



AlarmCalm

Complete False Alarm Management Solution



Verification



Investigation



Reduction

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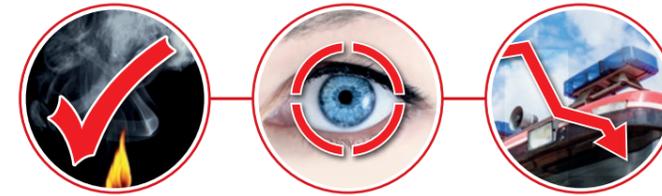


About AlarmCalm

The problem of unwanted false alarms

False fire alarms are a global problem. In the UK alone, they cost more than 1 billion pounds a year. But the costs aren't simply financial; repeated false alarms make people complacent and less likely to take action in real fire situations.

They cause disruption to businesses, annoyance to customers, can damage a company's reputation and may also divert fire and rescue teams away from real emergencies.



Verification

Investigation

Reduction



Many Fire and Rescue Services in the UK now charge organisations for repeated false alarm callouts.

Common Causes of False Alarms

- | | | |
|------------------|--------------------------|-------------------------|
| ✓ Faults | ✓ Accidental activations | ✓ Call point misuse |
| ✓ Dust | ✓ Steam | ✓ Artificial smoke |
| ✓ Cooking | ✓ Aerosols | ✓ Hot works |
| ✓ Toasters | ✓ Water ingress | ✓ Sprinkler maintenance |
| ✓ Smoking | ✓ Malicious activations | ✓ Contractor activity |
| ✓ Weekly testing | ✓ No access to premises | ✓ System maintenance |



Leuchie House in East Lothian, Scotland, is a respite centre for people with multiple sclerosis. It is protected by an Advanced 4-loop MxPro 5 panel with AlarmCalm false alarm management.

AlarmCalm the complete, Advanced False Alarm Management Solution

AlarmCalm software is built into every MxPro 5, Go, Axis EN and AxisGo fire panel and allows total control and configurability of the false alarm strategy across any site.

A fast fire system

Advanced is renowned for the performance and speed of its panels and networking. These provide the foundation for complete, high-performance false alarm management.

Whilst detector technology screens any false signals in the detector heads themselves, Advanced fire panels analyse the signals received from the sensors and interpret this information to determine if the fire signal is real. The panels match detector signals with powerful cause-and-effect programming, and use a range of verification and investigation delay procedures to significantly reduce false alarms.

Intelligent alarm acknowledgement devices

The AlarmCalm button is an optional element within our AlarmCalm system. It allows the residents of a building to verify and acknowledge false alarms, one of the most potent methods of false alarm reduction.

The AlarmCalm button is a fully intelligent loop device. It's compatible with a standard, UK single-gang backbox and installation is quick, inexpensive and looks good. As it's intelligent, the button offers multiple configuration options.

Customised configuration

We give you complete control over the way you configure your false alarm management strategy.

AlarmCalm's unique use of virtual 'building areas' provides ultimate flexibility in designing an effective false alarm management solution. Building areas operate independently of fire zones, giving users more precise control of false alarm management and reduction strategies that fit the needs of each part of a building.

Verification and delay technology

Operating at exceptionally high speeds, AlarmCalm's sophisticated verification and investigation delay technology provides the maximum possible time to check if an alarm is genuine, thereby avoiding unnecessary building evacuation. It can be configured to your exact needs based on variables such as device type, number of activated devices, time of day or day of the week.

Alarm Verification automatically checks if an activation device is genuine before a fire condition is displayed on the panel. This is ideal for when the designated responsible person is not available on site.

Investigation Delays allow the occupant to physically check if an activated device is genuine after a fire condition is displayed on the panel. This option is suitable when there is a responsible person on site.



The complicated made easy

Complete false alarm management often involves complicated cause and effect.

The AlarmCalm area of our in-built DynamixTools software makes it quick and easy to set up a vast array of investigation and verification options, customised to your exact needs – in just a few clicks.

For customers, software updates and training are free.

