



UXO Search head

The large diameter search head (615 mm) which is available as special option for the VMM3 allows for the detection of metallic mines and UXO to large depths below the surface with reliable and consistent operation.

The option UXO is delivered complete with a universal semihard carry case. The case is splash-watertight and can be carried comfortably as a backpack as well.

Dimensions:
approx. 75 x 70 x 22 cm.

For special tasks, the case can also be filled with the complete detector VMM3, including the UXO search head.

Stickprobe

For detection in bushes or trees the electronics can be connected to a stick probe with extension tube.



Technical Data

General:

Power supply:	4 ea. 1.5 V standard batteries D-size or 4 ea. 1.2 V rechargeable battery KR35/62
Battery life:	50-60 hours, with 22 Ah battery
Sweeping speed:	0.2-1 m/s
Operation temperature:	-31 °C to +63 °C (-24 °F to +145 °F)
Storage temperature:	-51 °C to +71 °C (-60 °F to +160 °F)
Compliance to Environmental conditions:	According to MIL STD 810F 501.4-II, 502.4-I, 502.4-II, 503.4, 506.4-III, 514.5 C1
Presswatertight:	up to 2 meters (Search head)
Search programs:	2 soil programs
Power line suppression:	50 Hz and 60 Hz (automatic)
Data output:	RS 232 for data acquisition
Data input:	RS 232 for firmware update

Dimensions (approx.)

Search head:	170 x 305 mm
Electronics unit:	106 x 80 x 195 mm
Telescopic carrying bar:	min. 995 mm ± 5 mm max. 1925 mm ± 5 mm
Aluminium shipping case:	782 x 300 x 142 mm

Weights (approx.):

Weight to be carried by hand:	1.7 kg
Complete detector set during operation (with batteries):	3.5 kg
Complete set with accessories in backpack:	4.7 kg
Shipping weight with all accessories: (incl. aluminium shipping case)	11 kg

VMM3 Metal Detector

- High sensitivity
- Handheld unit only 1.7 kg
- Robust mechanical design
- Length adjustable from 99 cm to 192 cm
- Highly effective automatic ground compensation
- Easy to operate
- Firmware upgrade possible
- Data output



VMM3 PORTABLE METAL DETECTOR

The modern, lightweight, portable Metal Detector VMM3 has been designed for the highly accurate detection of all types of metallic mines and plastic mines with minimum metal content. Bombs, ammunition, and other metallic targets can also be located safely and efficiently.

The ease of operation is one outstanding feature of the VMM3 Metal Detector.

Ground conditions that are mineralized or magnetized, shallow water areas (salt and fresh water) and extreme weather conditions can be compensated easily.

There are nearly no false alarms, even when the search head contacts the ground or during detection near to main power lines.



Reliable Design

- Lightweight
- Connectors without pins
- Internal search head cable minimizes physical damage
- Low thermal conductivity (comfortable to hold in extreme hot or cold conditions)
- Rigid metal housing for electronics
- Low maintenance
- Adjustable working lengths by three telescope bars

Excellent Detection

The slim shaped search head provides a very precise pinpointing of the target and separation between narrow placed targets without loss of detection speed. This design also allows easy searching in areas of dense vegetation, rocks, mud etc.

The large size area of the search-head provides deep penetration of the electromagnetic pulses into the ground for the detection of larger metal targets (e.g. anti tank mines) to large depths.

Setting into Operation

The VMM3 requires only minimal operator training. The operation manual does not only show the function and use of the equipment, but provides also practical hints for detection work.

- Open the case.
- Simply connect the two bars and adjust suitable length.
- Fix the hand grip and armrest.

- Insert the batteries.
- Connect the electronics unit.
- Switch on.
- Set the sensitivity level.
- Start operation.



Modern Electronics Unit

The modern digital electronics withstands all typical environmental and vibration requirements and meets the MIL STD 810F. It operates with 4 standard batteries (D-size), alkaline, carbon or rechargeable Ni-MH-type. The longest battery life time is ensured by alkaline batteries.

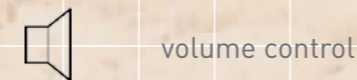


A splash-waterproof non magnetic loudspeaker is fitted in the electronic compartment. The continuous volume control can be set to any desired level. By connecting the headset to the electronics the built-in loudspeaker is automatically switched OFF and the volume control serves the headset.

All essential operating controls are arranged on the front panel. They are protected against mechanical damage and unintentional changes.

The required program can be determined with the program selector MODE:

- off: OFF
- normal: normal soil
- mineral: mineralized soil



With the soil compensation button COMP. the detector can be adapted to the mineralized soil condition of the operation area.

The suppression of interference caused by 50 Hz and 60 Hz power lines is automatically activated.

An automatic continuous self check of six important functions including cable damage and battery level control is the life insurance of the deminer. System failures are immediately indicated by a special audio alarm.



The automatic detection level control guarantees a longterm constant sensitivity for hours of operation independent of the battery level, temperature and other environmental conditions.

Transportation

The complete detector set can be delivered in a backpack or in a rigid and splash-watertight shipping and storage case, which allows safe transportation. All components are placed in suitable compartments within the case.

For field transportation the backpack is recommended.



Digital Output

For computer-aided detection of unexploded ordnances and for archiving the measuring data of a survey field the front panel of the

VMM3 contains a watertight data output RS232.

The same interface allows to update the firmware of the VMM3 or to realize individual requirements, respectively.

OPTIONAL ACCESSORIES

Via the serial interface the VMM3 can be connected to a Vallon Data Logger or directly to a Laptop.



The data can be transferred to a laptop or PC. Subsequently, the data can be analysed and evaluated with software VALLON EVA2000® which provides several outputs such as true-to-scale maps. The measured values are shown in colors, and targets can easily be identified. A target list with coordinates is available too. When using DGPS, the target list contains GPS coordinates for each target.

By using the 60-cm-UXO-search head great detection depths are achieved.



60 cm search head (Option UXO):
1 = 50 kg aerial bomb at 1.7 m depth
2 = 75 mm tank grenade at 1.2 m depth