



Southwest Research Institute
6220 Culebra Road
San Antonio, TX 78238
(210) 522-5215
Department of Quality Assurance
Calibration Laboratory

Certificate of Calibration

12 August 2002

Issued to: DARRELL DUNN DIV20 B57
Manufacturer/Model: DURO-SENSE J-00
Description: RTD
Serial Number: 325
Asset Number: 008425
Work Order Number: 444049423

This certifies the above item was calibrated in compliance with MIL-STD-45662A and ANSI/NCSL Z540-1-1994. Standards used in this calibration, described in the referenced calibration procedure with associated uncertainties or tolerances, are traceable to the National Institute of Standards and Technology (NIST). Supporting documentation relative to traceability is on file and is available for examination upon request. This certificate is not to be reproduced, except in full, without the written approval of the Southwest Research Institute Department of Quality Assurance Calibration Laboratory.

The uncertainty of the calibration was sufficient to determine that the item met the manufacturer's published specifications unless stated otherwise below.

Ambient Conditions: Temperature: 75.0 Degrees Fahrenheit Humidity: 45 % RH

Calibration Date: 23 Jul 02 **Calibration Procedure:** CUSTOMER

Condition as Received: SEE ATTACHED DATA

Condition as Returned: SEE ATTACHED DATA

Remarks:

Approved by:


Walt Hill, Metrology Group Leader
Institute Calibration Laboratory

Measurements performed by:


Vince Morales, Technician

Southwest Research Institute
 Calibration laboratory
 Calibration Sheet.

As Found/Left

Work Order:	444049423	Mfr.	Durosense	Technician	V.Morales
Asset No.	8425	Model	J-00	Procedure	Customer
Serial No.	325	Type.	RTD Temperature Probe	Cal Date.	July 23, 2002

Remarks:

(1) If no value is listed the uncertainty is >4/1

The results (TI Reading) are provided, it is up to the end user to determine if results meet their need.

Standard	TI Reading	Uncertainty (1)
Deg.C.	Ohms	Ohms
0.12	100.58	0.014
149.90	157.79	0.014

SOUTHWEST RESEARCH INSTITUTE

6220 CULEBRA ROAD • POST OFFICE DRAWER 28510 • SAN ANTONIO, TEXAS, 78228-0510 • TEL (210) 522-5215 • FAX (210) 522-3692

To: Darrell Dunn, Div. 20, Bldg. 57

From: Walt Hill, Metrology Group Leader
Institute Calibration Laboratory 

Date: Sep. 02, 2003

Subject: Out-of-tolerance Notice

The purpose of this notice is to alert you of a condition, which may have caused erroneous measurements affecting safety or the quality of products or services your organization provides. The attached as-found readings are provided for your evaluation to determine if the instrument listed below had an impact and if further action is required.

When the as-found results are near the specification limit, +/- a margin less than the measurement uncertainty, it is not possible to state in-tolerance or out-of-tolerance with a 95% level of confidence. It is the Institute Calibration Laboratory policy that the client is made aware of this situation because the end-user is taking some of the risk that the instrument listed below may not meet the end-user measurement requirements.

Your review/evaluation should be conducted in accordance with your organizational quality policy and procedural requirements. If we can be of further assistance, please contact the Calibration Laboratory at 522-5215.

Manufacturer: Duro-Sense **Model:** J-00

Description: Rtd **Serial Number:** 325

Asset Number: 8425 **User ID Number:** None

Last Calibration: Jul. 23, 2003

Date Received for Service: Aug. 28, 2003 **Work Order Number:** 444055168

Service Requested: Scheduled calibration

Remarks: Wire fatigue causing measured resistance values to fluctuate. Unable to record repeatable "as found" values. Recommend removal from service.

OUT OF TOLERANCE

CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

NONCONFORMANCE REPORT

Project No. 20.06002.01.081

NCR No. 2003-14

PART 1: DESCRIPTION OF NONCONFORMANCE

RTD (Serial Number 325, Asset number 008425) was not able to be calibrated because the wire connection were damaged.

Initiated by: Darrell S. Dunn

Date: 10/17/2003

PART 2: PROPOSED DISPOSITION AND CORRECTIVE ACTION

Disposition:

No data are affected by the out of specification condition.

Basis of Disposition:

No measurements were made with this instrument.

Action to Correct Nonconformance:

RTD was removed from the Calibration recall list

Target date for completion: 10/31/2003

Proposed by: Darrell S. Dunn

Date: 10/17/2003

PART 3: APPROVAL

Element Manager: [Signature]

Date: 10/20/03

Director of QA: [Signature]

Date: 10/21/03

Comments/Instructions: for RDB

PART 4: CLOSE OUT

Comments: No further action required.

Distribution: D. Dunn
V. J. Jain
B. Dagar

Verified by: [Signature]

Date: 10/21/03

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To: Darrell Dunn, Div. 20, Bldg. 57**From:** Walt Hill, Metrology Group Leader
Institute Calibration Laboratory **OUT OF TOLERANCE**
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