

SYSTEMS FOR UXO- AND LANDMINE DETECTION



FEREX® 4.032



Characteristics

- Passive flux gate magnetometer
- Detection of ferromagnetic material/UXO e.g. bombs, grenades ...
- Precise handling, light weight
- High detection sensitivity
- Tension band technology
- Alignment for lifetime
- Modular design
- Compatible to GPS
- Compatible to laser positioning
- Data logger option
- Software for evaluation and display of data
- Documentation according to AECMA 1000D
- Operator and service training
- World wide service

Qualification

MIL-STD 810E 512.2	Leak test
MIL-STD 810E 514.4-1	Random Vibration
MIL-STD 810E 516.4	Mechanical Shock
MIL-STD 810E 516.4	Transit Drop Test, Procedure IV
MIL-STD 810E 501.3	High Temperature
MIL-STD 810E 502.3	Low Temperature
MIL-STD 810E 503.3	Temperature Shock
MIL-STD 810E 506.3-1	Blowing Rain
MIL-STD 461 D RE 1025.3.13.1	Radiated Emission
MIL-STD 461 D RS 103	Radiated Susceptibility

Application

- Land surface detection
- Borehole detection
- Underwater survey



Versions

Detection-Toolbox with interchangeable components:

FEREX® 4.032 API

single channel pointer instrument

FEREX® 4.032 DLG

data logger instrument, up to 4 channels

FEREX® 4.032 DLG KARTO

data logger instrument with additional GPS positioning capability

FEREX® KITS

**FEREX® 4.032 API
Mk26 Mod1 (US)
NSN 6665-01-503-7886**

- Control unit
- FEREX® probe
CON 650
- Carrying rod
- Battery pack
- Carrying belt
- 30 m extension cable
- Pulling rope
- Ballast weight
- Headphones
- Case
- Batteries
- Tools
- User manual



Headphones



Extension cable,
waterproof

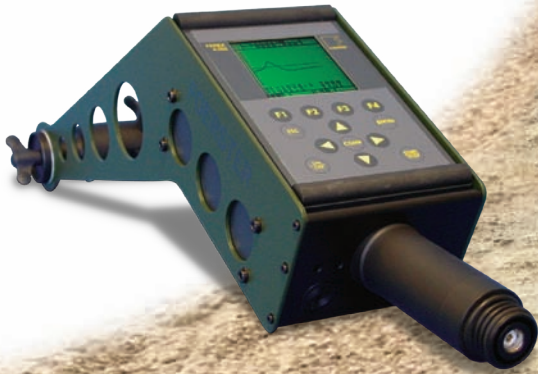


**FEREX® 4.032 API
NSN 6665-12-359-9684**

- Control unit
- FEREX® probe
CON 650
- Carrying rod
- Battery pack
- Carrying belt
- Case
- Batteries
- User manual

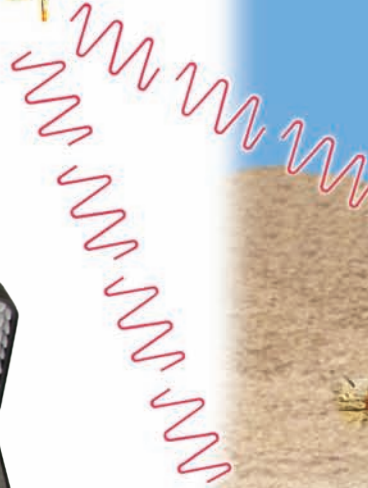


Case



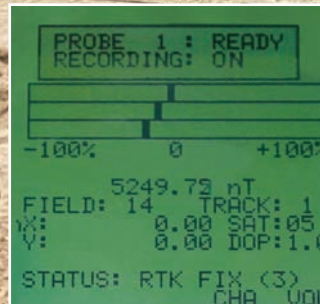
FEREX® 4.032 DLG
NSN 6665-12-359-9685

- Control unit DLG
- FEREX® probe CON 650
- 0.6 m cable
- Carrying rod
- Battery pack
- Carrying belt
- Case
- Batteries
- Start/Stop-handgrip
- Data transfer cable
- User manual



