



**DORBIK**

**THE FIRE & SAFETY SPECIALISTS**



Quality British Manufacturing



Since being established in 1982, Orbik Electronics Limited has always been at the forefront of innovation and design of emergency lighting & fire detection equipment and is now one of the largest independent manufacturers of this type of equipment in the world. Based at Aldridge in the West Midlands, our four-acre purpose built facility employs nearly 200 people engaged in the design and manufacture of emergency lighting and fire detection equipment and is registered to and audited by BSI for our ISO9001/2008 quality system.



Throughout our long history, Orbik has been an enthusiastic supporter of improving quality standards within the industry and today has over 300 products approved by BSI, proudly carrying the Kite Mark symbol, indicating our continuing compliance for quality, safety and performance. The company are represented on the technical committees of ICEL, the Lighting Industry Association and British Standards Institution and can provide NICEIC approved training seminars on most aspects of fire alarm standards.



To ensure consistent product quality, and to maintain a competitive advantage, Orbik has invested heavily in automatic assembly processes, allowing us to offer world class standards of service to all customers, which has been instrumental in developing substantial sales growth on every continent.



By identifying and responding to individual customer's specific requirements, Orbik have become the first choice supplier to many leading international lighting companies, electrical contractors, local authorities and consultants for their emergency control gear, emergency luminaires, central battery, static inverter systems and fire detection systems.



# Mission Statement

At Orbik, we are dedicated to providing our customers with the highest quality products and services.

Through continuous investment in new products, staff development and the latest technology we are committed to offering a professional business solution to a rapidly expanding and demanding market place.



All images appearing in this publication are the exclusive property of Orbik Electronics Limited and are protected under Copyright laws.

The images may not be reproduced, copied, transmitted or manipulated without the written permission of Orbik Electronics Limited.

# Contents

<b>Exhibition &amp; Training Facilities</b>	<b>04</b>	MxPro5 Fire Alarm Panels	40
<b>Partnerships</b>	<b>04</b>	Hush Button	41
<b>RRO Compliance</b>	<b>05</b>	XP95® Addressable Devices	42 - 43
<b>Visual Design Guide</b>	<b>06 - 07</b>	Discovery Addressable Devices	44
<b>Conventional Fire Alarm Systems</b>	<b>08</b>	Xpander Addressable Devices	44
Conventional Fire Alarm Panels	09	Hochiki ESP Addressable Devices	45
Excel-EN Fire Alarm Panels	10	<b>Fire Alarm Accessories At-A-Glance</b>	<b>46</b>
Horizon Fire Alarm Panels	11	Engineer's Kits, Accessories & Spares	46
FP585 Fire Alarm Panels	11	<b>Wireless Fire Alarm Systems</b>	<b>47</b>
Series 65 Detectors	12	Zerio Plus Fire Alarm Panels	48
CDX Detectors	12	Zerio Plus Wireless Devices	49
Activ Detectors	13	Hyfire Fire Alarm Panels	50
Vision Detectors	13	Hyfire Wireless Devices	51
Detector Testing Equipment	14	<b>Disabled Refuge Systems</b>	<b>52</b>
Domestic CO Detection	14	Disabled Toilet Alarms	53
Optical Beam Smoke Detectors	15	Loop Wired Disabled Refuge System	54 - 55
Break Glass Call Points	16	Radial Wired Disabled Refuge System	56
Protective Steel Cages	17	<b>Call Systems</b>	<b>57</b>
Protective Stoppers	17	Conventional Call System	58 - 59
Ancillary Equipment	18	Addressable Call System	60 - 61
Audible Devices	19	Stainless Steel Ancillaries	62
Visual Alarm Devices	20 - 21	Dementia Care System	63
Power Supplies	22	<b>Audio Frequency Systems</b>	<b>64</b>
Valve-Regulated Lead Acid Batteries	22	Induction Loop Systems	65 - 66 - 67
Electromagnetic Door Retainers	23	<b>Specialist Safety Equipment</b>	<b>68</b>
Fire & Safety Signage	24	Gas Suppression Equipment	69
<b>Two-Wire Fire Alarm Systems</b>	<b>25</b>	Intrinsically Safe Solutions	69
Twin-Flex Pro Fire Alarm Panels	26	Fire-Cryer® Voice Alarms	70
Twin-Flex Pro Ancillaries	27	Public Announcement Systems	70
CFP Two-Wire Fire Alarm Panels	28	Faast™ Air Sampling Smoke Detection	71
Alarmsense® Two-Wire Devices	29	Window Ventilation Systems	71
<b>Addressable Fire Alarm Systems</b>	<b>30</b>	Linear Heat Detection	72
XFP Fire Alarm Panels	31	Water Leakage Detection	72
ZFP Touchscreen Fire Alarm Panels	32	Surveillance Systems	73
ZFP Panel Accessories	33	Door Access Systems	73
DXC Fire Alarm Panels	34	CCTV Systems	74
ZX Fire Alarm Panels	35	<b>Lighting</b>	<b>75 - 80</b>
Sentri Fire Alarm Panels	36	<b>Service and Commissioning</b>	<b>81 - 83</b>
Sentri Addressable Devices	37	<b>Fire Design Guidance &amp; Regulations</b>	<b>84</b>
Duonet/Quadnet Fire Alarm Panels	38	Regulations and Risk Assessment	85
Duonet/Quadnet Devices	39	<b>Design Guide</b>	<b>86 - 90</b>
MxPro4 Fire Alarm Panels	40	<b>Conditions of Sale</b>	<b>91</b>



# Exhibition and Training Facilities

Orbik's large training suite accommodates up to 30 delegates for seminars and training sessions for both in-house and client training days. The suite is cleverly linked to the large exhibition and demonstration area where clients can see lighting and fire products, both on display and in working conditions, enabling them to gain a better understanding of our product range. Orbik have the experience and expertise to provide the answer for all your training needs both in the fields of fire, lighting and DDA. We believe that we set the standards, rather than follow the competition, with our accreditations and innovative thinking. We design and build our products at our factory in the West Midlands, and are proud to have been doing this for over 30 years.

Our courses are delivered by experts in their fields and can be designed to suit your needs.

- Legislation
- How to use our products to your best advantage
- Fire alarm design training
- Emergency lighting training
- Disability design training, covering all our ranges
- Commissioning, system set, testing and fault finding



## Working Together to Improve Safety

NICEIC Training is focused on 'energising skills' by providing the training needed to face the challenges of the electrical industry. Our courses are developed by leading industry experts with a wealth of experience which helps ensure our training provides clear, up-to-date and above all relevant guidance. We offer a complete range of training in electrical, renewable, gas, water, oil and health & safety courses.

NICEIC Training has been offering fire alarm and emergency lighting courses for over 8 years. The courses are extremely popular with the contractors and have been delivered by one of our qualified design engineers from ORBIK. This partnership has grown significantly over the last few years and we continue looking to provide a better service to our customers. For a complete range of training courses available, please visit [www.niceic.com](http://www.niceic.com)



## The Regulatory Reform (Fire Safety) Order (RRO) became law on 1 October 2006 - Legally you must comply!

### What is the RRO?

Fire authorities no longer issue fire certificates and those previously in force will have no legal status. The Regulatory Reform (Fire Safety) Order (RRO) replaces most fire safety legislation with one new order. It means that any person who has some level of control in premises must take steps to reduce the risk from fire, consider how to contain a fire should one break out and then also make sure people can safely escape if there is a fire.

- All fire alarm designs should be based on a Fire Risk Assessment
- All Fire Risk Assessments should be carried out by a competent person
- Fire Risk assessments must be reviewed annually

### Where does the order apply?

Virtually all premises and nearly every type of building structure and open space

### What constitutes a Fire Risk Assessment?

- Identifying fire hazards such as sources of ignition, fuel or oxygen
- Identifying all people at risk in and around the premises
- Evaluating the risk of a fire starting or the risk to people from a fire
- Removing or reducing fire hazards or risks to people from a fire
- Protecting people by providing fire precautions
- Recording any major findings
- Preparing an emergency plan
- Informing and instructing any relevant people
- Providing training for staff and guests
- Reviewing the fire risk assessment regularly and make changes where necessary
- Keeping accurate fire risk assessment records

**These regulations apply to virtually all premises and nearly every type of building structure/open space.**

### All fire alarm designs should be based on a Fire Risk Assessment.

This guide is intended to be an aid to designers and installers of fire detection systems. It is not to be used as a substitute for BS5839 which should be read in full. In order to help identify the relevant sections, each diagram in this guide includes a reference to BS5839 Part 1.

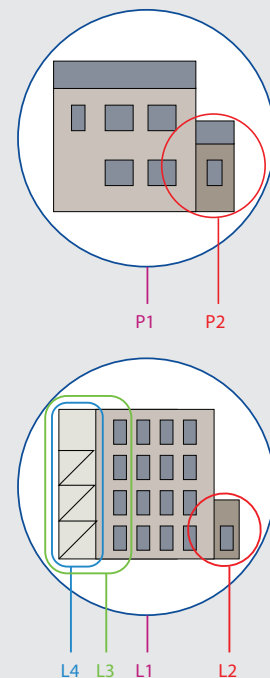
**Fire Alarm and Detection systems are categorised in the following way:**

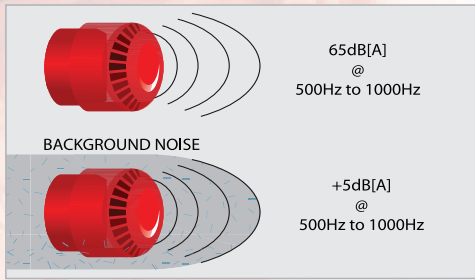
#### Property Protection Fire Systems

- P1** AFD installed throughout all areas
- P2** AFD installed only in defined areas

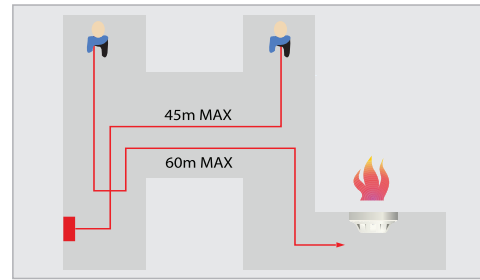
#### Life Protection Fire Systems

- L** AFD designed to primarily protect Human Life
- L1** AFD installed throughout all areas
- L2** AFD installed in defined areas in addition to L3
- L3** AFD installed in escape routes and rooms opening onto these routes
- L4** AFD installed in escape routes comprising circulation areas and spaces such as corridors and stairways
- L5** A non-prescriptive system in which protected area(s) and/or the location of detectors is designed to satisfy a specific fire risk objective (other than that of L1 to L4)
- M** System design to be operated manually (no AFD) \*AFD Automatic Fire Detection

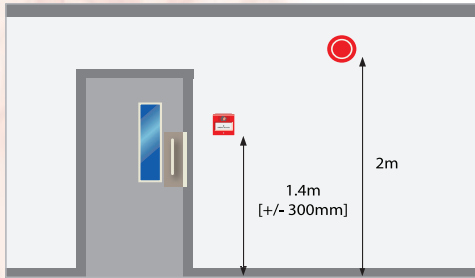




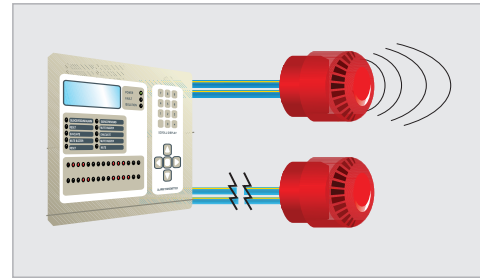
The sounder device should give a minimum sound level of **65dBA** or **5dBA** above any background noise lasting more than 30 seconds. It shall operate at **500Hz to 1000Hz**.



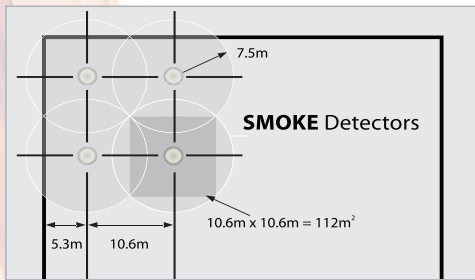
A person searching a zone for a fire should not have to travel more than **60m** to identify the source of a fire. A person should not have to travel more than **45m** to reach a manual call point.



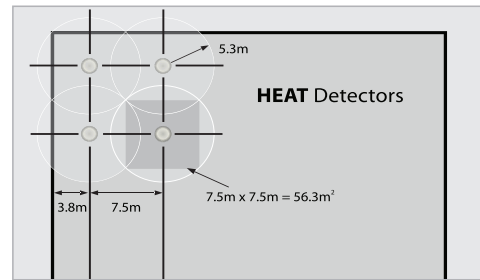
Manual call points should be positioned **1.4m (+/-300mm)** from floor level. Any non-mechanically protected cable medium should have additional protection up to **2m** from floor level.



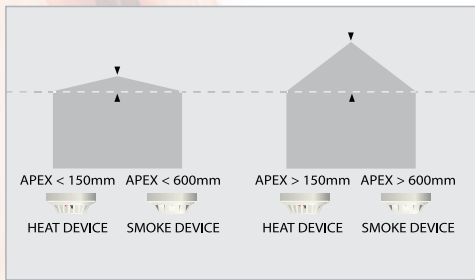
Cabling to the sound device should be arranged so in the event of a fault occurring during a fire condition, at least one sounder device will remain operational. Any metallic parts of fire systems including cabling and conduit should be well separated from any lighting protection system.



Smoke detection devices have an individual coverage of **7.5m** radius. However, these radii must overlap to ensure there are no 'blind spots'. Therefore, the individual coverage can be represented by a square measuring **10.6m x 10.6m** giving an actual area coverage of **112m²** per device.



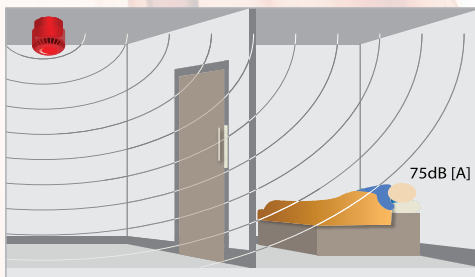
Heat detection devices have an individual coverage of **5.3m** radius. However, these radii must overlap to ensure there are no 'blind spots'. Therefore, the individual coverage can be represented by a square measuring **7.5m x 7.5m** giving an actual area coverage of **56.25m²** per device.



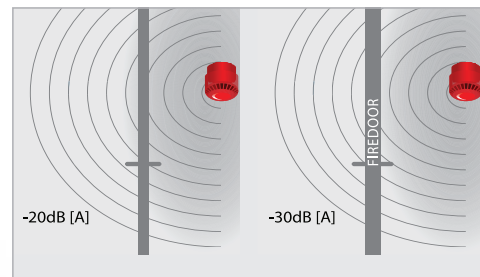
If the height of a ceiling apex is less than **150mm** from the rest of the ceiling for heat detectors and **600mm** from the rest of the ceiling for smoke detectors, they can be treated as flat ceilings. For higher apexes, a device should be installed at the highest point. The distance to adjacent devices can be increased by **1% per 1°** of the angle of the roof up to a maximum of **25%**.

DETECTOR TYPE	CEILING HEIGHTS (m)	
	GENERAL LIMITS	RAPID ATTENDANCE
Heat detectors BS EN 54-5	Class A1	13.5
	Other Classes	12.0
Point smoke detectors	10.5	15.0
Optical beam smoke detectors BS5839: part 5	25.0	40.0

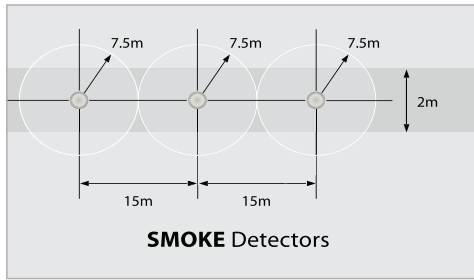
Limits of ceiling heights.



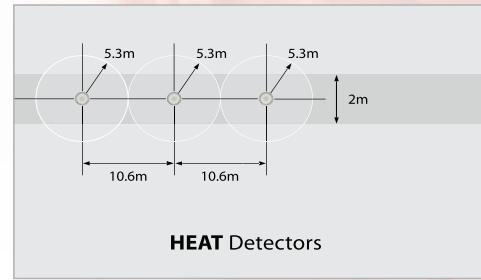
For areas where people are sleeping, sounder devices should produce a minimum of **75dBA** at the bed-head with all doors shut.



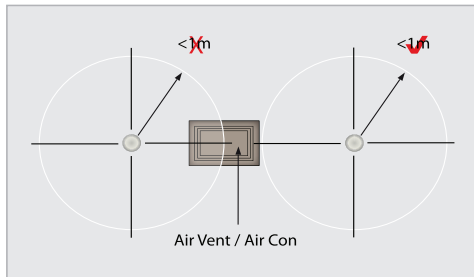
Decibel loss occurs through doors: **-20dBA** through a normal door, **-30dBA** through a fire door.



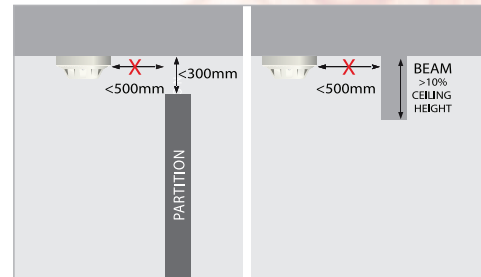
In corridors less than **2m** wide, the horizontal spacing of detectors may be increased. The areas of coverage need not overlap as in the case of a room. Any corridor over **2m** wide is deemed a room and device spacing should follow the standard for rooms.



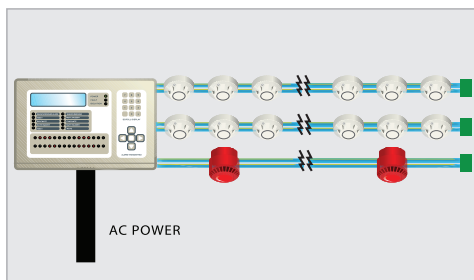
In corridors less than **2m** wide, the horizontal spacing of detectors may be increased. The areas of coverage need not overlap as in the case of a room. Any corridor over **2m** wide is deemed a room and device spacing should follow the standard for rooms. **Although we strongly recommend that heat detectors are not used in corridors.**



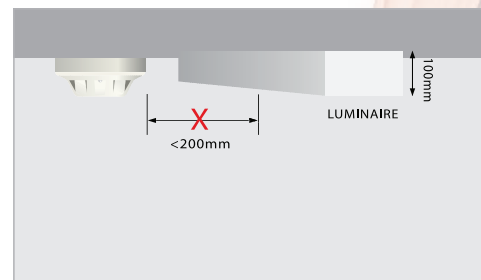
Do not site detectors less than **1m** from air inlets or air conditioning units.



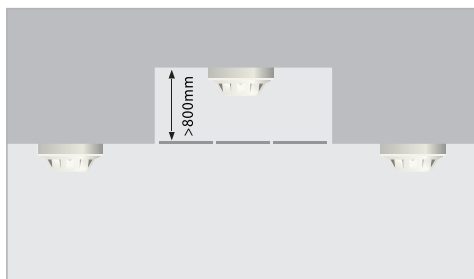
Detectors should not be mounted within **500mm** of any obstruction. If the top of a solid partition is less than **300mm** from the ceiling, it should be treated as a wall. Similarly, ceiling obstructions such as beams should be treated as walls if they are deeper than **10%** of the ceiling height.



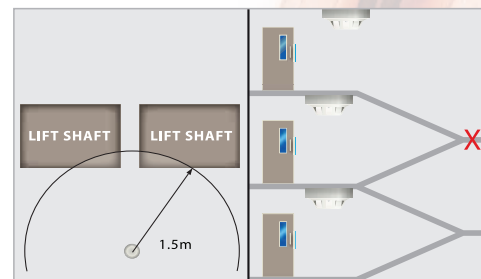
Fire resistant cabling and an isolator are now required within the whole fire alarm system including the mains supply cables. The use of non-fire resisting cables, whether mechanically protected by fire-resistant construction or not, will no longer comply with **BS5839**.



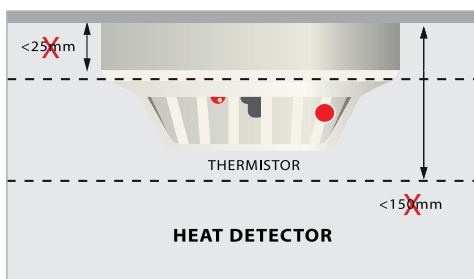
Never mount detectors closer than twice the depth of a luminaire.



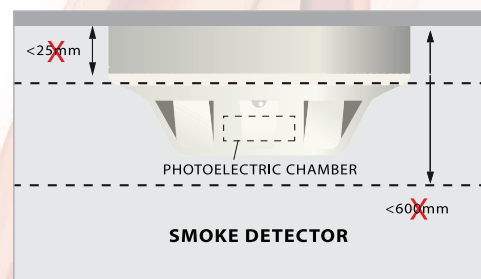
Voids less than **800mm** in height need not have independent coverage, unless fire or smoke is able to spread from one area to another through the void or the risk assessment shows an AFP (Automatic Fire Protection) to be necessary.



Vertical shafts like lifts and stairways should have a detector mounted within **1.5m** of any opening. Enclosed stairways should have a detector on each main landing.



The sensing element of a heat detector (Thermistor) should not be less than **25mm** below the ceiling and not greater than **150mm** below the ceiling.



The sensing element of a smoke detector (photoelectric chamber) should not be less than **25mm** below the ceiling and not greater than **600mm** below the ceiling.





## Conventional Fire Alarm Systems.

A comprehensive range of conventional fire alarm products offering solutions to suit most applications within public premises.

**FIRE**  
ALARM

### Fire Alarm Control Panel Instructions

- To override any activated delays, press
- To silence the internal siren(s), press
- To acknowledge the alarm sounders:  
Turn key to 'L' or 'auto' mode and press
- To reset the panel:  
Check the alarm sounders are silenced and press
- To exit alarm mode, (to move key OFF) press

#### Indicators

- & constant light = Zone disabled
- & flashing light = Zone in fault or test mode

#### Sound delays

- constant light & sounder



# CFP Fire Alarm Panels

## Features

- LPCB certified to the latest versions of EN54 Parts 2 and 4
- Intuitive user-friendly interface with colour-coded buttons and combined keypad/keyswitch entry to access level 2
- 2, 4 or 8 zone circuits (dependent on model purchased)
- 4 conventional sounder circuits
- Integral 1.5A EN54-4/A2 compliant switch mode PSU
- Wide range of engineering functions including zone test, coincidence\*, zone delay and non-latching zones\*
- 2 on-board relays (fire and fault)
- 2 open-collector outputs (remote and reset)
- 'Class change' and alert inputs
- Installer friendly design accommodates easy first fix and straight forward maintenance
- Attractive flush or surface mountable plastic lid and enclosure - no bezel required
- Low 25mA quiescent current. Mains failed/internal sounder active, power supply and general fault lights lit
- Multiple indicators
- End of line units included (one per zone)
- Ancillary system expansion connections provided for up to 8 two-wire repeaters (1 FPA-226 network driver card required per system) and optional relay card
- Space for 2 x 12V 2.1Ah or 3.2Ah VRLA batteries
- Standard panel versions have ancillary connections for system expansion, zone test and fault diagnostic facilities; standard panels also feature zone delay, non-latching zones and coincidence (double-knock) facilities

Features marked \* fall outside the scope of EN54 part 2

## Dimensions

Width 380mm x Height 235mm x Depth 96mm (Weight 1.75Kg without batteries)

## Construction

RAL7035 textured plastic lid and base

## Ingress Rating

IP30



FPR-006



FPA-071



FPA-198



FPA-199



FPA-226



FPA-227/228



FPA-260



FPA-595



FPA-996



## Fire Alarm Panels

Cat No	Description	Max Battery Type & Size
FP-038E	2 zone economy conventional panel	2 x 3.2Ah (FPA-071)
FP-039E	4 zone economy conventional panel	2 x 3.2Ah (FPA-071)
FP-040E	8 zone economy conventional panel	2 x 3.2Ah (FPA-071)
FP-038	2 zone standard conventional panel	2 x 3.2Ah (FPA-071)
FP-039	4 zone standard conventional panel	2 x 3.2Ah (FPA-071)
FP-040	8 zone standard conventional panel	2 x 3.2Ah (FPA-071)

- All fire alarm panels have 4 sounder circuits
- Batteries to be ordered separately

## Repeater Panel

Cat No	Description	Max Battery Type & Size
FPR-006	8 zone repeater panel	2 x 3.2Ah (FPA-071)

- Maximum of 8 repeater panels per system (network card required at main panel)
- Repeater panel is only suitable for use with standard panels and cannot be used with economy panels
- Batteries to be ordered separately

## Panel Accessories

Cat No	Description
FPA-198	1 gang keyswitch auxiliary device isolator
FPA-199	24V 5A keyswitch with buzzer
FPA-226	Network driver card (1 required per system)
FPA-227	Relay output card (provides reset, fault aux fire and remote relay outputs)
FPA-228	Relay output card (as per FPA-227 plus 8 output per zone relays)
FPA-260	Spare red key for conventional/addressable fire alarm panels
FPA-595	Spares pack inc. 8 x capacitors, 4 x resistors, 1 x fuse, 1 x battery link
FPA-996	4 zone monitored sounder extender 2 gang

## FPA-304 SHORT MESSAGE COMMUNICATOR

The FPA-304 short message communicator provides a cost-effective, easy-to-install solution for signalling alarm and other system conditions by sending a SMS text message to the user using GSM technology. The unit ensures that key people are contacted the moment there is a status change in the system, enabling fast incident response. Call our sales team now for further details.



# Excel-EN Fire Alarm Panels



## Features

- 2 to 12 zones
- 3 modes to manage false alarms
- Individually selectable twin wire zones
- Approved to EN54-2 & 4
- Class change and alert, programmable inputs
- Programmable relay and outputs
- Modular expansion zone cards, including additional sounder circuits
- One man walk test
- Key switch or code entry for activation of controls
- Can support up to 8 fully functional repeater panels
- Two monitored sounder circuits fitted as standard
- Integral power supply
- Common fire and fault relay
- Can be used as a SAV-WIRE system using FPA-557 bases and FPA-214 call point

## Fire Alarm Panels

Cat No	Description	Max Battery Type & Size
FP-137	2 zone conventional panel	2 x 7Ah (16-508)
FP-138	4 zone conventional panel	2 x 7Ah (16-508)
FP-139	8 zone conventional panel (standard)	2 x 7Ah (16-508)
FP-140	8 zone conventional panel (high specification)	2 x 7Ah (16-508)
FP-141	12 zone standard conventional panel	2 x 7Ah (16-508)

- FP-139 is fitted with a standard zone card
- FP-140 is fitted with a high specification zone card
- FP-141 is fitted with a standard zone card and high specification zone card
- Batteries to be ordered separately

## Dimensions

Width 460mm x Height 310mm x Depth 85mm (Weight 5.8Kg without batteries)

## Repeater Panels

Width 308mm x Height 260mm x Depth 80mm (Weight 3.2Kg without batteries)

## Construction

Silver grey epoxy coated steel

## Ingress Rating

IP30

## Repeater Panel

Cat No	Description	Max Battery Type & Size
FPR-028	2 to 12 zone active or passive repeater panel	2 x 3.2Ah (FPA-071)

- Repeater panel has an integral 1A power supply unit
- Batteries to be ordered separately

## Panel Accessories

Cat No	Description
FPA-307	Recessing bezel to suit control panels
FPA-308	Flushing bezel kit to suit control panels
FPA-309	Recessing bezel to suit repeater panel
FPA-310	4 way extension zone card, standard specification
FPA-411	4 way extension zone card, high specification



FPR-028



FPA-310



FPA-411



## FPA-304 SHORT MESSAGE COMMUNICATOR

The FPA-304 short message communicator provides a cost-effective, easy-to-install solution for signalling alarm and other system conditions by sending a SMS text message to the user using GSM technology. The unit ensures that key people are contacted the moment there is a status change in the system, enabling fast incident response. Call our sales team now for further details.



# Horizon Fire Alarm Panels

## Features

- Fully compliant with EN54 Parts 2 and 4
- LPCB approved
- Supplied complete with batteries to support the panel for 24 hours
- Includes end of line devices as standard
- Easy to use function buttons provide uncomplicated and clear guidance
- 2 conventional sounder circuits can be configured as a sounder output, a fire routing output or a fault output
- Detection zones can be configured as latching or nonlatching
- Auto/Manual zones, delays, coincidence detection, sprinkler verification time
- Panel status indications
- Microprocessor controlled panel functions
- 2 optional 8-way Relay or 4-way Sounder PCBs which can provide a further 4, 8, 12 or 16 configurable outputs

## Dimensions

Width 356mm x Height 318mm x Depth 96mm (Weight 2Kg without batteries)

## Construction

Fire-resistant ABS plastic lid and base

## Ingress Rating

IP30



## FPA-304 SHORT MESSAGE COMMUNICATOR

The **FPA-304** short message communicator provides a cost-effective, easy-to-install solution for signalling alarm and other system conditions by sending a SMS text message to the user using GSM technology. The unit ensures that key people are contacted the moment there is a status change in the system, enabling fast incident response. Call our sales team now for further details.



## Fire Alarm Panels

Cat No	Description
FP-077	2 zone conventional panel c/w 2 x 12V 7Ah VRLA batteries
FP-078	4 zone conventional panel c/w 2 x 12V 7Ah VRLA batteries
FP-079	8 zone conventional panel c/w 2 x 12V 7Ah VRLA batteries

## Panel Accessories

Cat No	Description
FPA-649	Pack of 10 spare keys for Horizon panel
FPA-650	Spare capacitor kit for Horizon panel
FPA-651	Spares pack for Horizon panel

*\* Spares includes 2 x keys, 1 x Allen key, 1 x battery link and leads, 1 x cable tie, 8 x end of line capacitors, 2 x end of line resistors, nut and washers*

# FP585 Fire Alarm Panels

## Features

- Design complies with EN54 Parts 2 and 4
- Up to 8 sounder circuits can be connected to the panel
- Two auxiliary relay contacts for connection to third party equipment
- Zone disablement facility
- Single person test and commissioning
- Day and night mode to delay the activation of sounder circuits for up to 10 minutes upon detection of a fire for easy verification of the alarm trigger
- Semi-flushing kit available
- In-built false alarm rejection algorithm guarantees system will reject spurious events but will detect real fires within 10 seconds
- Installation time reduced by matching 8 zones to 8 sounder circuits, allowing both sounders and detectors to be connected from a four core cable
- Compatible with a wide range of detection, audio and visual devices to cover demanding installation requirements

## Dimensions

Width 395mm x Height 274mm x Depth 87mm (Weight 3.4Kg without batteries)

## Construction

Grey RAL7000 plastic lid and metal base

## Ingress Rating

IP31



## FPA-304 SHORT MESSAGE COMMUNICATOR

The **FPA-304** short message communicator provides a cost-effective, easy-to-install solution for signalling alarm and other system conditions by sending a SMS text message to the user using GSM technology. The unit ensures that key people are contacted the moment there is a status change in the system, enabling fast incident response. Call our sales team now for further details.



