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The benefits of installing MZX Technology into a Sports Stadia

// Overview:

In the absence of any local recommendation's; the requirements for installing suitable fire precautions, including the provision of a fire detection and alarm system, within Sports Stadia are described within the UK's Guide to safety at Sports grounds document. The document, currently in its 5th edition, was prepared following a number of incidents within sports stadia within the UK and elsewhere, some of which were fire related. As far as Fire Safety is concerned the guide covers the requirements for, Fire Warning and Detection systems, Fixed Fire fighting systems, Public Address systems when used to broadcast fire warning messages, and Telephone Communication Systems- Internal. The Stadia should also make provisions for disabled persons, both staff and spectators.

MZX technology including the 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.

The Benefits of installing MZX Technology into a Sports Stadia

// Risk: Within the more modern stadia, there often exists catering facilities which are located, for convenience, around the internal access routes which would normally provide the means of escape used in an emergency.

These facilities are generating bi products from the cooking process which may be a cause of unwanted alarms, where fire detectors are installed. They themselves also present a risk of fire which could quickly threaten an escape route.

// Solution:

By installing the **850PC mutisensor** in these areas, protection is afforded to the highest level from the emissions from fire of Heat, Smoke and Carbon Monoxide. Much of the materials within this area will be of carbon content. These three detection elements combine 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 bi products of cooking, including steam, due to their being little or no Carbon Monoxide present.
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: Delivering alert and evacuation messages in places such as sports stadia are meaningless, unless they can be understood.

Sounders alone are ineffective as it is highly unlikely the general public will understand the meaning of a pulsed or continuous electronic sound. The answer has to be a combination of both sounders and voice messaging. As most stadia require a public address system, extending that to deliver fire alarm and other warnings is not difficult, although the system may have to upgraded from a standard PA system.

// Solution:

All MZX Control Panels can be easily interfaced to an upgraded public address system, or voice alarm system. The Audix AD-8 is the smallest of the family of voice alarm systems comprising of 8 programmable and monitored loudspeaker zones each having the ability to transmit alert and evacuate messages. The system has an integral fireman's microphone fitted to the systems controller. The dual channel amplifier provides dual circuits so as to provide full redundancy. Additional inputs are provided for music and general announcement via a second none emergency microphone. The Audix AD-8, like the larger systems within the range, interfaces to the MZX via a data bus reducing the amount of interconnecting relays and wiring and improves programming times. Speakers are available in ceiling and wall mount versions, bidirectional and external models. **For the larger systems a design service provides a one stop shop, one integrated system from one supplier.**

// 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 disruption. To avoid unnecessary interruption of the event and evacuation of the spectators', 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: It is advisable that in larger stadia two forms of telephone system should be provided and where possible the system used as the safety system should, be independent of any other internal system, and allow the operator to select which line to talk to, with travel distance to an emergency phone being reasonably short. There should also be provisions for a refuge area in which a disabled person can wait in safety before receiving assistance to evacuate.

// Solution:

The CelTEL system combines a disabled refuge 2 way communication system with a fire telephone system. The system provides a network of controllers which when connected to remote fire telephones allows management and the emergency services to communicate via a telephone style handset. Fire telephone outstations can be provided in a lockable/non lockable flush or surface steel enclosure. External units are available in an IP65 rated enclosure.
Disabled refuge outstations allow anyone in a refuge area to communicate with the building control station at the touch of a button. Equally someone at the control station may call up a disabled refuge outstation. The facility exists to connect an audio frequency induction loop system into the outstation which will also easily interface with strobe lights, relays and any other disabled persons alarm systems. Systems are available from a single controller which can handle 4 or 8 lines and are expandable to 12 or 16 lines, to a four controller network of up to 64 lines. The systems hardware and software are monitored and standby power supplies can be provided ensuring the system continues to operate even under mains failure conditions. All communication is full duplex allowing conversations to take place without additional actions ensuring a safe and simple method of operation.

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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