FEREX® 4.032 DLG
KARTO
NSN 6665-12-354-4078

- Control unit KARTO
- FEREX® probe CON 650
- 0.6 m cable
- Carrying rod
- Battery pack
- Carrying belt
- Case
- Batteries
- Start/Stop-handgrip
- Data transfer cable
- User manual



GPS supported navigation

ACCESSORIES



3-probe-holder

- Carrying frame
- Probe cable, threefold
- Battery cable



4-probe-holder

- Carrying frame
- Probe cable, fourfold
- Battery cable

Application and benefits

- Large-area detection
- Adjustable probe-spacing
- Ergonomic design

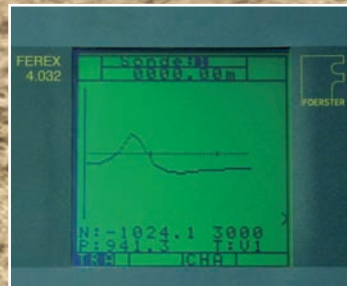
Borehole detection

- FEREX® probe CON 400
- Battery cable
- Extension cable, waterproof
- Ballast weight



Options:

- Adapter for GPS-antenna
- Adapter for laser prism



TECHNICAL SPECIFICATIONS



▲
FEREX® probe
CON 1600

▲
FEREX® probe
CON 650

▲
FEREX® probe
CON 400

Probe specification

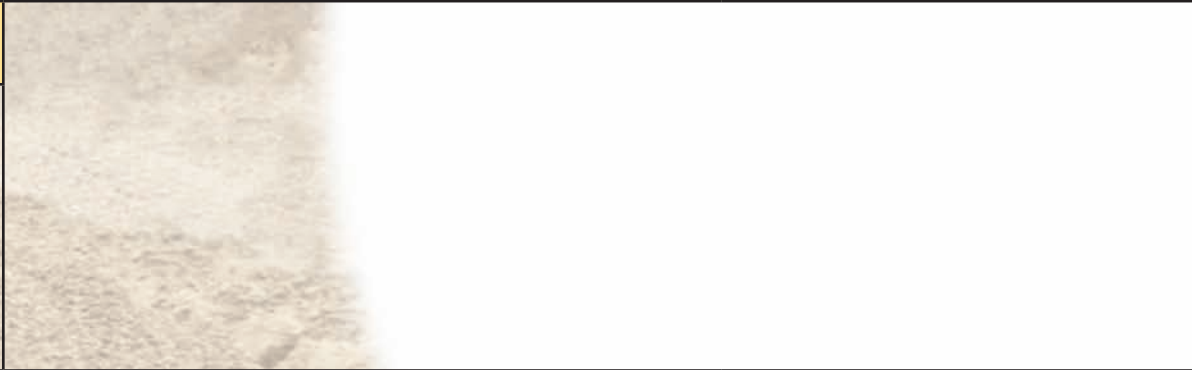


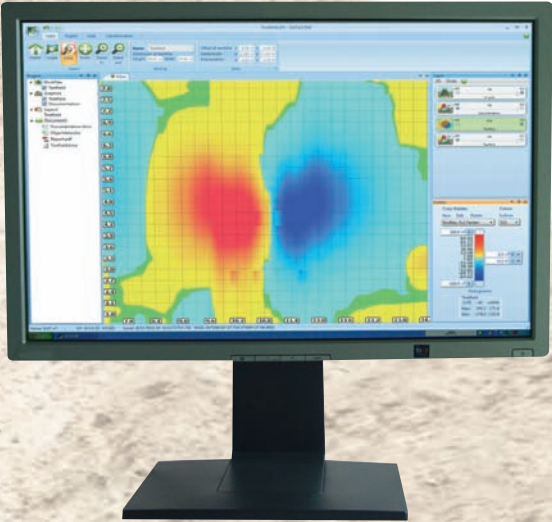



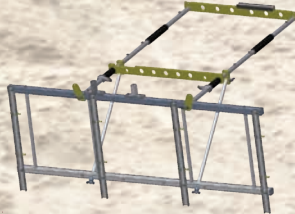
Design	tension band, alignment for lifetime
Measuring uncertainty	<2% ref. ±10,000 nT
Resolution	<0.2 nT
Stability	<1 nT
Temperature drift	<1 nT/K
Band width	240 Hz
Measuring range	±10,000 nT
Linearity	<1 nT ref. to max. measuring range










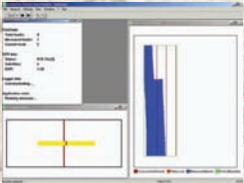
Specification data logger

Memory	16 MB
per value	3 Byte
Channels, max.	4
Sampling rate	max. 100 Hz per channel

	FEREX® API		FEREX® DLG	
Operating time with one set of alkaline batteries intermitted operation continuous operation	1 probe >60 h >50 h	1 probe >36 h >35 h	3 probes >18 h >15 h	4 probes >14 h >10 h
Power supply	Voltage ±6V DC 4 x 1.5V D-cells, ANSI STD. Size «D» (IEC LR 20) or 4 rechargeable batteries (optional)			
