

MF-10D MICROPROCESSOR-CONTROLLED FLUXMETER

FEATURES:

- Superior Stability
- LocLogic Auto Null
- Display Resolution to 5³/₄ digits
- Storage of 10 sets of Measurement Coil Parameters
- USB, RS-232 and IEEE-488 Interfaces
- Corrected & Uncorrected Analog Outputs
- Peak Hold
- Hi, Lo, Inside/Outside Threshold Alarms



APPLICATIONS

- AC and DC Magnetic Field Measurements
- Magnetic Circuit Analysis - Relays, Electromagnets, Motors, Generators, Loudspeakers, Linear Actuators
- Measure Residual Fields
- Measure Absolute and Differential Magnetic Fields.
- Plot Field Uniformity or Field Gradients
- AC Flux Measurement for B-H Characterization of soft and hard materials.

OPERATION

The LE / Walker Scientific MF-10D Integrating Fluxmeter is a precision electronic instrument designed to measure the magnetic flux coupling within a coil or loop of wire. Average flux density thru the area of a coil, or the total flux within a coil can be measured and displayed. The large keypad makes it easy to select functions and setup parameters. The instrument can store up to 10 sets of coil parameters to simplify instrument set up.

The MF-10D Integrating Fluxmeter uses the latest in integrator amplifier designs to accurately integrate volt-sec-ond signals from flux measurement coils. Walkers' exclusive **LocLogic Auto Null** feature automatically removes uncompensated thermocouple voltages to minimize integrator drift without compromising measurement sensitivity. Measurement range and scale sensitivity are easily selected via easy to read display menus.

The broad range of features and fast response makes this fluxmeter suitable for DC and AC Hysteresis loop tracing. In the DC mode, the MF-10D Fluxmeter provides accurate measurement of static and slowly changing fields. AC measurements are represented in true RMS from 5 Hz to 100 kHz.

The bright, easy to read, vacuum florescent display has four lines of 20 alphanumeric characters, and is readable from any viewing angle. User control and selection of the displayed data, measurement type and system status makes this instrument easy to use and set up. Corrected and uncorrected analog outputs, plus **USB, IEEE-488.2 and RS-232** interfaces allow flexibility interfacing to a PC or other equipment.

LE / Walker Scientific continues to provide the latest in magnetic measurement products and leads the industry in complete measurement solutions. For more information on the MF-10D Integrating Fluxmeter or a catalog of our products call:

INTEGRATING FLUXMETER

MF-10D Specifications

INTEGRATING FLUXMETER

General

Inputs	1, Two Lead, Binding Post
Maximum Input Voltage	100Vj
Keypad	16 Key, Sealed Membrane
Display	4 Line x 20 Character Vacuum Fluorescent
Display Update Rate	3 Hz
Display Units	Gauss, Tesla, Maxwells, Maxwell/Turn, Webers, Weber/Turns
Display Parameters	Measurement Mode (AC, DC), Display Type (NORM, RMS, PEAK) Alarm Status, Communication Mode

Measurements

DC

Ranges	3 kGauss	30 kGauss	300 kGauss
Measurement Resolution	0.01 Gauss	0.1 Gauss	1.0 Gauss
Display Resolution	To 4% digits		
DC Accuracy	0.1% Full Scale		
Integrator Drift	100 Maxwell Turns / minute (after warm-up and thermal stabilization)		
Frequency Response	DC - 100 kHz		

Peak Measurement

Field Ranges	3 kGauss	30 kGauss	300 kGauss
Frequency Response	1 kHz		
Display Resolution	4% digits		
DC Peak Accuracy	±0.5% of range (plus integrator drift)		

AC

Field Ranges	3 kGauss	30 kGauss	300 kGauss
Measurement Resolution	0.1 Gauss	1.0 Gauss	10.0 Gauss
Display Mode	RMS (Root Mean Square)		
Display Resolution	4% digits		
Frequency Response	5 Hz to 100 kHz		
AC Accuracy	± 1% of reading (5 Hz - 100 kHz)		

Interfaces

IEEE-488-2 , RS-232C, USB 2.0 (Optional), Threshold Limit Relays, Remote Integrator Reset

Analog Outputs

Connectors Type BNC (minimum load - 50Ω)

	Uncorrected Analog	Corrected Analog	
Scale	±3V = Full Scale	Range	0 - ±3V Full Scale
Accuracy	±0.5% of Scaled Input Range (not corrected for linearity / temperature)	Accuracy	0.5% of Range (DC to 20 kHz)

Physical

Power Requirements	100 - 120 VAC 50/60 Hz or 230 - 240 VAC 50/60 Hz		
Size	12.3" L x 10.1" W x 4.0" H 312.4 mm L x 256.5 mm W x 101.6 mm H	Weight: Net 9.4 lbs (4,31 kg)	Shipping 15 lbs (6.8 kg)