## Fire Alarm Panels

Cat No	Description	Max Battery Type & Size
FP-074	2 zone conventional panel	2 x 3.2Ah (FPA-071)
FP-075	4 zone conventional panel	2 x 3.2Ah (FPA-071)
FP-076	8 zone conventional panel (standard)	2 x 3.2Ah (FPA-071)

## Panel Accessories

Cat No	Description
FPA-997	Flush plate to suit FP-074, FP-075 and FP-076 fire panels
FPA-998	Fire and fault relay to suit FP-074, FP-075 and FP-076 fire panels

*\* Cut out dimensions for flush plate are 378mm Width x 245mm Height x 60mm Depth*









# Series 65 Detectors



 <p><b>FPA-229</b> A1R 57°C Rate-of-Rise Heat Detector Suitable Use: Dirty or smoky environments Dimensions: Ø100mm x 42mmH</p>	 <p><b>FPA-230</b> BR 75°C Rate-of-Rise Heat Detector Suitable Use: Dirty or smoky environments Dimensions: Ø100mm x 42mmH</p>	 <p><b>FPA-231</b> CR 90°C Rate-of-Rise Heat Detector Suitable Use: Dirty or smoky environments Dimensions: Ø100mm x 42mmH</p>	 <p><b>FPA-233</b> CS 90°C Fixed Heat Detector Suitable Use: Kitchens or boiler rooms Dimensions: Ø100mm x 42mmH</p>	<p><b>Features</b></p> <ul style="list-style-type: none"> <li>• Wide operating Voltage</li> <li>• Advanced electronic technology</li> <li>• LPCB approved</li> <li>• Proven detection performance</li> <li>• Designed to meet approvals worldwide</li> <li>• Can be used on 2 wire fire alarm systems using FPA-557 Sav-Wire base</li> <li>• Electrically and mechanically compatible with existing Series 60 installations</li> <li>• Wide operating and storage temperature</li> </ul>	
 <p><b>FPA-235</b> Detector Base with Diode Suitable Use: Compatible with all Series 65 detectors Dimensions: Ø100mm x 8mmH</p>	 <p><b>FPA-236</b> Optical Smoke Detector (Smouldering Fires) Suitable Use: Bedrooms and escape routes Dimensions: Ø100mm x 42mmH</p>	 <p><b>FPA-237</b> Ionisation Smoke Detector (Flaming Fires) Suitable Use: Rooms opening onto escape routes Dimensions: Ø100mm x 42mmH</p>	 <p><b>FPA-238</b> Integrating Ionisation Smoke Detector Suitable Use: Areas with transient levels of smoke Dimensions: Ø100mm x 42mmH</p>	 <p><b>FPA-323</b> Sounder Base with Diode Suitable Use: Compatible with all Series 65 detectors Dimensions: Ø115mm x 42mmH</p>	 <p><b>FPA-557</b> Sav-Wire Detector Base Suitable Use: Compatible with Excel-EN fire alarm panels Dimensions: Ø100mm x 8mmH</p>

# CDX Detectors



 <p><b>FPA-001</b> Photoelectric Smoke Detector (Smouldering Fires) Suitable Use: Bedrooms and escape routes Dimensions: Ø100mm x 38mmH</p>	 <p><b>FPA-003</b> 60°C Fixed Heat Detector Suitable Use: Kitchens or boiler rooms Dimensions: Ø100mm x 38mmH</p>	 <p><b>FPA-004</b> 90°C Fixed Heat Detector Suitable Use: Kitchens or boiler rooms Dimensions: Ø100mm x 38mmH</p>	 <p><b>FPA-005</b> Combined 60°C Fixed Heat &amp; Rate of Rise Heat Detector Suitable Use: Dirty or smoky environments Dimensions: Ø100mm x 38mmH</p>	<p><b>Features</b></p> <ul style="list-style-type: none"> <li>• Approved by LPCB and VdS</li> <li>• Twin fire LEDs allow 360° viewing</li> <li>• Wide operating Voltage range</li> <li>• Remote indicator output</li> <li>• Photoelectric detector features a removable, high performance chamber</li> <li>• Heat detectors feature electronic linear heat detection</li> <li>• Easy to install</li> <li>• Variety of mounting bases available</li> </ul>	
 <p><b>FPA-024</b> Detector Base with Schottky Diode Suitable Use: Compatible with all CDX detectors Dimensions: Ø100mm x 8mmH</p>	 <p><b>FPA-258</b> Combined 90°C Fixed Heat &amp; Rate of Rise Heat Detector Suitable Use: Dirty or smoky environments Dimensions: Ø100mm x 38mmH</p>	 <p><b>FPA-259</b> Sounder Base Suitable Use: Compatible with all CDX detectors Dimensions: Ø116mm x 25mmH</p>	 <p><b>FPA-288</b> Sav-Wire Detector Base Suitable Use: Compatible with all CDX detectors Dimensions: Ø100mm x 13mmH</p>		

# Activ Detectors

## Features

- Third party certified to the relevant parts of EN54 5, 7 and pr29
- Suitable for use with virtually all known conventional fire panels
- Simple 'click and twist' design and easy-fit base
- Integrated detector base locking mechanism
- Wide operating Voltage
- Two LED indicating strips offer 360° visibility
- Low current draw



FPA-737

Optical Smoke Detector (Smouldering Fires)

Suitable Use: Living areas, bedrooms and escape routes

Dimensions: Ø102.2mm x 37mmH



FPA-738

Multi-Sensor Fire Detector

Suitable Use: Houses in multiple occupation

Dimensions: Ø102.2mm x 37mmH



FPA-739

65°C Rate-of-Rise Heat Detector

Suitable Use: Dirty or smoky environments

Dimensions: Ø102.2mm x 37mmH



FPA-740

75°C Fixed Heat Detector

Suitable Use: Kitchens or boiler rooms

Dimensions: Ø102.2mm x 37mmH



FPA-741

60°C Fixed Heat Detector

Suitable Use: Dirty or smoky environments

Dimensions: Ø102.2mm x 37mmH



FPA-742

Detector Base with Diode

Suitable Use: Compatible with all Activ detectors

Dimensions: Ø102.2mm x 20.5mmH



## Features

- Low profile design
- Low current draw
- Automatic drift compensation
- Easy maintenance
- Approved to EN54 - 7:2000 (Amendment 1)
- Easy to install
- State of the art optical chamber and thermal element
- Suitable for circuit testing prior to fitting the detector



FPA-314\*

White Squashni 3 Tone Sounder Base

Suitable Use: Compatible with all Vision detectors

Dimensions: Ø112mm x 8mmH



FPA-652

Photoelectric Smoke Detector (Smouldering Fires)

Suitable Use: Bedrooms and escape routes

Dimensions: Ø102mm x 40.5mmH



FPA-653

Combined Optical Smoke and Heat Detector

Suitable Use: Dirty or smoky environments

Dimensions: Ø102mm x 40.5mmH



FPA-654

58°C Fixed Heat Detector

Suitable Use: Kitchens or boiler rooms

Dimensions: Ø102mm x 40.5mmH



FPA-655

78°C Fixed Heat Detector

Suitable Use: Kitchens or boiler rooms

Dimensions: Ø102mm x 40.5mmH



FPA-656

Rate-of-Rise Heat Detector

Suitable Use: Dirty or smoky environments

Dimensions: Ø102mm x 40.5mmH



FPA-657

Detector Base with Diode

Suitable Use: Compatible with all Vision detectors

Dimensions: Ø102mm x 9.5mmH

\* Not supplied with blanking lid

# Vision Detectors



# Detector Testing Equipment



FPA-315	FPA-316	FPA-317	FPA-318	FPA-320	FPA-336
<p><b>DETECTAGAS® 400ml Domestic CO Alarm Test Kit (7 Tests Per Kit)</b></p> <p>Designed to test ceiling mounted, CO detecting fire alarms</p> <ul style="list-style-type: none"> <li>Kit consists of 1 x test aerosol, 1 x test shroud, 7 x test record labels and 1 x valve seal assembly</li> <li>7 tests per can</li> <li>Simple to use</li> <li>Entirely safe</li> <li>Sensor inclusive test</li> <li>Sensor can test all CO alarms manufactured to BS EN 50291 and UL 2034</li> <li>Calibrated test gas</li> <li>Low cost per test</li> </ul>	<p><b>DETECTASMOKE® 250ml Smoke Alarm Tester</b></p> <p>A synthetic smoke aerosol which delivers particles imitating those found in real smoke to the detector</p> <ul style="list-style-type: none"> <li>Non-flammable</li> <li>Ultra low residue formula</li> <li>Fast response and clearing time</li> <li>Manufacturing and service company endorsed</li> <li>Suitable for hand or pole use</li> <li>Compatible with all leading pole delivery systems</li> </ul>	<p><b>DETECTAGAS® 250ml CO Detecting Fire Alarm Test Aerosol</b></p> <p>Designed to test ceiling mounted, CO detecting fire alarms (not suitable for tests on domestic CO alarms)</p> <ul style="list-style-type: none"> <li>Non-flammable</li> <li>Detector manufacturer approved</li> <li>Compatible with all leading pole delivery systems</li> </ul>	<p><b>DETECTADUSTA® 250ml Smoke &amp; CO Alarm Blast Cleaner</b></p> <p>Provides a quick and easy way of cleaning detectors of debris that may result in false or non-alarms</p> <ul style="list-style-type: none"> <li>Non-flammable</li> <li>Very powerful</li> <li>Easy to use</li> <li>Environmentally safe</li> <li>User friendly</li> <li>Non-abrasive</li> </ul>	<p><b>DETECTALEAK® 250ml Leak Detecting Test Aerosol</b></p> <p>A safe, reliable, cost effective, clean and convenient way of testing for leaks in compressed air systems</p> <ul style="list-style-type: none"> <li>Detects leaks in gas and compressed air systems</li> <li>Contains a corrosion inhibitor suitable for plastic piping, iron and copper</li> <li>Safe-to-use inert liquid will not damage paintwork and carpets</li> <li>Residue, CFC, oil and solvent free</li> <li>Non-flammable, noncorrosive, biodegradable and safe to the user</li> </ul>	<p><b>DETECTASMOKE® 150ml Smoke Alarm Tester</b></p> <p>A synthetic smoke aerosol which delivers particles imitating those found in real smoke to the detector</p> <ul style="list-style-type: none"> <li>Non-flammable</li> <li>Ultra low residue formula</li> <li>Fast response and clearing time</li> <li>Manufacturing and service company endorsed</li> <li>Suitable for hand use</li> </ul>

# Domestic CO Detection



**FPA-321**  
**DETECTA10 Domestic CO Alarm**

Carbon Monoxide alarm certified to BS EN 50291, the DETECTA10 is a cost effective, simple, yet reliable means of sensing the "silent killer"

- Battery operated (included)
- Long life
- Easy to install
- Loud 85dB alarm
- 3 LED readouts
- Low battery and end of life alarm
- Calibrated test gas
- Low cost per test



**FPA-322**  
**DETECTAPAK Domestic CO Alarm Kit**

DETECTA10 Carbon Monoxide alarm with the addition of DETECTAGAS test spray (all features are as per FPA-321 DETECTA10 Domestic CO Alarm)

The test button on a CO detector does not test the sensor with carbon monoxide nor does it prove that contaminated air is reaching the sensor via the casing vents.

If the test button is pressed on a CO detector with a faulty sensor and with a working battery and alarm bell it may appear to work but is not providing any protection against CO poisoning.

The European Standard for CO alarms BSEN50291 requires that all domestic CO alarms are tested in accordance with the alarm manufacturers instructions. Some alarm manufactures are now including a requirement to test CO Alarms monthly with an external source of test gas.

# Optical Beam Smoke Detectors

## Features

- Self aligns itself to the centre of the reflector during commissioning and automatically keeps alignment when building movement occurs
- Auto alignment can be disabled making the beam suitable for environments susceptible to occasional contamination such as theatres with fake smoke
- Very low power consumption (only 3.5mA in any state)
- Easy to follow menu system
- 5 to 40 metres range as standard but can be extended up to 80 to 100 metres
- IP65 as standard ensuring the unit is suitable for hostile environments such as food processing plants that have to be hosed down
- Low level controller ensures all controls are set from the safety of ground level
- The Firebeam is a conventional device but can easily be made addressable by using a manufacturers interface



## Dimensions

Head: (W) 155mm x (H) 180mm x (D) 137mm (Weight 1.1Kg)  
 Controller: (W) 120mm x (H) 185mm x (D) 62mm (Weight 0.55Kg)

\* Only 1 head permitted per controller

**FPA-979**  
 Basic Firebeam Kit Consisting of 1 x Head, 1 x Controller and 1 x Reflector  
 Coverage: Between 5 and 40 metres  
 Suitable Use: In large, open areas with high ceilings or where access to ceiling mounted smoke detectors is impractical or restricted

**FPA-986**  
 Anti-Fog Firebeam Kit Consisting of 1 x Head, 1 x Controller and 1 x Reflector  
 Coverage: Between 5 and 40 metres  
 Suitable Use: In similar areas to the basic FPA-979 kit but also in areas where conditions such as condensation or temperature change is an issue

**FPA-980**  
 40-80 Metres Range Extension Kit  
 When used in conjunction with the FPA-979, the beam can cover distances between 40 and 80 metres. Simply add the single reflector supplied with the FPA-979 to the spare space on the clear acrylic plate with 3 extra reflectors attached.  
 Dimensions: (W) 293mm x (H) 293mm x (D) 5mm (Weight 0.8Kg)

**FPA-981**  
 80-100 Metres Range Extension Kit  
 When used in conjunction with the FPA-979, the beam can cover distances between 80 and 100 metres. Simply add the single reflector supplied with the FPA-979 to the spare space on the clear acrylic plate with 8 extra reflectors attached.  
 Dimensions: (W) 394mm x (H) 394mm x (D) 5mm (Weight 1.8Kg)

**FPA-982**  
 Head Interface Adapter to Mount Unistrut  
 This clear acrylic plate allows easy mounting of the beam head to Unistrut fabrication. Holes are pre-drilled to the correct pitch of the head unit and are conveniently positioned for use with the Unistrut system using the screws provided.  
 Dimensions: (W) 250mm x (H) 270mm x (D) 5mm (Weight 0.6Kg)

**FPA-983**  
 Anti-Fog Kit for Firebeam Head  
 This kit consists of an anti-fog reflector and lens that is placed over the "eyes" of the beam head. This reduces the risk of false alarms as beam detectors of this type see condensation as obscuration and can't tell the difference between this and smoke.

**FPA-984**  
 Firebeam Single Anti-Fog Reflector  
 The FPA-984 is a single reflector that has been developed to overcome the problems that condensation can cause to the beam detector and helps the prevention of false alarms.

**FPA-985**  
 Firebeam Anti-Fog Window  
 The FPA-985 is a single lens cover that is placed over the "eyes" of the beam head in order to overcome the issues that condensation can cause to the beam detector.

**FPA-987**  
 Anti-Fog 40-80 Metres Mid-Range Kit  
 When used in conjunction with the FPA-986, the beam can cover distances between 40 and 80 metres. Simply add the single reflector supplied with the FPA-986 to the spare space on the clear acrylic plate with 3 extra anti-fog reflectors attached. Dimensions are the same as the standard version FPA-980.

**FPA-988**  
 Anti-Fog 80-100 Metres Long Range Kit  
 When used in conjunction with the FPA-986, the beam can cover distances between 80 and 100 metres. Simply add the single reflector supplied with the FPA-986 to the spare space on the clear acrylic plate with 8 extra anti-fog reflectors attached. Dimensions are the same as the standard version FPA-981.

**FPA-989**  
 Firebeam Adjustable Wall Bracket  
 A high quality, fully adjustable bracket that can accommodate both the beam head and the reflector or reflector kits. The bracket includes an integrated spirit level.

**FPA-990**  
 Firebeam 24V 1.5A Power Supply Unit  
 Specially designed for use with the Firebeam, these 24 Volt 1.5 Amp power supply units have full VDS approval to EN54-4.

# Break Glass Call Points



## Features

- Normally open contacts with a 470 Ohms monitoring resistor
- Test key supplied with each unit
- Supplied in red as standard with blue, green, white and yellow available as options
- Wide operating temperature range (-10°C to +55°C)
- Many products within the range are EN54-1 certified by LPCB
- Anti-tamper facility
- Enhanced aesthetics
- Many products within the range are fully approved to the latest standards

## Dimensions

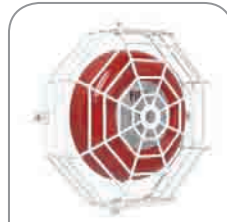
- FPA-006 (all versions): (L) 87mm x (W) 87mm x (D) 52mm
- FPA-035: (L) 124mm x (W) 124mm x (D) 60mm
- FPA-214: (L) 87mm x (W) 87mm x (D) 52mm
- FPA-546: (L) 87mm x (W) 87mm x (D) 50mm
- FPA-663: (L) 87mm x (W) 87mm x (D) 52mm

<p><b>FPA-006</b> Red break glass call point surface mounted</p>	<p><b>FPA-006/BU</b> Blue break glass call point surface mounted</p>	<p><b>FPA-006/GN</b> Green break glass call point surface mounted</p>	<p><b>FPA-006/YE</b> Yellow break glass call point surface mounted</p>
<p><b>FPA-035</b> IP65 red break glass call point surface mounted</p>	<p><b>FPA-214</b> Red Sav-Wire break glass call point surface mounted</p>	<p><b>FPA-546</b> Red resettable element call point surface mounted</p>	<p><b>FPA-663</b> Bardic red break glass or resettable element call point</p>
<p><b>FPA-036</b> Pack of 5 replacement glasses to suit FPA-006 call points (all versions)</p>	<p><b>FPA-081/2</b> Protective cover to suit FPA-006 call points (all versions), FPA-663 &amp; FPA-214 call points</p>	<p><b>FPA-203</b> Spare key to suit FPA-006 call points (all versions), FPA-663 &amp; FPA-214 call points</p>	<p><b>FPA-1011/COVER</b> Protective cover to suit FPA-546 call point</p>
<p><b>FPA-1011/KEY</b> Pack of 5 spare keys to suit FPA-546 call point</p>			

# Protective Steel Cages

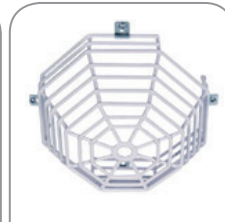
## Features

- Constructed from heavy duty galvanised steel rod
- Plastic coated for durability and external use
- Protects against vandalism or accidental damage
- Designed so there is no interference with the operation of the protected unit
- Supplied with full fixing kit for easy installation
- Provides protection for a wide range of detectors, sounders, beacons and bells



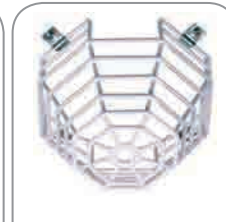
FPA-345

For Use With:  
6" and 8" Fire Bells  
Dimensions:  
Ø 270mm x (D)152mm



FPA-356

For Use With:  
Smoke and Heat Detectors  
Dimensions:  
Ø 215mm x (D)108mm  
(Min Internal Ø 155mm)



FPA-357

For Use With:  
Smoke and Heat Detectors  
Dimensions:  
Ø 180mm x (D)115mm  
(Min Internal Ø 100mm)



FPA-358

For Use With:  
Smoke and Heat Detectors  
Dimensions:  
Ø 214mm x (D)145mm  
(Min Internal Ø 85mm)



FPA-359

For Use With:  
Sounders and Beacons  
Dimensions:  
Ø 200mm x (D)150mm



FPA-360

For Use With:  
Sounders and Beacons  
Dimensions:  
Ø 95mm x (D)90mm



FPA-361

For Use With:  
Sounders and Beacons  
Dimensions:  
Ø 150mm x (D)125mm

# Protective Stoppers

## Features

- Smart design and engineering resulting in aesthetically pleasing appearance
- Easy installation
- Optional battery powered 90dB alarmed version available
- Supplied in red as standard and available in other colours to order
- Three surface mounting spacers are available 18mm, 32mm (supplied with standard surface mounting versions) and 50mm



FPA-365

Red Fire Extinguisher  
Stopper  
Dimensions:  
136mm (H) x 136mm (W)  
x 50mm (D)



FPA-366

Red Exit Door  
Stopper  
Dimensions:  
127mm (H) x 127mm (W)  
x 50mm (D)



FPA-367

Green Exit Door  
Stopper  
Dimensions:  
127mm (H) x 127mm (W)  
x 50mm (D)



FPA-1073

Flush Mounting Protective  
Call Point Stopper  
Dimensions:  
190mm (H) x 118.4mm (W)  
x 35mm (D)



FPA-1074

Surface Mounting Protective  
Call Point Stopper  
Dimensions:  
190mm (H) x 118.4mm (W)  
x 67mm (D)



FPA-1075

Flush Mounting Protective Call  
Point Stopper c/w Sounder  
Dimensions:  
190mm (H) x 118.4mm (W)  
x 35mm (D)



FPA-1076

Surface Mounting Protective Call  
Point Stopper c/w Sounder  
Dimensions:  
190mm (H) x 118.4mm (W)  
x 67mm (D)



FPA-1077

18mm Surface Mounting Spacer  
to suit Call Point Stopper  
Dimensions:  
190mm (H) x 118.4mm (W)  
x 18mm (D)



FPA-1078

32mm Surface Mounting Spacer  
to suit Call Point Stopper  
Dimensions:  
190mm (H) x 118.4mm (W)  
x 32mm (D)



FPA-1079

50mm Surface Mounting Spacer  
to suit Call Point Stopper  
Dimensions:  
190mm (H) x 118.4mm (W)  
x 50mm (D)



# Ancillary Equipment




FP-016  
FPA-674

**FP-016**  
Fire Output Relay

Incorporates a red LED which illuminates when the relay is active, the fire output relay is connected to a control panel relay output or a standard polarised fire alarm sounder circuit to operate door retaining magnets and rollershutter doors.

**FPA-674**  
Bardic Fire Output Relay  
Similar to FP-016 but without the LED.



FPA-014  
FPA-662

**FPA-014**  
Remote Detector Indicator

Incorporates a red LED that is clearly visible when active, the remote detector indicator's primary use is to indicate the activation of an out-of-sight smoke or heat detector.

**FPA-662**  
Bardic Remote Detector Indicator  
Similar to FPA-014.



**FPA-198**  
Keyswitch Auxiliary Device Isolator

Allows a +24V d.c. output from a fire panel to be remotely isolated to prevent external equipment such as autodiallers and rollershutter doors from operating. This is a particularly useful function during routine maintenance as it safeguards against the inadvertent triggering of auxiliary equipment. The unit incorporates an isolating keyswitch and amber LED.




**FPA-199**  
24V 5A Keyswitch with Buzzer

Combines the functions of the FP-016 relay and FPA-198 device isolator in one unit. It is a double-pole 24V 5A polarised relay with a keyswitch isolation facility allowing its relay operation to be temporarily disabled from the fire alarm signal during routine test and maintenance, preventing autodiallers and water sprinklers from activating.



**FPA-304**  
Auto-Dialler (Less SIM Card)

The auto-dialler short message communicator provides a cost-effective, easy-to-install solution for signalling alarm and other system conditions by sending an SMS text message to the user via GSM technology. Suitable for use with a prepaid SIM card (not included), the unit ensures that key people are contacted when there is a status change in the system, enabling fast incident response.



**FPA-311**  
Red Auxiliary Isolator

A 24V d.c. changeover auxiliary relay with an isolating key switch which can be used to isolate or energise the relay. The unit is suitable for switching up to 250V a.c. and incorporates an 8A, double-pole relay housed in a red fire-resistant ABS enclosure. Fitted with an LED indicator and optional integral buzzer, the change-over relay is particularly useful for the disablement of existing circuits, zones and sounder circuits.




**FPA-312**  
White Auxiliary Isolator

Similar to the FPA-311, but housed within a white enclosure.



**FPA-547**  
Mains Voltage Isolator Switch

Provides a secure method of isolation for fire alarm mains supply Voltage in accordance with the recommendations of BS 5839 Pt:1:2013 25.2 for mains power supplies. The supply is isolated by means of a key switch and an LED indicates the supply of power.

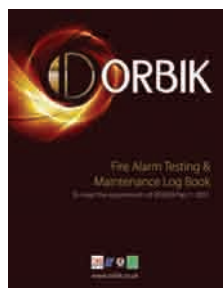


FPA-594  
FPA-593

**FPA-593**  
24V Vibrating Pad c/w Locking Jack Plug

Used to provide early warning of a potential fire alarm condition to the hard of hearing. Connected via the FPA-594 wall mounting socket to any conventional fire alarm sounder circuit, the socket is monitored by the fire alarm system control panel.

**FPA-594**  
Single Gang Locking Jack Socket  
For use with FPA-593.




**FPA-648**  
Fire Alarm and Emergency Lighting Log Book

Meets the test record requirements of BS5839 and the legal obligations under the Regulatory Reform Order. The log book includes sections to include details of the fire alarm system, service and activation details as well as staff training, drills, emergency lighting and much more.



**FPA-712**  
Lockable Steel Document Enclosure

A key lockable, robust steel enclosure for the safe storage of important documents such as the fire alarm panel user manuals and test log book. The enclosure has ample room to hold documents up to A4 size.



**FPA-996**  
4 Zone Monitored Sounder Extender

Provides four extra sounder circuits with open and short circuit fault monitoring. It is compatible with most fire alarm control panels and is supplied mounted on a double gang plate which fits standard UK 25mm deep back boxes.

# Audible Devices

## Features

- All products excluding FPA-777, FPA-778 and FPA-779 are fully approved to EN54-3 by LPCB
- Many products VdS approved
- Very low current consumption
- 32 user-selectable tones excluding FPA-029 and FPA-030
- Twist and lock bayonet mounting system
- Easy to install
- Many products available in either white or red finish
- All tones selected to comply with the latest sound patterns and frequencies used throughout the world
- Aesthetically pleasing designs
- Suitable for a wide range of alarm and signalling applications
- FPA-777, FPA-778 and FPA-779 are ideal for use in temporary installations
- Shallow and deep base versions available
- Bedroom sounders are mounted via a standard 25mm back box



 <p><b>FPA-008</b> Vimpex Red Electronic Sounder Sound Output: High: 101dBA/Low: 81dBA Dimensions: Ø 92mm x (D) 71mm</p>	 <p><b>FPA-010</b> Vimpex IP66 Red Electronic Sounder Sound Output: High: 101dBA/Low: 81dBA Dimensions: Ø 92mm x (D) 95mm</p>	 <p><b>FPA-011</b> Vimpex Red 6" Bell Sound Output: 96.5dBA Dimensions: Ø 150mm x (D) 53mm</p>	 <p><b>FPA-027</b> Vimpex Red 8" Bell Sound Output: 98.8dBA Dimensions: Ø 200mm x (D) 53mm</p>	 <p><b>FPA-028</b> Vimpex IP66 Red 8" Bell Sound Output: 100.1dBA Dimensions: Ø 200mm x (D) 104mm</p>	 <p><b>FPA-029</b> Vimpex White Bedroom Sounder Flush Mounted Sound Output: 90dBA Dimensions: (L)85mm x (W) 85mm x (D) 30.2mm</p>	 <p><b>FPA-030</b> Vimpex Red Bedroom Sounder Flush Mounted Sound Output: 90dBA Dimensions: (L)85mm x (W) 85mm x (D) 30.2mm</p>
 <p><b>FPA-343</b> Vimpex Weatherproof Red 6" Bell Sound Output: High: 100.5dBA Dimensions: Ø 150mm x (D) 104mm</p>	 <p><b>FPA-562</b> Cranford Red Electronic Sounder Shallow Base Sound Output: High: 102dBA/Low: 82dBA Dimensions: Ø 93.6mm x (D) 85mm</p>	 <p><b>FPA-563</b> Cranford White Electronic Sounder Shallow Base Sound Output: High: 102dBA/Low: 82dBA Dimensions: Ø 93.6mm x (D) 85mm</p>	 <p><b>FPA-564</b> Cranford Red Electronic Sounder Deep Base Sound Output: High: 102dBA/Low: 82dBA Dimensions: Ø 93.6mm x (D) 100.5mm</p>	 <p><b>FPA-565</b> Cranford White Electronic Sounder Deep Base Sound Output: High: 102dBA/Low: 82dBA Dimensions: Ø 93.6mm x (D) 100.5mm</p>	 <p><b>FPA-578</b> Cranford Red 6" Low Current Bell Sound Output: 93dBA Dimensions: Ø 150mm x (D) 56mm</p>	 <p><b>FPA-666</b> Bardic IP65 Red Deep Base Sounder Sound Output: 107dBA Dimensions: Ø 100mm x (D) 102mm</p>
 <p><b>FPA-667</b> Bardic Red Sounder and Low Profile Base Sound Output: 107dBA Dimensions: Ø 100mm x (D) 77mm</p>	 <p><b>FPA-777</b> Rotary Hand Bell Sound Output: 75dBA Dimensions: Ø 230mm x (D) 140mm</p>	 <p><b>FPA-778</b> Screamer Alarm c/w Break Glass Unit Sound Output: 118dBA Dimensions: (L) 400mm x (W) 260mm x (D) 180mm</p>	 <p><b>FPA-779</b> Screamer Alarm c/w Push Button Sound Output: 118dBA Dimensions: (L) 400mm x (W) 260mm x (D) 180mm</p>			

# Visual Alarm Devices



## Features

- Incorporates a number of innovative lenses and LED light technologies to maximise light output and minimise current consumption
- Aesthetically pleasing designs
- Provides flexible solutions for the designer and the end-user
- Suitable for wall and ceiling mount applications
- Red and white body, red and clear lens and shallow or deep base options available
- Omni-directional light coverage eliminates the need for device orientation
- Easy to install, to give significant savings in installation time, capital expenditure and lifetime cost
- Many products within the range are fully approved to the latest standards
- IP65 outdoor versions available
- 32 user-selectable tones
- Twist and lock bayonet mounting system
- All tones selected to comply with the latest sound patterns and frequencies used throughout the world

## What are VADs?

Visual Alarm Devices (VADs) are an essential component to most fire alarm systems. They provide a visual indication of an alarm condition to those people who wouldn't normally be alerted to a fire by standard audible-only devices such as sounders and bells. The Disability Discrimination Act of 1995 made the inclusion of VADs mandatory in all public buildings, specifically in areas where people with impaired hearing work in isolation. VADs are also required in noisy environments where staff might be wearing ear defenders such as factories and foundries.

A new product standard, BS EN 54-23:2010 (Fire detection and fire alarm systems. Part 23: Fire alarm devices - Visual alarms devices), has been introduced primarily to standardise the requirements, test methods and performance of VADs and ensure their light output is measured in a uniform manner. This standard has been mandatory throughout Europe since 31st December 2013.

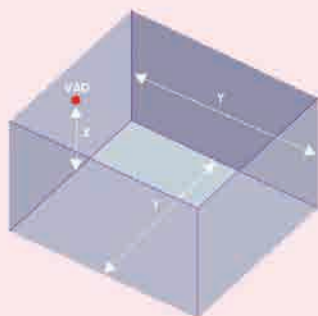
## Calculating Coverage Volume

The need for VADs will be identified as part of the risk assessment. As with other fire alarm system components, there are a number of challenges that must be considered in the layout design and installation of VADs. One challenge is the illumination of the entire volume of the open space where the fire alarm must be visible. VADs must produce sufficiently intense light, so that an individual located anywhere in the space, looking either towards or away from the VAD, would be alerted in the event of an emergency. The performance of VADs under the new standard is assessed against a minimum required illumination of 0.4 lux on surfaces perpendicular to the direction of the light emitted from the device.

VADs will now be classified into three categories based on their application; W - Wall mounted, C - Ceiling mounted, O - Open category. W and C mounting categories are specified at specific installation heights and particular patterns of coverage (information below). Within these two categories, the shape of the volume covered is fixed by the standard, the dimensions of this coverage volume are specified by the manufacturer. For all categories, the volume covered can be used to determine VAD spacing within the building.

### W Category (Wall-Mounted) Coverage Volume

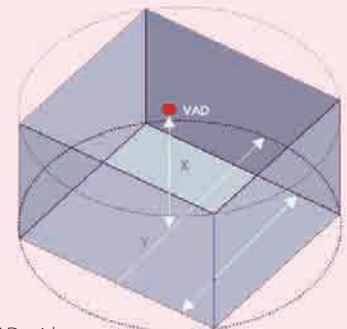
Wall-mounted VADs cover a cuboid volume with a square floor area. The coverage volume is presented as a code in the form of W - X - Y, where W = Wall-mounted category. X is the maximum mounting height (m) and Y is the width and length (m) of the coverage floor area. The minimum mounting height allowable by the standard is 2.4m.



For example, a wall mounted VAD with a classification of W-2.4-5 should be mounted at 2.4m from the floor and should cover an area of up to 5m by 5m.

### C Category (Ceiling-Mounted) Coverage Volume

Ceiling-mounted VADs cover a cylindrical area. The coverage volume is presented as a code in the form of C - X - Y, where C = Ceiling-mounted category. X is the maximum mounting height (m) and Y is the diameter (m) of the coverage volume's floor area. The maximum mounting height can only be specified as 3m, 6m or 9m.




For example, a ceiling mounted VAD with a classification of C-3-15 should be mounted at 3m from the floor and should cover a cylindrical area of up to 15m diameter. The width of the room is Y/1.414.


 <p><b>FPA-012</b> Vimpex 24V Beacon Red Lens Dimensions: Ø 76mm x (D) 50mm Flash Rate: 60/65 per minute</p>	 <p><b>FPA-020</b> Vimpex 24V Beacon Clear Lens Dimensions: Ø 92mm x (D) 71mm Flash Rate: 60/65 per minute</p>	 <p><b>FPA-032</b> Vimpex 24V Red Sounder Beacon Red Lens Dimensions: Ø 80mm x (D) 85mm Flash Rate: 60 per minute Sound Output: 80-100dBA</p>	 <p><b>FPA-037</b> Vimpex 24V Red Sounder Beacon Clear Lens Dimensions: Ø 80mm x (D) 85mm Flash Rate: 60 per minute Sound Output: 80-100dBA</p>	 <p><b>FPA-038</b> Vimpex 24V White Sounder Beacon Red Lens Dimensions: Ø 80mm x (D) 85mm Flash Rate: 60 per minute Sound Output: 80-100dBA</p>	 <p><b>FPA-100</b> Vimpex IP66 24V Red Sounder Beacon Red Lens Dimensions: Ø 80mm x (D) 109mm Flash Rate: 60 per minute Sound Output: 80-100dBA</p>
 <p><b>FPA-101</b> Vimpex IP66 24V Red Sounder Beacon Clear Lens Dimensions: Ø 80mm x (D) 109mm Flash Rate: 60 per minute Sound Output: 80-100dBA</p>	 <p><b>FPA-102</b> Vimpex IP66 24V White Sounder Beacon Red Lens Dimensions: Ø 80mm x (D) 109mm Flash Rate: 60 per minute Sound Output: 80-100dBA</p>	 <p><b>FPA-342</b> Vimpex 24V LED Beacon Red Lens Dimensions: Ø 92mm x (D) 65mm Flash Rate: 60 per minute</p>	 <p><b>FPA-344</b> Vimpex 24V Red 6" Bell and Beacon Clear Lens Dimensions: Ø 150mm x (D) 65mm Flash Rate: 30 or 60 per minute options Sound Output: 95dBA</p>	 <p><b>FPA-570</b> Cranford 24V Red Sounder Beacon Red Lens Dimensions: Ø 94mm x (D) 85mm Flash Rate: 60 per minute Sound Output: Selectable from 80-99dBA</p>	 <p><b>FPA-572</b> Cranford 24V White Sounder Beacon Red Lens Dimensions: Ø 94mm x (D) 85mm Flash Rate: 60 per minute Sound Output: Selectable from 80-99dBA</p>
 <p><b>FPA-574</b> Cranford 24V Red Sounder Beacon Red Lens (Deep Base) Dimensions: Ø 93mm x (D) 100.5mm Flash Rate: 60 per minute Sound Output: Selectable from 80-99dBA</p>	 <p><b>FPA-576</b> Cranford 24V White Sounder Beacon Red Lens (Deep Base) Dimensions: Ø 93mm x (D) 100.5mm Flash Rate: 60 per minute Sound Output: Selectable from 80-99dBA</p>	 <p><b>FPA-579</b> Cranford 24V White Sounder Beacon Base Clear Lens Dimensions: Ø 115mm x (D) 41mm Flash Rate: 60 per minute Sound Output: Selectable from 89-93dBA</p>	 <p><b>FPA-579/CAP</b> Cranford White Locking Cap to suit FPA-579 Dimensions: Ø 115mm x (D) 10mm</p>	 <p><b>FPA-581</b> Cranford 24V Beacon Red Base/Red Lens Dimensions: Ø 94mm x (D) 58mm Flash Rate: 60 per minute</p>	 <p><b>FPA-582</b> Cranford 24V Beacon White Base/Red Lens Dimensions: Ø 94mm x (D) 58mm Flash Rate: 60 per minute</p>
 <p><b>FPA-583</b> Cranford 24V Beacon Red Base/Red Lens (Deep Base) Dimensions: Ø 94mm x (D) 73.5mm Flash Rate: 60 per minute</p>	 <p><b>FPA-584</b> Cranford 24V Beacon White Base/Red Lens (Deep Base) Dimensions: Ø 94mm x (D) 73.5mm Flash Rate: 60 per minute</p>	 <p><b>FPA-669</b> Bardic 24V Sounder VAD Red Base Red Lens Dimensions: Ø 100mm x (D) 98mm Flash Rate: 30 per minute Sound Output: Selectable from 91.5-102dBA</p>	 <p><b>FPA-671</b> Bardic 24V W &amp; C Class VAD Red Base Red Flash Dimensions: Ø 100mm x (D) 72mm Flash Rate: 30 per minute</p>		




# Power Supplies




**FPA-054**  
24V 250mA Unregulated Door Release Power Supply Unit (on 2 Gang Plate)  
Batteries Required: N/A  
Dimensions: (W) 147mm x (H) 87mm x (D) 39mm



**FPA-299**  
24V 0.7A Regulated Power Supply Unit (with Integral Switching Load Relay)  
Batteries Required: N/A  
Dimensions: (W) 165mm x (H) 95mm x (D) 40mm



**FPA-384**  
12V 2A EN54 Power Supply Unit (Plastic Enclosure)  
Batteries Required: 1 x 12V 7Ah  
Dimensions: (W) 380mm x (H) 235mm x (D) 96mm




**FPA-385**  
24V 1.5A EN54 Power Supply Unit (Plastic Enclosure)  
Batteries Required: 2 x 12V 3.4Ah  
Dimensions: (W) 380mm x (H) 235mm x (D) 96mm


- Features**
- Low current consumption
  - Deep discharge battery protection and EN54-4/A2 compliant reporting battery impedance faults
  - Single-pole Volt-free changeover relay that switches for any fault condition
  - Three LED indicators - supply present, general fault and aux fault
  - Link selectable battery charging capacity
  - Environmentally-friendly charging circuit




**FPA-386**  
24V 3A EN54 Power Supply Unit (Plastic Lid/Metal Back Box)  
Batteries Required: 2 x 12V 7Ah  
Dimensions: (W) 465mm x (H) 290mm x (D) 103mm



**FPA-387**  
24V 3A EN54 Power Supply Unit (Metal Enclosure)  
Batteries Required: 2 x 12V 12Ah  
Dimensions: (W) 404mm x (H) 404mm x (D) 110mm



**FPA-389**  
24V 5A EN54 Power Supply Unit (Metal Enclosure)  
Batteries Required: 2 x 12V 17Ah  
Dimensions: (W) 404mm x (H) 404mm x (D) 110mm



**FPA-391**  
24V 2A Unregulated Door Release Power Supply Unit (Plastic Enclosure)  
Batteries Required: N/A  
Dimensions: (W) 405mm x (H) 267mm x (D) 92mm

# Valve-Regulated Lead Acid Batteries



**FPA-069**  
12V 1.2Ah Sealed Valve Regulated Lead Acid Battery  
Dimensions: (L) 97mm x (W) 45mm x (H) 54mm



**FPA-070**  
12V 2.1Ah Sealed Valve Regulated Lead Acid Battery  
Dimensions: (L) 178mm x (W) 34mm x (H) 64mm



**FPA-071**  
12V 3.2Ah Sealed Valve Regulated Lead Acid Battery  
Dimensions: (L) 178mm x (W) 34mm x (H) 64mm



**FPA-072**  
12V 4Ah Sealed Valve Regulated Lead Acid Battery  
Dimensions: (L) 90mm x (W) 70mm x (H) 106mm

- Features**
- Superb recovery from deep discharge
  - Electrolyte suspension system
  - Gas recombination
  - Superior energy density
  - Lead calcium grids for extended life
  - Sealed construction ensures no electrolyte leakage from case or terminals
  - Virtually maintenance free
  - Float or cyclic use



