

## Magnetic Field

The Magnetic Field Sensor measures magnetic field flux density in gauss or millitesla. The sensor at the tip of the probe measures magnetic field strength along the axis of the probe.

### Materials List

- 1: Xplorer Datalogger (PS-2000)
- 1: Magnetic Field Sensor (PS-2112)







### Site Selection

- Sensor range is  $\pm 1,000$  gauss; it's accurate to  $\pm 3$  gauss at  $25^{\circ}\text{C}$  after a 4-minute warm-up.
- Use when the temperature is  $0\text{-}40^{\circ}\text{C}$  and relative humidity is 5-95%, non-condensing.

### Sample Preparation

- ⊕ *When a lamp is plugged in and turned on, the electrical charge moves, and magnetic fields are created (and measured in milliGauss, or mG). The most common magnetic field assessment is the measurement of the maximum field strength, used to locate the source of a field, determine its direction and its strength. Typically, power line measurements or general background measurements are of this type.*

### Measurement & Recording

1. Press  to turn on the datalogger and attach the magnetic field sensor.
2. Hold the sensor in a specific direction for 10 to 15 seconds. *Readings may fluctuate as you approach magnetic fields.*
3. Press  to start logging data; wait 60 seconds; press  to stop logging data.
4. Record the time of day, site notes, and magnetic field reading in degrees gauss.
5. Press  to turn off the datalogger.

### Clean-up & Completion

1. Unplug the sensor from the datalogger and replace items in the original storage bag(s).