Gaussmeter Model GM2

(AlphaLab, USA)

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UNIVERSAL SERIAL BUS

Laboratory gaussmeter that reads field, true peak field, AC field, and has an alarm. Range is 30,000 gauss. **Includes one probe of your choice and a NIST traceable calibration certificate.**

Product Description:

The Model GM2 Measures the strength and polarity of magnetic field up to 30kG when using a standard probes, or 800 gauss (resolution 0.01 gauss) if an HS probe is used. Functions include DC, AC and peak hold along with a user-adjustable alarm which has three modes of operation. DC background field can be subtracted out either by pressing “Relative Zero” or by manually adjusting the offset. The meter includes battery, AC adapter analog output jack and calibration certificate. If a standard probe is used, resolution is 0.1 gauss up to 19,999.9 gauss, which is stronger than the field of any permanent magnet. This 5 ½ digit display allows measurement of tiny difference in strong fields. Above 20kG the meter autoranges to a 30kG range. Interchangeable probes are available at two sensitivity levels: standard to 30k gauss and HS (resolution 0.01 gauss); these are available in universal (bendable), axial and transverse shape. Choice of one probe is included with the meter. (Full Length Description)

GM2 Output Jack Description:

The GM2 comes standard with a 1/8" (3.25 mm) mono phone plug, which resembles a headphone jack. Output is an analog voltage proportional to the magnetic signal at that moment. The ST output range is +2 to -2V, corresponding to +20,000 to -20,000 gauss. HS range is +0.8 to -0.8V, corresponding to +800 to -800 gauss. When switched to AC or Peak Hold, the output remains the actual field (not the AC or peak hold value). Bandwidth is DC -1500 Hz.

Features:

- High dynamic range: can measure even a small variation in a large DC, AC or peak magnetic field.
- Programmable alarm will sound either if field exceeds a level you set or if the field is between lower and upper levels you set.
- Intuitive to use with rapid turn on, fast update. Begin reading DC field, AC f field, or peak field just by turning the knob. No setup or calibration required.
- Peak hold function shows the highest DC level with fast 0.002 sec capture window; also displays polarity of the peak.
- Interchangeable probes: range 30k G with ST probes; 800 G (0.01 G resolution) with HS probes.
- Runs on battery or AC adapter (included).
- Includes analog output connector, certificate of calibration.
- CE Compliant.

Applications:

- The ST-Probe measures all magnets, DC/AC electromagnets and solenoids. With the HS-Probe, parts can be rapidly scanned for residual magnetism. An alarm can be set to sound is any region exceeds a set threshold. “Peak hold” functions shows the maximum magnetism.
- Measures background (including Earth) field direction and strength, both DC and AC.
- Using the AC adapter, meter can be left on permanently to capture the peak field value (if at least 0.002 seconds in duration); can be read at any future time.

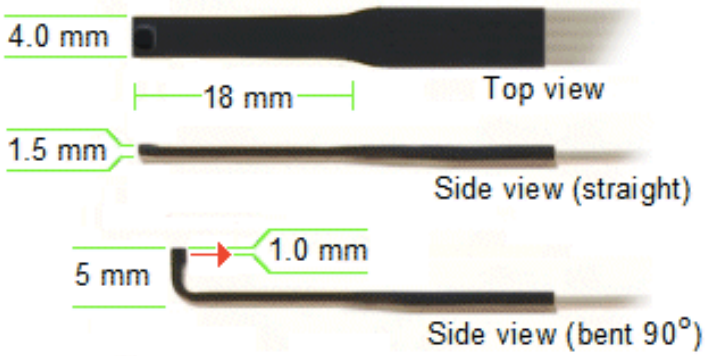
SPECIFICATIONS: 1-axis DC/AC Gaussmeter GM2	
Range/Resolution (ST Probe):	0-19,999.9 G / 0.1 G; 20kG- 30kG /1G indicates polarity
Range/Resolution (HS Probe):	0-799.99G / 0.01G indicates polarity
Accuracy (w/ probe) 16° to 29°C:	1% of DC reading / 3% AC +/- 10 Counts / 1% peak hold
Accuracy (w/ probe) -4° to 65°C:	2% of DC reading / 4% AC +/- 10 Counts / 2% peak hold
AC Frequency Range:	45-800 Hz; 3 dB limits are 11 to 1500 Hz.
Peak Hold Speed:	2 millisec pulse is 71%, 5+ millisec pulse is 100%±1%
Output Type:	Analog DC Signal.
Output Magnitude (ST Probe):	Below 20kG, output is 0.1mV/G. Above 20kG, it is 0.01 mV/G
Output Magnitude (HS Probe):	1mV/G
Meter Size:	5.2 x 3.6 x 1.6 inches; 138 x 91 x 41 mm
Weight:	7.5 oz
Battery:	9 volt alkaline (~40 hour life with ST probe, ~ 20 with HS probe); "Low Battery" indicator

Probes:

Red arrow (↑) is field direction for a positive (+) reading.

