# **Schedule of Accreditation**

issued by

# **United Kingdom Accreditation Service**

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK



0564

Accredited to ISO/IEC 17025:2017

S41 9BE

# TC Ltd

Issue No: 032 Issue date: 27 May 2025

Brimington Road North

Whittington Moor

Chesterfield

Derbyshire

Contact: Mr Graham Holmes

Tel: +44 (0)1895 252222

E-Mail: laboratory@tc.co.uk

Website: www.tc.co.uk

Calibration performed by the Organisation at the locations specified

# Locations covered by the organisation and their relevant activities

# **Laboratory locations:**

Location details		Activity	Location code
Address Brimington Road North Whittington Moor Chesterfield Derbyshire S41 9BE	Local contact Contact: Mr Graham Holmes Tel: +44 (0)1895 252222 E-Mail: laboratory@tc.co.uk Website: www.tc.co.uk	Temperature Electrical	UK
Address Str. Ecaterina Teodoroiu nr. 13C Campina 105600, Jud Prahova, Romania	Local contact Contact: Mrs D Manta Tel: +40 244 330030 E-Mail: diana_manta@tcsrl.ro Website: www.tc.uk	Temperature	RO

Assessment Manager: CA Page 1 of 4



Accredited to ISO/IEC 17025:2017

# **Schedule of Accreditation** issued by

# United Kingdom Accreditation Service 2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

# TC Ltd

**Issue No:** 032 Issue date: 27 May 2025

# Calibration performed by the Organisation at the locations specified

# Calibration and Measurement Capability (CMC)

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks	Location Code
TEMPERATURE			Unless otherwise stated Calibration performed within Metal Block Baths or Calibration performed within Tube Furnaces	UK
Resistance thermometers	Liquid nitrogen (-196 °C) Triple point of water (0.01 °C) -100 °C to -30 °C - 30 °C to 90 °C 20 °C to 90 °C 90 °C to 200 °C 200 °C to 400 °C 400 °C to 620 °C	0.060 °C 0.050 °C 0.60 °C 0.20 °C 0.20 °C 0.20 °C 0.40 °C	2 wire, 3 wire and 4 wire resistance thermometers	
Thermocouples - noble metal	20 °C to 200 °C	0.90 °C	Extension and	
	200 °C to 400 °C 400 °C to 620 °C 620 °C to 1100 °C 1100 °C to 1200 °C 1200 °C to 1330 °C 1330 °C to 1590 °C	0.90 °C 0.90 °C 1.70 °C 1.70 °C 2.70 °C 3.30 °C	Compensating Cables	
Thermocouples – base metal	Liquid nitrogen (-196 °C) -100 °C to -30 °C - 30 °C to + 200 °C 200 °C to 400 °C 400 °C to 620 °C 620 °C to 1100 °C 1100 °C to 1200 °C 1200 °C to 1330 °C	0.35 °C 0.60 °C 0.30 °C 0.50 °C 0.60 °C 1.80 °C 1.80 °C 2.60 °C		
Temperature indicators and transmitters with probes	Ranges as for sensor type	As for sensor type	Including instruments with electrical outputs	
ELECTRICAL				
Electrical calibration of temperature simulators for the following sensors			All electrical procedures use direct comparison to laboratory standards unless otherwise stated	
Resistance sensors (PT 100)	-200 °C to +800 °C	0.05 °C	2 wire, 3 wire and 4 wire resistance sensors	

Assessment Manager: CA Page 2 of 4



### 0564

Accredited to ISO/IEC 17025:2017

# **Schedule of Accreditation** issued by

# United Kingdom Accreditation Service 2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

# TC Ltd

**Issue No:** 032 Issue date: 27 May 2025

# Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty $(k = 2)$	Remarks	Location Code	
ELECTRICAL Continued					
Noble metal thermocouples	-20 °C to +1750 °C	0.80 °C	Including cold junction compensation		
Base metal thermocouples	-200 °C to +1372 °C	0.40 °C	Including cold junction compensation		
Electrical calibration of temperature indicators, controllers and recorders for the following sensors					
Resistance sensors (PT 100)	-200 °C to +800 °C	0.05 °C	2 wire, 3 wire and 4 wire resistance sensors		
Noble metal thermocouples	-20 °C to +1750 °C	0.80 °C	Including cold junction compensation		
Base metal thermocouples	-200 °C to +1372 °C	0.40 °C	Including cold junction compensation		
TEMPERATURE			Unless otherwise stated Calibration performed within Metal Block Baths or Calibration performed within Tube Furnaces	RO	
Temperature indicators and transmitters with probes	Ranges as for sensor type	As for sensor type	Including instruments with electrical outputs		
Thermocouples – base metal	-25 °C to +150 °C 150 °C to 620 °C 620 °C to 1200 °C 1200 °C to 1330 °C	0.40 °C 0.60 °C 1.80 °C 2.60 °C			
END					

Page 3 of 4 Assessment Manager: CA



Accredited to ISO/IEC 17025:2017

# Schedule of Accreditation issued by

# **United Kingdom Accreditation Service**

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

### TC Ltd

Issue No: 032 Issue date: 27 May 2025

Calibration performed by the Organisation at the locations specified

### Appendix - Calibration and Measurement Capabilities

#### Introduction

The definitive statement of the accreditation status of a calibration laboratory is the Accreditation Certificate and the associated Schedule of Accreditation. This Schedule of Accreditation is a critical document, as it defines the measurement capabilities, ranges and boundaries of the calibration activities for which the organisation holds accreditation.

### Calibration and Measurement Capabilities (CMCs)

The capabilities provided by accredited calibration laboratories are described by the Calibration and Measurement Capability (CMC), which expresses the lowest measurement uncertainty that can be achieved during a calibration. If a particular device under calibration itself contributes significantly to the uncertainty (for example, if it has limited resolution or exhibits significant nonrepeatability) then the uncertainty quoted on a calibration certificate will be increased to account for such factors.

The CMC is normally used to describe the uncertainty that appears in an accredited calibration laboratory's schedule of accreditation and is the uncertainty for which the laboratory has been accredited using the procedure that was the subject of assessment. The measurement uncertainty is calculated according to the procedures given in the GUM and is normally stated as an expanded uncertainty at a coverage probability of 95 %, which usually requires the use of a coverage factor of k = 2. An accredited laboratory is not permitted to quote an uncertainty that is smaller than the published measurement uncertainty in certificates issued under its accreditation.

# **Expression of CMCs - symbols and units**

It should be noted that the percentage symbol (%) represents the number 0.01. In cases where the measurement uncertainty is stated as a percentage, this is to be interpreted as meaning percentage of the measurand. Thus, for example, a measurement uncertainty of 1.5 % means  $1.5 \times 0.01 \times q$ , where q is the quantity value.

The notation Q[a, b] stands for the root-sum-square of the terms between brackets: Q[a, b] =  $[a^2 + b^2]^{1/2}$ 

Assessment Manager: CA Page 4 of 4