



Dry Block Calibrator Jupiter

- Wide Operating Range to 660°C
- Fast Response
- Calibrate Whole Measurement Loop

The Jupiter Dry Block range offers industry-leading performance in an easy to use portable package - ideal for the calibration of thermocouples and platinum resistance thermometers. It has been designed for fast heating and cooling for convenient field use. For flexibility surface sensor and infrared thermometer accessories can be added.

The standard insert can hold up to six thermometers. For larger blocks see the Gemini range.

These award winning calibrators are easy to use and are available in three versions – the Basic, the Site and the ADVANCED. The Basic has a digital display of set and nominal temperature, the Site additionally includes an inbuilt independent temperature indicator for a reference probe. The ADVANCED controller has inputs for reference and test thermometers with a further range of sophisticated features including automatic temperature cycling, secure data logging and full colour high resolution display.

Isotech is a world leader in temperature calibration, providing many nations with their Primary Standards and operates a full scale UKAS accredited calibration laboratory. We can offer a range of calibration options to meet your requirements.

Benefit from our experience and understanding in calibration at all levels, our evaluation reports, our tutorials and uncertainty calculations.

These models meet the calibration capacity requirements of EURAMET/cg-13/v.01, "EA Guidelines on the Calibration of Temperature Block Calibrators, formerly EA10/13.



http://www.isotech.co.uk/industrial/

All models include I-Cal Easy LOG software and the

ADVANCED models additionally include software to manage logged data and configure the unit, see page 14 for more details.











45 x 285mm Calibration Volume
 Use for Comparison and Fixed Point Calibration
 Use with very long thermometers

Isotech have a wide range of Dry Blocks to suit probes requiring a large immersion depth. These products feature large and deep calibration volumes. As such they are less portable than the earlier Dry Blocks, but have higher capacities and retain outstanding temperature uniformity, this uniformity is so good that these larger products are also apparatus for Secondary Laboratories to realize the Fixed Points of ITS-90.

Medusa 510 has a maximum operating temperature of 550°C. The Medusa Model 511 can be used to 700°C and features three zone control. In addition to the main heating zone there are additional top and bottom heaters which compensate for the end losses creating a constant temperature zone across the well.

For Comparison Calibration the Medusa should be used with an insert, the standard insert has six 8mm pockets 250mm deep. Also available is an insert 44mm diameter x 170mm deep which is suspended from the top of the block so that the height is user adjustable. For flexibility the Medusa can also be used with accessories for infrared thermometers and surface sensors. The Medusa is available in two models, the BASIC (B) and the SITE (S). The B model includes a sophisticated temperature controller with a dual display for Set Temperature and Dry Block Temperature.

The S model includes a built-in digital thermometer to which an external standard thermometer can be connected giving greater accuracy, eliminating temperature gradient and loading errors. Also included in the site model is a timer which can set the bath between two temperatures, and automate ITS-90 fixed point operation. For Surface Sensor and Blackbody use an external thermometer is recommended. For laboratory accuracy the Medusa can be used with a high-end temperature indicator such as an Isotech TTI model.

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 autoranging front display. The controller features multi-point block to display correction giving good absolute accuracy.

The S model has 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.



P O N T HE TEMPERATURE

Fixed Point Cells Available

Material	Temperature
Gallium	29.7646°C
Indium	156.5985°C
Tin	231.928°C
Zinc	419.527°C
Aluminium	660.323°C

50	

Specification		
Model	510 Medusa	511 Medusa 3
Temperature Range	30°C to 550°C	50°C to 700°C
Absolute stability over 30 minutes	Metal Block Bath Blackbody Source Surface Sensor Calibrator ITS-90 Fixed Point	±0.03°C ±0.1°C ±0.5°C ±0.001°C
Computer Interface	Included with	Software
Cools from	550°C to 30°C	in 5 hours
Heats from	30°C to 550°C ir	n 90 minutes
Uncertainties	Refer to Uncerta	inties Graph
Calibration volume	45mm diameter by	y 285mm deep
Standard Insert	Six 8mm pockets a	ll 250mm deep
Display Resolution	(0.01) to (0.1) 100.0 PC can display 0.01 across whole r	99.99 to 650.0 ange with the software included
Indicator units	°C, °F,	К
Power	108 to 130V or 208 to 1000 Watts	240V 50 / 60Hz 1800 Watts
Overall dimensions	Height 43 Width 31 Depth 30	0mm 0mm 0mm
Weight	17kg	25kg

Performance and Use



Calibration and Uncertainty

A certificate, traceable to National Standards, is included as standard. Recommended is an optional UKAS five-point calibration.

