



**Battery Powered Smoke and Heat Alarms**



**XH100**



**XS100**



**XS100T**

# Fire Safety in Residential Accommodation



## The dangers of fire

Every year there are an average of 3 billion fires across the world. These range in severity and causes, but each one incurs either financial or personal losses. On average, more than 23,000 people die from fires across the world each year, and 230,000 people are injured.

In the UK alone, deaths from fires have fallen by more than 60% since the introduction of smoke and heat alarms in the mid 1990's. Homes with a working smoke or heat alarm have been found to have a death rate that is 50% lower than homes without one. The longer people spend inside a burning building, the less their chance of survival is as they begin to suffer from smoke inhalation and could become trapped. Smoke and heat alarms give that vital extra time before these dangers occur, and give you the advised three minutes to get out of a burning building.<sup>1</sup>

Smoke and heat alarms offer an early warning system that works. Research has found that for every £1 spent on an alarm, more than £50 is saved in fire related costs.<sup>2</sup>

## Who is at risk?

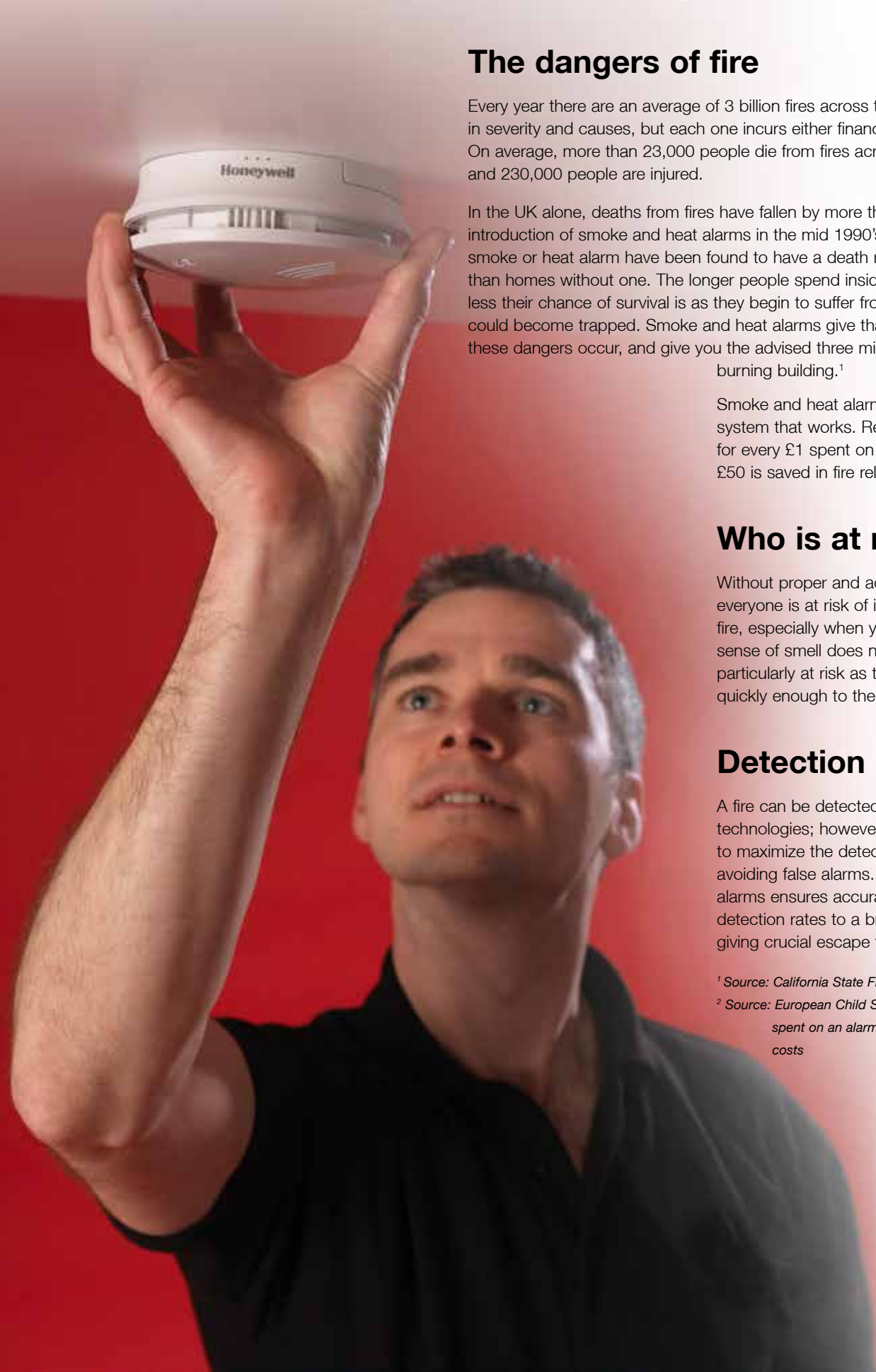
Without proper and adequate warning, everyone is at risk of injury or death from a fire, especially when you are asleep as your sense of smell does not work. Children are particularly at risk as they often don't react quickly enough to the dangers of fire.

