Application Note

ISOTowers

- 660.323°C (Aluminium)
- 419.527°C (Zinc)
- 231.928°C (Tin)
- 156.5985°C (Indium)

What is Fixed Point Calibration?

For the very lowest uncertainties resistance thermometers are calibrated in ITS-90 Fixed Point Cells.

Primary ITS-90 Fixed Point Systems are suited to long stem SPRTs and are just too large for shorter thermometers.

Primary Systems only suit Long Stem SPRTs

Primary SPRTs usually have a minimum length of around 480 mm, longer for high temperature thermometers. Most standard thermometers used in secondary and industrial laboratories are too short to be calibrated in conventional ITS-90 Fixed Point Cells.

Primary ITS-90 Fixed Point Systems are often prohibitively expensive for many users.

Isotech has the ISOTowers

These ISOTowers bring the benefits of fixed point calibration to a wider range of probes.

The fixed point cell is combined with a heatpipe and a separate immersion compensator giving better performance and lower uncertainties than earlier small sized or miniature cells.

METROSERT have purchased ISOTowers to benefit from low uncertainties coming from fixed point calibration and the ability to calibrate both long stem SPRTs and shorter thermometers.

METROSERT

METROSERT is the biggest provider of metrological services in Estonia. The organisation fulfils the functions of the Central Office of Metrology in Estonia (equivalent to a National Metrology Institute), and has signed the Mutual Recognition Arrangement CIPM MRA for national measurement standards and for calibration and measurement certificates issued by National Metrology Institutes. Currently, AS Metrosert has approved calibration and measurement capabilities listed in CIPM MRA database for mass, length and electrical quantities. The calibration and measurement capabilities for temperature have been submitted for approval and the evaluation procedure is in progress.