META DATA

Metal Detector VMV8

Electronics
Dimensions: 41 x 33 x 18 cm
Weight: 12.5 kg
Power consumption: 11 - 30 V DC / 25 W

Search mat*
Dimensions: 2.3 x 2 m
Search width: 2.2 m
Weight without search heads: 90 kg
Weight search head: 2.2 kg each
Length detector cable: 12 m
Driving speed: 10 km/h max.

Mounting set
Weight: 22 kg
Length: 3.5 m

Compass
Dimensions: 10 x 6 x 4 cm
Weight: 0.7 kg

Car adapter
0.5 kg

GPS
Receiver:
Dimensions: 18 x 16 x 7 cm
Weight: 1 kg
Antenna 19 cm diam.: 0.5 kg

Laptop
Dimensions: 5 x 29 x 34 cm
Weight: 4.4 kg

Relay box
Dimensions: 36 x 16 x 9 cm
Weight: 3.6 kg
Contacts: 16 x 5 A

Marking System
Distance between control system and paint nozzles: 5 m max.
Different paint color available: red, orange, green, black, and blue
Temperature range: 10° C to 60° C
Power consumption: 12 V DC / 20 A
(16 paint nozzles, 8 channel)

GPR-Detector VRV16
by ERA Technology Ltd

Electronics
Dimensions: 19” rack 9U
Weight:
Power consumption: 20-30 V DC, 200 W

Antenna
Dimensions: 23 x 15 x 7 cm
Cable length: 10 max.
Search width: 2.2 m
Target: AT-Mines

Driving Speed
10 km/h max.

* size and weight of the mat depends on number and type of the sensors and type of the vehicle.

All technical data are subject to change without prior notice.

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Vallon GmbH • Im Grund 3 • D-72800 Eningen • Phone: +49.7121.9855-0 • Fax: +49.7121.83643
E-Mail: info@vallon.de • internet: www.vallon.de

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APPLICATION

The multi sensor system VMV8 is useful to detect metallic objects in the ground and, using additionally the optional GPR system, metal-free targets as well. The sensor platform consists of a flexible mat which can be mounted in front of a vehicle, at its rear or at its sides allowing the search of street borders, for example. This system is the optimal solution for quick survey of large areas.

The ground pressure of the vehicle should be low for not activating AT mines, and the wheel rigid enough in order to AP mine explosion.

GROUND PENETRATING RADAR SYSTEM (GPR)

Since the metal detection system gives a signal for each detected metal part, the false alarm rate in urban areas may be quite high. Therefore, additional information from a GPR signal will be very helpful. The 16 GPR antennas [individually exchangeable] are also mounted flexibly on the mat. The GPR electronics processes the measured signals and displays this information in a coloured map, indicating the presence of man-made objects. That means, the measured signal of the metal detector can be suppressed if the GPR does not detect any housing around this metal part. Tests with handheld GPR Systems showed that by using this dual-sensor technique the false alarm rate is reduced by factor 5 at least.

8-channel GPR system developed by ERA Technologies LTD, UK

METAL DETECTION SYSTEM

The metal detection system is based on the well-proven Vallon mine detection electronics. The 8 search heads (can be individually exchanged) are mounted flexibly on a mat. The electronics unit is a compact rigid housing and is controlled by a ruggedized laptop which also serves for navigation and evaluation of the measured data.

The display shows the coloured map of the measured data in real-time or the overview of the tracks covered. The signal output controls a relay box for the connection of an automatic brake and / or a 8-channel marking system.

MARKING SYSTEM

The 8-channel marking system is controlled by the computer of the metal detector or the common evaluation system of the metal detector and GPR. It consists of:
- control electronics
- pump and valves
- spray nozzles
- paint tanks of either one 500 liter or 2 x 250 liter
- tubing needed
- quick couplers for paint system

Marking system developed by MECHEM (PTY) LTD, South Africa