Event log

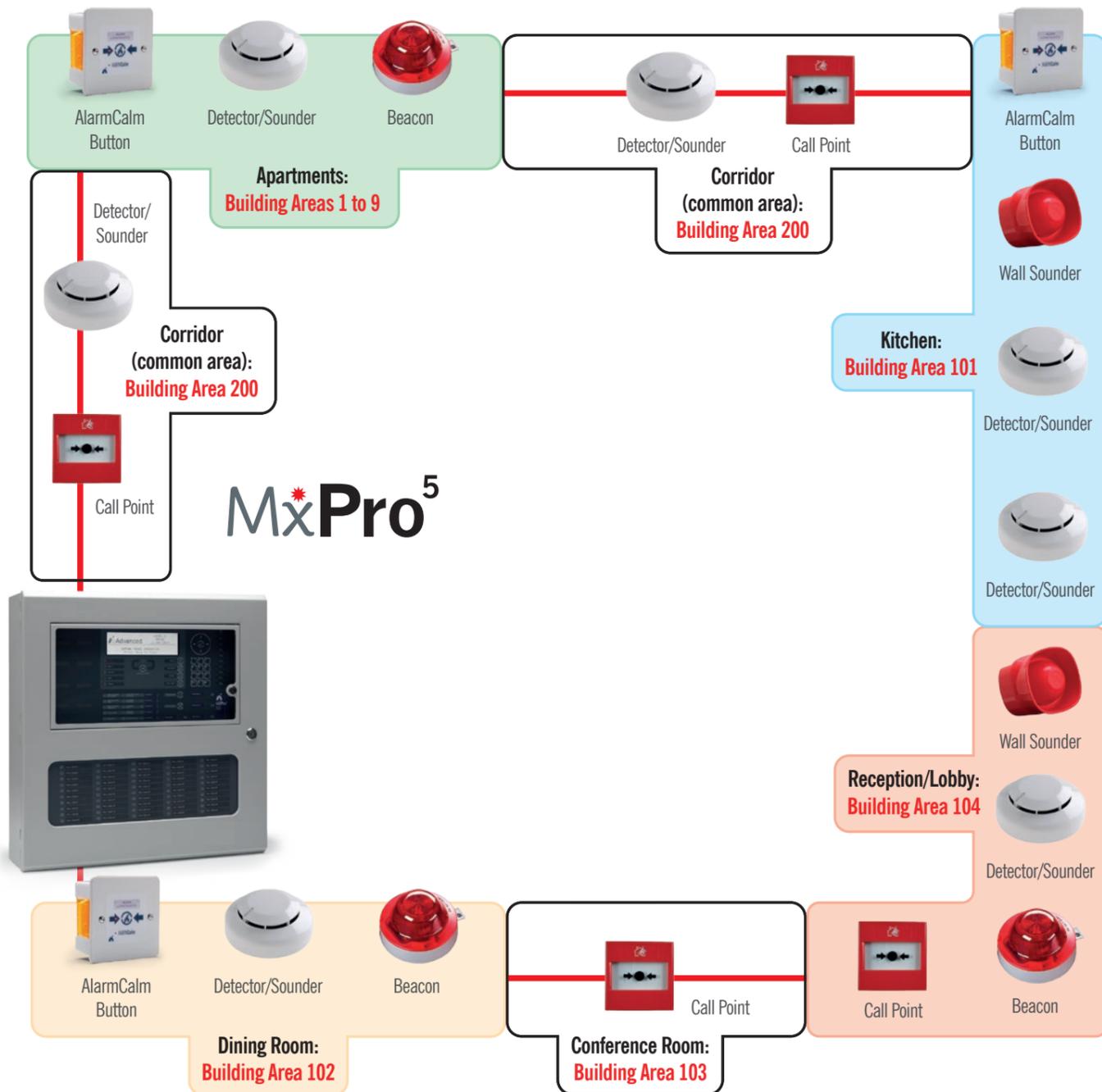
Any false alarms that do occur when using AlarmCalm are recorded in the event log. This means that recurring false alarms can be investigated to solve the problem.