**16-508**  
12V 7Ah Sealed Valve Regulated Lead Acid Battery  
Dimensions: (L) 151mm x (W) 65mm x (H) 95mm



**FPA-074**  
12V 12Ah Sealed Valve Regulated Lead Acid Battery  
Dimensions: (L) 151mm x (W) 98mm x (H) 95mm



**FPA-075**  
12V 17Ah Sealed Valve Regulated Lead Acid Battery  
Dimensions: (L) 181mm x (W) 76mm x (H) 176mm



**FPA-076**  
12V 24Ah Sealed Valve Regulated Lead Acid Battery  
Dimensions: (L) 175mm x (W) 166mm x (H) 126mm



**FPA-077**  
12V 38Ah Sealed Valve Regulated Lead Acid Battery  
Dimensions: (L) 197mm x (W) 165mm x (H) 170mm

# Electromagnetic Door Retainers

## Features

### Door Retainers & Closer:

- Manual release button
- Provided complete with keeper plate
- Rapid and easy installation
- Simple to use
- 200N and 500N versions available
- Suitable for use in care homes, residential homes, schools, colleges, hospitals, clinics, municipal buildings, libraries, museums, theatres, clubs and hotels

### Acoustic Door Retainer:

- 200N holding force
- Easily installed and programmed
- Learns the sound of the fire alarm
- 12 months battery life from 2'C' cells
- Low battery warning
- Manual release button




**FPA-016**  
230V AC Door Retainer  
Plastic Enclosure  
Holding Force:  
200N  
Current Consumption:  
12mA  
Dimensions:  
(L) 95mm x (W) 87mm x (D) 46mm



**FPA-017**  
24V DC Door Retainer  
Plastic Enclosure  
Holding Force:  
200N  
Current Consumption:  
50mA  
Dimensions:  
(L) 95mm x (W) 87mm x (D) 46mm  
*\* Requires separate power supply*



**FPA-368**  
24V DC Door Retainer  
Plastic Enclosure  
Holding Force:  
450N  
Current Consumption:  
50mA  
Dimensions:  
(L) 95mm x (W) 87mm x (D) 46mm  
*\* Requires separate power supply*



**FPA-369**  
Floor Mounting Bracket  
Suitable For Use With:  
FPA-016  
FPA-017  
FPA-368  
Dimensions:  
(L) 108mm x (W) 98mm x (D) 50mm



**FPA-378**  
24V DC Door Retainer  
Cast Aluminium Enclosure  
Holding Force:  
200N  
Current Consumption:  
45mA  
Dimensions:  
(L) 96mm x (W) 110mm x (D) 96mm  
*\* Requires separate power supply*



**FPA-382**  
24V DC Short Pole Mounted  
Door Retainer Steel Enclosure  
Holding Force:  
500N  
Current Consumption:  
47mA  
Dimensions:  
(L) 183mm x (W) 128mm  
*\* Requires separate power supply*



**FPA-383**  
24V DC Long Pole Mounted  
Door Retainer Steel Enclosure  
Holding Force:  
500N  
Current Consumption:  
47mA  
Dimensions:  
(L) 283mm x (W) 128mm  
*\* Requires separate power supply*



**FPA-817**  
24V DC Door Closer (Silver Cover  
with Matching Arm)  
Closing Force:  
Closing force 4 to EN1154  
Current Consumption:  
90mA  
Dimensions:  
(L) 278mm x (W) 60mm x (D) 46mm  
*\* Requires separate power supply*



**FPA-941**  
Wireless Acoustic Door Retainer  
Plastic Enclosure  
Holding Force:  
200N  
Batteries Required:  
2 x 'C' cells (12 months life)  
Dimensions:  
(L) 118mm x (W) 102mm x (D) 66mm

# Fire & Safety Signage

## Rigid Photoluminescent Fire & Safety Identification Signs

 <p><b>FPA-780</b> Water Fire Extinguisher ID Sign Dimensions: (H)200mm x (W) 75mm</p>	 <p><b>FPA-781</b> CO<sup>2</sup> Fire Extinguisher ID Sign Dimensions: (H)200mm x (W) 75mm</p>	 <p><b>FPA-782</b> ABC Powder Fire Extinguisher ID Sign Dimensions: (H)200mm x (W) 75mm</p>	 <p><b>FPA-783</b> Foam Fire Extinguisher ID Sign Dimensions: (H)200mm x (W) 75mm</p>	 <p><b>FPA-784</b> Metal Fires Fire Extinguisher ID Sign Dimensions: (H)200mm x (W) 75mm</p>	 <p><b>FPA-785</b> Wet Chemical Fire Extinguisher ID Sign Dimensions: (H)200mm x (W) 75mm</p>	 <p><b>FPA-786</b> Fire Blanket ID Sign Dimensions: (H)200mm x (W) 75mm</p>
 <p><b>FPA-787</b> Water Fire Extinguisher ID Sign Dimensions: (H)105mm x (W) 155mm</p>	 <p><b>FPA-788</b> CO<sup>2</sup> Fire Extinguisher ID Sign Dimensions: (H)105mm x (W) 155mm</p>	 <p><b>FPA-789</b> Foam Fire Extinguisher ID Sign Dimensions: (H)105mm x (W) 155mm</p>	 <p><b>FPA-790</b> ABC Powder Fire Extinguisher ID Sign Dimensions: (H)105mm x (W) 155mm</p>	 <p><b>FPA-791</b> Metal Fires Fire Extinguisher ID Sign Dimensions: (H)105mm x (W) 155mm</p>	 <p><b>FPA-792</b> Wet Chemical Fire Extinguisher ID Sign Dimensions: (H)105mm x (W) 155mm</p>	 <p><b>FPA-793</b> Fire Blanket ID Sign Dimensions: (H)105mm x (W) 155mm</p>
 <p><b>FPA-794</b> Fire Hose Reel ID Sign Dimensions: (H)105mm x (W) 155mm</p>	 <p><b>FPA-809</b> Fire Action Notice ID Sign Dimensions: (H)200mm x (W) 150mm</p>	 <p><b>FPA-812</b> Fire Point ID Sign Dimensions: (H)200mm x (W) 150mm</p>	 <p><b>FPA-813</b> Fire Alarm ID Sign Dimensions: (H)200mm x (W) 150mm</p>	 <p><b>FPA-814</b> Fire Alarm ID Sign Dimensions: (H)100mm x (W) 100mm</p>	 <p><b>FPA-815</b> Fire Hose Reel ID Sign Dimensions: (H)200mm x (W) 150mm</p>	 <p><b>FPA-816</b> Fire Extinguisher ID Sign Dimensions: (H)200mm x (W) 150mm</p>

## Rigid Photoluminescent Fire Exit Direction Signs

 <p><b>FPA-795</b> Fire Exit Sign Arrow Left Dimensions: (H)125mm x (W) 380mm</p>	 <p><b>FPA-796</b> Fire Exit Sign Arrow Right Dimensions: (H)125mm x (W) 380mm</p>	 <p><b>FPA-797</b> Fire Exit Sign Arrow Up Dimensions: (H)125mm x (W) 380mm</p>	 <p><b>FPA-798</b> Fire Exit Sign Arrow Down Dimensions: (H)125mm x (W) 380mm</p>	 <p><b>FPA-799</b> Fire Exit Sign Arrow Up &amp; Left Dimensions: (H)125mm x (W) 380mm</p>	 <p><b>FPA-800</b> Fire Exit Sign Arrow Up &amp; Right Dimensions: (H)125mm x (W) 380mm</p>
 <p><b>FPA-801</b> Fire Exit Sign Arrow Down &amp; Left Dimensions: (H)125mm x (W) 380mm</p>	 <p><b>FPA-802</b> Fire Exit Sign Arrow Down &amp; Right Dimensions: (H)125mm x (W) 380mm</p>	 <p><b>FPA-803</b> Fire Exit Sign Running Man Left Dimensions: (H)125mm x (W) 380mm</p>	 <p><b>FPA-804</b> Fire Exit Sign Running Man Right Dimensions: (H)125mm x (W) 380mm</p>	 <p><b>FPA-805</b> Fire Exit Sign Running Man Left Dimensions: (H)125mm x (W) 380mm</p>	 <p><b>FPA-806</b> Fire Exit Sign Running Man Right Dimensions: (H)125mm x (W) 380mm</p>

## Rigid Photoluminescent Fire & Safety Actions Direction Signs

 <p><b>FPA-807</b> Action Sign Push Bar to Open Dimensions: (H)150mm x (W) 450mm</p>	 <p><b>FPA-808</b> Action Sign Push Bar to Open Dimensions: (H)100mm x (W) 300mm</p>	 <p><b>FPA-810</b> Action Sign Fire Door Keep Shut Dimensions: (H)100mm x (W) 100mm</p>	 <p><b>FPA-811</b> Action Sign Keep Clear Fire Exit Dimensions: (H)150mm x (W) 450mm</p>
---	---	--	--



## Two-Wire Fire Alarm Systems.

A range of fire alarm systems to give the installer a host of benefits, including less cabling, quicker and more efficient installation and labour cost savings.





# Twin-Flex Pro Fire Alarm Panels



## Features

- Available in 2, 4 and 8 zone versions
- 4 line x 20 character LCD display
- Ability to differentiate between call-point or detector alarms
- Checkpoint alarm verification feature
- Highlighted selection menu
- Event log storing up to 500 events
- 3 enhanced test modes
- Allows detectors and sounders to be installed on the same pair of wires
- Up to 32 devices per zone
- Built-in end-of-line capability in all devices
- 7 modes of detection (3 forms of smoke detection, 3 forms of heat detection and 1 combined smoke and heat detection)
- Handy contractor kits available; consisting of a panel, 6 Multipoints, 2 call points and a head removal tool
- 1 to 5 minute variable time alarm delay feature enabling investigation of the cause of activation, thus eliminating false alarms

## Fire Alarm Panels

Cat No	Description	Max Battery Type & Size
FP-312	2 zone Twin-Flex Pro two-wire panel	2 x 3.2Ah (FPA-071)
FP-313	4 zone Twin-Flex Pro two-wire panel	2 x 3.2Ah (FPA-071)
FP-314	8 zone Twin-Flex Pro two-wire panel	2 x 3.2Ah (FPA-071)

• Batteries to be ordered separately

## Repeater Panel

Cat No	Description	Max Battery Type & Size
FPR-027	8 zone Twin-Flex Pro repeater panel	N/A

- Repeater panel is not suitable for use with 2 zone control panels
- Batteries to be ordered separately
- A separate PSU can be used to power repeaters

## Contractor Kits

Cat No	Description	Max Battery Type & Size
FP-024	2 zone Twin-Flex Pro contractor kit	2 x 3.2Ah (FPA-071)
FP-025	4 zone Twin-Flex Pro contractor kit	2 x 3.2Ah (FPA-071)
FP-087	8 zone Twin-Flex Pro contractor kit	2 x 3.2Ah (FPA-071)

- Contractor kits include 1 x panel, 6 x Multipoints, 2 call points and a detector head removal tool
- Batteries to be ordered separately

## Panel Accessories

Cat No	Description
FPA-210	Spare access keys to suit Twin-Flex Pro two-wire panels (pack of 2)

## Dimensions

Control Panels:  
Width 331mm x Height 331mm x Depth 99mm

Repeater Panels:  
Width 250mm x Height 140mm x Depth 85mm

## Construction

V2 rated ABS

## Ingress Rating

IP30

## Multipoint Modes of Detection

The multipoint detector is the key to the Twin-Flex Pro system and offers 7 modes of detection in 1 device. The mode of detection is changed simply by configuring the DIL switch in the detector's electronics module. The modes of detection are:

Smoke 1: Standard optical with high thermal enhancement for areas where fires need to be detected extremely quickly (typically used where ionisation detectors are normally fitted)

Smoke 2: Standard optical with normal thermal enhancement

Smoke 3: Low sensitivity optical with transient rejection. The reduced sensitivity linked with a time delay feature makes this setting ideal for use in areas that are prone to nuisance alarms

Heat 1: Used in normal, stable areas where a standard 58°C rate-of-rise heat detector would be used

Heat 2: 58°C fixed temperature heat (used in domestic kitchens)

Heat 3: 90°C fixed temperature heat (used in commercial kitchens and boiler rooms)

Smoked/Heat Combination: A combination of smoke 2 (optical) and heat 2 (58°C fixed temperature heat)



FPR-027



FP-024



FPA-210



## FPA-304 SHORT MESSAGE COMMUNICATOR

The **FPA-304** short message communicator provides a cost-effective, easy-to-install solution for signalling alarm and other system conditions by sending a SMS text message to the user using GSM technology. The unit ensures that key people are contacted the moment there is a status change in the system, enabling fast incident response. Call our sales team now for further details.

# Twin-Flex Pro Ancillaries

## Features

### Multipoints:

- Three smoke detection modes/three heat detection modes
- Modes can be changed before and after installation
- Available with or without an integral 90dBA sounder
- Compact and easy to install
- Intelligent, microprocessor controlled detector
- Continuous self-calibration
- Fully encapsulated electronics

### Sounders/Strobes:

- Four tone settings
- Anti-tamper feature
- Bayonet locking device

### Call Points:

- Resettable element
- Immediate full alarm when fire is detected in communal areas
- Features an LED and 20mm entries as standard



**FPA-755**

Weatherproof Resettable Call Point

Dimensions:  
 (L) 89mm x (H) 89mm  
 x (D) 71mm



**FPA-942**

Multipoint Detector c/w Sounder & Strobe

Dimensions:  
 Ø 107mm x (D) 75mm

Sound Output:  
 Low 70dBA  
 High 90dBA

Flash Rate:  
 60 per minute

See page 26 for modes of detection details



**FPA-1009**

Multipoint Detector c/w Sounder

Dimensions:  
 Ø 105mm x (D) 62mm

Sound Output:  
 Low 65dBA  
 High 89dBA

See page 26 for modes of detection details



**FPA-1010**

Multipoint Detector

Dimensions:  
 Ø 105mm x (D) 62mm

See page 26 for modes of detection details



**FPA-1011**

Call Point

Dimensions:  
 (L) 88mm x (H) 88mm  
 x (D) 52mm



**FPA-1011/COVER**

Protective Cover to suit FPA-1011 Call Point



**FPA-1011/KEY**

Pack of 5 Spare Keys to suit FPA-1011 Call Point



**FPA-1013**

Stand Alone Red Sounder

Dimensions:  
 Ø 103mm x (D) 62mm

Sound Output:  
 90dBA



**FPA-1014**

Stand Alone White Sounder

Dimensions:  
 Ø 103mm x (D) 62mm

Sound Output:  
 90dBA



**FPA-1015**

Input/Output Module

Dimensions:  
 (L) 148mm x (H) 88mm  
 x (D) 44mm



**FPA-1016/ASD**

Detector Head Removal Tool (Suitable for use with new style detectors only)



**FPA-1044**

Combined Sounder and Beacon with Red Lens

Dimensions:  
 Ø 105mm x (D) 45mm

Sound Output:  
 Low 65dBA  
 High 90dBA

Flash Rate:  
 60 per minute



**FPA-1046**

IP55 Industrial Horn Sounder

Dimensions:  
 Ø 105mm x (D) 62mm

Sound Output:  
 Low 65dBA  
 High 90dBA



**FPA-1047**

Red Square Sounder

Dimensions:  
 (L) 89mm x (H) 89mm  
 x (D) 62mm

Sound Output:  
 Low 65dBA  
 High 85dBA

# CFP Two-Wire Fire Alarm Panels



## Fire Alarm Panels

Cat No	Description	Max Battery Type & Size
FP-041	2 zone two-wire panel	2 x 3.2Ah (FPA-071)
FP-042	4 zone two-wire panel	2 x 3.2Ah (FPA-071)
FP-043	8 zone two-wire panel	2 x 3.2Ah (FPA-071)

• All fire alarm panels have 4 sounder circuits  
 • Batteries to be ordered separately

## Repeater Panel

Cat No	Description	Max Battery Type & Size
FPR-006	8 zone repeater panel	2 x 3.2Ah (FPA-071)

• Maximum of 8 repeater panels per system (network card required at main panel)  
 • Repeater panel is only suitable for use with standard panels and cannot be used with economy panels  
 • Batteries to be ordered separately

## Panel Accessories

Cat No	Description
FPA-198	1 gang keyswitch auxiliary device isolator
FPA-199	24V 5A keyswitch with buzzer
FPA-226	Network driver card (1 required per system)
FPA-227	Relay output card (provides reset, fault aux fire and remote relay outputs)
FPA-228	Relay output card (as per FPA-227 plus 8 output per zone relays)
FPA-260	Spare red key for conventional/addressable fire alarm panels
FPA-595	Spares pack inc. 8 x capacitors, 4 x resistors, 1 x fuse, 1 x battery link
FPA-996	4 zone monitored sounder extender 2 gang



### FPA-304 SHORT MESSAGE COMMUNICATOR

The **FPA-304** short message communicator provides a cost-effective, easy-to-install solution for signalling alarm and other system conditions by sending a SMS text message to the user using GSM technology. The unit ensures that key people are contacted the moment there is a status change in the system, enabling fast incident response. Call our sales team now for further details.

## Features

- Designed to comply with EN54 Parts 2 and 4
- Intuitive user-friendly interface with colour-coded buttons and combined keypad/keyswitch entry to access level 2
- Available with 2, 4 or 8 AlarmSense zone circuits (dependent on model purchased)
- 4 conventional sounder circuits (for use with non-AlarmSense sounders)
- Integral 1.5A EN54-4/A2 compliant switch mode PSU
- Wide range of engineering functions including zone test, coincidence, zone delay and non-latching zones
- 2 on-board relays (fire and fault)
- 2 open-collector outputs (remote and reset)
- 'Class change' and alert inputs
- Installer friendly design accommodates easy first fix and straight forward maintenance
- Low quiescent current
- Multiple indicators
- End of line units included (one per zone)
- Ancillary system expansion connections provided for up to 8 two-wire repeaters (1 FPA-226 network driver card required per system) and optional relay card
- Space for 2 x 12V 2.1Ah or 3.2Ah VRLA batteries
- Attractive flush or surface mountable plastic lid and enclosure (no bezel required)
- Third party LPCB tested

## Dimensions

Width 380mm x Height 235mm x Depth 96mm (Weight 1.75Kg without batteries)

## Construction

RAL7035 textured plastic lid and base

## Ingress Rating

IP30



FPR-006



FPA-071



FPA-198



FPA-199



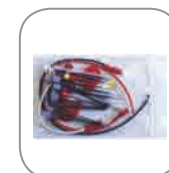
FPA-226



FPA-227/228



FPA-260



FPA-595



FPA-996

# AlarmSense® Two-Wire Devices

 <p><b>FPA-239</b> AlarmSense® A1R 57°C Rate-of-Rise Heat Detector Suitable Use: Dirty or smoky environments Dimensions: Ø100mm x 42mmH</p>	 <p><b>FPA-240</b> AlarmSense® A1R 57°C Rate-of-Rise Heat Detector &amp; Sounder Base Combination Suitable Use: Dirty or smoky environments Dimensions: Ø100mm x 82mmH Sound Output: 70-87dBA</p>	 <p><b>FPA-241</b> AlarmSense® CS 90°C Fixed Heat Detector Suitable Use: Kitchens or boiler rooms Dimensions: Ø100mm x 42mmH</p>	 <p><b>FPA-242</b> AlarmSense® CS 90°C Fixed Heat Detector &amp; Sounder Base Combination Suitable Use: Dirty or smoky environments Dimensions: Ø100mm x 82mmH Sound Output: 70-87dBA</p>	 <p><b>FPA-243</b> AlarmSense® Detector Base Suitable Use: Compatible with all AlarmSense® detectors Dimensions: Ø100mm x 8mmH</p>	 <p><b>FPA-244</b> AlarmSense® Alarm Relay Suitable Use: For connecting paging devices to alarm system Dimensions: 65mL x 45mmW x 25mmD</p>
 <p><b>FPA-245</b> AlarmSense® Optical Smoke Detector Suitable Use: Bedrooms and escape routes Dimensions: Ø100mm x 42mmH</p>	 <p><b>FPA-246</b> AlarmSense® Optical Smoke Detector &amp; Sounder Base Combination Suitable Use: Bedrooms and escape routes Dimensions: Ø100mm x 82mmH Sound Output: 70-87dBA</p>	 <p><b>FPA-247</b> AlarmSense® Integrating Optical Smoke Detector Suitable Use: Bedrooms and escape routes Dimensions: Ø100mm x 42mmH</p>	 <p><b>FPA-248</b> AlarmSense® Integrating Optical Smoke Detector &amp; Sounder Base Combination Suitable Use: Bedrooms and escape routes Dimensions: Ø100mm x 82mmH Sound Output: 70-87dBA</p>	 <p><b>FPA-249*</b> AlarmSense® MiniDisc Remote LED Indicator Suitable Use: Any AlarmSense® installation Dimensions: Ø80mm x 20mmH</p>	 <p><b>FPA-250†</b> AlarmSense® Sounder Base Suitable Use: Compatible with all AlarmSense® detectors Dimensions: Ø115mm x 40mmH Sound Output: 70-87dBA</p>
 <p><b>FPA-251†</b> AlarmSense® Sounder Visual Indicator Base Suitable Use: Compatible with all AlarmSense® detectors Dimensions: Ø115mm x 40mmH Sound Output: 70-87dBA Flash Rate: 60 per minute</p>	 <p><b>FPA-252</b> Red Cap to suit AlarmSense® Sounder Base &amp; Sounder Visual Indicator Base Suitable Use: For FPA-250 &amp; FPA-251 stand-alone use Dimensions: Ø100mm x 10mmH</p>	 <p><b>FPA-253</b> White Cap to suit AlarmSense® Sounder Base &amp; Sounder Visual Indicator Base Suitable Use: For FPA-250 &amp; FPA-251 stand-alone use Dimensions: Ø100mm x 10mmH</p>	 <p><b>FPA-254</b> AlarmSense® Surface Mounted Manual Call Point Suitable Use: Any AlarmSense® installation Dimensions: 88mmH x 88mmW x 59mmD</p>	 <p><b>FPA-255 Δ</b> AlarmSense® Combined Open Area Sounder &amp; Visual Indicator Suitable Use: Any AlarmSense® installation Dimensions: Ø104mm x 97.5mmH Sound Output: 70-87dBA Flash Rate: 60 per minute</p>	 <p><b>FPA-256 Δ</b> AlarmSense® Open Area Sounder Suitable Use: Any AlarmSense® installation Dimensions: Ø104mm x 97.5mmH Sound Output: Up to 90dBA</p>
 <p><b>FPA-257 Δ</b> AlarmSense® Visual Indicator Suitable Use: Any AlarmSense® installation Dimensions: Ø104mm x 97.5mmH Flash Rate: 60 per minute</p>	 <p><b>FPA-352</b> AlarmSense® Optical Smoke Detector &amp; Sounder Visual Indicator Base Combination Suitable Use: Bedrooms and escape routes Dimensions: Ø100mm x 82mmH Sound Output: 70-87dBA Flash Rate: 60 per minute</p>	 <p><b>FPA-353</b> AlarmSense® CS 90°C Fixed Heat Detector &amp; Sounder Visual Indicator Base Combination Suitable Use: Dirty or smoky environments Dimensions: Ø100mm x 82mmH Sound Output: 70-87dBA Flash Rate: 60 per minute</p>	 <p><b>FPA-354</b> AlarmSense® A1R 57°C Rate-of-Rise Heat Detector &amp; Sounder Visual Indicator Base Suitable Use: Dirty or smoky environments Dimensions: Ø100mm x 82mmH Sound Output: 70-87dBA Flash Rate: 60 per minute</p>	 <p><b>FPA-355</b> AlarmSense® Integrating Optical Smoke Detector &amp; Sounder Visual Indicator Base Suitable Use: Bedrooms and escape routes Dimensions: Ø100mm x 82mmH Sound Output: 70-87dBA Flash Rate: 60 per minute</p>	

\* Not for use with sounder base and sounder visual indicator combinations

† Requires either FPA-252 or FPA-253 for stand-alone use

Δ Cannot exceed 5 on each zone





## Addressable Fire Alarm Systems.

Intelligent fire alarm systems for increased control over monitoring and maintenance whilst reducing nuisance alarms as well as installation and labour costs.



# XFP Fire Alarm Panels

## Features

- LPCB certified to the latest versions of EN54 Parts 2 and 4
- Full compatibility with Apollo's XP95/Discovery protocols and Hochiki's ESP protocol
- Up to 8 XFP main panels (any variant) can be interconnected onto a two wire RS485 network. Alternatively, up to 8 XFP repeaters can be connected to a non-networked XFP main panel
- Combined keypad/keyswitch entry to access levels 2 & 3
- Integral EN54-4/A2 compliant switch mode PSU rated at 185-260V a.c. 50/60Hz (1.4A on a 16 zone panel/3A on a 32 zone panel)
- 2 independently programmable conventional sounder circuits
- 2 programmable inputs
- Fault output relay and 3 programmable relay outputs with Voltage free changeover contacts
- 3 zone dependency functions (A, B and C to EN54-2 clause 7.12)
- Day/night (building occupied/unoccupied) function
- Optional flush-mounting stainless steel enclosures available for 32 zone XFP panels
- An investigation delay period function
- Earth fault monitoring
- Easy to read, 80 character back-lit display
- Individual sensitivity settings for each device
- Phased evacuation and delays to outputs facility (to EN54-2 clause 7.11)
- 999 event monitoring
- Alarm counter that records the number of times the panel has been in an alarm state (to EN54-2 clause 7.13)
- Powerful short circuit protected loop drivers, capable of supporting up to 40 loop powered 10mA sounders per loop
- 40 characters of custom text per device
- Comprehensive test facilities (to EN54-2 clause 10) and a wide range of maintenance and commissioning functions including auto-learn loops, monitor a point, test outputs, one man walk test and loop continuity test
- Intuitive Windows based upload-download PC program that allows the system to be programmed quickly and easily



## Fire Alarm Panels & Repeater Panels

Cat No	Description	Max Battery Type & Size
FP-044	1 loop 16 zone addressable panel (Hochiki ESP)	2 x 3.2Ah (FPA-071)
FP-045	1 loop 16 zone addressable panel (XP95/Discovery)	2 x 3.2Ah (FPA-071)
FP-046	1 loop 32 zone addressable panel (Hochiki ESP)	2 x 7Ah (16-508)
FP-047	1 loop 32 zone addressable panel (XP95/Discovery)	2 x 7Ah (16-508)
FP-048	2 loop 32 zone addressable panel (Hochiki ESP)	2 x 7Ah (16-508)
FP-049	2 loop 32 zone addressable panel (XP95/Discovery)	2 x 7Ah (16-508)
FPR-007	16 zone repeater panel (all protocols)	2 x 3.2Ah (FPA-071)
FPR-008	32 zone repeater panel (all protocols)	2 x 7Ah (16-508)

- Maximum of 8 repeater panels per system (network card required at main panel)
- Batteries to be ordered separately
- FPR-007 dimensions are the same as FP-044/FP-045
- FPR-008 dimensions are the same as FP-046/FP-047

## Panel Accessories

Cat No	Description
FPA-198	1 gang keyswitch auxiliary device isolator
FPA-199	24V 5A keyswitch with buzzer
FPA-226	Network driver card (1 required per system) for 16 zone addressable panels
FPA-260	Spare red key for conventional/addressable fire alarm panels
FPA-262	Network communication card for 32 zone addressable panels
FPA-305	Stainless steel glazed enclosure (for 32 zone main/repeater panels only)
FPA-406	Recessing bezel to suit 32 zone main/repeater panels
FPA-429	Upload/download software kit & 2m lead (suitable for use with Windows 98, 2000, XP/Vista, Windows 7 & 8)
FPA-596	2 metre programming lead only
FPA-996	4 zone monitored sounder extender 2 gang

- FPA-226 or FPA-262 are required per repeater system
- FPA-260 is compatible with single loop panels only

## FPA-304 SHORT MESSAGE COMMUNICATOR

The FPA-304 short message communicator provides a cost-effective, easy-to-install solution for signalling alarm and other system conditions by sending a SMS text message to the user using GSM technology. The unit ensures that key people are contacted the moment there is a status change in the system, enabling fast incident response. Call our sales team now for further details.



### 1 Loop 16 Zone Panel Dimension Details

#### Dimensions

Back Box: Width 380mm x Height 235mm x Depth 77mm  
 Lid: Width 380mm x Height 235mm x Depth 16mm  
 Cut-Out Dimensions: Width 367mm x Height 220mm x Depth 75mm  
 Weight: 1.8Kg (without batteries)

#### Construction

Plastic lid and base

#### Ingress Rating

IP30

### 1 or 2 Loop 32 Zone Panel Dimension Details

#### Dimensions

Back Box: Width 410mm x Height 250mm x Depth 80mm  
 Lid: Width 439mm x Height 274mm x Depth 7mm  
 Cut-Out Dimensions: Width 412mm x Height 255mm x Depth 50mm (use FPA-406 to flush panel)  
 Weight: 4.5Kg (without batteries)

#### Construction

Metal lid and base

#### Ingress Rating

IP30

# ZFP Touchscreen Fire Alarm Panels



## Features

- Intuitive user-friendly full colour touchscreen with dynamic buttons and virtual QWERTY keypad
- EN54 parts 2 & 4 compliant
- 3 cabinet sizes
- Optional compact controllers for reception areas
- Up to 8 loops per panel (4 in standard cabinet) Please contact sales if 8 loops is required
- Up to 64 eight loop peer-to-peer panel network capacity
- Hi-integrity fault-tolerant network
- Very flexible cause and effects
- Wide range of switch and indicator modules
- Multiple 'A-Bus' expansion PCBs (I/O units, relays etc)
- Up to 200 separate and programmable zonal LEDs per panel (medium and large cabinets only)
- 10,000 programmable and indicatable detection zones
- Up to 38 characters of custom text per loop device
- Automatic daylight saving (BST/GMT) mode
- Powerful engineering functions including SafeMode and DeviceManager
- Compatible with Apollo's XP95/Discovery protocols
- 20,000+ event memory (filterable by fire, fault and date)
- 72 hour standby (plus 30 minutes alarm running) in standard cabinets
- Powerful PC programming tools allow panels to be easily configured to suit any application, from small 'one out, all out' systems to large multi-loop networked systems
- Non-fire supervisory event functionality
- Optional thermal printers
- Well designed cabinets with easily removable electronics chassis
- 20 way heavy duty brass earth bar as standard
- Built-in loop status and current reading
- Attractive compact controllers
- Wide range of flush-fit bezels and attractive glazed stainless steel frames
- Wide range of supported languages

## Fire Alarm Panels

Cat No	Description	Max Battery Type & Size
FP-088	2 loop panel c/w 1 blank module (standard cabinet)	2 x 17Ah (FPA-075)
FP-089	4 loop panel c/w 1 blank module (standard cabinet)	2 x 17Ah (FPA-075)
FP-090	2 loop panel c/w 3 blank modules (medium cabinet)	2 x 38Ah (FPA-077)
FP-091	4 loop panel c/w 3 blank modules (medium cabinet)	2 x 38Ah (FPA-077)
FP-092	2 loop panel c/w 5 blank modules (large cabinet)	2 x 38Ah (FPA-077)
FP-093	4 loop panel c/w 5 blank modules (large cabinet)	2 x 38Ah (FPA-077)

- FP-088 and FP-089 control module, 1 x 2 loop main PCB and 1 x 3A EN54 caged power supply unit
- FP-090, FP-091, FP-092 AND FP-093 includes control module, 1 x 2 loop main PCB and 1 x 5A EN54 caged power supply unit
- Batteries to be ordered separately

## Compact Controllers

Cat No	Description
FP-094	Flush mounted compact controller (supplied c/w FP-096)
FP-095	Surface mounted compact controller (supplied c/w FP-096)

- Each compact controller requires a separate EN54-4/A2 boxed power supply unit
- If using a compact controller, a separate FP-096 must be fitted at main panel

## Flush-Fitting Bezels

Cat No	Description
FP-110	Painted steel flush-fitting to suit FP-088 or FP-089
FP-111	Painted steel flush-fitting to suit FP-090 or FP-091
FP-112	Painted steel flush-fitting to suit FP-092 or FP-093
FP-113	Glazed stainless steel frame to suit FP-088 or FP-089

## Dimensions

Standard Cabinet:  
Width 450mm x Height 462mm x Depth 127mm

Medium Cabinet:  
Width 450mm x Height 720mm x Depth 200mm

Large Cabinet:  
Width 450mm x Height 960mm x Depth 200mm

Compact Controllers:  
Width 214mm x Height 178mm x Depth 70mm

**Construction**  
RAL7035 light grey textured epoxy coated mild steel

**Ingress Rating**  
IP30

**Loop Capacity**  
Standard Cabinet: 2 or 4 loops  
Medium Cabinet: 2, 4, 6 or 8 loops  
Large Cabinet: 2, 4, 6 or 8 loops



## FPA-304 SHORT MESSAGE COMMUNICATOR

The **FPA-304** short message communicator provides a cost-effective, easy-to-install solution for signalling alarm and other system conditions by sending a SMS text message to the user using GSM technology. The unit ensures that key people are contacted the moment there is a status change in the system, enabling fast incident response. Call our sales team now for further details.



