

E instruments

MAXiCAL TEMP TCS Mk2

Fornetto e Bagno di Taratura Portatile e da Laboratorio

MAXiCAL
Process Multifunction Calibrators

- 3 Modelli :

TCS140 BT da -50amb a +140°C

TCS650 MT fino a +650°C

TCS1200 HT fino a +1200°C

- Modello combinato

TCS1465 da -50amb a +650°C

TCS1412 da -50amb a +1200°C

- Triplo inserto intercambiabile :

Dryblock - Blocco secco forato

Bagno a liquido (acqua o olio)

Black body - Corpo Nero

- Stabilità fino a 0,02°C

- Interfaccia RS485

- ACS Automatic Calibration System
Tarature automatiche fino 10 punti
con scanner ECILCAL 4 canali
e Calibratore CAPPO
Software con certificati in Excel

- Certificato di calibrazione 17025



La calibrazione può essere semplicemente descritta come un'attività dove lo strumento da provare viene comparato con uno di riferimento. Nel livello più semplice, calibrazione è la comparazione tra due misure, una di livello conosciuto ed una in maniera simile con un altro dispositivo. Il dispositivo con livello conosciuto viene chiamato standard. Il secondo dispositivo è l'unità in prova. La calibrazione è spesso richiesta su uno strumento nuovo o quando un intervallo di tempo è trascorso. Inoltre la calibrazione è di solito effettuata quando uno strumento è stato soggetto a un shock inaspettato che lo può aver portato fuori specifica. Per questo sono necessari dei calibratori semplici da utilizzare ed alla portata di tutti.

La serie AD22x è la più compatta e potente disponibile sul mercato, che utilizza tecnologie di ultima generazione e con una facilità di utilizzo che permette di lavorare con efficienza e sicurezza.



Introduction

The MaxiCal Temp Series are designed to verify and calibrate temperature sensors, thermometers, and process transmitters both in laboratory and in-field. All the three available models are fast, high stability and uniformity, easy to use temperature calibrators.

The temperature parameter represents the most important factor to fulfill quality, operational safety and reliability of industrial processes. Thermocouples, RTDs and any other temperature sensors, when installed in an industrial process, they are subjected to mechanical, thermal and chemical stresses which accelerate their aging. Therefore it is a recommended procedure to inspect, check and calibrate each sensor during the commissioning phase and at regular and programmed time intervals.

MaxiCal Temp temperature source find applications in checks and calibration of: Thermocouples, Resistance thermometers, Temperature transmitters, thermostats, glass thermometers, and NTC/PTC.

MaxiCal Temp TCS 140

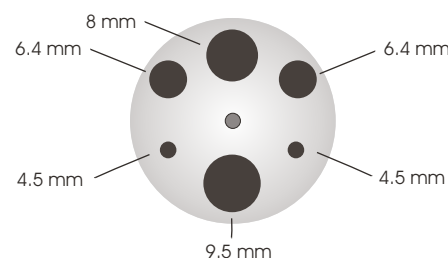
Low Temperature Furnace

offers fast temperature calibration in an easy to use unit designed for low temperature (-50°C Ta to +140°C) applications.

The calibrator can be used as a Dry Block, a Liquid Bath, and a Black body source for infrared thermometers.

The standard configuration includes both the 6 holes 157mm deep metal block insert and the liquid container.

Standard insert



	MaxiCal Temp TCS140	MaxiCal Temp TCS650	MaxiCal Temp TCS1200
Range	-50°C (-67°F) from Tamb to 140°C (285°F)	from 35°C (95°F) to 650°C (1200°F)	from 150°C (300°F) to 1200°C (2190 °F)
Absolute Stability			
(dry block)	±0.03°C@140°C	±0.03°C@650°C	±0.2°C@1100°C
(liquid bath)	±0.02°C@140°C		
Radial Uniformity			
(dry block)	±0.05°C@140°C	±0.08°C@650°C	±0.2°C@1100°C
(liquid bath)	±0.02°C@140°C		
Measurements Units	°C or °F / ITS90	°C or °F / ITS90	°C or °F / ITS90
Heating speed	-30°C to 140°C in 15 minutes	50°C to 600°C in 30 minutes	100°C to 1100°C in 20 minutes
Cooling speed	140°C to 0°C in 15 minutes	600°C to 150°C in 30 minutes	1100°C to 800°C in 50 minutes
Stabilization Time	10 min	10 min	15 min
Block diameter	35 mm	35 mm	36 mm
Block depth	160 mm	148 mm	130 mm
Wells depth	157 mm	140 mm	80 mm
Standard insert	2 x 4.5 mm (0.18") 2 x 6.4 mm (0.25") 1 x 9.5 mm (0.37") 1 x 8 mm (0.31")	2 x 4.5 mm (0.18") 2 x 6.4 mm (0.25") 1 x 9.5 mm (0.37") 1 x 8 mm (0.31")	4 x 6,35 mm (0,25") 1 x 8 mm (0,31") 1 x 9,5 mm (0,37")
Computer Interface	RS485	RS485	RS485
Dimensions (WxHxD)	340 x 300 x 170 mm 13.4" x 11.8" x 6.7"	340 x 300 x 170 mm 13.4" x 11.8" x 6.7"	340 x 300 x 170 mm 13.4" x 11.8" x 6.7"
Weight (nett)	13.6 Kg (30.0 lb)	9.6 Kg (20.7 lb)	9.0 Kg (19.8 lb)

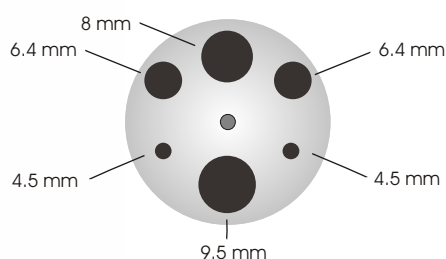
MaxiCal Temp TCS 650
Medium Temperature Furnace

The MaxiCal Temp TCS650 portable medium temperature (35°C Ta to +650°C) source offers fast temperature calibration and high stability.

