Radar Fall Detection Sensor

VS373

VS373 is a Radar Fall Detection Sensor[1] that adopts a Millimeter Wave Radar to detect fall. It enables non-contact human detection using point cloud data and triggers fall alarms. With up to 99% fall detection accuracy, it helps ensure user safety.

With easy configuration and wireless detection, the VS373 supports Wi-Fi communication, enabling high-speed data transmission. It also supports LoRaWAN® communication and can be integrated with the Milesight LoRaWAN® gateway and Milesight Development Platform, enabling remote monitoring, data visualization, and centralized management. As a Milesight D2D controller & agent, the VS373 seamlessly communicates with other Milesight D2D devices, establishing more connections and paving the way for smoother operations. It can also be connected to an alarm switch to notify relevant personnel for emergency response.

VS373 can be used in living rooms, bathrooms, bedrooms, kitchens, hospital wards, care homes, and other spaces where falls may occur.

◆ Features

- Equipped with Millimeter Wave Radar, it can overcome the adverse effects of light and water mist, which make it able to penetrate some obstacles
- Equipped with a millimeter-wave MIMO array antenna (24 Transmitters & 22 Receivers), it can provide higher precision and reliability

- Support continuous 24-hour detection and management capabilities, it does not rely on visible light and can operate stably both day and night
- Support fall detection with a 99% fall capture rate and less than 1% false alarm rate[2]
- Support multi-bed presence detection, leaving the bed within the scheduling time will trigger an alarm
- Supports breathing detection by sensing chest movement and providing a reference breathing rate
- 100% privacy protection, no images will be captured
- Support on-site alarms of buzzer and LED indicator and provide backend reporting of alarm information, enabling timely notification of any emergency
- Supports DO interface output for customizable local alarms
- Stores historical data locally and supports retransmission to prevent data loss
- Supports convenient data transmission via Wi-Fi
- Compliant with standard LoRaWAN® gateways and network servers
- Support Milesight D2D protocol to enable ultra-low latency and direct control without gateways

◆ Specifications

Fall Detection[3]	
Technology	Millimeter Wave Radar
Installation Height	2.3m～3m
Advanced Feature	Milesight D2D Controller & Agent, Dwell Detection, Lying Alarm, Multi-bed Presence Detection, Human In-place Detection, Breathing Detection, Data Storage (1, 000 entries), Data Transmission, Data Retrievability
Radar	
Transceiver	24 Transmitters & 22 Receivers
Frequency	60GHz
Tx Power	Max. 20 dBm
FoV	70 ° Horizontal, 140 ° Vertical
Detection Range	2m*2m～4m*5m (Within the installation height)
Wireless Transmission	
LoRa	
Protocol	LoRaWAN®, Milesight D2D
Antenna	Internal Antenna

Frequency	CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923-1&2&3&4
Tx Power	16 dBm (868 MHz)/22 dBm (915MHz)/19 dBm (470MHz)
Sensitivity	-137dBm @300bps
Mode	OTAA/ABP Class C
Wi-Fi	
Antenna	Internal Antenna
Standard	IEEE 802.11b/g/n, 2.4 GHz
Tx Power	802.11b: 16 dBm +/-1.5 dBm (11 Mbps) 802.11g: 14 dBm +/-1.5 dBm (54 Mbps) 802.11n: 13 dBm +/-1.5 dBm (65 Mbps, HT20/40 MCS7)
Mode	AP Mode, Client Mode
Network Protocol	HTTP, MQTT
Other Interfaces	
DI/DO	1 × DO (60V/1A)
Button	1 × Reset Button,1 × Multi-function Button
LED Indicators	1 × Multi-color LED Indicator
Buzzer	1 × Buzzer
Power Input	1 × Type-C Cable
Physical Characteristics	
Power Supply	DC 5V/ 3A by Type-C Cable
Power Consumption	Max: 9.5W
Operating Temperature	0°C ~ 50°C
Relative Humidity	0 ~ 95% (non-condensing)
Dimension	114 × 84 × 15 mm (4.49 × 3.3 × 0.59 in)
Weight	214.5g
Ingress Protection	IP65
Housing&Color	ABS (UL94 V1), White
Installation	Ceiling Mounting
Approvals	
Regulatory	CE, FCC

[1]: This product is intended only as an auxiliary tool and cannot fully replace manual monitoring or personal companionship. For details please refer to Disclaimer and Important Information.

[2]: Installation under single-person scenario, non-narrow space, no strongly reflective objects (such as glass, mirrors, large areas of metal), no moving objects (such as fans, pets, robot vacuums); and correctly installed according to the steps in the guide.

[3]: The part of the data are all derived from laboratory conditions, and there may be deviations in actual use due to changes in the objective environment.

◆ Dimensions (mm)