The Source for Calibration Professionals

The new Isis

THE ONLY DRY BLOCK WORKING TO -100°C (-148°F)

Key Features...

- *Minimum temperature -100°C (-148°F)*
- *No hazardous or expensive liquids*
- *Stability at -90°C of 0.02°C*
- *20,000 hours testing, equal to 10 years use*
- *Patented technology*
- *Uses flexible heat pipe to transfer energy*
- *C.E. approved*
- *UKAS / ILAC, NIST Traceable Certification available*

A New Dry Block

The Isis Dry Block offers operation to temperatures as low as -100°C, and is the only dry block working to such a low temperature. Now it is possible to calibrate temperature sensors such as PRTs, Thermocouples and Thermistors at ultra low temperatures without the need for a liquid bath.

Portability and Safety

Unlike a liquid bath the Isis requires no costly, or hazardous fluids and offers great portability. This will be of particular value to calibration engineers working on site with low temperature freezers as encountered in pharmaceutical, aeronautical and food environments.

The minimum operating temperature is less than stirred liquid laboratory calibration baths and users in laboratories will also benefit by avoiding the ongoing need for expensive fluids.

The maximum operating temperature is 40°C, a little higher than the minimum operating temperature of Isotech Hot Blocks. This permits covering the range from -100°C to 650°C or higher with just two Isotech blocks. By limiting the maximum temperature the reliability and operating life of the cooling engine is maximised, and has been agreed in consultation with the licensee of the cooling technology, see below.

Cooling Technology

The Isis makes use of a Free Piston Stirling Cooler (FPSC) which provides a massive 80 Watts of cooling power to the calibration block. Specialist materials, patent applied for, are used for the heat transfer from the FPSC to the block.

Operating Life

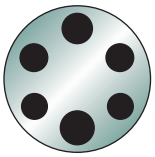
Reliability is a prime attribute of this revolutionary new product. Testing at 20,000 hours (nominally equivalent to 10 years at 40 hours use each week) shows that -100°C is still possible, with an increase in cooling time < 10%.

The new LSLS

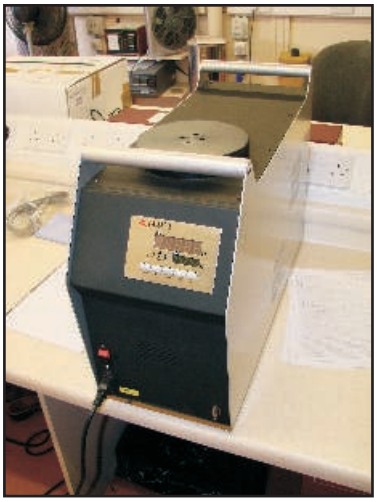
The only dry block working to -100°C (-148°F)

METAL BLOCK INSERTS

Standard Insert A



9.5mm, 8.0mm,
6.4mm, 6.4mm,
4.5mm, 4.5mm
All 157 deep

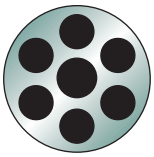


ALTERNATIVE INSERTS

Standard Insert B

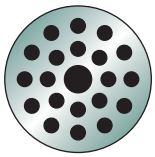
13mm, 10mm,
8mm, 5mm
and 3.5mm
All 157 deep

Standard Insert C



8mm and
6 x 6mm
All 157 deep

Validation Insert



6.5mm and
20 x 3.5mm
All 157 deep

Model.	LSLS
Temperature Range	-100°C (-148°F) to +40°C (+104°F)
Approximate time to Temperature from Ambient	-20°C 20 minutes -40°C 30 minutes -60°C 40 minutes -80°C 60 minutes -100°C 90 minutes
Absolute Stability	±0.03°C at 0°C (30 minutes) ±0.02°C at -90°C (30 minutes)
Vertical gradients (over bottom 40mm)	0.1°C at 0°C 0.2°C at -90°C
Calibration Volume	35mm diameter x 160mm deep (Excludes Insulating Cap)
Standard Insert	1.4" diameter x 6.3" deep 6 thermometer wells as standard (1/8", 1/4", 5/16", 3/8")
Power	200W
Voltage	100-240Vac, 50/60Hz
Dimensions	25.2" (L) x 8.5" (W) x 16.5" (H)
Weight	47lbs.

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