

EUROPA 6

Dry block, liquid bath, Blackbody source & Fixed Point system, -45°C (Tamb of 20°C) to 140°C

EUROPA 6 is a calibration dry block and liquid bath for temperature thermometers from -45°C (in ambient of 20°C) to 140°C. Combined with accessories, it can also be converted into a blackbody source for infrared thermometers, a surface sensor calibrator and ITS-90 Fixed Point cell with calibration uncertainties up to 0.0005ºC.

Description

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EUROPA 6 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 additionally includes an in-built temperature digital indicator to which an external temperature sensor can be connected. It ensures traceability, best practise and adherence to quality standards and calibration to the smallest of uncertainties

For dry block use, the unit under test may be compared to the controller value. The use of an external probe connected to the indicator of the Site model which compensates for the temperature gradient and loading errors, is recommended. This gives greater accuracy and traceability meeting the requirements of ISO 9000 and other quality standards.

For liquid bath, surface sensor and blackbody use, an external standard probe should always be used, either with the S models indicator or a separate stand-alone indicator.

For laboratory use, EUROPA can be used with a laboratory performance temperature indicator.

Key features:

- Extreme low temperature operation: -45ºC in ambient temperature of 20ºC
- Use for Fixed Point of Mercury, Water and Gallium
- Calibration as a liquid bath or a dry block: thermocouples, platinum resistance thermometers, thermistors, liquid in glass, thermostats, semiconductor types

Specifications

Temperature range	-45°C (Tamb 20°C) to +140°C
Stability as: Dry block Blackbody Surface sensor Stirred liquid bath ITS-90 Fixed Point cells Ice bath	 ±0.03°C ±0.3°C ±0.5°C ±0.025°C ±0.0005°C ±0.001°C
Accuracy as dry block	0.15°C
Uniformity: Between holes as dry block Radial as liquid bath Lower 40 mm (Axial) as dry block Lower 40 mm (Axial) as liquid bath	 < 0.008°C < 0.02°C < 0.04°C < 0.026°C
Heating time	-30°C to 140°C: 15 min
Cooling time	140°C to 0°C: 15 min
Insert diameter	35 mm
Immersion depth	160 mm
Insert types	3 different types

General specifications

Size	302 x 176 x 262 mm
Weight	14 kg
Power supply	115 VAC or 230 VAC, 50/60 Hz 300 Watts
Communication ports	RS 232

Models and accessories

Instrument:

EUROPA6-520-B Dry block, liquid bath & blackbody source – Basic model

Delivered in standard with:

- Standard insert with 35 mm diameter
- Cal Notepad software
- Serial communication cable
- User manual
- Traceable certificate

EUROPA6-520-S Dry block, liquid bath & blackbody source – On Site model

Delivered in standard with:

- Standard insert, diameter: 35 mm
- Cal Notepad software
- Serial communication cable
- User manual
- Traceable certificate
- Built-in digital indicator
- Connector for probe 935-14-82/DB

Stirred liquid bath / Stirred ice / Water bath:

951-06-01 Stirred liquid container for alcohol, water and oils

951-06-03 Liquid in glass thermometer support kit

Metal block bath:

951-02-15 Additional standard insert of 6 holes of diameter: 1x 9.5 / 1x 8 / 2x 6.4 / 2x 4.5 mm

Depth: 157 mm

951-02-15a Blank insert

951-02-15c Non-standard insert

951-06-07 Alternative insert type B

Hole diameter: 1x 13 mm / 1x 10 mm / 1x 8 mm / 1x 5 mm / 1x 3.5 mm

Depth: 157 mm

951-06-08 Alternative insert type C

Hole diameter: 1x 8 mm / 6x 6.5 mm

Depth: 157 mm

935-14-82/DB	Semi standard platinum resistance thermometer Pt100 class A
	Length: 210 mm, diameter: 4 mm
	Temperature range: –50°C to +250°C
UKAS	5 Point comparison calibration

Blackbody source:

951-06-04	Blackbody target

Surface sensor calibrator:

951-06-02	Surface sensor calibrator kit

ITS-90 fixed point apparatus:

M 17401M	Slim Gallium Melt Point cell, insulation assembly
M 17724M	Slim Mercury Triple Point cell, insulation assembly
B8/30/130	Water triple point cell, container and 3 caps

Other accessories:

931-22-64	C10 Oil (-35°C to 140°C), 0.1 L required
932-12-55	Replacement liquid container magnetic followers (Qty 5)
935-14-83	Replacement surface sensor probe
951-02-19	Replacement surface sensor insert
951-02-29	Slim TPW cell container only
951-02-30	Slim TPW cell container caps only (Qty 3)
520-03-00	Slim Mercury cell insulation assembly
931-22-64	Carrying case

Packing information:

Size	302 x 176 x 262 mm
Weight without packing	14 kg