



Note: Actual product may vary from image

Description

Lightweight and completely self contained, the easy to use 4100 Series ELF Meters are ideal for commercial or home use. The 4100 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, AC power lines, office equipment, household appliances, and all types of electronic equipment.

This new meter represents the most recent design from the world leader in magnetic measuring equipment. Key features include Auto Zero, Min./Max./Peak Hold, Auto Range and Relative Mode. Both models allow the user to select Gauss, Tesla or Ampere/Meter readings.

The 4100 Series Hand-Held Gaussmeter's built-in software eliminates the need for complex calibration procedures. User prompts on the custom formatted LCD allow fast, simple push button operation. All models come with instruction manual, hard carrying case, and four AAA batteries.

Features

- Low Cost, Small Lightweight and Portable
- High Accuracy
- Gauss or Tesla Display Options
- 0.1 mG resolution
- Low Battery Detection
- Waveform and RMS Analog Output
- Selectable X, Y, or Z Axis plus Vector Summation
- Min/Max/Hold
- True RMS Reading
- Relative Mode
- Universal Serial Bus Interface

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 are subject to change without notice.



SYPRIS
TEST & MEASUREMENT

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4100 Series Specifications

	Model 4180	Model 4190
Basic Accuracy	± (2% + 1 digit) typical	± (1% + 1 digit) typical
Frequency Response ±5%	30 to 2kHz	30 to 2kHz
Sampling Rate (display)	4 samples/sec	4 samples/sec
Sampling Rate (Analog Output)	None	200K samples/sec
Measuring Range	0.1 to 511 mG (std) or 0.01 to 51.1 µT (opt)	0.1 to 1999 mG (std) or 0.01 to 199.9 µT (opt)
Minimum Resolution	0.1 mG	0.1 mG
Display	LCD	LCD
Digits	3 1/2	3 1/2
Readings	Gauss, Tesla, Amps/Meter	Gauss, Tesla, Amps/Meter
Analog Output	None	±3V FS
Communication Port	USB	USB (1 samples/sec)
Data Logging	No	Yes – Software Data Logging

General Information

	Model 4180	Model 4190
Calibration Frequency	50/60Hz	50/60Hz
Battery Life (Typical)	APPROX. 50 hours	APPROX. 50 hours
Battery Type	4 AAA Alkaline	4 AAA Alkaline
Operating Temperature	-10°C to 50°C	-10°C to 50°C
External Power Supply	Yes	Yes
Weight (with batteries installed)	APPROX. 6.3 oz	APPROX. 6.3 oz
Size	Est. 4" x 2.6" x 1"	Est. 4" x 2.6" x 1"

Standard Features - Model 4190

A – Analog Output- This 4190 feature 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 200mG. (User activated through sequence of key strokes).

D – DC Output – This 4190 feature 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. (User activated through sequence of key strokes).

T- Microtesla Scale – 4190 units can display the magnetic field in uT (instead of mG) (User activated through sequence of key strokes).

Standard Features - Models 4180 /4190

X – Switchable Single Axis Mode – This 4190/4180 feature 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. (User activated through sequence of key strokes).

F20 – Extended Bandwidth – This feature extends the -3dB frequency response of the instrument to 20 to 2,000 Hz and is included with all 4180 and 4190 Elf meters. This is useful if the measurements are required for sources with high harmonic content. Standard calibration frequency of 55Hz covers both 50Hz and 60Hz with a .2% variation.

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Hall Effect Gaussmeters