The accuracy of the Medusa will depend very much on the mode of use, see the Uncertainty Graph for typical uncertainties. NTPL calculate the uncertainties to UKAS requirements. The Medusa meets the Calibration Capacity requirements of EA-10/13, "EA Guidelines on the Calibration of Temperature Block Calibrators."

Features (Basic & Site)	Medusa
Dry Block	✓
Surface Sensor Option	✓
Infrared Calibration Option	✓
ITS-90 Fixed Point Cells	✓
Additional 8mm Pre-heat Pocket	✓
Configurable Units: °C, °F and K	✓
Supply Voltage Power Correction	✓

Additional Features (Site)	Medusa
Independant Temperature indicator	✓
Universal Input Types PT100	✓
Thermocouples Types K,N,R,S,L,PL2,T,J,E	✓
Linear Process Inputs Including 4-20 mA	✓
Stand Alone Thermostat Testing	✓
Thermostat Testing With PC	✓
Five Point Digital Probe Matching	✓
Configurable Units: °C, °F and K	✓



510 Medusa & 511 Medusa 3

Calibrate all sensor types - Thermocouples, PRT's, Thermistors, Thermostats, Infrared, Surface Sensors...





510 Metal Blo	ock Insert
510-06-01	Standard Insert included
510-06-02	Blank Insert without pockets for local machining
510-06-03	Special Insert. Contact Isotech with your requirements
510-06-04	Adjustable Equalising Block
511 Metal Blo	ock Insert
511 Metal Blo 511-06-01	ock Insert Standard Insert Included
511 Metal Blo 511-06-01 511-06-02	Standard Insert Included Blank Insert without pockets for local machining
511 Metal Blo 511-06-01 511-06-02 511-06-03	Standard Insert Included Blank Insert without pockets for local machining Special Insert. Contact Isotech with your requirements



ITS-90 Fixed Point Cells

Gallium Slim Cell (510)
Indium Slim Cell
Tin Slim Cell
Zinc Slim Cell
Slim Aluminium Cell (511)
Cell Basket for 510
Cell Basket for 511



UKAS Calibration

UKAS Calibration available to order, legally traceable in more than 70 countries.



Blackbody Kit

511-06-05

510-06-05 For 510. Includes a Blackbody target and Sensor.

> For 511. Includes a Blackbody target and Sensor.



510 Surface Sensor Calibration with Surface Sensor Kit

510-06-06 Includes an insert and an angled thermocouple.

511 Surface Sensor Calibration with Surface Sensor Kit

511-06-06 Includes an insert and an angled thermocouple.



Standard Probe

935-14-95H/DB Platinum Resistance Thermometer for use up to 650°C.



Carrying Case

931-22-58 Sturdy case accommoda

accommodates the unit with room for accessories

How To Order Specify Model, Basic or Site, Supply Voltage, Accessories and if UKAS Calibration is required.





Dry Block Calibrator **Pegasus**

High Temperature Thermocouple Calibration Furnace

- Custom Furnace Design with Optimised Profile
- Calibrate Whole Measurement Loop

The Pegasus range offers extreme high temperature calibration in an easy to use portable package - ideal for the calibration of high temperature thermocouples. It has been designed for fast heating and finds applications in the glass, electrical power, automotive and material processing industries.

A Blackbody target can be added for the calibration of infrared thermometers.

The standard insert has four 8mm pockets 80mm deep. The metal insert is strategically placed beneath 50mm of insulation to provide optimal performance over the radiant temperature range.

The optional Blackbody target is used with a specially angled Type R thermocouple that sits immediately behind the target area.

