# 5000 FirePoint Technical Product Information



*A world of protection without cable*

**EMS**

# 5000 Firepoint

The 5000 FirePoint is a full analogue addressable fire detection system that utilises secure, licence-free, radio communications to interconnect the sensors and devices (smoke detectors, call-points, etc.) with the system controllers - thereby eliminating the need for cable.

## System Controllers

### Features

- Analogue/addressable detection devices
- Led zone indication
- Keyswitch access
- Laptop programming
- Bomb alert input
- Configurable system code
- Device isolate
- VHF remote receiver facility
- 4 hardwired inputs
- Keypad programming
- Integral on-site paging
- Class change input
- 2 additional wired sounder circuits
- 2 auxiliary fire & fault contacts

### Outputs

- 2 x .25amp 24v DC sounder output circuits individually fused with end of line by reverse polarity, open circuit & short circuit monitoring.
- 1 x hardwire call point with EOL, open and short circuit monitoring.
- 2 x sets of auxiliary fire contacts.
- 2 x sets of auxiliary fault contacts.
- RS485 & RS232 serial ports
- 1 x Power supply and charger 230VAC 50 Hz Transformer giving a total of 3 amps.

### Standards

The controller technology is designed to meet the requirements of the BS5839 and EN54 standards and has been independently tested to satisfy the requirements of MPT 1305 and 1328 radio standards. VHF technology for receiving information from devices is combined with UHF (at 500mW) for command signals to radio sounders and personal pagers.

### Technical Support Assistant

Technical Support Assistant (TSA) is a Windows based software program that allows remote diagnostics and programming via modem.

### Specification

- Supply: 230Vac 50 Hz
- Dimensions: 330x450x116mm (inc back box)
- Fascia: Injection moulded with steel backbox
- Colour: Two tone contrasting beige
- Operating Temperature: -10 to +55°C
- Humidity: Up to 75% non-condensing
- Batteries: 2 x 12V 7AH (not supplied)
- Operating frequencies: VHF: 173.2-173.5MHz
                         UHF: 458.5-589.5Mhz
- Channel spacing: 25KHz
- Transmitter power: 0.5W (500mW)(+27DBH)

### Options

| Feature ▼ | Configuration ▶ | 4-Zone | 12-Zone | 24-Zone | 96-Zone |
|---|---|---|---|---|---|
| Zonal LEDs | | 4 | 12 | 24 | 96 |
| LCD display | | ● | ● | X | X |
| VFD display | | X | ○ | ● | ● |
| Radio LAN network | | ○ | ○ | ○ | ○ |
| Repeater panel facility | | ○ | ○ | ○ | ○ |
| Thermal panel printer | | X | ○ | ○ | ● |
| Mimic panel | | ○ | ○ | ○ | X |
| Pager support | | ● | ● | ● | ● |
| Ordering code | | 5004 | 5012 | 5024 | 5096 |

● - *Standard*
○ - *Optional*
X - *Not Available*

## Anciliary Controllers

### Firemans Panel

Interfaces to all 5000 FirePoint Controllers and provides manual operation of voice messages via onboard pushbuttons with LED verification. Manual controls allow start of test, end of test, evacuate, alert and silence messages to be broadcast via voice enhanced sounders. 230Vac 50 Hz operation with integral battery backup as standard.

### Range Extender

These VHF transponders allow the range of remote field devices to be extended from the system controller.

- Supply: 230Vac 50 Hz
- Built-in battery back-up
- Dimensions: 340x310x70mm
- Weight: 7.5 Kg
- Order Code: VHF 5-5400
    Pager 5-5418
    Sounder 5-5419

# Fire Sensors



All 5000 FirePoint sensors are based on proprietary designs bayonet-fitted to a radio address/transmitter module incorporating an energy pack and supplied with a common surface-mount base unit. Removal of the detector or address/transmitter module will indicate a fault condition.

The detector incorporates a selectable automatic lock, which, if enabled locks it into its base when plugged in, preventing unauthorised removal. Each unit has a unique address configured during manufacture and is individually addressable by the system controller. The radio address module is programmed to report at regular intervals of 5 - 9 minutes.

The address/transmitter module is powered by a low-voltage energy pack which is continually monitored and provides a typical 5 year life under normal site operations. The system indicates remaining energy pack capacity and a low power condition is indicated to the controller as a fault allowing at least 30 days for the pack to be changed.

## Common Features

- Analogue addressable
- Proprietary sensor
- Universal transmitter module and mounting base
- Detector/transmitter tamper
- Range in excess of 250m
- Typical 5-year replaceable energy pack

## Outputs

- Detector alarm - Fire, Pre-alarm and Fault
- Detector identity
- Power pack condition
- Auto report signal

