

# Quartz

## PORTABLE TEMPERATURE CALIBRATOR

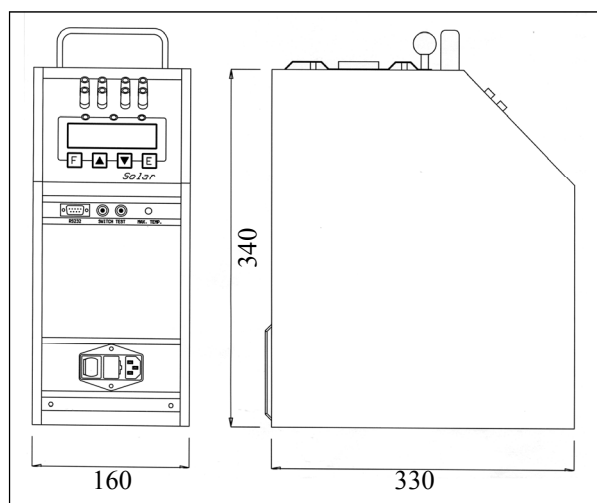
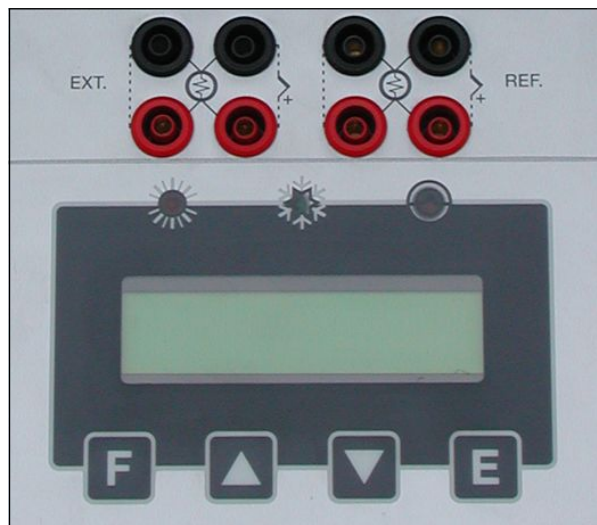


**Operating range:**  
-30 °C / +150 °C (\*)

**Applications:**

- Control and calibration of temperature sensor, in the laboratory and in the field, in conformity with ISO 9000 standards.
- Control of thermostats.
- Automatic computer-controlled calibrations.





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# Quartz

## PORTABLE TEMPERATURE CALIBRATOR

The **QUARTZ** 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.

### TECHNICAL CHARACTERISTICS:

The **QUARTZ** 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 **QUARTZ** 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 **QUARTZ-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 **QUARTZ** is furnished with the RS232 serial interface to operate in automatic mode connected to the PC by means of the AQ2sp 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 (QUARTZ633-00 - base version)	
Operating range:	-30 °C ÷ +150 °C (*)
Stability:	±0,03 °C (@ 0 °C)
Uniformity (@ 0 °C)	
- Radial	±0,02 °C (@ 40 mm)
- Axial	±0,1 °C (for 60 mm from the bottom)
Mean heating time:	20 °C/min
Mean cooling time:	22 °C/min
Display resolution:	0,1 °C / 0,01 °C
Display accuracy:	±0,15 °C
Units of measurement:	°C - °F - K
Serial interface:	RS232
Well diameter:	35 mm
Insert hole depth:	130 mm
Power supply:	115 or 230 V - 50/60 Hz
Electric power:	300 VA
Calibrator size:	160 x 340 x 330 mm
Calibrator weight:	8 kg
Shipping weight with carrying case:	17 kg

(\*) Room temperature 20 °C

QUARTZ633-2I Version with data acquisition card and two input devices to measure:		
Probe type	Range	Accuracy
Pt100 IEC 3/4 wires	-100 / 700 °C	±0,3 °C
Thermocouple J	0 / 1000 °C	±1 °C
Thermocouples K N R S	0 / 1300 °C	±1 °C

### STANDARD EQUIPMENTS:

- QUARTZ calibrator.
- Power supply cable.
- Fuses kit.
- Thermostat connection cables.
- Instructions manual.
- Test report.
- Tweezers for instert removing.
- **2D1191**: 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.

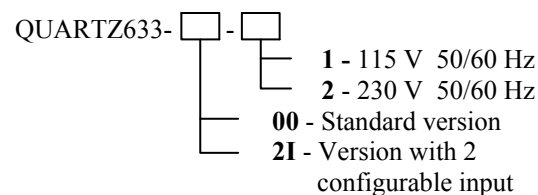
### ORDERING CODES:

- **QUARTZ633**: calibrator.
- **KIT-QUARTZ633**: aluminium carrying case + 1 blank insert.
- **KITBORSA-QTZ633**: Cordura® soft bag + 1 blank insert.
- **2D1192**: blank insert.

### ACCESSORIES ON DEMAND:

- AQ2sp 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 QUARTZ633.

### HOW TO ORDER:



### CERTIFICATION:

All the instruments are supplied with final testing, stability and accuracy certification traceable to *Accredia* standards.

### A QUESTION OF CALIBRATION