Joker+

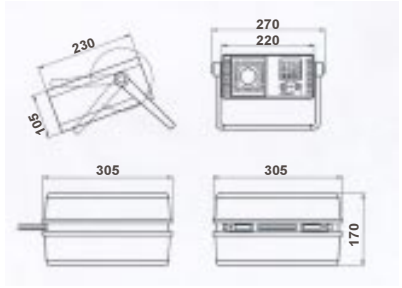
PORTABLE TEMPERATURE CALIBRATOR

Operating range (std. model):
Room temperature ÷ 350°C

Applications: *Control and calibration of temperature sensors, in the laboratory and in the field, in conformity with ISO 9000 standards; control of thermostats; automatic computer-controlled calibrations*

Joker+

PORTABLE TEMPERATURE CALIBRATOR



JOKER+ is the evolution of the base model of a new generation of portable microprocessor temperature calibrators, designed to respond to the requirements of increasingly compact, versatile and economic instruments.

GENERAL CHARACTERISTICS

A light and compact product, weighing only 3 Kg., with inner parts in stainless steel and aluminium.
Case in ABS fitted with handles which rotate with a spring mechanism, which makes it possible to operate in various posisions.
Temperature control carried out by means of a microprocessor controller, with forced ventilation at variable speed for the stabilisation and rapid sinking phase.
Thermostat well in aluminium with a hole 26 mm in diameter, 150 mm deep, capable of holding reducer inserts of various configurations so that it can be adapted to the diameters of the sensors. The inserts are fitted with a safety ring which prevents them from coming off accidentally when they are moved.
Safety thermostat for maximum temperature.
A travelling-case made in ABS is available fitted with a holder for the interchangeable inserts and for accessories.

THERMAL CHARACTERISTICS

Reading precision within ±0.4°C.
Control system stability typical at standard conditions ±0.1°C (after approximately 10 minutes of stabilization). Temperature uniformity within the block measured along the horizontal axis evaluated at ±0.5°C.
Maximum heating gradient 20°C a minute. Maximum cooling gradient 10°C a minute (room temperature +20°C).

ACCESSORIES

For special kind of testing probe, it is possible to make inserts with special holes to improve the thermal performance.
To guarantee the respect of ISO 9000 standard, is available a kit which includes a certified thermometer and probe; this meausure chain is necessary to get the temperature in all the fields which require a simple and precise system at low cost.

TECHNICAL DATA

Operative range	Room temp/350°C
Stability	± 0.1°C
Maximum increase gradient	20°C/min (from amb. to 200°C)
Maximum decrease gradient	10°C/min (from 200°C to 25°C)
Display resolution	0.1°C
Reading accuracy	0,4°C ± 1 Digit
RS232	Optional
Thermostat test	12 V c.c.
Well diameter	d 26 mm
Insert dimensions	d 25,7x140 mm
Hole depth	125
Voltage	115/230Va.c. 50Hz.
Power	300 W
Calibrators measurements	105x220x230 mm
Weight of calibrator	3,5 Kg
Measurements of case	330x340x175 mm
Weight of calibrator including travelling-case and accessories	8 Kg

Note: *the accuracies shown above are stated for 365 days and the operative conditions are from +10°C to 40°C.*

ORDER CODES

STANDARD EQUIPMENT
(code JOKER+ 2-00)

- *Joker+ calibrator*
- *Electric power cable*
- *Fuse Kit*
- *Thermostat testing circuit connection cables*
- *Instruction manual in English*
- *Internal calibration certificate*
- *Tweezers for removing inserts*
- *Insert 3 holes (ø4.5, ø6.5, ø9.5)*
- *Insert 2 holes (ø6.5, ø12.5)*
- *Blank insert*
- *Travelling-case*

ACCESSORIES

- *Special inserts with special holes*
- *RS232 output*
- *Serial cable*
- *HD9214 TP870/1: thermometer with RTD100 probe with certificate*

