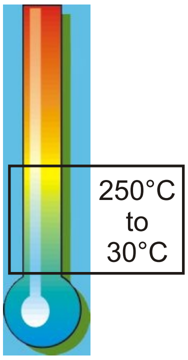
934 DRAGO^{PLUS}



To calibrate temperature sensors to 250°C look no further than the portable stirred liquid baths. The Drago calibrates from 30 to 250°C and the Hyperion from 45°C below ambient to 140°C, refer to separate sheet. The useable calibration volume is 65mm diameter and the overall depth of 190mm gives more than twice the volume of alternative products. We allow 15mm for the magnetic stirrer and assume that the liquid in the bath is on average 15mm from the rim. We therefore quote 160mm as the working depth.

Stirred liquid baths are suitable for temperature sensors of all types, shapes and sizes. Accuracies are much greater than those from Dry Blocks alone and with suitable reference thermometers performance of up to 0.005°C is achievable.

The Drago is available in two models. If the liquid is directly in the block then the controller only model, or Basic (B) model, can be selected. This model is also suitable where an external indicator and standard will be used. Alternatively the site model (S) includes a built in temperature indicator for high accuracy or for best accuracy an external indicator can be used, an ideal combination is the TTI-6 and 935-14-16 Probe, for more information refer to databook 3. The S model can be provided with UKAS certification.

The Drago can also be used with the supplied Cal NotePad software to automatically calibrate thermostats.

When using a separate indicator and probe (SITE or Stand Alone Model) then different accessories can be added for Dry Block, Blackbody, Surface Sensor, Liquid Containers and even ITS-90 fixed point operation.

Includes as standard: Windows Software, Computer Interface and a Ramp to Set Point Feature. Increased resolution of ±0.01 available throughout the range via the PC interface and from 0.01 to +99.99 locally on the auto-ranging front display. The controller features multi-point block to display correction giving good absolute accuracy.
New in the S model is universal sensor input allowing Platinum Resistance Thermometers, Thermocouples (types K, N, R, S, L, B, PL2, T, J and E) along with Linear Process Inputs including 4-20mA current transmitters to be displayed on the in-built indicator. The indicator can be programmed with up to five calibration points to provide high accuracy digital probe matching. The indicator and controller are both addressable over the communications link.

Features

- **65mm Diameter Calibration Volume**
- **Portable Liquid Bath** for high accuracy calibration of awkward shaped sensors
- **Convertible for Dry Block Operation** and more
- **Calibrate all Sensor types**
- **Windows Software and PC Interface as standard**

934 DRAGO^{PLUS}

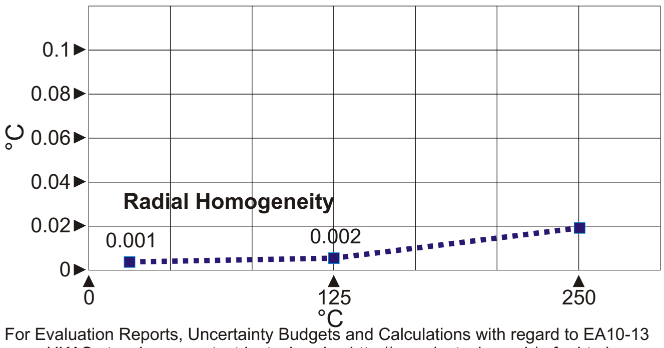
Options

Stirred Liquid Bath Water Bath	936-06-02	Includes a container, magnetic stirrer and probe guide and thermometer support kit
Metal Block Insert	936-06-01a	Standard Insert 8 x 8mm + 2 x 4.5mm diameter holes 157mm deep
	936-06-01b	Blank Insert
	936-06-01c	Special Insert.
Blackbody Target	936-06-03	Use with Standard Probe (935-14-61DB)
Surface Sensor Kit	936-06-04	Includes an Insert and an angled PRT.
Fixed Point Cells	17401 Slim	Gallium Slim Cell
Standard Probe	935-14-61DB	Platinum Resistance Thermometer
UKAS Calibration	UKAS Calibration available to Order	
Carrying Case	931-22-64	Sturdy case accommodates the unit
C20 Oil	580-06-09	1 Litre of C20 Oil (from ambient to +200°C)
Very High Temp. Oil	915/09	1 Litre of V.H.T. Oil (from +150°C to +250°C)

The company is always willing to give technical advice and assistance where appropriate. Equally because of the program of continual development and improvement, we reserve the right to amend or alter characteristics and design without prior notice. This publication is for information only.

