -0.382               | -10.0                       |
| 0.0              | 0.000               | 0.001                | 0.0                         |
| 4.0              | 0.156               | 0.156                | 4.0                         |
| 37.0             | 1.486               | 1.487                | 37.0                        |
| 50.0             | 2.036               | 2.036                | 50.0                        |
| 100.0            | 4.279               | 4.280                | 100.0                       |
| 150.0            | 6.704               | 6.704                | 150.0                       |
| 200.0            | 9.288               | 9.288                | 200.0                       |
| 250.0            | 12.013              | 12.013               | 250.0                       |
| 300.0            | 14.862              | 14.862               | 300.0                       |
| 390.0            | 20.255              | 20.254               | 390.0                       |

End of Results

## Estimated Uncertainty of Measurement:

Reference Junction Measurement:  $\pm 0.12^{\circ}\text{C}$

Simulated Temperature:  $\pm 0.13^{\circ}\text{C}$

DC Voltage Measurement:  $\pm(93\text{ppm} + 4.1\mu\text{V})$