Proton Precession Magnetometer PPMG4A

A low-cost precision magnetometer with RS232 Control.

The PPMG4A is an instrument that measures the Larmor Precession of Hydrogen nuclei to determine absolute magnetic field strength with very high precision and negligible drift.

In the simplest sense, a proton precession magnetometer is the "atomic clock" of its class.

The instrument is compact and portable yet can measure fields with a standard deviation (sensitivity) of just 0.5nT/sqrt(Hz) at 1Hz.

The magnetometer has applications in archaeology, environmental survey, geology, or as a laboratory reference.

The technology behind our magnetometer is the subject of ongoing research and development. The PPMG4A is our first commercially available unit and is currently available to order. Alternatively, we can develop a custom version tailored to your exact requirements.

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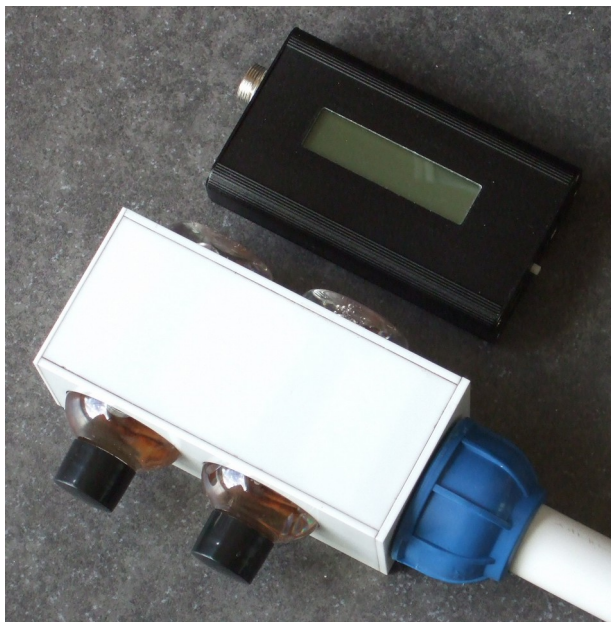
Features

- Compact Size
- Low Cost
- Backlit Display
- RS232 Serial Port Control
- Bluetooth module interface
- Battery or 19V adaptor operation
- No Calibration Required

Applications

- Magnetometer Calibration
- Environmental Monitoring
- Geological Survey
- Laboratory Measurements



Specifications

Unless Otherwise Stated: Supply = 19V, test field = uniform 50,000nT, Reading Rate = 1Hz, equipment temperature = 20ºC.

Parameter	Min	Typ	Max	Units
Range	25		100	µT
Standard Deviation (sensor fluid at 20ºC)		0.3	0.5	nT/sqrt (Hz)
Absolute Accuracy		3		+/- nT
Temperature Range a) Control Unit b) Sensor Ambient c) Sensor Fluid	 -10 -10 -10		 40 30 40	ºC
Measurement Rate			1	Hz
Average Sensor Power		15		Watts
Sensor Weight (full)		817		grams
Control Unit		180		grams
Supply Voltage	9	19	20	V

Note. Specifications are subject to change without notice.
External sensor cooling may be required to maintain sensitivity.