



CALIBRATION REPORT

ORDER No.

NOVEMBER 12, 2018

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MANUFACTURER: OHM-LABS
 DESCRIPTION: CURRENT SHUNT
 MODEL: CS-3000
 SERIAL:

PROCEDURE: CS CAL
 LAB ENVIRONMENT: 23.5 °C / 26 %RH
 CALIBRATION DATE: 12/Nov/2018

MEASUREMENT DATA – AS FOUND / AS LEFT				
APPLIED CURRENT	MEASURED VALUE	UNCERTAINTY	TEMPERATURE	TEMPERATURE UNCERTAINTY
600 A	9.997 1 $\mu\Omega$	0.000 5 $\mu\Omega$	25.1 °C	0.8 °C
1200	9.999 3	0.001 3	31.7	2.9
1800	10.002 0	0.001 3	41.2	2.3
2400	10.004 5	0.001 4	52.5	2.9
3000	10.006 9	0.001 7	77.5	3.5

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

STANDARDS USED

ID	DESCRIPTION	MAKE & MODEL	CAL DUE
AS3002	RESISTANCE STANDARD	OHM-LABS 200	30/APR/2019
AS3404	3000 A BRIDGE	GUILDLINE 3000A	31/MAR/2019
AS3326	PRECISION THERMOMETER	ISOTECH MILLIK	18/OCT/2019

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. 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. THIS DOCUMENT CERTIFIES THAT THE ITEMS IDENTIFIED HEREIN COMPLY WITH ALL REQUIREMENTS OF THE ABOVE PURCHASE ORDER, AND THAT THE CALIBRATION PERFORMED WAS IN ACCORDANCE WITH THE CURRENT REVISION LEVEL OF OHM-LABS' QUALITY CONTROL SYSTEM. TRAINED AND QUALIFIED PERSONNEL PERFORMED THE CALIBRATIONS IN ACCORDANCE WITH THE REQUIREMENTS OF ISO/IEC 17025. THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT WRITTEN PERMISSION BY OHM-LABS, INC.

PERFORMED B

REVIEWED BY:

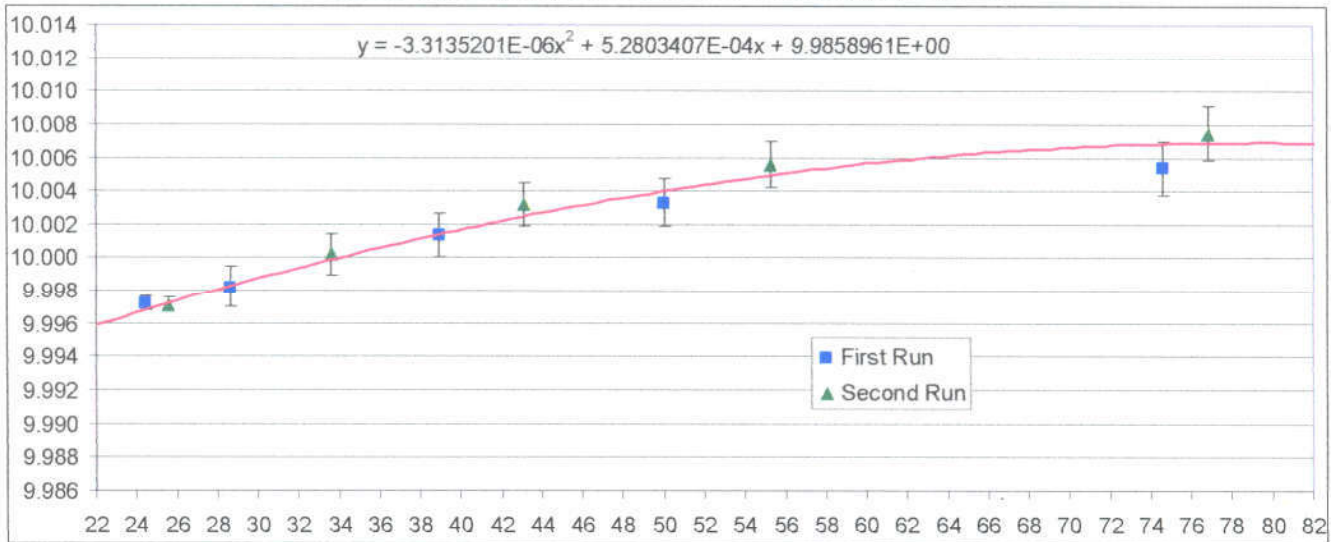


MANUFACTURER: OHM-LABS

MODEL: CS-3000

SERIAL:

RESISTANCE IN MICRO-OHMS VS. TEMPERATURE IN °C



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

TABLE OF TEMPERATURE VS. RESISTANCE

°C	μΩ	°C	μΩ	°C	μΩ	°C	μΩ
20	9.995 1	40	10.001 7	60	10.005 6	80	10.006 9
22	9.995 9	42	10.002 2	62	10.005 9	82	10.006 9
24	9.996 7	44	10.002 7	64	10.006 1	84	10.006 9
26	9.997 4	46	10.003 2	66	10.006 3	86	10.006 8
28	9.998 1	48	10.003 6	68	10.006 5	88	10.006 7
30	9.998 8	50	10.004 0	70	10.006 6	90	10.006 6
32	9.999 4	52	10.004 4	72	10.006 7	92	10.006 4
34	10.000 0	54	10.004 7	74	10.006 8	94	10.006 3
36	10.000 6	56	10.005 1	76	10.006 9	96	10.006 0
38	10.001 2	58	10.005 4	78	10.006 9	98	10.005 8

END OF REPORT