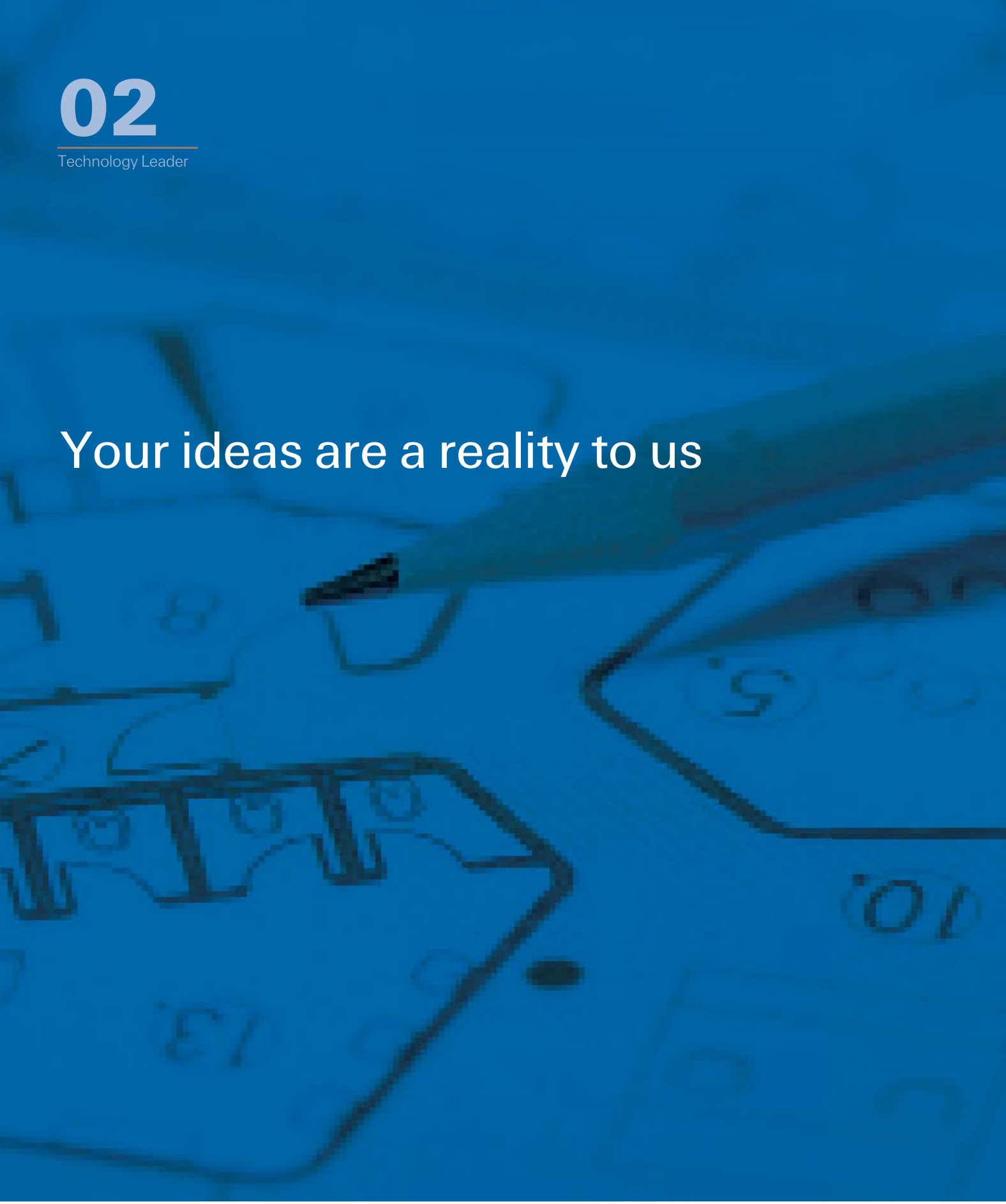
ZETTLER

Safer. Smarter. Tyco.™

ZETTLER Product Catalogue

tyco Fire Protection Products

Your ideas are a reality to us



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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Addressable Systems

MZX technology embraces the best in both analogue and digital electronics to provide fast and accurate fire detection. Extensive loop addressing and communication over a 2km loop using digital protocol to a central processing location, provides reliability and a lifetime of economy. A comprehensive range of sensors, sounders and beacons, ancillaries and call points ensure there are no compromises when designing systems. Progressive software development keeps pace with new technology and a comprehensive range of available spares together with backwards compatibility ensures long life and the maximum return on investment.

Control Panels

The MZX range of addressable panels provides a perfect fit for all sizes of system from a single panel and 125 devices to a network of 99 panels and up to 99000 devices. A simple yet powerful user interface is common to all panels, modular construction allows upgrades and extensions, and a range of repeater options provides for those occasions when small and discreet is key. Both surface and flush mount versions are available and a removable chassis plate facilitates an easy and safe installation. An operator training CD ROM is provided with every panel allowing on-going training for those who need to know.

