

ENVI PRO

Proton Magnetometer
with Integrated GPS



At the core of the ENVI PRO system is a lightweight console with a large display. Included with each system is a GPS antenna, a total field sensor and/or gradiometer sensor, sensor staff, backpack, a rechargeable battery, battery charger, dump cables, utility and mapping software, and a transit case.

APPLICATIONS

Since the ENVI PRO system capabilities are versatile, it can be used in a variety of applications including:

- Mineral Exploration
- Geological Mapping
- Environmental Site Characterization
- Groundwater Exploration
- Groundwater Studies
- Geotechnical Studies
- Civil Engineering
- Archaeology



BENEFITS

The Scintrex ENVI PRO system offers the flexibility to find the increasingly more elusive anomalous targets. A complete ENVI PRO is low cost, lightweight, portable proton precession magnetometer/gradiometer, which enables to survey large areas quickly and accurately.

- Portable Field and Base Station Magnetometer
- True Simultaneous Gradiometer
- GPS Integrated positioning
- Complete with mapping software

Increase Productivity

Sampling rates of 0.5 second, 1 second and 3 seconds can be selected.

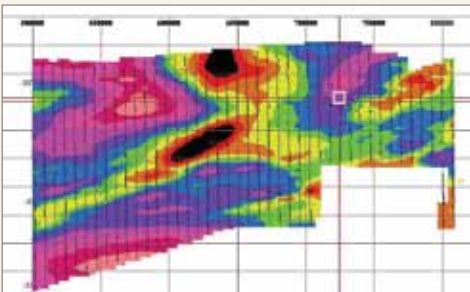
Rapidly Recall Data

For quality of data and for rapid analysis of the magnetic characteristics of the survey line, several modes of review are available. These include the measurements at the last four stations, the ability to scroll through any or all previous readings in memory and a graphic display of the previous data as profiles, line by line.

Simplify Fieldwork

The ENVI PRO system makes surveys easier to conduct:

- Provides simple operator menus
- Presents the data both numerically and graphically
- Calculates statistical error for each measurement
- Provides the ability to remove the coarse magnetic field value or data from the field data to simplify plotting of the field results
- Automatically calculates diurnal corrections
- Allows for hands free operation with the backpack



Data Quality Control and Mapping Software

The software provided offers import and export capabilities, time and date channels, extended spreadsheet, plotting and mapping functionalities.

It also includes more advanced

data processing tools, such as merging and appending files, data filtering, and interpolation.

ENVI PRO MAG

The ENVI PRO system when configured as a TOTAL FIELD magnetometer is referred to as the ENVI PRO MAG. In this set up the ENVI PRO system can be operated in a traditional “STOP and MEASURE” mode, thus providing the full sensitivity obtainable with a proton magnetometer, ideally suited for mineral exploration. Alternatively, the ENVI PRO MAG can be operated in the “WALKMAG” mode, where readings may be made continuously at a user selectable rate of up to 2 readings per second. Although this marginally reduces the accuracy, it does allow the user to collect increased volumes of data and cover more area in a shorter period of time. This makes the ENVI PRO MAG a very cost effective tool for environmental surveys. The ENVI PRO MAG provides the following information:

- Total Magnetic Field
- Time/Date of Reading
- Coordinates of Reading either in grid format or GPS format
- Statistical Error of the Reading
- Signal Strength and Decay Rate of the Reading

As a magnetic BASE STATION instrument the ENVI PRO MAG can be set up to record variations of the Earth’s magnetic field. Using this information from a stationary ENVI PRO MAG, the total field readings obtained with other field magnetometers can be corrected for these fluctuations, thus improving the accuracy of magnetic data.

All ENVI PRO MAG systems can be operated as either field or base station instruments. The optional base station accessories kit is recommended for base station applications.

ENVI PRO GRAD

The ENVI PRO system configured as an ENVI PRO GRAD enables true simultaneous gradiometer measurements to be obtained. The ENVI PRO GRAD provides an accurate means of measuring both the total field and the gradient of the total field. The system reads the measurements of both sensors simultaneously to calculate the true gradient measurement. In the gradient mode, the ENVI PRO GRAD sharply defines the magnetic responses determined by total field data. It individually delineates closely spaced anomalies rather than collectively identifying them under one broad magnetic response. The ENVI PRO GRAD is well suited for geotechnical and archaeological surveys where small near surface magnetic targets are the object of the survey. In addition, the ENVI PRO GRAD provides the gradient of the total magnetic field.

ENVI PRO SPECIFICATIONS

TOTAL FIELD OPERATING RANGE	23,000 to 100,000 nT (gamma)
TOTAL FIELD ABSOLUTE ACCURACY	±1 nT (gamma)
SENSITIVITY	0.1 nT (gamma) at 2 second sampling rate
TUNING/ SAMPLING	Fully solid state. Manual or automatic, keyboard selectable Cycling (Reading) Rates 0.5, 1, 2, or 3 seconds
GRADIOMETER OPTION	Includes a second sensor, 0.5m (20 inch) staff extender and processor module
GRADIENT TOLERANCE	> 7000 nT (gamma)/m
'WALKMAG' MODE	Continuous reading, cycling as fast as 0.5 seconds
SUPPLIED GPS ACCURACY	+/- 1m (Autonomous), < 1m WAAS Connects to most external GPS receivers with NMEA & PPS output
STANDARD MEMORY	Total Field Measurements: 84,000 readings Gradiometer Measurements: 67,000 readings Base Station Measurements: 500,000 readings
REAL-TIME CLOCK	1 second resolution, ± 1 second stability over 24 hours or GPS time
DIGITAL DATA OUTPUT	RS-232C, USB Adapter
POWER SUPPLY	Rechargeable, 2.9 Ah, lead-acid dry cell battery 12 Volts External 12 Volt input for base station operations
OPERATING TEMPERATURE	-40°C to +60°C (-40°F to 140°F)
DIMENSIONS & WEIGHT	Console: 250mm x 152mm x 55mm (10" x 6" x 2.25") 2.45 kg (5.4 lbs) with rechargeable battery Magnetic Sensor: 70mm d x 175mm (2.75" d x 7") 1 kg (2.2 lbs) Gradiometer Sensor: 70mm d x 675mm (2.75" d x 26.5") (with staff extender) 1.15 kg (2.5 lbs) Sensor Staff: 25mm d x 2m (1" d x 76") 0.8 kg (1.75 lbs)
OPTIONS	<ul style="list-style-type: none"> • Base Station Accessories Kit • Cold Weather Accessories • Additional Software Packages • Training Programs



■ Envi Pro system package



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