HOW TO ORDER

JOKER+ ☐ ☐

- ☐ **00** *Without RS232*
- ☐ **RS** *With RS232*
- ☐ **1** *- 115 V*
- ☐ **2** *- 230 V*

For exemple:
JOKER+1RS = Joker+ with Voltage 115V and serial output RS232

CERTIFICATION

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

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Quartz

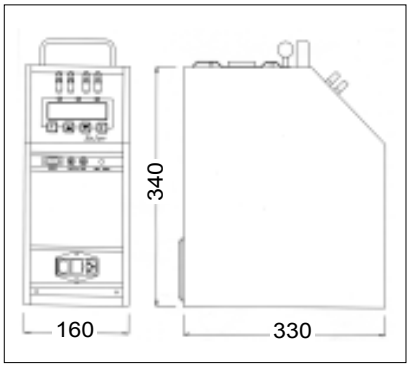
PORTABLE TEMPERATURE CALIBRATOR

Operating range :
-50°C below ambient to 150°C

Application: *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*

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 26 or 35 mm in diameter and 140 mm in height.
The QUARTZ oven don't use external refrigerating liquids; the metal block is heated and cooled by Peltier elements.

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, 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 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, is equipped with the RS232 serial interface; it can operate in automatic mode connected to the PC by means of the AQ2SP 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

Operating range:	*-50°C below Amb/+150°C (*)*
Stability:	*± 0.03°C*
Display Resolution:	*0.01 / 0.1°C*
Reading accuracy:	*± 0.15°C*
Reading:	*°C or °F*
Interface:	*RS 232*
Maximum ascent Rate:	*20°C / 1'*
Maximum descent rate:	*25°C / 1'*
Test wells:	*ø 26 x 135 mm oppure ø 35 x 135 mm (*)*
Power supply:	*230V (115V) 50/60 Hz. 300VA*
Size:	*160 x 340 x 330 mm*
Weight of calibrator:	*10 Kg*
Shipping weigth:	*17 Kg*

(*) Mod. 633: range -48°C below Amb/+150°C

QUARTZ**-2I-2

Version equipped with two-input acquisition card to measure:

Type of probe	***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 EQUIPMENT (code QUARTZ54300)

- *Quartz Calibrator*
- *Electric power cable*
- *Fuse kit*
- *Thermostat testing connection cables*
- *Instruction manual*
- *Calibration certificate traceable to standard*
- *Tweezers for insert removing*
- *Insert with 3 holes (ø4.5;6.5;9.5)*

ACCESSORIES KIT (Std.)

- *Carrying case (Cod. Kit-Quartz)*
- *Plastic bag (Cod. Kit-BorsaQuartz)*
- *Blank insert*
- *Insert with 2 holes ø6.5, ø12.5mm*

ACCESSORIES ON REQUEST

- *Special inserts available on request*
- *AQ2sp software*
- *Reference RTD probe with Certificate*

HOW TO ORDER

QUARTZ [ ] [ ] [ ]

- ***1*** *- 115 V*
- ***2*** *- 230 V*
- 00 - Base version
- 2I - Version fitted with 2 adjustable inputs
- ***543*** *- block ø 26mm*
- ***633*** *- block ø35mm*

Example:
QUARTZ543-00-2: it is equal to QUARTZ with block ø26mm, without adjustable inputs, supply 230V

CE

CERTIFICATION

All instruments are fitted with an inspection, stability and precision report with a possible reference to basic samples.

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Fluid200

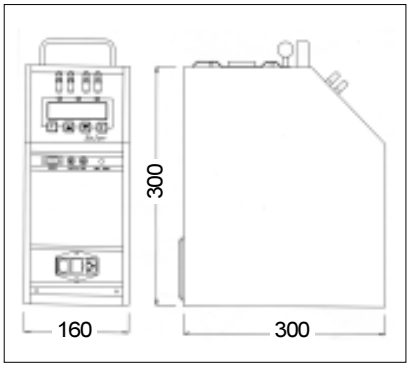
PORTABLE FLUID TEMPERATURE CALIBRATOR

Operating range:
Environment/+200°C

Applications:
- *Check and calibration of temperature sensors in the laboratory as well as in the field in compliance with ISO 9000 regulations.*
- *Check of glass thermometers*
- *Check of thermostats*