Note: Instead of putting liquids directly in the block liquid containers can be used to facilitate rapid change of liquids. When using a liquid container, Dry Block Insert, Blackbody Target or the Surface Sensor Kit a separate reference thermometer should be used to compensate for the varying offset between the controller and the accessory temperature. Suitable choices include the SITE model with probe.

Drago^{PLUS} Performance - Dry Block



For Evaluation Reports, Uncertainty Budgets and Calculations with regard to EA10-13 UKAS etc, please contact Isotech - also http://www.isotech.co.uk/refer.html

Model No.	Drago^{PLUS}	
Temperature Range	+30°C to +250°C in an ambient of 25°C or below	
Absolute stability over 30 minutes	Stirred Liquid Bath Dry Block Bath Blackbody Source Surface Sensor Calibrator ITS-90 Fixed Point Apparatus	±0.025°C ±0.03°C ±0.3°C ±0.5°C ±0.0005°C
Computer Interface	Included with Windows Software	
Thermal Performance	As a liquid comparison bath Uniformity down to ±0.005°C over the full range	
Calibration volume	65mm diameter by 160mm deep	
Display Resolution	0.01 0.1	Up to 99.99 100.0 to 250.0°C PC can display 0.01 across whole range with the software included
Indicator units	°C, °F, K	
Power	100 to 120V (50 / 60 Hz) or 200 to 240V (50 / 60 Hz) 1000 Watts	
Overall dimensions	Height Width Depth	302mm 176mm 262mm
Weight	8kg	

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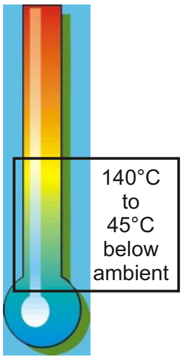
936 HYPERION PLUS

12th of July, 2002



To calibrate temperature sensors to 250°C look no further than the portable stirred liquid baths. The Hyperion calibrates from 45°C below ambient to 140°C and the Drago from 30 to 250°C refer to separate sheet. The useable calibration volume is 65mm diameter and the overall depth of 190mm gives more than twice the volume of alternative products. We allow 15mm for the magnetic stirrer and assume that the liquid in the bath is on average 15mm from the rim. We therefore quote 160mm as the working depth.

Stirred liquid baths are suitable for temperature sensors of all types, shapes and sizes. Accuracies are much greater than those from Dry Blocks alone and with suitable reference thermometers performance of up to 0.005°C is achievable.

The Hyperion is available in two models. If the liquid is directly in the block then the controller only model, or Basic (B) model, can be selected. This model is also suitable where an external indicator and standard will be used. Alternatively the site model (S) includes a built in temperature indicator for high accuracy or for best accuracy an external indicator can be used, an ideal combination is the TTI-6 and 935-14-16 Probe, for more information refer to databook 3. The S model can be provided with UKAS certification.

The Hyperion can also be used with the supplied Cal NotePad software to automatically calibrate thermostats.

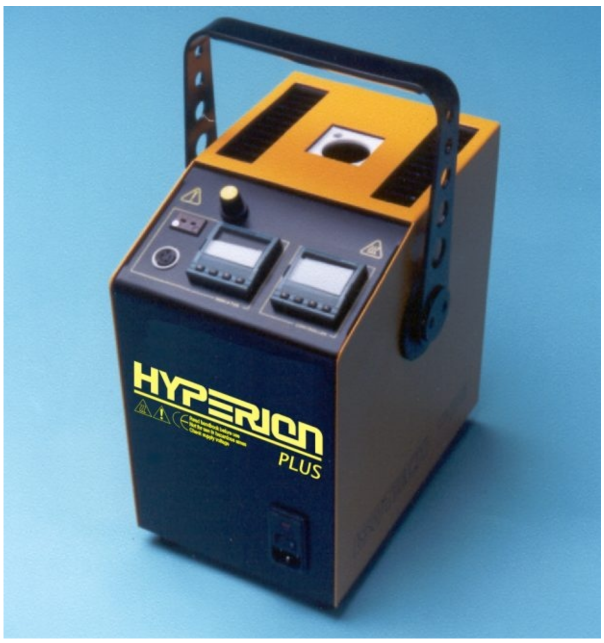
When using a separate indicator and probe (SITE or Stand Alone Model) then different accessories can be added for Dry Block, Blackbody, Surface Sensor, Liquid Containers and even ITS-90 fixed point operation.