# ZFP Panel Accessories

All ZFP Systems Require  
1 x Standard, Medium  
or Large Panel



Includes 1 x cabinet and the following parts:

- Control module c/w touchscreen, access keyswitch & 16 LEDs
- 2 loop main PCB
- 3A caged PSU (standard panels) or 5A caged PSU (medium or large panels)

Optional Extra



FP-096

Multipath RS485 Fault Tolerant Network PCB

One required for networking multiple ZFP panels and/or compact controllers

Events (fires, faults, disabements, tests) and actions (silence/resound sounders, reset) can be accepted over the network

Zones, input groups, output groups etc can be shared over the network

Optional Extra



FP-097

4 Relay A-BUS PCB (Half Size)

One can be used if a FP-096 has already been selected for the system

Two can be used if a FP-096 has not been selected for the system

Optional Extra



FP-098

8 Relay A-BUS PCB (Full Size)

One can be used if a FP-096 has not been selected for the system

Optional Extra



FP-099

8 Input/Output PCB (Half Size)

One can be used if a FP-096 has already been selected for the system

Two can be used if a FP-096 has not been selected for the system

Optional Extra



FP-100

16 Input/Output PCB (Full Size)

One can be used if a FP-096 has not been selected for the system

Switch & Indicator Module  
(see below for selection details)



FP-101

20 Zone Indicator Module c/w Name Slots

1 of the switch and indicator modules must be chosen from the associated list of products if using a standard panel

3 of the switch and indicator modules must be chosen from the associated list of products if using a medium panel

5 of the switch and indicator modules must be chosen from the associated list of products if using a large panel

Switch & Indicator Module  
(see below for selection details)



FP-102

20 Zone Indicator Module c/w 10 Bi-Colour Function LEDs, 5 Switches & Name Slots

1 of the switch and indicator modules must be chosen from the associated list of products if using a standard panel

3 of the switch and indicator modules must be chosen from the associated list of products if using a medium panel

5 of the switch and indicator modules must be chosen from the associated list of products if using a large panel

Switch & Indicator Module  
(see below for selection details)



FP-103

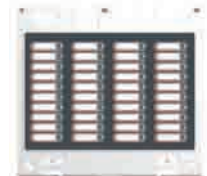
20 Zone Indicator Module c/w Printer, 2 Switches, 4 Bi-Colour LEDs & Name Slots

1 of the switch and indicator modules must be chosen from the associated list of products if using a standard panel

3 of the switch and indicator modules must be chosen from the associated list of products if using a medium panel

5 of the switch and indicator modules must be chosen from the associated list of products if using a large panel

Switch & Indicator Module  
(see below for selection details)



FP-104

40 Zone Indicator Module c/w Name Slots

1 of the switch and indicator modules must be chosen from the associated list of products if using a standard panel

3 of the switch and indicator modules must be chosen from the associated list of products if using a medium panel

5 of the switch and indicator modules must be chosen from the associated list of products if using a large panel

Switch & Indicator Module  
(see below for selection details)



FP-105

40 Zone Indicator Module c/w 5 Switches & 10 Bi-Colour Function LEDs

1 of the switch and indicator modules must be chosen from the associated list of products if using a standard panel

3 of the switch and indicator modules must be chosen from the associated list of products if using a medium panel

5 of the switch and indicator modules must be chosen from the associated list of products if using a large panel

Switch & Indicator Module  
(see below for selection details)



FP-106

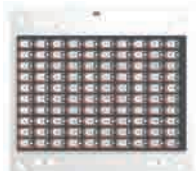
40 Zone Indicator Module c/w Printer, 2 Switches, 4 Bi-Colour LEDs

1 of the switch and indicator modules must be chosen from the associated list of products if using a standard panel

3 of the switch and indicator modules must be chosen from the associated list of products if using a medium panel

5 of the switch and indicator modules must be chosen from the associated list of products if using a large panel

Switch & Indicator Module  
(see below for selection details)



FP-107

100 Zone Indicator Module (Numbered 1 to 100)

1 of the switch and indicator modules must be chosen from the associated list of products if using a standard panel

3 of the switch and indicator modules must be chosen from the associated list of products if using a medium panel

5 of the switch and indicator modules must be chosen from the associated list of products if using a large panel

Switch & Indicator Module  
(see below for selection details)



FP-108

100 Zone Indicator Module (Numbered 101 to 200)

3 of the switch and indicator modules must be chosen from the associated list of products if using a medium panel

5 of the switch and indicator modules must be chosen from the associated list of products if using a large panel

\* For use with medium and large panels only

All ZFP Systems Require  
Programming Tools



FP-109

PC Programming Tools & Software



# DXC Fire Alarm Panels



## Fire Alarm Panels

Cat No	Description	Max Battery Type & Size
FP-010	1 loop DXC1 addressable panel (no zone LEDs)	2 x 7Ah (16-508)
FP-011	2 loop DXC2 addressable panel (no zone LEDs)	2 x 17Ah (FPA-075)
FP-012	4 loop DXC4 addressable panel (no zone LEDs)	2 x 17Ah (FPA-075)
FPA-162	DXC/ZX active repeater panel	N/A
FPA-163	DXC/ZX passive repeater panel	N/A

• Batteries to be ordered separately

## Flush Bezel Kits

Cat No	Description
FPA-212	Flush bezel kit to suit FP-010
FPA-213	Flush bezel kit to suit FP-011 and FP-012

## Expansion/Communication Cards

Cat No	Description
FPA-216	40 zone LED card (inc. PCB, ribbon cable, number label and fixings)
FPA-217	80 zone LED card (inc. PCB, ribbon cable, number label and fixings)
FPA-218	Network card to connect panels (1 required per panel)
FPA-219	Compact mimic driver (expandable up to 9 mimic boards)



### FPA-304 SHORT MESSAGE COMMUNICATOR

The **FPA-304** short message communicator provides a cost-effective, easy-to-install solution for signalling alarm and other system conditions by sending a SMS text message to the user using GSM technology. The unit ensures that key people are contacted the moment there is a status change in the system, enabling fast incident response. Call our sales team now for further details.

## Features

- Supports Apollo Xplorer, XP95 and Discovery and Hochiki ESP protocols
- Network up to 16 loops (16 x 1 loop panels, 8 x 2 loop panels, 4 x 4 loop panels or any mix up to max 16 loops)
- True peer-to-peer and fault tolerant network for high system reliability
- BS5839 part 1 compliant network
- Disable all relays feature
- Optional 40, 80 or 160 zone alarm LEDs
- Easy 5 key-press set-up
- Large blue LCD display
- Supports USB upload/download
- Alpha-numeric style keypad and navigation keys
- Option to upload a company logo
- 160 zone compact mimic support
- Panel buzzer 'mute' in engineering mode
- Up to 72 hour standby
- PC configuration software (supplied with panel)
- 80 fire zones (can be used with or without LEDs)
- 7 day timers
- Event logging
- On-board diagnostics
- Class change function
- Coincidence and verification detection for false alarm management
- Sensitivity adjustment e.g. between day and night
- Input/output logic
- Enhanced zone support up to 160 LEDs
- Type B dependency
- Alternative zone referencing scheme
- Battery backed real-time clock (2 & 4 loop)
- 2 independent sounder circuits
- 500mA multi-protocol loop driver
- 2 x onboard monitored inputs
- Optional programmable keyswitch for selected functions
- Plug-in connectors
- Single pole changeover 24V DC 1A fire relay
- Single pole changeover 24V DC 1A fault relay
- Programmable single pole changeover 24V DC 1A auxiliary relay
- 2 output circuits, 1A per circuit

## Dimensions

### FP-010

Width 390mm x Height 260mm x Depth 147mm (Weight 4Kg without batteries)

### FP-011 & FP-012:

Width 390mm x Height 392mm x Depth 147mm (Weight 4.5Kg without batteries)

## Construction

Sheet steel with RAL9002 grey white finish

## Ingress Rating

IP30

# ZX Fire Alarm Panels

## Features

- All major device manufacturers devices supported
- Optional, local or remote printers
- Walk test facility
- Provide up to 72hr stand-by (subject to verification)
- Event logic – facilitates complex cross-panel programming
- Auto-learn facility allows rapid and accurate commissioning of devices
- Windows™ configuration tool allows off-site programming
- Facility to print history and event logs
- Shared Zone System - Each networked control panel shares information
- Report & Control System - For multiple building sites where information is presented at the local and master panels only
- A compliant fault tolerant network can be created using the additional, optional Hi-485 network card
- 99 panel network allows systems in excess of 60,000 devices to be managed
- 4 x 40 – Character LCD alphanumeric display with back-light
- Up to 200 zone LEDs (by special request)
- Up to 10 individual level 2 user access codes
- Optional lockable glass door – provides added security/ protection
- Multi-protocol
- Easy to install
- Modular concept
- Easy to maintain
- Simple, robust design to EN54 Parts 2 & 4
- Easy to expand
- Intuitive to use
- Easy to network
- Easy to configure



## Fire Alarm Panels & Repeater Panels

Cat No	Description	Max Battery Type & Size
FP-030	1 loop ZX1Se addressable panel (no loop card)	2 x 12Ah (FPA-074)
FP-031	2 loop ZX2Se addressable panel (no loop cards)	2 x 12Ah (FPA-074)
FP-032	5 loop ZX5Se addressable panel (no loop cards)	2 x 24Ah (FPA-076)
FPA-162	DXC/ZX active repeater panel	N/A
FPA-163	DXC/ZX passive repeater panel	N/A

- Batteries to be ordered separately
- 1 and 2 loop versions have 2 sounder outputs, 5 loop versions have 4 sounder outputs
- Repeater panels require 24V power supply unit and RS485 communication card

## Panel Accessories

Cat No	Description
FPA-149	RS232 communication module (used with FP-031 and FP-032 only)
FPA-150	RS485 communication module
FPA-153	Internal printer (used with FP-032 only)
FPA-161	Hi-485 communication module
FPA-188	Apollo XP95/Discovery loop card 460mA
FPA-190	Hochiki ESP loop card 460mA
FPA-191	System Sensor ESP loop card 460mA
FPA-444	Interface lead for programming all Morley-IAS panels
FPA-445	USB to RS232 converter lead (upload/download serial port to USB)
FPA-446	Level 1 software key for Fire 6 software
FPA-447	Engineers software programming kit (inc. configuration tools)
FPA-448	Battery box to suit FP-030 and FP-031 panels
FPA-449	Battery box to suit FP-032 panel
FPA-453	Glass door kit to suit FP-030 and FP-031 panels
FPA-454	Glass door kit to suit FP-032 panel

## Dimensions

FP-030 & FP-031:  
Width 400mm x Height 400mm x Depth 135mm (Weight 10Kg without batteries)

FP-032:  
Width 500mm x Height 500mm x Depth 195mm (Weight 20Kg without batteries)

## Construction

Sheet steel with RAL9002 grey white finish

## Ingress Rating

IP30

## Loop Capacity

126 devices per loop Apollo, Hochiki and Nittan protocols  
198 devices per loop System Sensor and Morley protocols

## FPA-304 SHORT MESSAGE COMMUNICATOR

The **FPA-304** short message communicator provides a cost-effective, easy-to-install solution for signalling alarm and other system conditions by sending a SMS text message to the user using GSM technology. The unit ensures that key people are contacted the moment there is a status change in the system, enabling fast incident response. Call our sales team now for further details.



# Sentri Fire Alarm Panels



## Fire Alarm Panels

Cat No	Description	Max Battery Type & Size
FP-072	1 loop 16 zone panel (non-networkable)	2 x 7Ah (16-508)
FP-073*	1 to 2 loop 32 zone panel (networkable)	2 x 12Ah (FPA-074)
FP-083*	1 to 4 loop 32 zone panel (networkable)	2 x 17Ah (FPA-075)

• Batteries to be ordered separately  
 • Panels marked \* are supplied with 1 fitted loop card

## Repeater Panels

Cat No	Description
FPR-014	Fully functional loop controlled repeater panel c/w batteries
FPA-613	Recessing bezel to suit FPR-014 repeater panel

## Flush Bezel Kits

Cat No	Description
FPA-607	Recessing bezel to suit FP-072 panel
FPA-612	Semi-Recessing bezel to suit FP-073 panel
FPA-759	Recessing bezel to suit FP-083 panel

## Accessories

Cat No	Description
FPA-609	Network card to suit FP-073 panel
FPA-610	Loop card to suit FP-073 panel
FPA-615	Remote BS232 serial link hand-held printer
FPA-756	Loop card to suit FP-083 panel
FPA-757	Network card to suit FP-083 panel
FPA-758	Input/output card to suit FP-083 panel



### FPA-304 SHORT MESSAGE COMMUNICATOR

The **FPA-304** short message communicator provides a cost-effective, easy-to-install solution for signalling alarm and other system conditions by sending a SMS text message to the user using GSM technology. The unit ensures that key people are contacted the moment there is a status change in the system, enabling fast incident response. Call our sales team now for further details.

## Features

- Intuitive user interface and attractive appearance
- 1 loop panels support up to 127 devices, 2 and 4 loop panels support up to 200 devices per loop
- Designed for ease of use
- All devices connect onto the same two core loop, separate sounder wiring circuits are not required
- Devices can be added and system changes can be managed via the panel interface or the commissioning tool
- Specially developed commissioning tool to improve set-up and commissioning time
- Sentri devices are powered by the loop, requiring just one pair of cables to provide multi-sensors, sounders and strobes
- All the functionality of advanced sensing technology and powerful software processing
- Zonal LED indication on every panel provides compliance with BS 5839 Part 1
- Serial communication ports allow connectivity to paging and BMS systems with no additional interface hardware
- Simple user interface with LCD screen providing accurate information in an emergency
- Networks of up to 31 panels can be programmed seamlessly as one system
- 2 and 4 loop panels can be connected on the same network allowing flexibility of design
- Flexible programming options are available at the panel
- Back-lit LCD display presents clear indication of fire or fault location
- Software allows network areas to be sectorised to evacuate or alert status, or configured with pre-set delays
- A built in printer fitted to the SenTRI 4 can be used to print out device configurations, loop maps and historic logs. A menu option is available to turn off the printer when a printed record is not required
- Full compliance to EN54 parts 2 & 4

## Dimensions

FP-072  
 Width 347mm x Height 419mm x Depth 85.5mm (Weight 9.6Kg without batteries)

FP-073:  
 Width 338mm x Height 403mm x Depth 136mm (Weight 16.6Kg without batteries)

FP-083:  
 Width 406mm x Height 543mm x Depth 172mm (Weight 16.2Kg without batteries)































## Construction

Sheet steel back box with plastic cover

## Ingress Rating

IP30 (FP-072 and FP-083, IP31 FP-073)

# Sentri Addressable Devices

 <p><b>FPA-616</b> Sentri Optical Smoke Sensor</p> <p>Dimensions: Ø117mm x 39.8mmH</p>	 <p><b>FPA-617</b> Sentri Optical Smoke/Heat Sensor</p> <p>Dimensions: Ø117mm x 39.8mmH</p>	 <p><b>FPA-618</b> Sentri Optical Smoke/Heat Sensor &amp; Sounder</p> <p>Dimensions: Ø117mm x 39.8mmH Sound Output: 90dBA</p>	 <p><b>FPA-619</b> Sentri Optical Smoke/Heat Sensor &amp; Sounder Beacon</p> <p>Dimensions: Ø117mm x 39.8mmH Sound Output: 90dBA Flash Rate: 60 per minute</p>	 <p><b>FPA-620</b> Sentri Heat Sensor</p> <p>Dimensions: Ø117mm x 39.8mmH</p>	 <p><b>FPA-621</b> Sentri Heat Sensor &amp; Sounder</p> <p>Dimensions: Ø117mm x 39.8mmH Sound Output: 90dBA</p>
 <p><b>FPA-622</b> Sentri Heat Sensor &amp; Sounder Beacon</p> <p>Dimensions: Ø117mm x 39.8mmH Sound Output: 90dBA Flash Rate: 60 per minute</p>	 <p><b>FPA-623</b> Sentri Sensor Base</p> <p>Dimensions: Ø110mm x 24mmH</p>	 <p><b>FPA-625</b> Sentri Loop Powered Beam Sensor 2-100m</p> <p>Dimensions: Ø106mm x 50mmH</p>	 <p><b>FPA-626</b> Sentri Beam Sensor Angled Bracket &amp; Base</p> <p>Dimensions: 106mmW x 145mmH x 130mmD</p>	 <p><b>FPA-627</b> Sentri Beam Sensor Parallel Bracket &amp; Base</p> <p>Dimensions: 152mmW x 152mmH x 27mmD</p>	 <p><b>FPA-628</b> Sentri Break Glass Call Point (Requires FPA-675)</p> <p>Dimensions: 87mmW x 87mmH x 21mmD</p>
 <p><b>FPA-630</b> Sentri IP55 White Electronic Sounder c/w Isolator</p> <p>Dimensions: 112mmW x 112mmH x 90mmD Sound Output: 94dBA</p>	 <p><b>FPA-631</b> Sentri IP55 Red Electronic Sounder c/w Isolator</p> <p>Dimensions: 112mmW x 112mmH x 90mmD Sound Output: 94dBA</p>	 <p><b>FPA-632</b> Sentri White Low Profile Electronic Sounder c/w Isolator</p> <p>Dimensions: 112mmW x 112mmH x 73mmD Sound Output: 94dBA</p>	 <p><b>FPA-633</b> Sentri Red Low Profile Electronic Sounder c/w Isolator</p> <p>Dimensions: 112mmW x 112mmH x 73mmD Sound Output: 94dBA</p>	 <p><b>FPA-634</b> Sentri IP55 Electronic Beacon Red Body/Lens Deep Base</p> <p>Dimensions: 112mmW x 112mmH x 90mmD Sound Output: 94dBA Flash Rate: 60 per minute</p>	 <p><b>FPA-635</b> Sentri IP55 Electronic Sounder Beacon Red Body/Lens Low Profile</p> <p>Dimensions: 112mmW x 112mmH x 90mmD Sound Output: 94dBA Flash Rate: 60 per minute</p>
 <p><b>FPA-636</b> Sentri Mains Single Output Interface with Housing</p> <p>Dimensions: 245mmW x 227mmH x 77mmD</p>	 <p><b>FPA-637</b> Sentri Mains Single Output Interface with DIN-Rail Mount Kit</p> <p>Dimensions: 93mmW x 90mmH x 23mmD</p>	 <p><b>FPA-638</b> Sentri Low Voltage Single Input PCB only</p> <p>Dimensions: 93mmW x 90mmH x 23mmD</p>	 <p><b>FPA-639</b> Sentri Low Voltage Single Output PCB only</p> <p>Dimensions: 93mmW x 90mmH x 23mmD</p>	 <p><b>FPA-640</b> Sentri Output Interface PCB only (4 Inputs or Outputs)</p> <p>Dimensions: 93mmW x 90mmH x 23mmD</p>	 <p><b>FPA-641</b> Sentri Low Voltage Keyswitch Interface with Housing</p> <p>Dimensions: 322mmW x 478mmH x 128mmD</p>
 <p><b>FPA-642</b> Sentri 1.5A Mains Powered Interface (inc. 2 x 2.1Ah Batteries)</p> <p>Dimensions: 322mmW x 478mmH x 128mmD</p>	 <p><b>FPA-644</b> Plastic Housing for Sentri Interface</p> <p>Dimensions: 245mmW x 227mmH x 77mmD</p>	 <p><b>FPA-645</b> Metal Housing for Sentri Interface</p> <p>Dimensions: 202mmW x 125mmH x 50mmD</p>	 <p><b>FPA-646</b> Sentri DIN-Rail Mounting Kit</p>	 <p><b>FPA-647</b> Surface Mounted Housing for Sentri Interface</p>	 <p><b>FPA-675</b> Back Box to suit FPA-628 Break Glass Call Point</p> <p>Dimensions: 88mmW x 88mmH x 36mmD</p>



# Duonet/Quadnet Fire Alarm Panels



## Features

- 1 to 2 loops (Duonet), 1 to 4 loops (Quadnet)
- Digital communication with high power transfer
- Alarm confirmation as standard
- Advanced PC configuration tools
- Very low current consumption
- 128 zonal displays for fire
- 1000 event history buffer
- Integral power supply with intelligent battery management
- Functional network with ability to connect up to 8 repeater or network panels
- Maximum loop length of 2km fully loaded
- Maximum loop capacity of 200 devices
- Soft addressing and distributed intelligence technologies can be configured via the on board keypad or a PC software package (OSP)
- The system operates on a basis where signal processing and "fire decisions" are made within the local device
- Device activity is displayed individually on the large LCD display
- Duonet panels provide a set of monitored inputs and outputs that can be configured to perform a range of functions
- The system may be configured to utilise up to 3 alarm stages with full 'Cause & Effect' programming across all 128 zones and the option of 7 different sound patterns
- Point to point cause and effect is available
- Repeater panels sit on the network and utilise a 2 core screened fire cable ring for data transmission
- Panels give full text and common Fire LED indication of events taking place, and provides system controls for alarms on/off, evacuate, mute buzzer and reset system
- The repeater panel housing is similar to the main control panel allowing flush or surface mounting, complete with integral PSU and battery compartment

## Fire Alarm Panels

Cat No	Description	Max Battery Type & Size
FP-068	Duonet panel c/w 1 fitted loop card	2 x 7Ah (16-508)
FP-069	Duonet panel c/w 1 fitted loop card & printer	2 x 7Ah (16-508)
FP-070	Quadnet panel c/w 1 fitted loop card	2 x 17Ah (FPA-075)
FP-071	Quadnet panel c/w 1 fitted loop card & printer	2 x 17Ah (FPA-075)

• Batteries to be ordered separately

## Repeater Panels

Cat No	Description	Max Battery Type & Size
FPR-012*	Duonet repeater panel c/w network card	2 x 7Ah (16-508)
FPR-013*	Quadnet repeater panel c/w network card	2 x 7Ah (16-508)

• Batteries to be ordered separately

• If a repeater is to be used, a FPA-600 must be installed in the main panel

## Accessories

Cat No	Description
FPA-599	Duonet/Quadnet loop driver card
FPA-600	Duonet/Quadnet network card (1 required at every panel in the network)
FPA-751	Duonet/Quadnet USB lead (for commissioning)

## Dimensions

### Main Panels:

Width 445mm x Height 445mm x Depth 122mm (Duonet Panel Weight 14.2Kg without batteries, Quadnet Panel Weight 24.85Kg without batteries)

### Repeater Panels:

Width 445mm x Height 445mm x Depth 122mm (Weight 11.2Kg without batteries)

## Construction

Sheet steel with black finish and toughened plastic cover

## Ingress Rating

IP30

## SIGNIFIRE VIDEO SURVEILLANCE DETECTION

SigniFire is a turnkey video, flame, smoke and intrusion detection solution. The state-of-the-art, camera-based system visually detects the presence of fire or smoke at its source, independent of airflow in the area.



Operating exclusively with Duonet and Quadnet fire alarm systems, SigniFire represents a critical advantage for early warning fire detection, identifying and reacting to fire situations in their earliest stages and protecting lives and property.

Call our sales team now for further details.



## FPA-304 SHORT MESSAGE COMMUNICATOR

The FPA-304 short message communicator provides a cost-effective, easy-to-install solution for signalling alarm and other system conditions by sending a SMS text message to the user using GSM technology. The unit ensures that key people are contacted the moment there is a status change in the system, enabling fast incident response. Call our sales team now for further details.

# Duonet/Quadnet Devices



**FPA-1011/COVER**  
Protective Call Point Cover to suit FPA-1029 & FPA-1038 Call Points



**FPA-1016/ASD**  
Detector Head Removal Tool to suit FPA-1035/ASD, FPA-1036/ASD and FPA-1053/ASD



**FPA-1023**  
White Sound Point Stand-Alone Sounder  
Dimensions: 89mmW x 89mmH x 62mmD (34mm when flush)  
Sound Output: 90dBA



**FPA-1025**  
Red Sound Point Stand-Alone Sounder  
Dimensions: 89mmW x 89mmH x 62mmD (34mm when flush)  
Sound Output: 90dBA




**FPA-1027**  
Red Hi Point Stand-Alone IP55 Horn Sounder  
Dimensions: 123mmW x 130mmH x 101mmD  
Sound Output: 87dBA



**FPA-1028**  
Low Profile Stand-Alone Sounder & LED Visual Indication Beacon  
Dimensions: Ø97mm x 60mmH  
Sound Output: 88dBA  
Flash Rate: 60 per minute



**FPA-1029**  
IP65 Weatherproof Resettable Manual Call Point  
Dimensions: 89mmW x 89mmH x 52mmD (25mm when flush)



**FPA-1033**  
Input/Output Interface Boxed Module  
Dimensions: 87mmW x 87mmH x 42mmD



**FPA-1035/ASD**  
Multifunction Detector with Sounder (Requires FPA-1037/ASD Base)  
Dimensions: Ø107mm x 47mmH  
Sound Output: 65dBA-85dBA



**FPA-1036/ASD**  
Multifunction Detector (Requires FPA-1037/ASD Base)  
Dimensions: Ø107mm x 47mmH



**FPA-1037/ASD**  
Detector Mounting Base  
Dimensions: Ø107mm x 20mmH



**FPA-1038**  
Resettable Manual Call Point  
Dimensions: 88mmW x 88mmH x 52mmD (25mm when flush)




**FPA-1041**  
Loop Input/Output  
Dimensions: 148mmW x 88mmH x 44mmD (12mm when flush)



**FPA-1042**  
Conventional Zone Module  
Dimensions: 148mmW x 88mmH x 44mmD (12mm when flush)



**FPA-1053/ASD**  
Multifunction Detector with Sounder & Strobe (Requires FPA-1037/ASD Base)  
Dimensions: Ø107mm x 47mmH  
Sound Output: 65dBA-85dBA  
Flash Rate: 60 per minute



**FPA-1054**  
Red Low Profile Stand-Alone Sounder  
Dimensions: Ø97mm x 60mmH  
Sound Output: 88dBA



**FPA-1055**  
Red Deep Base Stand-Alone Sounder  
Dimensions: Ø97mm x 60mmH  
Sound Output: 88dBA



**FPA-1056**  
Deep Base Stand-Alone Sounder & LED Visual Indication Beacon  
Dimensions: Ø97mm x 82mmH  
Sound Output: 88dBA  
Flash Rate: 60 per minute



**FPA-1057**  
Weatherproof LED Visual Indication Beacon  
Dimensions: Ø97mm x 84mmH  
Flash Rate: 60 per minute

# MxPro4 Fire Alarm Panels



## Features

- Approved to EN54 parts 2 and 4
- 1, 2, 4 or 8 loop formats
- Compatible with Apollo XP95, Xplorer and Discovery protocols
- Compatible with Hochiki ESP protocols
- Up to 1000 fire detection zones
- True peer-to-peer networking
- Supports intelligent/programmable remote terminals, BMS interface, IP gateway and input/output drivers
- Autolearn and loop detection
- 1000 event log entries
- Simplified logic delivers click and go configuration
- Optional peripheral expansion card
- Up to 254 devices per loop (protocol dependent)
- Up to 188,800 devices per network
- Networkable up to 200 nodes
- Circuit monitoring of local panel circuits
- Simple select and click programming
- Single area false alarm management
- Built-in Voltage and current meters
- Programmable logo on screen
- Fitted with loop card(s)
- Simple to use LCD menu driven graphical interface



**FOR FULL DETAILS CALL OUR  
UK SALES TEAM NOW  
01922 745024**

# MxPro5 Fire Alarm Panels



## Features

- Approved to BS EN54 parts 2, 4 and 13
- 1, 2, 4 or 8 loop formats
- Up to 254 devices per loop (protocol dependent)
- Up to 200,000 devices per network
- Networkable up to 200 nodes
- Built in voltage and current meters
- On board or optional remote battery temperature sensor
- Simple select and click programming and configuration
- Quick start and protect
- 20 built-in, fully programmable LEDs
- Compatible with Apollo XP95/Discovery and Hochiki ESP protocols
- Programmable screen logo
- Complete device history from each panel
- 5,000 event log entries
- 201 programmable false alarm management areas per panel
- Timed enablement of isolated zones, input and output devices
- Backward compatible with MxPro 4 network
- Autolearn and Loop detection
- Up to 2,000 fire detection zones
- True peer-to-peer networking
- Circuit monitoring from any panel or repeater
- 4 programmable push buttons



**FOR FULL DETAILS CALL OUR  
UK SALES TEAM NOW  
01922 745024**

# Hush Button

## Features

- Fully compliant with BS 5839 part 6
- Provides each individual HMO dwelling with its own two minute silence facility (to BS 5839-6/12.2b) and 15 minute isolate facility (to BS 5839-6/12.2a)
- Designed to sit on a communal fire panel's analogue loop and to communicate its status back to the host panel for the attention of building management
- Includes a built-in loop isolator, conventional detector circuit and conventional sounder circuit (0V is common allowing cost-effective three core cable to be used)
- Mounts on a standard UK 25mm double gang back box
- Compatible with Hochiki's ESP and Apollo's XP95, Discovery and Xplorer protocols
- Fully monitored for open and short circuit faults to BS 5839 part 1
- Failsafe operation - a general fire condition at the host panel overrides any silenced/isolated state at the Hush Button and immediately turns on its local sounders
- Each Hush Button derives its power from the analogue loop so no separate PSU is required
- Typically up to 20 Hush Buttons can be connected to one loop (40 on a two loop panel)
- Upgrades the level of protection offered in a HMO dwelling from the minimum Grade D requirement (mains/battery powered detectors) to Grade A or B

## Dimensions

Width 144mm x Height 84mm x Depth 37mm (mounts on a 25mm deep back box)

### Maximum Number of Hush Buttons per Analogue Loop

20 (dependent on output current of host panel and devices connected). To communicate with the host panel each Hush Button requires two addresses

### Onboard Loop Isolator

Yes

### Maximum Number of Conventional Detectors per Hush Button

10

### Maximum Number of Call Points per Hush Button

10

### Operating Voltage

17-40Vdc

### Quiescent Current

5mA

### Maximum Length of Hush Button Detector/Sounder Circuits

100m

### Line Monitored for Open and Short Circuit Faults

Yes

### User Indicators

Supply present; local alarm and hushed LEDs; 'hushed period due to expire' buzzer

### Engineer Indicators

Open/short circuit fault (also shown at host panel via analogue loop)

### Control Buttons

1 x 'Hush'



## Specification

Designed to work with widely available open protocol analogue fire alarm systems, the Hush Button gives fire alarm installers a unique opportunity to enter the lucrative and rapidly expanding HMO marketplace.

According to BS 5839 part 6 (the code of practice for fire alarm systems in dwellings) around 80% of all UK fire deaths and injuries occur in dwellings. Nowhere is the risk greater than in houses of multiple occupation where a fire in one 'dwelling' can quickly spread to another.

The Hush Button meets and exceeds the requirements of BS5839 part 6 in all areas, providing reliable and fully monitored fire detection, alarm and silencing facilities inside each individual HMO dwelling.

## How Does the Hush Button Work?

Each Hush Button can be looked upon as a miniature fully monitored, self-powered single zone fire alarm panel that sits and is addressed on an analogue loop with the ability to communicate its status back to the main panel.

Typically one double gang Hush Button is fitted in each HMO dwelling complete with conventional detectors and sounders to provide occupants with a simple, cost effective means of invoking two types of 'hushed' period.

Press the Hush Button during a local alarm condition and a hushed period of two minutes begins. If the local zone returns to its normal condition within these two minutes, the unit returns to its normal state. If it doesn't, a fire alarm condition is flagged at the host panel to be acted upon according to the building's fire management plan.

Press the Hush Button prior to a local alarm condition and a hushed period of 15 minutes begins. During this period, power is cut to the local zone so no alarm signals can be detected. If the Hush Button is pressed again during this period, the unit reapplies power to the local zone allowing normal signal processing to resume.




A beeper gives feedback to the occupant 15 seconds before either hushed period is about to expire. If the button is pressed again during this period, the original hushed period of two or 15 minutes restarts.

## Catalogue Numbers

Cat No	Description
FPA-276	Hush Button (Apollo XP95, Discovery and Xplorer protocol)
FPA-487	Hush Button (Hochiki ESP protocol)
FPA-752	Hush Button Stainless Steel (Apollo XP95, Discovery and Xplorer protocol)
FPA-753	Hush Button Stainless Steel (Hochiki ESP protocol)



# XP95® Addressable Devices

 <p><b>FPA-263</b></p> <p>XP95® A2S 55°C Fixed Heat Detector</p> <p>Suitable Use: Dirty or smoky environments</p> <p>Dimensions: Ø100mm x 42mmH</p>	 <p><b>FPA-264</b></p> <p>XP95® CS 90°C Fixed Heat Detector</p> <p>Suitable Use: Dirty or smoky environments</p> <p>Dimensions: Ø100mm x 42mmH</p>	 <p><b>FPA-265</b></p> <p>XP95® Combined Optical Smoke and 55°C Fixed Heat Multisensor Detector</p> <p>Suitable Use: Sensitive to a wide range of fires</p> <p>Dimensions: Ø100mm x 50mmH</p>	 <p><b>FPA-266</b></p> <p>XP95® Optical Smoke Detector (Smouldering Fires)</p> <p>Suitable Use: Bedrooms and escape routes</p> <p>Dimensions: Ø100mm x 42mmH</p>	 <p><b>FPA-267</b></p> <p>XP95® Ionisation Smoke Detector (Flaming Fires)</p> <p>Suitable Use: Rooms opening onto escape routes</p> <p>Dimensions: Ø100mm x 42mmH</p>
 <p><b>FPA-268</b></p> <p>XP95® Standard Base c/w Xpert Card</p> <p>Suitable Use: Compatible with all XP95® detectors</p> <p>Dimensions: Ø100mm x 8mmH</p>	 <p><b>FPA-269</b></p> <p>XP95® Manual Call Point</p> <p>Suitable Use: Any XP95® installation</p> <p>Dimensions: 88mmW x 88mmH x 59mmD</p>	 <p><b>FPA-269/KEY</b></p> <p>Spare Key to suit FPA-269</p> <p>Suitable Use: For use with XP95® manual call point</p>	 <p><b>FPA-270</b></p> <p>XP95® Isolating Base</p> <p>Suitable Use: Detects short circuit faults on XP95® loops</p> <p>Dimensions: Ø100mm x 24mmH</p>	 <p><b>FPA-271</b></p> <p>XP95® Isolator</p> <p>Suitable Use: Detects short circuit faults on XP95® loops</p>
 <p><b>FPA-272</b></p> <p>XP95® Isolator Base</p> <p>Suitable Use: Compatible with FPA-271 XP95® isolator</p> <p>Dimensions: Ø100mm x 8mmH</p>	 <p><b>FPA-274</b></p> <p>XP95® Intelligent Red Open Area Sounder</p> <p>Suitable Use: Any XP95® installation</p> <p>Dimensions: Ø104mm x 97.5mmH</p> <p>Sound Output: Low 92dBA/High 100dBA</p>	 <p><b>FPA-275</b></p> <p>XP95® Intelligent White Open Area Sounder</p> <p>Suitable Use: Any XP95® installation</p> <p>Dimensions: Ø104mm x 97.5mmH</p> <p>Sound Output: Low 92dBA/High 100dBA</p>	 <p><b>FPA-277</b></p> <p>XP95® 24V Input/Output Unit</p> <p>Suitable Use: To report fault, switch open and switch closed levels</p> <p>Dimensions: 150mmW x 90mmH x 48mmD</p>	 <p><b>FPA-278</b></p> <p>XP95® 230V Mains Switching Input/Output Unit</p> <p>Suitable Use: To supervise one or more normally open switches</p> <p>Dimensions: 150mmW x 90mmH x 48mmD</p>
 <p><b>FPA-279</b></p> <p>XP95® Sounder Control Unit</p> <p>Suitable Use: To control the operation of a zone of sounders</p> <p>Dimensions: 150mmW x 90mmH x 48mmD</p>	 <p><b>FPA-280</b></p> <p>XP95® Output Unit</p> <p>Suitable Use: Provides a Voltage-free single pole changeover relay output</p> <p>Dimensions: 150mmW x 90mmH x 48mmD</p>	 <p><b>FPA-281</b></p> <p>XP95® Zone Monitor</p> <p>Suitable Use: Controls the operation of up to 20 conventional detectors from a loop</p> <p>Dimensions: 150mmW x 90mmH x 48mmD</p>	 <p><b>FPA-282</b></p> <p>XP95® Switch Monitor</p> <p>Suitable Use: Monitors one or more single-pole, Volt-free contacts</p> <p>Dimensions: 150mmW x 90mmH x 48mmD</p>	 <p><b>FPA-283</b></p> <p>XP95® Switch Monitor Plus</p> <p>Suitable Use: Monitors one or more single-pole, Volt-free contacts</p> <p>Dimensions: 150mmW x 90mmH x 48mmD</p>



FPA-284

Mini Switch Monitor

Suitable Use: Monitors equipment where a fast response is required

Dimensions:  
39mmW x 39mmH x 20mmD



FPA-295

XP95° Ancillary Base Sounder

Suitable Use: Compatible with all XP95° detectors

Dimensions:  
Ø115mm x 38mmH  
Sound Output: 85dBA



FPA-297

XP95° Loop-Powered Visual Indicator

Suitable Use: In situations where sounders may not be heard

Dimensions:  
Ø115mm x 38mmH  
Flash Rate: 60 per minute



FPA-298

XP95° Integrated Base Sounder

Suitable Use: Compatible with all XP95° detectors

Dimensions:  
Ø115mm x 38mmH  
Sound Output: Low 75dBA/High 91dBA



FPA-337

CAT O. XP95° Loop-Powered Sounder VAD Base with Isolator

Suitable Use: Compatible with all XP95° detectors

Dimensions: Ø115mm x 38mmH  
Sound Output: Low 75dBA/High 91dBA  
Flash Rate: 30 per minute



FPA-338

CAT O. XP95° Loop-Powered VAD Base with Isolator

Suitable Use: Compatible with all XP95° detectors

Dimensions: Ø115mm x 31mmH  
Flash Rate: 30 per minute



FPA-488

XP95° Ionisation Smoke Detector Black Finish (Flaming Fires)

Suitable Use: Rooms opening onto escape routes

Dimensions:  
Ø100mm x 42mmH



FPA-489

XP95° Optical Smoke Detector Black Finish (Smouldering Fires)

Suitable Use: Bedrooms and escape routes

Dimensions:  
Ø100mm x 42mmH



FPA-490

Complete Set of Pre-Addressed XP95° Xpert Cards (126 Quantity)