Fluid200

PORTABLE FLUID TEMPERATURE CALIBRATOR



FLUID200 is a portable thermostatic calibrator used for checking thermocouples and PT100 in the laboratory as well as in the field. It consists of an aluminium vessel whose capacity is about 400 cc and it is constantly kept homogenous by a magnetic mixer whose speed is adjustable according to the viscosity of the fluid used. Silicone Oil 47V20 for temperatures lower than 120°C and Silicone Oil 47V100 for temperatures up to 200°C can be used according to the operating range.

The mixing process ensures a proper heat transmission and excellent stability and uniformity values; the large size of the input mouth makes it possible to test sensors of various lengths and diameters.

FLUID200 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, programming of ascent/descent ramps and storage of the thermostats' operative temperature.

In the FLUID200-2I 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, 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, FLUID200 is equipped with the RS232 serial interface; it can operate in automatic mode connected to the PC by means of the AQ2SP 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
(FLUID200-00-2 - *basic version)*

Operating range:	Environment÷ +200°C
Stability:	± 0.02°C a 150°C
Resolution:	0.1°C / 0.01°C
Radial/axial uniformity:	± 0.03°C
Reading precision:	± 0.15°C
Rising Gradient:	10°C/1' max.
Falling Gradient:	3°C/1' max.
Stabilization time:	20 min.
Pit's Dimensions:	Ø 50 X 150mm
Serial Interface:	RS 232
Power Supply:	230V 50/60 Hz. 850VA
Dimensions:	160 x 330 x 300 mm
Weight:	8Kg.

FLUID200 2I-2

Version equipped with two-input acquisition card to measure:

Type of probe	Range	Precision
PT100 IEC 3 / 4 fili:	-100 / 700°C	± 0.3°C
Thermocouple J:	0 / 1000°C	± 1°C
Thermocouples K N R S:	0 / 1300°C	± 1°C

STANDARD EQUIPMENT

- *FLUID200 calibrator*
- *Bottle (500 cc) containing Silicone Oil*
- *Closing top used for transport*
- *Fluid emptying system*
- *Support for glass thermometers*
- *Electrical supply cord*
- *Kit of fuses*
- *Kit of clamping-screw adapters for bushes*
- *Thermostats' connection small cables*
- *AQ2sp software (Light Version)*
- *Instruction manual*

OPTIONAL EQUIPMENT

- *AQ2sp software*
- *PT100 sample probe*
- *certificate (only for FLUID200-2I) performed by a sample probe connected to FLUID200*

HOW TO ORDER

FLUID200 - □ - □

1 - 115V 50/60Hz.
2 - 230V 50/60Hz.

00 - Basic version
2I - Version fitted with 2 adjustable inputs

CE

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CERTIFICATION

All instruments are fitted with an inspection, stability and precision report with a possible reference to basic samples.

Pyros+

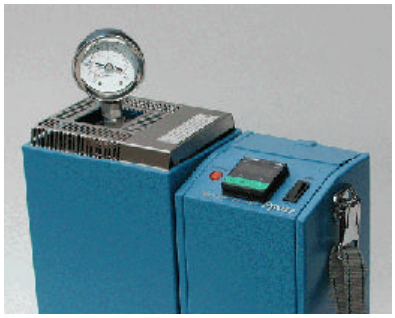
PORTABLE TEMPERATURE CALIBRATOR

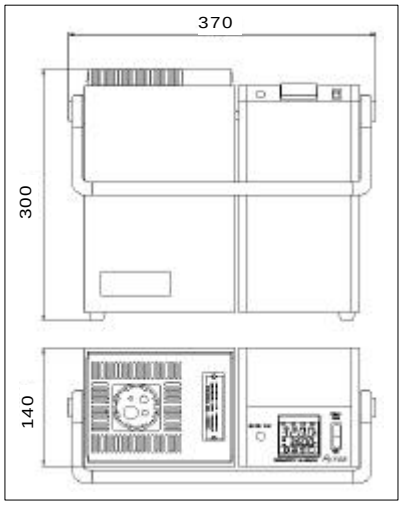
Operating range :
environment / +600°C

Applications:
-Control and calibration of temperature sensor, in the laboratory, on board and in the field, in conformity with ISO 9000 standards.
-Control of thermostats.