Plus FEATURES

Includes as standard: Windows Software, Computer Interface and a Ramp to Set Point Feature. Increased resolution of ±0.01 available throughout the range via the PC interface and from -19.99 to +99.99 locally on the auto-ranging front display. The controller features multi-point block to display correction giving good absolute accuracy.
New in the S model is universal sensor input allowing Platinum Resistance Thermometers, Thermocouples (types K, N, R, S, L, B, PL2, T, J and E) along with Linear Process Inputs including 4-20mA current transmitters to be displayed on the in-built indicator. The indicator can be programmed with up to five calibration points to provide high accuracy digital probe matching. The indicator and controller are both addressable over the communications link.

Features

- **65mm Diameter Calibration Volume**
- **Portable Liquid Bath** for high accuracy calibration of awkward shaped sensors
- **Convertible for Dry Block Operation** and more
- **Calibrate all Sensor types**
- **Windows Software and PC Interface as standard**



12th of July, 2002

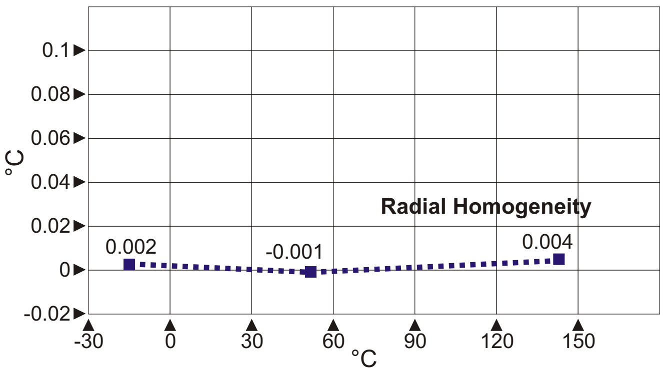
936 HYPERION PLUS

Options

Stirred Liquid Bath Water / Ice Bath	936-06-02	Includes a container, magnetic stirrer and probe guide and thermometer support kit
Metal Block Insert	936-06-01a	Standard Insert 8 x 8mm + 2 x 4.5mm diameter holes 157mm deep
	936-06-01b	Blank Insert
	936-06-01c	Special Insert. *Contact Isotech with your requirements*
Blackbody Target	936-06-03	Use with Standard Probe (935-14-61DB)
Surface Sensor Kit	936-06-04	Includes an Insert and an angled PRT.
Fixed Point Cells	D8 17401 Slim	Water Slim Cell Gallium Slim Cell
Standard Probe	935-14-61DB	Platinum Resistance Thermometer
UKAS Calibration	UKAS Calibration available to Order	
Carrying Case	931-22-64	Sturdy case accommodates the unit
Liquid	936-06-07	1 Litre of C10 Oil (-35°C to +140°C)

Instead of putting liquids directly in the block liquid containers can be used to facilitate rapid change of liquids. When using a liquid container, Dry Block Insert, Blackbody Target or the Surface Sensor Kit a separate reference thermometer should be used to compensate for the varying offset between the controller and the accessory temperature. Suitable choices include the SITE model with probe.

Hyperion PLUS Performance - Dry Block



Model No.	HYPERION PLUS
Temperature Range	45°C below ambient to +140°C (absolute minimum -45°C)
Absolute stability over 30 minutes	Stirred Liquid Bath ±0.025°C Dry Block Bath ±0.03°C Ice / Water Bath ±0.001°C Blackbody Source ±0.3°C Surface Sensor Calibrator ±0.5°C ITS-90 Fixed Point Apparatus ±0.0005°C
Computer Interface	Included with Windows Software
Thermal Performance	As a liquid comparison bath Uniformity down to ±0.005°C over the full range
Uncertainties	Refer to Uncertainties Graph
Calibration volume	65mm diameter by 160mm deep
Display Resolution	0.01 -19.99 to 99.99 0.1 -55.0 to -20.0 and 100.0 to 140.0 PC can display 0.01 across whole range with the software included
Indicator units	°C, °F, K
Power	108 to 120V (50 / 60 Hz) or 208 to 240V (50 / 60 Hz) 200 Watts
Overall dimensions	Height 302mm Width 176mm Depth 262mm
Weight	12kg

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