The temperature controlled allows very fast temperature stabilization and high stability.

The standard configuration includes the 6 holes 140mm deep metal block insert.

Standard insert

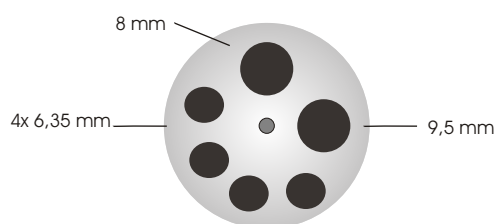


MaxiCal Temp TCS 1200
High Temperature Furnace

The MaxiCal Temp TCS 1200 portable version high temperature (150°C to 1200°C) calibration in an easy to use, portable and rugged unit. The calibrator can be used as a Dry Block and a Black body source for infrared thermometers.

The temperature controlled allows very fast temperature stabilization and high stability. The standard configuration includes the 4-holes 80 mm deep metal block.

Standard insert

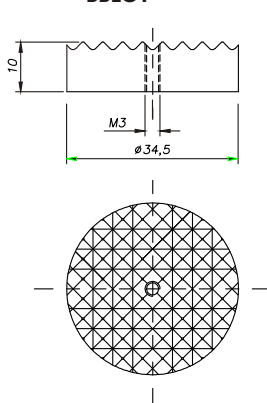


Inserts and Accessories

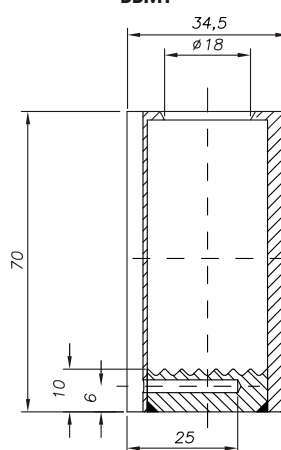
Black body insert

Convert your dry block in a black body reference oven. The insert is extremely recommended for calibration of non-contact infrared thermometers.

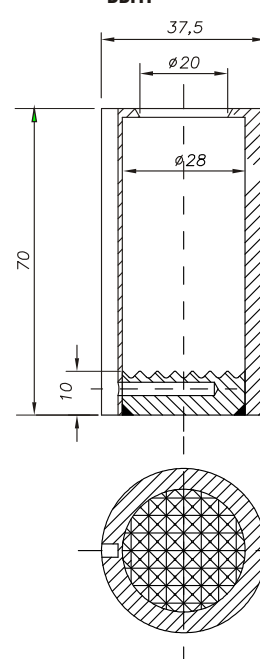
**MaxiCal Temp LOT
BBLOT**



**MaxiCal Temp MT
BBMT**



**MaxiCal Temp HT
BBHT**



MaxiCal ECILCAL

ACS Automatic Calibration Station

4 channel scanner Tc Rtd mA V

Up to four channel universal :
Thermocouple Pt100
mA active and Passive (24V PS) + Volt + Switch
Internal reference or external standard probe with
calibration coefficient adjustment
Automatic or Manual calibration up to 10 points
Download certificate into Excel File
RS485 connection to Temperature Calibrator
Connection to MaxiCAL CAPPO



Stirred Liquid Bath Insert for TCS140

Convert your MaxiCal Temp dry block in a liquid bath with adjustable speed agitator.

The container standard included is extremely recommended for calibration of liquid in glass Thermometers and for short Thermocouples and Thermoresistances (shorter than 160 mm).



OILLOT

500cc Silicon oil for MicroCal TCS140 (operative range -35°C to 145°C)

Undrilled Customizable Inserts

- UILOT** Undrilled metal block insert for MaxiCal Temp LOT
- UIMT** Undrilled metal block insert for MaxiCal Temp MT
- UIHT** Undrilled metal block insert for MaxiCal Temp HT

Ask to our technical office quotation and feasibility of required drilling.

Reference Temperature Sensors

To increase the performance of a dry block calibrator add a reference thermometer to the system. A wide range of working standard and high accuracy thermometers are available.

WSPT Pt100 420°C 6mm working standard

WSTCN TC N 1100°C 6mm working standard

MaxiCal CAPPO

High Accuracy Tc-Rtd-mA-V calibrator



- Accuracy: $\pm 0.02\%$ FS .
- Resolution: $\pm 0.01^\circ\text{C}$ Pt
- All normalized IEC, DIN, JIS thermocouples Pt, Ni resistance thermometers
- mV V & mA (active and passive loop)
- Temperature switch test

Ordering Code

Code	Model
TCS140 BT	MaxiCal Temp TCS140 , standard 6 holes insert, , instruction manual and report of calibration. TCS140 + with liquid container, vinyl carrying case; black body
TCS650 MT	MaxiCal Temp TCS650 standard 6 holes insert, instruction manual and report of calibration.
TCS1200 HT	MaxiCal Temp TCS1200 , standard 6 holes insert, instruction manual and report of calibration.

Table A Line Charger

SCK	230V 50/60 Hz with Schuko plug
UK	230V 50/60 Hz with UK plug
EUR	230V 50/60 Hz with European plug

TCSVIN Carrying case (suggested)



TCS140 - EUR Typical ordering code

17025 Calibration Certificate 17025 (optional)