DATASHEET

Pegasus-4853

Isotech

Distributed by AKRIBIS

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 in-built 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 0175

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

ADVANCED

SITE

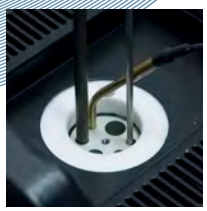
BASIC

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	E,J,K,N: ±0.2°C @ 660°C R: ±0.6°C S: ±0.7°C @ 660°C T ±0.2°C @ 150°C
CJC Accuracy	±0.35°C
Accuracy: RTD Input Channel	±0.20°C across range; 0°C - 660°C
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	°C, °F, K
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

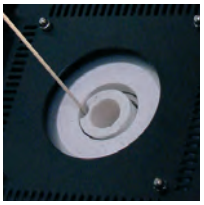
ISOTECH

Dry Blocks
HIGH TEMPERATURE



Metal Block Bath

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



Blackbody Source

Add the Blackbody accessory to allow calibration of infrared thermometers.

Pegasus Accessories

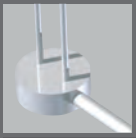
Metal Block Insert
Standard Insert Included
Four 8mm pockets. Pocket depth 80mm + 50mm insulator. Effective depth 130mm.
853-06-02 Blank Insert
Insert without pockets for local machining
853-06-02b Custom Insert
Contact Isotech with your requirements

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.

AKRIBIS · www.akribis.info · contacto@akribis.info

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

Pegasus Benefits

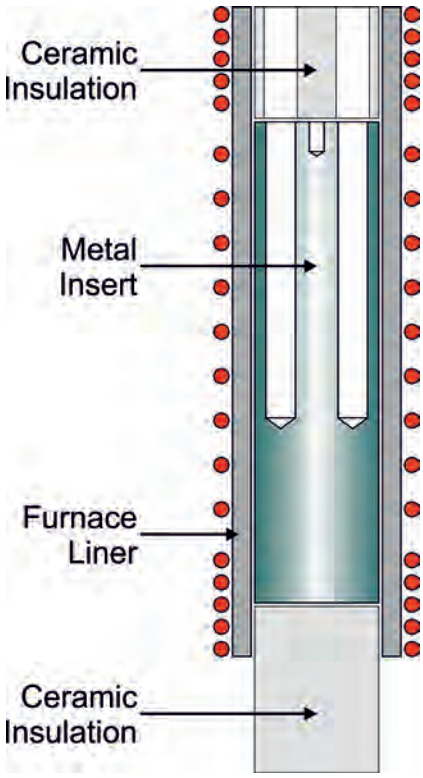
The Pegasus features a small tube furnace to allow operation to 1200°C in a portable case. With a ceramic furnace construction temperature gradients are larger than with lower temperature metal blocks.

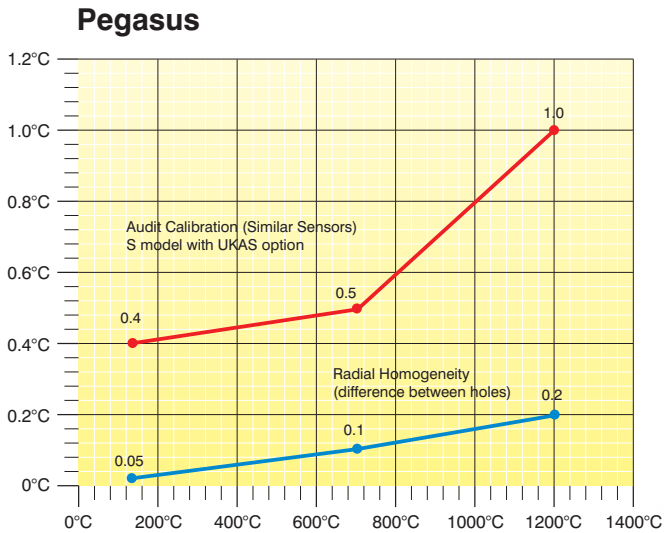
The Isotech furnace benefits by using a specially wound furnace tube assembly. They are manufactured in our factory with the turns concentrated at the ends of the furnace, where the heat losses are greatest. This gives an improved temperature profile and lower uncertainty.

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

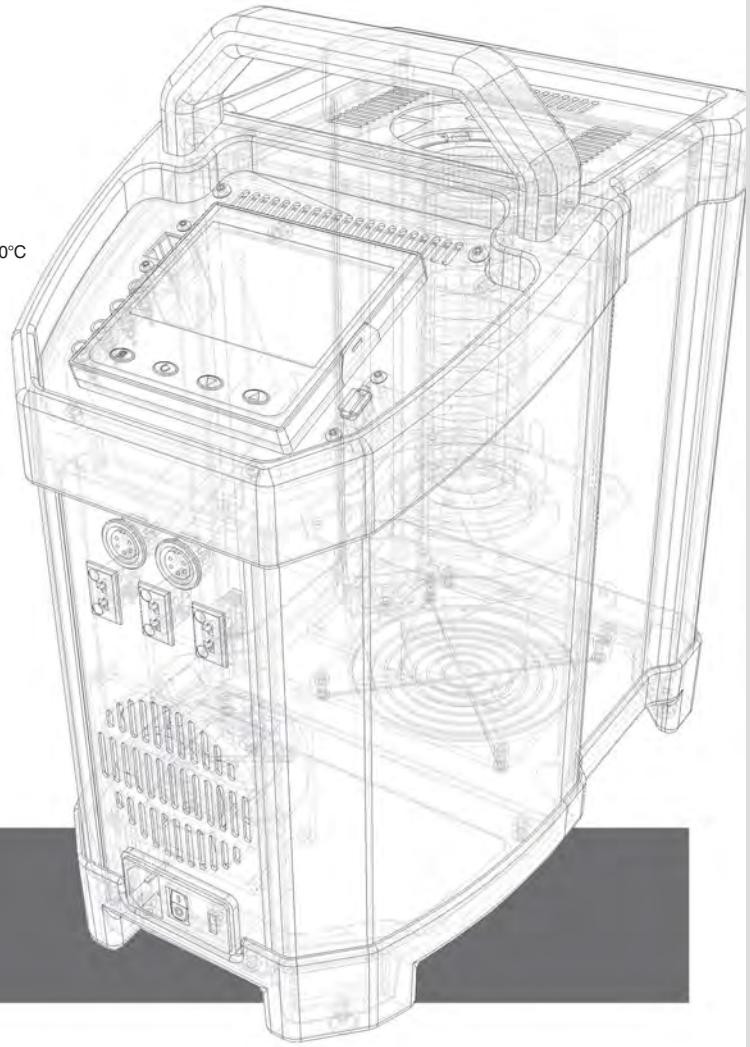




Audit Calibration (Similar Sensors)

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