Suitable Use: Compatible with all XP95° detectors



FPA-490/BLANK

Blank XP95° Xpert Card

Suitable Use: Compatible with all XP95° detectors



FPA-491

XP95° Standard Base c/w Xpert Card Black Finish

Suitable Use: Compatible with FPA-488 and FPA-489 detectors

Dimensions:  
Ø100mm x 8mmH



FPA-493

White Locking Cap to suit all XP95° Base Variants

Suitable Use: For XP95° stand-alone sounder and visual indicator base use

Dimensions:  
Ø100mm x 13mmH



FPA-494

Red Locking Cap to suit all XP95° Base Variants

Suitable Use: For XP95° stand-alone sounder and visual indicator base use

Dimensions:  
Ø100mm x 13mmH



FPA-495

XP95° Intelligent Open Area Sounder Visual Indicator (Red Lens)

Suitable Use: Any XP95° installation

Dimensions: Ø104mm x 97.5mmH  
Sound Output: Low 92dBA/High 100dBA  
Flash Rate: 60 per minute



FPA-496

XP95° Intelligent Open Area Sounder Visual Indicator (Clear Lens)

Suitable Use: Any XP95° installation

Dimensions: Ø104mm x 97.5mmH  
Sound Output: Low 92dBA/High 100dBA  
Flash Rate: 60 per minute



FPA-497

XP95° IP65 Intelligent Open Area Visual Indicator (Red Lens)

Suitable Use: Any XP95° installation

Dimensions:  
Ø104mm x 97.5mmH  
Flash Rate: 60 per minute



FPA-498

XP95° IP65 Intelligent Open Area Visual Indicator (Clear Lens)

Suitable Use: Any XP95° installation

Dimensions:  
Ø104mm x 97.5mmH  
Flash Rate: 60 per minute



FPA-499

XP95° 3 Channel Input/Output Unit

Suitable Use: To supervise normally open switches on 3 inputs

Dimensions:  
250mmW x 175mmH x 75mmD



FPA-504

XP95°/Discovery® IP67 Manual Call Point

Suitable Use: Any XP95° installation

Dimensions:  
112mmW x 112mmH x 68mmD



FPA-561

XP95° 5a DIN-Rail Sounder Controller

Suitable Use: To control the operation of a zone of externally powered sounders

Dimensions:  
110mmW x 107mmH x 20mmD

# Discovery Addressable Devices

 <p><b>FPA-504</b> XP95/Discovery® IP67 Manual Call Point</p>	 <p><b>FPA-549</b> Discovery® Ionisation Smoke Detector</p>	 <p><b>FPA-550</b> Discovery® Optical Smoke Detector</p>	 <p><b>FPA-551</b> Discovery® Multisensor Detector</p>
 <p><b>FPA-552</b> Discovery® Carbon Monoxide Detector</p>	 <p><b>FPA-554</b> Discovery® Red 60-100dBA Sounder Visual Indicator (Flash Rate: 60 per minute)</p>	 <p><b>FPA-555*</b> Discovery® Multi-Heat Detector</p>	 <p><b>FPA-556</b> Discovery® White 60-90dBA Sounder Visual Indicator (Flash Rate: 60 per minute)</p>
 <p><b>FPA-754</b> CAT O. Discovery® 60-90dBA Sounder VAD Base (Flash Rate: 30 per minute)</p>			

## Features

- Five operating modes approved and certified to CPD and EN54
- Automatic drift compensation to ensure constant sensitivity
- Advanced features for audio visual devices
- Rejection of transient signals
- Flashing LED option
- Four bytes of non-volatile memory for user data
- Alarm flag for fast alarm reporting
- Conventional alarm facility during control panel processor fault
- 360° LED visibility in alarm
- Compatible with XP95 systems
- Insect resistant

\* FPA-555 multi-heat detector consists of 5 modes:

Mode 1 - 57°C rate-of-rise heat

Mode 2 - 61°C rate-of-rise heat

Mode 3 - 61°C fixed temperature heat

Mode 4 - 90°C rate-of-rise heat

Mode 5 - 90°C fixed temperature heat

# Xpander Addressable Devices

 <p><b>FPA-713</b> Xpander® Optical Smoke Detector &amp; Mounting Base</p>	 <p><b>FPA-714</b> Xpander® Multisensor Detector &amp; Mounting Base</p>	 <p><b>FPA-715</b> Xpander® 57°C Fixed Temperature Heat Detector &amp; Mounting Base</p>	 <p><b>FPA-716</b> Xpander® 57°C Rate-of-Rise Heat Detector &amp; Mounting Base</p>
 <p><b>FPA-717</b> Xpander® Manual Call Point</p>	 <p><b>FPA-718</b> Xpander® Red 92-106dBA Sounder &amp; Sounder Base</p>	 <p><b>FPA-719</b> Xpander® White 92-106dBA Sounder &amp; Sounder Base</p>	 <p><b>FPA-720</b> Xpander® Red 92-106dBA Sounder Visual Indicator &amp; Sounder Base (Flash Rate: 60 per minute)</p>
 <p><b>FPA-721</b> Xpander® Amber 92-106dBA Sounder Visual Indicator &amp; Sounder Base (Flash Rate: 60 per minute)</p>	 <p><b>FPA-722</b> Xpander® Interface Module with Isolator</p>	 <p><b>FPA-725</b> Xpander® Survey Kit</p>	

## Features

- Completely wireless devices communicate through a loop interface using radio signals
- Easy to install
- Radio communication is bi-directional
- Certified to radio standard EN54-25
- Xpert card addressing enables the control panel to recognise Xpander devices as any other hard wired device
- Self-monitoring
- Proven technology
- No special control panel required
- 868MHz radio signalling
- Up to 31 devices per interface
- Up to 5 interfaces per loop
- Detectors are supplied with mounting bases

Spare detector heads (without mounting bases) are available:












FPA-726 Optical smoke detector

FPA-727 Multisensor

FPA-728 55°C Fixed heat detector

FPA-729 55°C Rate-of-rise heat detector



















# Hochiki ESP Addressable Devices

Detectors & Bases		Detectors & Bases		Detectors & Bases		Detectors & Bases		Detectors & Bases		Detectors & Bases	
	<b>FPA-082</b> Photoelectric Smoke Sensor		<b>FPA-084</b> Multi-Heat Sensor		<b>FPA-085</b> Multi Sensor (Combined Photo-Electric Smoke and Heat Sensor)		<b>FPA-086/2</b> Addressable Loop-Powered Base Sounder		<b>FPA-087</b> Short Circuit Isolator Sensor Mounting Base		<b>FPA-088</b> Common Mounting Base
Dimensions: Ø100mm x 45mmH		Dimensions: Ø100mm x 45mmH		Dimensions: Ø100mm x 45mmH		Dimensions: 113mmH x 113mmW x 43mmD Sound Output: Up to 98dBA <i>Requires FPA-088 base</i>		Dimensions: Ø100mm x 13.7mmH		Dimensions: Ø100mm x 8mmH	
Manual Call Points		Manual Call Points		Address Programmer		Controllers & Monitors		Controllers & Monitors		Controllers & Monitors	
	<b>FPA-089 &amp; FPA-090</b> Call Point with Short Circuit Isolator & 32mm Red Back-Box		<b>FPA-091</b> IP67 Weatherproof Call Point with Short Circuit Isolator		<b>FPA-092</b> Hand-Held Device Address Programmer		<b>FPA-093</b> Single Zone Monitor with Short Circuit Isolator		<b>FPA-094</b> Dual Zone Monitor with Short Circuit Isolator		<b>FPA-095</b> Mains Relay Controller with Short Circuit Isolator
Dimensions: 89mmH x 93mmW x 59.5mmD (inc. back box)		Dimensions: 94mmH x 98mmW x 78mmD		Dimensions: 160mmL x 99.5mmW x 30mmD		Dimensions: 127mmW x 157mmH x 35mmD		Dimensions: 127mmW x 157mmH x 35mmD <i>* Requires separate PSU</i>		Dimensions: 127mmW x 157mmH x 35mmD	
Controllers & Monitors		Controllers & Monitors		Controllers & Monitors		Wall Sounders/Beacons		Wall Sounders/Beacons		Wall Sounders/Beacons	
	<b>FPA-096</b> Dual Relay Controller with Short Circuit Isolator		<b>FPA-098</b> Dual Sounder Controller		<b>FPA-1052</b> Back Box to suit Monitors and Controllers		<b>FPA-088/R</b> Red Mounting Base		<b>FPA-099</b> Red Loop-Powered Wall Sounder		<b>FPA-431+</b> Wall Sounder Beacon Red Case/Red LEDs
Dimensions: 127mmW x 157mmH x 35mmD		Dimensions: 127mmW x 157mmH x 35mmD		Dimensions: 127mmW x 157mmH x 44mmD		Dimensions: Ø100mm x 8mmH		Dimensions: 127mmW x 157mmH x 35mmD Sound Output: Up to 102dBA <i>Requires FPA-088/R base</i>		Dimensions: 112mmW x 112mmH x 67mmD Sound Output: 90 to 102dBA Flash Rate: 1 per 2 seconds <i>Requires FPA-088/R base</i>	
Wall Sounders/Beacons		Wall Sounders/Beacons		Wall Sounders/Beacons		Ceiling Beacons		Ceiling Beacons		Ceiling Beacons	
	<b>FPA-432+</b> Wall Sounder Beacon White Case/Red LEDs		<b>FPA-433+</b> Wall Sounder Beacon White Case/White LEDs		<b>FPA-439+</b> Wall Sounder Beacon Red Case/White LEDs		<b>FPA-413*</b> Ceiling Beacon White Case/White LEDs		<b>FPA-414*</b> Ceiling Beacon White Case/Red LEDs		<b>FPA-415*</b> Ceiling Beacon Red Case/Red LEDs
Dimensions: 112mmW x 112mmH x 67mmD Sound Output: 90 to 102dBA Flash Rate: 1 per 2 seconds <i>Requires FPA-088 base</i>		Dimensions: 112mmW x 112mmH x 67mmD Sound Output: 90 to 102dBA Flash Rate: 1 per 2 seconds <i>Requires FPA-088 base</i>		Dimensions: 112mmW x 112mmH x 67mmD Sound Output: 90 to 102dBA Flash Rate: 1 per 2 seconds <i>Requires FPA-088/R base</i>		Dimensions: Ø100mm x 41mmH Flash Rate: 1 per 2 seconds <i>Requires FPA-088 base</i>		Dimensions: Ø100mm x 41mmH Flash Rate: 1 per 2 seconds <i>Requires FPA-088 base</i>		Dimensions: Ø100mm x 41mmH Flash Rate: 1 per 2 seconds <i>Requires FPA-088/R base</i>	
Wall Sounders/Beacons		Wall Sounders/Beacons		Wall Sounders/Beacons		Ceiling Beacons		Ceiling Beacons		Ceiling Beacons	
	<b>FPA-416*</b> Ceiling Beacon Red Case/White LEDs										
Dimensions: Ø100mm x 41mmH Flash Rate: 1 per 2 seconds <i>Requires FPA-088/R base</i>											

+ Rated category 'O' (FPA-431 and FPA-432 give 9.9m<sup>3</sup> volume coverage; FPA-433 and FPA-439 give 16.25m<sup>3</sup> volume coverage)  
\* Ceiling beacons are rated C-3-7.5 (C = ceiling category, 3 = 3m mounting height and 7.5 = 7.5m x 7.5m coverage diameter)



# Engineer's Kits, Accessories & Spares

<p><b>Call Point Spares</b></p>  <p><b>FPA-036</b> Replacement Call Point Glasses (Pack of 5) Suitable For: FPA-006 call points (all versions)</p>	<p><b>Call Point Spares</b></p>  <p><b>FPA-081/2</b> Call Point Protective Cover Suitable For: FPA-006 and FPA-663 call points (all versions)</p>	<p><b>Call Point Spares</b></p>  <p><b>FPA-081/3</b> Call Point Protective Cover Suitable For: FPA-254 and FPA-269 call points</p>	<p><b>Call Point Spares</b></p>  <p><b>FPA-203</b> Call Point Spare Key Suitable For: FPA-006 and FPA-663 call points (all versions)</p>	<p><b>Fire Alarm Panel Spares</b></p>  <p><b>FPA-210</b> Twin-Flex Pro Access Keys (Pack of 2) Suitable For: FP-312, FP-313 and FP-314 Twin-Flex Pro fire alarm panels</p>
<p><b>Fire Alarm Panel Spares</b></p>  <p><b>FPA-260</b> CFP/XFP Access Key Suitable For: FP-038, FP-038E, FP-039, FP-039E, FP-040, FP-040E, FP-041, FP-042, FP-043, FP-044 and FP-045 fire alarm panels</p>	<p><b>Fire Alarm Panel Spares</b></p>  <p><b>FPA-269/KEY</b> Call Point Spare Key Suitable For: FPA-269 and FPA-254 call points</p>	<p><b>Fire Alarm Panel Spares</b></p>  <p><b>FPA-595</b> CFP Spares Pack (inc. 8 Capacitors, 4 Resistors, 1 Fuse, 1 Battery Link) Suitable For: FP-038, FP-038E, FP-039, FP-039E, FP-040, FP-040E, FP-041, FP-042 and FP-043 fire alarm panels</p>	<p><b>Fire Alarm Panel Spares</b></p>  <p><b>FPA-649</b> Horizon Access Keys (Pack of 10) Suitable For: FP-077, FP-078 and FP-079 fire alarm panels</p>	<p><b>Fire Alarm Panel Spares</b></p>  <p><b>FPA-650</b> Horizon Spare Capacitor Kit Suitable For: FP-077, FP-078 and FP-079 fire alarm panels</p>
<p><b>Fire Alarm Panel Spares</b></p>  <p><b>FPA-651</b> Zircon Spares Pack (inc. 2 Keys, 1 Allen Key, 1 Battery Link and Leads, 1 Cable Tie, 8 Capacitors, 8 Resistors) Suitable For: FP-077, FP-078 and FP-079 fire alarm panels</p>	<p><b>Call Point Spares</b></p>  <p><b>FPA-665</b> Replacement Call Point Glasses (Pack of 10) Suitable For: FPA-663 call point</p>	<p><b>Engineers Kits</b></p>  <p><b>FPA-953</b> Fire Alarm Engineer's Fuse Kit Includes: 20mm Quick Blow Fuses: 500mA, 1A, 1.6A, 2A, 2.5A, 3.15A, 4A, 5A, 6.3A, 10A 20mm Time Delay Fuses: 1A, 2A, 3.15A, 5A 20mm Quick Blow Fuses: 1A, 2A, 5A, 10A</p>	<p><b>Engineers Kits</b></p>  <p><b>FPA-954</b> Fire Alarm Engineer's Resistor &amp; Capacitor Kit Includes: Resistors: 220 Ohm, 470 Ohm, 680 Ohm, 1K, 2K2, 3K9, 4K7, 5K1, 6K8, 10K, 20K, 51K Capacitors: 22 uF 63V, 0.47 uF 50V</p>	<p><b>Engineers Kits</b></p>  <p><b>FPA-991</b> Fire Alarm Engineer's Call Point Key Kit</p>
<p><b>Engineers Kits</b></p>  <p><b>FPA-992</b> Cablesafe Fire Resistant Trunking Clips (Pack of 100)</p>	<p><b>Call Point Spares</b></p>  <p><b>FPA-1011/COVER</b> Call Point Protective Cover Suitable For: FPA-1011 and FPA-546 call points</p>	<p><b>Call Point Spares</b></p>  <p><b>FPA-1011/KEY</b> Call Point Spare Key (Pack of 5) Suitable For: FPA-1011 and FPA-546 call points</p>		



## Wireless Fire Alarm Systems.

With no wiring required, no holes to be drilled and no unsightly trunking or conduit on show, our range of wireless fire alarm systems are much easier, faster and cheaper to install than wired alarm systems.



# Zerio Plus Fire Alarm Panels



## Features

- Complies to relevant parts of EN54 and BS5839
- EMC, LVD and R&TTE independently tested
- Simple-set-up
- Ideal for small to medium sized premises
- 8 Zones
- 240 devices
- Sophisticated test modes
- Single sounder test
- Programmable sector sounding
- Programmable delays
- 72 hour stand-by
- 60 character location text
- Fire and fault relay
- 2 hardwired monitored inputs
- 4 level access
- Sounder circuit option
- Suitable for hotels, restaurants, public houses, bed and breakfasts and HMOs
- Robust, reliable and state-of-the-art
- In-built HMO options
- Pluggable memory module for back-up
- USB keyboard for programming
- Configuration reporting via USB memory stick
- Intuitive menu structure
- Compatible with full range of Zerio Plus devices

## Fire Alarm Panels

Cat No	Description	Max Battery Type & Size
FP-080	8 zone radio control panel	1 x 7Ah (16-508)
FP-081	20 zone radio control panel	1 x 7Ah (16-508)

\* Batteries to be ordered separately

## System Accessories

Cat No	Description
FPA-679*	Radio booster unit
FPA-680	Wired booster unit
FPA-682	Wired remote display
FPA-683	Survey kit
FPA-691	Radio transmitter kit
FPA-692	Radio silence alarm button
FPA-696	Radio DC input/output unit
FPA-697	High gain antenna

\* Requires 1 x 7Ah (16-508) battery; to be ordered separately

## Dimensions

Width 275mm x Height 220mm x Depth 85mm  
Weight: 4Kg (without batteries)

## Construction

Metal lid and base

## Ingress Rating

IP30

## System Expansion Information

If devices need to be installed beyond the range of the control panel, either a radio booster or a wired transceiver can be added to relay information around the system.

Up to 7 boosters and 7 wired transceivers can be added to the system, which operate as intelligent signal repeaters.

For larger premises up to four systems can be linked together.



## FPA-304 SHORT MESSAGE COMMUNICATOR

The **FPA-304** short message communicator provides a cost-effective, easy-to-install solution for signalling alarm and other system conditions by sending a SMS text message to the user using GSM technology. The unit ensures that key people are contacted the moment there is a status change in the system, enabling fast incident response. Call our sales team now for further details.



**PLEASE NOTE A RADIO SURVEY SHOULD BE COMPLETED PRIOR TO ORDERING**  
**FOR FULL DETAILS CALL OUR UK SALES TEAM NOW**  
**01922 745024**

# Zerio Plus Wireless Devices



FPA-684

Zerio Plus Radio Optical Smoke Detector

Dimensions: Ø 115mm x Height 45mm

Suitable Use: Bedrooms and escape routes



FPA-685

Zerio Plus Radio Optical Smoke Detector  
c/w Sounder

Dimensions: Ø 115mm x Height 65mm  
Sound Output: High 85dBA/Low 65dBA

Suitable Use: Bedrooms and escape routes



FPA-686

Zerio Plus Radio Optical Smoke Detector  
c/w Sounder and LED Beacon

Dimensions: Ø 115mm x Height 89mm  
Sound Output: High 85dBA/Low 65dBA  
Flash Rate: 60 per minute

Suitable Use: Bedrooms and escape routes



FPA-687

Zerio Plus Radio Heat Detector

Dimensions: Ø 115mm x Height 45mm

Suitable Use: Dirty or smoky environments  
Mode Selection:  
Fixed Point: Can be set between 50°C and 99°C  
Rate-of-Rise: Can be set low, medium or high  
A1S: 57°C fixed temperature  
A1R: 57°C rate-of-rise



FPA-688

Zerio Plus Radio Heat Detector  
c/w Sounder

Dimensions: Ø 115mm x Height 65mm  
Sound Output: High 85dB/Low 65dBA

Suitable Use: Dirty or smoky environments

Mode Selection:  
Fixed Point: Can be set between 50°C and 99°C  
Rate-of-Rise: Can be set low, medium or high  
A1S: 57°C fixed temperature  
A1R: 57°C rate-of-rise



FPA-689

Zerio Plus Radio Heat Detector  
c/w Sounder and LED Beacon

Dimensions: Ø 115mm x Height 89mm  
Sound Output: High 85dBA/Low 65dBA  
Flash Rate: 60 per minute

Suitable Use: Dirty or smoky environments

Mode Selection:  
Fixed Point: Can be set between 50°C and 99°C  
Rate-of-Rise: Can be set low, medium or high  
A1S: 57°C fixed temperature  
A1R: 57°C rate-of-rise



FPA-690

Zerio Plus Radio  
Break Glass Call Point

Dimensions: H 91mm x W 88mm x D 54mm



FPA-693

Zerio Plus Radio Sounder

Dimensions: H 145mm x W 115mm x D 70mm  
Sound Output: 105dBA



FPA-694

Zerio Plus Radio Sounder and LED Beacon

Dimensions: H 145mm x W 115mm x D 70mm  
Sound Output: 105dBA  
Flash Rate: 60 per minute



FPA-695

Zerio Plus Radio LED Beacon  
Dimensions: H 145mm x W 115mm x D 70mm

Flash Rate: 60 per minute

All devices are supplied complete with 2 x AA Lithium Thynol Chloride cells (min 3.0V/max 3.7V).  
The unit will transmit a low battery condition to the panel when approaching the end of its life.



# Hyfire Fire Alarm Panels



## Features

- 16 zonal LED indicators
- 2 programmable sounder circuits
- 5 programmable inputs
- 3 programmable relays
- 3A power supply
- Large graphic display
- Real time clock
- Expandable from 1 to 2 loops
- Certified to EN54-2/ EN54-4
- Up to 512 additional programmable I/O via I/O modules
- Powerful, network wide cause and effects
- Sensitivity adjustment and drift compensation
- Supports Apollo, Argus Vega and Hochiki protocols
- Stores 500 last events in event log
- Dial up modem connection available
- Compact, stylish enclosure
- Installer friendly, removable equipment chassis
- Different language and character set variants available
- Available with one or two detection loops capable of hosting up to 126 devices (Apollo), 240 devices (Argus Vega) or 127 devices (Hochiki)
- Suitable for all small to medium sized fire detection systems, control panels can be expanded and networked to become part of much larger systems if the need arises, therefore providing a future proof solution for any installation
- With its large graphical display and ergonomic button and indicator layout, the control panel is simple and straightforward to understand for installers, commissioning engineers and end users alike
- Comprehensive day/night mode facility
- Programmable one touch test mode
- Cause and effect wizard including cause and effect action, disablement configuration and test mode configuration
- Up to 64 panels can be networked via optional fully fault tolerant network card

## Fire Alarm Panels

Cat No	Description	Max Battery Type & Size
FPA-543	1 loop fire alarm panel (240 devices)	2 x 7Ah (16-508)
FPA-544	2 loop fire alarm panel (240 devices per loop)	2 x 7Ah (16-508)

• Batteries to be ordered separately

## System Accessories

Cat No	Description
FPR-766	Fault tolerant network interface card



### FPA-304 SHORT MESSAGE COMMUNICATOR

The **FPA-304** short message communicator provides a cost-effective, easy-to-install solution for signalling alarm and other system conditions by sending a SMS text message to the user using GSM technology. The unit ensures that key people are contacted the moment there is a status change in the system, enabling fast incident response. Call our sales team now for further details.

## Dimensions

Width 520mm x Height 385mm x Depth 110mm (Weight 6Kg without batteries)

## Construction

Mild sheet steel with RAL7047 light grey white finish



























## Ingress Rating

IP30



**PLEASE NOTE A RADIO SURVEY SHOULD BE COMPLETED PRIOR TO ORDERING**  
**FOR FULL DETAILS CALL OUR UK SALES TEAM NOW**  
**01922 745024**

# Hyfire Wireless Devices

 <p><b>FPA-508</b> Hyfire Loop Powered Wireless Translator Dimensions: 160mmH (+80mm for antenna) x 120mmH (+80mm for antenna) x 50mmD Max 6 per loop 32 devices per translator</p>	 <p><b>FPA-509</b> Hyfire 24V Wireless Expander Module Dimensions: 160mmH (+80mm for antenna) x 120mmH (+80mm for antenna) x 50mmD Does not take address. Requires separate PSU</p>	 <p><b>FPA-510</b> Hyfire Intelligent Wireless Optical Smoke Detector Dimensions: Ø110mm x 65mmH</p>	 <p><b>FPA-511</b> Hyfire Intelligent Wireless Heat Smoke Detector Dimensions: Ø110mm x 65mmH</p>	 <p><b>FPA-512</b> Hyfire Intelligent Wireless Multi-Criteria Detector Dimensions: Ø110mm x 65mmH</p>	 <p><b>FPA-513</b> Hyfire Wireless Manual Call Point Dimensions: 87mmH x 87mmW x 35mmD</p>
 <p><b>FPA-514</b> Hyfire Wireless Weatherproof Manual Call Point Dimensions: 87mmH x 87mmW x 35mmD</p>	 <p><b>FPA-515</b> Hyfire Wireless Single Channel Input Module Dimensions: 135mmH x 95mmW x 55mmD</p>	 <p><b>FPA-516</b> Hyfire Wireless Single Channel Output Module Dimensions: 135mmH x 95mmW x 55mmD</p>	 <p><b>FPA-517</b> Hyfire Wireless Red Wall Sounder Dimensions: 109mmL x 100mmH x 95mmD Sound Output: 100dBA</p>	 <p><b>FPA-518</b> Hyfire Wireless White Wall Sounder Dimensions: 109mmL x 100mmH x 95mmD Sound Output: 100dBA</p>	 <p><b>FPA-519</b> Hyfire Wireless Weatherproof Red Wall Sounder Dimensions: 110mmL x 110mmH x 105mmD Sound Output: 100dBA</p>
 <p><b>FPA-520</b> Hyfire Wireless Weatherproof White Wall Sounder Dimensions: 110mmL x 110mmH x 105mmD Sound Output: 100dBA</p>	 <p><b>FPA-521</b> Hyfire Wireless Red Sounder Beacon Dimensions: 109mmL x 100mmH x 95mmD Sound Output: 100dBA Flash Rate: 60 per minute</p>	 <p><b>FPA-522</b> Hyfire Wireless White Sounder Beacon Dimensions: 109mmL x 100mmH x 95mmD Sound Output: 100dBA Flash Rate: 60 per minute</p>	 <p><b>FPA-523</b> Hyfire Wireless Weatherproof Red Sounder Beacon Dimensions: 110mmL x 110mmH x 105mmD Sound Output: 100dBA Flash Rate: 60 per minute</p>	 <p><b>FPA-524</b> Hyfire Wireless Weatherproof White Sounder Beacon Dimensions: 110mmL x 110mmH x 105mmD Sound Output: 100dBA Flash Rate: 60 per minute</p>	 <p><b>FPA-526</b> Hyfire Wireless Single Channel Output Module Dimensions: 335mmW x 110mmH x 30mmD</p>
 <p><b>FPA-545</b> Hyfire Wireless to Conventional Interface Module Dimensions: 160mmH (+80mm for antenna) x 120mmH (+80mm for antenna) x 50mmD</p>	 <p><b>FPA-559</b> Hyfire Wireless Sounder Base Dimensions: Ø115mm x 50mmD Sound Output: 90dBA</p>	 <p><b>FPA-734</b> Hyfire Wireless Red Beacon Dimensions: Ø93mmW x 53mmD Flash Rate: 60 per minute</p>	 <p><b>FPA-735</b> Hyfire Wireless White Beacon Dimensions: Ø93mmW x 53mmD Flash Rate: 60 per minute</p>	 <p><b>FPA-744</b> Hyfire Wireless Sounder Beacon Base Dimensions: Ø141mm x 67mmD Sound Output: 90dBA Flash Rate: 60 per minute</p>	 <p><b>FPA-745</b> Hyfire Wireless Remote Indicator Dimensions: 80mmL x 80mmH x 33mmD</p>
			 <p><b>FPA-749</b> Hyfire Spare Primary Batteries (Pack of 10)</p>	 <p><b>FPA-750</b> Hyfire Spare Secondary Batteries (Pack of 10)</p>	

## Disabled Refuge Systems.

An attractive range of disabled refuge and disabled toilet alarms to allow people in distress to raise an alarm and receive assistance in the event of an emergency.



# Disabled Toilet Alarms

## Features

### Hard-Wired Disabled Toilet Alarm:

- BS8300 clause compliant for emergency assistance alarms
- Attractive compact design blends perfectly into any sort of decor
- Double gang call controller features a Volt-free relay output, a rotary volume control, Braille text and on-board rechargeable battery backup facility
- Remote reset point complete with sounder provides audible and visual indication of an alarm call inside the WC to reassure users that help is on the way
- Simple to install 12V system
- All wall-mounting plastic accessories fit 25mm back boxes; ceiling pull is surface mountable
- Rechargeable back-up battery provides up to 24 hours stand-by and 15 minutes running time
- System can be easily expanded to include up to 3 additional call system devices
- Can be used to help building managers and service providers comply with BS8300 and the Equality / Disability Discrimination Act
- Ideal for use in all types of disabled persons applications, such as changing rooms, solariums, accessible bedrooms, interview rooms and reception areas
- Most installations are compatible with 4 core stranded security cable
- Ceiling pull features two open-sided triangular bangles for ease of use by the infirm
- 'Accessible WC' sticker included in all kits

### Wireless Disabled Toilet Alarm:

- Designed to meet the requirements of the Disability Discrimination Act in all public buildings
- Easy to install
- Complies with EN 300 220-3 and EN 301 489-3
- Battery life minimum of 1 year with in-built low battery warning
- Maximum range 30-50 metres when used internally and 100-150 metres when used externally
- Sounder is 65dBA measured at 1 metre
- Simple to use pull-cord; pull once for alert and twice to reset



### Hard-Wired Disabled Toilet Alarm

Cat No	Description
FPA-285	Disabled toilet alarm kit (plastic finish)
FPA-286	Disabled toilet alarm kit (stainless steel finish)

*\* All kits consist of 1 x controller, 1 x pull-cord, 1 x over door light/sounder, 1 x alarm reset point/sounder and 1 self adhesive label*

### Wireless Disabled Toilet Alarm

Cat No	Description
FPA-894	Pull-cord wireless transmitter
FPA-895	Sounder/beacon wireless receiver
FPA-896	Wireless disabled toilet alarm kit

*\* FPA-896 kit consists of 1 x FPA-894 transmitter and 1 x FPA-895 receiver*





# Loop Wired Disabled Refuge System



## Features

- Meets and exceeds the requirements of BS5839 Pt9
- CE 2012 certified
- Effective two-way full duplex communication
- Outstations can be flush or surface mounted
- Attractive stainless steel construction (master panels and outstations)
- Surface mounting outstations are supplied with black leatherette (RAL9001) mild steel back-box
- All control panels are supplied complete with back-up batteries
- A Volt-free changeover contact is provided for remote call in and fault reporting
- 24 + 3 hours battery support
- Disabled toilet alarms can be integrated into the refuge system
- Compatible with 1mm or 1.5mm 4 core fire-rated cable

## The Components of the Disabled Refuge System

### Master Panels

Master panels are available in surface or flush mounting, 4, 8 or 16 way versions and are constructed from stainless steel with black screen print. The master panels can answer or call out by pressing the separate call switches and indications for each disabled refuge location (group or all call can be selected) and once connected a clear full duplex audio conversation can take place. The call is ended by replacing the master handset. A volt free changeover contact is provided for remote call in and fault reporting and a fire panel inhibit input is also fitted as standard.

### Type A & B Disabled Refuge & Fire Telephone Units

A combined surface or flush mounting enclosure finished in stainless steel with black screen print, which also incorporates a green disabled refuge outstation into the door. The enclosure houses a red handset with a hearing aid t-coil output and a full induction loop output from the disabled refuge unit. By simply lifting the remote handset or pressing the disabled refuge call button a call is made automatically to the central control panel, allowing a clear full duplex audio conversation to take place.

### Type B Disabled Refuge Outstations

Disabled refuge outstations are hands-free vandal-resistant units that can be supplied either as surface or flush mounting versions. The units comprise of either a stainless steel or green photo luminescent front panel with Braille identification and tactile text. The flush unit has a galvanised steel back box and the surface unit has a black leatherette (RAL9001) mild steel back box. A call is made by pressing the large momentary push button, which illuminates the panel mounted 'call registered' red LED and initiates a conventional telephone call tone from the panel loudspeaker. A stainless steel weatherproof version is also available for applications where the elements or intrusive conditions may have to be considered.

## Disabled Refuge Systems Are Now Mandatory

Part M of the Building Regulations insists that all new non-domestic buildings with more than one storey with lift access provide 'refuge' areas; in other words, relatively safe places for people who cannot use fire escapes.

Our disabled refuge system is designed to meet and exceed BS5839 Pt9 and can be used to call for assistance and wait until help arrives. Effective two-way full duplex communication in these areas is essential, firstly to assist rescue teams to determine where assistance is required and secondly to reassure people that help is on the way.



**PLEASE NOTE A RADIO SURVEY SHOULD BE COMPLETED PRIOR TO ORDERING**  
**FOR FULL DETAILS CALL OUR UK SALES TEAM NOW**  
**01922 745024**



FPA-876

4 Way Stainless Steel Flush Mounting Disabled Refuge Master Panel

Dimensions:  
Control Panel:  
380mmH x 380mmW x 1.5mmD  
Flushing Back-Box:  
360mmH x 360mmW x 75mmD  
Battery Required  
1 x 7Ah VRLA (supplied)



FPA-877

4 Way Stainless Steel Surface Mounting Disabled Refuge Master Panel

Dimensions:  
Control Panel:  
380mmH x 380mmW x 1.5mmD  
Surface Sleeve:  
403mmH x 403mmW x 83mmD  
Battery Required  
1 x 7Ah VRLA (supplied)



FPA-878

8 Way Stainless Steel Flush Mounting Disabled Refuge Master Panel

Dimensions:  
Flushing Back Box:  
360mmH x 460mmW x 98mmD  
Flushing Flange:  
410mmH x 510mmW x 1mmD  
Battery Required  
1 x 7Ah VRLA (supplied)



FPA-879

8 Way Stainless Steel Surface Mounting Disabled Refuge Master Panel

Dimensions:  
Surface Back Box:  
400mmH x 500mmW x 100mmD  
Battery Required  
1 x 7Ah VRLA (supplied)



FPA-969

16 Way Stainless Steel Flush Mounting Disabled Refuge Master Panel

Dimensions:  
Flushing Back Box:  
360mmH x 460mmW x 98mmD  
Flushing Flange:  
410mmH x 510mmW x 1mmD  
Battery Required  
1 x 7Ah VRLA (supplied)



FPA-880

16 Way Stainless Steel Surface Mounting Disabled Refuge Master Panel

Dimensions:  
Surface Back Box:  
400mmH x 500mmW x 100mmD  
Battery Required  
1 x 7Ah VRLA (supplied)



FPA-700

Type A & B Stainless Steel Flush Mounting Disabled Refuge & Fire Telephone Unit

Dimensions:  
Flange:  
410mmH x 246mmW x 1.5mmD  
Back Box:  
360mmH x 196mmW x 106mmD  
*\*Includes FPA-698/L back box*



FPA-701

Type A & B Stainless Steel Surface Mounting Disabled Refuge & Fire Telephone Unit

Dimensions:  
360mmH x 196mmW x 120mmD  
(106mm bottom edge)  
*\*Includes FPA-699/L back box*



FPA-702

Type B Green Photo Luminescent Disabled Refuge Outstation

Dimensions:  
Flushing Back Box:  
230mmH x 155mmW x 55mmD  
Green Panel:  
260mmH x 185mmW x 1.5mmD  
*\*Requires FPA-698/L or FPA-699/L back box*



FPA-703

Type B Stainless Steel Disabled Refuge Outstation

Dimensions:  
Flushing Back Box:  
230mmH x 155mmW x 55mmD  
Stainless Steel Panel:  
260mmH x 185mmW x 1.5mmD  
*\*Requires FPA-698/L or FPA-699/L back box*



FPA-704

Type B Weatherproof Surface mounting Stainless Steel Disabled Refuge Outstation

Dimensions:  
265mmH x 190mmW x 90mmD  
(65mm bottom edge)  
*\*Includes FPA-699/L back box*



FPA-699/L



FPA-698/L

Flush Back Box to suit FPA-702 or FPA-703 Disabled Refuge Outstations

FPA-699/L  
Surface Back Box to suit FPA-702 or FPA-703 Disabled Refuge Outstations

# Radial Wired Disabled Refuge System



## Features

- Fully compliant to BS5839-9: 2011
- Compact design
- Integrated assist call and acknowledge meets BS8300
- Full duplex operation
- Wall-mounting enclosure
- 1.5A EN54-4: A2 power supply unit
- Lockable handset cover
- Expandable from 2 to 8 lines (touch screen versions expandable from 2 to 512 lines)
- Inbuilt networking
- Can be used as stand-alone fire telephone systems and disabled refuge systems or even as a combination of both
- Outstations are stainless steel as standard
- Compatible with 1mm or 1.5mm 2 core screen enhanced fire resistant cable over a distance of up to 500 metres
- Outstations are fitted with a high volume ringer and an LED call indicator



FPA-1065+

Master Station (Supplied without FPA-1089 Expansion PCBs)

0 x FPA-1088 = Use as a repeater panel  
 1 x FPA-1089 = 2 line system  
 2 x FPA-1089 = 4 line system  
 4 x FPA-1089 = 8 line system  
 Systems in excess of 8 lines must use a FPA-1066 as the master panel

Dimensions: 300mmH x 350mmW x 95mmD (Weight 6.5Kg)

Battery Required: 1 x 12V 7Ah VRSLA\*



FPA-1066+

Touch-Screen Master Station

Used for larger systems and can support up to 512 lines via its 8 integral line and 64 panel network capacity.

