

# MAC

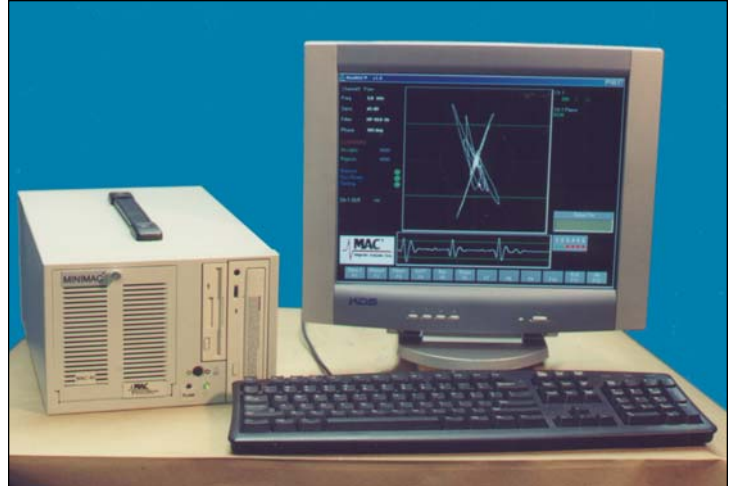
Magnetic Analysis Corporation

# MINIMAC<sup>®</sup>

## MAC<sup>®</sup> 40 Eddy Current Tester

### *Minimac Features*

- High performance, low cost, simple eddy current tester for production line applications.
- Setup and monitor on site, or through computer network
- Polar and linear color display on optional monitor
- Unlimited storage of setups
- Solid state relay output from active threshold signal



Minimac<sup>®</sup> MAC 40 with optional monitor

### APPLICATION

The MINIMAC<sup>®</sup> MAC 40 provides a compact and economic answer to the need for simple, low cost production testing of tubing, bar, wire and parts.

Typical applications include detection of laps, seams, slivers, cracks and weld line faults in magnetic and non magnetic grades of material at speeds up to 4000 f.p.m. The Minimac is also a convenient and effective means of checking continuity on single and multi-conductor insulated wire and cable.

### DESCRIPTION

Minimac MAC 40 is essentially an industrial quality computer, with Windows<sup>®</sup> operating system and MAC's proprietary MINIMAC<sup>®</sup> software. The unit is controlled with a keyboard or an optional hardened keypad in conjunction with a standard computer monitor, supplied by the customer, or by MAC as an option. Control can also be conveniently exercised using a remote keyboard and monitor. Complete networking capabilities are included in the compact instrument package.

The standard frequency range is 2.5 Hz to 200 KHz. An extended range software option is available to extend the frequency up to 2 MHz. Sensitivity, phase and filter are easily set, while viewing a full color polar and linear display of real time, true wave form signals.

The Windows operating system, combined with a built-in network card, allows data to be stored, annotated, and printed through a keyboard or keypad and transferred via normal computer interface procedures. A virtually unlimited number of settings can be stored on the hard disk, and recalled remotely, with the touch of a button.

While the MINIMAC is designed primarily as a production instrument operating on continuous product, optional extra circuit cards and software can extend its application with the use of instantaneous suppression of the relay output for unwanted signals, an additional all-phase threshold, a System-Not-Ready control of the common relay output, a sync input to synchronize the linear display to a rotary probe test mechanism, and a variety of remote monitors and keypad. The system is also designed for easy network operation under pcAnywhere<sup>®</sup> software, which MAC's Field Staff can supply and install.

A simple report of test results, edited for batch or setup information by the user, can be produced in Excel<sup>®</sup> format. The MINIMAC is also designed to utilize most of MAC's wide selection of test coils and related Coil Platforms, including those that provide DC saturation for testing magnetic materials. The output can operate a horn or standard Marker Unit.

## SPECIFICATIONS

Operating System	Windows®
Platform	Celeron-850 MHz, 20 GB hard disk or better, industrial computer
Function	Single channel flaw operation
Stored Setups	Unlimited
Test Frequency	2.5, 5, 10, 25, 50, 100, 200 kHz
Flaw Bandwidth	1 kHz
Sensitivity	0 - 99 dB, calibrated in 1-dB steps
Phase	0 - 359 degrees, Calibrated in 1 degree steps
Filter	High Pass or OUT positions selected from 17 discrete steps that correspond to Hertz (flaw frequency) as follows: 1,2,3,4,5,10,15,20,30,40,60,80,120,160,200,250,300 Hz
Lockout Mode	Lockout mode is provided to prevent unauthorized changes in equipment settings
Threshold	Chord with flaw counter
System Status Indicator	Software displayed in system status section of display. Balance indicator, threshold indicator and System Ready Indicator
Outputs	One output with both AC relay and TTL indicator
Optional Display	A back panel output connector is provided for optional external monitor. Polar and linear traces are simultaneously displayed on screen along with testing parameters and status indication on the TEST screen
Balance	Auto tracking, continuous AC self-balance in the entire frequency range and press button DC balance
Controls	Software controls for all functions
Report	Defect signal report in Excel format, including user and product information, as well as defect location, time of occurrence, amplitude and phase
Probe Drive	Primary drive up to 16 Vpp
Calibration	Internal electronic calibration signal
Operator Interface	External keyboard or optional remote keypad
Output Suppression	External switch. No delay. Suppress output only
Cabinet Dimension	9.25" wide x 6.2" high x 15.7" deep (23.5 cm x 15.8 cm x 40 cm)
Weight	19 lbs. (8.8 Kg) approximately
Power Input	120/240 VAC, 50/60 hz, single phase, 5 amps
Options	All Phase Threshold High Frequency with bridge drive & band pass filter Remote Keypad Monitor PcAnywhere® remote control through network

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