ZETTLER

The benefits of installing MZX Technology into an Auditorium

// Overview:

The Requirements for installing a suitable fire detection and alarm system within an Auditorium could be limited to a manual system, in small premises with a limited occupancy. In larger premises the system should incorporate detectors in critical areas and on escape routes and in the largest and more complex buildings full detection coverage would be of benefit.

The reliability of the system is paramount as its primary function would be to protect life. As the system is likely to incorporate sounders, pre-cautions must be taken against creating panic when the auditorium is occupied by members of the public, in which case there could be two operating modes, one for public occupation and one for times when the public are not present.

The MZX fire detection and alarm system is a complete system from a single manufacturer designed to provide optimum performance at all times. Some of the systems key features are highlighted below.

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// Risk: Often during performances there is a presence of theatrical smoke or fog, (fog is created by pumping one of a variety of different glycol or glycol/ water mixtures, referred to as fog fluid, into a heat exchanger).

The effects can vary, it can lay at low level or it may rise and dissipate at a higher level. This phenomenon however can easily create unwanted alarms. Smart fire detection system software should be capable of differentiating between this type of event and a real fire, allowing the sensors to remain active during a performance. The risk of fire undoubtedly increases during the performance, given the amount of electrical equipment operating at the time.

// Solution:

By installing the **850PC mutisensor** both front and backstage, protection is afforded to the highest level from the emissions from fire of Heat, Smoke and Carbon Monoxide. Much of the materials within auditorium will be of high carbon content. These three detection elements combine, in software, to provide a highly sensitive detector which increases its sensitivity in a fire where there is a presence of Carbon Monoxide. The added benefit of such a sensor comes from its inbuilt resilience to the stage smoke due to their being no Carbon Monoxide presence.The 850 series of sensors are available in 10 standard colours, to match most decors, are available with and without an integral short circuit isolator and use sophisticated digital signalling to ensure reliable communications with the MZX control panel. A hand held engineering management tool communicates with the sensor via a 2 way infra-red link making access for servicing and testing easy and fast, from floor level with no need for steps or ladders.

// Risk: High level fire alarm sounders can initiate panic in public areas such as auditorium. Alerting staff to a possible outbreak of fire in the first instance is a suitable alternative.

// Solution:

By specifying and installing an **MZX technology system**, sounders and beacons can be combined within a single unit in both **the Loop powered Symphony** range of wall mounted units and the **Minerva®MZX AV Sounder Beacon Base**. Sounders and beacons are addressed which means although installed on the same cables they can be programmed, when to operate and at what volume. Volume is set in software so some sounders can be set at lower levels than others, or even turned off leaving only the flashing beacon operating. This allows the designer to be flexible in his design whilst the installer and user do not incur extra costs for addition wiring of sounder circuits. All loop powered sounders incorporate integral short circuit isolators providing the maximum integrity.

// Risk: What happens if by accident the system is activated?

This is still referred to as an unwanted alarm, the incident, whilst not really being a malfunction can still cause the same amount of disruption. To avoid unnecessary interruption of the performance and evacuation of the audience, incidents will often be investigated before evacuation takes place. When taking this course of action speed is of the essence as delays will undoubtedly increase the risk to all occupants.

// Solution:

Any investigation needs to be carried out quickly and under strict controls ensuring that time limits are in place. MZX provides essential components to ensure a quick and accurate investigation of an alarm from a detector. Every MZX control panel has an investigate delay programme ensuring that a procedure is followed within approved time constraints.

// Risk: When a problem occurs, swift action is required. There is no time to wait for an alarm engineer to be despatched as this might incur delays of up to several hours.

During this time if the staff are evacuated or stood down, as a precaution, the show stops and costs soon escalate. Auditorium usually have an resident engineer who is available to provide first line cover and perhaps fix the problem permanently, or instigate a temporary solution. Either way he would need to be competent in his knowledge of the system and have a level of access to allow him to perform the duties of an engineer.

// Solution:

MZX Technology offers a range of controllers from the compact MZX125 single loop, to the MZX2, 8 loops. All Panels offer the same operator functionality with access through one of several password levels. **The Operator levels** allow the user to carry out the normal day to day functions. **The Customer Managers levels** allows further access into menus allowing more advanced tasks such as isolations, whilst **the Engineer level** would allow a competent person to change a faulty sensor, add or delete devices, change text and numerous other functions which might occasionally or in an emergency be required. Together with a very comprehensive display and diagnostics, the controller provides the user access to all the necessary tools to manage his system whatever the situation. Additionally users can obtain training, either at our own training centre or if necessary at others premises, in order to ensure competency.

ZETTLER, is a leading brand of fire detection, security, and care communications products in the European market. The ZETTLER fire detection product line includes a wide range MZX TECHNOLOGY EN54 CPD approved fire detection products carrying approvals and cross-listings, including VdS and NF, for all European countries. The ZETTLER care communications product line is a technology leader providing the latest IP based Nursecall, Emergency Call, Communication and Management solutions for care homes, hospitals, prisons, and related markets. The ZETTLER product lines are available through ZETTLER dealers as well as many ADT and Tyco offices around the world. For more information, visit www.tycoemea.com.

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