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RIEDEL FERROMAGNETIC DETECTOR

Riedel铁磁探测系统

磁共振室安全解决方案
MAGNETIC RESONANCE CHAMBER
SAFETY SOLUTION

全面提升MRI室的安全
IMPROVE THE OVERALL SAFETY OF MRI ROOM

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FUNCTION OVERVIEW

功能概述

铁磁探测仪由多组传感器和微处理器组成，这些传感器和微处理器内置于一个步进式传感器阵列柱中。探测器对经过传感器阵列柱前的患者或人员身上的物体进行分析。如果由铁磁材料制成的物体接近传感器阵列柱，系统将检测到物体的铁含量。如果质量超过预设的灵敏度阈值，将触发声音警报，指示灯将亮起。

Ferromagnetic detector consists of several series of sensors and microprocessors which are integrated in stepping sensor pillar array and help to analyze ferromagnetic materials that patients or people carry when pass by the sensors. The system detects ferromagnetic content of any object near by and the audio alarm will be triggered and indication lights will turn on when the ferromagnetic value is over the pre-set threshold.
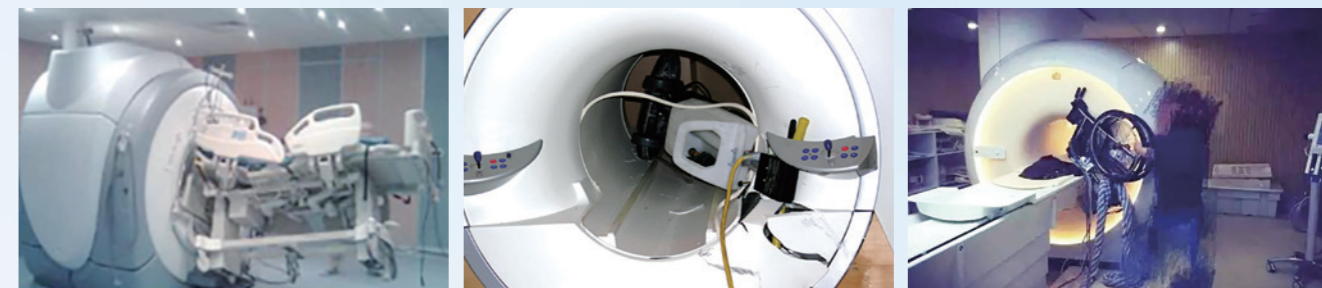
MRI ROOM

FERROMAGNETIC DETECTOR

HARMS TO MEDICAL WORKERS AND MR BY FERROMAGNETIC MATERIALS

铁磁物质对MR及医护人员的危害

当铁磁金属物体进入MR扫描环境时，由于磁场吸引力，铁磁物质会被吸附到MR设备上，会造成医疗影像质量降低，工作效率降低，停机维修成本大幅提高，甚至对医护人员及病人产生难以估量的损伤。

When object containing ferromagnet comes to MR scan zone, it may be attracted to the MR equipment, which will lead to decreases in medical imaging quality and work efficiency as well as an increase in machine halt maintenance cost or even cause inestimable harms to medical staff and patients.

FUNCTION FEATURES
功能特点

运行
7x 24小时自动运行。

OPERATION
7x24 hours auto operation.

入口通道实时探测
实时探测进入MR室通道范围所有物体。

REALTIME DETECTION AT THE ENTRANCE
Real-time detection will be conducted on all the objects passing through the entrance to MR room.

磁场实时复位功能
实时监测探测区域，自动排查干扰源。

MAGNETIC FIELD RESET FUNCTION IN REAL TIME
Real-time monitoring all the detection area to check interferences automatically.

激活方式
无需接触激活，防止交叉感染，可以持续操作自我检测或监督检测两种模式。

ACTIVITION MODE
Non-touch activation to avoid cross infection. Device could run in self-inspection or monitoring inspection continuously.

声音/自定义语音报警
发现铁磁物体发出警报音或由用户自定义录制语音报警，满足用户个性化、多语种报警需要。

AUDIO/USER-DEFINED VOICE ALARM
Recorded in customized or multilingual voice messages, the user-defined voice alarm or audio alarm will be triggered when ferromagnetic objects are found.

智能化报警
开关门及无磁性物体进入探测区域，不会引起报警。

INTELLIGENT ALARM
No alarm will be triggered when door opens or closes or non-ferromagnetic object comes into detection area.