Measuring ranges	8 linear ranges from 0 to 3 nT up to 0 to 10,000 nT or logarithmic range			
Temperature ranges	Storage temperature -57°C to +71°C Operation ambient temperature -37°C to +71°C			
Weight (Masses)	4.7 kg incl. batt. in case 10.0 kg	4.9 kg incl. batt. in case 10.5 kg		
Dimensions FEREX® Case	L 1,400 mm L x W x H 1,000 x 280 x 340 mm			
FEREX® probes	Ø-tube mm	Length mm	Sensor basis space mm	Weight kg
FEREX® probes CON 650	35	853	650	0.65
FEREX® probes CON 400	35	603	400	0.50
FEREX® probes CON 1600	35	1,800	1,600	1.10

FEREX® EQUIPMENT AND ADD-ONS

Basic unit	Detection on land	
	Evaluation Software	Multi channel systems for large area detection hand-held
FEREX® 4.032 API		
		
FEREX® 4.032 DLG Data logger		
		 FOERSTER-3-probe-holder needed in addition: 2 FEREX® probes
FEREX® 4.032 DLG KARTO		
		FOERSTER-4-probe-holder needed in addition: 3 FEREX® probes 

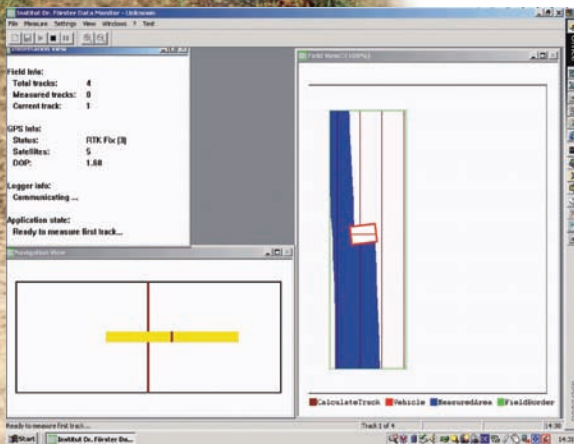
			Borehole-search	Underwater-search
	Positioning	Navigation	  Hardware: Extension-cable with sealing-plug up to 100 m length for use down to 100 m water-depth, pulling rope, ballast-weight Evaluation Software DLG: STD DATALINE® BM	Extension-cable with sealing-plug up to 100 m length for use down to 100 m water-depth, pulling rope, ballast-weight 
vehicle-based		Software for support of vehicle based large area detection		
<p>FOERSTER MULTICAT® 4.850</p>  <p>Option: foam-marking</p> <p>Additional 4 FEREX® probes and cable-set for 8 channel use adapter 8 channel (2. DLG KARTO needed)</p> <p>GPS-cables and antenna-adaption</p>	<p>GPS-system on request</p>   <p>Tachymeter-total-station on request</p>   	<p>FOERSTER DATAMONITOR software</p> <p>Only together with DGPS and FEREX® 4.032 DLG KARTO</p> <p>Display inside detection-vehicle</p> 		

