

# Teslameter

TM-400

## Teslameter/ Gaussmeter



- AC/ DC field measurements
- Wide range (0.1G to 40KG)
- Differential mode
- Maximum/ Minimum
- Hold function
- Built-in computer interface



### Introduction

TM-400 operates on the principle of Hall Effect in semiconductors. A semiconductor carrying current develops an electromotive force, when placed in a magnetic field in a direction perpendicular to the direction of both electric current and magnetic field. The magnitude of this e.m.f. is proportional to the field intensity if the current is kept constant. This e.m.f. is called the Hall Voltage. This small Hall Voltage is amplified through a high stability amplifier, the output of which is processed through a microcontroller and displayed on a graphical LCD display.

### Specifications

- Range-1: 0 to  $\pm 4$  Tesla (0 to  $\pm 40$  KiloGauss)
- Range-2: 0 to  $\pm 2$  Tesla (0 to  $\pm 20$  KiloGauss)
- Range-3: 0 to  $\pm 200$  milliTesla (0 to  $\pm 2$  KiloGauss)
- Range-4: 0 to  $\pm 20$  milliTesla (0 to  $\pm 200$  Gauss)
- Display : 4 digit dot matrix graphic LCD, with appropriate decimal placement
- Units: Tesla, Gauss
- Functions: DC, AC (Freq. limited by hall probe)
- Accuracy :  $\pm 0.5\%$   $\pm 1$ digit
- Hall Probe: GaAs, upto 500KHz
- Mode: Normal, Differential
- Hold: Maximum, Minimum
- Refresh Rate: 3 samples per second
- Operating Temperature : Upto 40°C
- Memory Type: Non Volatile, upto 25 samples
- Computer link: USB
- Software : DACC and CMM, both Window compatible
- Power : 220V  $\pm 10\%$ , 50Hz  
110V  $\pm 10\%$ , 50Hz (optional)