

UPEX® 740 MF-3 PI Detection System

- Digital data recording
- High depth penetration
- Geo-referencing with GNSS
- Non-proprietary NMEA
- One-person operation
- EMI frequency shift
- Good all-terrain performance



Characteristics

- 3 sensitivity levels
- 10 sampling delay levels
- Analogue output
- Reduced in-motion noise
- Visual / acoustic signal
- Simple operation, easy to manoeuvre
- No equipment on main body
- Extendable UXO detector
- Good resolution capacity
- Can be dismantled for transport

General Information

Experience a significant boost in efficiency with the latest generation of the worldwide tried and tested UPEX®740 M large loop. This flexible detection system of 1-2 m² facilitates speedy surface surveying with a high level of depth penetration. To adapt to the local searching conditions, this new device is equipped with 3 search sensitivity levels LOW / MEDIUM / HIGH. An MK 82 could be detected at level MEDIUM at a depth of approximately 3 m.

The large loop delivers a wide detection range for medium-sized and large metal objects and can block out interference caused by strands of wire, nails, and low-volume scrap metal. This reduces the need for unnecessary excavation and speeds up the progress of work.

Operating Principle

Search system MF-3 is based on the EBINGER pulse induction system UPEX®740 M, which can be described as an electromagnetic echo procedure.

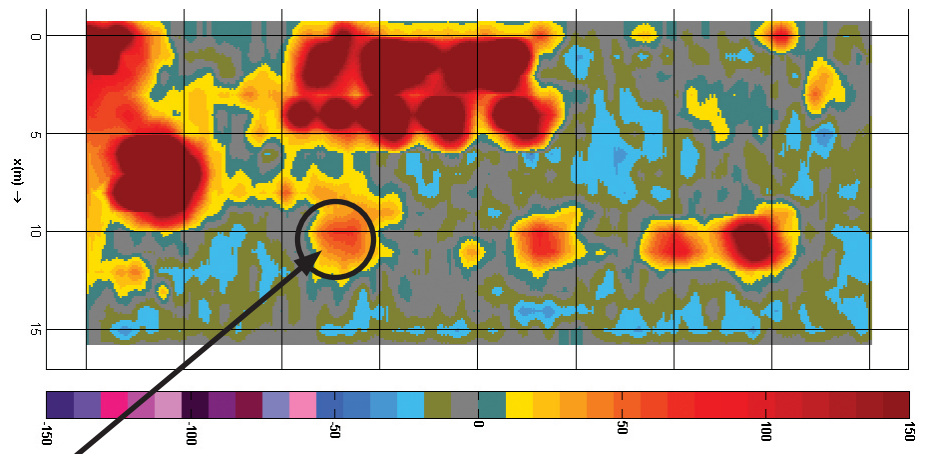
Via its search head, the PI detector emits magnetic pulses with a specific repetition frequency that induces eddy currents in search objects. An electromagnetic reaction is created, which is then picked up in the pulse pauses and electronically indicated on the display.

Support via EPAS®/EPAD®

UPEX 740®MF-3 is equipped with an analogue output for data recording with the EBINGER EPAD® data logger. This device records the values measured during the survey for later processing, analysis and conversion into digital anomaly maps. The raw data recordings / mappings are tamper-proof, making them ideal for QA & QC and documentation. This version conforms to the requirements of GIS systems (Geo-Information Systems) and supports IMSMA (Information Management System of Mine Action).

Optional geo-referencing allows for a longer time delay between detection work, interpretation and object recovery. In conventional analogue detection, the object had to be excavated directly after surveying in order to minimise the loss of coordinates.

The option of geo-referencing enables an interposed assessment of the data through, for example, high values for optimised clearing processes. This means that target lists facilitate efficient planning of clearance activities. UPEX 740®MF-3 thus offers visual / acoustic search as a purely digital recording or a combination of the two.



MK82 at approx. 3.2 m depth on level MEDIUM

6 Fig. 1. Mapping of a test area with UPEX®740 MF-3

Components of the UPEX®740 MF-3



Technical Data

- 1 Search head 1 x 1 m (1 m²)
- 2 Electronics unit incl. mounting equipment
- 3 Detection system frame with wheel set
- 4 Rechargeable battery pack incl. charger

Special Accessories:

- 5 EPAD®- PDA incl. Bluetooth unit (data logger), transport case, charging technology and mount
- 6 EPAS® – software for data analysis/mapping
- 7 GPS – system
- 8 GPS – antenna rod and catch strap

Power Supply:	Detachable Li-Ion battery pack: 11.1 V, 4.4 Ah
Operating Time:	Li-Ion battery pack approx. 12h
Temperature Range:	- 20 °C to + 55 °C
Dimensions:	Search head frame approx. 1 m ² wheel diameter approx. 600 mm Special wheels upon request Electronics box 305 x 145 x 150 mm
Weight:	Electronics box 1400 g without battery Li-Ion battery 380 g PDA 600 g PDA mount 466 g 1 m ² search head 1500 g Detection frame assembled 11,40 kg Complete system with PDA and 1 m ² search head 15,75 kg
Signal display:	Analogue instrument/acoustic signal/control pulses to indicate operational readiness
Detection levels:	LOW-MED-HIGH
Sampling delay levels:	25 - 250 µs
Battery indicator:	Instrument



EBINGER technology center Wiesbaum



EBINGER Prüf- und Ortungstechnik GmbH

Head office:

Hansestraße 13
51149 Cologne
Deutschland
Tel. +49 2203 977 100
Fax +49 2203 36062
E-Mail: info@ebinger.org

EBINGER Prüf- und Ortungstechnik GmbH

Technology Centre & Sales

Germany/Benelux:

Vulkanstraße 14
54578 Wiesbaum
Deutschland
Tel. +49 6593 99894-0
Fax +49 6593 9984-50
E-Mail: eifel@ebingergmbh.de

www.ebinger.org



Copyright 2017 © EBINGER Prüf- und Ortungstechnik GmbH
Cologne, Germany. Copyrights, design rights and brand name
rights: Documents, software and designs of EBINGER Prüf- und
Ortungstechnik GmbH may be not reproduced, copied or pub-
lished either in part or in whole unless the written agreement
of EBINGER Prüf- und Ortungstechnik GmbH there to is held.
Photos: EB archive and Guido Schiefer. EBEX®, EFIS®, EPAD®,
EPAS®, MAGNEX®, MINIMAG®, UWEX®, MAILEX®, PASSEX®,
PIDD®, TREX®, UPEX®, are registered trademarks of EBINGER
Prüf- und Ortungstechnik GmbH, Cologne/Germany. Changes,
errors and printing errors reserved! The general terms of business
of EBINGER Prüf- und Ortungstechnik GmbH hold good. Printed
in Germany. EBPIUPEX740MF-3 07/2017