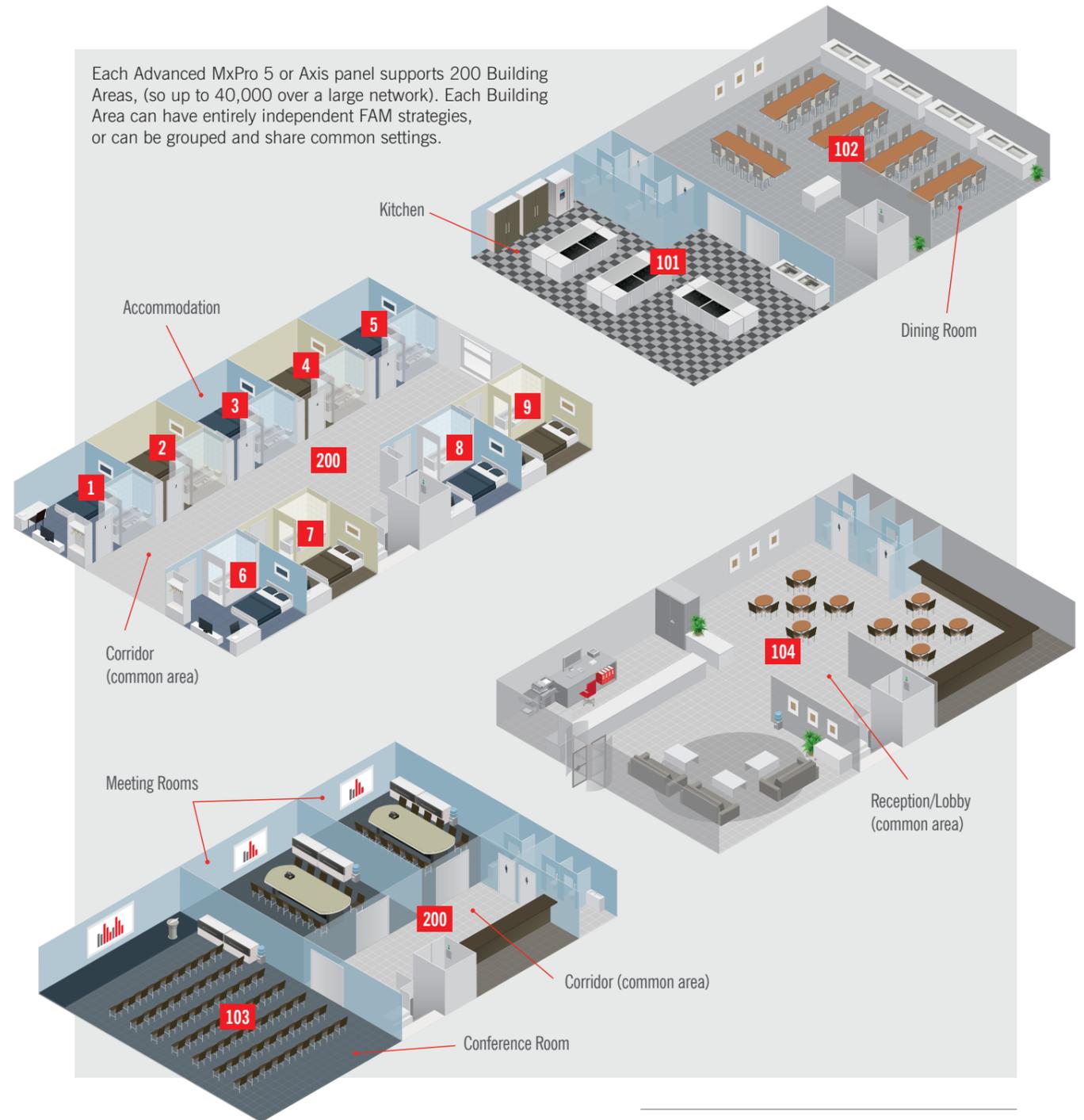
AlarmCalm Complete, Advanced False Alarm Management

Building Areas

Setting up building areas gives you maximum control to configure your false alarm management software exactly the way you want it. Building areas are virtual areas that by default match fire zones but can be specified independently, to cover multiple zones and points or individual points.



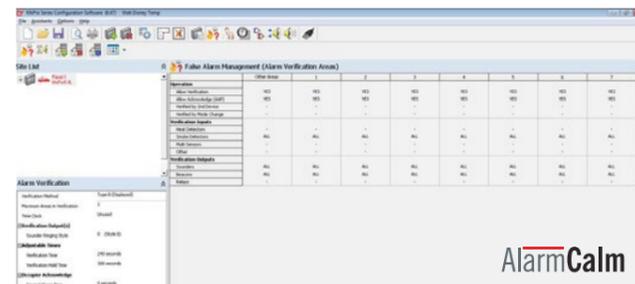
Each Advanced MxPro 5 or Axis panel supports 200 Building Areas, (so up to 40,000 over a large network). Each Building Area can have entirely independent FAM strategies, or can be grouped and share common settings.



Each location within the building is allocated its own virtual building area number so that cause and effects can be programmed accordingly

Alarm Verification and Investigation Delay

Configuration



AlarmCalm's configuration is simple. In our DynamixTools Config software, there's a new programming tab where all FAM configuration takes place.

Settings are managed via simple yes/no matrices and even complicated configurations can be achieved in very few clicks.

