

OCEANUS 6

Dry block, liquid bath, blackbody source & Fixed Point system, -25°C (Tamb of 20°C) to 140°C

Oceanus 6 calibrates temperature probes from -25°C (in ambient of 20°C) to 140°C, with a substantially large calibration volume, 52 mm diameter by 300 mm deep. It can be used as a dry block, a liquid bath, as a blackbody source and as an ITS-90 fixed point system with calibration uncertainties as small as 0.001°C.

Description

Oceanus 6 calibrates temperature probes from -25°C (in ambient of 20°C) to 140°C, with a substantially large calibration volume, 52 mm diameter by 300 mm deep. It can be used as a dry block, a liquid bath and as a blackbody source. As a traditional dry block, several thermometers can be quickly calibrated. Accessories can convert it to a stirred liquid bath, for surface sensor calibration, to calibrate infrared thermometers and even to be used as an ITS-90 fixed point system with calibration uncertainties as small as 0.0002°C.

Oceanus 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, giving greater accuracy eliminating temperature gradient and loading errors.

For liquid bath, surface sensor and Blackbody use, an external thermometer should always be used.

For laboratory accuracy, Oceanus 6 can be used with high-end temperature indicator.

The Oceanus 6 offers unprecedented accuracies of 0.0002°C (2 sigma) at the Water Triple Point and the Gallium Melt temperature and up to 0.005°C in the stirred liquid bath option (by comparison).

Key features:

- Large calibration volume: 50 x 300 mm deep
- Low temperature operation: -25ºC in ambient temperature of 20ºC to 140°C
- Use for Fixed Point of Water and Gallium

Specifications

Temperature range	-25°C (Tamb 20°C) to +140°C
Absolute stability over 30 min: Dry block Stirred liquid bath Ice / Water bath Blackbody source Surface sensor calibration ITS-90 Fixed Point	 ±0.03°C ±0.025°C ±0.001°C ±0.3°C ±0.5°C ±0.0002°C
Cooling time	20°C to -10°C: 90 min
Heating time	-10°C to 80°C: 60 min
Calibration volume	50 x 300 mm depth
Standard insert	6 holes: 8 mm Depth: 250 mm

General specifications

Size	430 x 310 x 300 mm
Weight	17 kg
Display	Resolution: 0.01 to -19.99 / 99.99 and 0.1 to 100.0 / 140.0 Units: °C, °F, K
Power supply	108 / 130 V (50/60 Hz) or 208 / 240 V (50/60 Hz) 300 Watts
Communication ports	RS 232

Models and accessories

Instrument:

OCEANUS B Dry block, liquid bath & blackbody source – Basic model

Delivered in standard with:

- Standard insert with holes of diameter: 6x 8 mm
- Cal Notepad software
- Serial communication cable
- User manual
- Traceable certificate

OCEANUS S Dry block, liquid bath & blackbody source – On Site model

Delivered in standard with:

- Standard insert with holes of diameter: 6x 8 mm
- Cal Notepad software
- Serial communication cable
- User manual
- Traceable certificate
- Built-in digital indicator
- Connector for probe 935-14-85/DB

Stirred liquid bath / Stirred ice / Water bath:

580-06-07 Stirred liquid container for alcohol, water and oils

580-06-00 Liquid in glass thermometer support kit

Metal block bath:

580-06-03 Additional standard insert of 6 holes of diameter: 6x 8 mm
Depth: 250 mm

580-06-04 Blank insert

580-06-05 Non-standard insert

580-06-06 Adjustable equalising block
Hole diameter: 6x 8 mm
Depth: 157 mm

935-14-85/DB Semi standard platinum resistance thermometer Pt100
UKAS 5 point comparison calibration

Blackbody source:

580-02-12 Blackbody target

Surface sensor calibrator:

580-06-08	Surface sensor calibrator kit

ITS-90 fixed point apparatus:

M 17401	Gallium Melt Point cell, insulation assembly
B12/46/210	Water triple point cell, container and 3 caps

Other accessories:

936-06-07	C10 Oil (-35°C to 140°C), 1 L required
935-14-84	Replacement surface sensor probe
580-02-11	Replacement surface sensor calibrator insert
580-06-01	Water Triple Point cell support only
580-06-02	Gallium Melting Point cell support
932-12-60	Replacement liquid container magnetic followers
931-22-58	Storage case

Packing information:

Size	430 x 310 x 300 mm
Weight without packing	17 kg