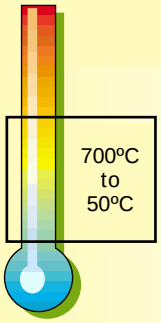
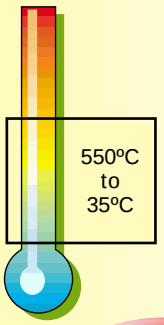
Gemini^{PLUS} 550/700

Dry Block Calibrator





The Gemini^{PLUS} 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 to have a large block suitable for more probes, or larger probes than can be accommodated in the Jupiter and Calisto models.

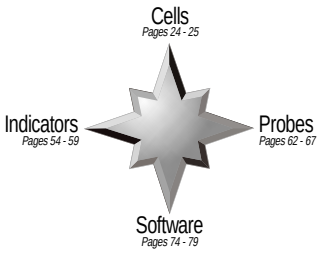
The Gemini^{PLUS} is available with a fixed block with 8 pockets or with a large removable block, see Gemini LRI overleaf. The Gemini^{PLUS} is available in two models, the BASIC (B) and the SITE (S). The B model includes a sophisticated temperature controller with a dual display for Set Temperature and Dry Block Temperature. The large block has the benefit of higher capacity but with longer heating and cooling times compared to the fast response models such as the Jupiter 650.

The S model includes a built in digital indicator to which an external standard thermometer can be connected giving greater accuracy eliminating temperature gradient and loading errors. For lab accuracy the Gemini^{PLUS} can be used with a high-end temperature indicator such as one of the Isotech True Temperature Indicators (TTI).

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.

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 inbuilt 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.

New! The Site model can now be used with the supplied Cal Notepad software to test thermostats.



Key Features

- **Calibrate Whole Calibration Loop -** using a heat source rather than an electrical simulator a test instrument and probe can be calibrated as a system.
- **High Capacity Block -** Large Calibration volume for many sensors and low loading errors.
- **Two Operating Ranges -** Fast response from 35ºC to 550ºC or 50ºC to 700ºC.
- **Simple To Use -** Outstanding Value for Money!
- **S Model Includes Universal Input -** Temperature Indicator allowing for up to five “correction” points to be programmed.
- **Windows Software and PC Interface as Standard.**
- **Free Evaluation Report -** ask for full data or visit www.isotech.co.uk/industrial

Gemini^{PLUS} 550/700

Dry Block Calibrator

Options

Metal Block Sleeves Gemini^{PLUS} 550	Please specify	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^{PLUS} 700	Please specify	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	Undrilled 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	
UKAS Calibration	UKAS Calibration available to Order	
Standard Probe	935-14-72	Platinum Resistance Thermometer for use up to 650ºC
	935-14-63	Type N Thermocouple for use up to 700ºC
Carrying Case	931-22-64	Sturdy case accommodates the unit with room for accessories

Calibration and Uncertainty

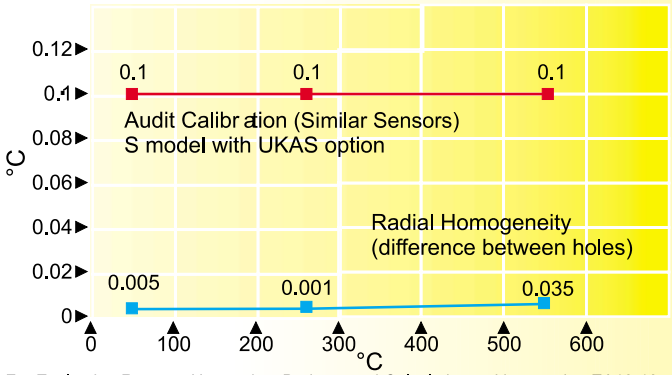
A certificate, traceable to National Standards, is included as standard. Recommended is an optional UKAS five-point calibration.

The accuracy will depend very much on the mode of use and the types of sensor to be used. Please contact Isotech for tutorials and uncertainty calculations and comprehensive evaluation reports. The Gemini^{PLUS} 550/700 meets the Calibration Capacity requirements of EA I0/13, “EA Guidelines on the Calibration of Temperature Block Calibrators”.

AOIP
la mesure certifiée
AOIP
BP 182
91006 EVRY CEDEX
N°Azur 0 810 10 2647
www.aoip.com

G 04

GEMINI^{PLUS}550 Performance



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

Temperature Range	GEMINI^{PLUS} 550	35ºC to 550ºC
	GEMINI^{PLUS} 700	50ºC to 700ºC
Absolute stability over 30 minutes	At 35ºC	±0.05ºC
	At 275ºC	±0.05ºC
	At 550ºC	±0.05ºC
	At 700ºC	±0.05ºC
Computer Interface	Included with Windows Software (page 74)	
Cools from	Gemini^{PLUS} 550	
550ºC to 275ºC	35 minutes	
550ºC to 60ºC	345 minutes	
Heats from	Gemini^{PLUS} 550	Gemini^{PLUS} 700
30ºC to 550ºC	35 minutes	N/A
50ºC to 700ºC	N/A	110 minutes
Best Performance	See Graph	
Calibration volume Standard Block	Four 8mm pockets, four 19.5mm pockets, all 160mm deep	
Display Resolution	0.01	to 99.99
	0.1	100.0 to 700.0
		PC can display 0.01 across whole range with the software included
Indicator units	ºC, ºF, K	
Power	100 to 120V (50 / 60 Hz) or 200 to 240V (50 / 60 Hz) 600 Watts	
Overall dimensions	Height	302mm
	Width	176mm
	Depth	262mm
Weight	Gemini^{PLUS} 550	8.5kg
	Gemini^{PLUS} 700	14kg
How to Order	Gemini^{PLUS} 550 or Gemini^{PLUS} 700 Please specify model type required Please specify voltage required Please specify options required	