FOERSTER

FEREX 4.035

Digital fluxgate magnetometer with LED display for the detection of ferromagnetic materials



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Reliable detection of ferromagnetic objects. FEREX 4.035 is a compact fluxgate magnetometer designed for the reliable detection of ferromagnetic objects. It measures local disturbances in the Earth's magnetic field caused by materials such as iron, steel or nickel, making it particularly suitable for locating buried or concealed objects.

Compared to active EMI detectors, magnetometers can achieve greater detection depths under normal conditions. The actual detection depth depends primarily on the mass and magnetic properties of the object. This makes the FEREX 4.035 a versatile solution for applications ranging from general ferromagnetic object detection to the location of UXO such as bombs, shells and cluster munitions.

At the heart of the system is the highly sensitive FEREX MG-10-550 probe. Its low-noise design provides high detection sensitivity, while the compact, one-piece configuration supports convenient and precise operation in the field.

Integrated filters and dedicated search modes further extend the range of applications. They enable reliable measurements even in environments affected by potential interference, such as beneath high-voltage power lines or along fences, railway tracks and pipelines. A dedicated mode for suppressing small ferromagnetic objects helps users focus the search on relevant targets. With optional equipment, the FEREX 4.035 can also be configured for borehole and underwater surveys.

YOUR ADVANTAGES AT A GLANCE

High detection sensitivity: Calibration-free tension-band technology and low noise for reliable detection of ferromagnetic objects

Precise detection: Suitable for locating ferromagnetic materials and UXO such as bombs, shells and cluster munitions

Greater detection depth: Under normal conditions, greater detection depth compared to active EMI detectors

Designed for challenging environments: Integrated filters and dedicated search modes for measurements beneath high-voltage power lines and along fences, railway tracks and pipelines

Targeted object detection: Dedicated mode for suppressing small ferromagnetic objects

Compact and mobile: Lightweight, one-piece design for precise and convenient operation in the field

Versatile accessories: Optional equipment for borehole and underwater surveys, as well as extension cables up to 100 m, towing rope, ballast weight and headphones

TECHNICAL INFORMATION

SCOPE OF DELIVERY:	— FEREX 4.035 compact unit including FEREX MG-10-550 probe — Carrying strap — Carrying case — Batteries — Operating instructions
WEIGHT:	— 3.3 kg complete detector incl. batteries — 11.1 kg complete detector set in case
DIMENSIONS:	— FEREX – 1,250 mm (H) — Case – 989 × 415 × 157 mm (H × W × D)
TEMPERATURE RANGE:	— Operation: -37 °C to +71 °C; -99 °F to +160 °F (ambient temperature) — Stock: -57 °C to +71 °C; -135 °F to +160 ° F
POWER SUPPLY:	4 × 1.5 V alkaline batteries (LR20) or 4 × 1.2 V NiMH (HR20)
BATTERY SIZE:	IEC LR20/HR20 – ANSI „D"
BATTERY LIFETIME:	> 70 hrs
MEASURING RANGES IN FEREX MODE:	7 linear ranges: 0 - 10 nT to 0 - 10,000 nT
COMPENSATION RANGE:	±950 nT
PROTECTION GRADE:	IP 65
PROBE TYPE:	Fluxgate Gradiometer (MG-10-550)
BASE DISTANCE:	550 mm
APPLICATION RANGE:	±62.500 nT
MEASURING RANGE:	— ±10.000 nT gradient — ±62.500 nT absolute
REFERENCE POINT:	97,5 mm from end of probe rod, 4 mm outside symmetry axis
DECLINATION:	±3 nT
NOISE:	<40 pT √ Hz @ 1 Hz
CUT-OFF FREQUENCY:	230 Hz
TEMPERATURE DRIFT:	<1 nT/K
UNCERTAINTY OF MEASUREMENT:	<2 % ref. ±10.000 nT
LINEARITY:	<1 nT referred to maximum measuring range
PROTECTION GRADE:	IP68, 100 m with optional sealing plug
EXTERNAL DIMENSIONS:	— Diameter 39.4 mm (with protective cap) — probe length 750 mm — base distance 550 mm
NATO STOCK NUMBER (NSN):	6665-12-420-7755

CERTIFICATIONS

MIL-Standard certifications

- MIL-STD 810G Method 514.6, Procedure I, Random Vibration
- MIL-STD 810G Method 516.6, Procedure I, Mechanical Shock
- MIL-STD 810G Method 516.6, Procedure IV, Transit Drop Test
- MIL-STD 810G Method 501.5, Procedure I, High Temperature
- MIL-STD 810G Method 502.5, Procedure I, Low Temperature
- MIL-STD 810G Method 503.5, Procedure I-C, Temperature Shock
- MIL-STD 810G Method 506.5, Procedure I, Blowing Rain
- MMIL-STD 461G RS103 Radiated Susceptibility
- MIL-STD 461G RE102 Radiated Emission
- AEODP-7 Edition B, Annex A-1
- European Directive 2014/30/EC, EN 61326-1

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