Pyros+

PORTABLE TEMPERATURE CALIBRATOR





The PYROS+ temperature calibrator is a compact instrument used to calibrate transducers, RTD and temperature-measuring sensors in the field, on board and in the laboratory.
The PYROS+ make it possible to control thermostats with a visual check of the work or alarm treshold.

TECHNICAL CHARACTERISTICS

The PYROS+ oven consists of a metal block measuring 50 mm in diameter and 200 mm in height heated by a resistance which winds around the outer surface of the block.
4 holes , 6.5, 10.5, 12.5, and 17 mm in diameterr are made in the aluminium bronze block into which the calibration probes are inserted.
The electronic micro-processor unit which regulates the temperature of the PYROS+ allows the apparatus to operate at an optimum accuracy of ± 1°C @ 450°C when carrying out calibrations on the field, on board or in the laboratory.
A fan is fitted inside the equipment which not only cools the electronic part but also makes it possible to decrease the temperature of the equalizer block quickly.
The equipment is fitted with sockets for connecting up the test thermostat and a light comes on/off when the thermostat switches on/off. For carrying out more accurate controls on thermostats, it is possible to reduce the heating power in order to limit the speed of temperature increase.
The Pyros+ calibrator, toghether with a standard thermometer, constitutes a complete calibration system, in conformity with ISO 9000 standards.

TECHNICAL DATA

Operative range	environment / + 600°C
Stability:	± 0.5°C @ 450°C
Display resolution:	0.1°C
Reading accuracy:	± 1°C ±1 Digit @ 450°C
Probe:	PT 100
Maximum ascent rate:	20°C/1'
Maximum descent rate:	25°C/1' (from 450°C to 200°C)
Test wells- 4 holes:	ø6.5/10.5/12.5/17mm x 185mm dept
Power supply:	230V (115V) 50/60 Hz. 800VA
Size:	140 x 370 x 300 mm
Case size:	340 x 490 x 430 mm
Weight of calibrator:	9,8Kg.
Weight of calibrator including carrying case and accessory:	12 Kg.

ORDERING CODE:
STANDARD EQUIPMENT
CODE: PYROS+-2 (220V-50 Hz)
CODE: PYROS+-1 (115V-50 Hz)

- PYROS+ calibrator
- Electric power cable
- Tweezer for insert removing
- Fuse kit
- Thermostat testing connection cable
- Instruction manual
- Carrying belt
- Calibration certificate traceable to standard

OPTION KIT
(CODE: KIT-PYROS+)

- Carrying case with shoulder strap and pocket for papers
- Blank Insert
- Insert with 1 hole 9,5 mm ID

CE

CERTIFICATION

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

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Pulsar

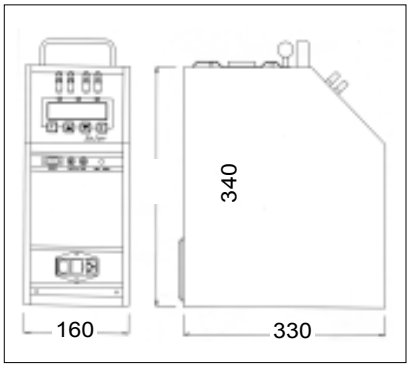
PORTABLE TEMPERATURE CALIBRATOR

Operating range :
Ambient to 550°C (600°C)

Application: *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*

Pulsar

PORTABLE TEMPERATURE CALIBRATOR



The PULSAR 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 PULSAR oven consists of a metal block measuring 50 or 65 mm in diameter and 200 mm in height heated by a resistance which winds around the outer surface of the block. 3 holes, 4,5 - 6,5 and 9,5 mm in diameter are made in the aluminium block (or aluminium bronze in models which work at 600°C) into which the calibration probes are inserted and one 17mm hole for the appropriate reduction inserts.