These award winning calibrators are easy to use and are available in three versions – the Basic, the Site and the ADVANCED. The Basic has a digital display of set and nominal temperature, the Site additionally includes an inbuilt independent temperature indicator for a reference probe. The ADVANCED controller has inputs for reference and test thermometers with a further range of sophisticated features including automatic temperature cycling, secure data logging and full colour high resolution display.

The B model should be used with an external reference probe and indicator, such as the milliK. The thermocouples



under test should be calibrated by comparison to the external probe.

All models include I-Cal Easy LOG software and the ADVANCED models additionally include software to manage logged data and configure the unit, see page 14 for more details.



UKAS Calibration available for these systems - International Traceability - Best Practice See page 14









Parameter	Model
	Pegasus 4853
Temperature Range	150°C to 1200°C
ADVANCED Range	
Stability	±0.05°C @ 150°C ±0.08°C @ 1200°C
Display Resolution	0.01°C over whole range
Input Channel Accuracy: Thermocouple	${\sf E}, {\sf J}, {\sf K}, {\sf N}: \ \pm 0.2^{\circ} {\sf C} \ @ \ 660^{\circ} {\sf C} {\sf R}: \ \pm 0.6^{\circ} {\sf C} {\sf S}: \ \pm 0.7^{\circ} {\sf C} \ @ \ 660^{\circ} {\sf C} {\sf T} \ \pm 0.2^{\circ} {\sf C} \ @ \ 150^{\circ} {\sf C}$
CJC Accuracy	±0.35°C
Input Channel Accuracy: RTD	±0.05°C ±0.005% RDG
BASIC / SITE Range	
Stability	±0.1°C @ 150°C ±0.2°C @ 1200°C
Display Resolution	0.1°C from 150°C to 999.9°C then 1°C: 0.01°C Over PC Interface
COMMON Specifications	
Blackbody Source	±0.3°C
Cools from 1200°C to 800°C 1200°C to 200°C	in 50 minutes* in 180 minutes* *substantially reduced by the cooling adaptor
Heating Rate	25°C / minute
Best Performance	See Graph
Calibration volume	33.5mm diameter by 130mm deep
Standard Insert	4 x 8mm Pockets all 80mm deep + 50mm top insulator
Indicator units	°С, °F, К
Power	115Vac or 230Vac (50 / 60 Hz) 800 Watts
Dimensions	384H (including handle) x 212W x 312D mm
Weight	13kg

	ADVANCED	SITE	BASIC
Digital Display of Set and Nominal Block Temperature	Yes	Yes	Yes
PC Interface	Ethernet + USB Host	Serial	Serial
Test Thermostats	Yes - Two Inputs	Yes - Single Input	No
Independent Temperature Indicator for Reference Probe	Yes	Yes	No
Additional Inputs for Units Under Test	Up to 3: Two universal inputs for PRT, Thermocouple or Process inputs and a further Thermocouple input	No	No
Automatic Temperature Cycling	Yes	No	No
Data Logging	Yes - Export to USB	No	No
Offset Elimination	Yes - block can follow reference input	No	No
Choose English, French, Italian or Spanish Language	Yes - on full colour display	No	No
In Built Web Server	Yes	No	No
Tamper Proof Data	Yes - Suitable for life science, automotive and aerospace applications	No	No







Metal Block Bath

Blackbody Source

thermometers.

The Pegasus includes an insert suitable for high temperature calibration of thermocouples.

Add the Blackbody accessory to allow calibration of infrared



Metal Block Insert

Pegasus Accessories

Standard Insert Included Four 8mm pockets. Pocket depth 80mm + 50mm insulator. Effective depth 130mm. 853-06-02 Blank Insert Insert without pockets for local machining 853-06-02b Custom Insert Contact Isotech with your requirements



Blackbody Kit 853-06-03 Includes a Blackbody target and Sensor



Calibration Includes three point traceable calibration certificate for block temperature

UKAS Calibration Recommended: Options for block temperature and reference thermometer inputs (simulation). Legally traceable in more than 70 countries.

Standard Probe 935-14-91 Type R Platinum Thermocouple for use up to 1200°C.



Air Cooling 853-04-02 For use with a compressor this accessory allows air to be blown into the block for rapid cooling.



