falls management solution

Why is a Falls Management Solution important?

Each year in the UK, falls account for 10% of acute hospital admissions, with the total cost to the NHS amounting to £1.7bn.

In 1999 alone there were 648,000 A&E attendances and 204,000 hospital admissions for fall related injuries in people aged 60 and over, there are currently 70,000 hip fractures in the UK each year.

The rate of fracture has doubled since 1950 with projections of 120,000 a year by 2020 without further preventative action being taken, and one quarter of all orthopaedic bed occupancy is due to cases of hip fracture.

What is a Falls Management Solution?

A Falls Management Solution consists of a range of non intrusive telecare sensors that offer a comprehensive way of managing a person's risk of falling 24 hours a day, 365 days a year enabling many vulnerable people to remain living independently and to reduce the level of injury sustained.

The Falls Management Solution comprises the following telecare sensors:

- Fall Detector

- Bed/Chair Occupancy Sensor

- PIR (movement detector)

- Pull Cord

How does it work?

At the heart of the solution is either Telecare Overlay or the Lifeline home unit, which monitors all the telecare sensors within the Falls Solution. Once a sensor detects a possible problem, a call is automatically raised to the scheme manager or 24 hour monitoring centre where client's details and call type information are instantly provided. Two way speech is established allowing the situation to be ascertained and the most appropriate action to be taken.

In addition to the wealth of benefits provided to the user, the Lifeline Connect range offers family, carers and friends the reassurance that their loved ones can use their pendant or home unit to easily summon help whenever they need it from anywhere in the home.

All the reassurance you need

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Who is it for?

Falls Management is ideal for

- Elderly, infirm or disabled people who are becoming progressively less stable

- Individuals who have been discharged from hospital and require additional support

- People working alone

- People with medical conditions such as epilepsy, diabetes etc

What is a Fall Detector?

The latest Fall Detector offers outstanding reliability and peace of mind for anyone concerned about summoning help when suffering a fall. Operating on the ultra reliable 869 MHz European Social Alarm radio frequency, the detector can be worn on a belt or in a discreet pouch around the waist and will automatically raise an alert via the Lifeline home unit to a nominated person or at the dedicated monitoring centre if the unit senses a fall.

The Fall Detector uses a sophisticated, two-stage detection process to identify a fall. The detector senses both impact and angle and will emit a buzzing noise to alert the user that it is about to raise an alarm call if it is not in a vertical position when an impact has been detected. The alarm can be cancelled by the user at this point. If they fail to do so, the detector will raise an alert if they do not get up.

What is a Bed/Chair Occupancy Sensor?

The Bed Occupancy Sensor is used at night time, when often a personal trigger or fall detector isn't worn.

An unobtrusive pad placed under the mattress detects when someone has left their bed, and can automatically turn on a bedside light to minimise the risk of falling due to poor visibility. The sensor can also be programmed to set a timer running which will raise an alarm, if it does not sense that the client has returned to bed within a preset time. Thus the possibility of a long period on the floor without help following a fall is avoided. A similar device can be used on chairs and wheelchairs, which will again detect if someone is present in the chair or has left it and failed to return after a significant length of time.

What is a PIR (Passive Infra Red) Detector?

PIRs detect movement, or monitor for inactivity, in a defined area. When employed as part of a falls solution, a PIR can be set to raise an alert if it fails to sense movement in a room for a prolonged period of time. The alarm will be raised to a scheme manager or at the monitoring centre, where operators can use the two-way speech facility to establish the situation and arrange the appropriate response.

What is a Pull Cord?

The Pull Cord can be positioned anywhere in a room in order to provide a means of raising a rapid alarm call when a client has fallen over and is not wearing either a personal radio trigger or fall detector. For this reason it is particularly suited for use in bedrooms.

So why choose a Falls Solution?

The fear of falling is a significant contributing factor in the loss of independence and quality of life. In many cases, the reassurance brought by wearing a personal trigger can be enough to raise the confidence of the wearer to a level which can break the cycle of dependency that often follows a fall. In situations where the risk of falling is more acute or where mobility is severely compromised, a more comprehensive falls solution may be deployed in order to support independence by generating automatic alerts when a potential fall is detected.
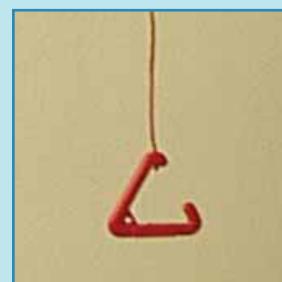
Fall Detector

Bed/Chair Occupancy Sensor

PIR

Pull Cord

Features & benefits

- **Transmission to Class 1 radio receiver** - ensuring that signals from sensors are received for ultimate reliability essential where life critical solutions are used.

- **Plug & Play registration** - allows radio sensors to be easily assigned to the Lifeline home unit enabling service providers to respond to clients' changing needs.

- **Flexibility** - the solution can be tailored to meet the needs of individual client circumstances in order to provide high levels of practicality and protection against the effects of a fall being undetected.

- **Automatic low battery warnings** - ensuring optimum operation at all times

- **Comprehensive Falls Management Solution** - providing 24 hours a day, 365 days a year protection for ultimate falls management in the home.

Tunstall offers a range of other telecare sensors for use around the home which include:

Pressure Mat

Big Button Phone

Temperature Extremes Sensor

Natural Gas Detector

Carbon Monoxide Detector

Smoke Detector

Sounder Beacon

Flood Detector

Technical details

Standards

EMC:	EN55022: 1998, ETSI EN301-489-1:(2000-08) Class 1
Safety:	EN60950:2000
Radio:	ETSI EN 300 220-3:2
CE:	Compliant
Social alarm:	EN50130-4:1995 + A1:1998
Design, Manufacture, Installation and Service:	ISO9001: 2000

Fall Detector

Weight:	75g
Dimensions:	75 x 53 x 28mm (WxHxD)
Radio Frequency:	869.2125 MHz
Radio Range:	Up to 50 metres (typical)
Power:	Lithium 6V cell (2 batteries supplied)
Battery Life:	6 months
Operating Temp Range:	0-45°C

Part numbers: **P67005/49**

The fall detector is supplied complete with a wearing pouch

Bed / Chair Occupancy Sensor

Weight:	800g
Control Unit:	95 x 160 x 35mm (WxHxD)
Bed Sensor Mat:	100 x 600 x 7mm (WxLxD)
Chair Sensor Mat:	30 x 30 x 7mm (WxLxD)
Radio Frequency:	869.2125MHz
Radio Range:	Up to 50 metres (typical)
Power:	4xAA Batteries
Battery Life:	2 years
Operating Temp Range:	-10°C to +55°C
Battery Disposal:	In accordance with current legislation

The bed / chair sensor consists of a Control Unit and either a bed pad or chair pad depending on whether bed or chair occupancy is to be monitored.

Part numbers:	**Control Unit:**	**41005/13**
	Bed Sensor Mat:	**S2010004**
	Chair Sensor Mat:	**S2010005**

The bed / chair sensor should be programmed using a PDA programming kit - **Part number: 41005/27**

PIR (passive infra red)

Weight:	109g
Dimensions:	60mm x 90mm x 45mm (WxHxD)
Radio Frequency:	869.2125 MHz UHF integral transmitter
Radio Range:	Up to 50 metres (typical)
Battery Life:	$1_{1/2}$ years
Battery Type:	3v Lithium
Operating Temp Range:	-10°C to +50°C
Environmental Humidity:	95% maximum
Battery Disposal:	In accordance with current legislation

Part numbers: **67005/45**

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www.tunstallgroup.com

Tunstall is a founder member of the Continua Health Alliance

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