ELECTROMAGNETIC FIELD METER

PCE-MFM 3800



- **Measuring direction: transverse**
- **Magnetic field AC and DC**
- **Accuracy of ±1% v.Mw. @ 100 ... 2400 mT (DC)**
- **Frequency display**
- **Temperature measurement**
- **Units: µT, mT, G, A/m, Oe, WB/m², A/cm**
- **2.8 inch TFT color display**
- **Data logger for up to 10 million measuring points**

The electromagnetic field meter is a high-precision measuring instrument for recording magnetic flux and temperature. It is ideal for applications in industry, research and development. With a measuring range of 0 to 3500 mT for direct (DC) and alternating (AC) fields and a high resolution of 0.001 mT, the magnetic field meter delivers precise measurement results even at very low field strengths.

Thanks to the automatic detection of AC or DC fields and the option of automatic or manual range selection, the device is particularly user-friendly. It measures with an accuracy of up to ±0.5% of the measured value (DC) and ±1 % (AC at 50 Hz). The electromagnetic field meter is equipped with a sensor that measures transversely, i.e. the magnetic field is measured at right angles to the sensor direction. With alternating magnetic fields (AC), the device can also display the frequency in the range from 10 to 50 Hz. In addition to the magnetic flux density, the magnetic field meter can also measure temperatures in the range from 0°C to 80°C (32°F to 176°F) - with an accuracy of ±0.4°C / 0.72°F

The device has a 2.8-inch TFT color display and an internal SD card with 32 GB memory, on which up to 10 million measuring points can be stored. With various measurement modes (hold, maximum, average function) and support for over ten languages, the electromagnetic field meter can be used flexibly and internationally.

Specification

Magnetic field AC	
Measuring range	10 ... 3500 mT
Resolution	0,01 mT
Accuracy	0 ... 2400 mT: ±1% of reading 2400 ... 3500 mT: ±3% of reading
Frequency range	10 ... 50 Hz
Magnetic field DC	
Measuring range	-3500 ... +3500 mT
Resolution	0,01 mT
Accuracy	0 ... 2400 mT: ±1% of reading 2400 ... 3500 mT: ±3% of reading
Temperature	
Measuring range	0 ... 80 °C
Resolution	0,1 °C
Accuracy	±0.4°C
Temperature	
Measuring range	32 ... 176 °F
Resolution	0,18 °F
Accuracy	±0.72°F
Sensor	
Cable length	140 cm
Additional description	Tripod thread: 1/4 inch
Dimension	Shaft: 57 × 4 × 1.7 mm (L × W × H)

General technical data	
Measuring functions	HOLD, MAX, Average value
Units	mT, g, Oe, WB/m², kA/m, A/cm
Measuring direction	transversal
Display type	LCD with backlight
Display size	2,8 Inch
Storage medium	Internal memory
Storage capacity	100 Measurements
Storage interval from	1 s
Storage interval to	24 h
Interface	USB-C
Operating time	24 h
Operating time additional information	depending on screen brightness and data logger usage
Automatic power-off from...to	1 ... 15 min.
Menu language	German, English (GB), English, French, Spanish, Italian, Dutch, Portuguese, Turkish, Polish, Russian, Chinese, Danish, Japanese
Protection class (device)	IP52
Power supply	USB 5 V DC, 500 mA
(Rechargeable) battery	1 x 3,7 V LP785060 , Lithium polymer battery
Capacity	2500 mAh
Performance	9,25 Wh
Operating conditions	-20 ... 65 °C , 10 ... 95 % RH
Storage conditions	-20 ... 65 °C , 10 ... 95 % RH
Dimensions (L x W x H)	168 x 85 x 32 mm
Weight	248 g

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