Ceramic Insulators 853-06-04 Spare insulation pack Includes 2 x standard tops and 2 x standard bottoms.



Current Loop Interface 935-06-161 24VDC Power Supply and Terminal Box. Powers 4-20mA Current Transmitters with 4mm terminal posts for easy connection.



Carrying Case 931-22-111 Sturdy case with room for accessories. Features wheels and pull out handle.











Ceramic

Metal

Insert

Furnace

Ceramic

Insulation

Liner

Insulation

The world's leading National Metrology Institutes choose Isotech - shouldn't you?

Pegasus Benefits

The Pegasus features a small tube furnace to allow operation to 1200°C in a portable case. With a ceramic furnace construction temperature gradients are larger than with lower temperature metal blocks.

The Isotech furnace benefits by using a specially wound furnace tube assembly. They are manufactured in our factory with the turns concentrated at the ends of the furnace, where the heat losses are greatest. This gives an

improved temperature profile and lower uncertainty.

Insulators are provided for the top and bottom of the furnace which further improve temperature uniformity.

The effective immersion depth is 130mm, 80mm in the metal insert and then a further 50mm in the furnace tube.

Benefit from Isotech's design and experience



Radial Homogeneity

See Evaluation Reports for full details http://www.isotech.co.uk

How To Order

- 1 Select Desired Options and Accessories
- 2 Supply Voltage:
 - Specify either 115Vac 50/60hz or 230Vac 50/60Hz





Dry Block Calibrator **Gemini**

- Calibrate Large Diameter Probes
- High Capacity Blocks 64 x 160mm
- Calibrate Whole Measurement Loop

The Gemini range of Dry Blocks have high capacity allowing a large number of probes to be calibrated together. They are also suitable to accept large diameter probes with the block volume of a nominal 64 x 160mm.

Whilst the large block takes longer to heat and cool than the Jupiter it can calibrate thermocouples, resistance thermometers, thermostats and sensors that are too large for the smaller blocks.

These award winning calibrators are easy to use and are available in three versions – the Basic, the Site and the ADVANCED. The Basic has a digital display of set and nominal temperature, the Site additionally includes an inbuilt independent temperature indicator for a reference probe. The ADVANCED controller has inputs for reference and test thermometers with a further range of sophisticated features including automatic temperature cycling, secure data logging and full colour high resolution display.

All models include I-Cal Easy LOG software and the ADVANCED models additionally include software to manage logged data and configure the unit, see page 14 for more details.

Available with a fixed block with four 8mm and four 19.5mm pockets or the LRI version which has a removable block. With the LRI model, blocks can be drilled to custom configurations.

Isotech is a world leader in temperature calibration, providing many nations with their Primary Standards and operates a full scale UKAS accredited calibration laboratory. We can offer a range of calibration options to meet your requirements.



http://www.isotech.co.uk/industrial/

These models meet the calibration capacity requirements of EURAMET/cg-13/v.01, "EA Guidelines on the Calibration of Temperature Block Calibrators, formerly EA10/13.









Parameter	Model: Gemini 4857	
	550	700
Temperature Range	35°C to 550°C	50°C to 700°C
ADVANCED Range		
Absolute Stability over 30 mins	±0.01°C @ 100°C ±0.015°C	@ 300°C ±0.03°C @ 550°C
Display Resolution	0.01°C over	whole range
Accuracy: RTD Input Channel	±0.05°C ±0	0.005% RDG
Accuracy: Thermocouple Input Channel	$E,J,K,N:\pm0.2^\circC\ @\ 660^\circCR:\pm0.6^\circCS$	S: ±0.7°C @ 660°C T ±0.2°C @ 150°C
CJC Accuracy	±0.3	35°C
BASIC/SITE Range		
Absolute Stability over 30 mins	±0.02°C @ 50°C ±0.03°C (@ 250°C ±0.04°C @ 550°C
Display Resolution	0.01°C from 30.00 to 99.99°C then 0.1°C: 0.01°C Over PC Interface	
COMMON Specifications		
Display Accuracy ¹	0.5°C	
Cools from 550°C to 275°C from 550°C to 60°C	35 mins (LRI: 132 mins) 345 mins (LRI: 420 mins)	-
Heats from 30°C to 550°C from 50°C to 700°C	35 mins (LRI: 60 mins) - 110 mins (LRI: 120 mins)	
Best Performance	See	Graph
Calibration volume	65mm diameter	x 160mm deep
Indicator units	°C, °	²F, K
Voltage	115Vac or 230	0Vac 50/60Hz
Power	600 Watts (LR	I: 1000 Watts)
Dimensions	384H (including handl	e) x 212W x 312D mm
Weight	8.5kg	14kg

(1) Dry Block Mode only: Comparing 6.5mm Well to Display Value.

