



CALIBRATION REPORT

PO #

DECEMBER 5, 2011

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MANUFACTURER: OHM-LABS
 DESCRIPTION: CURRENT SHUNT
 MODEL: CS 20
 SERIAL:

PROCEDURE: CS CAL
 LAB ENVIRONMENT: 22 °C / 37 %RH
 CALIBRATION DATE: 05/DEC/2011
 CALIBRATION DUE:

<u>APPLIED CURRENT</u>	<u>MEASURED VALUE</u>	<u>RTD*</u>	<u>UNCERTAINTY</u>
5 A	0.049 999 55 Ω	24.2 °C	4.3 μΩ/Ω
10	0.049 999 77	28.5	2.3
15	0.049 999 91	37.2	4.0
20	0.049 999 86	44.4	4.8

*REPORTED RTD READINGS ARE NOT ACCREDITED.

NOTE: SHUNT WAS ALLOWED TO FULLY STABILIZE AT EACH APPLIED CURRENT.

STANDARDS USED

<u>ID</u>	<u>DESCRIPTION</u>	<u>MAKE & MODEL</u>	<u>CAL DUE</u>
AS3021	RESISTANCE STANDARD	OHM-LABS 202	11/FEB/2012
AS3400	RESISTANCE BRIDGE	GUILDLINE 9975	09/FEB/2012
AS3405	RANGE EXTENDER	GUILDLINE 9923	CNR
AS3322	RTD THERMOMETER	DIGI-SENSE 93400-00	CBU

COMMENTS:

OHM-LABS, INC. CERTIFIES THAT THIS CALIBRATION IS TRACEABLE TO THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST), OR ANOTHER RECOGNIZED NATIONAL MEASUREMENT INSTITUTE, OR DERIVED BY A RATIO TYPE SELF-CALIBRATION TECHNIQUE, AND IS ACCREDITED TO ISO/IEC 17025. OHM-LABS' QUALITY CONTROL SYSTEM MEETS THE REQUIREMENTS OF ANSI/NCSL Z540-1-1994. THE REPORTED UNCERTAINTIES REPRESENT EXPANDED UNCERTAINTIES EXPRESSED AT A CONFIDENCE LEVEL OF APPROXIMATELY 95 %, USING A COVERAGE FACTOR OF K=2. THE REPORTED UNCERTAINTIES INCLUDE THE STANDARD DEVIATION OF MULTIPLE MEASUREMENTS PERFORMED ON SEPARATE DAYS. THIS UNCERTAINTY IS AT THE TIME OF TEST ONLY AND DOES NOT TAKE INTO ACCOUNT TRANSIT, USAGE, DRIFT OVER TIME, OR OTHER FACTORS AFFECTING STABILITY. UNLESS OTHERWISE NOTED, THE REPORTED MEASUREMENTS ARE CONSIDERED AS FOUND/AS LEFT. THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT WRITTEN PERMISSION BY OHM-LABS, INC.

PERFORMED BY

REVIEWED BY: _





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TEMPERATURE VS. RESISTANCE CHART

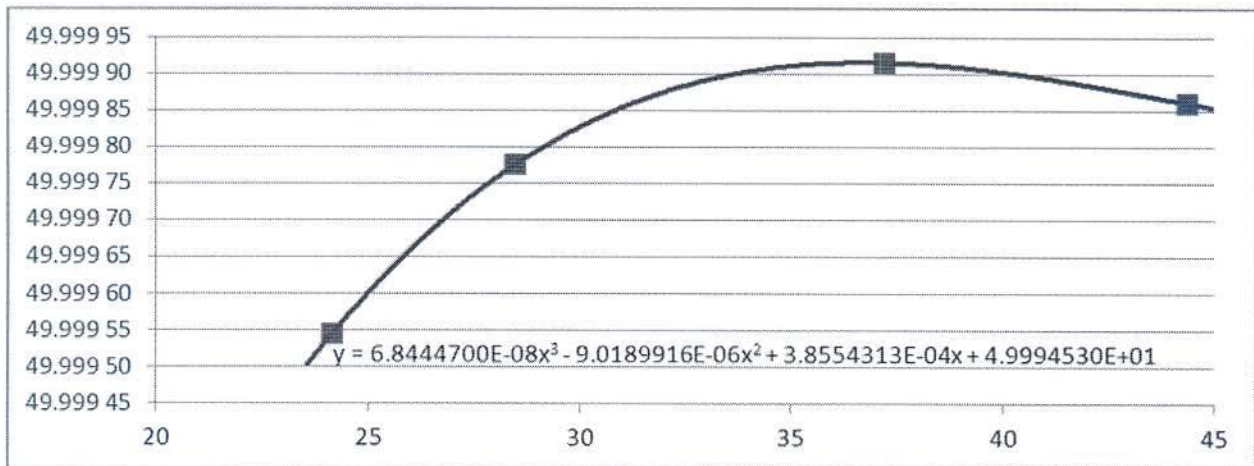


TABLE OF TEMPERATURE VS. RESISTANCE

Temp	MilliOhms	Temp	MilliOhms	Temp	MilliOhms	Temp	MilliOhms
20	49.999 18	27	49.999 71	34	49.999 90	41	49.999 89
21	49.999 28	28	49.999 76	35	49.999 91	42	49.999 88
22	49.999 38	29	49.999 80	36	49.999 91	43	49.999 87
23	49.999 46	30	49.999 83	37	49.999 92	44	49.999 86
24	49.999 53	31	49.999 85	38	49.999 91	45	49.999 85
25	49.999 60	32	49.999 87	39	49.999 91	46	49.999 84
26	49.999 66	33	49.999 89	40	49.999 90	47	49.999 83