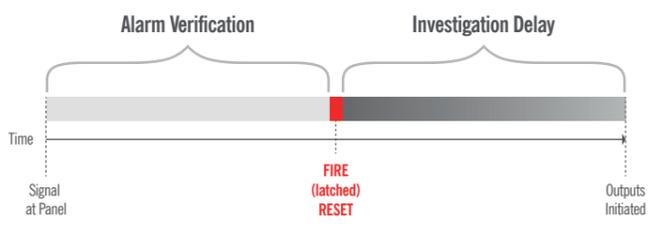
Unlimited Points in Building Area

To facilitate quick set-up, the building area assigned for each device will automatically be set as the device's zone number. However, the building area can also be freely assigned for each point on a panel – and as such every detector, call point, input and output can be allocated to a different building area.

There is no restriction on the number of points or devices in a building area. Each can contain any option - from one detector and sounder, to every device on a panel.

Alarm Verification and Investigation Delay

False Alarm Management (FAM) is built around configurable time periods that occur either side of a latched fire condition. Alarm verification (type A not displayed and type B displayed) takes place before the fire condition is latched; investigation delays to outputs occur after the fire condition is latched on the panel. They both offer significant but different FAM options and both are managed in the same way in our software, to maximise ease of use and speed of configuration.



Verification and investigation comprise the two stages of complete false alarm management. Both are handled separately but configured in the same simple, powerful way using our AlarmCalm software.

Verification Types

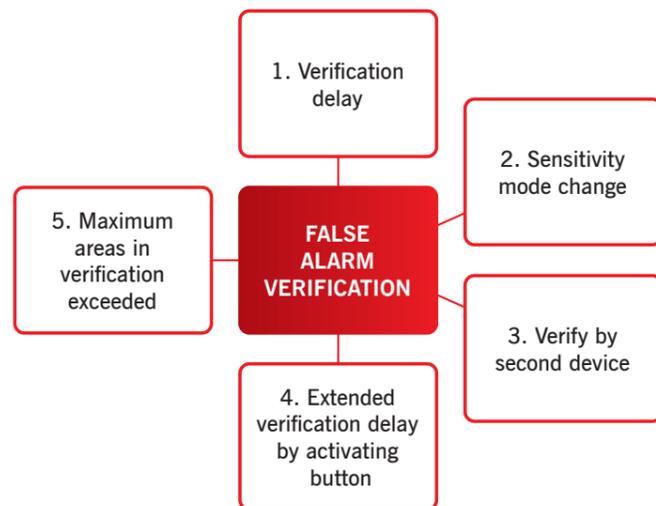
Two kinds of verification methods are allowed on the Advanced fire network.

Type A (Not Displayed)

Allows any qualifying detector to go into alarm for up to 60 seconds without it causing a fire. The panel will not display the alarm during the verification period.

Type B (Displayed)

Delivers great flexibility on every aspect of the verification time and methods, and allows full programming of outputs and visual warnings during the verification period. The alarm location is displayed at the panel and on any associated remote terminals throughout the verification period.



Simultaneous Verification Rules

Verification can occur simultaneously in multiple areas. Users can set the maximum number of building areas in verification at any one time before a full fire condition is indicated.

Verification by Building Area

It is sometimes necessary to have different verification strategies for different building areas. With up to 200 building areas per panel, configuration could be complicated, but with AlarmCalm it's incredibly simple. AlarmCalm allows building area configuration to be set by individual area or by 'other areas'. In 'other areas', simply enter the parameters that apply to most building areas, and then add parameters for the individual areas.

Example configuration: In a 50-apartment, multi-occupancy building, all apartments have the same verification requirements but need to function independently. Escape corridors are not allowed any verification.

Solution: Group all the apartments into 'other areas' and apply the verification settings. Configure the escape corridors separately without verification. In a few clicks the whole building is configured.

Day and Night Settings



Different false alarm strategies can be programmed depending on time of day, or day of week, using the programmable time clocks available in the DynamixTools Config software.

For example, different verification settings can be applied during the day and night and investigation delays can be programmed to be in use at different days/times.

Each time clock works on seven-day weeks, allowing different verification or investigation delay strategies to be activated during weekdays, on the weekend and during the day and night.

Verification Mode

AlarmCalm allows devices that support multiple sensitivity modes to verify an alarm using different settings. For example, combined optical/heat detectors can change to heat-only mode to verify the alarm. You can also alter these settings based on day/time.

Multiple Verification Options

The verification strategy for each building area is highly flexible. The following options are supported:

- Allow verification: Yes/no
- Extend verification period/silence verification outputs using an AlarmCalm button
- Verified by second device within the same building area
- Verified by mode change e.g. an optical/heat detector can confirm fire if it confirms a signal in both smoke and heat modes.

Multiple Verification Inputs

Verification can be set quickly according to device type in each building area. Heat, smoke, multi-sensors and other inputs (call points or any input modules) can be used as verification inputs and set by all devices of each type – or individually per device.