FOERSTER MULTICAT® 4.850



Probe vehicle kit

- Probe drawbar trailer
- Cable kit
- 3 FEREX® probes
- FEREX® 4.032 DLG KARTO



DATAMONITOR Navigation software



Options

- Foam marking system
- Adapter for GPS
- Adapter for laser prism
- DATAMONITOR navigation software

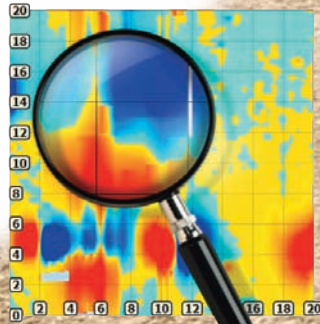
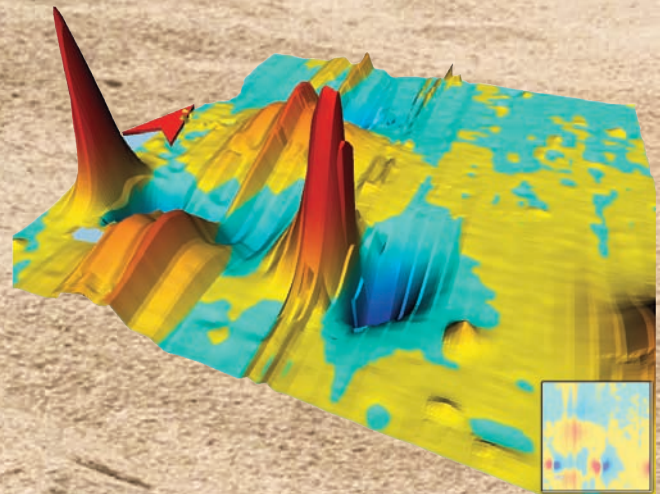
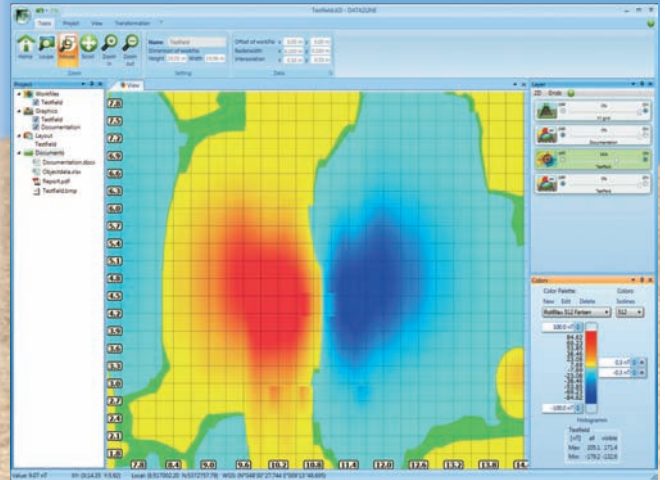
DATA2LINE® 4.810

**Latest Software Technology
for high-end Data-Evaluation
with:**

- Integrated Project Administration
- Geo-referenced mapping
- Full-support for FEREX DLG
- State-of-the-art solutions for Data-Visualization and Reporting

Tailored modules for Military, Industry
and Science:

- Basic (Project handling)
- UXO (Unexploded Ordnance)
- VertiCalc (Borehole)
- GEO (Geology, Archeology)
- NAV (Real-time Navigation)



Scope of supply

- Software CD/ROM
- User manual CD/ROM
- Hard lock drive

MINEX® 4.600



Operational Characteristics

- Metal Detector with high sensitivity for all metals
- Smallest metal content detection, e.g. minimum metal mines
- Dual tone detection signal for excellent pinpointing
- Visual indication of targets
- Automatic suppression of interference signals on saline soils/in salt water
- Searching along fences, rails, pipelines and below cars is possible
- 50/60 Hz suppression
- Ground learning function
- 5 sensitivity ranges
- Constant sensitivity during battery lifetime
- Military mode with switch off visual displays
- Automatic self-test and malfunction alarm



MINEX® 4.600 kit

- MINEX® metal detector
- Case
- Batteries
- User manual

Case →



Design Characteristics

- All control and display elements integrated into the handle
- Socket for:
 - Headphones
 - Data Transfer Cable
 - External Battery Pack
- Adjustable built-in loudspeaker, muted by headphone
- Detailed visual display of signal strength featuring 14 LEDs
- 2x extendable telescope with robust clamping levers
- Easy collapsible to a compact size

Qualification

MIL-STD-810G, 514.6 I, Cat. 4, Transport Vibration
 MIL-STD-810G, 505.5 II Solar Radiation
 MIL-STD-810G, 516.6 IV, Transit Drop
 MIL-STD-810G, 503.5 I-C, Temperature Shock
 MIL-STD-810G, 502.5 I + II Cold Temp.
 MIL-STD-810G, 501.5 I + II, High Temp.
 MIL-STD-810G, 514.6 I, Sinusoidal Vibr.
 MIL-STD-810C, 516.3 III, Mech. Shock
 MIL-STD-810G, 512.5 I, Immersion
 MIL-STD-810F, 506.4 I Blowing Rain

EMC see leaflet

Technical Specifications

Length	
minimum	657 mm
maximum	1.677 mm
Search head	oval, 210 x 285 mm
Weight:	
MINEX® 4.600	2.2 kg
Case	approx. 2.6 kg (with batteries)
Backpack	approx. 7.6 kg
Backpack	approx. 0.4 kg
Power supply	3 x 1.5 V batteries or 3 x 1.2 V rechargeable batteries IEC LR 20 (ANSI STD size „D“)
Operating time	approx. 40 h at an ambient temperature of 20°C (68°F) (with alkali-mangan batteries)
Ambient temperature range	-37°C to +71°C (-99°F to +160°F)
Storage temperature (without batteries)	-57°C to +71°C (-135°F to +160°F)
Waterproof	IP 68, 2 m, 30 min.



PRACTICAL TRAINING

Training ground for simulating real situations

Practical Tests

FOERSTER has set up a training ground next to the Division DM buildings especially for demonstration and training purposes. In an underground pipe system objects can be placed in a defined position and depth to simulate real life conditions for operators.

It is also possible to experience equipment handling in ground conditions which are typical of worldwide operation sites.

FOERSTER uses these grounds for training and seminars, but also allows companies and organisations to use these unique test facilities. In this way, specialists who are trained here under expert tuition can put their knowledge directly into practice.



SEMINARS

Passing on experience – learning to operate efficiently

Theory and practice

FOERSTER detection technology is designed to enable the operator to be able to cope quickly so that he can carry out his work. The training stage can be considerably reduced however if the training includes transfer of information to the operating personnel as well as obtaining the technology.

The FOERSTER training program firstly offers basic seminars, which, besides training for equipment usage, also provide advice on operation and evaluation.

Furthermore, extension seminars containing up-to-date information are offered which convey further knowledge and information about the present situation of the international efforts and results regarding disposal of unexploded munitions as well as mine clearance etc.

All training is carried out on a practice-oriented basis and contains training with detection devices as well as the theoretical basics.





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