PULSAR 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, programming of ascent/descent ramps and storage of the thermostats' operative temperature.

In the PULSAR-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, 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, PULSAR is equipped with the RS232 serial interface; it can operate in automatic mode connected to the PC by means of the AQ2SP 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

(Model with Aluminium block ø 50mm)

Operating range:	Environment /+550°C (*)
Stability:	± 0.05°C @ 450°C
Display Resolution:	0.01 / 0.1°C
Reading accuracy:	± 0.3°C @ 450°C
Reading:	°C or °F
Interface:	RS 232
Maximum ascent Rate:	20°C / 1'
Maximum descent rate:	25°C / 1'
Test wells:	4 holes ø4,5-6,5-9,5-176 x 135 mm
Power supply:	230V (115V) 50/60 Hz. 800VA (1200VA vers.BA)
Size:	140 x 370 x 300 mm
Weight of calibrator:	10 Kg (17Kg. vers. BA)
Shipping weigth:	17 Kg

PULSAR-2I-2**

Version equipped with two-input acquisition card to measure:

Type of probe	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 EQUIPMENT

(code PULSAR 0394)

- Pulsar Calibrator
- Electric power cable
- Fuse kit
- Thermostat testing connection cables
- Instruction manual
- Calibration certificate traceable to standard
- Tweezers for insert removing

ACCESSORIES KIT (Std.)

- Carrying case (Cod. Kit-Pulsar)
- Plastic bag (Cod. Kit-BorsaPulsar)
- Blank insert
- Insert with 1 hole ø9.5mm

ACCESSORIES ON REQUEST

- Special inserts available on request
- AQ2sp software
- Reference RTD probe with Certificate

HOW TO ORDER

PULSAR [ ] [ ] [ ]

- [ ] **1** - 115 V
  2 - 230 V
- [ ] 00 - Base version
  2I - Version fitted with 2 adjustable inputs
- [ ] **0394** - Std. block
  50AL - ø50mm Aluminium block
  50BA - ø50mm BrAl block
  65AL - ø65mm Aluminium block
  65BA - ø65mm BrAl block

Example:
PULSAR0394-00-2: it is equal to PULSAR with std. block with four holes, without adjustable inputs, supply 230V

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CERTIFICATION

All instruments are fitted with an inspection, stability and precision report with a possible reference to basic samples.

Solar

PORTABLE TEMPERATURE CALIBRATOR

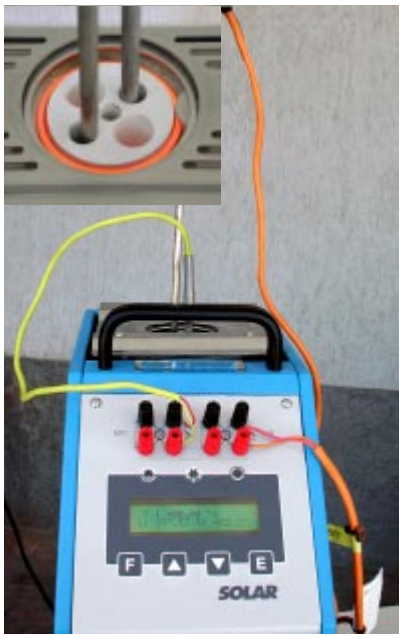
Operative range :200 ÷ +1100°C

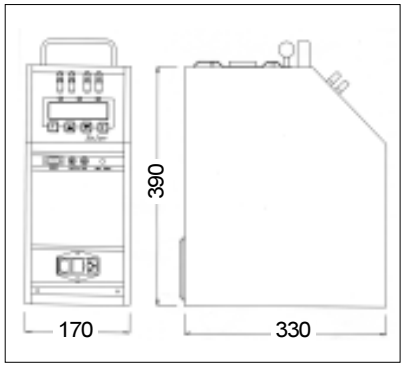
Applications:

- *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*

Solar

PORTABLE TEMPERATURE CALIBRATOR





The portable thermostatic calibrator SOLAR has been designed to carry out laboratory and field checks of thermocouples and of PT100; it consists of a tubular vertical furnace with an internal quartz pipe and an interchangeable equalising block.
The equalising block, whose large size suits the external dimensions, ensures a proper heat transmission as well as optimal stability and uniformity values; its interchangeability makes it possible to test sensors of various lengths, with diameters ranging from 1 mm up to 26 mm.
The block of the standard equipment has 4 holes (Ø 7, 9, 11 and 13.5 mm); on request, further versions with different kinds of holes are available .

SOLAR is equipped with a counter-current forced air cooling system, which keeps the temperature low in the upper part of the furnace; this system enables to check even very short probes, without heating the connecting head or the handgrip.
SOLAR is provided with a new PID controller, whose microprocessor ensures resolution values up to 0.01°C as well as °C / °F reading; it also enables to set the up/down ramps and to memorise the operative temperature of the thermostats .

The version SOLAR-2I is equipped with a data acquisition card and two adjustable input devices (Pt100 3 / 4 wires; J,K,N,R,S thermocouples) with clamping screws, gold-plated contacts and automatic compensation of the cold junction.
The first input device is for the reference sample probe; this calibration system is provided with test certificates and it is in accordance with ISO 9000.
The second input device is for the probes that are being tested; hence the instrument can display the temperatures of the furnace, of the sensor to be tested and of the reference sample probe, at the same time.

TECHNICAL DATA
(SOLAR 00-2 - standard version)

Operative range	200 ÷ 1100°C
Stability:	± 0.3°C a 1000°C
Resolution:	0.1°C / 0.01°C
Radial/axial Uniformity:	± 0.4°C
Reading precision:	± 3°C
Rising gradient:	18°C/1' max.
Falling gradient:	6°C/1' max.
Stabilisation time:	20 min.
Tubolar furnace size:	Ø 45 X 230mm
Equalising block:	Ø 44 X 175mm
Serial interface:	RS 232
Power supply:	230V 50/60 Hz. 850VA
Size:	450 x 170 x 330 mm
Weight (with insert):	12Kg.
Carriyng case (optional):	240 x 410 x 515mm

SOLAR 2I-2

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

- SOLAR calibrator
- Inconel 600 equalising block with 4 holes: ø7/9/11/13.5 x 155mm
- Top insulator with 4 holes
- Block extractor
- Electric power cable
- Fuses kit
- Thermostat testing connection cables
- Software AQ2sp Light Version
- Instruction manual

ACCESSORI ES/ OPTIONAL EQUIPMENT

- Inconel 600 equaòising blocks with required holes + insulator
- Software AQ2sp
- Tc S sample probe
- certificate (only for SOLAR 2I) obtained with a sample probe connected to SOLAR
- Carriyng case

HOW TO ORDER

SOLAR - ☐ – ☐

- ☐: 00 - Standard version; 2I - Version with 2 configurable input
- ☐: 1 - 115V 50/60Hz.; 2 - 230V 50/60Hz.

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CERTIFICATION

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

BK 40 M

CRYOSTATIC BATH

Operating range: *-40/+125°C*

Applications: *Control calibration of temperature sensors in laboratory, in conformity with ISO 9000 standards; Control of thermostats; Automatic computer-controlled calibrations*

BK 40 M

CRYOSTATIC BATH

The BK40 M temperature calibrator is an instrument used to calibrate transducers, RTD and temperature-measuring sensors in the laboratory. The possibility to generate positive and negative temperature ramps makes it suitable for use in calibrating and testing thermostats.

