

# Calibration Report:

## Heitronics Pyrometer (Model KT 11.85)

### Summary

Calibration date : April 17, 2003      Next calibration date : April 17, 2004

Serial Number : 909

Function or Range	Nominal Value or Cal Range	As Received	Outgoing	Tolerance
Current °C	0°C = 4.16mA	4.22mA	No Change	+/- 1.45°C = +/- 0.145mA
	30°C = 7.71mA	7.72mA	No Change	+/- 1°C = +/- 0.13mA
	50°C = 10.65mA	10.61mA	No Change	+/- 1.3°C = +/- 0.21mA
	75°C = 14.98mA	14.90mA	No Change	+/- 1.67°C = +/- 0.31mA
	100°C = 20.00mA	19.95mA	No Change	+/- 2.05°C = +/- 0.44mA

The manufacturer's specifications of Pyrometer (S/N: 909) 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 ambient temperature and relative humidity were 23 Degrees C and 40% RH respectively.

The following pages have more information regarding Wintronics, Inc. calibration procedures and reference standards.

The last page of this report has the current values above converted to voltage.

**Wintronics, Inc.**  
50 Division Avenue  
Millington, NJ 07946  
Phone: (908) 647-0144 Fax: (908) 647-8379

## Certificate of Calibration

ANSI/NCSL Z540-1-1994

Certificate No.: J0045723

Manufacturer: **Heitronics**

Description: **Infrared Thermometer**

Model No: **KT11.85**

Serial No: **909**

Customer: SAIC/Hampton/NASA-Langley  
Customer PO:  
Customer Asset No:

Temperature: 23  
Humidity: 40  
Procedure: W32163

Technician: PLW  
Date Cal: 04/17/2003  
Date Due: 04/17/2004

The manufacturer's specifications of the above instrument have been confirmed by comparison to standards which are regularly calibrated using accepted values of natural physical constants, ratio type self-calibrating techniques, comparison to standards which are traceable to NIST, or compared to consensus standards. Wintronics' calibration procedures comply with ANSI/NCSL Z540-1 & MIL-STD-45662A. Wintronics' Quality program is registered to ISO-9002.

As received condition: In Tolerance  
As shipped condition: In Tolerance  
Type of Calibration: Normal

### Calibration Standards

Manufacturer	Model	Description	Asset #	Calibration Date	Date Due	Cert. No.
Hart Scientific	2563	Module, Thermistor	W143	08/07/2002	08/07/2003	J0042243
Hart Scientific	5610-9	Thermistor Probe	W145	04/24/2002	04/24/2003	J0041376



**Peter Winter**  
President

Certified By





# Wintronics, Inc. Calibration Report

Wintronics, Inc., P.O. Box 337, Millington, NJ 07946 (908) 647-0144

Job: J0045723

Company: SAIC/Hampton/NASA-Langley

Mfg: **Heitronics**

Model: **KT11.85**

Date: 04/17/03

S/N: 909

Cust. Asset #:

Tech: PLW

Function or Range	Nominal Value or Cal Range	As Received	Outgoing	Tolerance	TUR
Current °C	0°C = 4.16mA	4.22mA	No Change	±1.45°C = ±0.145mA	
	30°C = 7.71mA	7.72mA	No Change	±1°C = ±0.13mA	
	50°C = 10.65mA	10.61mA	No Change	±1.3°C = ±0.21mA	
	75°C = 14.98mA	14.90mA	No Change	±1.67°C = ±0.31mA	
	100°C = 20.00 mA	19.95mA	No Change	±2.05°C = ±0.44mA	
Voltage °C	0°C = 0.208V	0.211V	No Change	±1.45°C = ±.00725V	
	30°C = 0.3855V	0.386V	No Change	±1°C = ±.0065V	
	50°C = 0.5325V	0.5305V	No Change	±1.3°C = ±.0105V	
	75°C = 0.749V	0.745V	No Change	±1.67°C = ±.0155V	
	100°C = 1.0V	0.9975V	No Change	±2.05°C = ±.022V	

Additional Comments: Any Test Uncertainty Ratio (TUR) that is less than 4:1 will appear under the "TUR" heading. If the TUR meets or exceeds 4:1, the field is left blank.