



# CALIBRATION REPORT

ORDER NO.  
OCTOBER 15, 2016  
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MANUFACTURER:	OHM-LABS	PROCEDURE:	CS CAL
DESCRIPTION:	CURRENT SHUNT	LAB ENVIRONMENT:	23.1 °C / 47 %RH
MODEL:	CS-50	CALIBRATION DATE:	15/OCT/2016
SERIAL:		CALIBRATION DUE	

MEASUREMENT DATA – AS FOUND / AS LEFT				
APPLIED CURRENT	MEASURED VALUE	UNCERTAINTY	TEMPERATURE	TEMPERATURE UNCERTAINTY
10 A	9.999 738 mΩ	4.0 μΩ/Ω	23.2°C	+/- 0.2 °C
20	9.999 837	4.2	24.9	
30	9.999 991	9.3	30.0	
40	10.000 104	7.4	34.2	
50	10.000 194	3.5	40.1	

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

### STANDARDS USED

ID	DESCRIPTION	MAKE & MODEL	CAL DUE
AS3012	RESISTANCE STANDARD	OHM-LABS 201	30/APR/2017
AS3403	RESISTANCE BRIDGE	GUILDLINE 9975	28/FEB/2017
AS3407	RANGE EXTENDER	GUILDLINE 9923	28/FEB/2017
AS3322	THERMOMETER, RTD	COLE-PARMER 93400	23/OCT/2016

### 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/NC SL 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 BY: \_\_\_\_\_

REVIEWED BY: \_\_\_\_\_  
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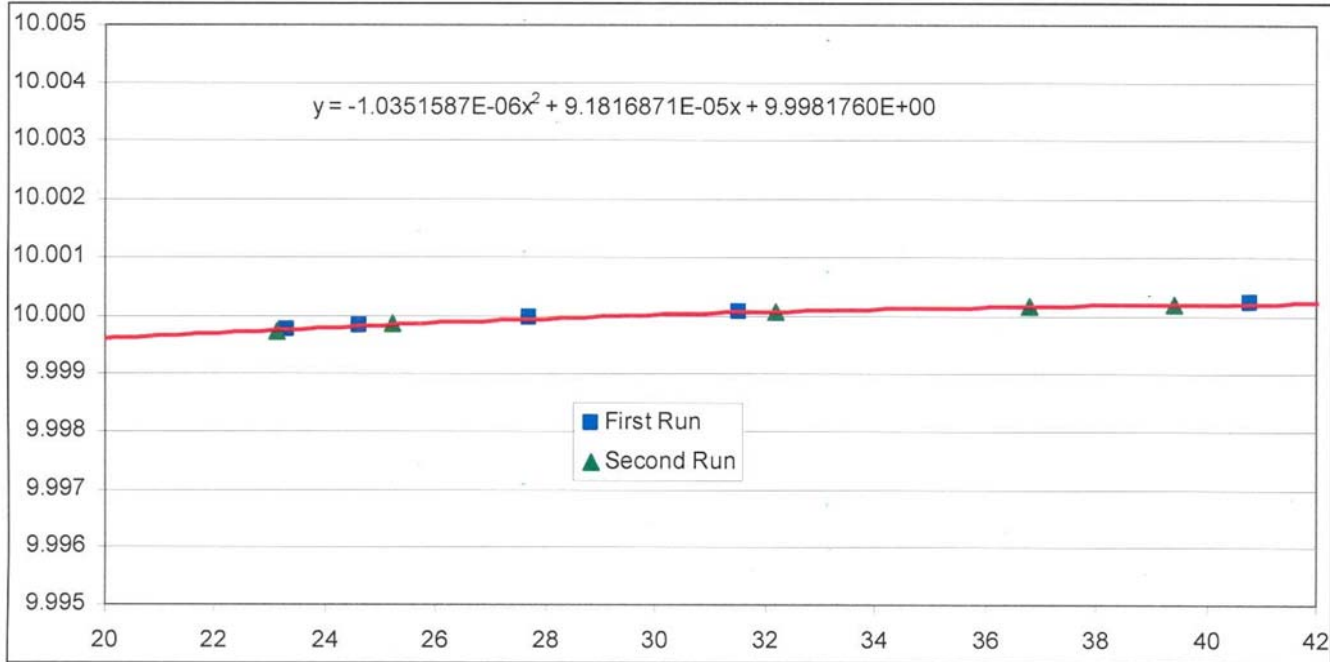


MANUFACTURER: OHM-LABS

MODEL: CS-50

SERIAL:

RESISTANCE IN MILLI-OHMS VS. TEMPERATURE IN °C



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

TABLE OF TEMPERATURE VS. RESISTANCE

°C	mΩ	°C	mΩ	°C	mΩ
20	9.999 598	30	9.999 999	40	10.000 192
21	9.999 648	31	10.000 028	41	10.000 200
22	9.999 695	32	10.000 054	42	10.000 206
23	9.999 740	33	10.000 079	43	10.000 210
24	9.999 783	34	10.000 101	44	10.000 212
25	9.999 824	35	10.000 122	45	10.000 212
26	9.999 863	36	10.000 140	46	10.000 209
27	9.999 900	37	10.000 156	47	10.000 205
28	9.999 935	38	10.000 170	48	10.000 198
29	9.999 968	39	10.000 182	49	10.000 190

END OF REPORT.