Detectors

MZX sensors and multisensors integrate the best in sensor technology with powerful software that provides fire detection to suit all risks and all possible scenarios. The software allows the detection to be optimised to suit the building, its occupancy and therefore the risk. Changing detection modes, changing sensitivity and changing cause and effect are all features available under the day/night mode operator function key. Detection technologies include Carbon Monoxide, Smoke, Heat and Flame, some of which are combined in powerful algorithms to provide fast detection and reduce unwanted alarms, even in the harshest of environments. Two different ranges provide options with and without short circuit isolators and two way infra-red communications. A choice of ten standard colours is available and detectors can be fitted to a range of sounder/beacon bases.

Remote Service

All property protection systems should be connected to a remote monitoring centre, especially if they are not continuously occupied. Simple communicators are only 1 way & situations often require a key holder's attendance in order to investigate prior to an engineer being despatched. Remote connections can be made using the Internet whereby not only is the remote centre capable of receiving signals, but also has the ability to interrogate the system on the premises, gain access to & take short term remedial measures such as isolating a faulty device. The system monitors for both alarms & faults, is capable of detecting suppression systems that have discharged as well as monitoring & reporting other vital functions. The system also has the capability to use GPRS in the event of an internet failure.

Callpoints

The MCP range of call-points includes both indoor and outdoor models. Call points can be flush or surface mounted asa selection of back boxes and bezels are available. Anti-tamper devices are also available which fit around the unit making it less likely for persons to attempt malicious activations. The call point activation window can be a non-fragmenting element which breaks cleanly with no glass fragmentation, but needs replacing after use; or a deformable element which can be reset with a key and does not need replacing. All models have an integral alarm led. In addition to that, the range includes manual DIN call points for inside and outside use with integrated shortcircuit isolator.

Sounders and Beacons

MZX sounders and beacons offer the designer a comprehensive range of equipment to meet the requirements of all building types and for all occupancies. Many devices are loop powered saving the installer from having to run additional cables at additional cost. Sounders and beacons are often combined into a single unit offering further savings. Devices on the same loop in the same area are synchronised in order to provide clarity of sound and reduce the prospects of inducing photo-epilepsy from flashing beacons. Sounder tones and volumes are set in software and can be selected to suit the environment.Sounder tests can be run from the panel using Reflective Sound Monitoring whereby this becomes a one man operation Voice alarm systems are available in the form of standalone units for use on sounder circuits or as a full voice alarm system including amplifiers, speakers, fireman's microphone and other public address functionality.

Ancillaries

MZX Ancillary modules are an essential part of the addressable systems portfolio. These devices can monitor, control and interface equipment which is connected to but is not necessarily an integral part of the addressable system. Several contain an integral short circuit isolator which saves on additional and external isolators being fitted. Some units are powered from the addressable loop and require no external power, saving not only the power supply and battery but also the provision of a mains supply. There are many modules providing multiple actions from a single device, saving time and the cost of installing many more single function units. Included in the range are devices to connect Gas Detectors, third party plant, including mains powered, dampers and fire doors, third party detection devices and mimic diagrams. Modules can be individually mounted, grouped in a single housing and onto din rail or inside third party equipment.

Software and Programming Tools

MZX addressable fire detection systems benefit from a suite of advanced software packages that simplify and speed up system design, installation, commissioning and service operations.
MXConsys is a powerful programming tool designed especially for MZXTechnology systems. It allows the commisioning engineer to fully customise the MX fire detection systems operation to meet the customers specific requirements whilst ensuring that EN54 functionality is maintained.
MXDesigner is a system design tool tha provides a graphical user interface to simplifies the detailed design of MZX Technology systems
MXFlow is a graphical engineering tool designed for displaying Tyco MZX database information in a Flow Chart format.
MX Datalogger is a PC based service tool that enables device point values to be collected from MZX panels at regular intervals for in depth analysis.
MXRemote is a software tool which allows an MX panel to be interrogated and controlled from a remote location.
MXChecker is a software commissioning tool that provides a graphical way of testing and debuging cause and effect programming.

Spare Parts

The life of the fire detection system may be an issue depending upon the age of the technology when the system is purchased. Some would be weary of new technology that has not had much previous history. Others may be concerned that older technology might be phased out in a year or two and replaced by a new version. With MZX technology there is no need for concern as spare parts are constantly available and in most cases even new technology devices can be installed into older systems without any reduction in functionality. This ensures the longest possible lifespan for a fire detection system and provides an extremely low cost of ownership when compared to some systems.

