DATA SHEET

PTCCAL01 INFRA RED CALIBRATION PROBE

INFRA RED CALIBRATION PROBE - Thermistor Sensor

Description

The probe is heated using a 2W heater pad powered from the 12V D.C. Power supply. The temperature of the pad is monitored using a high accuracy thermistor sensor.

Ideal for checking the calibration of Infra red Thermometers.

Construction

2W black anodised aluminium heater pad powered from 12v DC power supply (supplied)
Fixed thermistor sensor sealed within silicon compound for water resistance
Heater pad measures 50mm in diameter.
Probe measures 6mm in diameter x 170mm in length
Probe is supplied with 2M curly cable and jack plug

Sensor Features

➢ **HIGH ACCURACY THERMISTOR**

2k2 NTC Thermistor Sensor : (±0.2°C ±0.15%)

➢ **WIDE AMBIENT TEMPERATURE SPECIFICATION** **: -50 TO 50 °C**
➢ **TIME RESPONSE** *(96%of value in water)*   **: 10 Secs**
➢ **MEASUREMENT RANGE** **: -50 TO 150 °C**

ACCURACY **: Less than 0.5°C**
(error between disc temperature and Thermistor temperature)

ACCURACY *(Thermistor)* **: Less than 0.2°C**

Note: *the IR-CAL-CHECK PROBE may also be used without the heater activated.*

GUIDANCE ON USING THE PROBE (When used with MM2040 Thermistor Thermometer)

 Measurement Distance
The recommended distance from the sensor under test to the disc is 50-75mm, this may vary however depending upon the particular optics of the test sensor.

Emissivity
For full accuracy the emissivity of the test sensor should match that of the disc, which is approaching 1.0.
If your Infra-Red sensor is set to a different emissivity then the temperature displayed on the MM2040 should be divided by the emissivity of the test sensor.
For example
I/R sensor emissivity set to 0.95
MM2040 displaying reading of 61°C
Correct temperature for sensor = 61 / 0.95 = 64.2°C

Cross-reference for compatible instruments

Suitable instruments for use with this probe

TME PART No	DESCRIPTION	APPLICATION
MM2040	THERMISTOR THERMOMETER	HIGH ACCURACY TEMPERATURE MEASUREMENT