



# FIRE ALERT SYSTEM

## The Background

Fires can break out on any construction site and according to the insurance industry there are 104,000 fires each year which make up 25% of all work-related deaths.



HSE Fire Safety guidelines (HSG168) require sites to have a visual and audible alert to fire. These guidelines state 'the aim of any fire warning system is to ensure that people on site are alerted to make their escape before a fire becomes life-threatening. The essential requirements of the fire warning are that it is distinctive, clearly audible above any other noise and is recognised by all the people on site.' HSG168 expresses the importance of an 'interconnecting system of call points and sounders' for alerting a busy construction site to the need to evacuate.

The UK construction industry is governed by a number of laws, guidelines and codes of practice including the Construction (Design & Management) Regulations 2015 (CDM), Regulatory Reform (Fire Safety) Order of 2005 and the BS5839-1 Fire Detection and Fire Alarm Systems for Buildings. These set out fire safety requirements and each specifies that an appropriate fire alert system for evacuation must be used. The NEXUS Fire Alert system has been designed to meet these requirements and has been built with the robust nature of construction sites in mind.

## The System Explained

The NEXUS Fire Alert system comprises battery operated units which can be quickly installed on the working construction site whilst building is in progress and as they are battery powered and easily deployable, they can grow and move as the construction progresses.

Battery life is around three years. A maximum of 64 units can be installed per site, with 16 mesh hops up to 1km apart. When one NEXUS unit is activated it will trigger all units in range to sound an audible alert or evacuation message, accompanied by a flashing beacon light.





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The NEXUS call points and sounder / beacons are available as both internal and external (weatherproof) variants. Cages are also available for external units which may be prone to debris hitting them, causing a false alarm. Decibel levels can be adjusted so that external units can be louder than internal units. The maximum decibel level is 100 dB and there are 32 alert sounds to choose from.



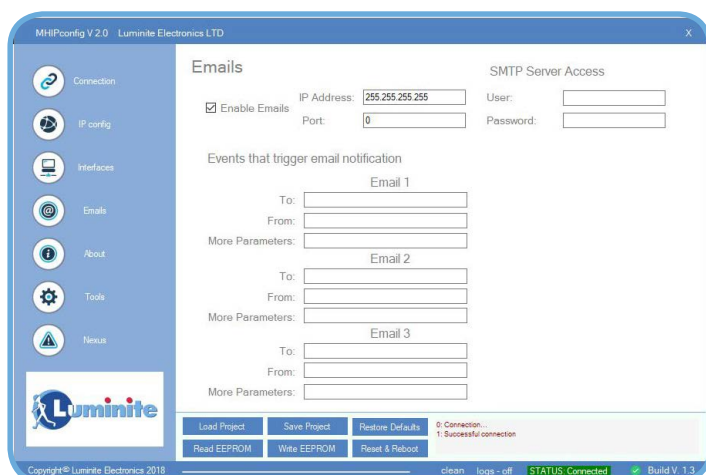
Alternatively, an annunciator variant can be ordered which has a built-in strobe. Here, a bespoke evacuation message can be sounded rather than an alert.

## The PC App

The use of the NEXUS PC app is an option and not a requirement. If using the PC app, you will require a masthead receiver. The PC app allows one central location, normally the site office, to monitor and control activated units.



From here the user can re-set the system after activation, although the originally activated call point will have to be manually re-set. A silent test can be made via the PC app or a short or longer test if needed. We would advise that the system is tested weekly in line with fire alarm procedures.



The Fire Alert system may be activated in response to any number of situations ranging from a fire detected on the site to an intruder or rogue vehicle spotted on the premises. This is where the NEXUS PC app email function can be utilised to its fullest.

The app allows for 3 email addresses to be notified in the event of activation. In this situation the Site Manager can further clarify the severity of the event to other key staff so that a proportionate response to these different situations can be implemented.