MZX125 Digital Addressable Panel

The Zettler MZX125 is a highly featured digital addressable panel with a comprehensive but easy to operate user interface. The system provides a single loop of 125 addresses making it suitable for small to medium size premises.

The MZXDigital protocol is robust enough to operate over most cable types making it an ideal choice for upgrades where existing cables can be reused to dramatically cut costs. The built in power supply will charge the internal batteries and support a full compliment of loop powered sounders and beacons. The Zettler MZX125 is a fire detection controller at the heart of a comprehensive fire detection system that can be used to protect both life and property.

A matching 16 zone fully functional repeater is available and a maximum of 7 repeaters can be driven from the control panel's 2 wire remote bus. The repeater houses its own mains psu and batteries.

Features

- Long term service and support
- Two way IR communications with Generation 6 Detectors reduces commissioning and service costs.
- Supports 1 MZXDigital loop with 125 addresses
- 2 KM loop length
- 16 way zonal LED display
- High level User Interface with "Front Panel Controls" to reduce lifetime cost of ownership
- Wide range of multi-sensor detectors including the 3oTec triple sensing detections. Early detection without false alarms.
- Wide range of ancillaries including door control
- Matching 16 Zone Fully Functional Mains powered Repeater
- Supports the advanced 3000 series AV Base and loop powered sounder beacons.
- Approved to EN54 Parts 2 and 4

Order Codes

557.200.501	MZX-125 16 Zone One Loop Fire Detection Panel
557.201.510	MZX 125 Rack Mount Kit
557.201.502	Semi-Flush Bezel for MZX125/ MZX16R

MZX250 Range Of Digital Addressable Panels

The Zettler MZX250 range includes highly featured digital addressable panels with a comprehensive but easy to operate user interfaces. They provide a single box solution ideally suited for small and medium sized installations up to 240 zones.

The MXDigital protocol is robust enough to operate over most cable types making it an ideal choice for upgrades where existing cables can be reused to dramatically cut costs. The built in power supply will charge the internal batteries and support a full compliment of loop powered sounders and beacons.

The MZX251 is configured for 250 addressable points on a single loop when used with either the MXConsys Express configuration tool or by using MXDesigner in combination with the MXConsys configuration tool.

The MZX252 offers the same world-beating features, but provides the facility to run two separate MXDigital loops, each having the capacity to support upto 250 addressable points on each.

The MZX254 system provides two loops, expandable to 4 loops, each with 250 addresses making it suitable for medium to large sized premises.

Features

- Long term service and support
- Two way IR communications with Generation 6 Detectors reduces commissioning and service costs.
- Supports one, two or 4 loops with 125, 250, 500 or 1000 addresses (panel dependant)
- 2 KM loop length
- High level User Interface with “Front Panel Controls” to reduce lifetime cost of ownership
- Wide range of multi-sensor detectors including the 3oTec triple sensing detections. Early detection without false alarms.
- Wide range of ancillaries including door control
- Matching 16 Zone Fully Functional Mains powered Repeater
- Supports the advanced 3000 series AV Base and loop powered sounder beacons.
- Approved to EN54 Parts 2 and 4

Order Codes

557.200.502	MZX-250 32 Zone 1 LOOP Panel
557.200.503	MZX-251 32 Zone 1 LOOP Panel
557.200.505	MZX-251-S 32 Zone 1 LOOP Panel (Scandinavian)
557.200.506	MZX-252 32 Zone 2 LOOP Panel
557.200.509	MZX-254 2 to 4 Loop Panel
557.200.511	MZX-254S 2 to 4 Loop Panel (Scandinavian firemans interface)
557.200.504	MZX-250CH 17AHr 32 Zone 1 Loop Swiss Panel
557.200.507	MZX-252CH 17AHr 32 Zone 2 Loop Swiss Panel
557.200.510	MZX-254CH 38AHr 240 Zone 2-4 Loop Swiss Panel
557.202.073	2 Loop Expansion Kit For MZX253 / 254

MZX Repeaters

To compliment the MZX range of control panels there are six repeater panels which are identical in appearance to the control panels. The MZX16R is a 16 zone repeater panel, the MZX32R is a 32 zone repeater panel. The MZX DR repeater has no zonal display..

All are fully functional repeaters and replicate all the operations available at the main control panel. Three models are mains 230VAC powered and 3 require a 24VDC supply. Up to six repeaters can be driven from each panel and the repeaters can be used with the full range of MZX panels.

