



**LABORATORIO ELETTOFISICO
WALKER LDJ SCIENTIFIC**

YOUR MAGNETIC BUSINESS RESOURCE

DIGITAL FLUX

Fluxmeter

The Laboratorio Elettrofisico digital fluxmeter utilizes sense coil technology to measure magnetic flux. Our precision electronics performs the integration of the volt-second signal from the coil to provide accurate measurement of average flux density or total flux.



$$V = - \frac{d\Phi}{dt}$$

Faraday's induction law:

A variation of flux linked with a coil produces a voltage at its terminals



$$\Delta\Phi = - \int V dt$$

Fluxmeter's principle:

The integration of the induced voltage gives the flux variation

The exclusive Auto-Null feature automatically removes uncompensated thermocouple voltages to minimize integrator drift without compromising measurement sensitivity. Measurement range, scale sensitivity and the proper units are immediately selected via easy to read display menus or key buttons.

The bright backlight display has two lines of 20 alphanumeric characters, and is readable from any viewing angle. Corrected and uncorrected analog outputs, plus RS-232 interface provides flexible interfacing to a PC or other equipment.

KEY FEATURES

- Analogue fast integration and digital signal elaboration
- High stability and automatic drift control
- 7 ranges, for the best resolution and accuracy
- Multifunction easy-to-use menu
- Direct reading in volt-seconds, webers, maxwells
- Corrected and uncorrected analogue output
- High input resistance
- Elegant modern design
- 19" rack compatible
- Wide variety of measuring coils options available

MAIN APPLICATIONS

- Magnetic field measurement
- Measure of the properties soft and hard magnetic materials
- Quality control of magnetic devices (holders, motors, loudspeakers, etc.)
- Direct in-line control of the magnetic systems after magnetization and calibration
- Used in BH tracer for DC and AC materials characterization

FUNCTIONS

- Direct measure bipolar or absolute value
- Max-Min hold
- Peak
- Alarms (2 alarms, min-max)
- Manual/automatic drift control
- Manual/remote reset
- Manual/remote range changing
- Uncorrected/corrected analogue output

TECHNICAL SPECIFICATIONS

GENERAL

Inputs	2 inputs available, in front and back panels
Input resistance	10 kΩ x range
Maximum Input Voltage	60 Vpp
Keypad	7 Keys
Display	2 Lines x 20 Character LCD LED backlight
Display Update Rate	Selectable between 1 to 25 updates/second
Display Units	volt · second, weber, maxwell
Display Parameters	Measurement Mode: Normal bipolar, unipolar, peak, max-min hold, alarm status
Display color	White characters, blue background

MEASUREMENTS

Display and serial output

Ranges	2000 x (1, 2, 5, 10, 20, 50, 100) μWb
Measurement Resolution	1, 2, 5, 10, 20, 50, 100 μWb
Display Resolution	To 4 ^{1/2} digits
Accuracy	±0.5 % of reading, ± 1 digit
Drift	Less than 1 digit/minute
Frequency Response	DC - 1 kHz
Interfaces	RS-232 (2400, 4800, 9600 baud), Threshold Limit Relays

Analog Outputs

Connectors Type	BNC (minimum load - 50 Ω)
Type	Corrected-uncorrected (selectable)
Scale	±2 V Full Scale
Accuracy	±1 % of reading, ± 1 mV

PHYSICAL

Power Requirements	Continuous between 100 - 240 VAC 50/60 Hz
Max current absorption	0.3 A
Working temperature	10 to 40 °C
Warm up time	30 minutes
Size	483 x 380 x 88 mm (19.02" x 14.96" x 3.46 ")
Weight	5 kg (11 lb)
Approval	CE mark



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Laboratorio Elettrofisico 的数字式磁通计使用了灵敏线圈技术测量磁通，可以更精确地计算出线圈提供的测量信号使得平均磁通密度或磁通总量测量更准确。

特有的自动空检测功能可以清除未补偿的电压以降低积分漂移和提高测量灵敏度。可以通过菜单和按钮快速方便的选择量程、显示单位等。显示屏由两行 20 个字母字符数字等构成，可以从任意角度读数。校准和未校准的模拟输出，RS232 接口可以使得其更方便地与计算机和其他设备相连。

特征

- 模拟信号快速积分和数字显示
- 高稳定性和自动漂移控制
- 7 档量程（优异的分辨率和精度）
- 多功能且易用的操作菜单
- 可直接读数的单位有伏/秒，韦伯，麦克斯韦尔等
- 校准和未校准的模拟输出
- 高输入电阻
- 精美的现代设计
- 大量的测量线圈可供选用

主要应用

- 磁场测量
- 软磁和硬磁材料性质测量
- 磁性设备的质量控制等
- 在线控制磁场系统的磁化等
- 用于跟踪交流和直流材料的特性

功能

- 直接测量极性或者绝对值
- 最大和最小值保持
- 峰值
- 报警（最大和最小）
- 手动/自动漂移控制
- 手动/远程复位
- 收到/远程量程切换
- 校准和未校准的模拟输出

一般

- 输入 两输入，前面板和后面板
- 输入电阻 $10k\ \Omega \times$ 量程档
- 最大输入电压 60Vpp
- 按键 7 个
- 显示 两行 \times 20 字符 LCDLED 显示
- 显示更新率 1~25 次/秒（可选）
- 显示单位 volt \cdot second, weber, maxwell
- 显示参数 测量模式：正常两极，单极，峰值，最大/小值保持，报警状态
- 显示颜色 白字，蓝底

测量

Display and serial output

- 量程 $2000 \times (1, 2, 5, 10, 20, 50, 100) \mu\text{Wb}$
- 测量分辨率 1, 2, 5, 10, 20, 50, 100 μWb
- 显示分辨率 4 1/2 位
- 精度 $\pm 0.5\% \times$ 读数 ± 1 位 t
- 漂移 小于 1 位/分钟
- 频率响应 DC~1KHz
- 通讯接口 RS-232 (2400, 4800, 9600 baud), Threshold Limit Relays

Analog Outputs

- 连接端子 BNC（最小负载 $50\ \Omega$ ）
- 类型 校准和未校准（可选择）
- 范围 $\pm 2\text{ V Full Scale}$
- 精度 $\pm 1\%$ of reading, $\pm 1\text{ mV}$

物理

- 电源 100 - 240 VAC 50/60 Hz
- 最大消耗电流 0.3A
- 工作温度 $10\sim 40^\circ\text{C}$
- 预热 30 分钟
- 体积 $483 \times 380 \times 88\text{ mm}$ (19.02" \times 14.96" \times 3.46")
- 质量 5 kg (11 lb)
- 认可 CE Mark