可视化报警
顶灯显示及声音报警，不会引起报警疲劳，专利技术抑制走廊交通引起的不相关的警报和假阳性警报。黄绿两色LED指示，绿色LED开启监测模式，黄色表示危险物品存在，红色报警只会在危及生命的状况下启动。

VISULIZED ALARMING
Top indication light and audio alarm cause no alarm fatigue. The patented technology restrains unrelated and false positive alarm caused by traffic in corridor. When green light is on, it stands for monitoring operation has been activated while yellow light stands for dangerous objects has been found and red light will be turned on only if it is under life-threatening condition.

高效性
柱体配置多组探测器，准确指示危险品位置，可以帮助医护人员迅速识别，以便快捷高效地排除铁磁隐患。此外，系统还预留了蓝牙功能，便于同其它智能硬件扩展使用。

HIGH EFFICIENCY
Multiple detectors help medical staff position and identify dangerous objects on timely basis so as to eliminate ferromagnetic risks efficiently. Moreover, the device reserves blue tooth for extended use with other intelligent hardwares.

BASIC PARAMETERS

基本参数

FDC-15

探测器数量 Detector Quantity	单柱，每根5组，10个探测器。 10 detectors in 5 series on a single pillar.
安装位置 Installation Location	预检区：安装于MRI候诊区。 Pre-checking area: system is installed at the waiting area of MRI.
测量模式 Inspection Mode	被检测人员在探测区域内采用旋转身体的方式进行铁磁物体检测。 People stand and turn around for inspection in the detection area.
探测物体高度 Height of Object for Detection	0.1m -2m
探测物体范围 Detection Range	前方1.5m范围。 within 1.5m in front of the unit.

FDC-24

探测器数量 Detector Quantity	双柱，每根4组，8个探测器，共8组16个探测器。 Each pillar has 8 detectors in 4 series and total number of detectors for double pillars is 16 in 8 series.
安装位置 Installation Location	防误闯区：安装于MRI房间门两侧。 Area for preventing people passing through without pre-checking: installed at both sides of MRI room door.
测量模式 Inspection Mode	被检测人员在探测区域内直接通过本铁磁探测仪，自动测量。 People pass through the detection area directly.
探测物体高度 Height of Object for Detection	0.5m-1.9m
探测物体范围 Detection Range	双柱最大间距2米 Maximum distance between two units is 2m.

	待机模式 Standby Mode	探测模式 Detection Mode	休眠模式 Sleep Mode
运行模式 Operation Mode	探测区域出现移动物体，仪器自动进入探测模式。 Inspection will be triggered when a moving object enters the detection area.	能够实时探测位于探测区域内含有铁磁物质的金属物体和含有铁磁物质的非金属物体。 Real-time inspection on metal and non-metal objects containing ferromagnet in the detection area.	6秒后探测区域没有移动物体，仪器自动进入休眠模式。 Sleep mode will be activated when no object comes in the detection area after 6 seconds.
调节与设置 Adjustment & Setting	可在外部进行探测灵敏度调节。 The sensitivity is adjustable externally.	可在外部进行报警音量大小调节。 Alarm volume is adjustable externally.	可在外部进行探测区域大小范围调节。 Detection area is adjustable externally.
报警与指示 Alarm and Indication	仪器具有灯光报警功能，当检测出含有铁磁物质的金属物体和含有铁磁物质的非金属物体时，通过LED灯指示相应位置区域。 The device has indication light alarm function. When metal or non-metal object containing ferromagnet is detected, the relevant LED light on the device will turn on.		仪器具有声音和自定义语音报警功能，当检测出含有铁磁物质的金属物体和含有铁磁物质的非金属物体时，会触动蜂鸣器或语音报警。 The device has audio and customized voice alarm functions. When metal or non-metal object containing ferromagnet is detected, the sound alarm will be triggered.
扬声器音量 Speaker Volume	音量调节范围 Volume Range 50dB-80dB (A-weighting) (测试点：仪器正前方，水平距离1m，高1.5m) (Inspection point: horizontal distance 1m from the front end of device and 1.5 m height from the ground)		仪器具有扬声器开关。 The device has speaker on-off switch.
预留蓝牙功能 Bluetooth Reserved	预留蓝牙功能，便于同包括蓝牙音箱在内的智能硬件进行有效对接，实现更多功能扩展。 Reserved bluetooth function enables the device to connect to intelligent hardwares such as bluetooth speaker for more extended functions.		