



CALIBRATION REPORT

ORDER NO.

OCTOBER 25, 2013

PAGE 1 OF 2

MANUFACTURER: OHM-LABS INC.
 DESCRIPTION: CURRENT SHUNT
 MODEL: CS-100
 SERIAL:

PROCEDURE: CS CAL
 LAB ENVIRONMENT: 23 °C / 35 %RH
 CALIBRATION DATE: 25/OCT/2013
 CALIBRATION DUE:

| APPLIED CURRENT | MEASURED VALUE | RTD * | UNCERTAINTY |
|-----------------|----------------|---------|-------------|
| 20 A | 0.999 990 9 mΩ | 23.9 °C | 6.9 μΩ/Ω |
| 40 | 0.999 994 1 | 27.6 | 5.2 |
| 60 | 0.999 995 2 | 32.8 | 5.0 |
| 80 | 0.999 994 0 | 40.5 | 5.4 |
| 100 | 0.999 986 6 | 49.0 | 5.3 |

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

*TEMPERATURE MEASUREMENTS ARE NOT ACCREDITED.

STANDARDS USED

| ID | DESCRIPTION | MAKE & MODEL | CAL DUE |
|--------|---------------------|------------------|-------------|
| AS3001 | RESISTANCE STANDARD | OHM-LABS 200 | 28/FEB/2014 |
| AS3401 | RESISTANCE BRIDGE | GUILDLINE 9920-1 | 11/FEB/2014 |
| AS3322 | DIGITAL THERMOMETER | DIGI-SENSE 93400 | 22/AUG/2014 |

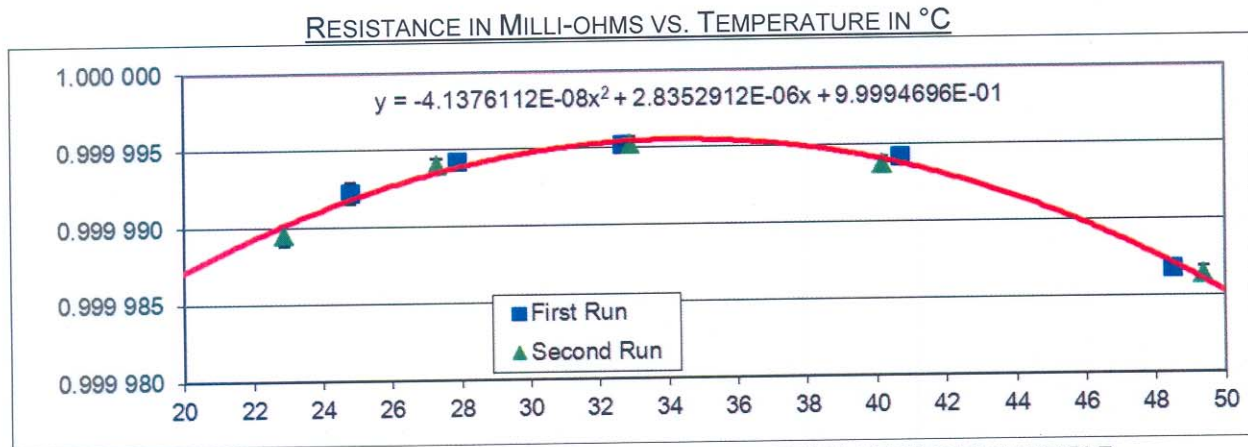
COMMENTS:

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/NCCL 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: _





EQUATION IN ABOVE CHART WAS USED TO CALCULATE VALUES IN BELOW TABLE.

TABLE OF TEMPERATURE VS. RESISTANCE

| °C | MILLI-OHMS | °C | MILLI-OHMS | °C | MILLI-OHMS |
|----|-------------|----|-------------|----|-------------|
| 20 | 0.999 987 1 | 30 | 0.999 994 8 | 40 | 0.999 994 2 |
| 21 | 0.999 988 3 | 31 | 0.999 995 1 | 41 | 0.999 993 7 |
| 22 | 0.999 989 3 | 32 | 0.999 995 3 | 42 | 0.999 993 1 |
| 23 | 0.999 990 3 | 33 | 0.999 995 5 | 43 | 0.999 992 4 |
| 24 | 0.999 991 2 | 34 | 0.999 995 5 | 44 | 0.999 991 6 |
| 25 | 0.999 992 0 | 35 | 0.999 995 5 | 45 | 0.999 990 8 |
| 26 | 0.999 992 7 | 36 | 0.999 995 4 | 46 | 0.999 989 8 |
| 27 | 0.999 993 3 | 37 | 0.999 995 2 | 47 | 0.999 988 8 |
| 28 | 0.999 993 9 | 38 | 0.999 995 0 | 48 | 0.999 987 7 |
| 29 | 0.999 994 4 | 39 | 0.999 994 6 | 49 | 0.999 986 5 |

END OF REPORT