

## *IFM02 and IFM03 Integrating Fluxmeter*

Hirst Magnetic Instruments Ltd's IFM series of digitally controlled integrating flux meters extends the range of Hirsts compact desktop instruments. Designed for factory floor and laboratory use the instrument offers a simple menu driven, or industrial control system.

### FEATURES

- // DC / AC / Peak Measurement Functions
- // Automatic Drift Correction
- // Waveform display on IFM03
- // USB and RS232
- // Automatic probe recognition
- // PLC Digital Interface
- // 30,000 count resolution
- // Pass limit testing



The IFM02 / IFM03 instruments have automatic and manual drift correction available and can be used in environments where rapid measurements are necessary. The IFM03 has waveform display functions to enable real time viewing of data ideal for quality control applications.

RS232, USB and PLC interfaces are included as standard. Full instrument control is possible via these interfaces enabling full factory automation.

The IFM02, IFM03 can measure magnetic flux, magnetic flux linkage, magnetic flux density or magnetic field strength.

### Multi Language Support

The build in menu system can be operated in any of the following languages; English, French, German, Spanish, Italian and Portuguese.

### Automatic Probe Identification

Probes supplied by Hirst Magnetic Instruments Ltd can be pre programmed with Serial Number and Area turns product for automatic probe identification and system set-up. Additional blank probe plugs can be purchased for user pickup coils that can also store turns area product for automatic set-up of user created pickup coils.

### Waveform Display

The IFM03 can sample in two speed modes 2KHz and 20KHz, with software and TTL triggering the internal cache enables long waveforms to be recorded and viewed with approx 2 seconds recording available at the 2 KHz sample rate.

### PLC Interface

The PLC interface offers a simple method for the control and integration of the IFM02/03 into existing equipment. 24v logic signals are available to start measurements and to return the results of pass window testing.

### Communications

The IFM02/03 support communications via either RS232 or USB. Base driver software is supplied with example applications (compiled for WIN32 systems), source code and protocol documentation. With USB data can be captured at up to 10,000 samples per second in raw PCM format.

### Extra Options Available

#### Pickup coil manufacture and custom design

Pickup coils designed specifically for your application and use with the IFM02/03 can be designed and built by Hirst Magnetic Instruments Ltd.

#### Custom application software

Custom application software can be provided to interface the IFM02 via either the RS232 or USB port.

### Specifications

Accuracy +/- 1% (DC) Traceable

Reproducibility +/- 0.3 %

#### Range Vs Products to Full Scale

Range1 +/- 300.00 uVs  
Range2 +/- 3.0000 mVs  
Range3 +/- 30.000 mVs  
Range4 +/- 300.00 mVs

Functions DC, AC, DC Peak, AC Peak.  
(AC Peak sampled at 2KHz)

Units Vs, Weber-turns, Weber, Maxwell-turns, Maxwell, Tesla, Gauss, Amp / m and Oersted. (Field strength/flux density units require calibrated coil)

Analogue Outputs Calibrated 12 volt full scale.

16 Bit programmable calibration output.

Display IFM02 2 Line LCD 16 character.

Display IFM03 Graphics display updated showing waveforms of current measurement.

Serial Port 10 Samples a second raw 16 bit data or 1 sample a second calibrated data.

USB Port 20K samples internally cached data. 10 K samples per second constant raw 16 bit PCM data.

Trigger TTL trigger +5V level.

Operating Temp Range +5 Deg C to +70 Deg C

Power Supply 220V – 240V 50 Hz  
110V – 115V 60 Hz

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Hirst Magnetic Instruments Ltd. Manufactures wide ranges of magnetic instruments, magnetisers, demagnetisers, precision demagnetisers and special magnetic systems.

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Due to a process of continual improvement, Hirst Magnetic Instruments Ltd. Reserve the right to change any specifications without notice.