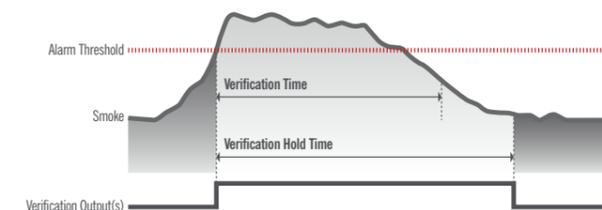
Multiple Verification Outputs

Sounders, beacons and relays in each building area can be operated during the verification period and can be quickly set by all devices of each type or individually by point.

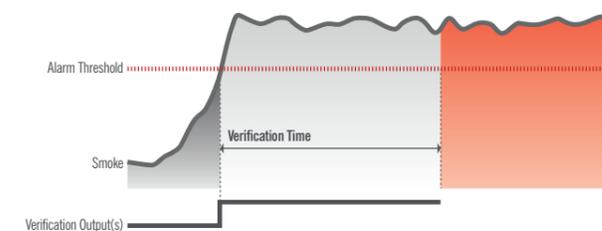
Multiple Verification Timers

With Type B (Displayed) alarm verification, AlarmCalm delivers a number of adjustable timing parameters. The verification time starts from the instant the smoke in a detector increases above alarm threshold or any other applicable input device is activated. The panel will turn on any programmed verification outputs for the building area during the verification time. Verification hold time helps ensure that transient signals are displayed on the panel long enough to be acknowledged and investigated, but still trigger full alarm conditions when necessary.

If the alarm signal clears before the verification time period has elapsed, the system returns to normal operation after the verification hold time elapses. This can be more or less than the verification time. If the smoke or signal from a device remains above the alarm threshold when the verification time elapses, the panel will go immediately into full alarm condition.



Signal cleared before verification time expires – no signal. Without verification hold time the panel would return to normal as soon as the signal dropped below alarm threshold.



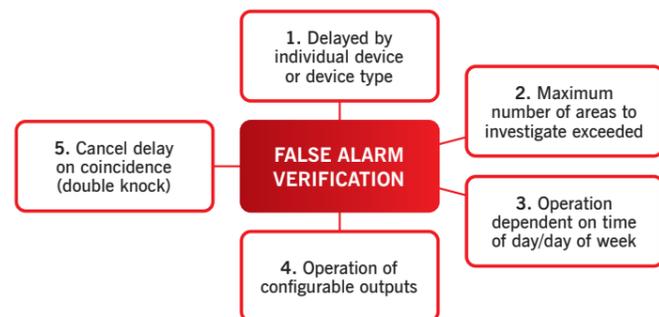
Signal not cleared, system in full fire condition at end of verification time.

Sounder Ringing Style

Sounders can be programmed to turn on using different ring styles to distinguish each stage of the verification or investigation delay periods.

Investigation Delays to Outputs

Output delays are managed in AlarmCalm in exactly the same way as verification delays, and with the same degree of flexibility. Day/night settings can be applied, as can the maximum number of building areas to be investigated. Delayed alarm inputs can be set quickly by all devices of each type, or individually by point.



Delays to Output by Building Area

Cancel on coincidence can be set by building area allowing a second device in the same building area to override the delay. The maximum number of building areas to be investigated at any one time can be set, allowing full fire conditions to be activated more precisely than ever before.



Bulgaria's Communications Regulation Commission

Bulgaria's Communications Regulation Commission in Sofia is protected by an Axis EN fire system including false alarm management.

Global Acknowledgement

Panel inputs (e.g. a button on the panel) can be configured to extend the verification period, regardless of the building area in verification or output delay. Options include:

- **Alarm verification only:** Verification alarm in any building area is acknowledged without any effect on verification outputs.
- **Alarm verification with silence:** Verification alarm in any building area is acknowledged and outputs are turned off.
- **Delaying outputs/verification:** Dual function acknowledges both investigation delay and verification alarms.

False Alarm Management and Networks

Each panel is configured with its own verification strategy allowing each panel's strategy to be changed without affecting the network. By default, all network nodes will be aware of verification alarms occurring at other nodes.

The effects of this can be limited:

- Network display of verification can be suppressed
- Maximum areas in verification can be monitored network-wide
- Global alarm acknowledgement from other panels can be included or excluded by sector.

Full Event Log

All verifications and delays are recorded in panel event logs.



