



## OPTIONAL ACCESSORIES

(not necessary for the basic function)

### HARD CASE

The watertight hard case offers a safe and convenient transport of the complete set with backpack and accessories.

### HEADSET

This headphone is very lightweight. The soft design assures that it can be worn conveniently for long periods of time, even under a helmet.



### RECHARGEABLE BATTERIES (Ni-MH)

2 x 1.24 Volt (RSH 4 KR 35/62, D-size)

### CHARGING SET

Charging station set with car adapter  
mains voltage: 100-240 Volts, 50/60 Hz AC  
or 12-15 Volts DC

# UXO DETECTOR VXC1

## Differential Magnetometer for the location of unexploded ordnances in the ground

- Light and compact
- Ferrous metal alarm indicated by LED-meter and audio signal
- Operation and indication elements integrated in the hand grip



- No sensor adjustments required
- Telescopic pole continuously adjustable
- Weight approx. 2.4 kg incl. batteries

## Technical Data

### General:

Power supply:	2 ea. 1.5 V standard batteries D-size or 2 ea. 1.24 V rechargeable battery KR35/62, D-size
Battery life:	up to 100 hours with Alkaline batteries
Operation temp.:	-31° C to +63° C
Storage temp.:	-51° C to +71° C
Environmental conditions:	According to MIL STD 810F 501.4-II, 502.4-I, 502.4-II, 503.4, 506.4-III, 514.5 C1
Measuring range	60, 300, 1500 nT
Sensitivity:	5 nT
Detection signals:	audio by built-in loudspeaker and visual by LED
Optional output:	headset
Watertight:	up to 1 meter

### Dimensions:

Working length (distance between hand grip and sensor):	adjustable from 56 cm to 88 cm
Distance of sensors:	300 mm
Diameter of sensor tube:	38 mm
Length of sensor tube:	460 mm
Backpack:	53 x 29 x 12 cm
Hard case (option):	56 x 35 x 23 cm

### Weights:

Complete detector set during operation (with batteries)	approx. 2.4 kg
Headset (option):	approx. 110 g
Backpack (empty):	approx. 1 kg
Hard case (empty, option):	approx. 4.9 kg
Transport weight in hard case: (incl. field backpack and batteries)	approx. 8.4 kg

**NATO-STOCK-Number 6665-12-377-4268**

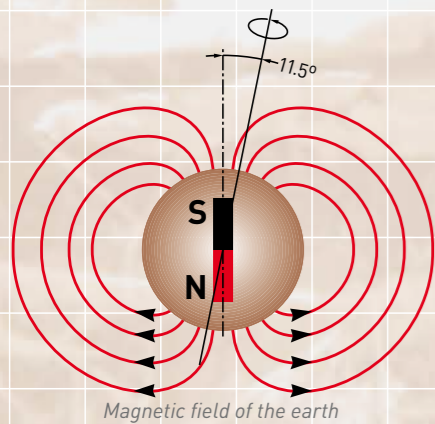
All technical data are subject to change without prior notice.  
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### General

The Ferrous Locator VXC1 is a very compact portable and rigid instrument for explosive ordnance detection on land and in shallow water.

Due to its compact and lightweight construction, it is highly recommended for detection work in dense vegetation and during digging activities.

### Measuring Principle



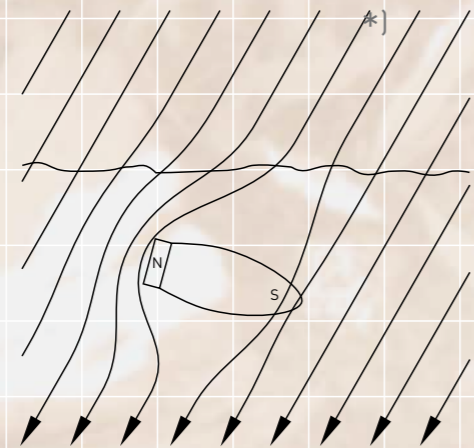
The magnetic field of the earth is homogeneous with regards to the field strength and the direction of the field strength. If a ferromagnetic object is brought into this homogeneous field, the own field of the object is superposing the local homogeneous magnetic field of the earth.

