



Permeability Meter FERROMASTER

for easy measurements of the magnetic permeability of materials and workpieces, meas. range $\mu = 1.001$ to 1.999



Features

- Easy use
- Meas. range $\mu = 1.001$ to 1.999
- Calibrated to ref. standards of the National Physical Laboratory, UK
- Calibration material supplied
- Negligible influence of the earth's magnetic field
- $3\frac{1}{2}$ digit LC display
- Display hold function
- Waterproof enclosure (protection IP65)

Applications

- Quality control of stainless steel
- Non-destructive testing of materials and workpieces
- Material selection for electron-/ion-beam equipment and NMR instruments
- Detection of ferromagnetic inclusions in materials
- Investigation of magnetically anisotropic materials
- Detection of material defects induced by stress

Description

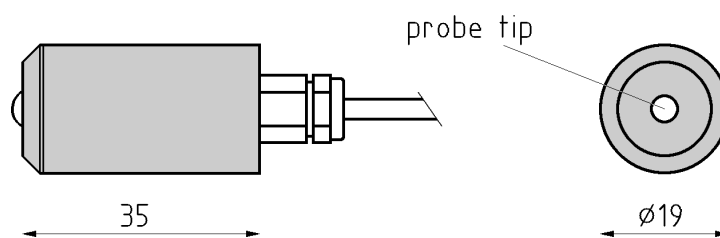
The FERROMASTER is a compact hand-held instrument made for easy measurements of the magnetic permeability μ of materials and workpieces with μ between 1.001 and 1.999. The permeability is measured by touching the workpiece with the sensor tip and reading the result from the LC display. The reading can be "frozen" by activating the display hold function.

The permeability probe contains a small permanent magnet which magnetizes the sample to be investigated in the vicinity of the probe tip. Two sensitive magnetic field sensors in difference connection measure the distortion of the magnetic field introduced by the magnetized sample. The instrument is calibrated to precise standards manufactured by the National Physical Laboratory (NPL, Teddington, UK). The calibration can be easily readjusted. A sample of low permeability material is supplied with each instrument for easy check of the calibration.

As a special feature the FERROMASTER is provided with a robust waterproof case (protection IP65) and is therefore well suited to applications in harsh industrial environments. The built-in battery serves for ~ 100 hours continuous operation.

Specifications

Measurement range	$\mu = 1.001$ to 1.999
Resolution	0.001
Accuracy of calibration @ $20\text{ }^{\circ}\text{C}$	$(\mu - 1) \times 5\%$, ref. to NPL calibration standards, can be readjusted
Operating temperature	0 to $50\text{ }^{\circ}\text{C}$
Field strength at probe tip	$\sim 35\text{ kA/m}$
Battery	9 V (PP3, Alkaline)
Continuous operation with one battery	$\sim 100\text{ h}$
Dimensions of electronics unit	151 mm \times 82 mm \times 33 mm
Environmental protection	IP65
Length of connection cable	1.5 m
Weight of complete instrument	340 g



Dimensions of the permeability probe in mm

Subject to alterations.