The Bay Campus at Swansea University

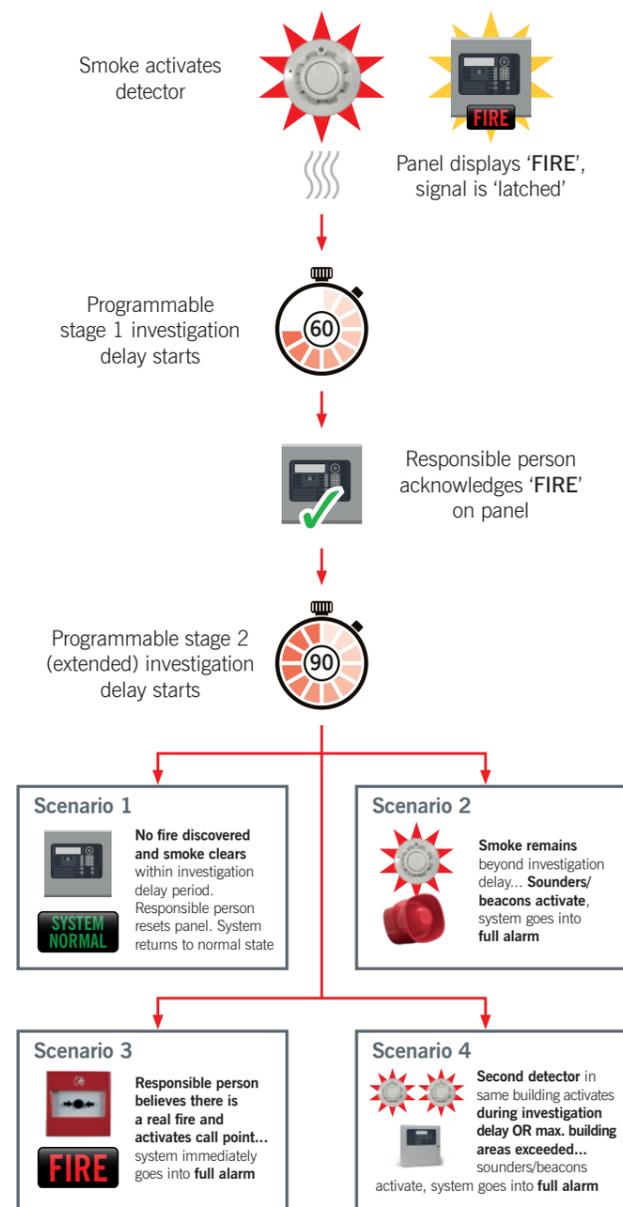
The Bay Campus at Swansea University is protected by a network of Advanced MxPro 5 fire panels including false alarm management.

Example Investigation Delay

During the hours when a building is staffed, you can set an investigation delay to trigger a pre-programmed countdown when a detector is activated. This gives staff time to attend the area in question and check if the alarm's cause is reason to evacuate.

If the detector activation is false, you can reset the panel and avoid unnecessary evacuation. If a fire has caused the activation, you can immediately halt the delay and put the system into full alarm to initiate evacuation.

These delay the operation of certain outputs after the fire condition displays on the panel



Investigation Delays:

Used to:

- Physically check if an activated device is genuinely in alarm *after* a fire condition is displayed on the panel.

Ideal for circumstances when:

- A Responsible Person is usually present.

Benefits:

- Human input brings certainty in identifying the cause of the alarm.
- Flexibility - can be turned on/off depending whether the Responsible Person is present.
- Reduces false alarms.



Heythrop Park Hotel, Oxfordshire, UK

Dating back to 1710, the hotel is protected by two networked MxPro 5 panels controlling ten loops and supporting more than 700 individual devices.

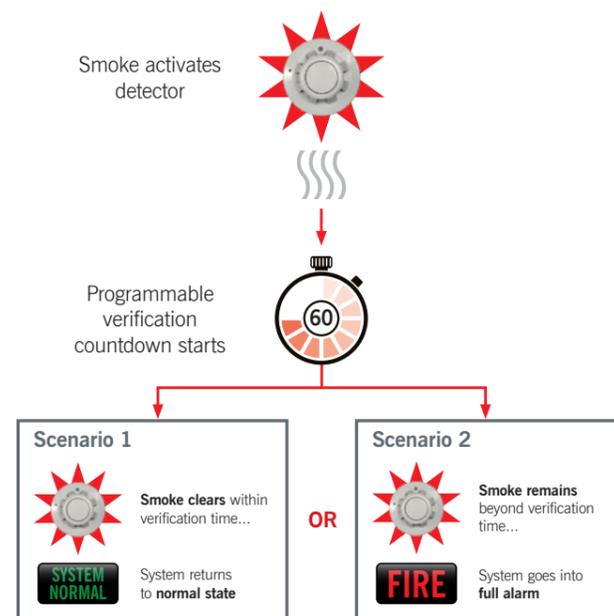
Intelligent Alarm Acknowledgement

Example Verification Delay

AlarmCalm is invaluable in ensuring that only genuine incidents initiate full alarm mode, thereby minimising cost, inconvenience and complacency while providing complete peace of mind.

