

Epilepsy Sensor

What is the Epilepsy Sensor?

The Emfit epileptic seizure alarm is a sensor that monitors a person with epilepsy while they sleep. Patented sensor technology detects all of a person's movement in bed and is able to differentiate normal movements from epileptic seizures.

The epileptic seizure alarm consists of a sensor, a control unit and a Tunstall radio transmitter. The bed sensor is extremely thin and contains no embedded wires or switches. An alarm can be raised through a Tunstall home unit to our 24 hour response centre, or a local audible alarm can also be emitted if there is a carer nearby.

How does it work?

The alarm functions of the sensor monitor the person's movements including respiration and heartbeat. It is able to separate normal movements from epileptic seizure symptoms such as tonic-clonic shakings or similar continued movement.

The sensor also detects hyperventilation and partial convulsions as seizures. The alarm triggers if the person has abnormal movements longer than the preset delay. The delay can be set between 10-20 seconds.

Why is it needed?

The sensor is used to alert the Tunstall response centre or an onsite carer when a person begins to seize during sleep and requires immediate assistance.



Seizing during sleep can be dangerous as it places a person at risk of:

- inhaling vomit or other fluids if not rolled onto their side
- coming into contact with furniture or objects surrounding the bed
- falling from their bed

The sensor eliminates the need for carers to make physical checks, promoting independence and dignity for the user.

Who is it for?

This solution may benefit people living with epilepsy to support and complement professional care where individuals are concerned about having seizures overnight.

Epilepsy can develop at any age; however it is most commonly diagnosed before the age of 20 and after the age of 60. Our epilepsy sensor does not have weight restrictions, making it a suitable solution for children as well as adults.

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Features and benefits

- Epilepsy sensor monitors more than just vibration – reduces false calls
- Sensitivity adjustment – adjusts to the individual's requirements
- Unobtrusive – minimises user disruption
- Plug and play registration – program with ease
- Automatic radio trigger low battery warning – ensure optimum operation



Technical details

Emfit control unit (D-1090-2G)

Weight	110g
Dimensions	127 x 96 x 94 (LxWxD)
Power source	5 V DC
Input/output connectors	Power, sensor and auxiliary
Status indicators	Green, blue and red LEDs
Mounting	Wall bracket 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

Tunstall radio transmitter:

Weight	25g
Dimensions	75 x 51 x 25mm (LxWxD)
Power supply	3V DC (1x3V Lithium cell)
Battery life	5 years or 20,000 operations *under normal conditions
Radio frequency	312 MHz
Radio range	Up to 50m (typical)

Standards

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 marketing accordingly.

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