


Smart Door

 SMART-ANGEL.CO.UK

With a size slightly larger than an AA-battery, Smart Door is one of our most subtle sensor yet. Smart Door can be used as a opening activity sensor or for movement detection. The small size makes it ideal for mounting on door frames, windowpanes or other small surface areas.

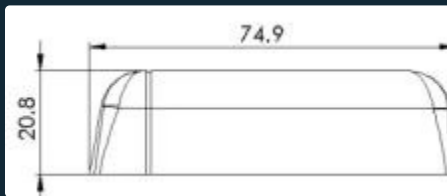
The Smart Door sensor has been certified for the use on the Fire Safety Door produced by Northern Fire Solutions, the UK's leading manufacturer and accredited supplier of Fire Safety Door Products. This is a great option for monitoring the periodic fire door opening and closing data that shows the opening test has been carried out a logged with a historical proof of test.

Applications & Dimensions

Applications

- Smart buildings
- Workplace management
- Door activity detection
- Movement detection

Dimensions of the Smart Door Sensor



Side view dimension drawing of the Smart Door sensor showing length 74.9 mm and height 20.8 mm.



Front view dimension drawing of the Smart Door sensor showing width 21.2 mm.

Product Features & Magnet Dimensions

Product Features

LoRaWAN® Certification

Certification in progress

Accelerometer

Built-in motion sensing

Door Switch

Reed switch for open/close detection

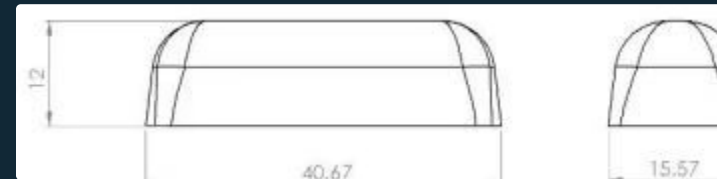
NFC for Configuration

Easy local setup via NFC

Configuration Over the Air

Remote configuration via downlink

Dimensions of the Magnet (mm)



Side and front view dimension drawings of the magnet showing dimensions 40.67 mm x 12 mm x 15.57 mm.

Device Specifications

Mechanical Specifications

Weight	10 g excluding batteries / 30 g including batteries
Dimensions EMS Door	21.2 x 74.9 x 20.8 mm
Dimensions magnet	15.57 x 40.67 x 12 mm
Enclosure	Plastic, PC/ABS

Operating Conditions

Temperature	0 to 50 °C
Humidity	0 to 85 % RH (non-condensing)

Device Power Supply

Battery Type	1 x 3.6V AA Lithium battery (Li-SOCl ₂)
Expected Battery Life	Up to 10 years (Depending on configuration and environment)

Radio / Wireless

Wireless Technology	LoRaWAN® 1.0.3
Wireless Security	LoRaWAN® End-to-End encryption (AES-CTR), Data Integrity Protection (AES-CMAC)
LoRaWAN Device Type	Class A/C (configurable) End-device
Supported LoRaWAN® features	OTAA, ABP, ADR, Adaptive Channel Setup
Supported LoRaWAN® regions	US902–928, EU863–870, AS923, AU915–928, KR920–923, RU864, IN865
Link Budget	137 dB (SF7) to 151 dB (SF12)
RF Transmit Power	14 dB / 20 dB (Region specific)

Device Logging Function

Sampling Interval	Configurable via NFC and downlink configuration
Data Upload Interval	Configurable via NFC and downlink configuration

Data Types

Type value	Type	Data size	Comment
0x03	Acceleration/Level	3	X, Y, Z -127 → +127 (Value of: 63=1G)
0x07	VDD (Battery voltage)	2	0-65535mV
0x0A	Pulse count	2	0-65535 (Between two send intervals)
0x0B	Pulse count ABS	4	Absolute value 0-4294967295
0x0D	Digital	1	1 / 0 (On / Off)

