



The benefits of installing MZX Technology into a Transport Interchange

// Overview:

The Requirements for installing a suitable fire detection and alarm system within a Transport Interchange would include both manual call-points and detectors with the design customised to suit the building layout and as part of an overall fire engineering solution. Problems associated with a large numbers of visitors may arise from their unfamiliarity with the geography of the building and its safer escape routes together with the means of providing alert and evacuation messages.

Automatic detection of fire may be confined to plant areas, escalators and links to other adjoining buildings such as shopping centres or between bus and rail terminals.

Facilities ensuring the safety of disabled persons in an emergency should also be provided.

The **MZX** technology fire detection and alarm system offers a solution to meet these challenges, for both detection and fire warning. Some of the systems key features are highlighted below.

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// **Risk:** It should be a consideration in any design to provide safe refuge for disabled persons allowing them to be taken to a location until rescue can be achieved using trained personnel

// **Solution:**

The CeTEL system combines both disabled refuge 2 way communication and a fire telephone system. 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 with 4 or 8 lines, 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.

// **Risk:** Delivering alert and evacuation messages in places such as transport interchanges are meaningless, unless they can be understood.

Sounders alone are not effective and the answer has to be in voice messaging and as most centres have a public address system requirement, extending that to deliver fire alarm and other warnings is a simple task.

// **Solution:**

All MZX Control Panels can be easily interfaced to an upgraded public ad-

dress 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 for 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, interface to the MZX via a data bus which reduces 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:** Transport interchanges in town and city centres are usually linked to other buildings. Such a complex will undoubtedly have multiple entry and exit points available to the fire and rescue services. At these locations it is desirable to have indication of the incidence of the alarm together with some form of manual control of doors, ventilation systems and the emergency audio system in order to effectively take control of the systems without putting fire-fighters at greater risk than is necessary.

// **Solution:**

MZX technology offers a range of fully functional repeater panels from the compact MZX 16R and 32R to the 64DR and the 240DR (16, 32, 64 and 240 zones). Each panel is capable of providing comprehensive detail by displaying both zonal (led) information together with a full 640 character LCD providing point data. Full control is provided over all devices, inputs and outputs, to all panels on the network. **Geographical mimics** can also be provided. A more advanced method of providing both an integrated **Emergency Management System and Graphical User Interface** is available in

the form of the **Tyco Expert Graphics** which provides annunciation, status display and control functions. TXG is a Microsoft Windows® based graphical interface with a high resolution colour display. Some touch screen functionality is available via buttons placed on the screen through a range of realistic icons. Utilising a combination of symbols, floor plans, pictures, text messages and video input, TXG displays the precise location and offers instruction. Multiple graphics stations can be installed across a true client server network.

// **Risk:** Working at height and in public areas increases the time taken to service equipment or indeed to make changes to equipment at high level.

Often special platforms are required in order to comply with health and safety requirements. Disruption is inevitable and access restricted, all of which can be off-putting to the building occupants. Out of hours working whilst overcoming these difficulties, adds substantially to the lifetime costs of the system.

// **Solution:**

The **850 Engineering Management Tool** is a powerful and flexible tool used during the installation, commissioning and servicing of MZX 850 series devices. The tool provides Infra-Red communication with the device, up to a distance of 15 metres, which is especially beneficial where height and access is a problem. It contains the system's configuration programme and can read and write to detectors and ancillary devices. The unit will display the detector's outputs, (temperature, CO and smoke obscuration levels), and has the ability to test both the device's led and control outputs. The tool can be used to change the devices settings and will record and store any changes made, providing a valid audit trail. Service data is also stored and offers a true record of all devices, detectors, ancillaries and sounders that have been tested during the visit. All data is stored onto a USB flash drive. **MZX technology continues to offer value throughout the lifetime of the system.**

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.