

Epilepsy sensor

What is an epilepsy sensor?

Epilepsy sensors are used to monitor people with epilepsy while they sleep. Patented sensor technology detects a person's movement in bed and is able to differentiate normal movements from epileptic seizures. An alarm can be raised using either a Lifeline home unit or via Telecare Overlay.

How does it work?

An epilepsy sensor enables seizures to be detected the moment they occur, ensuring carers can respond quickly if they are needed, but otherwise do not disturb the user's sleep.

There are two types of sensor available:

Emfit™ epileptic seizure alarm

This state of the art sensor monitors the user's vital signs including heart rate and breathing patterns to detect a range of epileptic seizures. The bed sensor is extremely thin and contains no embedded wires or switches. It should be installed under a foam mattress or mattress cover (if using a sprung mattress), and positioned below the chest. The alarm triggers if it senses movements associated with a seizure for longer than the pre-set delay, which can be set to between 10 and 20 seconds.

Alert-It companion monitor

The companion monitor uses a discreet under-mattress bed sensor to detect movement together with a bedside monitor unit with an optional microphone to detect sounds associated with seizures. These work together to sense various types of seizure and can be adjusted to the individual's unique requirements. The Companion sensor will work on most bed types and mattresses including profiling bed, memory foam and air flow mattresses. Whichever sensor is used, once it detects a seizure it sends a signal to a small interface module, which can be positioned under a bed, to provide wireless communication with a Lifeline home unit or Telecare Overlay system to enable care to be delivered quickly.

Emfit™ epileptic seizure alarm



Alert-It companion monitor



Who is it for?

Epilepsy sensors can be used in individual homes or assisted living environments. They are portable and simple to use, supporting carers and protecting users. Both sensors are suitable for use with children as well as adults.

Why is it needed?

There are over 600,000 people in the UK with epilepsy. Defined as the tendency to have recurrent seizures, there are about 40 different types of epilepsy and it is most commonly diagnosed in children and people over 65.

In many cases a carer for someone with epilepsy will undertake regular checks throughout the night, which is labour intensive for paid carers and means broken sleep for informal carers. The person affected may also find these checks intrusive and undignified. An epilepsy sensor will automatically raise an alert with a carer if it detects a seizure, enabling appropriate care be provided quickly, without the need for manual checks.

Features and benefits

- Patented sensor technology - reduces number of false calls
- Sensitivity adjustment - enables the adjustment of the sensor to the individual's requirements
- Unobtrusive - minimises user disruption
- Plug and play registration - eases programming
- Transmission to Class One receiver - ensuring alarms are reliably received
- Operates on the dedicated social alarm frequency - for reliable future proof operation
- Compatible with Lifeline home units and other Tunstall telecare enabled systems
- Automatic radio trigger low battery warning - ensures optimum operation

Technical details

Emfit Epilepsy Sensor

Emfit control unit (D-1090-2G)

Weight: 110g

Dimensions:

127 x 96 x 34mm (LxWxD)

Power source:

Mains adapter

Operating voltage: 5 V DC

Input/output connectors:

Power, sensor and auxiliary

Mounting:

Wall bracket clip included

Alarm delay:

Faster movements thresholds delay adjustable: 10, 13, 16 or 20 seconds

Emfit sensor (L-4060SL)

Weight: 110g

Dimensions:

580 x 400 x 0.4mm (LxWxD)

Connecting cable length: 3m

User weight limit: none

Part Number:

67005/59 Complete sensor pack comprising Emfit bed sensor, controller, operation and installation instructions and Tunstall radio transmitter

Spare Part Numbers:

41000/04 Replacement Emfit bed sensor for Control Unit D1090

41000/06 Replacement Emfit bed sensor for Control Unit D1090-2G

Alert-It Epilepsy Sensor

Under-mattress bed sensor

Weight: 89 g

Dimensions:

67.3 x 35 x 15 mm (LxWxD)

Input/output connectors:

RJ 47

User weight limit: none

Companion Monitor

Weight: 350 g

Dimensions:

220 x 110 x 44 (LxWxD)

Power source:

12volt plug top powers supply

Operating voltage:

9v (with internal rechargeable battery, approx 15hrs battery back-up)

Connecting cable length: 2m

Part Number: S9001001 Includes monitor, sensor power adaptor and lead for connecting to a universal sensor. Universal sensor not supplied (Part Number 41005/30)

Standards

Emfit Epilepsy Sensor

'Emfit Epileptic Seizure Alarm (device model D-1090-2G and bed sensor model L-4060SL) complies with the essential requirements of EMC directive 2004/108/EC, CE mark directive 93/68/EEC and Medical Device Directive 93/42/EC and carries the CE marking accordingly.' Emfit Ltd.

EMC:

ETS 300683:1997, EN 650130-4:1995

Safety: EN 60950:2000

Radio: EN 300 220-3 V1.1.1 (09-2000)

Tunstall radio transmitter:

EN 300 220-3 V1.1.1 (09-2000)

CE: Compliant

Alert-It companion monitor is a Class 1 Medical Device

Electrical Safety: Class II

CE: Compliant

Toxology: EN12182

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