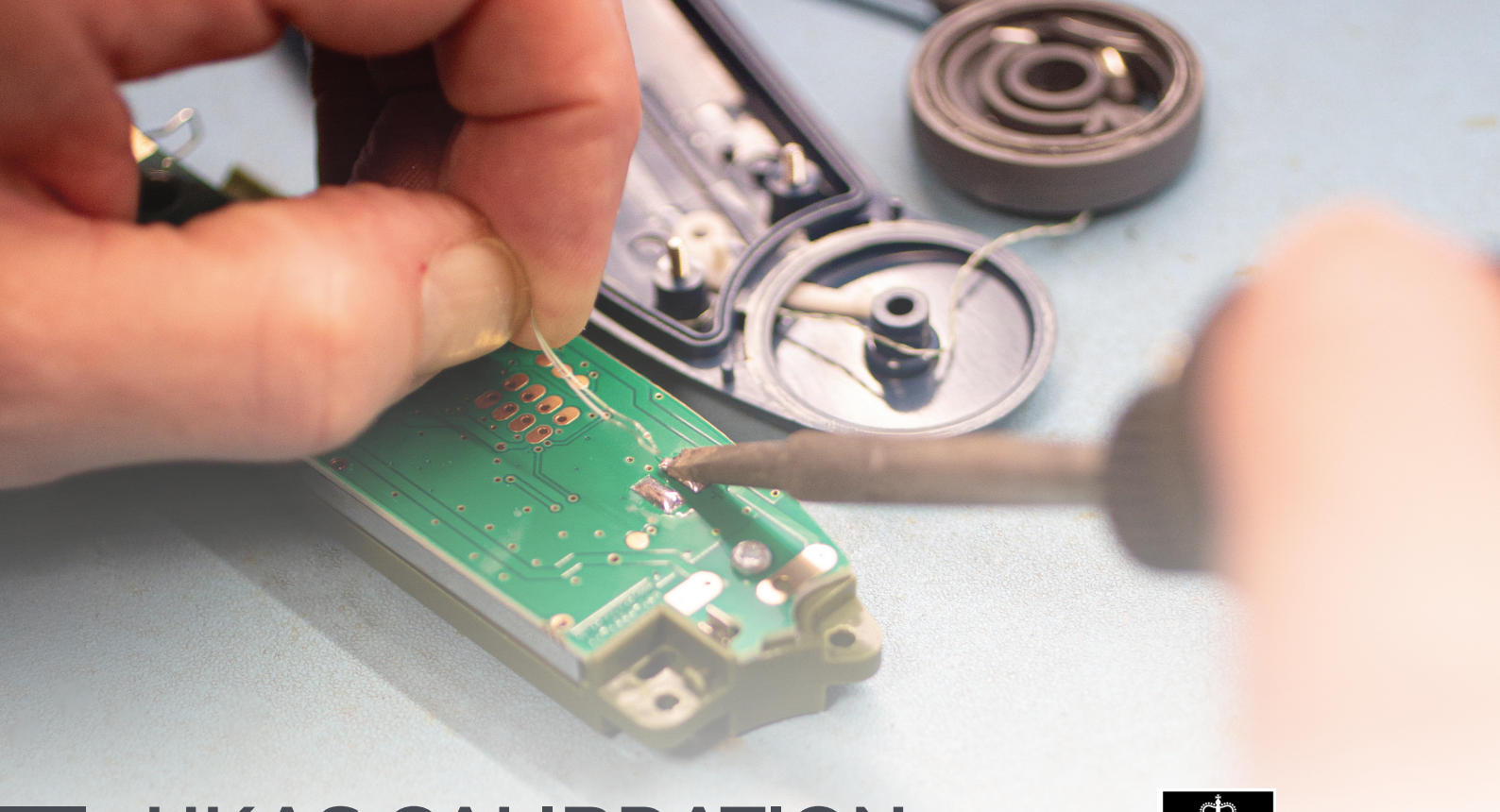


UKAS CALIBRATION, SERVICE & REPAIR

UKAS CALIBRATION
0601

Regular thermometer calibration promotes safety, quality control and helps prevent potential issues that may arise from inaccurate temperature measurements.

UKAS is the National Accreditation Body for the United Kingdom. When UKAS accredits a laboratory, its tests are completed to the highest standard in the country.

At ETI, we have a calibration laboratory for temperature and humidity measurements, which is accredited to UKAS ISO/IEC 17025 standards. Customers can send the following instruments to us for UKAS calibration:

- Thermometers and probes
- Temperature data loggers
- Humidity meters and loggers
- Test caps

CALIBRATION VS CERTIFICATION

A calibration test compares your thermometer measurements with a traceable device or reference thermometer. The test is carried out using a known temperature source, such as ice water at 0 °C. A calibration certificate shows the results of the test and certifies the accuracy of the instrument.

HOW OFTEN TO CALIBRATE THERMOMETERS

How often you check your thermometer accuracy depends on several factors, including industry standards, regulatory requirements, and frequency of use.

In many industries, including food service, the general recommendation is to check them at least once a month. You can do this yourself using calibration equipment, such as ice baths.