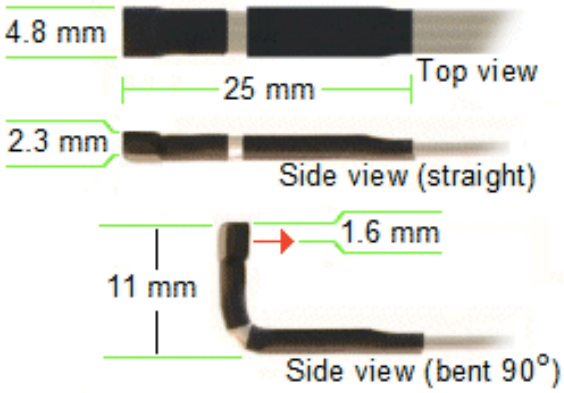
ST universal probe

A flexible probe. Max 30 kilogauss.



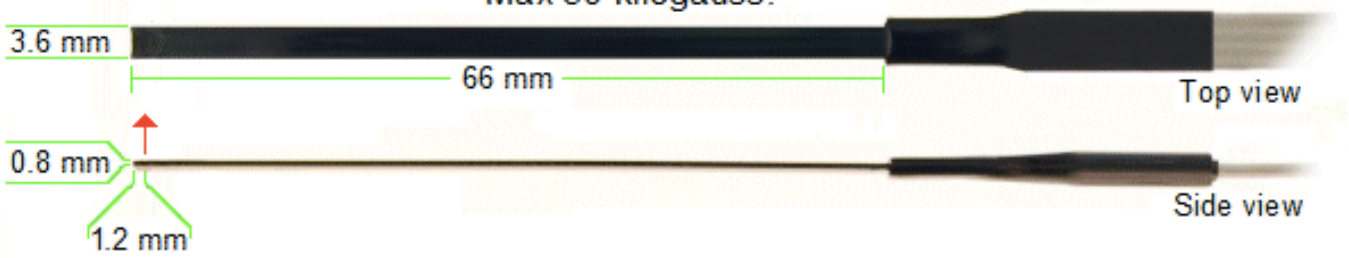
HS universal probe

A flexible probe. Max 800 gauss.

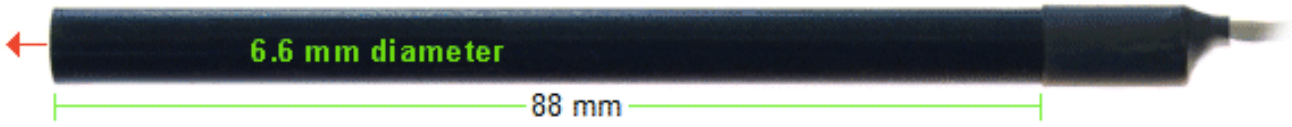


ST transverse probe

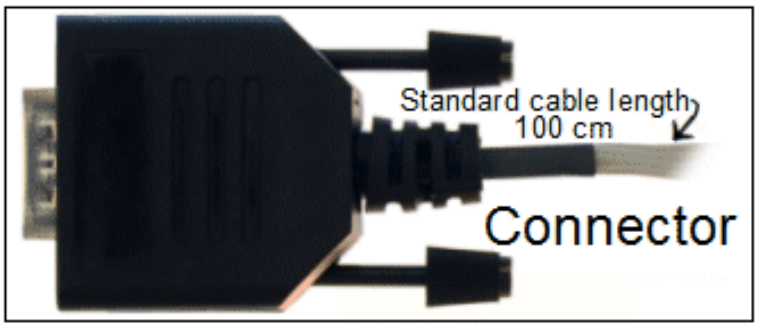
Max 30 kilogauss.



Axial probe (both ST and HS style)



Sensor is 0.4 mm back, centered on probe face.



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