

Recalibration Certificate

This Gaussmeter Model GM2 Serial #2895 was recalibrated on 06/23/2020 by Tarik Dzumhur. This gaussmeter was reading 100.09% of correct +/- 0.2% at 70°F. The meter was calibrated and is now reading 100% of correct +/- .2% on 06/23/2020. This accuracy level complies with the published +/-2% accuracy.

Ref Magnet	1016 G
Receipt	1017 G
Return	1016 G

NOTE: Uncertainty +/-0.15%

This AlphaLab, Inc. GM2 is certified to display magnetic flux density in one axis with a scaling inaccuracy of  $\pm 2\%$  (of reading) over the temperature range of  $-4^{\circ}\text{C}$  to  $65^{\circ}\text{C}$  ( $25^{\circ}\text{F}$  to  $149^{\circ}\text{F}$ ) and 0-80% RH in the dynamic range of 0 to  $\pm 20\text{kG}$  and  $\pm 3\%$  (of reading) in the 20kG – 30kG range. Accuracy of absolute zero field level is determined by the user when setting the "OFFSET" control. The linearity over the  $\pm 20\text{kG}$  range is  $\pm 0.2\%$  and less than  $\pm 1\%$  over the 20kG to 30kG range. AC accuracy is +/-3% of reading from 45Hz to 800Hz (pseudo RMS AC).


Calibration with ST Probes was performed using Magnetic Instrumentation Inc. gap magnet model # F062-10K serial #901298-1 as the primary standard. Calibration with HS Probes was performed by a Helmholtz coil with calibrated field strength, traceable to NIST or to natural physical constants. Verification of the coil field strength is performed at least once every six months by direct measurement of lengths and electrical current. The current measurement in the Helmholtz coil was done with an Extech Instruments Model 560A Multimeter, serial #Z335975. The Helmholtz dimensions were measured using a Mitutoyo 500-321 Digimatic Caliper, serial #7043458. Calibration of the multimeter and the caliper were done using ISO/IEC 17025 and ANSI/NCSL Z540-1 traceable to NIST standards and is current and performed annually. Uncertainty of the standards is less than +/- .2%, so the TAR is greater than 4:1.

Ambient conditions during calibration were temperature  $23^{\circ} \pm 1^{\circ}\text{C}$ , RH  $40\% \pm 5\%$ .

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This certificate of calibration is valid for one year.

Calibration performed by:

  
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Tarik Dzumhur

**JUN 23 2020**  
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Date