	ADVANCED	SITE	BASIC
Digital Display of Set and Nominal Block Temperature	Yes	Yes	Yes
PC Interface	Ethernet + USB Host	Serial	Serial
Test Thermostats	Yes - Two Inputs	Yes - Single Input	No
Independent Temperature Indicator for Reference Probe	Yes	Yes	No
Additional Inputs for Units Under Test	Up to 3: Two universal inputs for PRT, Thermocouple or Process inputs and a further Thermocouple input	No	No
Automatic Temperature Cycling	Yes	No	No
Data Logging	Yes - Export to USB	No	No
Offset Elimination	Yes - block can follow reference input	No	No
Choose English, French, Italian or Spanish Language	Yes - on full colour display	No	No
In Built Web Server	Yes	No	No
Tamper Proof Data	Yes - Suitable for life science, automotive and aerospace applications	No	No



UKAS Calibration available for these systems - International Traceability - Best Practice See page 14





Gemini Accessories



Metal Block Sleeves

Gemini 550 Set of four Sleeves to suit the block. Optional single hole sizes 4, 6, 8, 10, 12, 14mm diameter all 150mm deep. 857-07-01 Undrilled sleeves for local machining. **857-07-03** 1 sleeve with 2 holes 4.5mm x 150mm deep. Gemini 700

Set of four Sleeves to suit the block. Optional single hole sizes 4, 6, 8, 10, 12, 14mm diameter all 150mm deep. 857-07-02 Blank sleeves for local machining. **857-07-04** 1 sleeve with 2 holes 4.5mm x 150mm deep.

Note: The use of sleeves will introduce an additional thermal gradient into the block. This can be avoided by using the LRI model with a block drilled for specific probes.





Gemini 550 LRI 976-07-01a Included as Standard Removable insert with eight 8mm pockets 976-07-01b Blank Insert Insert without pockets for local machining 976-07-01c Custom Insert

Contact Isotech with your requirements



Gemini 700 LRI 976-07-02a Included as Standard Removable block with eight 8mm pockets 976-07-02b Blank Insert Insert without pockets for local machining 976-07-02c Custom Insert Contact Isotech with your requirements

Calibration

Includes three point traceable calibration certificate for block temperature

UKAS Calibration Recommended: Options for block temperature and reference thermometer inputs (simulation). Legally traceable in more than 70 countries.



Current Loop Interface

935-06-161 24VDC Power Supply and Terminal Box. Powers 4-20mA Current Transmitters with 4mm terminal posts for easy connection.



Standard Probe 935-14-72/DB Platinum Resistance

Thermometer for use up to 650°C

935-14-63 Type N Thermocouple for use up to 700°C.



Carrying Case 931-22-111 - Gemini 550 / 700 931-22-112 - Gemini 550 LRI / 700 LRI Sturdy case with room for accessories. Features wheels and pull out handle.





Gemini LRI **Removable Block** Eight 8mm Pockets

Can be custom drilled

Gemini

Fixed Block

Four 8mm Pockets Four 19.5mm Pockets







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Isotech manufacture the widest range of temperature calibration equipment from hand held thermometers to Primary Standards. With Isotech solutions you can expand your equipment no matter what the requirement.

Isotech have been pioneering the latest developments in Temperature Metrology for more than 30 years, benefit from our know how, experience and global network.