## Detection principles

A fire can be detected using various different technologies; however, the priority is always to maximize the detection speed, whilst avoiding false alarms. Using multi criteria alarms ensures accuracy and speed in detection rates to a broader range of fires giving crucial escape time.

<sup>1</sup> Source: California State Fire Department

<sup>2</sup> Source: European Child Safety Alliance: for every €1 spent on an alarm, €69 is saved in fire related costs





## Regulations

In England and Wales, a house built after 1992 must have a mains operated smoke or heat alarm on every level of the building. Landlords and their agents have a duty of care to their tenants to ensure the property is safe. In older houses it is advisable to install smoke or heat alarms.<sup>3</sup>

In Scotland, a house must have at least one smoke or heat alarm, preferably optical, installed in the principal habitable room (normally the lounge / living room) and in circulation spaces such as hallways and landings, and at least one heat alarm in the kitchen, all must be interconnected.

In Northern Ireland, there must be a smoke or heat alarm in the principal habitable room (normally the lounge/living room) and a heat alarm in each kitchen.

<sup>3</sup> Source: UK government

## Honeywell's expertise

Honeywell is one of the biggest manufacturers of commercial fire protection systems. Worldwide, more than 20 million commercial fire alarms are sold under Honeywell's brands Esser, Gent, Notifier and others. These commercial systems are typically being used in larger public and private buildings, for example hotels and offices. Honeywell has more than 50 years experience in this area. This experience has been used to develop highly reliable smoke and heat alarms for the residential area.

## The Range

The Honeywell range of smoke and heat alarms has been engineered for ultimate performance and reliability. Featuring a ten year lifespan and warranty; low profile design; and easy installation, they are ideal for professionals dealing with residential fire detection.



### XH100 Heat Alarm



- 10 year life and warranty
- Heat sensor for use in kitchens and garages

### XS100 Optical Smoke Alarm



- 10 year life and warranty
- Optical sensor
- For bedrooms and lounges

### XS100T Optical Thermal Smoke Alarm



- 10 year life and warranty
- Optical and Thermal sensor for faster response and less false alarms
- For escape routes, bedrooms and lounges

For increased protection, all X-Series devices can be upgraded for wireless interconnection to form an alarm system

# XH100, XS100, XS100T

## - Battery powered smoke and heat alarms



Honeywell smoke and heat alarms have been optimised for use by professionals dealing with residential fire protection. Offering simple installation and maintenance they have been designed to meet the needs of housing associations and larger private households.



## General description

### X-Series High Reliability

- **Multi-criteria detection:** Intelligent algorithm combines optical and heat detection for increased detection speed across a broad range of fires, producing less false alarms (XS100T)
- **Optical detection:** Accurate and rapid detection of fires using responsive optical sensors (XS100)
- **Heat detection:** Combines fast response time and minimum false alarms in areas with high levels of dust or fumes like kitchens (XH100)
- BSi to BS EN 14604:2005/AC:2008 Part 2 United Kingdom (XH100)
- Q Label - an independent quality mark for high-quality smoke alarm detectors, which have been tested especially for long-term use
- Sealed housing to protect from adverse environmental conditions
- Automatic self-checks
- Dirt Compensation

### Tamper-proof

- Sealed in battery lasts for ten years

- Self-locking mounting plate. X-Series can only be removed with an appropriate tool
- On/off only by installing/removing from mounting plate

