

4000 Series Hand-Held Gaussmeters

ELF Gaussmeters

Description

Lightweight and completely self-contained, the easy to use 4000 Series ELF Meters are ideal for commercial or home use. The 4000 Series accurately measures Extremely Low Frequency magnetic fields generated by electrical equipment. Applications include detecting magnetic field emissions from a wide variety of sources, including video display terminals (VDTs), AC power lines, office equipment, household appliances, and all types of electrical and electronic equipment. The models 4080 and 4090 feature three axis sensors which ensure that measurements remain accurate regardless of the orientation of the instrument.



Model 4070

Single Axis Model
Typical Accuracy <1%
0.1 mG Resolution

Model 4080

Three Axis Model
Highest Accuracy <2%
Auto Ranging
True RMS Reading

Model 4090

Three Axis Model
Typical Accuracy <1%
Auto Ranging
True RMS Reading

Features

- 0.1 mG Resolution
- High Accuracy
- μ T Scale (Option)
- Affordable price
- Three Axis Technology-maintains accuracy regardless of orientation
- Complete with Deluxe Carrying Case and Battery
- Hand-Held Portability
- True RMS Measurement

Applications

- AC Power Lines
- Office Equipment
- Plant Surveys
- Power Line Surveys
- VDT - Video Display Terminals
- Household Appliances
- Electrical and Electronic Equipment
- Home and Building Inspection

Note: Due to continuous process improvement, specifications subject to change without notice.

4000 Series **Specifications**

Model	Model 4070	Model 4080	Model 4090
# of Axes	Single <input type="checkbox"/> <input type="checkbox"/>	Three <input type="checkbox"/>	Three
Auto Ranging	No <input type="checkbox"/> <input type="checkbox"/>	Yes <input type="checkbox"/> <input type="checkbox"/>	Yes
Available Options	F20 <input type="checkbox"/> <input type="checkbox"/>	F50 <input type="checkbox"/> <input type="checkbox"/>	A,D,F20,X,T
Minimum Resolution	0.1 mG <input type="checkbox"/> <input type="checkbox"/>	0.1 mG <input type="checkbox"/> <input type="checkbox"/>	0.1 mG
Measuring Range	0.1 to 199.9mG <input type="checkbox"/> <input type="checkbox"/>	0.1 to 511 mG (std)	0.1 to 1999 mG (std) 0.01 to 199.9 <input type="checkbox"/> T (opt)
Accuracy Error	± (1% + 1 digit) <input type="checkbox"/> typical <input type="checkbox"/> <input type="checkbox"/>	± (2% + 1 digit) <input type="checkbox"/> typical <input type="checkbox"/> <input type="checkbox"/>	± (1% + 1 digit) typical
Frequency Response			
±5%	50-300Hz <input type="checkbox"/> <input type="checkbox"/>	40-600Hz <input type="checkbox"/> <input type="checkbox"/>	40-200Hz
-3dB	20-2000Hz <input type="checkbox"/> <input type="checkbox"/>	25-1000Hz <input type="checkbox"/> <input type="checkbox"/>	20-2000Hz
Calibration Frequency	60Hz <input type="checkbox"/> <input type="checkbox"/>	60Hz <input type="checkbox"/> <input type="checkbox"/>	55Hz only
Display	3 1/2 digit LCD <input type="checkbox"/>	3 1/2 digit LCD <input type="checkbox"/>	3 1/2 digit LCD
Measurement Type	True RMS <input type="checkbox"/> <input type="checkbox"/>	True RMS <input type="checkbox"/> <input type="checkbox"/>	True RMS
Battery Life (typical)	250 Hours <input type="checkbox"/> <input type="checkbox"/>	40 Hours <input type="checkbox"/> <input type="checkbox"/>	50 Hours
Operating Temperature	0°C to +50°C <input type="checkbox"/>	0°C to +50°C	-10°C to +50°C
Power Source	9V Alkaline <input type="checkbox"/> <input type="checkbox"/>	9V Alkaline <input type="checkbox"/>	9V Alkaline
Weight	5 oz. <input type="checkbox"/> <input type="checkbox"/>	5 oz. <input type="checkbox"/> <input type="checkbox"/>	7 oz.
Size	4.7" H <input type="checkbox"/> <input type="checkbox"/>	4.7" H <input type="checkbox"/> <input type="checkbox"/>	5.9" H
	2.4"W <input type="checkbox"/> <input type="checkbox"/>	2.4"W <input type="checkbox"/> <input type="checkbox"/>	3.2"W
	1.0" D <input type="checkbox"/> <input type="checkbox"/>	1.0" D <input type="checkbox"/> <input type="checkbox"/>	1.2" D

Options Summary

F20 – Extended Bandwidth – This feature extends the -3dB frequency response of the instrument to 20-2,000 Hz and is included with all 4070 and 4090 ELF meters. (not available with 4080). This is useful if the measurements are required for sources with high harmonic content.

F50 – 50 Hz Calibration – For instruments that are used outside of North America. This option changes the standard calibration frequency from 60 Hz to 50 Hz and is available for the 4080 only.

A – Analog Output – This 4090 option provides a buffered output for viewing analog waveform on an oscilloscope, spectrum analyzer, or similar test equipment. This is useful for determining harmonic content and other waveform properties. The output impedance is 4000 OHMS.

Z-Axis waveform only. 5mV/mG; 2 volts FS at 200 mG.

D – DC Output – This 4090 option provides a voltage level proportional to the displayed level of the magnetic field. It is useful for driving chart recorders, data loggers, and other data acquisition equipment. 10 mV/mG; 2 FS volts at 200 mG.

X – Switchable Single Axis Mode – This 4090 option allows users to display the vector components of the magnetic field. This option should be specified in applications that require the direction of the magnetic field be known as well as the level. This option adds 0.4" to the height of the meter.

T – Microtesla Scale – 4090 units ordered with this option display the magnetic field in μ T (instead of mG).

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