

# PULSAR T

PORTABLE TEMPERATURE CALIBRATOR T. amb. / +600°C



**PULSAR T** 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.

**PULSAR T** Temperature calibrator consists of a metal block measuring 50 mm in diameter heated by a resistance which winds around the outer surface of the block

A hole having diameter 35x190 mm is made in the block for the appropriate reduction inserts.

**PULSAR T** is equipped with a PID microprocessor controller with a resolution up to 0.001°C, setting of the unit of measurement in °C, °F and K, programming of ascent/descent ramps and storage of thermostats operative temperature.

**PULSAR T** is equipped with an innovative touch-sensitive display, where the various icons are graphically displayed, making it easier to select different instrument settings.

The new **PULSAR T** is also available in **3I version**, in which the instruments are equipped with an acquisition card having three configurable inputs to be able to connect all types of sensors:

- EXT and REF to be able to connect thermocouples type B, E, J, K, N, R, S, T and RTDs type PT100, PT1000
- ANALOG for probes with 0-10V or 4-20 mA output

The REF 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 EXT 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 the temperature of the reference sample probe, at the same time.

**PULSAR T** is equipped with USB serial interface to operate in automatic mode connected to the PC by means of the Aq2Sp2 software which is capable to automate control procedure and allows to print reports, so they are easily traceable in compliance with ISO 9000 standards.

## APPLICATIONS:

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

## MAIN CHARACTERISTICS:

- Operating range T.amb/+600°C (1112°F)
- 2 different version
- High stability and precision
- Display Screen Touch
- Display resolution up to 0.001
- Light weight and compactness
- Multi-hole inserts available
- Automatic ramp function
- USB connection



**GIUSSANI**

**TESTING  
EXPERTISE**

# ACCESSORIES

## Standard Equipments:

- Calibrator PULSAR T
- Electric power cable
- Kit of fuses
- Thermostat connection cables
- Instruction manual
- Test report
- Tweezers for insert removing
- **2D3007**: 5 holes insert (Ø 3.5 - 5 - 6.5 - 8.5 - 12.5x125 mm)
- USB serial interface
- Kit of clamp connection (only 3I version)

## Accessories on demand:

- **2D3006**: blind insert
- **2D3006 - 006**: 4 holes insert DN 6.5 mm
- **2D3006 - 005**: 4 holes insert DN 5 mm
- **2D3498**: black body
- **2D3223**: PT100 probe DN 3 mm for black body
- Accredia certificate (only 3I version)
- USB cable
- Cordura® soft bag
- Aluminium case

## Touch Display

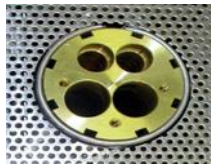
Touch-sensitive display with graphic visualization of the various functions allowing the various functions to be activated intuitively without having to consult the user manual.

The new 32-bit microprocessor-based PID controller allows a resolution down to 0.001 °C.



## Equalization blocks

Execution on demand versions with equalizing block DN 50 and 65 mm in Anticorodal with perforations on customer request



Example of Ø 65 brass block for testing aircraft probes.

## Innovative tangential cooling system

An innovative appliance ventilation system allows to reduce the temperature on the top of the calibrator. The air flow on the upper part is diverted to the rear of the appliance by tangential flow that touches the calibrator well. As a result, the thermocouple heads remain at a significantly lower temperature, greatly reducing the possible compensation errors produced by heating of the heads.



## Cordura® Soft Bag

**Code:** 2TRMBAG-FLUID  
**Dimensions:** 410x220x380 mm  
**Weight:** 1.450 kg  
**Packaging dimensions:** 600x370x500 mm



Practical and sturdy Cordura® bag with two side pockets for inserts, a front pocket for documents, shoulder carrying strap; particularly lightweight, it is suitable for carrying and protecting the calibrator with its inserts.

## Aluminium case

**Code:** 2DC505-000  
**Dimensions:** 450x280x380 mm  
**Weight:** 4.8 Kg  
**Packaging dimensions:** 600x370x500 mm



Sturdy aluminum case that provides maximum safety for carrying the instrument.

Specifications	PULSAR T
Temperature range*	T <sub>amb</sub> +600°C
Display	SCREEN TOUCH
Display accuracy**	±0.3°C
Units of measure	°C/°F/K
Display resolution	0.1 / 0.01 / 0.001 °C
Mean heating time (stabilization included)	from T <sub>ambient</sub> to 550°C 40 min.
Mean cooling time	from 550°C to 100°C 60 min.
Stability full temperature range (°C)***	±0.05°C at 450°C
Axial uniformity measured from the bottom up to 40 mm	±0.15°C at 400°C
Radial uniformity	±0.35°C at 400°C
Hole diameter	35 mm
Hole depth	185 mm
Insert material	nickel-plated brass
Switch test, voltage	On/off 12 VDC
Adjustable ramp function	da 0.1°C/min
Pc interface	B type USB
External probes	Pt100 a 3/4 wires, Pt1000-J,K,N,R,S,E,T,B Thermocouples - Sensors with 4-20 mA or 0-10V output
Automatic calibration	on 5 points
Operating voltage	115 or 230 VAC 50 or 60 Hz
Electric power	800 W
Calibrator size	160x360x350 mm
Calibrator weight with standard equipment	10 Kg
* values measured at room temperature 20°C	
** temperature deviation between the display and the reference probe	
*** maximum temperature difference at a stable temperature over 30 minutes	

## Inserts

Pulsar calibrators can be supplied with custom-designed inserts, according to customer requirements, or black body and PT100 DN probe.



### Inserts code:

#### ● 2D3006

without hole blank insert DN 35x190 mm holes on demand, possibility of to do 2,3,4,5,6,8 holes from 3.5 to 20 mm

#### ● 2D3007

5 holes insert DN 35x190 mm: (Ø 3.5 - 5 - 6.5 - 8.5 - 12.5x185 mm). Brass made with patterned holes.

### How to order:

● **STANDARD VERSION**  
**PULSART-00-1** 115 V 50/60 Hz  
**PULSART-00-2** 230 V 50/60 Hz

● **3I VERSION**  
**with three configurable inputs**  
**PULSART-3I-1** 115V 50/60 Hz  
**PULSART-3I 2** 230V 50/60 Hz



### CERTIFICATION:

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



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