You can set a verification delay, which allows the system to automatically check if an activated device is genuinely in alarm before a fire condition is displayed on the panel.

AlarmCalm allows a range of alarm verification methods



Verification Delays:

Used to:

Automatically check if an activated device is genuinely in alarm before a fire condition is displayed on the panel.

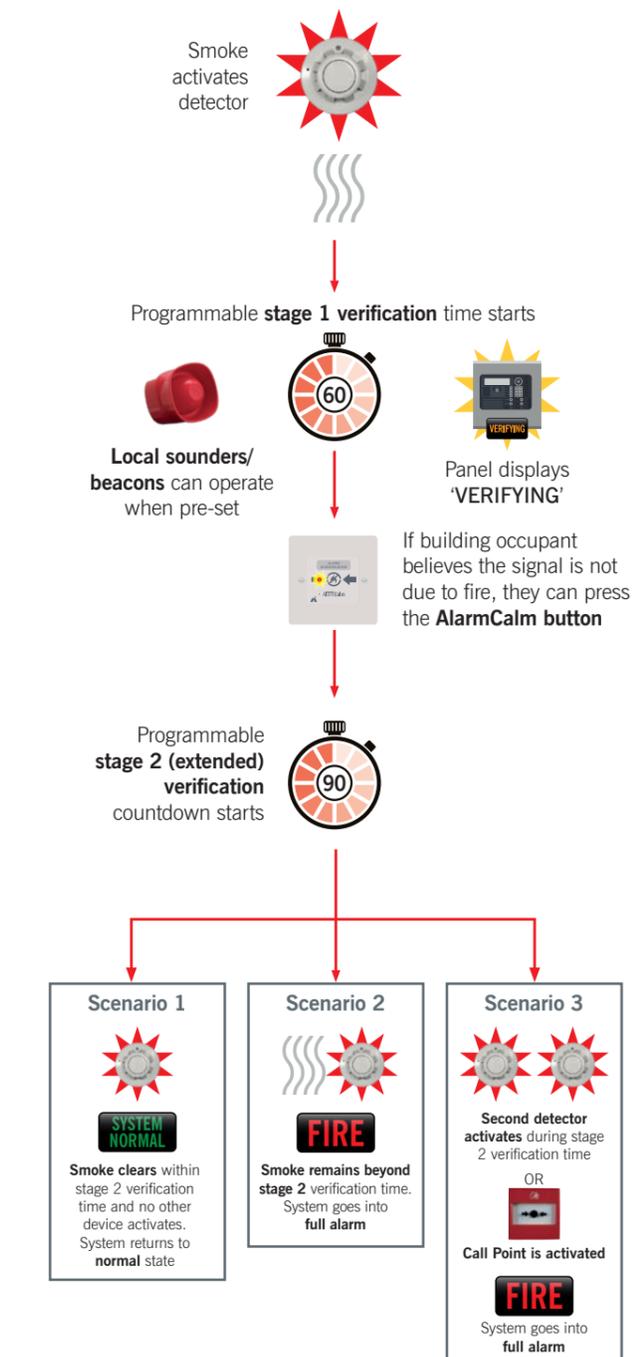
Ideal for circumstances when:

A Responsible Person is not always in attendance.

Benefits:

- System works 'independently' and can verify the alarm without human input.
- Flexible - many timing options and scenarios can be easily accommodated.
- Reduces false alarms.

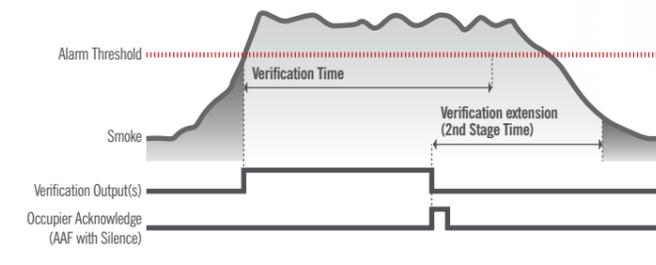
Extended verification delay by activating AlarmCalm button



