

E instruments

MAXiCAL Loop, Tc Mk3

Low Cost, easy to use single function process Calibrators

MAXiCAL

Process Multifunction Calibrators

- 2 Models :

Loop Mk2 mA, V and 24V PS.
TC Thermocouple

- Rugged
- Easy to Use
- Wide LCD display
- Standard terminals connection (banana plug)
- Alkaline batteries field replaceable
- Certificate of calibration



Calibration can be briefly described as an activity where the instrument being tested is compared to a known reference value. At the simplest level, calibration is a comparison between measurements – one of known magnitude or correctness made or set with one device, and another measurement made in as similar a way as possible with a second device. The device with the known or assigned correctness is called the standard. The second device is the unit under test or test instrument.

Calibration is often required with a new instrument or when a specified time period or a specified number of operating hours has elapsed. In addition, calibration is usually carried out when an instrument has been subjected to an unexpected shock or vibration that may have put it out of its specified limits.



MaxiCAL Loop Mk3

General Specifications :

Maximum voltage applied between any jack and earth ground or between any two jack : 30V

Storage temperature : -30°C-60°C

Operating temperature : -10°C-50°C

Temperature coefficient : $\pm 0.01\%$ of range per °C for the temperature range -10°C to 18°C and 28°C to 55°C

Relative humidity :

0 to 90% up to 30°C , 0-70% (35 to 55°C)

Battery : 6x AAA Alkaline

Size : 204mm×99mm×46mm

Weight: 450 g (inc. battery)



Simulation and Measurement Parameters

Specification based for ambient temperature 23°C $\pm 5^\circ\text{C}$

Voltage	Range	Res.	Accuracy
mV	0 to 100 mV	0,01 mV	0,05% ± 5 digit
V	0 to 20 V	0,001 V	0,05% ± 5 digit

Input impedance: 2MOhm (nominal), <100pF

Over voltage protection: 30 V

Voltage driver capability: 1 mA

Current	Range	Res.	Accuracy
mA	0 to 24 mA	0,001 mA	0,05% ± 5 digit

Overload protection: 125 mA, 250V fast acting fuse

Percent display: 0%=4mA, 100%=20mA

Source mode: compliance 1000 Ω at 20mA for battery voltage $\geq 6.8\text{V}$

(700ohm at 20mA for battery voltage 5.8 to 6.8V)

Simulate mode: External loop voltage requirement: 24V nominal, 30

MaxiCAL Tc Mk3



General Specifications :

• A precise source and measurement tool for calibrating thermocouple instruments through a thermocouple mini jack. can be indicated in units of °C, °F, or mV.

• Measure temperature from TC output

• Simulate TC output

• Operable with eight types of thermocouples

• Calibrate linear TC transmitter with mV source function

Storage temperature : -30°C-60°C

Operating temperature : -10°C-50°C

Temperature coefficient : $\pm 0.01\%$ of range per °C for the temperature range -10°C to 18°C and 28°C to 55°C

Relative humidity :

0 to 90% up to 30°C , 0-70% (35 to 55°C)

Battery : 6x AAA Alkaline

Size : 204mm×99mm×46mm

Simulation and Measurement Parameters

Specification based for ambient temperature 23°C $\pm 5^\circ\text{C}$

Thermocouple	Range	Res.	Accuracy
K	-200 to +1372°C	0,1°C	0,5°C ± 1 digit
J	-200 to +1200°C	0,1°C	0,5°C ± 1 digit
E	-200 to +1000°C	0,1°C	0,5°C ± 1 digit
T	-200 to +400°C	0,1°C	0,5°C ± 1 digit
N	-250 to +1300°C	0,1°C	0,5°C ± 1 digit
S	0 to +1750°C	1°C	1°C ± 1 digit
R	0 to +1750°C	1°C	1°C ± 1 digit
B	+600 to +1750°C	1°C	1°C ± 1 digit

Reference junction error : $\pm 0,3^\circ\text{C}$

Voltage	Range	Res.	Accuracy
mV	0 to 100 mV	0,01 mV	0,05% ± 5 digit
V	0 to 20 V	0,001 V	0,05% ± 5 digit

Input impedance: 2MOhm (nominal), <100pF

Over-voltage protection: 30 V

Voltage driver capability: 1 mA

Current	Range	Res.	Accuracy
mA	0 to 24 mA	0,001 mA	0,05% ± 5 digit

Overload protection: 125 mA, 250V fast acting fuse

Percent display: 0%=4mA, 100%=20mA

Source mode: compliance 1000 Ω at 20mA for battery voltage $\geq 6.8\text{V}$,

(700ohm at 20mA for battery voltage 5.8 to 6.8V)

Simulate mode: External loop voltage requirement: 24V nominal, 30V maximum

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