



Fluxmeter Measurement System Model 2130

Features

- High Accuracy
- Low Drift With Automatic Drift Correction
- 12 Measurement Ranges
- Single Button Zeroing and Calibration
- Measurement Functions AC, DC, Peak
- Modes: Normal, Limits, & Relative
- High Resolution (1 part in 32,000)
- Measurement Unit Selection; Maxwell, Maxwell-turns, Gauss, Tesla or Bdi Gauss
- User Select Sampling Period 100ms to 2.5 Seconds
- Compact Size
- 32 Character Backlit Display
- External Reset
- Factory Set Default Mode
- Analog, Dual Limit HI/GO/LO - TTL and RS-232 Outputs Standard
- IEEE-488 Interface Option
- 3.5" Rack Mount Option

Description

The Model 2130 Fluxmeter is a fully featured, high end Fluxmeter based measurement system. It is a compact instrument with high accuracy, automatic drift correction, microprocessor control and twelve measurement ranges to allow the operator to configure the meter for maximum resolution and accuracy. The Model 2130 is capable of measuring (DC), alternating (AC), or pulsed magnetic fields. Selecting primary measurement functions is quick and easy with dedicated front panel function keys. An easy to use menu allows access to user defined parameters such as upper and lower magnetic limits and relative magnetic measurements. Remote meter configuration is completely accessible using the built-in RS-232 Interface or optional IEEE-488 Interface. The Model 2130 is an electronic integrating Fluxmeter with high sensitivity, very low drift and automatic drift correction. It provides measurements in five (5) different units over twelve (12) measurement ranges. The ability to select measurements in either Maxwell, Maxwell-turns, Gauss, Tesla and Bdi Gauss make this unit ideal for both production and laboratory/research testing. The most frequently used functions are accessed using front panel pushbuttons while more complex functions are selected by way of a user friendly menu system and function select entry. For example, Helmholtz Coil constants and magnet volume can be manually entered from the front panel and stored in memory to provide readings directly in Bdi Gauss. Probe/Coil parameters, such as the number of turns and area (NA), resistance and Helmholtz constant, can also be stored in look-up tables for easy reference and future setups. This feature saves time and reduces the chance of errors in converting readings manually.

Magnetic Instrumentation, Inc. offers a wide selection of both standard and custom Helmholtz Coil Systems and Search Coils to measure many different magnet sizes and configurations.

**Specifications
Accuracy Specifications:**

Function	Range	Typical (% of range)	Maximum (% of range)	Conditions
Normal (DC)	10 ⁵ - 10 ⁸	0.050	0.100	-
AC (RMS)	10 ⁵ - 10 ⁸	0.500	1.000	20 Hz - 30 Hz
AC (RMS)	10 ⁵ - 10 ⁸	0.300	0.700	30 Hz - 1 k Hz
Max Hold (Peak)	10 ⁵ - 10 ⁸	0.300	0.800	³ 1 ms pulse width *
Analog Output	10 ⁵ - 10 ⁸	0.150	0.400	Specification is for the deviation of the analog output compared to the Model 2130 display value.

* Certified at a 1ms pulse. However, if the input voltage range is not exceeded impulse fields as fast as 100 microseconds can be measured.

Average Time Constant: (display rate)

This interval may be set from 100 ms to 2500 ms, in 100 ms intervals. (0.4 to 10 times per second)

Display Resolution: 4 3/4 Digits (1 part out of ± 32,000)

Operating Temperature Range: 0°C to +50°C

Storage Temperature Range: -20°C to +70°C

Maximum Resolution: 10 Maxwell-turns on 10⁵ range

Humidity: 0 to 68%

Analog Output: 1 Volt ± 0.25% of full scale
Power Requirements: 110 VAC, 220 VAC at 10W, or ±9 VDC at 5W Operation

Dimensions: Length 12.00 in (305 mm), Width 6.70 in (170 mm), Height 2.25 in (57 mm), Approximate Weight: 6 lb (2.7 kg)

Specifications subject to change without notice.

Contact our factory for additional information.

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