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Search and locate

MAGNEX[®] 120 L-2 Magnetometer for land use

- Lightweight
- Stable and rugged construction
- New sensor
- No mechanical parallelization
- Small probe diameter
- Data recording



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MAGNEX® 120 L-2 -

MAGNEX® 120 L-2

General

The brandnew MAGNEX[®] 120 L-2 locator is used in geophysical surveys and applied for the detection of magnetic anomalies such as caused by ferromagnetic objects buried underground. The locating of UXO, pipes & pipelines, concealed weapon caches or archeological traces are typical tasks for this anomaly magnetic detector. The limit of the detection depth is determined by the size and position as well as the magnetic signature of the ferrous parts to be detected.

The very light weight, the ergonomics and the well outbalanced design of the MAGNEX[®] 120 L-2 help to strongly reduce operator fatigue improving the quality of work. The controls such as the sensitivity stepping switch and the compensation adjuster can be operated by the guide hand. The need for parallelization by the users is eliminated due to a new sensor technology.

Working principle

In general the search device is designed as a differential saturation magnetometer applying two inductors which are sensitive to magnetism. This arrangement suppresses the indication of the natural magnetic field.

The sensors (inductors) are placed at a set distance inside the probe and placed in coaxial position. As soon as the probe is carried into magnetic anomaly interference the inductors will start to provide different electric values e.g. an alternating tension which is indicated by an audio signal and a galvanometer reading after processing and amplification.

Construction

The MAGNEX[®] 120 L-2 is a lightweight, handheld, battery operated magnetometer for operation under adverse working conditions. It consists of a compact dismountable unit supplied as follows:

- Probe with galvanometer, lockable probe holder, carrying rod with stepping switch and compensation push button
- Battery container or rechargeable Lipol battery pack

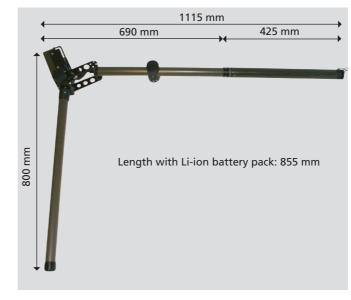
The operation fascia shows the following adjuster and sockets:

- Volume adjuster knob (VOL.)
- Test push button for sensitivity test (TEST.)
- LED-battery control (BAT.)
- Socket for datalogging / loudspeaker

Delivery content of MAGNEX® 120 L-2:

- Transit case with foamed liner
- Test stick
- Carrying strap
- Set of batteries (or optional rechargeable battery pack)
- Operation manual

The components are delivered in a transit case protected against impacts. By taking the probe from the case and fitting the battery container to the carrying rod the MAGNEX[®] 120 L-2 is immediately operational.



MAGNEX[®] 120 L- 2 Sketch



MAGNEX[®] 120 L- 2 in use



MAGNEX® 120 L- 2 Electronics

- Magnetometer for land search

Tec	hnical	Data

Power supply:	6 D – cell batteries 1,5V or a rechargeable Li-ion battery pack	
Operation time*:	approx. 50 h type (D-cells) approx. 22 h with Li-Ion battery pack	
Temperature range:	approx 20°C to +55°C	
Sensitivity ranges:	Range 1 approx. 3000 nT	
	Range 2 approx. 1000 nT	
	Range 3 approx. 300 nT	
	Range 4 approx. 100 nT	
	Range 5 approx. 30 nT	
	Range 6 approx. 10 nT	
Operation weight:	approx. 3200 g with D-cells approx. 2400 g with rechargeable Li-lon battery pack	
Carrier case:	approx. 850 x 350 x 150 mm	
Overall:	according to sketch	

Digital recording of measured data

The EPAD[®] data logger and the EPAS[®] software are perfectly matched to one another and form the first class EBINGER system for recording, processing, visualizing and evaluating digital data for explosive ordnance disposal work. The EBINGER system is characterized in particular by the simplicity of use as well as by its multilingualism.



EPAD® data logger with EPAS® -Software