CERTIFICATE OF CALIBRATION

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UKAS ACCREDITED CALIBRATION LABORATORY NO. 0149 0149

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Approved Signatory
Les Finnen

Submitted By	MED-LAB a Cytek Company Copeland Street Derby DE1 2PU
Engineer	THOMASH
Procedure Number	010004187
Order Number	B2304-089
Date Received	28 March 2023
Calibration Date	03 April 2023
Request Recalibration	02 April 2024
Equipment	FLUKE 73 SERIES 3 Digital Multimeter
Serial Number	78640328
Owners Identification	
TERID	325300
JobNumber	742099

Conditions of Test

Temperature	20°C ±1°C
Humidity	46% ±10%

Method Of Test

The instrument was operated in accordance with the manufacturer's instruction manual. All results are recorded in tables 1 to 6.
The instrument was within specification at all points tested, with due allowance made for the uncertainty of measurement.

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 the Guide to Expression of Uncertainty in Measurement and is inclusive of the unit under test. The uncertainties relate only to the measured values and do not carry any implication regarding the long term stability of the instrument.

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Test 1 Direct Voltage

Range	Applied Voltage	Unit under Test	Specification	Uncertainty of Measurement
300 mV	300.00 mV	300.2 mV	±(0.3% + 1dgt)	0.1mV
3.2 V	2.700 0 V	2.702 V	±(0.3% + 1dgt)	0.001V
32 V	27.000 V	27.02 V	±(0.3% + 1dgt)	0.01V
32 V	20.000 V	20.01 V	±(0.3% + 1dgt)	0.01V
32 V	10.000 V	10.00 V	±(0.3% + 1dgt)	0.01V
32 V	1.000 V	1.00 V	±(0.3% + 1dgt)	0.01V
32 V	-27.000 V	-27.02 V	±(0.3% + 1dgt)	0.01V
320 V	270.00 V	270.2 V	±(0.3% + 1dgt)	0.1V
600 V	600.00 V	600 V	±(0.4% + 1dgt)	1V

Test 2 Alternating Voltage

Range	Applied Voltage	Unit Under Test	Specification	Uncertainty of Measurement
3.2 V	2.700 0 V @ 100 Hz	2.701 V	±(2% + 2dgts)	0.004V
3.2 V	2.700 0 V @ 500 Hz	2.689 V	±(2% + 2dgts)	0.004V
32 V	27.000 V @ 100 Hz	27.02 V	±(2% + 2dgts)	0.04V
320 V	270.00 V @ 100 Hz	270.2 V	±(2% + 2dgts)	0.4V
600 V	500.00 V @ 100 Hz	500 V	±(2% + 2dgts)	2V
600 V	500.00 V @ 1 kHz	499 V	±(2% + 2dgts)	2V

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Test 3 Resistance

Range	Applied Resistance	Unit Under Test	Specification	Uncertainty of Measurement
320 ohm	100.00 ohm	100.0 ohms	±(0.5% + 2dgts)	0.1ohm
3 200 kohm	1.000 0 kohm	1 000 ohms	±(0.5% + 1dgt)	0.001kohm
32 kohm	10.000 kohm	10.00 kohms	±(0.5% + 1dgt)	0.01kohm
320 kohm	100.00 kohm	100.0 kohms	±(0.5% + 1dgt)	0.1kohm
3.2 Mohm	1.000 0 Mohm	1.000 Mohms	±(0.5% + 1dgt)	0.001Mohm
32 Mohm	10.000 Mohm	10.02 Mohms	±(2% + 1dgt)	0.02Mohm

Test 4 Direct Current

Range	Applied Current	Unit Under Test	Specification	Uncertainty of Measurement
32 mA	27.000 mA	26.94 mA	±(1.5% + 2dgts)	0.04mA
320 mA	270.00 mA	269.9 mA	±(1.5% + 2dgts)	0.4mA
10 A	10.000 A	10.00 A	±(1.5% + 2dgts)	0.02A

Test 5 Alternating Current

Range	Applied Current	Unit Under Test	Specification	Uncertainty of Measurement
32 mA	27.000 mA @ 60 Hz	26.94 mA	±(2.5% + 2dgts)	0.05mA
320 mA	270.00 mA @ 60 Hz	269.9 mA	±(2.5% + 2dgts)	0.5mA
10 A	10.000 A @ 60 Hz	10.00 A	±(2.5% + 2dgts)	0.03A

Test 6 Diode Test

Range	Applied Voltage	Unit Under Test	Specification	Uncertainty of Measurement
2 V	1.000 0 V	1.000 V	±2% Typical	0.001V

The calibration was performed at the laboratory's permanent address.

The calibration relates only to the item listed on page 1.

END OF RESULTS

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