

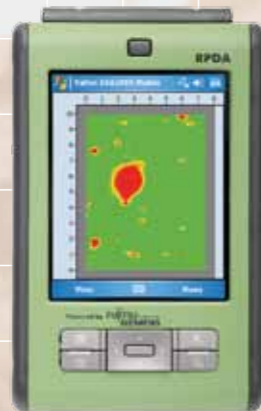
Digital Output

For computer-aided detection of unexploded ordnances and for storing the measuring data of a survey field the front panel of the VMX3 contains a watertight data output. Via the serial interface the VMX3 can be connected to the Vallon data loggers or directly to a Laptop, provided that the evaluation software VALLON EVA2000® has been installed.

OPTIONAL ACCESSORIES

Vallon Field Computer VFC2

Lightweight data logger for computer-aided detection of UXOs.



no. 1 = 50 kg aerial bomb at 1.7 m depth
no. 2 = 75 mm tank grenade at 1.2 m depth

VMX3 Metal & UXO Detector

- Ultra high sensitivity for ordnance and submunition
- Large detection depth
- Handheld unit only 1.9 kg
- Length adjustable from 92 cm to 137 cm
- Highly effective automatic ground compensation
- Easy to operate
- Firmware update possible
- Data output



Technical Data

General:

| | |
|---|---|
| Power supply: | 4 ea. 1.5 V alkaline 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/sec. |
| Operation temp.: | -32 °C to +63 °C (-26 °F to 145 °F) |
| Storage temp.: | -51 °C to +71 °C (-60 °F to +160 °F) |
| Compliance to Environmental conditions: | According to MIL STD 810E 501.3/A1, 502.3/C1, 503.3, 506.3, 514.4/8 |
| Search programs: | 2 soil programs |
| Mains filter: | 50 Hz and 60 Hz (automatic) |
| Presswatertight: | up to 2 meters (search head) |
| Data output: | RS232 for data acquisition |
| Data input: | RS232 for firmware update |

Dimensions (approx.):

| | |
|--|---|
| Search head: | 615 mm |
| Electronics unit: | 90 x 80 x 195 mm |
| Telescopic carrying bar: | min. length 92 cm max. length 137 cm |
| Transportation case: | 75 x 70 x 22 cm |
| Weights (approx.): | |
| Headset: | 0.11 kg |
| Search head with telescopic pole: | 1.9 kg |
| Electronics unit with Alkaline-batteries: | 1.8 kg |
| Complete detector set during operation (with batteries): | 3.7 kg |
| Shipping weight with all accessories: | 9.1 kg |

All technical data are subject to change without prior notice.
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VMX3 METAL DETECTOR

The Vallon VMX3 detector is a portable and robust hand-held instrument designed to detect buried large metal objects. Metal mines and UXO's are detected in greater depths.

This detector is especially recommended for use in strongly mineralized soils where standard type magnetometers are unable to function. Both ferrous and non-ferrous ordnance is detected with the VMX3 independent of the soil conditions; false alarms have been neutralized.

Modern DMPI-Technology (Digital Magnetic Pulse Induction) and the rigid design are the logical result of close cooperation with humanitarian and commercial mine and UXO clearance personnel.



Due to the high penetration depth the search head is typically swept at 10-15 cm height above the surface. Without loss of sensitivity, this search method allows for easy operation in difficult terrain (i.e. rocky areas, dense vegetation, mud areas, etc.) and also submunition are not activated. The strongest alarm signal is produced when the center of the object is exactly above the center of the search head. In a minefield scenario, the VMX3 may be deployed

for deeper buried targets only after surface clearance for AP & AT plastic mines by using Vallon's standard mine detectors.

Search head with Telescopic Pole

The glasfiber-reinforced 60 cm diameter search head contains the Digital Pulse Induction Sensor with integrated noise reduction features. It is lightweight, watertight and non-magnetic.

The telescopic pole consists of an inner and outer tube, arm support and adjustable handgrip for operator comfort during extended use. The length of the telescopic pole can be adjusted continuously, also during operation, between 92 cm and 137 cm in just a few seconds.

Modern Electronics Unit

The modern digital electronics withstands all typical environmental and vibration requirements and meets the MIL STD 810E. 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 built-in to 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 soil program can be selected with the program selector MODE:

- N: normal soil
- M: mineralized soil
- : Volume Control, setup

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



is the life insurance of the operator. 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.



Setting into Operation

The VMX3 requires only minimal operator training. The operation manual does not only show the function and use of the equipment, but provides also practical tips for detection work. Trained operators can start detection work in less than 30 seconds.

- Open the case.
- Simply connect the two bars and adjust desired length.

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

Transportation

The VMX3 is delivered with a universal semi-hard carry case which houses the complete detector set. The case is splash-watertight and can be carried comfortably as a backpack as well.

