



The benefits of installing **MZX Technology into a University**

// **Overview:**

The Requirements for installing a suitable fire detection and alarm system within a University will combine the risks associated with larger schools, auditoriums and within the student's accommodation areas those more associated with hotels. Universities will vary in size dependent upon population which may vary from a few hundreds to many thousands of students and the requirements for automatic fire detection may well be dependent upon the size and population. Universities are very diverse in their occupancy and therefore the chosen fire detector technology should suit the environment including, lecture theatres, libraries, research areas, leisure facilities and the student's accommodation blocks, all which pose their own individual risks. Between being occupied and unoccupied a different set of rules may apply to some areas when the detection system will need to change as the risks also change. Disruption to the working day as a result of unwanted alarms can be critical, especially during examinations and so the reliability factor is extremely important when selecting a suitable system.

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:** Universities may change layouts due to modernisation or expansion and as the occupancy and the risk changes therefore so should the fire detector.

All too often this fact will be ignored and so the system remains as it was, increasing the risk of unwanted alarms. High levels of unwanted alarms are disruptive to the university's curriculum and may even affect a person's response which could easily lead to a fatality.

// **Solution:**

By installing **850PC multisensors** this problem is overcome. The mutisensor has six detection modes, and employs three detection channels, heat, smoke and combustion gas (carbon monoxide). These channels are combined in software to provide optimum detection based on the occupancy and risk. If either or both of these change the detection mode can be changed to suit. Changing Modes can be as simple as pressing a button on the panel, or if permanent change is required, it's a simple reconfiguration in software. Simple and inexpensive compared to other solutions. The 850PC can be configured as a High performance Optical Detector, Compensated Carbon Monoxide Sensor (Fire), Carbon Monoxide Sensor (Toxic Gas), a Heat Sensor or as a Resilient or Universal (High sensitivity) optical detector. 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.

MZX technology continues to offer reliability and value throughout its lifetime.

// **Risk:** Student accommodation may offer similar risks to the occupants as those of a hotel bedroom. It is a known fact however that students, being longer term tenants, may introduce other risks such as unauthorised smoking or lighted candles.

// **Solution:**

Installing the **850PC mutisensor** throughout the accommodation

significantly reduces unwanted alarms, whilst substantially improving response to fires. The sensors resilience to none fire phenomena does not affect its ability to detect fire as it remains highly sensitive to the products of combustion generated by a smouldering fire and will raise an alarm even before a normal sensitivity smoke detector, based on its ability to sense the combustion gas, Carbon Monoxide. The presence of lighted candles introduces a further dimension to the risk as the introduction of flame will reduce the CO and smoke content whilst introducing a heat source to more quickly accelerate the process beyond that of a smouldering fire. Only mutisensor technology employing heat, CO and optical channels will react to these variations with any degree of consistency. The data from each channel combines in an algorithm and whilst each individual channel output may be lower than that normally associated with a fire; their combined output in the right proportions is seen as a real fire. Each sensor can be fitted onto a **LPSB3000 sounder only** or **LPAV3000 sounder beacon base**, providing both detection and an audible and visual signal within a single device.

// **Risk:** In any kind of sleeping risk awaking a sleeping person is always going to be a challenge. In a university accommodation block, which houses hundreds of students, providing an early warning of fire is essential to life safety. That's why **sounder testing** should be a vital part of the on-going procedure to ensure a fully operational system. The difficulty in a university is how to do it quickly and with the minimum of disruption given the high number of sounders to test.

// **Solution:**

Every MZX control panel programme has the ability for sounder tests to be set up and run from the panel. **Reflective Sound Monitoring** enables all sounders to be tested at high volume simply by initiating a test for approximately 15 seconds, after which any sounder not operating will be reported back to the control panel. Sounders can be tested in groups, floor by

floor or zone by zone, depending on how the test is set up. An essential operation that could take two or more persons a full day can now be completed single handed in a matter of minutes.

// **Risk:** Universities have to keep pace with demand and any population increase will almost certainly require additional resource and infrastructure.

This often means that over time the campus will grow, new buildings will be required with new detection and alarms. Investment is usually structured over long periods and it would be wasteful if systems had to be replaced or major upgrades carried out in order to accommodate the growth.

// **Solution:**

MZX technology offers a range of controllers from the compact MZX250 single loop, through the modular MZX2 panel which extends up to 8 loops. Controllers can be easily networked by adding the TLI800EN network card in up to 99 panels (99000 addresses), with panels interacting with each other where required. The network is true peer to peer and remains unaffected by a single node failure. Furthermore failure of any panel's main processor will not inhibit transmission of any fire alarm or fault signal from that panel across the network to a designated panel's zonal display. **The network is LPCB, EN54-2 and EN54-13 approved.** Additionally a windows based **graphics system** can be installed providing a layout of the buildings, with additional text, emergency file data, instructions to staff and other useful functions, ideal for the larger sites.

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.