

# 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 insure that measurements remain accurate regardless of the orientation of the instrument.



### Model 4070

Single Axis Model  
Typical Accuracy <1%  
0.1 mG Resolution

### Model 4090

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

### Model 4080

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

## Features

- 0.1 mG Resolution
- High Accuracy
- $\mu$ 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

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



## 4000 Series **Specifications**

<b>Model</b>	<b>4090</b>	<b>4080</b>	<b>4070</b>
# of Axes	Three	Three	Single
Auto ranging	Yes	Yes	No
Available options	A,D,F20,X01,T	F50,T	F20,F50
Minimum resolution	0.1 mG	0.1 mG	0.1 mG
Measuring range	0.1 to 1999 mG (std) 0.01 to 199.9 $\mu$ T (opt)	0.1 to 511 mG (std) 0.01 to 51.1 $\mu$ T (opt)	0.1 to 199 mG
Accuracy Error	$\pm$ (1% + 1 digit) typical	$<\pm$ 2% typical + 5% max.	$\pm$ (1% + 1 digit) typical
Frequency Response			
+5%	40-200 Hz	40-600 Hz	50-300 Hz
-3dB	30-600 Hz	25-1000 Hz	30-600 Hz
Calibration Frequency	55 Hz only	60 Hz	60 Hz
Display	3 1/2 digit LCD	3 1/2 digit LCD	3 1/2 digit LCD
Measurement Type	True RMS	True RMS	True RMS
Battery Life (typical)	50 hours	40 hours	250 hours
Operating Temperature	-10°C to +50°C	0°C to +50°C	0°C to +50°C
Power Source	9V alkaline	9V alkaline	9V alkaline
Weight	7 oz.	5 oz.	5 oz.
Size	5.9" H 3.2" W 1.2" D	4.7" H 2.4" W 1.0" D	4.7" H 2.4" W 1.0" D

## Options Summary

### F20-Extended Bandwidth

This option extends the frequency response of the instrument to 20-2,000 Hz. This is useful if measurements are required for sources with high harmonic content.

### F50 - 50 Hz Calibration

For instruments that are used outside of North America. This no cost option changes the standard calibration frequency from 60 Hz to 50 Hz.

### A - Analog Output

This 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.

### D - DC Output

This 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.

### X01 - Switchable Single Axis Mode

This 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

Instruments ordered with this option display the magnetic field in  $\mu$ T (instead of mG).

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