Dimensions: 300mmH x 350mmW x 95mmD (Weight 6.5Kg)

Battery Required: 1 x 12V 7Ah VRSLA\*



FPA-1067++

Type A Telephone Handset

Can be flush mounted using stainless steel bezel FPA-1088

Dimensions: 300mmH x 150mmW x 95mmD (Weight 1.4Kg)



FPA-1068

Type B Refuge Point

Dimensions: 141mmH x 86mmW x 22mmD (Weight 0.6Kg)



FPA-1069+

Combined Type A Telephone and Type B Refuge Point

Can be flush mounted using stainless steel bezel FPA-1088

Dimensions: 300mmH x 150mmW x 95mmD (Weight 1.4Kg)



FPA-1070

System Expander Panel

Ideal for large sites with a built-in network that allows up to 64 panels to be connected with 8 integral lines

Dimensions: 300mmH x 220mmW x 95mmD (Weight 6.5Kg)



FPA-1089

2 Way Line Card PCB

Allows the expansion of FPA-1065 and FPA-1070 and is supplied with a fixing screw and two part line connectors (Maximum 4 line cards per unit)

+ Can be flush mounted using stainless steel bezel FPA-1071; cut-out dimensions: 305mmH x 355mmW x 85mmD

++ Can be flush mounted using stainless steel bezel FPA-1088; cut-out dimensions: 305mmH x 155mmW x 85mmD

\* Batteries not supplied



## Call Systems.

Our range of conventional and addressable call systems enable members of the public, staff members and patients to call for assistance in a wide range of applications.





# Conventional Call System



## Features

- Hundreds of applications
- Hard wired for total reliability, 4 to 6 core security cable is ideal for most installations
- Wide range of indicator panels covering 1 to 90 zones
- Extensive range of ancillaries including ceiling pulls, wall mounting call points, monitoring points, overdoor lights, remote sounders and relays
- Simple to install, easy to operate and highly reliable
- Most wall-mounting plastic components fit standard 25mm single or double back boxes
- Attractive compact design blends perfectly into any sort of décor
- Two levels of call; standard constant tone and emergency intermittent tone
- Optional button or magnetic key reset facilities (dependent on items purchased)
- No limit to system size as components can be mixed and matched to meet the layout and call communication requirements of virtually any building
- Optional paging and infrared people protection facilities
- Extremely cost-effective
- Manufactured in the UK
- Helps building managers and service providers comply with BS8300, the Disability Discrimination Act and the Care Standards Act
- All power supplies are capable of 12V sealed lead acid battery charging
- Suitable for use in hotels, leisure centres, nursing homes, shops and offices

## Conventional Call System Operation

Depending on the type of calling devices used, the system can be set up to operate as a standard system on which standard (constant tone) calls are generated, or an emergency system on which standard and emergency (intermittent tone) calls are generated.

### Standard Systems

The user calls for assistance by activating a ceiling pull, standard call point, monitoring point or infrared ceiling receiver. A red confidence light on the calling device illuminates to reassure the user that the call has been registered.

At the system's indicator panel, an indicator light illuminates and a buzzer sounds to inform staff that someone is in need of assistance. Relevant overdoor lights, remote sounders and area indicators also operate to provide additional audible and visual indication of the call.

### Emergency Systems

In addition to doing everything a standard system does, a more urgent level of assistance can be summoned by activating an emergency call via an emergency call point or infrared ceiling receiver.

Once activated, the red confidence light on the calling device will flash to confirm the emergency call has been registered and the relevant indicator panel light and its buzzer will flash and sound a more insistent tone to attract attention. Relevant overdoor lights, remote sounders and area indicators will also pulse to provide audible and visual indication of the emergency call.

## Choosing & Planning a System

The type of system required will depend upon the application and the needs of the user.

In residential care homes, a standard system is normally acceptable as the main requirement is for the reset function to be carried out at the source of the call. In nursing homes, however, some authorities insist on standard and emergency call facilities so an emergency system may be required. In most other applications, such as shops, leisure centres, hotels and public sector buildings, the type of system and devices required will depend almost entirely on what the client needs.

The following points should be considered when designing or planning a call system.

Indicator panels should be sited internally in a clean dry area which is readily accessible to staff.

Call points, ceiling pulls and monitoring points will work on both standard and emergency systems but emergency call points will work on emergency systems only.

In its simplest form, a conventional call system:

- Allows the general public, a member of staff or a patient to call for assistance
- Confirms that the call has got through
- Makes sure the caller is visited
- If required, allows extra or more urgent assistance to be summoned using an optional 'emergency' call facility

Using the wide variety of options available, the system can also:

- Informs staff that someone is being attacked via an optional infrared 'staff attack' facility
- Monitors storage cupboards, cash offices and stock rooms for unauthorised access
- Monitors doorbells, telephones and machinery for activation or failure
- Sends notification of calls to hand-held paging equipment

 <p><b>ONC-004</b> 4 Zone Controller c/w Mute/Reset Button (requires ONC-005 PSU)</p>	 <p><b>ONC-005</b> 12V 250mA PSU (powers up to 2 x 4 zone controllers)</p>	 <p><b>ONC-052</b> 10 Zone Flush Master Call Controller c/w 12V 300mA PSU</p>	 <p><b>ONC-053</b> 10 Zone Surface Master Call Controller c/w 12V 300mA PSU</p>	 <p><b>ONC-054</b> 20 Zone Flush Master Call Controller c/w 12V 300mA PSU</p>	 <p><b>ONC-055</b> 20 Zone Surface Master Call Controller c/w 12V 300mA PSU</p>
 <p><b>ONC-056</b> 10 Zone Flush Expansion Unit to suit ONC-052 or ONC-054</p>	 <p><b>ONC-057</b> 10 Zone Surface Expansion Unit to suit ONC-053 or ONC-055</p>	 <p><b>ONC-058</b> 20 Zone Flush Expansion Unit to suit ONC-052 or ONC-054</p>	 <p><b>ONC-059</b> 20 Zone Surface Expansion Unit to suit ONC-053 or ONC-055</p>	 <p><b>ONC-061</b> 0.3Ah Battery Back-Up Kit (for use with ONC-005)</p>	 <p><b>ONC-062</b> 12V 1A White Boxed PSU (powers up to 3 x 4 zone controllers)</p>
 <p><b>FPA-384</b> 12V 2A PSU (Can be optionally connected to master controllers to provide standby power)</p>	 <p><b>ONC-012</b> Overdoor Light</p>	 <p><b>ONC-013</b> Overdoor Light &amp; Sounder</p>	 <p><b>ONC-063</b> Remote Sounder</p>	 <p><b>ONC-014</b> Ceiling Pull Unit (without onboard reset or remote socket)</p>	 <p><b>ONC-015</b> Standard Call Point (with button reset and remote socket)</p>
 <p><b>ONC-040</b> Standard Call Point (with magnetic reset and remote socket)</p>	 <p><b>ONC-041</b> Magnetic Reset Keys (pack of 10)</p>	 <p><b>ONC-064</b> Isolatable Monitoring Point (with magnetic reset, without remote socket)</p>	 <p><b>ONC-065</b> Emergency Call Point (with button reset and remote socket) standard &amp; emergency calls</p>	 <p><b>ONC-066</b> Emergency Call Point (with magnetic reset and remote socket) standard &amp; emergency calls</p>	 <p><b>ONC-067*</b> IP65 Master Alert Point (with magnetic reset, no remote socket) standard or emergency calls</p>
 <p><b>ONC-068</b> IP65 Slave Alert Point (max 10 per master)</p>	 <p><b>ONC-069</b> IP69 Sauna Alert Point (must be used as a slave to an ONC-067)</p>	 <p><b>ONC-070</b> Emergency Call /Reset Point (button reset, no remote socket) emergency calls only</p>	 <p><b>ONC-071</b> Infrared Master Ceiling Receiver (without on-board reset and remote socket)</p>	 <p><b>ONC-072</b> Infrared Slave Ceiling Receiver (up to 3 per master)</p>	 <p><b>ONC-073</b> Infrared Call Point (with button reset and remote socket)</p>
 <p><b>ONC-074</b> Infrared Call Point (with magnetic reset and remote socket)</p>	 <p><b>ONC-075</b> Test Infrared Receiver</p>	 <p><b>ONC-076</b> Infrared Neck Pendant Transmitter (Push for Call) Battery Operated</p>	 <p><b>ONC-077</b> Infrared Wrist Pendant Transmitter (Push for Call) Battery Operated</p>	 <p><b>ONC-016</b> Button Reset Point</p>	 <p><b>ONC-017</b> Button Reset Point c/w Sounder and Braille Label</p>
 <p><b>ONC-018+</b> 1.8m (6ft) Tail Call Lead</p>	 <p><b>ONC-019+</b> 4.2m (14ft) Tail Call Lead</p>	 <p><b>ONC-078</b> Area Isolator (can be used to isolate areas/zones)</p>	 <p><b>ONC-079</b> 12V Relay Unit (can be used to switch sirens, strobes etc)</p>		

\* Can generate either a standard or emergency call (not both)  
+ Also available for use on addressable call system

# Addressable Call System



## Features

- Multiple call levels including standard, ensuite, help required, emergency, attack, presence & attendance
- Wide range of system components including programmable call points, ceiling pulls, monitoring points, displays, infrared ceiling receivers, radio receivers, staff attack transmitters and neck pendants, overdoor lights and sounders
- Flexible call routing; system can be tailored to suit a site's exact operational requirements, whatever they may be
- Call accept feature saves valuable time by preventing more than one member of staff responding to the same call
- Automatic call divert transfers any unanswered calls to other areas to ensure they are responded to within a pre-determined time
- Follow-me lights illuminate overdoor lights and corridor lights in sequence to visually guide staff to the source of a call
- Staff presence helps managers, matrons and carers locate their colleagues by showing where they are working at any given time
- Staff attendance allows staff entering rooms to log their 'attendance' via an infrared call point or ceiling receiver
- Call follower sounders inform staff that other calls are waiting by sounding an optional soft tone in all occupied rooms
- Night mode allows the system to work in a totally different way at night, providing for fewer staff and reduced sound levels
- Infrared security transmitters can help protect staff against disturbed patients, intruders and aggressive visitors
- Surveyor data analysis software allows managers to output custom reports to a desktop PC on data such as longest calls, busiest shifts, most visited rooms etc
- Optional alphanumeric and tone-only paging facilities are available for carers on the move
- Device monitoring constantly supervises all network devices and informs you of any problems, reducing maintenance time and costs
- Laptop programmable system controller allows the system to adapt to your changing requirements without the need for expensive rewiring
- Easy to install and expand
- Universal programming devices allow optional third-party switch assemblies to be interfaced to the system for optional compliance with HTM 08-03
- Tried, trusted & respected by large NHS trusts to renowned nursing home groups

## Addressable Call System Operation

This powerful yet easy to use addressable call system helps ensure vital communication throughout a building. In environments where efficiency is paramount, the system delivers, helping save staff time, minimising disturbance and improving the quality of patient, customer and/or employee care.

Recently updated to include a host of new features, the way the system operates can be tailored to suit a care facility's specific requirements. For example, different day, night and call divert arrangements can be easily accommodated to meet the exact operational needs and precise layout of any building.

## Choosing & Planning a System

The flexibility of the system, coupled with many other advanced features such as multiple call levels, free in-built datalogging, simple system reprogramming and full monitoring of all network devices, makes this addressable system the obvious choice for nursing homes, hospitals, health centres and many other private and public sector establishments.

Up to 255 addressable devices (and an even larger number of slave and ancillary devices) can be connected to the system. In practice, systems can range from having just a handful of addressable devices (for example, a building that requires communication facilities in its disabled persons toilet only) to systems with in excess of 200 devices such as buildings requiring nursecall and infrared staff protection facilities.




















As all addressable devices are soft addressed, no consideration needs to be given to how they will interact until system programming. System wiring, however, must be made in a 'spine' and 'limb' configuration using one or more network splitters. A point also worth taking into consideration is that indicator panels should always be sited internally in a clean dry area which is readily accessible to staff.

In its simplest form, an addressable call system:

- Allows the general public, a member of staff or a patient to call for assistance
- Confirms that the call has got through
- Makes sure the caller is visited
- If required, allows extra or more urgent assistance to be summoned using an optional 'emergency' call facility

Using the wide variety of options available, the system can also:

- Informs staff that someone is being attacked via an optional infrared 'staff attack' facility
- Monitors storage cupboards, cash offices and stock rooms for unauthorised access
- Monitors doorbells, telephones and machinery for activation or failure
- Sends notification of calls to hand-held paging equipment

 <p><b>ONC-020</b> Addressable Call System Controller (requires 2 x 7Ah VRLA batteries)</p>	 <p><b>FPA-406</b> Flush bezel to suit ONC-020 Controller</p>	 <p><b>ONC-095</b> Stainless Steel Glazed Enclosure to suit ONC-020 (Requires ONC-101)</p>	 <p><b>ONC-101</b> Cam Lock Kit to suit ONC-095</p>	 <p><b>ONC-001</b> Slave Ceiling Pull Unit</p>	 <p><b>ONC-002</b> Addressable Overdoor Light</p>
 <p><b>ONC-003</b> Addressable Call Point c/w Remote Socket &amp; Button Reset</p>	 <p><b>ONC-021</b> Upload/Download Programming Software &amp; Lead (Windows XP/Vista/7)</p>	 <p><b>ONC-022*</b> Corridor Display with Controls</p>	 <p><b>ONC-023</b> Corridor Display without Controls</p>	 <p><b>ONC-024*</b> Slave Overdoor Light</p>	 <p><b>ONC-025</b> Addressable Call Point c/w Remote Socket &amp; Magnetic Reset</p>
 <p><b>ONC-027</b> Addressable Call Point c/w Button Reset (Without Remote Socket)</p>	 <p><b>ONC-028</b> Addressable Call Point c/w Magnetic Reset (Without Remote Socket)</p>	 <p><b>ONC-029</b> Monitoring Point c/w Button Reset (Keyswitch Isolatable)</p>	 <p><b>ONC-030</b> Master Infrared Ceiling Receiver</p>	 <p><b>ONC-031</b> Slave Infrared Ceiling Receiver</p>	 <p><b>ONC-032</b> Mk2 (868MHz) Radio Receiver</p>
 <p><b>ONC-033*</b> Infrared/Radio Staff Attack Transmitter (Push for Attack/Pull for Attack)</p>	 <p><b>ONC-034+</b> Single Way Charging Unit to suit ONC-033 Transmitter</p>	 <p><b>ONC-035+</b> Ten Way Charging Unit to suit ONC-033 Transmitter</p>	 <p><b>ONC-037</b> Surveyor Data Management Software &amp; Wall Socket Lead (Windows XP/Vista/7)</p>	 <p><b>ONC-038</b> Network Splitter</p>	 <p><b>ONC-039</b> Addressable Sounder</p>
 <p><b>ONC-080+</b> Infrared/Radio Transmitter (Push for Call/Pull for Attack)</p>	 <p><b>ONC-081</b> Zone Specific Relay Output Device</p>	 <p><b>ONC-082</b> Extension Aerial to suit ONC-032</p>	 <p><b>ONC-083</b> RF Integrity 'Monitored Heartbeat' Transmitter (at least 1 per ONC-032 required)</p>	 <p><b>ONC-084</b> Infrared/Radio Patient Neck Pendant c/w Lanyard (Push for Call)</p>	 <p><b>ONC-085</b> Infrared/Radio Patient Wrist Pendant c/w Wrist Strap (Push for Call)</p>
 <p><b>ONC-086</b> Infrared/Radio Attendance Pendant c/w Lanyard (Push for Attendance)</p>	 <p><b>ONC-090+</b> Hand/Foot Pneumatic Pad (Requires ONC-091)</p>	 <p><b>ONC-091+</b> Remote Air Switch to suit ONC-090 (Connects to ONC-003, ONC-044 or ONC-046)</p>	 <p><b>ONC-092+</b> Portable Movement Detector (Connects to ONC-003, ONC-044 or ONC-046)</p>	 <p><b>ONC-093+</b> Double Remote Jack Socket (Allows 2 Ancillary Calling Devices to be Connected)</p>	 <p><b>ONC-094</b> Floor Pressure Mat (Connects to ONC-003, ONC-044 or ONC-046)</p>
 <p><b>ONC-096</b> Configurator Adaptor</p>	 <p><b>ONC-097</b> High Output 85dB Addressable Sounder</p>	 <p><b>ONC-098</b> Call Point with Sounder &amp; Button reset with remote socket</p>	 <p><b>ONC-099</b> Call Point with IR Receiver &amp; Button reset with remote socket</p>	 <p><b>ONC-100</b> Call Point with Sounder, IR Receiver &amp; Button reset with remote socket</p>	

+ Also available for use on conventional call system  
\* Also available for use on conventional and dementia care call systems



# Stainless Steel Ancillaries

## Conventional Call System Stainless Steel Ancillaries



**ONC-102**  
Stainless Steel Single Zone Call Controller c/w 12V 250mA PSU and Reset Button

*Can be fully integrated into standard conventional call system*



**ONC-103**  
Stainless Steel Four Zone Call Controller c/w Mute/Reset Button (Requires 12V PSU)

*Can be fully integrated into standard conventional call system*



**ONC-104**  
Stainless Steel 12V 250mA PSU (Powers up to 2 x ONC-103)

*Can be fully integrated into standard conventional call system*



**ONC-105**  
Stainless Steel Overdoor Light

*Can be fully integrated into standard conventional call system*



**ONC-106**  
Stainless Steel Overdoor Light and Sounder

*Can be fully integrated into standard conventional call system*



**ONC-107**  
Stainless Steel Call Point with Magnetic Reset (Without Remote Socket)

*Can be fully integrated into standard conventional call system*



**ONC-108**  
Stainless Steel Button Reset Point

*Can be fully integrated into standard conventional call system*

## Addressable Call System Stainless Steel Ancillaries




**ONC-109**  
Stainless Steel Corridor Display (with Controls)

*Can be fully integrated into standard conventional call system*



**ONC-110**  
Stainless Steel Corridor Display (without Controls)

*Can be fully integrated into standard conventional call system*



**ONC-111**  
Stainless Steel Call Point with Sounder and Button Reset

*Can be fully integrated into standard conventional call system*



**ONC-112**  
Stainless Steel Call Point with Sounder and Key Reset

*Can be fully integrated into standard conventional call system*



**ONC-113**  
Stainless Steel Keyswitch Isolatable Call Point with Sounder and Button Reset

*Can be fully integrated into standard conventional call system*



**ONC-114**  
Stainless Steel Keyswitch Isolatable Call Point with Sounder and Key Reset

*Can be fully integrated into standard conventional call system*



**ONC-115**  
Stainless Steel Call Point with Sounder and Button Reset (Single Gang)

*Can be fully integrated into standard conventional call system*



**ONC-116**  
Stainless Steel Call Point with Sounder and Key Reset (Single Gang)

*Can be fully integrated into standard conventional call system*



**ONC-117**  
Stainless Steel Keyswitch Isolatable Call Point with Sounder and Button Reset

*Can be fully integrated into standard conventional call system*



**ONC-118**  
Stainless Steel Keyswitch Isolatable Call Point with Sounder and Key Reset

*Can be fully integrated into standard conventional call system*

# Dementia Care System

## Controllers & Ancillaries



**ONC-087**

### Dementia Care Controller

Includes all of the inputs, outputs, timers and power required for the connection of system devices  
Features two PIR sensing channels and two LED lighting circuits  
Sends detailed room status data to all displays  
Includes space for 1 x 12V 7Ah batteries (providing up to 8 hours standby time)  
Requires a 230Vac mains supply and connects to the system via its two network connections

## Controllers & Ancillaries



**ONC-088**

### Room Status Controller (Keyswitch Reset/Isolate)

Allows staff to isolate certain functions (e.g. PIRs during daytime hours), to put the room into 'presence' and to reset calls using a key  
Allows carers to arm/isolate the system and reset any active calls. An optional door bell will trigger a call when pressed by the patient

## Controllers & Ancillaries



**ONC-051**

### Room Status Controller (Magnetic Reset/Isolate)

Allows staff to isolate certain functions (e.g. PIRs during daytime hours), to put the room into 'presence' and to reset calls using a magnetic swipe key  
Allows carers to arm/isolate the system and reset any active calls. An optional door bell will trigger a call when pressed by the patient

## Controllers & Ancillaries



**ONC-043**

### Super-Bright 3W MR16 LED Lamp

Switches on, off or dims down dependent on the status of the behaviour pattern selected  
Timer options are also available to guide patients in and out of ensuites  
Up to two ONC-043's can be connected per lighting circuit  
LED lamp housings are not included

## Overdoor Lights



**ONC-024**

### Slave Overdoor Light

Indicates the status of the ONC-087 master dementia controller by pulsing red and/or green as appropriate  
Allows staff to see at a glance if assistance is required  
Pulsing frequency and light sequence changes/increases with call level

## Displays



**ONC-022**

### Corridor Displays with Controls

Designed to indicate incoming calls in corridors, staff rooms, etc.  
Shows call type (e.g. PIR call), location (e.g. bedroom 2) and depending on the device making the call, the name of the person calling

## Infrared Ceiling Receivers



**ONC-050**

### Round Slave Infrared Ceiling Receiver

Designed to accept calls for extra assistance and/or 'staff attack' notifications generated by a member of staff's ONC-033 infrared transmitter  
Typical receiving range is 10m in the line of sight  
Maximum 3 receivers per ONC-087 controller

## Staff Attack Transmitters



**ONC-033**

### Infrared/Radio Staff Attack Transmitter (Push for Attack/Pull for Attack)

Allows staff to call for extra assistance or signal an 'attack' situation via a ONC-050 infrared ceiling receiver  
For use with infrared call points, infrared ceiling receivers and Mk2 radio receivers  
Typical transmitting range is 10m in the line of sight  
Rechargeable

## Calling Devices



**ONC-045**

### Enuresis (Bed Wet) Sensor

Triggers a call when moisture is detected in a patient's bed  
Typically placed between the bed sheet and mattress  
Measures 80cm x 12cm and connects to an ONC-044 Enuresis/bed exit interface socket  
Can be wiped clean using a noncaustic sanitiser making it suitable for multiple use

## Calling Devices



**ONC-047**

### Bed Exit Mat

Senses the pressure change when a patient exits or returns to bed  
Measures 80cm x 10cm and connects to an ONC-044 Enuresis/bed exit interface socket or ONC-046 interface unit  
Typically placed horizontally between the bed sheet and mattress

## Calling Devices



**ONC-048**

### Chair Exit Mat

Senses the pressure change when a patient exits or sits back down on a chair  
Measures 40cm x 25cm and connects to an ONC-044 enuresis/bed exit interface socket or ONC-046 interface unit

## Interface Units



**ONC-042**

### PIR Movement Sensor (Requires an ONC-102 Power Interface)

Can be programmed at the ONC-087 controller to make a call when movement is detected (e.g. when a patient exits their bed) and to automatically switch lights on to ensure the patients safety  
A maximum of two ONC-042s can be connected per PIR channel

## Interface Units



**ONC-044**

### Enuresis/Bed Exit Interface Socket

Includes two remote jack sockets, one for an ONC-045 enuresis sensor and one for an ONC-047 bed exit mat or other ancillary calling device  
Fully isolated and medical directive compliant  
Requires a PP3 battery (not supplied)

## Interface Units



**ONC-046**

### Interface Unit c/w Remote Socket

Includes a remote jack socket that can be configured for normally open or normally closed operation  
Typically used to connect ONC-047 bed exit mats or other ancillary calling devices that do not wish to use the enuresis (bed wet) sensing function

## Interface Units



**ONC-119**

### PIR Power Interface c/w Isolation Keyswitch

For use with ONC-042 PIR movement sensors  
Provides power for up to two ONC-042s without the need for a separate PSU



## Audio Frequency Systems.

A collection of audio frequency induction loop systems to enable hearing impaired people to hear more clearly.



# Induction Loop Systems

## Features

- Designed to meet and exceed the requirements of BS7594 and BS-EN60118-4 when correctly installed
- Available in a variety of cost-effective kit formats suitable for use in ticket offices, meeting rooms, lecture theatres, nursing homes, GP surgeries, churches and shops
- Allows hearing aid users to participate fully in general conversation and other social or work related activities
- Can be used to help building managers and service providers comply with BS8300 and the Equality/Disability Discrimination Act
- All amplifiers are compatible with Outreach plate audio input extension system, a range of wall, ceiling and desk mountable single gang audio input plates specifically designed to increase the audio input capability of an induction loop system (and many other systems besides)
- A comprehensive range of amplifiers, microphones, connector plates and test equipment covering virtually every conceivable AFILS application are available
- Induction loop test kits include everything required to test an AFILS system to current British standards



## What is an Audio-Frequency Induction Loop System?

Audio-frequency induction loop systems allow hearing impaired people to hear more clearly. Most hearing aids have a 'T' or 'MT' switch which allows them to pick up the electromagnetic field generated by an induction loop system. The hearing aid converts this signal into a sound suited to its user's specific hearing requirements. Any person with a hearing aid positioned within or near the loop can hear the loop signal by switching their hearing aid to the correct position, allowing them to participate more effectively in general conversation, ordering goods or services, listening to public performances, etc.

An induction loop system therefore comprises the following main elements:

- The audio source - typically a microphone, television or other audio input (sometimes more than one).
- The induction loop amplifier
- The loop - typically 1 or 2 turns of wire usually run around the perimeter of the room or a special counter loop fixed to the underside of a table/desk.
- The receiver(s) - any hearing aid with a 'T' or 'MT' switch or a specially designed loop listening device.

## How Does an Audio-Frequency Induction Loop System Work?

Audio-frequency induction loop systems do not use radio frequencies; they operate at audio frequencies. The signal from an audio source is fed into an induction loop amplifier, which amplifies and sets the signal level in the same way as a conventional amplifier. The amplified signal, instead of going to a loudspeaker, is fed to a closed loop of cable that is normally placed around the perimeter of the room (although other, more sophisticated 'loop patterns' can be employed). Using a constant current amplifier ensures the current is maintained at the set level whilst providing a flat frequency response without the need for equalisation circuitry. The current flowing through the loop generates a magnetic field that radiates in the space around the loop cable. Any lines of magnetic flux that pass through the telecoil in a receiver, such as a hearing aid, will generate a current in the coil that is then converted back to audio and fed into the listener's ear.

It is important to remember that the magnetic field will 'bleed' outside the perimeter of the loop and therefore a loop system cannot be considered confidential.

Induction loop systems are popular because:

- Unwanted sounds such as other conversations and background noise are not picked up.
- No special receivers are required - telecoils are fitted as standard in most hearing aids or are an inexpensive option.
- Magnetic induction tends to be more reliable and effective than other systems (infrared, for example, is line of sight only).
- Modern hearing aids amplify different bands by different amounts to suit a user's specific hearing requirements.









In the UK, the installation of induction loop systems is governed by BS7594 (The Code of Practice for Audio-Frequency Loop Systems) and EN60118-4 (Magnetic field strength in audio frequency induction loop systems for hearing aid purposes). This system is designed to meet or exceed these requirements.

Amplifier Model	Room Size / Application
FPA-287, FPA-289, FPA-291, FPA-899	Counters, desks, tables & other small areas up to 1.2m <sup>2</sup>
FPA-292, FPA-293, FPA-902, FPA-905	Rooms up to 16m <sup>2</sup> (4m x 4m)
FPA-906, FPA-907, FPA-908, FPA-909, FPA-911, FPA-912, FPA-915	Rooms up to 120m <sup>2</sup> (11m x 11m)
FPA-917	Rooms up to 200m <sup>2</sup> (14m x 14m)
FPA-918	Rooms up to 500m <sup>2</sup> (22m x 22m)
FPA-919	Rooms up to 900m <sup>2</sup> (30m x 30m)



# Induction Loop Systems

<p>1.2m<sup>2</sup> Induction Loop Kits</p>  <p><b>FPA-287</b> Portable Induction Loop Kit (Supplied in a Cardboard Carry Case) Includes amplifier c/w battery and integral microphone, plugtop charger and sticker</p>	<p>1.2m<sup>2</sup> Induction Loop Kits</p>  <p><b>FPA-289</b> Portable Induction Loop Kit (Supplied in a Robust Plastic Carry Case) Includes amplifier c/w battery and integral microphone, plugtop charger and sticker</p>	<p>1.2m<sup>2</sup> Induction Loop Kits</p>  <p><b>FPA-291</b> PDA102 Counter Induction Loop Kit Includes free-standing loop amplifier, tie/desk microphone, TX121 counter loop</p>	<p>1.2m<sup>2</sup> Induction Loop Kits</p>  <p><b>FPA-899</b> ML1 Counter Induction Loop Kit Includes double-gang amplifier, tie/desk microphone, TX2 counter loop</p>	<p>50m<sup>2</sup> Induction Loop Kits*</p>  <p><b>FPA-292</b> 50m<sup>2</sup> Small Room Loop Kit (Tie/ Desk Microphone Version) Includes free-standing amplifier, tie/desk microphone and loop cable * 50m<sup>2</sup> (to BS7594 1993) or approximately 16m<sup>2</sup> (to EN60118-4)</p>
<p>50m<sup>2</sup> Induction Loop Kits*</p>  <p><b>FPA-293</b> 50m<sup>2</sup> TV Lounge Loop Kit Includes free-standing amplifier, scart lead, line level audio plate and loop cable * 50m<sup>2</sup> (to BS7594 1993) or approximately 16m<sup>2</sup> (to EN60118-4)</p>	<p>50m<sup>2</sup> Induction Loop Kits*</p>  <p><b>FPA-902</b> 50m<sup>2</sup> Small Room Loop Kit (Omni Directional Plated Microphone Version) Includes free-standing amplifier, omni-directional plated microphone, 6m Belden cable, and loop cable * 50m<sup>2</sup> (to BS7594 1993) or approximately 16m<sup>2</sup> (to EN60118-4)</p>	<p>50m<sup>2</sup> Induction Loop Kits*</p>  <p><b>FPA-905</b> 50m<sup>2</sup> Domestic Induction Loop Amplifier Kit Includes free-standing amplifier, tie/desk microphone, scart to double phono lead and loop cable * 50m<sup>2</sup> (to BS7594 1993) or Approximately 16m<sup>2</sup> (to EN60118-4)</p>	<p>120m<sup>2</sup> Induction Loop Kits</p>  <p><b>FPA-907</b> 120m<sup>2</sup> Meeting/Seminar Room Loop Kit Includes wall-mounting induction loop amplifier and omni-directional plated microphone (does not include loop cable)</p>	<p>120m<sup>2</sup> Induction Loop Kits</p>  <p><b>FPA-908</b> 120m<sup>2</sup> Lecture Room Loop Kit Includes wall-mounting induction loop amplifier, tie/desk microphone, lectern microphone and 2 x 3.5mm mono jack plates (does not include loop cable)</p>
<p>120m<sup>2</sup> Induction Loop Kits</p>  <p><b>FPA-909</b> 120m<sup>2</sup> TV/Music Lounge Loop Kit Includes wall-mounting induction loop amplifier, handheld microphone, scart to double phono lead, 3.5mm mono jack plate and line level audio plate (does not include loop cable)</p>	<p>120m<sup>2</sup> Induction Loop Kits</p>  <p><b>FPA-911</b> 120m<sup>2</sup> Retail Unit Loop Kit Includes wall-mounting induction loop amplifier, lectern microphone and 3.5mm mono jack plate (does not include loop cable)</p>	<p>120m<sup>2</sup> Induction Loop Kits</p>  <p><b>FPA-912</b> 120m<sup>2</sup> Place of Worship Loop Kit Includes wall-mounting induction loop amplifier, lectern microphone, 3.5mm mono jack plate and line level audio plate (does not include loop cable)</p>	<p>120m<sup>2</sup> Induction Loop Kits</p>  <p><b>FPA-915</b> 120m<sup>2</sup> Health and Fitness Club Loop Kit Includes lavalier radio microphone kit (includes receiver, transmitter and PSU), 6.35mm stereo jack plate and line level audio plate (does not include loop cable)</p>	<p>200m<sup>2</sup> to 900m<sup>2</sup> Professional Induction Loop Amplifiers</p>  <p><b>FPA-917</b> 200m<sup>2</sup> Free-Standing Induction Loop Amplifier</p>
<p>200m<sup>2</sup> to 900m<sup>2</sup> Professional Induction Loop Amplifiers</p>  <p><b>FPA-918</b> 500m<sup>2</sup> Free-Standing Induction Loop Amplifier</p>	<p>200m<sup>2</sup> to 900m<sup>2</sup> Professional Induction Loop Amplifiers</p>  <p><b>FPA-919</b> 900m<sup>2</sup> Free-Standing Induction Loop Amplifier</p>	<p>Microphones</p>  <p><b>FPA-834</b> Tie/Desk Microphone</p>	<p>Microphones</p>  <p><b>FPA-837</b> Handheld Microphone</p>	<p>Microphones</p>  <p><b>FPA-838</b> Lectern Microphone</p>

<p>Microphones</p>  <p><b>FPA-857</b> Desktop Microphone</p>	<p>Microphones</p>  <p><b>FPA-858</b> Lavalier Radio Microphone Kit Includes receiver, transmitter and power supply unit (4 selectable frequencies)</p>	<p>Microphones</p>  <p><b>FPA-928</b> Omni-Directional Plated Microphone (Wall, Ceiling or Desk Mountable)</p>	<p>Induction Loop Test Equipment</p>  <p><b>FPA-859</b> FosMeter-Pro Induction Loop Test Kit Includes AFILS tester, signal generator and headphones  Requires 3.5mm jack to bare ended lead (FPA-936)</p>	<p>Induction Loop Ancillaries</p>  <p><b>FPA-937</b> 100m x 0.5mm<sup>2</sup> Single Core White Loop Cable</p>			
<p>Induction Loop Ancillaries</p>  <p><b>FPA-993</b> 100m x 1.0mm<sup>2</sup> Single Core White Loop Cable</p>	<p>Induction Loop Ancillaries</p>  <p><b>FPA-1006</b> 100m x 1.5mm<sup>2</sup> Single Core White Loop Cable</p>	<p>Induction Loop Ancillaries</p>  <p><b>FPA-1040</b> 100m x 2.5mm<sup>2</sup> Single Core White Loop Cable</p>	<p>Induction Loop Ancillaries</p>  <p><b>FPA-1043</b> 100m x 0.5mm<sup>2</sup> Insulated Copper Tape  Flat loop cable for use under carpets</p>	<p>Induction Loop Ancillaries</p>  <p><b>FPA-1072</b> 100m x 1.0mm<sup>2</sup> Insulated Copper Tape  Flat loop cable for use under carpets</p>			
<p>Induction Loop Ancillaries</p>  <p><b>FPA-1080</b> 100m x 1.5mm<sup>2</sup> Insulated Copper Tape  Flat loop cable for use under carpets</p>	<p>Induction Loop Ancillaries</p>  <p><b>FPA-1081</b> 50m White Synthetic Fibre Tape  Used to protect flat loop cable</p>	<p>Induction Loop Ancillaries</p>  <p><b>FPA-1082</b> 10m Belden 8723 Four Core Screened Cable  For use with Outreach plates</p>	<p>Induction Loop Ancillaries</p>  <p><b>FPA-1083</b> 25m Belden 8723 Four Core Screened Cable  For use with Outreach plates</p>	<p>Induction Loop Ancillaries</p>  <p><b>FPA-1084</b> Loop Connector Plate  Used for the termination of induction loop cable</p>			
					<p>Induction Loop Ancillaries</p>  <p><b>FPA-1085</b> 100V Line to 0dB Converter</p>	<p>Induction Loop Ancillaries</p>  <p><b>FPA-1086</b> Overspill Reduction Phase Shifter</p>	<p>Induction Loop Ancillaries</p>  <p><b>FPA-1087</b> Pack of 10 Self-Adhesive 'Induction Loop Fitted' Stickers</p>



## Specialist Safety Equipment.

A wide range of specialist products to provide solutions for a whole host of safety applications.



