

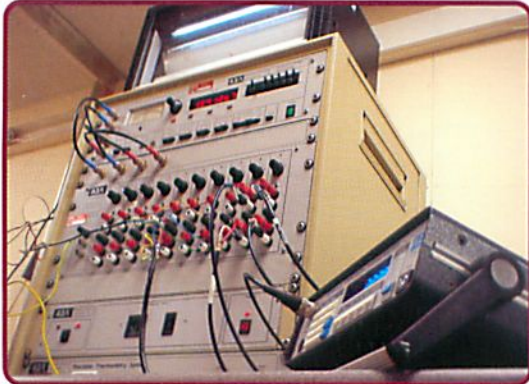


## CALIBRATION OF SPRT AT THE ITS-90 POINTS

UKAS / CLASS 1

The Transmille temperature calibration service uses primary cells to realise the ITS 90 points of the triple point of water (0.01°C), the melting point of gallium 29.7646°C, the freezing point of tin 231.928°C, and the freezing point of zinc 419.527°C.

In addition to the Primary fixed point cells the laboratory also uses two SPRT probes calibrated by NPL with an ASL Resistance Bridge and 9 channel switching unit.



Using these cells we can characterise SPRT (standard platinum resistance probes) at ITS 90 points with very low uncertainties and direct Traceability to NPL. The certificate reports the resistance and resistance ratio (W) at these points, enabling the probe co-efficient to be calculated. In the event of R(0.01) being outside the limit we can also, with the customers consent, anneal the probe. We can also provide calibration and adjustment of a probe together with the display as a complete system, for example the ASL F250.

Transmille also has an excellent UKAS accredited capability for calibrating liquid in glass thermometers over the range -40°C to +225°C using two high accuracy stirred column liquid temperature baths. One low temperature bath covers the range of -40°C to +80°C, the other for high temperatures up to +225°C using oil. Readings are compared against our two SPRT probes with traceability direct to NPL. The calibration is performed at the measurement points specified by the customer.

For temperature above 225°C probes can be calibrated in our low temperature furnace up to 650°C



## UKAS CALIBRATION OF INDUSTRIAL GRADE THERMOMETERS

UKAS / CLASS 1

For less demanding work Transmille also offers very competitive service from -40°C to +650°C for low cost digital thermometers, either PRT or thermocouple.

### Types of Instrument Calibrated :

- ▶ Standard Platinum Resistance Probes (25 Ohm or 100 Ohm)
- ▶ Liquid in glass thermometers from -40°C to +225°C
- ▶ Digital thermometers
- ▶ Thermocouples and PRT probes
- ▶ Dry Block calibrators
- ▶ Infra red thermometers (Class 1)

