

FG-3+ Sensor

1-Axis Fluxgate Magnetometer Sensor

Magnetic field sensor that offers 1000x greater sensitivity than classic integrated magnetometer solutions.

Description:

FG-3+ is a high-sensitivity magnetic field sensor that can measure Earth's magnetic field 1000 times more precisely than classic integrated IC solutions.

The sensor's output is a robust 5-volt rectangular pulse whose period is proportional to the field strength.

This sensor is also the best replacement for Speake & Co. FGM-1 & FGM-3 sensors.



Features:

- Operating range of ± 50 microtesla
- Three-terminal device powered by a single +5 volt supply
- A robust 5-volt rectangular pulse output that is directly proportional to the magnetic field strength, allowing for easy interfacing with computers or microcontrollers (typical period swing for the full range is from 8.5 ms to 25 ms (120 KHz to 50KHz))
- Sensitivity is more than 1000 times greater compared to classic integrated magnetometer solutions
- Low Temperature Sensitivity
- High Intrinsic Sensitivity
- Very lightweight and compact design.

How to Start with FG-3+?

New evaluation kits with Arduino source code are available now!

DIY gradiometer kit - makes it easy to build, a must-have tool for treasure hunters arsenal that can detect ferromagnetic objects and voids that are located several meters deep and also supports [smartphone connectivity](#).

Free Android App makes it easy to observe and analyze DIY gradiometer signals.

fgsensors.com
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Specifications:

Maximum Supply Voltage	7 volts
Recommended supply Voltage	5 volts \pm 0.5 volts
Typical Supply Current	12 mA
Operating Temperature Range	0 - 50 °C

Bandwidth:	DC to 20 KHz Bandwidth
Output freq. range:	120 kHz to 50 kHz (8.5 milliseconds to 25 milliseconds)

Applications:

Geophysics and Space Weather

- Precise Earth magnetic field measurements
- Aurora monitoring
- Solar storm detection
- Space weather observatory

Archeological and geological surveys

- A metal detector capable of 10m depth detection
- Wreck-finders
- Archaeological artifact assessment

Security and Safety

- Walk-through safety inspection/weapon detector
- UXO detection

Transportation and Logistics

- Vehicle presence detection and traffic counters
- External vehicle or ship passage sensors
- Internal vehicle re-orientation alarm sensors

Industrial Applications

- Ferrous impurity detectors for non-magnetic alloys
- Magnetic material measurement
- B-H loop measurement
- Ferrous metal detectors
- Movement and proximity sensors