### Designed for residential environments

- Unobtrusive, low profile design
- Integrates well into residential environment

### Low total cost of ownership

- Ten year warranty
- Maintenance free – no parts to change

### Easy to operate and use by the end-user

- Clearly visible status indication LEDs: Power, Alarm, Fault
- Loud 85dB audible alarm, with reduced volume test mode
- Large button – can be pressed with a broom stick
- Alarm hush
- Fault hush
- Clean, intuitive user interface

### Easy to install

- One or two hole installation/flexible hole positions
- Switches on when slid onto mounting plate

## Complete solution

All X-Series alarms can be interconnected wirelessly for increased safety by using the wireless plug-in module XW100. Honeywell's X-Series alarms are available as a complete range of fire and Carbon Monoxide solutions for customers looking for advanced safety systems.



## Dedicated local support

Honeywell provides a UK based Customer Support Centre, which is available Monday to Thursday from 08:30 to 17:00 and Friday from 08:30 to 15:30. Our team is happy to answer any queries on our products and can be contacted on (01202) 645 577.



## XH100 Heat Alarm

### Separate indicators for each unit state

- 360° visual Alarm
- Power (Optional LED deactivation for less disturbance at night)
- Fault
- Wireless (if separately sold XW100 module is installed)

### Loud sounder output

### Big, easy to press button

- Fault hush
- Alarm hush
- Reduced sound level test



## Technical specification

### Reliability

<b>Detection principle</b>	XS100T - Multi-criteria: Optical and Thermal
	XS100 - Optical
	XH100 - Thermal

<b>Approvals</b>	XH100 - BSI Kite mark (BS 5446-2:2003), CE
	XS100 and XS100T - CE EN 14604:2005/AC:2008

<b>Other compliances</b>	RoHS, REACH, R&TTE, EMC
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<b>Self-test function</b>	Yes
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<b>Lifetime/Guarantee</b>	10y/10y
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### Operating environment

<b>Temperature</b>	-10°C - +55°C
<b>Humidity</b>	25-95% Relative Humidity (non-condensing)
<b>IP rating</b>	IPX2D

### Electrical

<b>Power supply</b>	Long-life Lithium Battery, 3V, Sealed-in
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### User interface

<b>Visual indicator</b>	Power: Green LED - optional deactivation
	Alarm: Red LED - large surface
	Fault: Yellow LED
<b>Audible</b>	>85dB @ 3m, Distinct "Fire" alarm sound
<b>Button</b>	Test with reduced sound level Alarm hush Fault hush (24h)

### Product

<b>Size</b>	Ø 116 x 42 mm
<b>Weight</b>	185 g

### Packaging

<b>Type</b>	Carton box with euro hole
<b>Dimensions</b>	119 x 119 x 55 mm
<b>Scope of supply</b>	Unit Mounting kit: Screws + plugs User/Installer manual

## XS100 Optical Smoke Alarm

### Separate indicators for each unit state

- 360° visual Alarm
- Power (Optional LED deactivation for less disturbance at night)
- Fault
- Wireless (if separately sold XW100 module is installed)

### Loud sounder output

### Big, easy to press button

- Fault hush
- Alarm hush
- Reduced sound level test



## XS100T Optical Thermal Smoke Alarm

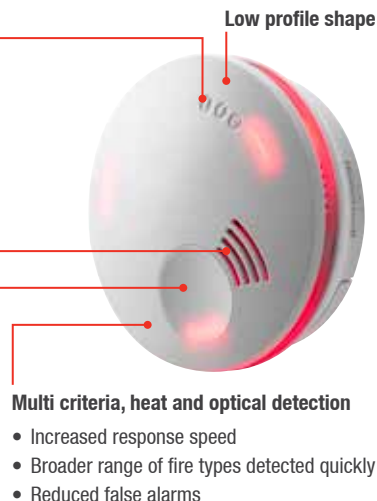
### Separate indicators for each unit state

- 360° visual Alarm
- Power (Optional LED deactivation for less disturbance at night)
- Fault
- Wireless (if separately sold module is installed)

### Loud sounder output

### Big, easy to press button

- Fault hush
- Alarm hush
- Reduced sound level test



- Multi criteria, heat and optical detection**
- Increased response speed
  - Broader range of fire types detected quickly
  - Reduced false alarms

