



# CALIBRATION REPORT #

ORDER No.

MARCH 28, 2011

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MANUFACTURER: OHM-LABS  
DESCRIPTION: RESISTANCE STANDARD  
MODEL: 102  
SERIAL:

PROCEDURE: RS CAL  
LAB ENVIRONMENT: 23 °C / 28 %RH  
CALIBRATION DATE: 28/MAR/2011  
CALIBRATION DUE:

<u>APPLIED CURRENT</u>	<u>MEASURED VALUE</u>	<u>UNCERTAINTY</u>
10 MILLIAMPS	99.999 77 Ω	0.7 μΩ / Ω

<u>STANDARDS USED</u>			
<u>ID</u>	<u>Description</u>	<u>Make &amp; Model</u>	<u>Cal Due</u>
AS3021	RESISTANCE STANDARD	OHM-LABS 202	24/JUL/2011
AS3410	RESISTANCE BRIDGE	MI 6242-B	05/MAR/2012
AS3402	THERMOMETER	ASL F26	13/JUL/2011

### COMMENTS:

PLEASE REFER TO PAGE (2) OF THIS REPORT FOR THE TEMPERATURE COEFFICIENTS FOR THIS RESISTOR.

OHM-LABS, INC. CERTIFIES THAT THIS CALIBRATION IS TRACEABLE TO A 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 INCLUDES THE STANDARD DEVIATION OF SEVERAL MEASUREMENT RUNS ON SEPARATE DAYS AND IS CALCULATED AT THE TIME OF TEST ONLY. IT DOES NOT TAKE INTO ACCOUNT TRANSIT, USAGE, DRIFT OVER TIME, OR OTHER FACTORS AFFECTING STABILITY. THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT WRITTEN PERMISSION BY OHM-LABS, INC.

PERFORMED BY:   
MATTHEW ABELL, CALIBRATION TECHNICIAN

REVIEWED BY:   
ROBERT DODDS, DEPUTY QUALITY MANAGER



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TEMPERATURE COEFFICIENTS OF RESISTANCE, REFERENCED TO 23.0 °C

$\alpha$  (ALPHA) = 0.00 E-08

$\beta$  (BETA) = -1.20 E-08

TABLE OF CORRECTIONS IN PPM FROM MEASURED VALUE AT 23.0 °C

Temp	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
18	-0.30	-0.29	-0.28	-0.27	-0.25	-0.24	-0.23	-0.22	-0.21	-0.20
19	-0.19	-0.18	-0.17	-0.16	-0.16	-0.15	-0.14	-0.13	-0.12	-0.12
20	-0.11	-0.10	-0.09	-0.09	-0.08	-0.08	-0.07	-0.06	-0.06	-0.05
21	-0.05	-0.04	-0.04	-0.03	-0.03	-0.03	-0.02	-0.02	-0.02	-0.01
22	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01
24	-0.01	-0.01	-0.02	-0.02	-0.02	-0.03	-0.03	-0.03	-0.04	-0.04
25	-0.05	-0.05	-0.06	-0.06	-0.07	-0.08	-0.08	-0.09	-0.09	-0.10
26	-0.11	-0.12	-0.12	-0.13	-0.14	-0.15	-0.16	-0.16	-0.17	-0.18
27	-0.19	-0.20	-0.21	-0.22	-0.23	-0.24	-0.25	-0.27	-0.28	-0.29
28	-0.30	-0.31	-0.32	-0.34	-0.35	-0.36	-0.38	-0.39	-0.40	-0.42
29	-0.43	-0.45	-0.46	-0.48	-0.49	-0.51	-0.52	-0.54	-0.55	-0.57

Resistance vs. Temperature Curve

