

BL-0C

Portable Temperature Calibrator -48*...150 °C

The BL-0C temperature calibrator is a compact instrument used to calibrate transducers, RTD and temperature-measuring sensors in the field and in the laboratory. The possibility to generate positive and negative temperature ramps makes it suitable for use in calibrating and testing thermostats.

To calibrate temperature sensors by the comparison method, a version with two independent inputs are also available on request (one input for the reference probe and the second one for the probe under calibration).



Technical

The BL-0C oven consists of a metal block measuring 35 mm in diameter and 135 mm in height, it doesn't use external refrigerating liquids and the metal block is heated and cooled by Peltier elements. The BL-0C is equipped with a new PID microprocessor controller with a resolution up to 0,01 °C, setting of the standard of measurement in °C, °F and K, programming of ascent/ descent ramps and storage of the thermostats' operative temperature. In the BL-0C-2I version, the instrument is equipped with an acquisition card having two adjustable inputs (Pt100 3/4 wires; thermocouples: J, K, N, R, S) with bushes fitted with gold-plated contacts and automatic compensation of the cold junction.

The first input is provided for the reference sample probe, thus obtaining a complete calibration system which can be certified by Accredia centres, in compliance with ISO 9000 regulations. The second input is provided for probes that are being tested; hence, the instrument can display the temperature of the well, the temperature of the sensor to be checked and of the reference sample probe, at the same time. The BL-0C is furnished with the RS232 serial interface to operate in automatic mode connected to the PC by means of the a software which enables to carry out probe calibrations, test of thermostat and cyclical life tests; test results can be stored and printed, so they are easily traceable in compliance with ISO 9000 standards.

Technical data

Range: -48* ... 150°C (*from Tamb = 20 °C)

Well diameter: 35 mm

Insert hole depth: 130 mm (Ø 3,5 – 4,5 – 5,5 – 6,5 – 8,5 – 10,5 mm)

Stability: ±0,03 °C @ 0 °C

Radial uniformity: ±0,02 °C @ 40 mm

Axial uniformity: ±0,1 °C @ 60 mm from the bottom

Mean heating rate: 20 °C/min

Mean cooling rate: 22 °C/min

Display resolution: 0,1 °C / 0,01 °C

Engineering Units: °C, °F, K

Serial interface: RS232

Power Supply: 115 o 230 V - 50/60 Hz – 300 VA

Dimensions: 160 x 340 x 330 mm

Weight: 8 kg (17 kg shipping weight with carrying case)

Made in Italy

Scope of delivery

- BL-0C calibrator.
- Power supply cable.
- Fuses kit.
- Thermostat connection cables.

- Instructions manual.
- Test report.
- Tweezers for insert removing.
- Insert with 6 holes: (Ø 3,5 - 4,5 - 5,5 - 6,5 - 8,5 - 10,5 mm).
- Kit of clamp connections (only 2I version).
- RS232 serial interface.

Dimensions

160 x 340 x 330 mm.

Weight

8 kg

Accessories / Options

- Software.
- Special inserts available on request.
- Pt100 sample probe.
- USB/RS232 converter RS232 serial cable.
- Accredia certificate (only 2I version) performed by a sample probe connected to BL-0C.