With increasing distance from the object the field distortion is decreasing.

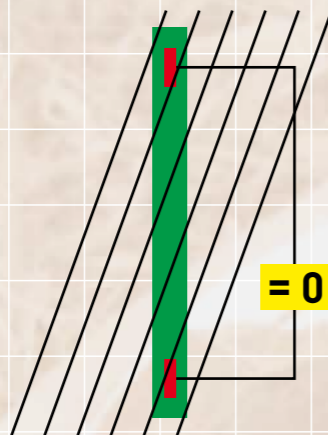
The extent of the distortion depends on several factors. The most important ones are the size of the object to be detected and its permeability. The larger the object to be detected, the larger the detection distance.

If the buried object is magnetized, i.e. it has an own magnetic field, the field lines are reacting according to the polarity of the object. The north pole of the object displaces the field lines of the earth, whereby the south pole of the object attracts the

field lines. In general, the total disturbance of magnetized objects is



larger than the disturbance of objects having no own field. But very rarely the total disturbance might even be smaller depending on the position of the object.



The VXC1 is a differential magnetometer, i.e. two sensors are arranged in geometrically true alignment with a distance of 300 mm and are connected in a way that they measure the value zero in a homogeneous field.

Each sensor passing a ferrous object is differently affected. The LEDs are lighting on the left or right side of the display depending on the position of the object.

The measuring accuracy is guaranteed over long time under normal field operation and all weather conditions.

Sensor adjustment is not necessary!

### Main Components

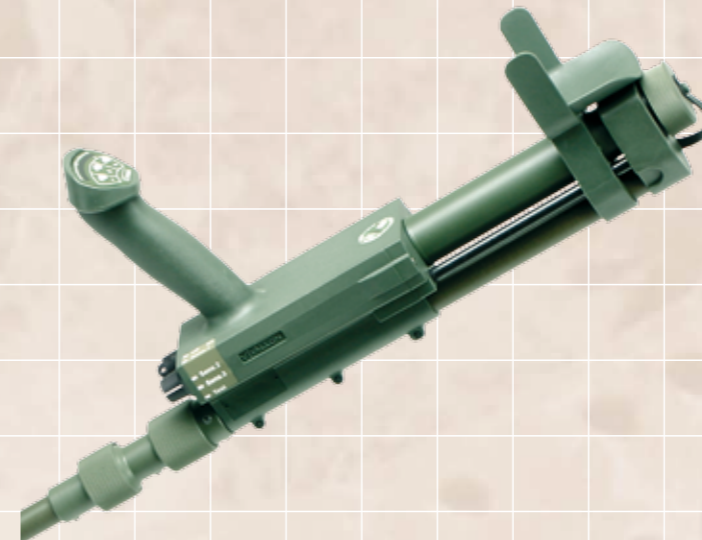
The VXC1 comes in a rigid backpack housing the complete set:

- Electronics unit with battery compartment and telescope
- Sensor part with very stable sensors and watertight connector
- Operation Manual
- Backpack



### Design

The ergonomic design of the electronic unit allows a very convenient handling of the detector.



Operation and indication elements are clearly arranged in the top of the hand grip.

The LEDs are clearly visible even in the sunlight. The 10 LEDs on each side of the display indicate plus and minus of the measured magnetic inhomogeneity of the field strength.



According to the polarity of the magnetic inhomogeneity, the LED-signal is shifted to the left or to the right side. The position of the LED is proportional to the strength of the detection signal.

The three rigid push buttons can easily be operated with the thumb:

- : decrease of volume
- +: increase of volume
- C: compensation

The mode selector is arranged on the front of the electronic unit.

Mode Selector: off:	Locator is switched OFF
Sens. 1:	Locator is switched ON Sensitivity step 1: 1500 nT at 10th LED
Sens. 2:	Locator is switched ON Sensitivity step 2: 300 nT at 10th LED
Sens. 3:	Locator is switched ON Sensitivity step 3: 60 nT at 10th LED
Test:	Test function



### PACKING

All parts of the Ferrous Locator with batteries or rechargeable batteries, charging set and headset are clearly arranged in the backpack.