It's recommended to send your thermometer to a laboratory for certification every 12 months. Keeping a calibration record is essential for demonstrating compliance with regulatory requirements.

CALIBRATION POINTS

Calibration points are the temperatures at which the thermometer has been calibrated to. The number of checkpoints you opt for depends on your requirements, and we can complete as many as you need.

A common number of checkpoints to choose from is 3 or 5. It's customary to choose a 5-point certificate for thermometers where high accuracy is critical. The more checkpoints there are, the more confident you can be that your thermometer is accurate across a range of temperatures.

UKAS TEMPERATURE CALIBRATION

- Thermometer temperature range -100 to 250 °C
- Rapid turnaround - normally within 5 days
- Certified uncertainties (CMCs) from ±0.02 °C
- 1 to 5-point UKAS Certificates

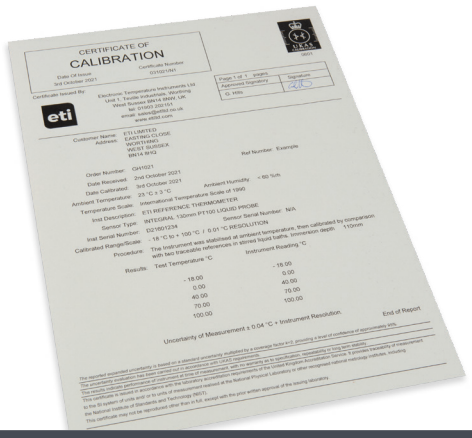
UKAS CALIBRATION
0601

Our in-house UKAS accredited calibration laboratory for temperature has a wide measurement range of -100 to 250 °C with a calibration and measurement capability of 0.02 °C. The laboratory can also measure resistance up to 10 MΩ (i.e. resistance decade boxes and PT100/RTD temperature simulators) and DC voltage 0 to 100 mV (i.e. thermocouple simulators and calibrators). Original UKAS Certificates provide proof that instruments and probes have been calibrated against nationally approved standards.

- **Thermometers & Probes**
  Each UKAS Certificate indicates the deviations from standards at various check points, the standard being -18, 0, 40, 70 and 100 °C with a guaranteed uncertainty, dependant on the probe type. See calibration and measurement capability table below.

- **Test Caps & Simulators**
  Each UKAS Certificate indicates the deviations from standards at specific check points (-18, 0, 3, 70 and 100 °C) to an uncertainty of ±0.1 °C (resistance) or ±0.15 °C (thermocouple).

- **Data loggers**
  Each UKAS Certificate indicates the deviations from standards at three check points (-18, 0 and 40 °C) to an uncertainty of ±0.05 °C.


CERTIFICATE OF CALIBRATION

Order code	UKAS Certificate - Temperature	£ each
890-200-5	Instrument only standard 5-point	84.00
890-210-5	Instrument & probe system 5-point	74.00
890-215	Checker 3-point	72.00
890-230	Test cap 1-point	22.00
890-235	Simulator 5-point	84.00
890-240-3	Data logger 3-point	74.00

CALIBRATION & MEASUREMENT CAPABILITY (CMC)

Thermistor thermometer & probe	
-50 to 150 °C	CMC 0.04 °C
-100 to -50 °C	CMC 0.05 °C
PT100 (resistance sensors) thermometer & probe	
-80 to 250 °C	CMC 0.04 °C
-100 to -80 °C	CMC 0.13 °C
Thermocouple thermometer & probe	
-80 to 250 °C	CMC 0.15 °C
-100 to -80 °C	CMC 0.17 °C
Temperature data loggers	
-50 to 100 °C	CMC 0.05 °C
Thermistor & PT100 test caps	
-18 to 100 °C	CMC 0.1 °C
Thermocouple simulators	
-200 to -50 °C	CMC 0.25 °C
-50 to 1372 °C	CMC 0.15 °C

UKAS HUMIDITY CALIBRATION

- Certified uncertainties (CMCs) from 0.7 %rh, 0.19 °Cdp & 0.14 °C Air
- Flexible certification - select the points you need
- Qualified & experienced laboratory personnel
- Rapid turnaround

UKAS CALIBRATION
0601

Our in-house humidity laboratory is equipped with two of the world's premier humidity chambers together with a high accuracy mirror hygrometer. The Thunder Scientific 2500 humidity chamber uses two-pressure technology to generate controlled humidity conditions, which has long been the recognised standard for instrument calibration, test and verification, along with the new state-of-the-art HYGROGEN2 - HG2-XL chamber which generates stable temperature and humidity conditions in rapid time. These methods of generation are a fundamental technology, enabling confidence in traceability to National Standards. This, combined with MBW referenced mirror hygrometers, ensures the standard of calibration is to a very high level. If you then combine this with UKAS Accreditation, and a rapid turnaround of your instrument, you can be sure that the service offered by our humidity laboratory will meet your requirement.

Accurate monitoring of humidity can increase the efficiency of productivity in many aspects of production. An increasing number of employers are also realising the importance of healthy working environments, which includes the control of humidity to help prevent airborne bacteria, eliminate static shocks and reduce eye-strain.

