



Handheld prospection device

ARCH I



Features

- 3.7 kg ops weight
- Magnetometer with $\pm 8,000$ nT range
- Intuitive handling
- Folding mechanism
- 120 h battery runtime
- Intelligent power management
- Rugged casing
- Data recording via Smartphone and SENSYS GO

Options

- Soft Bag
- Shoulder strap

The ARCH I is a very compact 3.7 kg handheld device for magnetometer based prospection of small to mid size or narrow areas for historical settlements and features.

Handling of the ARCH I is simple and intuitive. The folding mechanism allows setup and the start of operation within seconds.

The Z-gradient tension-band Magnetometer has a measurement range of $\pm 3,000$ nT range. Thus smallest signatures in the ground can be captured.

Recording and export of survey data can be done via a rugged Android Smartphone and SENSYS GO App. Processing of the data can be done with MAGNETO[®] ARCH.

An integration of GPS for direct georefencing of data while recording is on the way and shall be available in summer 2025.

Due to its compactness ARCH I is the perfect travel buddy!

The ARCH I detector will be released in autumn 2024!

Technical Data ARCH I

General Technical Data

| | |
|-----------------------------------|---------------------------------------|
| Power Supply | 4.5 V |
| Battery | 2x3 batteries 1.5 V single cell LR20 |
| Battery Life | 6 batteries = approximately 120 hours |
| Operating Temperature | -20°C to + 60°C |
| Operating Weight (without casing) | 3.7 kg (incl. 6 batteries) |
| Dimensions (L x W x H) folded | 950 x 130 x 200 mm (probe folded) |

Measurement Configuration

| | |
|---------------------------|--|
| Visible measurement range | ±10,000 nT |
| Sensitivity levels | 9 |
| Display | analogue pointer with ±10 scale division |
| Display resolution | 0.025 nT at sensitivity level 0.1 |

Probe: FGM400/3*

| | |
|-------------------------------|---|
| Maximum ambient field | ±75,000 nT |
| Specified measurement range | ±8,000 nT |
| Sensor Element Spacing | 400 mm |
| Point of reference | 378 mm ^{**} /4 mm ^{***} |
| Declination | ±3 nT |
| Resolution | 0.2 nT |
| Noise | >10...<40 pT/√Hz @1Hz |
| Cut off frequency (Bandwidth) | 20 Hz |
| Temperature drift | < 0,3 nT/K |
| Uncertainty of measurement | 1% ^{****} |
| Stability | < 1 nT |
| Linearity | ±4 nT / < 0.01% |
| IP code | IP68K 100 m available |

Standard package

Handheld device, 6 batteries, rugged Smartphone with SENSYS GO recording app, Smartphone mount, BT1 connection dongle, manual, certificate, transport case

Options

Soft bag, MAGNETO® Software

*according DIN 54145 **measured from edge between head and tube
from the symmetry axis *calibrated