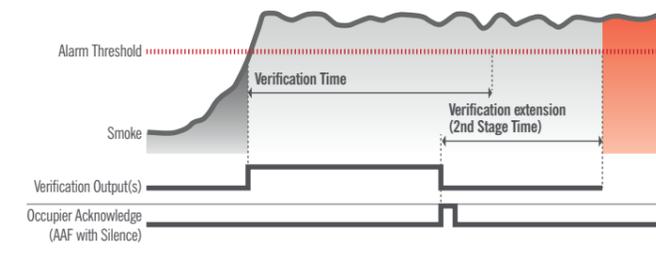
The AlarmCalm Button is a fully-intelligent loop device. It allows building occupants to acknowledge a fire alarm signal locally – for example, if they believe a smoke detector has signaled an alarm because of burnt toast or water vapour from a shower.

The AlarmCalm button extends the verification time set in the building area by a specified amount, giving time for any transient signal to clear.

Upon activation, the AlarmCalm button starts a pre-programmed second stage time that extends the verification time set in the building area by a specified amount. This gives time for any transient signal to clear.



2nd Stage Verification Time started on activation of AlarmCalm Button. Signal drops below alarm threshold before end of 2nd Stage Time. System returns to Normal.



Signal remains above alarm threshold at end of 2nd Stage Time. System enters full alarm condition.

The AlarmCalm Button is highly flexible and easily installed and configured:

- Push button operation
- Customisable slide-in label
- Acknowledge signal and silence verification outputs (sounders, strobes, modules)
- LED pulse on stage one activation, constant on AlarmCalm Button activation
- Programmable AlarmCalm Button buzzer on activation
- Set different sounder ring styles for each event/time period
- Day/night/day of week operation by time clocks
- Verification by second device or mode change
- Programmable maximum number of AlarmCalm Buttons in operation before full fire condition signaled
- All time periods user defined
- Compatible with standard single gang UK electrical back box
- Compatible with Advanced's MxPro 5 and Axis fire systems
- Wiring terminations suitable for all Advanced-recommended loop cables.

Alarm Verification & Investigation Delays. How Do They Differ?

Alarm Verification



Used to:

Automatically check if an activated device is genuinely in alarm **before** a fire condition is displayed on the panel.



Ideal for scenarios:

Where Responsible Person is not always in attendance.

Benefits:

- ✓ System works 'independently' and can verify the alarm without human input.
- ✓ Flexible – many timing options and scenarios can be easily accommodated.
- ✓ Reduces false alarms.

Investigation Delays



Used to:

Physically check if an activated device is genuinely in alarm, **after** a fire condition is displayed on the panel.



Ideal for scenarios:

Where Responsible Person is usually in attendance.

Benefits:

- ✓ Human input brings certainty in identifying the cause of the alarm.
- ✓ Flexible – can be turned on/off depending whether Responsible Person is present.
- ✓ Reduces false alarms.

All verification delays take place **BEFORE** the signal is latched on the panel



Signal latched on panel

All investigation delays take place **AFTER** the signal is latched on the panel

Panel Indication:



SYSTEM NORMAL
No indication on panel in **Type A** dependency.

OR



VERIFYING displays on panel in **Type B** dependency.

Panel Indication:



FIRE automatically displays on panel. Signal is 'latched' until reset by a **Responsible Person**.

N.B. Investigation delays require input from Responsible Person.

5 Main Verification Options:

- 1 Verification Delay
- 2 Sensitivity Mode Change
- 3 Verification by 2nd Device
- 4 Extended Verification Delay by Activating AlarmCalm Button
- 5 Maximum Areas in Verification Exceeded

5 Main Investigation Options:

- 1 Delayed by Individual Device or Device Type
- 2 Two-Stage Countdown Timer Displayed on the Panel
- 3 Operation Dependent on Time of Day/Day of Week or by Key Switch Control
- 4 Extended Verification Delay by Activating Button or by Pressing '0' Button on Panel or by Designated Switch
- 5 Cancel Delay on Coincidence (Double Knock) or if Maximum Investigation Areas is Exceeded

Verification Outcome Options:

- VERIFYING** Local occupants alerted to possible real/false alarm.
 - OR
 - FIRE** System goes into full fire alarm mode.
 - OR
 - SYSTEM NORMAL** System returns to normal, depending on whether signal persisted or cleared during verification time.
- N.B. Verification lets system work independently.*

Investigation Outcome Options:

- FIRE** Fire is confirmed by Responsible Person or pre-programmed set of signals:
System goes into full fire alarm mode after countdown timer has elapsed.
- OR
- SYSTEM NORMAL** System returns to normal, if:
 - Signal clears and Responsible Person resets the panel.



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