

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 $8.5 \mu\text{s}$ to $25 \mu\text{s}$ (120 KHz to 50KHz))
- Sensitivity is more than 1000 times greater compared to classic integrated magnetometer solutions
- High Intrinsic Sensitivity
- Very lightweight and compact design.

Specifications:

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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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 microseconds to 25 microseconds)

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