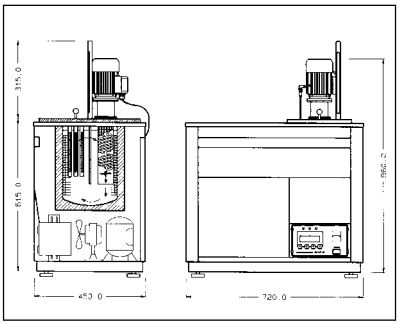
TECHNICAL CHARACTERISTICS

The BK40 M bath consists of a stainless tank with capacity of 10 litres, useful height 340 mm and diameter 85 mm. The bath is equipped with a stainless steel mixer with electrical motor power, a safety thermostat, drain cock and overflow drain pipe.
The electronic micro-processor unit which regulates the temperature of the BK40 M allows the apparatus to operate at an optimum accuracy of ± 0.2°C @ 120°C
The instrument can generate increases and decreases of temperature with pre-settable gradients which make it possible to control thermostats accurately.
The special socket with which the instrument is fitted is used to connect up the test thermostat and to record the threshold temperature of the thermostat.
The BK40 M bath, together with a standard RTD 100 which can be connected up to the auxiliary input, constitute a complete calibration system traceable in conformity with ISO 9000 standards.
The serial interface for control by PC makes it possible to use personalised calibration programs.
The BK40 M with the software AQ2sp for Windows can carry out:
- *complete control of the bath from the PC,*
- *manual or automatic calibration of one or more probes,*
- *cyclic life or stress tests on temperature sensors,*
- *automatic threshold thermostat test,*
- *filing and printing of the results obtained, guaranteeing that ISO 9000 standards are observed.*

Fluid level adapter

FLUID LEVEL ADAPTER (by request)

The fluid level adapter slides directly into the test wells of the BK40 M bath is designed for customers that needing to calibrate glass thermometers.
The fluid level adapter creates a positive bath fluid surface. The bath fluid is pumped up through the test well to the surface of the bath and kept there. In relation to the liquid viscosity the operator can regulate the level rotating the adapter tube.
The clear adapter cover protects the bath fluid from ambient temperature effects for better bath stability. The cover can be drilled for any size probe.



STANDARD EQUIPMENT

- **BK40 M** : base version
- **BK40 M/TR** : version with fluid level adapter

ACCESSORIES BY REQUEST

- 9 Kg tan of glycol
- 9 Kg tan of Silicon Oil 47 V20

TECHNICAL DATA

(with mix of glycol / water)

Operative range	-40/+125°C
Stability	±0.05°C
Display resolution	0.01/0.1°C
Reading accuracy	±0.2°C a 120°C
Ascent rate	2°C min (-40/+50°C)
Descent rate	0.5°C min (30/-20°C)
Power supply	230 V - 50Hz.
Power	2500 W
Weight	60 Kg
Size	720 x 450 x 860
Overall size	560 x 800 x 970
Shipping weight	74 Kg

Operative range	Recommended fluid	Stability	Uniformity	Descent time
-40 ÷ 80°C	Ethylenic Glycol	±0.05°C (a-20°C)	±0.05°C	0.4°C/1'
-40 ÷ 125°C	Silicone oil 47V20	±0.05°C (a-20°C)	±0.1°C	1°C/1'

CE

CERTIFICATION

All the instrument are supplied with final testing, stability and accuracy certification traceable to standards

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TB 300 M

THERMOSTATIC BATH

Operating range: *Amb./+300°C*

Applications: *Control calibration of temperature sensors in laboratory, in conformity with ISO 9000 standards; Control of thermostats; Automatic computer-controlled calibrations*

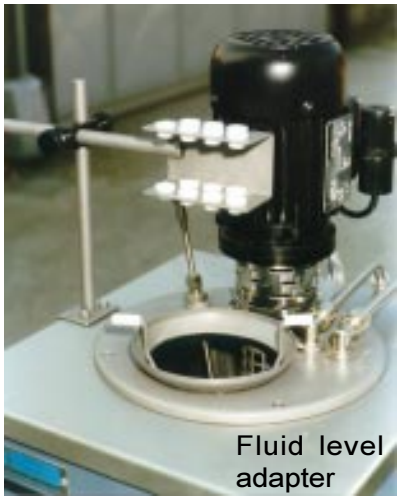
TB 300 M

THERMOSTATIC BATH

The TB300 M temperature calibrator is an instrument used to calibrate transducers, RTD and temperature-measuring sensors in the laboratory. The possibility to generate positive and negative temperature ramps makes it suitable for use in calibrating and testing thermostats.