Gemini Benefits

- The Gemini has a large block with sufficient mass to accommodate larger sensors or a larger number of sensors. The fixed block has four 19.5mm pockets and four 8mm pockets.
- The LRI model with its removable block can be custom drilled. Whilst the larger block takes longer to heat than the fast response models they do allow larger probes to be accommodated and can be used with custom blocks to simulate applications, allowing probes that would otherwise be unsuitable for Dry Block calibration to be evaluated.

How To Order

- 1 Select Desired Options and Accessories
- 2 Supply Voltage: Specify either 115Vac 50/60hz or 230Vac 50/60Hz

Gemini





Parameter	Model
	Jupiter 4852
Temperature Range	35°C to 660°C
ADVANCED Range	
Stability	±0.015°C @ 100°C ±0.025°C @ 650°C
Display Resolution	0.01°C over whole range
Accuracy: RTD Input Channel	±0.05°C ±0.005% RDG
Accuracy: Thermocouple Input Channel	${\sf E}, {\sf J}, {\sf K}, {\sf N}: \ \pm 0.2^{\circ} {\sf C} \ @ \ 660^{\circ} {\sf C} {\sf R}: \ \pm 0.6^{\circ} {\sf C} {\sf S}: \ \pm 0.7^{\circ} {\sf C} \ @ \ 660^{\circ} {\sf C} {\sf T} \ \pm 0.2^{\circ} {\sf C} \ @ \ 150^{\circ} {\sf C}$
CJC Accuracy	±0.35°C
BASIC/SITE Range	
Stability	±0.02°C @ 100°C ±0.03°C @ 650°C
Display Resolution	0.01°C from 30.00 to 99.99°C then 0.1°C: 0.01°C Over PC Interface
COMMON Specifications	
Display Accuracy ¹	
Biopiay / loouraby	0.5°C
Blackbody Source	0.5°C ±0.3°C
Blackbody Source Surface Sensor Calibrator	0.5℃ ±0.3℃ ±0.5℃
Blackbody Source Surface Sensor Calibrator Cools from 650°C to 150°C	0.5°C ±0.3°C ±0.5°C in 60 minutes
Blackbody Source Surface Sensor Calibrator Cools from 650°C to 150°C Heats from 30°C to 650°C	±0.3°C ±0.5°C in 60 minutes in 20 minutes
Blackbody Source Surface Sensor Calibrator Cools from 650°C to 150°C Heats from 30°C to 650°C Best Performance	0.5°C ±0.3°C ±0.5°C in 60 minutes in 20 minutes See Graph
Blackbody Source Surface Sensor Calibrator Cools from 650°C to 150°C Heats from 30°C to 650°C Best Performance Calibration volume	0.5°C ±0.3°C ±0.5°C in 60 minutes in 20 minutes See Graph 35mm diameter by 148mm deep
Blackbody Source Surface Sensor Calibrator Cools from 650°C to 150°C Heats from 30°C to 650°C Best Performance Calibration volume Standard Insert	0.5°C ±0.3°C ±0.5°C in 60 minutes in 20 minutes See Graph 35mm diameter by 148mm deep 6 pockets, 2 x 4.5mm, 2 x 6.4mm, 1 x 8.0mm, 1 x 9.5mm diameter, all 140mm deep
Blackbody Source Surface Sensor Calibrator Cools from 650°C to 150°C Heats from 30°C to 650°C Best Performance Calibration volume Standard Insert Indicator units	0.5°C ±0.3°C ±0.5°C in 60 minutes in 20 minutes See Graph 35mm diameter by 148mm deep 6 pockets, 2 x 4.5mm, 2 x 6.4mm, 1 x 8.0mm, 1 x 9.5mm diameter, all 140mm deep °C, °F, K
Blackbody Source Surface Sensor Calibrator Cools from 650°C to 150°C Heats from 30°C to 650°C Best Performance Calibration volume Standard Insert Indicator units Power	0.5°C ±0.3°C ±0.5°C in 60 minutes in 20 minutes See Graph 35mm diameter by 148mm deep 6 pockets, 2 x 4.5mm, 2 x 6.4mm, 1 x 8.0mm, 1 x 9.5mm diameter, all 140mm deep °C, °F, K 115Vac or 230Vac 50/60Hz 1000 Watts
Blackbody Source Surface Sensor Calibrator Cools from 650°C to 150°C Heats from 30°C to 650°C Best Performance Calibration volume Standard Insert Indicator units Power Dimensions	0.5°C ±0.3°C ±0.5°C in 60 minutes in 20 minutes See Graph 35mm diameter by 148mm deep 6 pockets, 2 x 4.5mm, 2 x 6.4mm, 1 x 8.0mm, 1 x 9.5mm diameter, all 140mm deep °C, °F, K 115Vac or 230Vac 50/60Hz 1000 Watts 384H (including handle) x 212W x 312D mm

(1) Dry Block Mode only: Comparing 6.5mm Well to Display Value.

