

# Magnetic Flux Meter MF300B



**MF300B AND FLUX PROBE**

- ◆ **Measures Magnetic Flux Values**
- ◆ **Measures the Internal Magnetic Flux**

## Features of the MF300B

- *Measures Peak Magnetic Flux Density*
- *Uses unique Magnetic Flux probe.*
- *Auto zero before every reading.*
- *Use with constant or alternating magnetisation.*
- *Meets BS 5750/ ISO 9000 quality assurance requirements.*
- *Fully calibrated and delivered with certification.*
- *Supplied with a protective carrying case and full instructions.*

## An Overview

Magnetic inspection often calls for the use of a specified level of magnetic flux within steel components. If the magnetic flux level is too low, then defects may be overlooked: if too high then spurious indications may occur. The MF300B has been produced to measure the magnetic flux density just below the surface.

The magnetic flux is measured simply by placing the probe on the surface of interest. The monitor will measure constant or alternating magnetic flux which can be produced by permanent magnets, electromagnets or electric currents. The measured value is displayed in units of Tesla.

Measurements of magnetic flux are displayed on the unit and can also be sent via an RS232 link to a P.C. Software for use with the meter is provided which enables data to be saved and entered in spreadsheets.

## Optional Features

- *Analogue output available to enable connection to chart recorders*
- *RS232 output for computer connection*
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## Applications

- *Provides quantitative measurement of the magnetic flux inside steel*
- *Measures flux density in any direction*

## About the MF300B

Standard flux indicators only provide a qualitative idea of magnetic flux levels which may not be sufficient to guarantee the optimum conditions for carrying out magnetic inspection.

Most magnetic field meters and gauss meters only measure the level of magnetism outside components under inspection. Yet it is the value of the magnetic flux density within components which determine whether or not Magnetic Particle Inspection can be successfully carried out.

The MF300B Magnetic flux meter provides a quantitative measurement of the magnetic flux inside steel. The unique probe extracts a sample of flux from the surface under inspection and displays the peak flux in Tesla.

The probe of the MF300B can be placed on the required surface to measure the flux density in any direction.

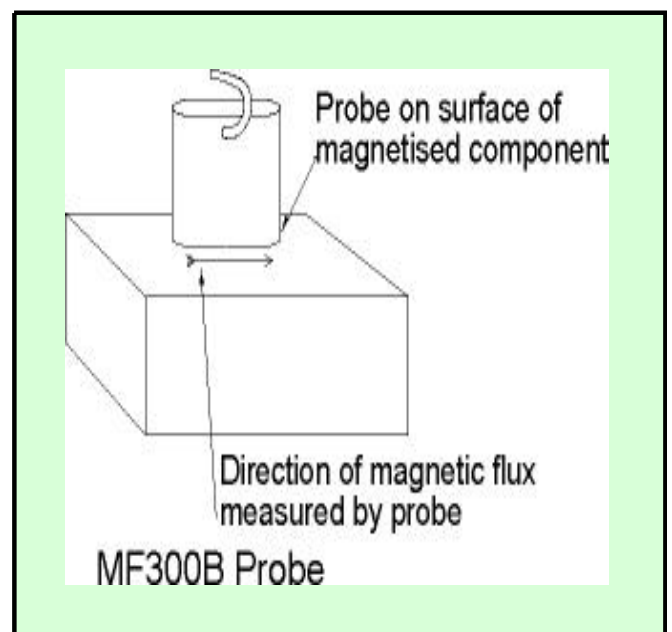
The Software provided with the MF300B Magnetic Flux Meter allows readings to be read and recorded on a P.C. The software will run on Windows XP, 98, 95, 3.1 and DOS and the data can be further processed using standard spreadsheets.

Magnetic Flux measurements are recorded together with the time and date. Readings can be requested by pressing a key on the meter or directly from the computer keyboard. Alternatively, readings can be taken automatically at regular time intervals.

The MF300B is the result of a collaborative programme between TWI (The Welding Institute) and several major users of MPI.

## Specification

<b>Techniques:</b>	Can be used with all magnetisation techniques including permanent magnets, AC magnets, current cables, current probes
<b>Detection:</b>	Detects the peak value of the magnetic flux density inside materials  Indicates the direction in which the magnetic flux is measured
<b>Range:</b>	0 to 1.99 Tesla
<b>Accuracy:</b>	+/- 3%
<b>Probe Size:</b>	22mm x 7mm
<b>Power Supply:</b>	4 standard AA cells
<b>Monitor Size:</b>	165 x 100 x 50mm
<b>Weight in Case:</b>	1.1 Kg
<b>Warranty:</b>	12 months



## DIVERSE Technologies

The MF300B is part of a range of magnetic field measuring equipment. The MF300H measures magnetic field values and the MF300F measures the ferrite content of stainless steels.

DIVERSE specialises in the key technologies of joining and magnetics. Other DIVERSE welding and NDT products include: Magnetically Impelled Arc Butt Welding, Zeromag, a portable Weld Demagnetiser, and the Squeeze Analyser for resistance welding.

### **DIVERSE**

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