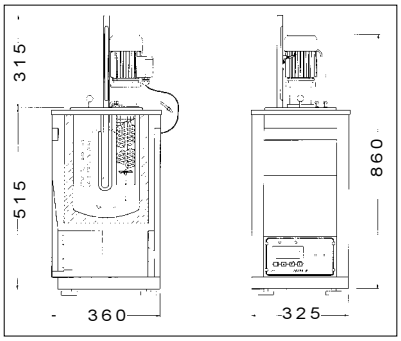
TECHNICAL CHARACTERISTICS

The TB300 M bath consists of a stainless tank with capacity of 10 litres, useful height 350 mm and diameter 110 mm. The bath is equipped with a stainless steel mixer with electrical motor power, a safety thermostat, drain cock and overflow drain pipe.
The electronic micro-processor unit which regulates the temperature of the TB 300M allows the apparatus to operate at an optimum accuracy of ± 0.2°C @ 150°C
The instrument can generate increases and decreases of temperature with pre-settable gradients which make it possible to control thermostats accurately.
The special socket with which the instrument is fitted is used to connect up the test thermostat and to record the threshold temperature of the thermostat.
The TB300 M bath, together with a standard RTD 100 which can be connected up to the auxiliary input, constitute a complete calibration system traceable in conformity with ISO 9000 standards.
The serial interface for control by PC makes it possible to use personalised calibration programs.
The TB300 M with the software AQ2sp for Windows can carry out:
- *complete control of the bath from the PC,*
- *manual or automatic calibration of one or more probes,*
- *cyclic life or stress tests on temperature sensors,*
- *automatic threshold thermostat test,*
- *filing and printing of the results obtained, guaranteeing that ISO 9000 standards are observed.*


Fluid level adapter

FLUID LEVEL ADAPTER (by request)

The fluid level adapter slides directly into the test wells of the TB300 M bath is designed for customers that needing to calibrate glass thermometers.
The fluid level adapter creates a positive bath fluid surface. The bath fluid is pumped up through the test well to the surface of the bath and kept there. In relation to the liquid viscosity the operator can regulate the level rotating the adapter tube.
The clear adapter cover protects the bath fluid from ambient temperature effects for better bath stability. The cover can be drilled for any size probe.



STANDARD EQUIPMENT

- **TB300 M** : base version
- **TB300 M/TR** : version with fluid level adapter

ACCESSORIES BY REQUEST

- 9 Kg tan of Silicon Oil 47V20
- 9 Kg tan of Silicon Oil 47V100
- 9 Kg tan of Silicon Oil 550

Operative range	Recommended fluid	Stability	Uniformity	Descent time
Amb. ÷ 80°C	Water	±0.03°C (a 80°C)	±0.04°C	2°C/1'
Amb. ÷ 125°C	Silicon Oil 47V20	±0.04°C (a 100°C)	±0.05°C	5°C/1'
50 ÷ 180°C	Silicon Oil 47V100	±0.05°C (a 200°C)	±0.05°C	6°C/1'
50 ÷ 230°C	Silicon Oil 550	±0.05°C (a 200°C)	±0.05°C	6°C/1'

TECHNICAL DATA

Operating range	Amb./+300°C
Stability	±0.05°C
Resolution	0.01/0.1°C
Reading precision	±0.2°C @ 150°C
Power supply	230 V - 50Hz.
Power	1600 W
Weight	26 Kg
Dimensions	325 x 360 x 860
Overall size	400 x 500 x 950
Shipping weight	35 Kg

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