	ADVANCED	SITE	BASIC
Digital Display of Set and Nominal Block Temperature	Yes	Yes	Yes
PC Interface	Ethernet + USB Host	Serial	Serial
Test Thermostats	Yes - Two Inputs	Yes - Single Input	No
Independent Temperature Indicator for Reference Probe	Yes	Yes	No
Additional Inputs for Units Under Test	Up to 3: Two universal inputs for PRT, Thermocouple or Process inputs and a further Thermocouple input	No	No
Automatic Temperature Cycling	Yes	No	No
Data Logging	Yes - Export to USB	No	No
Offset Elimination	Yes - block can follow reference input	No	No
Choose English, French, Italian or Spanish Language	Yes - on full colour display	No	No
In Built Web Server	Yes	No	No
Tamper Proof Data	Yes - Suitable for life science, automotive and aerospace applications	No	No



UKAS Calibration available for these systems - International Traceability - Best Practice See page 14







Metal Block Bath

The Jupiter is supplied with an insert suitable for a wide range of sensors as standard.



Blackbody Source

Add the Blackbody accessory to allow calibration of infrared thermometers.



Surface Sensor Calibrator

The Jupiter can calibrate surface sensors by adding the surface sensor kit.





Metal Block Insert 852-07-11 Standard Insert included. Size: 2 x 4.5mm, 2 x 6.4mm, 1 x 8mm and 1 x 9.5mm all 140mm deep

Alternative Inserts

852-09-03 Alternative Insert type B 13mm, 10mm, 8mm, 5mm and 3.5mm diameter



holes, all 140mm deep 852-09-04 Alternative Insert type C 8mm, 6 x 6.5mm diameter holes, all 140mm deep 852-07-07 Blank Insert without pockets for local machining. Includes M4 tapped hole for supplied extractor tool.
852-07-07C Custom Insert. Isotech can provide custom drilled pockets, minimum of

3mm separation between holes. Contact Isotech with your requirements.



Blackbody Kit 852-09-05 Includes a Blackbody target and Sensor.



Surface Sensor Kit 852-07-15 Includes angled thermocouple.



Calibration

Includes three point traceable calibration certificate for block temperature

UKAS Calibration Recommended: Options for block temperature and reference thermometer inputs (simulation). Legally traceable in more than 70 countries.



Air Cooling 853-04-02 For use with an air supply this accessory allows air to be blown into the block for rapid cooling.



Standard Probe 935-14-72/DB Platinum Resistance Thermometer for use up to 660°C. Probe diameter 6mm, recommended pocket size 6.5mm.



Current Loop Interface 935-06-161 24VDC Power Supply and Terminal Box. Powers 4-20mA Current Transmitters with 4mm terminal posts for easy connection.



Carrying Case 931-22-111 Sturdy case with room for accessories. Features wheels and pull out handle.







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Jupiter Benefits

The Jupiter calibration block features uniform heating with a custom wound heater over an extended length of the block. The block itself is made from copper which has a very high thermal conductivity; much superior to the aluminium bronze alloys used elsewhere. A propriety process is used to protect the copper from oxidising. This combination of materials and expert knowledge delivers superior performance.

660°C Operation

The Jupiter ADVANCED operates to a maximum of 660°C; matched to the upper limit of the high temperature Isotech Semi Standard Platinum Resistance Thermometers. This allows maximum accuracy with no risk to exceeding the temperature limit of the PRT. This gives greater accuracy than extending the range beyond 660°C and having to use an inferior thermometer or thermocouple.



Superior uniformity by using copper block with extended length heating

