



# **CERTIFICATE OF CALIBRATION**

**SAZ ECO-LABS LTD**

**Issued by : SAZ ECO-LABS LTD**

**Date of Issue : 2018-01-12**

**Certificate Number: BRF-625322-809**

**Operator Name : Darrell Martin**

**Procedure : PRG11 Issue 6**

**Customer Name:**  **BRF SADIA SA**

**Instrument: IT FI03 INFARED TEMP/RH**

**Model Number: FI03**

## **Test Method**

Calibration and verification are performed at an ambient temperature of 23°C ~ 25°C and ambient relative humidity <55% in a controlled room. Each thermometer should be uniquely identified as to the room and/or area in which it is used or tested

Stated accuracies are at 23°C±5°C at than 80% relative humidity and without the battery indicator displayed.

## **General specifications**

**Laser Type:** Class II

**Max Power:** <1mW

**Wavelength:** 630-670 nm

**IR Temperature range:** -30°C to 500°C (-22°F to 932°F)

**IR Accuracy:** -30°C to 10°C (-22°F to 50°F): ±1.5°C (3°F)

10°C to 30°C (50°F to 86°F): ±1.0°C (2°F)

30°C to 380°C (86°F to 716°F): ±1.5°C (3°F)

or 1.5% of reading, whichever is greater

380°C to 500°C (716°F to 932°F): ±2°C (4°F)

or 2% of reading, whichever is greater

\*Assume ambient operating temperature of  
23°C to 25°C (73°F to 77°F)

**Min. measuring distance:** 2" < 50°C (122°F),  
4" > 50°C (122°F)

**Display resolution:** 0.1°C (0.1°F)

**Contact temperature range:** -30°C to 450°C (-22°F to 842°F)

**Contact temperature input accuracy:** ± 2°C (± 4°F)

**Temperature display resolution:** 0.1°C/°F in Primary, 1°C/°F in Secondary

**Emissivity:** 0.95

**Response time:** <500 msec

**Spectral response:** 8 to 14µm



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**Distance to spot:** 12 to 1

**Drop:** 1.5 meter

**Repeatability:**  $\pm 0.5\%$  OR  $\pm 1^{\circ}\text{C}$  ( $\pm 2^{\circ}\text{F}$ )

(whichever is greater)

**Operating temperature:**  $0^{\circ}\text{C}$  to  $50^{\circ}\text{C}$  ( $32^{\circ}\text{F}$  to  $122^{\circ}\text{F}$ )

**Storage temperature:**  $-20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$  to  $140^{\circ}\text{F}$ )

w/o battery

**Relative humidity:** 10 to 90% RH non-condensing at  $<30^{\circ}\text{C}$  ambient

**Voltage:** 4.5 DC

**Battery life:** Greater than 12 hrs with all functions

## **Method of Calibration**

The unit under test was set to record data and placed in a controlled environmental chamber, which was held at a constant  $25^{\circ}\text{C}$  while the relative humidity was varied. After the chamber had been stabilized for a period of not less than 20 minutes at each setting, the humidity of the chamber was measured using the laboratory standard. At the end of the calibration the corresponding readings from the unit under test were recorded.

The overall expanded uncertainty estimate for the calibration process is  $\pm 0.9\%$  RH at 20% RH,  $\pm 1.2\%$  RH at 50% RH, and  $\pm 1.5\%$  RH at 80% RH

## **Laboratory Standard**

SAZ I-3007 relative humidity meter S/N 9585 001 (TH 38) with SSA calibration certificate number 20118060243, dated 2018-06-21 from accredited calibrator number 0478. The calibration of this standard expires on 2022-06-21.

Daniel Bens, Director of Services

Darrell U Martin, Director of Quality

This product is calibrated by SAZ ECO-LABS LTD registered to BRF SADIA SA ISO 2008:22000 (Certificate No. BRF-625322-809)

Notes:

1. Calibration uncertainties quoted are for a confidence probability of not less than 95%
2. Indicated values on the laboratory standard were corrected where necessary using data from the calibration certificate.

Linear

interpolation between calibration points is assumed.

3. This certificate may only be reproduced in full.