

CEIA PD240CH-Z4 — DUAL SENSING HAND-HELD FERROMAGNETIC DETECTOR — ZONE IV Non-magnetic hand-held patient screener for MRI safety, suitable for use inside the magnet room (Zone IV)



Product description:

The **CEIA PD240CH-Z4** is a hand-held ferromagnetic detection system with **dual sensing capability**, designed for patient screening prior to an MRI exam. Its key feature is its **fully non-ferromagnetic construction**, allowing it to be used directly inside the examination room (**Zone IV**) without risk of being attracted or damaged by the magnet, without compromising performance or creating a potential projectile risk.

The only hand-held device capable of **separately detecting both ferromagnetic and non-ferromagnetic metals**, the PD240CH-Z4 provides protection from adverse magnetic field interaction and potential RF-induced metallic heating. MRI compatibility has been verified and validated with magnets up to **7T**.

The device features **three analysis modes** selectable according to clinical needs: all metals detection on the full body, ferrous metals detection on the body, or ferrous metals detection on the head. The control interface is fully customizable via the HHMD configuration tool.

High precision pinpointing is achieved through dual-tone audio signalling and a dual-colour display, enabling accurate localization of detected metal objects. Alerts are available in audible and visual modes.

Analysis modes

- **All metals:** high sensitivity to all types of metals (implanted medical devices, prostheses, metal splinters)
- **Body:** high sensitivity to small ferromagnetic metals (ferromagnetic fragments, surgical instruments) — insensitive to large non-ferromagnetic prostheses
- **Head:** high sensitivity to very small ferromagnetic metals — insensitive to non-ferromagnetic dental implants and small prostheses

Technical specifications

- **Power supply:** 2 x AA LS14500 very low ferromagnetic Lithium batteries
- **Battery life — All metals:** > 100 hours

- **Battery life — Body:** > 50 hours
- **Battery life — Head:** > 50 hours
- **Low battery indicator**
- **Control panel:** optical and acoustic signalling modes, 3-level sensitivity selection
- **Operational functions:** customizable via HHMD configuration tool
- **Construction:** fully non-ferromagnetic, suitable for Zone IV (magnets up to 7T)
- **Validated MRI compatibility:** verified up to 7T — test report available on request
- **Dimensions PD240CH-Z4:** 405 x 120 x 40 mm
- **Dimensions carry bag:** 430 x 340 x 105 mm
- **Weight PD240CH-Z4:** 420 g (with battery)
- **Weight carry bag:** 2.3 kg (with equipment)
- **Operating temperature:** -40°C to +70°C
- **Storage temperature:** -40°C to +80°C
- **Relative humidity:** 0 to 98% (without condensation)
- **Safety features:** manufactured in shock-resistant technical polymers
- **Compliance:** applicable international standards for safety, EMC and CE regulations

Detecting set contents

- 1 PD240CH-Z4 hand-held patient screener
- 2+2 AA non-magnetic batteries (part # 94810)
- 1 detection verification test piece (part # 72131)
- 1 discrimination verification test piece (part # 72132)
- Instruction manual
- Certificate of calibration
- Carry bag

Reference: -