## Order information

Part No	Barcode	Batch Size	Minimum Order Quantity	Detection	Available Languages	Product Description
XH100-EN	5 027526 400744	50	100	Thermal	English	Battery Heat Alarm
XS100-EN	5 027526 400720	50	100	Optical	English	Battery Optical Smoke Alarm
XS100T-EN	5 027526 400737	50	100	Optical + Thermal	English	Battery Optical Thermal Smoke Alarm

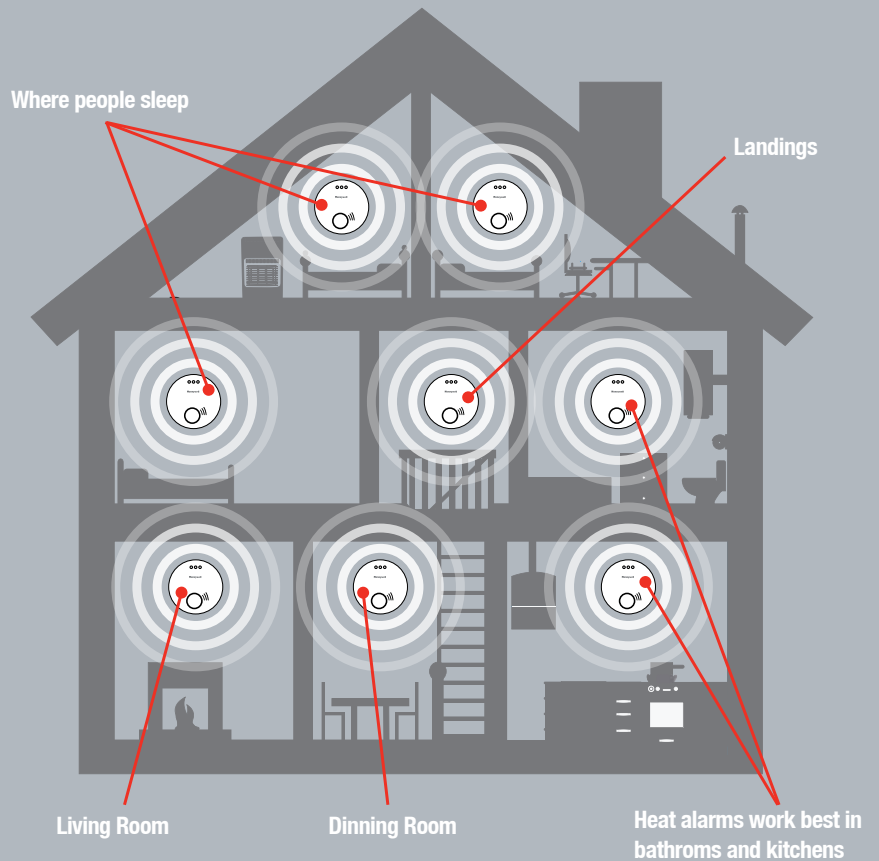
# Smoke and Heat Alarms Where to Install?



## Where to install? (General recommendations from Honeywell)

Positioning a smoke or heat alarm in the right place is important to increase detection rates and reduce false alarms. Smoke is hotter than air, so is forced upwards towards the ceiling therefore fixing the alarm to the ceiling speeds up detection. Choosing the correct unit for the correct room reduces false alarms –

The XS100T offers both thermal and optical sensors giving faster response times to a broader range of fires, whilst reducing false alarms. Consult your local building regulations to find out how many and which variant of smoke or heat alarm is required. It is strongly recommended that you place an alarm in rooms where you spend a lot of time, for example bedrooms or living rooms.



## Installation

X-Series smoke alarms don't need wiring when installing them; simply install the mounting plate first using supplied plugs and screws, then slide the alarm onto it which automatically activates the alarm.

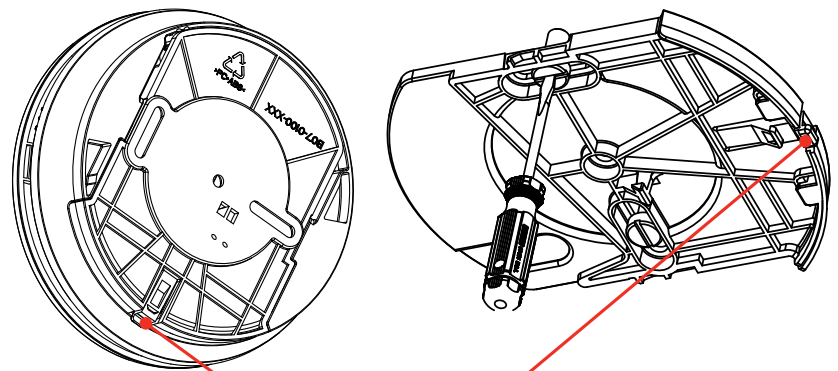
X-Series smoke alarms can either be mounted on the ceiling or on walls.

