Calibration Report: Infrared Thermometer (Pyrometer)

Travis Childrey and Bryan Fabbri
York High / Science Systems and Applications, Inc.
Hampton, Virginia

Summary

Calibration Date: 10 Nov 2005 Next Calibration Date: 10 Nov 2006

A collection, analysis and calibration of data from Heitronics Infrared Thermometer (Pyrometer), S/N:1416 has been completed. The calibration was performed by the calibration company, SIMCO Electronics. This data was collected by SIMCO Electronics, on November 10, 2005.

MODEL: KT19-85
SERIAL NUMBER: 1416

The manufacturer's specifications of the Infrared Thermometer (Pyrometer) (S/N: 1416) have been confirmed by comparison to standards which are regularly calibrated using accepted values of natural physical constants, ratio type of self-calibrating techniques, comparison to standards which are traceable to National Institute of Standards and Technology (NIST), or compared to consensus standards.

The condition of the instrument, as arrived, meets manufacturer's specifications.

The following pages provide more detail into the calibration process and results.

APPLICATION: Standard Campbell data logger program for KT19.85 infrared thermometer (pyrometer).

SIMCO electronics

806 MIDDLE GROUND BLVD.
NEWPORT NEWS, VA 23606

Certificate No. **2878714**

CERTIFICATE OF CALIBRATION
FOR
JACOBS SVERDRUP

Description: **EG&G HEIMANN OPTOELE, KT19-85, PYROMETER**

Serial No: **1416** Asset No: **1875518** Simco ID: **39692-2106**

Dept: **1250T-123B** PO No: **al00033**

Calibration Date: **11/10/05**	Calibration Interval: **1 Months**	Recall Date: **12/10/05**

Arrival Condition:	Service:
MEETS MANUFACTURER'S SPEC'S.	**CALIBRATED & CLEANED**

Procedure: **C614T.0021 REV 2**
Temperature: **68°F** Relative Humidity: **38%**

Standards Used:

Type	Simco ID	Due Date	Intvl Mos	Acc/Unc	Trace No.
8167-25B SPRT	**37590*182**	**01/27/07**	**48**	**TEMP .0005DEG C**	**836/268242-03**

Detail Of Work Performed:
EMISSIVITY PRE-SET TO 1.00

There are 1 Supplementary Data Sheet(s) attached.

Work performed by:
Kathleen Czarnecki
Mechanical Technician B (14018)

Reviewed by:

SIMCO Electronics' quality management system conforms to ISO 9001:2000, ISO/IEC 17025:1999. All calibrations are performed using internationally recognized standards traceable to the International System of Units (SI Units). Traceability is achieved through calibrations by the National Institute of Standards and Technology (NIST), other National Measurement Institutes (NMIs'), or by using natural physical constants, intrinsic standards or ratio calibration techniques. Instruments are calibrated with a test accuracy ratio of 4:1 or greater, otherwise measurement uncertainty analysis and/or guard bands are applied during the measurement process. The information shown on this certificate applies only to the instrument identified above and may not be reproduced, except in full, without prior written consent from SIMCO Electronics. There is no implied warranty that the instrument will maintain its specified tolerances during the calibration interval due to possible drift, environment, or other factors beyond our control.

Dated: **11/10/05**

SIMCO Electronics - Report of Calibration
Calibration of Infrared Thermometer

Manufacturer: Heitronics
Serial Number: 1416
SCP: 2878714
Calibration Procedure: C614T.0021

ECN: A039174
Model: KT19-85
Range: -50 to 200 Degrees C
Humidity: 37 Percent

Tech: 14018
Date: 11/10/2005
Temperature: 20 Degrees C
Input Voltage: 24 VoltsDC

As Received / As Left

Standard Indication Degrees C	Standard Indication Degrees K	Test Unit Indication Degrees K	Test Unit Deviation Degrees K	Analog Output Volts	Manufacturer's Tolerance Degrees K
-78.502	194.648	194.0	-0.6	0.06907	±1.2
-45.615	227.535	226.7	-0.8	0.18015	±1.0
-28.184	244.966	245.6	0.6	0.24381	±0.9
-9.692	263.458	264.1	0.6	0.30457	±0.7