

## BL-7C

### Portable Temperature Calibrator Room temp. ... 550 °C

The BL-7C 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 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-7C** oven consists of aluminium (Al) or bronze-aluminium (BrAl) block measuring 50 or 65 mm in diameter heated by a resistance which winds around the outer surface of the block. A set of holes are made in the block into which the calibration probes are inserted and one 17 mm in diameter hole for the appropriate reduction inserts.

**BL-7C** is equipped with a 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-7C** 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 temperatures of the furnaces, the temperature of the sensor to be checked and of the



reference sample probe, at the same time.

Furthermore, **BL-7C** is equipped with the RS232 serial interface; it can operate in automatic mode connected to the PC by means of the software which enables to carry out probe calibrations 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:** Tamb ... 550 °C (600 °C on request)

**Diameter Al block:** 50 mm (65 on request)

**Insert hole size:** Ø 4,5 - 6,5 - 9,5 - 17 x 185 mm

**Stability:** ±0,05 °C @ 450 °C

**Axial uniformity:** ±0,8 °C @ 400 °C @ 60 mm from the bottom

**Mean heating rate:** 20 °C/min

**Mean cooling rate:** 25 °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 - 800 VA

**Dimensions:** 160 x 340 x 330 mm

**Shipping size:** 320 x 550 x 490 mm

**Weight:** 8,6 kg (16,7 kg shipping weight with carrying case)

Made in Italy

#### Scope of delivery:

- BL-7C calibrator.
- Power supply cable.
- Fuses kit.
- Thermostat connection cables.
- Instructions manual.
- Test report.
- Tweezers for inserts removing.
- Insert with 6 holes: (Ø 4,5 - 6,5 - 9,5 - 17 x 185 mm).
- Kit of clamp connections (only 2I version).
- RS232 serial interface.

#### Dimensions:

160 x 340 x 330 mm

#### Weight:

8,6 kg

#### Accessories / Options:

- Software.
- Special inserts available on request.
- USB/RS232 converter RS232 serial cable.
- Accredia certificate (only 2I version) performed by a sample probe connected to BL-7C.