### Mounting options:

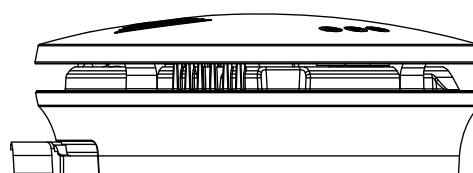
- Screw, two holes, or
- Screw, one center hole



Tamper proof locking clip (optional)



Clip with a breakable part



Locking/release tab (removable)

Switch on operation



## How we add value

### Smoke and heat Alarms

#### Multi-Criteria Detection

Optical smoke alarms use an optical chamber to “see” the smoke. Certain fire types are recognized with some delays only. Multi-criteria detection therefore adds a thermal sensor and uses an intelligent algorithm to improve reaction speed, and reduce the number of false alarms.

#### Low Profile Design

Honeywell’s low profile design utilising rounded corners, sleek round design and low profile height make the unit seem a lot smaller than it really is. Honeywell have employed design agencies and end user market research to select the best suitable concept.

#### Full Ten Year Lifespan and Warranty

Honeywell’s full product lifespan warranty is one of the most comprehensive in the industry. This is backed up with more than 50 years of fire alarm experience producing some of the most reliable alarms in the market. Honeywell is one of the few companies in the market to offer a full ten year lifespan and ten year warranty on its smoke and heat alarms.

#### Independent 3rd Party Certification and Q-Label

All residential smoke alarms being sold in the EU must be certified by a 3rd party, for example VdS, against EN14604 which is the standard for residential smoke alarms. This sets the minimum requirements for smoke alarms to be sold, whether it is for DIY or professional use. The Q-Label is a voluntary additional 3rd party certification, which is granted to high quality smoke alarms. Smoke alarms with the Q-Label are tested for long-life, minimised false alarms, increased protection against adverse environmental conditions and have a sealed battery with at least 10 years lifetime.

#### CE Mark

The CE mark affixed to this product confirms its compliance with the European Directives which apply to the product and, in particular, its compliance with the harmonised specifications of standard EN 14604 relating to Construction Products Directive 89/106/EEC.

#### BSI Kitemark

The BSI Kitemark is a product or service certification mark that shows it has been tested independently and audited to ensure it meets the appropriate standards of quality and safety.

#### NF Mark

The NF – Smoke Alarm Devices mark provides assurance as to safety and consistent quality inspected by experts. Through its rigorous and exhaustive inspections (holder’s quality management system, product inspections, audits and monitoring tests, etc.), the NF mark represents a comprehensive guarantee for consumers that the certified products are compliant. The NF - Smoke Alarm Devices mark confirms the product’s compliance with certification rules NF 292.

#### Automatic Self-adjustment / Self Checks

Honeywell’s smoke and heat alarms have been fitted with an automatic self test function which ensures the unit is functioning properly. Every ten seconds, the unit tests critical systems to ensure accurate alerts are delivered rapidly once a fire is detected.

#### Clearly Visible Alarms

Honeywell have integrated a set of clearly visible LED lights into the perimeter of the unit, ensuring the alarm can be seen from all angles. This feature greatly helps people who have hearing troubles so may not hear the alarm.

#### Heat Alarms

Combining fast levels of detection with minimum false alarms, the Honeywell XH100 Heat Alarm is best suited to areas with high levels of dust or fumes, such as kitchens and garages.

#### Dirt Compensation

Honeywell’s unique dirt compensation ensures that nuisance alarms are kept to a minimum. By not confusing dust with smoke, the X-Series smoke and heat alarms only sound when a hazard is detected.

### X-Series Alarms

#### Sealed Housing

Honeywell’s X-Series alarms all have sealed housings. It protects the electronics from adverse environmental conditions like humidity, and improves reliability and lifetime. We have been successfully using this technology for many years in our commercial smoke alarms, which are being used in harsh conditions like warehouses.