Sensors & Door Switch

Accelerometer

Range

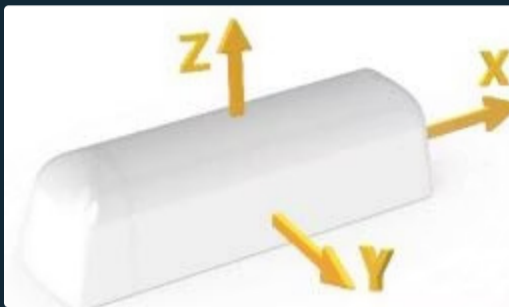
± 2.0 g

Sensitivity

16 mg/digit

Data Rate

10 Hz

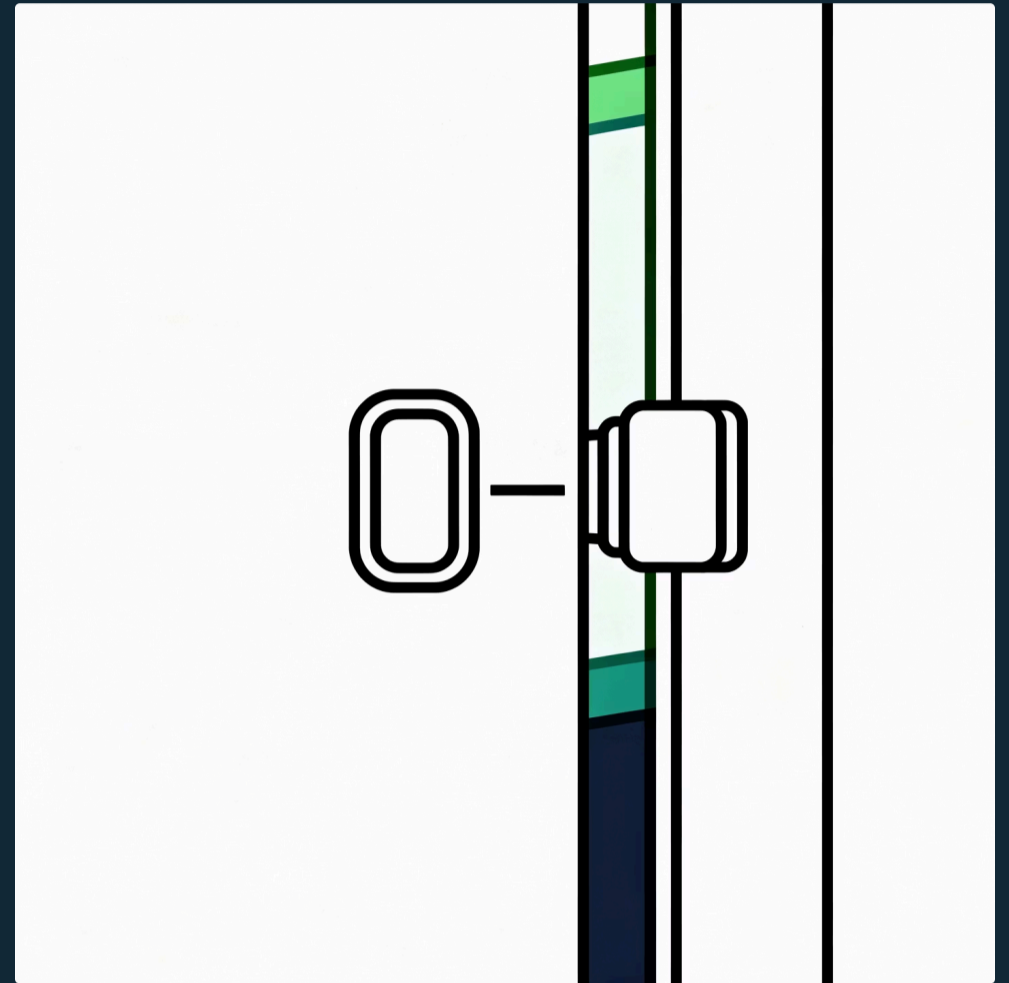


The diagram shows a 3D perspective view of the sensor device, which is a white, elongated, rectangular block. Three yellow arrows originate from the top surface of the device, representing the X, Y, and Z axes of the accelerometer. The Z-axis arrow points vertically upwards, the X-axis arrow points horizontally to the right, and the Y-axis arrow points diagonally downwards and to the right.

Diagram of the Smart Door sensor showing the X, Y, and Z axes for the accelerometer.

Smart Door Switch

The door switch consists of a reed switch on one side of the sensor. The maximum detection distance is **10 mm** but may be affected by the material of the door (metal will reduce the range).



- ❏ Metal doors or surfaces may reduce the maximum detection distance of 10 mm. Take material into account when planning installation.

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