# Gas Suppression Equipment

Gas suppression systems are used to protect important and sensitive assets such as IT systems, switch rooms and historic collections.

Compatible with a range of detection devices, the equipment can be used as a stand-alone system but has a number of on-board programmable inputs and outputs which enables the equipment to be interfaced with any other fire system.

## Features

- Three conventional detection zones
- Approved to EN12094-1 and EN54 2, 4 and 13
- One flooding/extinguishing zone
- Large countdown timer on LCD screen
- 4 relay outputs
- 3 sounder circuits
- 2 AUX supply outputs
- 11 monitored inputs; 4 programmable, 1 manual trigger, 6 release related (mode, valve, monitor, pressure monitor, RS-485 link to remote status indicators)
- 8 additional programmable relay outputs
- 3A universal PSU (can be expanded to 5A)
- EN54-2 switch switch-mode power supply
- 1,000 event log entries which can be downloaded to a PC
- Compatible with a wide range of conventional devices
- Logo tool allows other logos to be displayed on LCD screen



**FOR FULL DETAILS CALL OUR  
UK SALES TEAM NOW  
01922 745024**

# Intrinsically Safe Solutions

Intrinsically safe fire detection products should be used in hazardous areas such as chemical engineering plants and gas/solvent storage areas where a mixture of air and gas/vapour are always present.

These areas are governed by BS EN 60079, which is the code of practice for installation and maintenance of electrical apparatus in potentially explosive atmospheres. Electrical equipment in these areas need to be designed so that the explosive mixtures cannot be ignited, whether operating normally or when in fault. This range of products adhere to all of these requirements and detectors are approved by the LPCB.

## Features

### Detectors

- Approved by LPCB, GL and IECEx
- Twin fire LEDs allow 360° viewing
- Remote indicator output
- Compatible with electronics-free mounting base
- Suitable for installation in areas at Category 1 (including all lower categories)

### Call Points

- Rugged design
- Terminals can accommodate up to a 2.5mm<sup>2</sup> solid conductor
- Approved to EN54 Part 12
- Supports either a glass or plastic element



**FOR FULL DETAILS CALL OUR  
UK SALES TEAM NOW  
01922 745024**



# Fire-Cryer® Voice Alarms



Fire-Cryer® offers a broad range of products for simple, fully synchronised and cost-effective voice evacuation.

Whether retro-fitted into an existing installation or as part of a new system design, the unique Fire-Cryer® equipment can be fully integrated into the fire alarm system and work on a conventional two-wire bell circuit.

Fire-Cryer® can broadcast 7 user-selectable messages, which can be chosen from an extensive library, with foreign language and bespoke messages also available to order.

## Features

- Low Current
- 7 messages on just 2 wires
- No special wiring; can be retro-fitted
- Extensive message library, foreign language, coded and bespoke messages available
- Deep base version available to IP66
- Slimline Mini Fire-Cryer® base sounder available for mounting under fire detectors (cover plate available for wall-mounting)
- Midi and Maxi Fire-Cryer® with high 116dBA output and rugged, weatherproof enclosures are ideal for open spaces, warehouses and industrial sites
- Voice message controller makes manual message switching easy
- Scalable interfaces for complex systems



**FOR FULL DETAILS CALL OUR  
UK SALES TEAM NOW  
01922 745024**

# Public Announcement Systems



Orbik's range of public announcement systems are designed for a range of small applications such as shop units, garages, small offices and warehouses.

The systems are designed to the highest standards and comply with rigorous safety regulations and International standards such as BS EN 60849, BS5839 Part 8, SOLA, ABS, USCG and IMO codes on alarms and indicators.

Two systems are available; a basic PA system with microphone paging facility or a more extensive system which includes background music capability.

## Features

- 3 amplifier output powers 30W, 60W and 120W
- Tone control and muting for priority
- Networkable up to 200 nodes
- Simple but robust gooseneck microphone renowned for its voice clarity
- Microphone incorporates speech blast screen
- Soft touch press-to-talk button with minimal noise transfer
- All steel construction and scratch/chip-resistant powder coated finish
- Microphone features anti-slip feet which will not scratch or mark desktops/consols
- Supplied with 2.5 metres of cable and connectors
- Ceiling speakers are suitable for use with suspended ceilings



**FOR FULL DETAILS CALL OUR  
UK SALES TEAM NOW  
01922 745024**

# Faast™ Air Sampling Smoke Detection

Air sampling smoke detection systems are designed to detect fires at a very early stage, often before visible smouldering takes place, before an open fire occurs and before intense smoke develops. The earliest possible fire detection brings significant time benefits, enabling a fast response to the first signs of smoke. Air sampling smoke detection systems can detect fires significantly faster than point or beam smoke detectors.

The system draws air samples continuously from the monitored area through a pipe system fitted with sampling holes at regular intervals. The sampled air is then analysed for smoke particles and an alarm is raised if smoke is present. The sampling holes in the monitored area are arranged so that the same amount of air is drawn through each hole. Each sampling hole is therefore allocated the same monitored coverage as a point-type smoke detector.

## Features

- Advanced warning allows more time to manage data and transfer valuable assets
- Best in class coverage up to 2000m<sup>2</sup> per FAAST device reduces equipment costs
- Cost savings achieved through no business disruption
- Highest sensitivity and reliability, with no false alarms
- Optimal detection, 24 hours a day, 7 days a week
- Door Specifiable technology and easy integration
- Reduced cost of ownership due to faster installation and maintenance
- With PipelQ, files can be imported from a range of CAD packages, minimising design time



**FOR FULL DETAILS CALL OUR  
UK SALES TEAM NOW  
01922 745024**

# Window Ventilation Systems

This extensive range of window control systems cover all areas of smoke control, natural ventilation, window automation and manual window control. The range includes electric window openers for single, group or zoned operation from manually operated switches, remote window controls or automated control panels linked to sensors for everyday ventilation or smoke control requirements.

Manual window openers are used extensively in public and commercial buildings for operating remote high level or difficult-to-access windows and are also traditionally used in schools where a cost effective "child-safe" system is required.

Window controls can be used on most window styles; single handed window openers can be used to operate single or multiple sets of windows, with screwjack openers, designed for roof vent applications, fork and swivels for controlling pivoting louvre blades and locking openers for bottom hung opening windows also being available.

## Features

- Actuator can be programmed to required opening speed and stroke
- The risk of entrapment is reduced as the actuators are programmed to reverse if they encounter obstacles when closing
- Approved according to EN 12101-2 with selected profiles
- Manual call points can be provided to enable manual activation of the smoke system
- Control unit comes complete with 72 hours of battery back-up



**FOR FULL DETAILS CALL OUR  
UK SALES TEAM NOW  
01922 745024**

# Linear Heat Detection



Linear heat detection provides early detection of fire conditions or overheating of equipment, plant or the surrounding area.

The linear heat detection cables are conventional heat detectors in a linear form. They sense heat anywhere along their length and are designed to be used in commercial and industrial applications.

There are two types of linear heat detection cable; fixed temperature and analogue. Fixed temperature heat sensing cables can be used as a stand alone system or connected to any conventional control panel. Analogue heat sensing cable must be used with a controller and end-of-line unit, which enables the cable to be fully monitored for open and short circuit.

Heat sensing cables can be used with or in place of conventional heat detectors or where conventional heat detection is expensive or difficult to install and maintain.

## Features

- Highly cost effective
- Easily installed
- Maintenance free
- Can be used in intrinsically safe areas and dusty or harsh environments down to  $-40^{\circ}\text{C}$
- Suitable for a wide range of applications such as cable trays, plant rooms, vehicles, multi-storey car parks, industrial kitchens, warehouses, process plants, power stations and other hazardous areas



**FOR FULL DETAILS CALL OUR  
UK SALES TEAM NOW  
01922 745024**

# Water Leakage Detection



Orbik's water leakage detection system is designed to protect areas where water ingress could seriously damage electrical, communication and computer networks. When installed in vulnerable areas it continuously monitors for water leaks. The system can be installed in a wide range of applications including HVAC, sprinkler systems and water-cooled plant.

The system has two methods of leak detection; linear or point detection. Linear detection is provided by water sensitive cables connected to the control panel via a special connection box using two core leader cable. Point detection is provided by floor, drip tray and float switches all connected to the control panel by two core leader cable.

## Features

- Linear detection with Hydrowire
- Point detection with floor and drip tray probes and float switches
- 2 to 24 zone panels
- Choice of panel design and mounting
- Fully monitored detection and alarm circuits
- Easily installed, serviced and maintained
- Dedicated Fire-Cryer® 'water leakage' messages available
- Remote 'water alarm' lamp units available
- Auxiliary alarm contacts
- Monitored alarm outputs
- Battery backup









**FOR FULL DETAILS CALL OUR  
UK SALES TEAM NOW  
01922 745024**

# Surveillance Systems

## CHOOSE THE RIGHT SURVEILLANCE SYSTEM TO SUIT YOUR REQUIREMENTS

- 1 Plug & Play**  
Quick and easy to set up in just a few steps. All accessories are included to just plug and play out of the box.
- 2 Day & Night Vision**  
Built-in infrared gives these cameras high quality images 24/7 ensuring your property is secure around the clock.
- 3 High Quality Images**  
High detail resolution give brilliant quality Images.
- 4 Free App**  
Download the free Android or Apple iOS ABUS app for guided step-by-step installation and mobile monitoring.

	TVAC19100	1	2	3	4
	TVAC18000	1	2		4
	TVAC16000	1	2		4
	TVAC80020	1	2		
	TVVR30414 TVVR30404	1	2		4
	TVVR36210 TVVR36200	1	2	3	4

# Door Access Systems

The TVAC80020 is a wireless video door intercom system ideal for providing easy installation as well as security, privacy and convenience for the home. The kit comprises of a 3.5" portable monitor, a wireless external door intercom unit, 2 x power supplies, a security screwdriver, a converter cable and bell cable.

The system is simple to operate; after pressing the key on the door intercom, the image appears on the monitor. The door is then opened by pressing the button on the monitor.

The TVAC16000 is the essential kit for economic video surveillance ideal for private homes, offices and small businesses. The kit comprises of a 7" portable monitor, 2 x power supplies, a wireless outdoor camera, an antenna and LAN network cable.

The TVAC16000's intuitive touch screen ensures it is simple and easy to set up and to operate.

### Features

#### TVAC80020 Wireless Video Intercom

- Integrated system with colour portable monitor and infrared camera
- Ideal for retrofitting an existing doorbell; power can be supplied either via the existing doorbell transformer or the power supply included in the kit

#### TVAC16000 Video Surveillance Set

- Simple and easy to set up out of the box
- Infrared night vision camera
- Can be extended to include up to 4 wireless cameras
- Remote mobile access to camera via free app



**FOR FULL DETAILS CALL OUR  
UK SALES TEAM NOW  
01922 745024**



# CCTV Systems



TVAC19100 **1 2 3 4**

*Kit contains:*  
 1 x Wi-Fi outdoor camera, 1 x power supply unit,  
 1 x network LAN cable,  
 1 x wall mount and wall mounting materials and  
 1 x antenna



TVAC18000 **1 2 4**

*Kit contains:*  
 1 x digital wireless recorder,  
 1 x wireless outdoor cameras,  
 1 x camera mounts and wall mounting materials,  
 1 x antenna, 1 x LAN network cable, 1 x HDMI cable,  
 1 x mouse, 2 x 5V power supply units,  
 1 x 12V power supply unit and 1 x 8GB micro SD card



TVVR 30404 **1 2 4**  
 TVVR30414

*Kit contains:*  
 1 x 4 channel digital recorder,  
 4 x outdoor camera (tube or dome),  
 4 x 20m video combination cable



TVVR36210 **1 2 3 4**  
 TVVR36200

*Kit contains:*  
 1 x HD network recorder,  
 1 x 1TB hard drive (installed),  
 2 x outdoor bullet camera,  
 2 x 20m Cat5e cable,  
 3 x power supply unit

The TVAC19100 wireless network outdoor camera is the perfect solution for outdoor areas. The robust IP66 high definition camera gives optimal image quality and offers infrared night vision for round-the-clock security.

TVAC18000 is a complete monitoring set comprising of a digital video recorder and two wireless outdoor cameras. The system is simple to install as it is supplied with all accessories required for a fuss-free and easy installation. Supplied with 2 sturdy outdoor cameras as standard, the system can be expanded up to 4 cameras.

TVVR30404 and TVVR30414 are professional surveillance kits supplied with everything you need for an economic introduction to professional interior and exterior surveillance, night and day. The sets are complete with four infrared cameras (TVVR30404 are tube cameras and TVVR30414 are dome cameras), a digital video recorder and a pre-installed 500GB hard drive. The systems connect to a PC monitor or TV to view live images.









TVVR36200 and TVVR36210 are complete HD surveillance kits supplied complete with digital network recorder and 2 cameras. Easy to install either indoors or outdoors, the system offers professional quality, high definition video surveillance. The 1TB hard drive installed within the system gives enough storage space for up to 6 weeks continuous recording. The systems come complete with two cameras (TVVR36210 are tube cameras and TVVR36200 are dome cameras) but are expandable up to 6 cameras.

## Features

### All Systems

- Fuss-free, easy installation
- Professional standard surveillance, day and night
- Suitable for interior or exterior use
- Free app available for download for step-by-step installation and mobile monitoring
- All accessories included to plug-and-play out of the box
- Robust, weatherproof IP66 cameras
- All systems have storage space available for a large amount of continuous recording
- Night vision

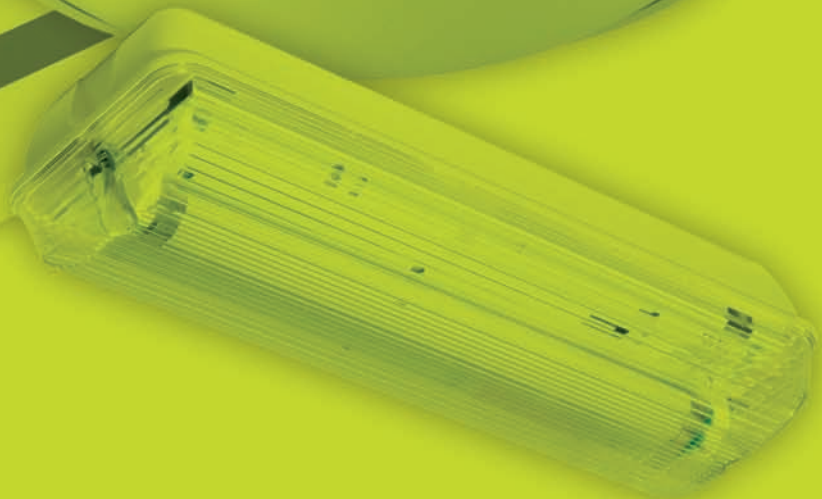
## PRODUCT FEATURE COMPARISON CHART

	 TVAC80020 Wireless Video Door Intercom	 TVAC1600 7" Home Video Surveillance System	 TVAC19100 External WiFi Camera	 TVAC18000 Digital Wireless Monitoring Set	 TVVR30404 Analogue Video Surveillance Kit (Tube Cameras)	 TVVR30414 Analogue Video Surveillance Kit (Dome Cameras)	 TVVR36200 HD Video Surveillance Kit (Tube Cameras)	 TVVR36210 HD Video Surveillance Kit (Dome Cameras)
App Viewable		✓	✓	✓	✓	✓	✓	✓
Local Monitor Viewable	✓	✓		✓	✓	✓	✓	✓
PC Viewable					✓	✓	✓	✓
Wireless	✓	✓	✓	✓				
Wired					✓	✓	✓	✓
Image Resolution	VGA	VGA	HD 720p	VGA	960H	960H	HD 720p	HD 720p
Night Vision	✓	✓	✓	✓	✓	✓	✓	✓
Audio	✓	✓	✓	✓				
Storage Device	SD Card	SD Card	Micro SD Card	Micro SD Card & Hard Drive	Hard Drive	Hard Drive	Hard Drive	Hard Drive



## Lighting.

A selection of mains and emergency lighting products from our extensive range.



## Arc

IP65 compact bulkhead luminaire



IP65  KM31508

Cat No	Description
AR/LED	LED mains bulkhead
AR/LED/M3	LED M3 emergency bulkhead

**Luminaire Dimensions**

Length 350mm x Width 108mm x Depth 80mm

**Cut-Out Dimensions**

Length 330mm x Width 90mm (when used with AR/WH semi-recessing kit)

**Viewing Distance**

18 Metres (when supplied with SAL1 legend kit)

*Fluorescent versions also available*

## Arrian

Low profile diecast aluminium panel



IP20 

Cat No	Description
ARN/LED	LED mains panel
ARN/LED/M3	LED M3 emergency panel

**Luminaire Dimensions**

Length 595mm x Width 595mm x Depth 15mm

## Chella

Stylish recessed polycarbonate luminaire or exit sign



IP20/IP44  KM31508

Cat No	Description
CHE/LED	LED mains luminaire
CHE/LED/M3	LED M3 luminaire
CHE/LED/M3/EX	LED M3 exit sign

**Luminaire Dimensions**

Length 380mm x Width 150mm x Depth 80mm

**Exit Sign Dimensions**

Length 380mm x Width 150mm x Overall Depth 250mm (legend panel is 160mm below ceiling)

**Cut-Out Dimensions**

Length 335mm x Width 107mm

**Viewing Distance**

24 Metres (exit versions only)

*Fluorescent versions also available*

## Dyode

Unique fully recessed luminaire



IP20 

Cat No	Description
DY/LED/230A/OA	LED 230V mains/110V slave luminaire (open area version)
DY/LED/230A/CR	LED 230V mains/110V slave luminaire (corridor version)
DY/LED/NM3/OA	LED NM3 luminaire (open area version)
DY/LED/NM3/CR	LED NM3 luminaire (corridor version)
DY/LED/M3/OA	LED M3 luminaire (open area version)
DY/LED/M3/CR	LED M3 luminaire (corridor version)

**Luminaire Dimensions**

Ø 50mm x Depth 32mm (22mm above ceiling)

**Emergency Pack Dimensions**

Ø 75mm x Length 190mm

**Cut-Out Dimensions**

Ø 40mm

*High output and self-test versions also available*

Cat No	Description
ED/LED/M3/E	LED M3 bulkhead (economy output)
ED/LED/M3	LED M3 bulkhead (standard output)
ED/LED/C3/H	LED C3 bulkhead (high output)

**Luminaire Dimensions**

Length 350mm x Width 108mm x Depth 80mm

**Cut-Out Dimensions**

Length 330mm x Width 90mm (when used with ED/WH semi-recessing kit)

**Viewing Distance**

18 Metres (when supplied with SAL1 legend kit)

*Fluorescent versions also available*

Cat No	Description
ELL/LED/230A/OA	LED 230V mains/110V slave luminaire (open area version)
ELL/LED/230A/CR	LED 230V mains/110V slave luminaire (corridor version)
ELL/LED/NM3/OA	LED NM3 luminaire (open area version)
ELL/LED/NM3/CR	LED NM3 luminaire (corridor version)

**Luminaire Dimensions**

Ø 120mm x Depth 67mm (35mm above ceiling)

**Emergency Pack Dimensions**

Ø 75mm x Length 190mm

**Cut-Out Dimensions**

Ø 100mm

*High output and self-test versions also available*

Cat No	Description
HT/LED/E	LED mains square luminaire (economy output)
HT/LED	LED mains square luminaire (standard output)
HT/LED/H	LED mains square luminaire (high output)
HT/LED/M3/E	LED M3 square luminaire (economy output)
HT/LED/M3	LED M3 square luminaire (standard output)
HT/LED/M3/H	LED M3 square luminaire (high output)

**Luminaire Dimensions**

Length 255mm x Width 255mm x Depth 90mm

*Fluorescent versions also available*

Cat No	Description
IDR/LED	LED mains circular luminaire (standard output)
IDR/LED/H	LED mains circular luminaire (high output)
IDR/LED/M3	LED M3 circular luminaire (standard output)
IDR/LED/M3/H	LED M3 circular luminaire (high output)

**Luminaire Dimensions**

Ø 360mm x Depth 130mm

*Fluorescent versions also available*

## Eden


IP65 compact bulkhead







IP65    

## Elled

Distinctive ceiling mounted luminaire



IP55      
KM31508

## Holt

Rugged IP65 square luminaire



IP65    

## Idro

Circular aluminium die-cast IP65 luminaire



IP65    



## Ipstones

Surface non-corrosive luminaire



IP65 

Cat No	Description
IPS/LED	LED mains non-corrosive luminaire (standard output)
IPS/LED/H	LED mains non-corrosive luminaire (high output)
IPS/LED/M3	LED M3 non-corrosive luminaire (standard output)
IPS/LED/M3/H	LED M3 non-corrosive luminaire (high output)

**Standard Output Luminaire Dimensions**

Length 1565mm x Width 94mm x Depth 98mm

**High Output Luminaire Dimensions**

Length 1565mm x Width 138mm x Depth 98mm

*Fluorescent versions also available*

## Jaro

Robust IP65 vandal-resistant wall pack luminaire



IP65 

Cat No	Description
JA/LED	LED mains wall pack
JA/LED/M3	LED M3 emergency wall pack

**Luminaire Dimensions**

Length 295mm x Width 265mm x Depth 185mm

*HQI and Fluorescent versions also available*

## Larino

Elegant circular lighting range



IP20 

Cat No	Description
LAR/LED	LED mains circular luminaire (standard output)
LAR/LED/H	LED mains circular luminaire (high output)
LAR/LED/M3	LED M3 circular luminaire (standard output)
LAR/LED/M3/H	LED M3 circular luminaire (high output)

**Luminaire Dimensions**

Ø 430mm x Depth 105mm

*Fluorescent versions also available*

## Leah

Attractive and robust IP65 polycarbonate luminaire



IP65 

Cat No	Description
LE/LED	LED mains circular luminaire (standard output)
LE/LED/H	LED mains circular luminaire (high output)
LE/LED/M3	LED M3 circular luminaire (standard output)
LE/LED/M3/H	LED M3 circular luminaire (high output)

**Luminaire Dimensions**

Ø 395mm x Depth 120mm

**Luminaire Dimensions (When Supplied with Narrow Trim)**

Ø 440mm x Depth 120mm

**Luminaire Dimensions (When Supplied with Wide Trim)**

Ø 520mm x Depth 120mm

**Cut-Out Dimensions (When Supplied with Semi-Recessing Kit)**

Ø 357mm

*Fluorescent versions also available*

Cat No	Description
MZ/LED	LED mains circular bulkhead (standard output)
MZ/LED/H	LED mains circular bulkhead (high output)
MZ/LED/M3	LED M3 circular bulkhead (standard output)
MZ/LED/M3/H	LED M3 circular bulkhead (high output)

**Luminaire Dimensions**  
 Ø 290mm x Depth 79mm

**Luminaire Dimensions with Semi-Recessing Trim**  
 Ø 345mm x Depth 50mm (below ceiling)

**Cut-Out Dimensions**  
 Ø 295mm

*Fluorescent versions also available*

Cat No	Description
MEL/LED/C145	LED mains circular downlight (Ø145mm)
MEL/LED/C170	LED mains circular downlight (Ø170mm)
MEL/LED/C225	LED mains circular downlight (Ø225mm)
MEL/LED/S	LED mains square downlight
MEL/LED/M3/C145	LED M3 circular downlight (Ø145mm)
MEL/LED/M3/C170	LED M3 circular downlight (Ø170mm)
MEL/LED/M3/C225	LED M3 circular downlight (Ø225mm)
MEL/LED/M3/S	LED M3 square downlight

**Luminaire Dimensions**  
 Circular Versions: Ø 145mm, 170mm or 225mm x Depth 25mm  
 Square Versions: Length 300mm x Width 300mm x Depth 20mm

**Cut-Out Dimensions**  
 Circular Versions: Ø 133mm, 155mm or 206mm  
 Square Versions: Length 280mm x Width 280mm

Cat No	Description
ODS/LED9/NM3	2 x 9W LED NM3 twin-spot (2 x 475 lumens)
ODS/LED18/NM3	2 x 18W LED NM3 twin-spot (2 x 1085 lumens)
ODS20/NM3/TH	2 x 20W Tungsten Halogen NM3 twin-spot (2 x 340 lumens)
ODS21/NM3	2 x 21W Tungsten NM3 twin-spot (2 x 280 lumens)
ODS55/NM1/TH	2 x 55W Tungsten Halogen NM1 twin-spot (2 x 900 lumens)
ODS55/NM3/TH	2 x 55W Tungsten Halogen NM3 twin-spot (2 x 900 lumens)

**Luminaire Dimensions**  
 LED Versions: Length 315mm x Height 260mm x Depth 110mm  
 20W, 21W and 55W (1 hour) Versions: Length 315mm x Height 310mm x Depth 110mm  
 55W (3 hours) Versions: Length 320mm x Height 440mm x Depth 110mm

*IP65 versions also available*

Cat No	Description
OR455	4 x 55W TC-L mains low bay
OR480	4 x 80W TC-L mains low bay
OR455/M3	4 x 55W TC-L M3 low bay
OR480/M3	4 x 80W TC-L M3 low bay

**Luminaire Dimensions**  
 Length 900mm x Width 605mm x Depth 100mm

## Mezzina

IP65 circular polycarbonate utility luminaire



IP65

## Meled

Attractive shallow downlight



IP20

## Odet

Emergency floodlighting unit



IP20/IP65

## Orbe

High performance low bay luminaire



IP20

## Petina

Ultra-slim single or double-sided exit sign



IP20

Cat No	Description
PE/M3/WH	LED M3 white single-sided exit sign
PD/M3/WH	LED M3 white double-sided exit sign

**Single-Sided Exit Sign Dimensions**

Length 360mm x Height 235mm x Depth 30mm

**Double-Sided Exit Sign Dimensions**

Length 377mm x Height 255mm x Depth 45mm

**Viewing Distance**

28 Metres

*Black, brass, chrome and silver-grey versions also available*

*Includes legend panel*

## Pico

Low profile single-sided exit box



IP20

Cat No	Description
PIC/LED/M3/E	LED M3 white single-sided exit box (economy output)
PIC/LED/M3	LED M3 white single-sided exit box (standard output)

**Exit Box Dimensions**

Length 385mm x Height 200mm x Depth 65mm

**Viewing Distance**

36 Metres

*Fluorescent versions also available*

*Includes legend panel*

## Romney

Versatile exit sign



IP20

Cat No	Description
ROM/LED/M3	LED M3 white single-sided exit sign
ROM/RAB	Right-angled mounting bracket
ROM/WMB	Wall mounting bracket
ROM/WS	Wire suspension kit

**Exit Sign Dimensions (without mounting option)**

Length 300mm x Height 240mm x Depth 40mm

**Exit Sign Dimensions with Right-Angled Bracket**

Length 380mm x Height 255mm x Depth 40mm

**Exit Sign Dimensions with Wall Mounting Bracket**

Length 300mm x Height 255mm x Depth 40mm

**Exit Sign Dimensions with Wire Suspension Kit**

Length 300mm x Height 765mm x Depth 40mm

**Viewing Distance**

24 Metres

*Double-sided versions also available*

## Rota

Exit sign suitable for wall or ceiling mounting



IP65

Cat No	Description
RO/LED/M3/WH	LED M3 white single-sided exit sign
RO/LED/M3/WH/R	LED M3 white single-sided exit sign (recessed version)

**Exit Sign Dimensions**

Length 310mm x Height 260mm x Depth 40mm

**Recessed Exit Sign Dimensions**

Length 310mm x Height 235mm (below ceiling) x Depth 40mm

**Viewing Distance**

24 Metres

*Black, brass, chrome and silver-grey versions also available*

*Includes legend panel*

*Double-sided versions also available*



# Orbik Servicing & Commissioning

Orbik's experienced and knowledgeable service department are committed to ensuring that our clients requirements are met from the initial project design, in the manufacture and delivery of our products, through to the final commissioning and maintenance of the system.

Our dedicated team of commissioning engineers ensure that fire alarm and emergency lighting systems are installed and operating correctly and that they also comply with appropriate British standards. Orbik can undertake service contracts on installations featuring Orbik and other manufacturers products. Our technical department are on hand to help with any service or technical support that may be required.

## **BS5839: Part 1: 2013 Recommendations for Weekly Testing by User**

BS5839 Part 1: 2013 contains a recommended regime for the routine testing of fire detection systems from which the following brief resume has been taken. We strongly recommend consultation with the standard is used as the basis for any inspection and testing. Each week a manual call point should be operated during normal working hours to confirm that the control equipment is both functioning correctly and that the fire alarm signal is received at any remote-monitoring centre. The test should be carried out at the same time every week, using a different call point each week so that all call points are tested in rotation. The results of these tests should be recorded in the system logbook.

## **BS5839: Part 1: 2013 Recommendations for Monthly Tests**

Monthly tests are restricted to visual inspection of standby batteries and where installed, generators supplying standby power to the system should be started. At the end of the test, the generator fuel tanks, oil and coolant levels should be checked and then replenished as necessary.

## **BS5839: Part 1: 2013 Recommendations for Periodic Inspection and Test of the System by a Competent User**

### **Fire Alarm Service and Maintenance**

For a fire alarm system to remain compliant with BS5839, a competent person should undertake a periodic inspection and test of the system. The recommended period between successive inspection and servicing visits should not exceed six months.



## Inspection

### System Logbook

The system logbook will be examined for faults and false alarms.

- Any faults recorded must be investigated and receive appropriate attention.
- The rate of false alarms during the previous 12 months will be investigated.

### Visual Inspections

A visual inspection of the site will be undertaken to check for any structural or occupancy changes, and ensure compliance to BS5839-1:2013. The inspection will verify whether:

- All manual call points are unobstructed and conspicuous
- Any new exits have been created without the provision of an adjacent manual call point
- Any new or relocated partitions have been erected within 500 mm horizontally of any automatic fire detector
- Any storage encroaches within 300 mm of ceilings
- A clear space of 500 mm is maintained below each automatic fire detector, and that the ability of the detector to receive the stimulus that it has been designed to detect has not been impeded by other means
- Any changes to the use or occupancy of an area makes the existing types of automatic fire detector unsuitable for detection of fire or prone to unwanted alarms
- Any building alterations or extensions require additional fire detection and fire alarm equipment to be installed.

### Batteries

- The battery voltage will be measured with the mains on to check the steady state charge voltage.
- Batteries and their connections will be examined and momentarily load tested with the mains disconnected (other than those within devices such as manual call points, detectors and fire alarm sounders of a radio-linked system), to ensure that they are in good serviceable condition and not likely to fail before the next service visit.

### Cables and Fixings

- A visual inspection will be made to confirm that all readily accessible cable fixings are secure and undamaged.

### Fire Alarm Control Panel

- In fire detection systems that enable analogue values to be determined at the CIE, it should be confirmed that each analogue value is within the range specified by the manufacturer.
- All controls and visual indicators at CIE will be checked for correct operation, and replaced if necessary.

### Automatic Fire Detectors

- All automatic fire detectors and remote detectors will be examined, as far as practicable, to ensure that they have not been damaged, painted, or otherwise adversely affected.

### Fire Alarm Devices

- A visual inspection will be made to ensure that all visual fire alarm devices are not obstructed from view and that their lenses are clean.

## Testing

### Fire Alarm Control Panel

- The cause and effect programme will be confirmed as being correct by activating at least one cause and observing the operation of effects.
- All ancillary functions of the CIE will be tested.
- All printers will be tested to ensure that they operate correctly and that characters are legible. It should be ensured that all printer consumables are sufficient in quantity or condition to ensure that the printer can be expected to operate until the time of the next service visit.

### Automatic Fire Detectors

- Every detector will be functionally tested. The tests used need prove only that the detectors are connected to the system, are operational and are capable of responding to the phenomena they are designed to detect. Where fitted, detector remote indicators will also be checked for correct operation.
- Every heat detector will be functionally tested by means of a suitable heat source, unless operation of the detector in this manner would then necessitate replacement of part or all of the sensing element (e.g. as in fusible link point detectors or non-integrating line detectors).
- Point smoke detectors will be functionally tested by a method that confirms that smoke can enter the detector chamber and produce a fire alarm signal (e.g. by use of apparatus that generates simulated smoke or suitable aerosols around the detector).
- Multi-sensor detectors will be operated by a method that confirms that products of combustion in the vicinity of the detector can reach the sensors and that a fire signal can be produced as appropriate.

**Beam Detectors**

- Optical beam smoke detectors, if fitted, will be functionally tested by introducing signal attenuation between the transmitter and receiver, either by use of an optical filter (or any similar method of simulating obscuration by smoke), smoke or simulated smoke.

**Aspiration Systems**

- Aspirating fire detection and fire alarm systems are functionally tested by a method that confirms that smoke can enter the detector chamber and produce a fire alarm signal. Furthermore, appropriate testing will be performed to verify that smoke is able to enter each sampling point (or collection of sampling points that are recommended by the manufacturer to cover the same area as a point smoke detector). This will be achieved by introducing smoke into each sampling point in turn and verifying a response at the detector. However, where access is restricted or other site conditions prevent this, other verification techniques should be employed such as:
  - 1) verifying transport time from furthest hole or a dedicated test point and comparing with previously recorded results to identify deviations;
  - 2) confirming that the flow monitoring is capable of detecting loss of a single sampling point (or collection of sampling points that are deemed to be acceptable for the risks involved);
  - 3) inspection of flow readings and comparing with previously recorded results to identify deviations which would indicate a loss of detection performance;
  - 4) measurement of the pressure at each sampling point and comparing with previously recorded results to identify deviations which would indicate a loss of detection performance. The technique used is dependent on the particular features of the ASD technology, the risk and details of the specific application. Such techniques may also be supported by visual inspection of sampling points where this is possible but it is essential to verify that adequate detection performance is maintained. Details of the techniques used should be recorded and agreed with all parties.

**Carbon Monoxide Detectors**

- Carbon monoxide fire detectors will be functionally tested by a method that confirms that carbon monoxide can enter the detector chamber and produce a fire alarm signal (e.g. by use of apparatus that generates carbon monoxide or a gas that has a similar effect on the electro-chemical cell as carbon monoxide).

**Flame Detectors**

- Flame detectors will be functionally tested by a method that confirms that the detector will respond to a suitable frequency of radiation and produce a fire alarm signal.

**Call Points**

- The switch mechanism of every manual call point will be tested, either by removal of a frangible element, insertion of a test key or operation of the device as it would be operated in the event of fire.

**Fire Alarm Devices**

- All fire alarm devices will be checked for correct operation.

**Radio Fire Alarm Systems**

- Radio signal strengths in radio-linked systems to which Clause 27 applies will be checked for adequacy, and the results recorded.

**Power Supplies**

- The standby power supply capacity will be checked to establish it remains suitable for continued service.