#### Alarm Hush

There might be situations where the unit is in full alarm, and you want to mute the 85dB loud alarm sounder, e.g. when the situation is under control. Pressing the button on the unit will mute the sounder for 5 minutes, whilst the alarm light will keep on flashing as long as the alarm detects a threat.

#### Fault Hush

A typical fault occurs when the alarm warns of an almost depleted battery. The alarm will start to beep once per minute accompanied by a flashing fault light. The Fault Hush allows you to mute the sounder for 24 hours, giving you time to address the fault. If you wish to restart the 24 hour timer in the morning, you can press the button a second time.

#### Reduced Sound Level Test

Alarms need to be tested regularly, to ensure they are working properly. After pressing the button, the alarm will start its internal self-test, flash all lights and sound the buzzer. Honeywell has reduced the sound level for this test function considerably from the full alarm level of 85dB. It still tests the alarm, but your ears are being protected. BTW: By pressing the alarm for more than 3 seconds, the full alarm level will sound.

#### Tamper-Proof

Many professional landlords want to ensure that installed alarms cannot be stopped from normal operation by the end-user. In the past, tenants have often removed the batteries to use them for instance in TV remote controls. Honeywell’s X-Series alarms all have sealed batteries, which cannot be removed by the end-user. Also, once installed, a tool like a screwdriver is required to switch the unit off or remove it.

#### Maintenance Free Operation

All Honeywell X-Series alarms have batteries, which last the whole lifetime of the alarms. No additional cost for batteries or labour cost to replace them occur. The same applies for the CO sensor: It lasts the whole lifetime of up to 10 years. The only required maintenance is the occasional cleaning of the product.

#### Interlink

Interlink means the connection of several alarms to an alarm system. So if one unit goes into alarm, all other units will sound as well. This improves considerably the safety especially in larger accommodations like multi-story houses. All X-Series alarms can be upgraded, to connect wirelessly. All mains powered Honeywell X-Series alarms can be linked by wire.

#### Battery Back-up

Mains powered alarms can be affected by power outages. Therefore, all Honeywell mains powered X-Series alarms are fitted with a battery backup.

# Our Home Safety Product Range



X-Series  
Battery Powered  
Carbon Monoxide  
Alarms



Our X-Series battery powered CO alarm range offers a seven or ten year maintenance-free lifetime. Three models provide different display options designed to enhance safety in critical situations, including a patent pending alarm evacuate visual indication.

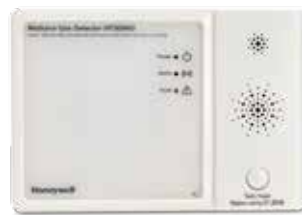


All Honeywell X-Series alarms can be wirelessly interconnected using the XW100 plug-in module. This means that if one X-Series Carbon Monoxide, smoke or heat alarm triggers an alarm, all interconnected units will give an audible alarm as well. This is especially useful, when living in a large or multi-story dwelling where the alarm may be triggered in another part of the building.

**Please Note:**

While every effort has been made to ensure accuracy in this publication, no responsibility can be accepted for errors or omissions. Data may change, as well as legislation, and you are strongly advised to obtain copies of the most recently issued regulations, standards, and guidelines. This publication is not intended to form the basis of a contract.

HF500 Hard-Wired  
Flammable  
Gas Alarm



The HF500 alarms are designed to deliver a complete solution for the detection of LPG (Liquefied Petroleum Gas) and Natural Gas/Methane. Optimised for use by professionals dealing with flammable leak detection, HF500 is ideally suited for use in private or social housing as well as other forms of residential care.

e<sup>z</sup>sense Battery  
Flammable  
Gas Alarm



eZsense is the most convenient way to detect Natural Gas, Propane, Butane, LPG and LNG. It is compact and light on the pocket in more ways than one.

SF340 Series  
Hard-Wired  
Carbon Monoxide  
Alarm



The SF340 Series is a range of reliable, hard-wired Carbon Monoxide alarms with battery back-up. They are designed for use in all domestic and light commercial environments.

**Find out more**

[www.homesafety.honeywell.com](http://www.homesafety.honeywell.com)  
[www.honeywellanalytics.com](http://www.honeywellanalytics.com)

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