

# BF-10 Magnetic Field Induction Sensor

## PERFORMANCE

- Frequency range: 0.1 to 10 kHz
- 3-dB frequency corners: 0.2 Hz to 10 kHz
- Sensitivity (flat region): 0.3 V/nT (standard)
- Power consumption: 9 mA at  $\pm 12$  V

## MECHANICAL SPECIFICATIONS

- Housing: Black Amalgon® straight tube
- Length: 142 cm (56 in)
- Diameter: 6 cm (2.4 in)
- Weight: 7.9 kg (17.4 lbm)
- Connector: 8-pin Tajimi

## PINOUT SPECIFICATIONS

- 8-pin Tajimi connector pinout: 23A16-8AM
- Connector mating part: 23B16-8AF
- Dust cap: 16RC

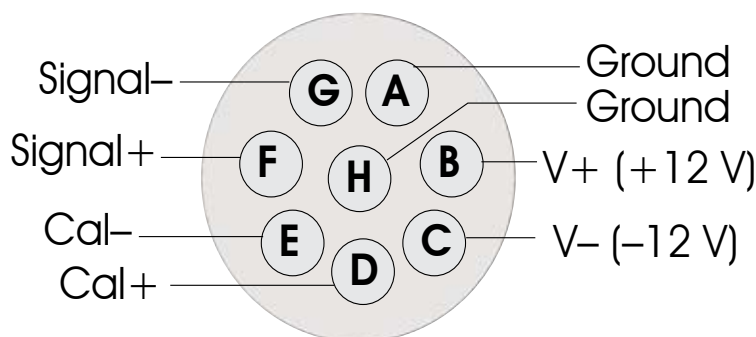
**BF MAGNETIC SENSORS** are constructed using a high-magnetic-permeability, mu-metal core with proprietary windings. The coil windings are shielded and epoxy potted inside a Black Amalgon housing.

Each sensor includes a matched low noise preamplifier, normally mounted at one end of the coil tube using a waterproof O-ring assembly. The sensor is optimized to maximize noise performance for a given length/weight specification.

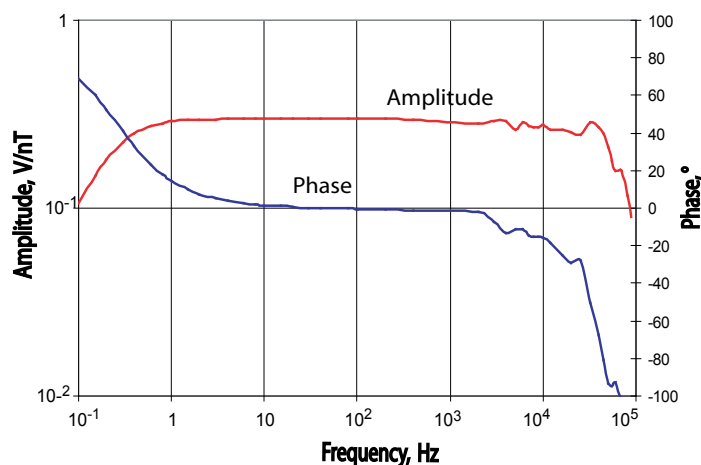
The BF-10 sensor utilizes a magnetic feedback design to yield a stable flat response over several decades of frequency; here, the sensors respond as a B field detector. At frequencies below the flat region, the response is proportional to frequency. The BF-10 sensor is ideal for controlled source audio-frequency magnetotelluric (CSAMT) surveys.

## APPLICATIONS

The BF-10 may be customized for a variety of applications, including: geophysical surveys (magnetotelluric, audio-magnetotelluric, controlled-source audio frequency magnetotelluric, magnetometric resistivity, magnetic induced polarization, controlled-source electromagnetic, tensor-source high-frequency magnetotelluric, Stratagem™), marine surveys, earthquake studies, and high-accuracy magnetic field studies.



FREQUENCY RANGE



NOISE PERFORMANCE