**Monitoring**

- The operation of any facility for automatic transmission of alarm signals to an alarm receiving centre will be checked. Where more than one form of alarm signal can be transmitted (e.g. fire and fault signals), the correct transmission of each signal should be confirmed.

On completion of the work, any outstanding defects will be reported to the premises management and a record of the inspection and test will be made on the servicing certificate.



## Fire Design Guidance & Regulations.

A comprehensive guide to fire alarm design, risk assessment and regulations.



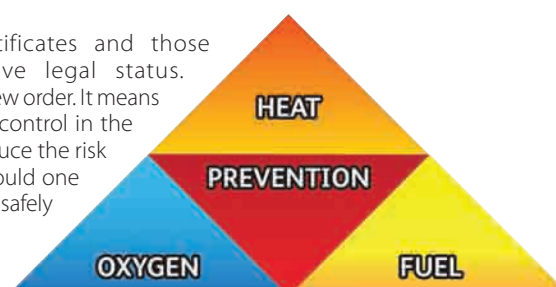
# Regulations and Risk Assessment

## Regulatory Reform Order (Fire safety) Compliance

The RRO became law in 2005 and legally you must comply

### What is RRO?

Fire authorities no longer issue certificates and those already in force will no longer have legal status. The RRO replaces most legislation with one new order. It means that any individual who has some level of control in the premises must ensure they take steps to reduce the risk from fire, consider how to contain a fire, should one break out and also make sure that people can safely escape in the event of a fire.



- All fire alarm designs should be based on a Fire Risk assessment
- All Fire Risk Assessments should be carried out by a competent person
- Fire Risk Assessment must be reviewed and any alterations must be documented

### What constitutes a Fire Risk assessment?

- Identifying fire hazards such as sources of ignition, fuel or oxygen
- Identifying people at risk in and around the premises, especially the young, elderly and disabled
- Evaluating the risk of a fire starting or the risk to people from a fire
- Removing or reducing fire hazards or risks to people from a fire
- Providing fire precautions to protect people
- Documenting any major incidents or shortfalls
- Preparing an emergency plan
- Informing and instructing all relevant people
- Providing training for staff and visitors
- Review the fire risk assessment document regularly and update as required
- Keep accurate fire risk assessment records

The regulations apply to virtually all premises and nearly every type of building structure/open space

The guides available include:

Offices and shops

Factories and warehouses

Sleeping accommodation

Residential care premises

Educational premises

Small and medium places of assembly

Large places of assembly

Theatres and cinemas

Open air events and venues

Healthcare premises

Transport premises and facilities

Means of escape for disabled people

See [www.communities.gov.uk](http://www.communities.gov.uk)



# Comprehensive Installation Design Guide

BS 5839-1 Fire Detection Levels	
Type L: Protection of Life	L1: Installed throughout all parts of the building for life protection, plus manual call points
	L2: Installed only in all escape routes and doors opening onto the escape routes, plus specified areas and call points
	L3: Designed for all escape routes and doors opening onto the escape routes, plus call points
	L4: Installed for all escape routes plus call points
Type P: Property Protection	P1: Installed throughout all areas of the protected building. Automatic Receiving Centre (ARC) required and external sounder/beacons
	P2: Installed only in specified areas listed on paperwork plus call points

Consideration must be given to any parts of the workplace where a fire could start and spread undetected. This could be a storage area or a basement that is not visited on a regular basis, or a part of the workplace that has been temporarily vacated, for example at meal times. Fires that start and develop unnoticed can pose a serious danger to people in the work place.

In workplaces where fire could develop for some time before being discovered, it's important to protect vital escape routes, particularly staircases, with fire-resisting construction which may include fire-resisting doors. (These may need magnetic door retainers)

Installing an effective, reliable automatic fire detection system, linked to an effective fire warning system, can sometimes allow people to re-assess the degree of structural fire protection required on escape routes. This can provide a more cost-effective and convenient fire precaution. However the whole subject of trade-offs between structural protection and other fire protection systems is a complex one and such decisions should only be made after consultation with your local fire authority.

In some workplaces, such as those providing sleeping accommodation or care facilities, automatic fire detection and a high degree of structural protection are essential in ensuring a satisfactory standard of fire safety.



In all instances the detector type chosen should be appropriate for the premises they are protecting. For example, a heat detector may function better than a smoke detector in a fume-laden or dusty environment but may not be suitable for the rest of the premises. Choosing the right type of detector will reduce the chances of it giving false fire signals. False alarms can cause costly interruptions to manufacturing processes and business activities. They can also increase the risk to occupants if the fire brigade is responding to a false fire call and is not readily available to tackle a real fire.

Before installing an automatic fire detection system, it is advisable to consult the fire authority about what you propose. This can help make sure the system is appropriate to the workplace and avoid unnecessary costs.

Automatic fire detectors or smoke alarms do not remove the need to provide a means for people to manually raise a fire warning, and this will be essential in the majority of workplaces.

All fire alarms must have fire resistant cabling within the whole fire alarm system, including the mains supply cables. The use of non fire resisting cables, whether mechanically protected by fire resisting construction or not, will no longer comply with BS5839 Part 1.

### Conventional systems (non addressable)

In conventional systems, detectors are inter connected in fixed detection zones and the location of any alarm is identified by searching the indicated zone. The fire decision is achieved inside the detector and any changes in detector performance can only be implemented at the detector. Any logical processing to confirm an alarm signal can be achieved on a zone basis, for example pre-alarm signalling, temporary resetting and coincidence between two zones.

### Addressable systems

In addressable systems each detection point is given a unique identifier which enables its exact location in the system to be displayed at the CIE. In these systems the fire decision is often made at the detector and the detector performance can sometimes be initially programmed and modified remotely at the CIE. This permits better false alarm management compared to a conventional system by offering, for example, coincidence detection, between individual detectors rather than detection zones.

### Analogue addressable systems

These systems use addressable sensors to communicate environmental data to the CIE which then make the fire decision. In these systems the detection performance can usually be programmed and modified at the CIE. This permits a better control on detection sensitivity as well as false alarm rejection, e.g. day/night operation mode, coincidence between different sensor types in the same area.

# Comprehensive Installation Design Guide

## Notification technologies

An alarm at the CIE is brought to the attention of the occupants of the building using diverse notification technologies depending on the type of building, its use and the specific needs of its occupants. In bedrooms the objective of the notification system is to awaken the occupants and thereby to alert them to the danger. The main notification technologies include:

### Sounders and bells

Most buildings use sounders/bells as the main means of notifying fire alarms. They are effective in providing adequate warning to building occupants which have been suitably trained. Zoning of sounders is used to provide limited notification to parts of buildings and to effect a phased evacuation. However they do not provide intelligent information to guide occupants through the development of an emergency situation.

Both BS 5839-1 and BS 5839-6 recommend that a minimum sound pressure level of 75dB (A) at the bed head should be achieved. However, it should be understood that this will not necessarily be sufficient to wake people under the influence of alcohol or other drugs.

### Voice alarms

When the evacuation strategy of a building requires a more intelligent notification to occupants of emergency situations, the CIE can be linked to voice sounders giving pre stored messages or a voice alarm sub-system. The voice alarm sub-systems can broadcast messages according to a pre-determined evacuation plan and can offer the option for live message broadcast. System operators can have the ability to tailor and direct the messages to suit a particular emergency situation. Voice alarm systems can normally support other forms of alarm warning devices, such as conventional sounders, visual alarm devices and tactile devices. Recommendations on the design, installation, commissioning and maintenance of voice alarm systems are given in BS 5839-8 and BS EN60849. In bedrooms the attention drawing signal should also achieve a minimum sound pressure level of 75dB (A) at the bed head, plus a visual alarm as recommended in the British standards code of practice.

### Visual alarm devices

The need to cater for occupants who are deaf or hard of hearing has led to an increased use of visual alarm devices (strobes) in support of sounders or voice alarm sub-systems. In general, visual alarm devices are considered to be ineffective in waking sleeping people and will need to be used in conjunction with another device, such as a pillow vibrating pad. Recommendations can be made on the planning, design, installation, commissioning and maintenance of systems using visual alarm devices complying with current standards.

## Available detection technology

Fire detectors are comprised of different sensors, used individually or in combination, which are typically of the following types:

### Optical/Photo-electric

Optical smoke point detectors generally use the scatter-light principle, where the generator (normally infra red (IR) LED) and the light detector (IR photodiode) are physically offset. When smoke is not present in the chamber, the light from the LED is blocked from striking the sensing area of the photodiode. When smoke enters the chamber, light scatters off the smoke particles to strike the photodiode. The signal generated by the photodiode is compared with a set threshold value, which determines the fire condition. Optical detectors are generally less sensitive to flaming fires when compared to ionisation detectors, but respond better to the larger particles (typically greater than 2 micron) generated by smouldering fires. The sensitivity of optical detectors to the larger particles makes them susceptible to false alarm risk from steam (from showers and kettles), dust, smoking and aerosol sprays, such as air fresheners, deodorants and hairsprays. In addition, optical detectors can be susceptible to false alarms from insects inside the sensing chamber. Variations of optical detectors employ different light wave lengths and/or scattering angles to determine smoke particle characteristics. This is done to enhance detector performance.

### Ionization

Ionisation chamber smoke detectors use a small radioactive source to ionise air molecules and thus, produce a cloud of positive and negative ions within the chamber. This allows a small current to flow through the chamber between two electrodes. When smoke enters the chamber the ions adhere to the smoke particles, reducing the current. This current reduction is measured and compared to a set threshold level, which when crossed, initiates the fire signal. ICSD's generally respond well to invisible smoke particles (typically smaller than 1 micron) produced by flaming fires. This type of fire is less likely while people are asleep, so the selection of this type of detector is not common in bedrooms except in situations where arson might be anticipated. The sensitivity of ionisation detectors to the smaller particles makes them susceptible to false alarm risk from toasters, cooking fumes from frying and grilling and dusty electric fires. Handling, storage, transport and disposal must be carried out to the relevant regulations.



# Comprehensive Installation Design Guide

## Heat detectors

Heat detectors typically employ thermistors which are electronic components that change their resistance when heated (or cooled). This change can be detected by other circuitry. Heat detectors can typically be configured to give an alarm at a specific temperature and/or when the rate-of-rise of temperature exceeds a threshold. Several classifications of heat detectors are available. Detectors classified as A1R are the most appropriate for use in sleeping accommodation. Heat detectors rely on large amounts of heat output from a fire and are not suitable for the detection of the early products of combustion. False alarms from heat detectors are unlikely in sleeping accommodation.

## Carbon Monoxide (CO)

Typically, carbon monoxide detectors employ electrochemical cells to measure levels of CO emitted by a fire by converting gas molecules into an electric current. This current is measured and compared to a set threshold level, which when crossed initiates the fire signal.



CO detectors are able to give a fast response to smouldering fires, however, a number of fire types do not generate significant amounts of CO; hence this technology alone should not be used to simply replace traditional smoke detection technologies in all applications.

Ambient sources of CO such as car fumes and faulty gas appliances can present a risk of false alarm when using CO fire detectors. Detectors based on electrochemical cells may also be vulnerable to other interfering gases, such as those produced by spray cosmetics.

## Flame detection

Infra-red and Ultra violet sensors are commonly used to detect flames. These sensors monitor different wave lengths of light emitted (radiation) from fires and/or flame

flickering characteristics.

Flame detectors are suitable for the detection of flaming fires. This type of fire is not generally found in bedrooms though, in certain situations, it may arise from arson.

Flame detectors can give false alarms from expected sources of radiation such as heating and cooking appliances, cigarette lighters as well as from welding, modulated sunlight and heat radiated by hot bodies.

## Other Technologies

Other technologies such as linear optical beam smoke detection, aspirating smoke detection are also available. Optical beam detectors operate by both light obscuration and scatter along the line of detection rather than a single point. These detectors require line of sight along the beam path. Optical beam detectors present a risk of false alarm due to inadvertent obscuration of the beam caused by human intervention or by the false alarm sources that affect point optical smoke detectors.

Aspirating smoke detectors operate by sampling air drawn through a pipe network and analysing it remotely for the presence of smoke particles using an optical scatter or obscuration chamber. Aspirating detectors rely on the integrity of the sampling pipe work. The sensitivity of aspirating detectors can be adjusted to suit particular site requirements.

Aspirating detectors present a similar risk of false alarm as for optical detectors. This particularly includes dust, cooking fumes and smoking. However, the sensitivity of aspirating detectors can be adjusted and the air sample conditioned by filters and condensation traps to minimise the false alarm risk. Both these technologies can be suitable for use in sleeping accommodation covering large and high open spaces, e.g. dormitories.

Do smoke and heat detectors provide the same level of coverage?

No they don't. Smoke detection devices have an individual coverage of 7.5m radius, while the figure is 5.3m for heat detection devices. Where there is a requirement for more than one device in an area, the radius must overlap to ensure that there are no blind spots. In a corridor less than 2m wide, the radius do not need to overlap, so smoke detectors, for example, can be spaced 15m apart. Where the corridor is more than 2m wide, it is considered to be a room and overlapping radius are necessary.

For smoke detectors, the individual coverage can be represented by a square measuring 10.6m x 10.6m giving a coverage of 112m<sup>2</sup> per device, which is usually approximated to 100m<sup>2</sup>. With heat detectors this figure is 7.5m x 7.5m, giving an area of coverage of 56m<sup>2</sup> per device which is rounded down to 50m<sup>2</sup>.

BS5839 states that detectors should be sited no less than 500mm from a wall, 200mm away from light fittings and 1000mm from air conditioning units. Any obstruction which is less than 300mm from the ceiling should be treated as a wall, thus requiring a detector either side of the obstruction. In buildings such as warehouses, measures must be in place to ensure that stacking items too close to the ceiling does not affect the performance of the detectors.

# Comprehensive Installation Design Guide

## Do I need site detectors in voids?

In voids of more than 800mm in depth, detection should be provided in the void. If the void is less than 1500mm in depth, all such detection should be sited in the top 10 per cent or 125mm of void depth, whichever is the greater.

If a detector is concealed in a relatively inaccessible area, such as a ceiling or floor void, it is normally a requirement to provide a remote indication of its operation. In an addressable system the provision of an individual remote indicator might not be necessary, provided that the location of each fire detector is clearly indicated at the control panel and is addressed so that you can tell where it is located.

## What is the minimum acceptable sound pressure level for fire alarm signals?

A system design should incorporate sounders that will achieve 65dB (or 5dB above any ambient noise lasting more than 30s) in all areas of the building with all doors shut (a difference of 2-3dB is only just perceptible to the human ear). It is considered unnecessary to install additional fire alarm sounders in open areas if 65dB is achieved, and the sound pressure level can be reduced to 60dB in enclosed spaces, such as small cellular offices and stairways.

## I'm about to install a fire detection system in a sleeping accommodation area - is there anything in particular I need to consider?

In areas where people are sleeping the sound level needs to be 75dB at the bed head using a sounder/beacon. As this has to be achieved with doors shut, most hotel bedrooms have a combined detector with a base sounder or a base sounder beacon (subject to risk assessment). Another point to consider is the percentage of rooms allocated for disabled. As with any design, you will need to take into consideration the reduction of sound through a door. Sound is reduced by at least 20dB through a standard door and at least 30dB through a fire door.

## Fire warning devices

In almost all buildings a suitable electrically operated fire warning system, with manual call points positioned on exit routes and adjacent to final exits should be installed. This should have sufficient sounders for the warning to be clearly heard throughout the workplace. The sound used as a fire warning should be distinct from other sounds in the workplace, and where background noise levels are high or an employee has a hearing impairment, it may also be necessary to install a visual alarm such as a distinctive flashing or rotating light.

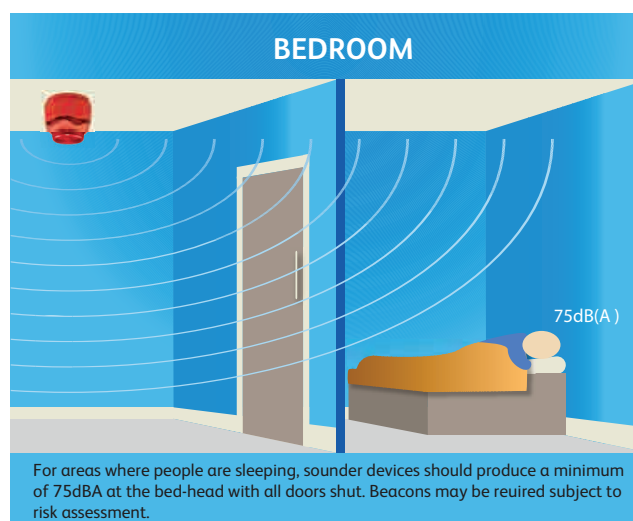
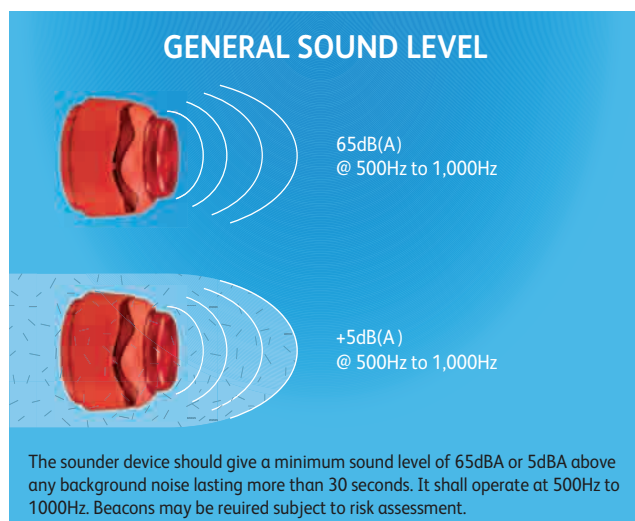
## Sanitary areas commonly need Sounder/Beacons

A minimum of 2 sounder circuits are required in case one fails, on conventional or isolators on addressable systems.

In more complex buildings such as retail premises, where the evacuation system is based on staged or phased evacuation, or where people are unfamiliar with the fire warning arrangements, the landlord or employer might consider installing a voice activation system. The system could form part of a public address system and could give both fire warning signals and verbal instructions in the event of a fire.

Where a public address system is used in conjunction with a fire warning system, both should over-ride any other function of the equipment (such as playing music). The public address element of the system should give clear verbal instructions and should over-ride the fire warning signal, - this should be distinct from other signals which may be in general use.

If an automatic fire detection system and a manually operated electrical alarm system are installed in the same workplace, they should normally be incorporated into a single integral system. Voice evacuation systems should be similarly integrated to prevent confusion.





# Comprehensive Installation Design Guide

Electrical fire detection and alarm systems should normally comply with all current standards. Again it is advisable to consult the fire authority about your proposals before installing a new fire warning system or altering an existing one.

## Tactile devices

Tactile devices are commonly used to alert deaf people of an emergency. Pillow vibrating pads are specifically used for waking such people. Vibrating pagers have a more general use when the protected person is either in a specific room or circulating within the building.

A variation on the above is a staff alarm, where the triggered fire detector may only cause a local alarm to alert trained staff to take appropriate planned actions. Alternatively the panel may be set to give only an alert signal, upon receiving a first fire signal. Then, a general evacuation alarm or phased evacuation can occur after a delay or when the alarm is verified. This technique is generally used to activate a voice alarm system.

## Local alarms with a local delay function

This is normally used in housing of multiple occupancy

A single delay function button and local indicator is provided in each apartment. If a local fire signal occurs in an individual apartment, then only the local alarm devices activate and a delay is set. This delay can be extended by the local delay button, however if the button is not pushed the delay will time out and the main panel enters a general fire alarm condition. Pushing the delay button just before a local fire signal occurs also extends the delay period.

## Local alarms and phased evacuation

A local alarm (which could be from an integral strobe and/or sounder on a fire detector) could be used to output a fire alarm only in the area protected by the triggered fire detector. This allows for a phased evacuation of the area in which the alarm is triggered before a general evacuation is signalled.

Is it better to use a greater number of quieter sounders rather than a few very loud sounders?

In order to prevent excessive sound pressure levels that can cause disorientation or even damage to hearing, the use of a greater number of quieter sounders is always preferable to using fewer very loud sounders.

By designing a system with more sounders at reduced volume, your design may result in longer loops, and smaller batteries in the panel. In larger systems it can result in fewer loops, and it can also make a difference to the size of cable required.

## Fire detection and warning checklist

The following is a useful checklist which will help ensure that fire precautions are instigated and maintained to an acceptable standard.

- Where necessary, subject to risk assessment is a fire detection and alarm system installed?
- Is all fire detection and alarm equipment regularly checked?
- Are there instructions for relevant employees about testing of equipment?
- Are those who test and maintain the equipment properly trained/competent to do so?
- Can the existing means of detection discover a fire quickly enough to raise an alarm in time for all the occupants to escape to a safe place?
- Can the means for giving warning be clearly heard and understood throughout the whole premises when initiated from any single point?
- Does the fire detection and warning system have a back-up power supply?
- Have you told your employees about your fire warning system, will they know how to operate and respond to it?
- Are there instructions for your employees on how to operate the fire warning system and what action they should take on hearing a warning?
- Have you included the fire detection and fire warning arrangements in your emergency plan?
- All mains supply isolators must be double pole and suitably marked.
- Cable using trunking as a means of containment must be clipped using fire resistant supports within the trunking.
- Linear heat detection cable space as heat detectors.
- There are a minimum of 2 sounder circuits installed.
- Detector type and spacing is appropriate to the system category.
- Mains isolator switch.
- Log book.
- Document box.
- Relevant signage.

Please note this is not a substitute for British standards (current) and any local bye laws. This information should be used as a guide only.

**1. GENERAL**

In these conditions of sale, the "Company" means ORBIK ELECTRONICS LIMITED; The "goods" means any item of whatsoever nature which is to be sold by the company; The "Purchaser" means the person, firm or body corporate which buys or has agreed to buy goods. These conditions of sale shall apply to and form part of every contract of sale entered into by the company. Orders are accepted and executed on the understanding that the purchaser is bound by these general conditions of sale. Where there is any inconsistency between these conditions of sale and any conditions which the purchaser seeks to impose, these conditions of sale shall prevail. No contract of sale shall come into being unless and until the purchaser has accepted these conditions of sale either expressly or by implication.

**2. LIMITS OF CONTRACT**

The contract includes only such goods, accessories and work as are specified in the quotation or acknowledgement accompanying these conditions of sale.

**3. PRICES**

- a) The price payable for goods, shall unless otherwise stated by the company in writing, be the list price of the company current at the date of despatch. In the case of an order for delivery by instalments, the price payable for each instalment shall be the list price of the company current at the date of despatch of such instalment.
- b) Unless otherwise expressly stated to be firm for a period, the company's prices are subject to variation to take account of variations in wages, materials and other costs. The company accordingly reserves the right to adjust the invoice price without notice by the amount of any increase or decrease in such costs after the price is quoted.
- c) All prices are exclusive of Value Added Tax and this will be charged at the applicable rate and recoverable as part of the price by the company.

**4. PAYMENT**

- a) Unless otherwise agreed in writing, payment is due in full within 30 days of the end of the month of invoice.
- b) Where the contract is to be or may be fulfilled in separate instalments, deliveries or parts, payment for each instalment, delivery or part shall be made as if the same constituted a separate contract.
- c) Time for payment shall be the essence of the contract.
- d) Without prejudice to any other rights it may be that the company is entitled to charge interest at 2% above the current base rate of HSBC Bank Plc on overdue payments of the price of the goods, or the price of any instalment or partial delivery thereof.
- e) Additionally and without prejudice to its other rights, the company shall be entitled to recover all direct expenses reasonably incurred by the company in collecting or attempting to collect amounts of the price outstanding.
- f) If the purchaser fails to make any payment when due in accordance with these conditions of sale, the company reserves the right in its absolute discretion and without prejudice to any of its other rights or remedies to suspend all further deliveries until such payment has been made in full or, at the company's option, to cancel the balance of the order. In either case, the company shall hold the purchaser liable for costs incurred in respect of goods in course of manufacture or ready for despatch.
- g) The company shall be entitled to bring in action for the price or part thereof whether or not the property in the goods has passed.

**5. CREDIT**

Any contract shall be subject to the company being satisfied as to the purchaser's credit references and without prejudice to the generality of the foregoing, the company may (in its absolute discretion), having informed the purchaser that the goods are ready for despatch, refrain from delivering the goods until such time as the purchaser tenders the purchase money to the company, together with any outstanding amounts which may be due to the company on any account whatsoever.

**6. CARRIAGE**

- a) Where the value of any order exceeds £500 (five hundred pounds) nett, the cost of the goods to the purchaser's premises on the mainland of the United Kingdom shall be included in the contract price. The limit for Northern Ireland will be £1,500 nett.
- b) In all other cases the prices are exclusive of carriage and insurance to the purchaser's premises.
- c) Any orders below the carriage paid terms stated in condition 6a can be collected from the company's premises at no additional cost or will be subject to carriage charges to be agreed between the company and the purchaser prior to order.
- d) Deliveries outside of the UK mainland will be quoted separately.

**7. PACKING**

Where it is necessary to despatch goods in crates, cases, pallets, stillages or skids or other such packing, a charge will be made for this. All packaging has been evaluated and is fully compliant with the RoHS and WEEE Directives. Products contain none of the banned substances stipulated by the Directive, in concentrations above any permitted levels.

**8. LOSS OR DAMAGE IN TRANSIT**

When the price quoted includes delivery, the company shall repair or replace free of charge, goods damaged in transit or not delivered in accordance with the advice note, provided that the company is given written notification of such damage or non-delivery within such time (being not more than three days) as will enable the company to comply with the carrier's condition of carriage as affecting loss or damage in transit, or where delivery is made by the company's own transport, within three days after receipt of the advice note. Notwithstanding the above undertaking, the company will only consider claims for alleged shortage if they are received within two working days of the receipt of the goods by the purchaser, together with sufficient information to enable the company properly to identify the shortage, including the advice note number, consignment note details and condition of goods.

**9. SAMPLES**

Any samples submitted with the company's quotation or at the purchaser's request must be returned within ninety days of receipt and the company shall be entitled to charge for them if they are not so returned. Where the company has supplied samples to the purchaser, they will be charged under the company's normal terms and conditions. With the prior written agreement of the company, samples may be returned to the company at the purchaser's cost. Providing the goods are returned in good condition, the purchaser will be credited in full. If goods are returned in poor condition, credit will be rejected and the terms and conditions of the original invoice will stand.

**10. DELIVERY**

- a) Unless stated to the contrary in the purchaser's order and accepted by the company all times or dates for delivery of the goods are given in good faith but are approximate only and shall not be the essence of the contract.
- b) All times or dates for delivery shall be calculated from the date of acceptance by the company of the order of the purchaser, or from the date of receipt by the company from the purchaser of all information, instructions and drawings as shall be necessary to enable the company to carry out the order, whichever shall be later.
- c) Unless otherwise stated in writing the company shall be entitled to make partial deliveries of the goods.
- d) Scheduled or split deliveries at the purchaser's request may result in additional charges or a change to prices previously agreed.

**11. VARIATIONS**

- a) The company shall be under no obligation to alter or vary any part of the contract or any work connected therewith. Any alteration to, addition to, amendment to or other variation of the specification, including any drawings or to the quality, performance, weight or measurements of any goods or any alteration or variation of advised delivery schedules, shall, if requested by the purchaser, be subject to the agreement of the company, with such alteration or addition to the price and to delivery dates or schedules as may be required by the company and shall not be binding upon the company unless and until accepted by the company in writing.
- b) In the event of any variation or suspension of the work by the purchaser's instructions or lack of instructions, the company shall be entitled to adjust the contract price to reflect costs involved and to adjust delivery dates or schedules.

**12. STORAGE**

If the purchaser does not take delivery or arrange for storage as aforesaid, the company shall be entitled to invoice and be paid for the goods as though the goods had been duly delivered in accordance with these conditions of sale and the company may arrange storage either at the company's own works or elsewhere on the purchaser's behalf and all charges for storage, insurance or demurrage shall be payable by the purchaser.

**13. INSPECTION AND TESTS**

The company's products are carefully inspected and where practicable, submitted to its standard tests at the company's works before despatch. If tests other than those specified or tests in the presence of the purchaser or its representatives are required, these will be charged for. In the event of any delay on the purchaser's part.

**14. PERFORMANCE**

Any performance figures given by the company are based on its experience and are such as the company expects to obtain under the conditions of its standard tests at its works.

**15. DESCRIPTIVE MATTER AND ILLUSTRATIONS**

All descriptions, illustrations and particulars of weights and dimensions issued by the company in catalogues, price lists, advertising matter and forwarding specifications are by way of general descriptions and approximate only and shall not form part of any contract or give rise to any liability on the part of the company. It is the policy of the company to endeavour to develop and improve its products and accordingly, the company reserves the right to change all specifications without prior notification or public announcement pursuant to such policy. Provided that nothing in this clause shall oblige the purchaser to accept goods which do not reasonably comply with the contract.

**16. WARRANTY**

- a) The company will make good by repair, or at the company's option by the supply of a replacement, defects which, under proper storage and use appear in the goods within the period of twelve calendar months after the goods have been delivered and arise solely from faulty design (other than design made or furnished by the purchaser), materials or workmanship.
- b) The warranty given in this clause is subject to the following provisos, namely:
  - i) That the purchaser shall have followed all instructions issued by the company in relation to the goods;
  - ii) That in the case of defects which would have been reasonably apparent to the purchaser on reasonable examination of the goods on delivery, the purchaser shall notify the company of the defects in writing within fourteen working days of delivery;
  - iii) That in the case of any defects, the purchaser shall notify the company of the defects in writing within seven working days of the date when the defects became apparent.

**17. REJECTION**

Unless otherwise agreed in writing and subject to clause 16 hereof (Warranty), goods rejected as not complying with the contract must be rejected within fourteen working days of delivery to the purchaser's premises or to such other place as the purchaser shall have specified.

**18. CANCELLATION**

No order which has been accepted by the company may be terminated by the purchaser (whether by way of cancellation or otherwise) except with the prior written agreement of the company (at the company's sole discretion) and on terms that the purchaser shall indemnify the company in full against all loss (including loss of profit), costs, damages, charges and expenses incurred by the company as a result of the cancellation.

**19. RETURN OF GOODS**

- a) When attempting to return goods, the purchaser should provide as much of the following information as possible:
  - i) Catalogue numbers and quantity of goods;
  - ii) Reason for return;
  - iii) Date of purchase;
  - iv) If faulty, the date on which the goods were found to be faulty.
- b) Upon the company's acceptance of the purchaser's written debit note, a returns authorisation number will be issued and goods will either be returned at the purchaser's cost or if goods are faulty, collected by the company.
- c) Upon receipt of the returned goods, they will be inspected and tested as soon as is reasonably practicable. The purchaser will be notified if credit is to be passed based on the inspection and testing of the returned goods resulting in faults occurring due to component failure.
- d) When returned goods are found not to be faulty, a test report will be issued to the purchaser along with a request for the cancellation of the debit note on which goods were returned. Unless otherwise agreed with the company, a 30% handling charge for additional costs incurred by the company will be charged. Goods will be kept for a maximum period of 28 days awaiting collection by the purchaser and will be disposed of at the company's discretion after this period.
- e) Goods ordered but no longer required by the purchaser are to be returned at the purchaser's cost and are subject to either handling charges to be agreed with the company prior to return or a compensating order the value of which will be agreed between the company and the purchaser.
- f) Under no circumstances will credit be issued verbally and the purchaser should not return goods on the basis of assumed credit.

**20. CONSEQUENTIAL LOSS**

Save as may be expressly provided for herein, the company shall not be liable for any consequential loss suffered by the purchaser and in particular the company shall not be liable for any costs, claims, damages or expenses arising out of any tortious act or omission or any breach of contract or statutory duty calculated by reference to profits, income production or accruals or by reference to accrual such costs, claims, damages or expenses on a time basis.

**21. PATENTS**

The purchaser will indemnify the company against all damages, penalties, costs, losses and expenses suffered by the company or for which it may become liable in respect of the infringement of any intellectual property including (but without limitation) any patent, copyright, registered design trade mark, name or knowhow arising out of the company's manufacture of goods in accordance with any specification, design drawings or other data supplied by the purchaser or its servants or agents.

**22. COPYRIGHT**

All drawings, descriptions and other information submitted by the company shall remain the property of the company together with the copyright therein.

**23. FORCE MAJEURE AND OTHER CIRCUMSTANCES**

The company shall be entitled without liability on its part and without prejudice to its other rights, to terminate the contract or any unfulfilled part thereof, or at its option to suspend or make partial deliveries or extend the time or times of delivery. If the manufacture of the goods by the company or the company's suppliers, or the delivery of the goods or the performance by the company of its obligations under the contract is hindered or delayed whether directly or indirectly by reason of the purchaser failing to furnish necessary instructions or information, or by war or other hostilities, civil commotion, act of God, government action or legislation, interruption of transport, strike, lock out or other form of industrial action, accidents or stoppages to works, shortage of labour, materials, equipment, fuel or power, breakdown of machinery or any other cause whatsoever beyond the reasonable control of the company or its sub-contractors, whether or not such cause exists on the date of the order.

**24. PASSING OF PROPERTY AND RISKS**

- a) The risk in the goods shall pass to the purchaser immediately on delivery of the goods to the purchaser.
- b) The property in the goods shall remain with the company, which reserves the right to dispose of the goods, until payment in full for all of the goods has been received by it in accordance with the terms of this contract, or, until such time as the purchaser sells the goods to its customers by way of bona fide sale in the ordinary course of business at a price not less than that due to be paid by the purchaser to the company in respect thereof. While the goods remain the property of the company, the purchaser shall keep the goods identifiable and separate from all other goods in its possession.
- c) Until such payment as aforesaid has been received in full by the company, the purchaser shall be under an obligation to re-deliver the goods to the company if the company so requires and the company shall be entitled at any time to retake possession of the goods and for that purpose to enter upon any land or premises of the purchaser where the goods may be for the time being. The company shall be entitled, where the goods have been fixed or attached to any other product, to detach the goods in order to recover possession of them. Such re-delivery or re-taking of possession shall be without prejudice to the obligation of the purchaser to purchase the goods.
- d) If the purchaser sells any of the goods before the property in the goods has passed to the purchaser, the purchaser shall hold the proceeds of such sale in trust for the company. The purchaser shall, at the request of the company, assign to the company its rights to receive the proceeds of such sale.

**25. BREACH OF CONTRACT**

In the event of the purchaser committing any breach of this contract, or if any distress or execution is levied upon the purchaser, his goods or assets, or if the purchaser enters into any negotiations for arrangement or composition with, or for the benefit of his creditors, or commits any act of bankruptcy, or if any petition in bankruptcy shall be presented against him, or if, being a corporate body, the purchaser shall be wound up, or if any resolution is proposed or petition presented to wind up the purchaser (not being a members' voluntary winding up for the purpose of reconstruction or amalgamation without insolvency), or if a receiver of the purchaser's or undertaking, or any part thereof shall be appointed, or if the purchaser shall be deemed to be unable to pay its debts, the company shall be entitled, without prejudice to any other claim or right or remedy which it may have, forthwith to suspend any or all deliveries until the default has been made good or to determine the contract or any unfulfilled part thereof.



**UK Electrical Wholesalers:**

ORBİK Lighting & Fire Detection  
ORBİK House, Northgate Way, Aldridge, Walsall, West Midlands WS9 8TX  
Tel: +44 (0) 1922 745024 Fax: +44 (0) 1922 745124 Email: [uksales@orbik.co.uk](mailto:uksales@orbik.co.uk)

**Head Office & Export Sales:**

ORBİK Electronics Ltd  
ORBİK House, Northgate Way, Aldridge, Walsall, West Midlands WS9 8TX United Kingdom.  
Tel: +44 (0) 1922 743515 Fax: +44 (0) 1922 743173 Email: [sales@orbik.co.uk](mailto:sales@orbik.co.uk)

[www.orbik.co.uk](http://www.orbik.co.uk)



Quality British Manufacturing