## Device Specification



| Sensor Type | Multisensor | Optical Smoke | Heat |
|---|---|---|---|
| Operation | Combines both optical smoke and heat elements which operate as per the individual devices. When operating in dual mode the smoke sensor sensitivity is enhanced when the heat element detects a temperature rise above 40°C. | Advanced light scattering principle, using a wide-angle light beam together with an extra high sensitivity photodiode receiver. Checks for smoke particles every 5 seconds. Initial detection of smoke accelerates checks to every 2 seconds. | Highly sensitive thermistor which measures the actual temperature and rate of rise change. At regular intervals, the detector carries out a self test that checks and verifies every function, including the thermistor, and sensitivity to temperature. |
| Sensitivity | Single Smoke Mode, 4 levels: 1.5%M, 2.3%M, 3.0%M and 3.6%M.<br>Single Heat Mode, 4 levels: 58°C rate of rise, 58°C fixed, 72°C rate of rise, 72°C fixed. | Four levels of sensitivity adjustment are provided responding nominally to smoke obscuration levels of 1.5%M, 2.3%M, 3.0%M and 3.6%M. | Four levels of sensitivity adjustment are provided 58°C rate of rise (Grade 1), 58°C fixed, 70°C fixed and 82°C fixed (Range 1) |
| Standards | BS5839 Pt5 & EN54 Pt5 | BS5839 Pt5 & EN54 Pt7 | BS5839 Pt5 & EN54 Pt5 & 8 |
| Ordering Code* | 5150 | 5100 | 5120 |

*Sensor/address module complete

## Common Specification

Dimensions: 106x75mm (inc transmitter/address module)

Weight: 119g

Colour: White

Operating Temperature: -10 to +55°C

Humidity: 20 to 95% RH

Operating frequencies: VHF: 173.245MHz

Channel spacing: 25KHz

Transmitter power: 1mW ERP

# Radio Ancillary Devices

All 5000 FirePoint ancillary field devices are powered by a low-voltage energy pack which is continually monitored and provides a typical 5 year life* under normal site operations. The system indicates remaining energy pack capacity and a low power condition is indicated to the controller as a fault allowing at least 30 days for the pack to be changed.

Each unit has a unique address configured during manufacture and is individually addressable by the system controller. The radio address module is programmed to report at regular intervals of 5-9 minutes. Operating frequencies are VHF 173.245 MHz and UHF 458.5-459.5 Mhz with 25KHz spacing.

## Common Features

- Fully addressable
- Wire-free activation and control
- Typical 5-year replaceable energy pack*
- Tamper protection
- Fully monitored
- Range in excess of 250m

## Specification

| Device | Sounder/Sensor | Sounder | Callpoint | Voice Sounder | I/O Unit |
|---|---|---|---|---|---|
| Operation | The sounder base module is fully compatible with all the 5000 FirePoint fire sensors. The sounder element is omni-directional and can be installed as simply as a standard sensor. | The sounder is housed in an industry-standard, impact-resistant ABS moulding. Utilises 2-way radio communication with the controller using UHF to receive commands and VHF for auto reporting. | The callpoint is fitted into an industry-standard ABS moulding allowing for testing by insertion of a test key. When the glass is broken, the micro-switch is released, triggering an alarm, by radio, to the controller. | In addition to the standard audible fire alarm signal the unit can broadcast up to 4 separate fully synchronised, locally stored voice messages, activated from the 5000 FirePoint Controller. | The I/O unit provides the facility for transmitting alarm signals from contact input activation and operating various contact operated devices such as magnetic door holders. |
| Outputs | ▪ Sound:90dBA@1m<br>▪ 4 selectable tones<br>▪ Power pack status<br>▪ Auto report signal<br>▪ Detector tamper<br>▪ Sounder identity | ▪ Sound:96dBA@1m adjustable<br>▪ 4 selectable tones<br>▪ Power pack status<br>▪ Auto report signal<br>▪ Sounder identity | ▪ Alarm LED<br>▪ Alarm signal<br>▪ Power pack status<br>▪ Auto report signal<br>▪ Callpoint identity | ▪ Sound:96dBA@1m adjustable<br>▪ Up to 4 messages<br>▪ Power pack status<br>▪ Auto report signal<br>▪ Sounder identity | ▪ Volt free contact rated 24Vdc at 1A<br>▪ Power pack status<br>▪ Auto report signal |
| Dimensions (mm) | 145x90 | 88x88x80.6 | 87x87x61.5 | 176x88x80.6 | 205x160x40 |
| Weight (g) | 119 | 379 | 276 | 900 | 900 |
| Colour | White | Red or White | See ordering codes | Red | White |
| Temperature (°C) | -10 to 55 | | | | |
| Humidity | 20 to 95% RH non condensing | | | | |
| Ordering Code | 5191 (Smoke)<br>5192 (Heat) | 5300/R (red)<br>5300/W (white)<br>5310 (with strobe)<br>5320 (with aux op) | 5200/R (red)<br>5200/W (white)<br>5200/B (blue)<br>5200/Y (yellow)<br>5200/G (green) | 5380/RV (red)<br>5380/WV (white)<br>5380/RVS (strobe)<br>5380/WPV (weather resistant) | RFS5610 (Std unit)<br>RFS5610/MH (with external aerials)<br>RFS5620/RSM (remote sounder) |
| Additional features | ▪ First stage audible alert | ▪ Sounder/ Strobe Option<br>▪ Aux contact option for remote callpoint | ▪ Weatherproof call-point option | ▪ Sounder/Strobe Option<br>▪ Programmable alert message | ▪ Monitored input for fire and fault<br>▪ Remote sounder module version |

*Note: Typical battery life for Voice Sounder range may vary