As with most digital equipment, but even more so with hygrometers, there is a tendency for drift over a period of use. Therefore a regular calibration by comparison against Standards, traceable to National Standards, provides confidence in the continued accuracy of your instrument.

- **Air temperature capability**
  Our humidity laboratory is also UKAS accredited for air temperature measurement certification. Please see below for calibration and measurement capability (CMC).

Order code	UKAS Certificate - Humidity	£ each
890-110	3-point 25, 50 & 75 %rh	170.00
890-112	1-point customer specified	110.00
890-114	5-point customer specified	320.00

Order code	UKAS Certificate - Air Temperature	£ each
890-120	2-point 10 & 40 °C	170.00
890-132	1-point customer specified	110.00
890-134	Additional specified point	60.00

CALIBRATION & MEASUREMENT CAPABILITY (CMC)

Humidity	
10 to 90 %rh @ 0 to 60 °C	CMC 1.2 %rh
10 to 90 %rh @ 20 to 24 °C	CMC 0.7 to 1.1 %rh

Air temperature	
0 to 60 °C	CMC 0.24 °C

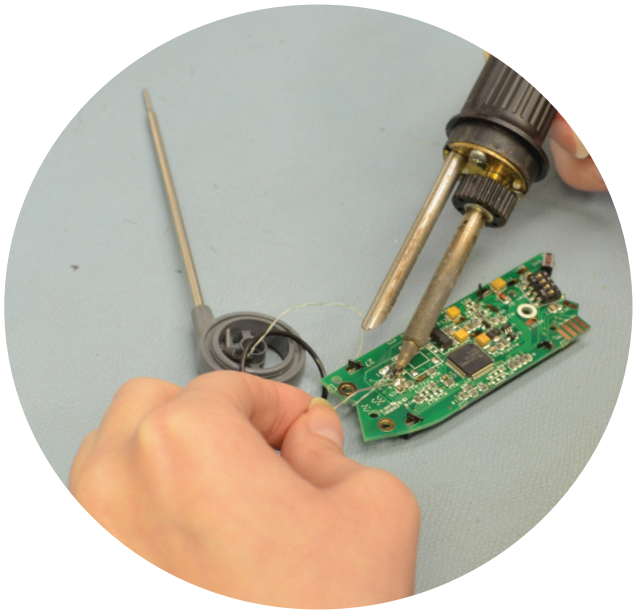
Alternative temperature points can be offered to customer requirements, please contact our Service department for further details.

SERVICE & REPAIR OF THERMOMETERS & PROBES

- Additional one year's guarantee on repaired instruments
- Thermometer, probe & recalibration service available
- Rapid turnaround - normally within 5 days
- Qualified & experienced technicians

One of the true advantages of being a manufacturer is that we know how our instruments work and how to repair them. We are fully committed to supporting our customers, no matter which instrument they have chosen. Our service department is equipped with the best of resources and all repairs are undertaken in-house to give an unrivalled after-sales-service.

The vast majority of instruments that are damaged through use in busy commercial environments can be repaired. Naturally, if the instrument is outside the warranty period, there is a charge. But we wish to make customers aware that it can be cost-effective to repair an instrument, rather than throw it away and buy a new one.



Whilst an annual calibration check is all you may need for continued confidence in your instrument, there are times when you may wish for the added assurance of a full service, which includes a recalibration and the added benefit of a further one year's guarantee.

Instruments for service or repair should be sent to your local distributor or direct to ETI, carriage paid and labelled with the sender's name, address, telephone number and a brief description of the problem to assist with rapid diagnosis.

Contact our after-sales team for advice on any non-ETI units you wish to have repaired or calibrated. The prices quoted in our price list below are a guide, for a more comprehensive price structure, please contact our after-sales team.

Order code	Description - Repair	£ each
890-254	Waterproof thermometers	48.00
890-257	Therma Series probe thermometer	36.00
890-295	ThermaData loggers	36.00
890-303	Thermapen Classic thermometers	23.00
890-310	Therma series thermometers	35.00
890-318	CaterTemp Metal thermometer	60.00
890-319	Therma Metal thermometer	60.00
890-403	Thermapen/IR thermometers	40.00
890-500	TempTest thermometers	38.00
890-570	BlueTherm thermometers	55.00
890-670	RayTemp infrared thermometers	36.00
890-690	ThermaData Wi-Fi loggers	55.00
890-700	Reference Thermometer	52.00
890-800	8000/8100 pH Meters	36.00
890-850	8100 Plus pH Meter	55.00

Order code	Description - Recalibration	£ each
894-254	Waterproof thermometers	31.00
894-257	Therma series probe thermometer	31.00
894-303	Thermapen thermometers*	24.00
894-310	Therma series thermometers	31.00
894-318	CaterTemp Metal thermometer	38.00
894-319	Therma Metal thermometer	38.00
894-331	MicroTherma thermometers	38.00
894-500	TempTest thermometers	24.00
*excludes Thermapen IR		

Order code	Description - Probe repair	£ each
890-400	Thermocouple probe	16.50
890-410	Thermistor probe	20.00
890-420	PT100 probe	30.00