Features

- Fully Functional
- Fully Monitored

Order Codes

557.200.520	MZX-16-R 16 Zone AC Repeater
557.200.521	MZX-32-R 32 Zone AC Repeater
557.200.522	MZX-32-SR 32 Zone AC Scandinavian Repeater
557.200.523	MZX-DR Repeater 24VDC (No zonal display)
557.200.524	MZX-SDR Scandinavian Repeater 24VDC in Slim Line Housing
557.200.525	MZX-CHDR 240 Zone Swiss Repeater - 24V
557.201.506	MZX 16Z Panel / Repeater Insert Set
557.201.507	MZX 32Z Panel / Repeater Insert Set

MZX Digital Addressable Control Panel Accessories

MZX Ancillary housings & PSUs
This range of housing & PSU's is designed to complement the MZX range of fire controllers, the housings are available in different sizes to match the MZX fire controller. Two ranges of ancillary housing are available; one is designed to accommodate various modules on the removable chassis plate and also has the option to mount a document holder on the rear of the door. The other ancillary housings, (aperture housings) are designed to accommodate one or two standard sized MZX control, display, printer or annunciator modules ie ANN880, COM820, PRN800 or similar, a chassis plate for mounting modules is also fitted.

The housings with two apertures are supplied with one blanking plate.

Power Supply Units
The power supplies utilise switch mode PSU's as used in the MZX panel range. If monitoring of these PSU's is required a monitoring kit is available which includes a MIM800, mounting bracket and cables

Order Codes

557.200.530	PSU A1717Ahr 5A Addressable expansion PSU - MZX250
557.200.531	PSU A3838Ahr 5A Addressable expansion PSU - MZX251/252/253/254
557.201.516	PSU monitor kit (inc. MIM800)

Order Codes

557.201.502	Semi-Flush Bezel for MZX125/ MZX16R
557.201.501	Semi-Flush Bezel for MZX250/251/252/253/254/ MZX32R
557.201.503	Accessory mounting plate for std modules, IOB800, LIM800 and TUD800 (MZX250/251/252/253/254 only)
557.201.519	Comms Interface mounting plate (MZX250/251/252/253/254 only)
557.201.510	Rack mount kit for MZX 125
557.201.511	Rack mount kit for MZX 250
557.201.512	Rack Mount Kit for MZX 251/252/253/254
557.201.307	MZX250 17Ah Battery Clamp
557.201.505	MZX251/ 252 38Ah Battery Clamp
557.201.520	MZX251/252/253/254 24Ah Battery Clamp
557.202.625	ANC125-A Ancillary Housing, One Aperture (Small - MZX125)
557.202.626	ANC250-A Ancillary Housing, Two Aperture (Large – MZX250)
557.202.627	ANC251-A Ancillary Housing, Two Aperture (Deep – MZX251/252/ 253/254)
557.202.622	ANC125 Ancillary Housing (Small - MZX125)
557.202.623	ANC250 Ancillary Housing (Large – MZX250)
557.202.624	ANC251 Ancillary Housing (Deep – MZX251/252/253/254)
557.201.513	Document Holder attachment (used with ANC125/250/251)
557.201.518	M520 Anc Fitting Kit – req'd for older M520 modules, fittings for 4 modules

ZX1 Single-Loop Control Panel

The ZETTLER MZX panels are intelligent EN54 Parts 2 and 4 approved panels, which can be networked.

The ZX1 supports one MZX DIGITAL detection loop supporting up to 250 addressable devices.

The panel is constructed with a strong steel enclosure incorporating a removable chassis plate.

The chassis plate holds:

- PSU830 5A 24Vd.c. battery backed power supply to EN54:pt.4
- FIM801 field interface PCB incorporating one MZX DIGITAL loop
- CPU800 32 bit processor and memory card
- Optional network card, additional loop card (s) and remote communications module
- Optional IOB800 input/output expansion card mounted on the PSU830
- The panel has a strong cast aluminium front door, which incorporates a modular user interface that fully complies with EN54:pt.2.

For situations where the panel is networked and located out of sight a 'Black Box' version is available, this has a plain cover with status LEDs only.

Features

- Long term service and support
- Reliable, modular fire controllers
- VdS , NF and BV approved controllers, network, detectors and ancillaries
- Easy to use with flexible and powerful configuration functions

Order Codes

542.080	ZX1 1 Loop Panel Deep Housing
557.200.311	ZX1F 1 Loop Panel NF
557.200.312	ZX1F 1 Loop Panel + UGA NF
557.200.313	ZX1F 1 Loop Panel + UGA + 3GF NF
557.200.350	ZS Housing with Doors
557.200.351	ZS-A Base (CMSI Addressable)
557.200.352	ZS-C Base (CMSI Conventional)
557.202.130	UGA to PC Download Lead
557.202.306	UGD800 UGA Display
557.202.307	UGD801 UGA + 3F Display
557.202.308	UGT800 UGA Terminal Board
557.202.309	UGT800 UGA + 3F Terminal Board
557.202.310	UGA + 3F Inert Set (10)

ZX4 Multi-Loop Control Panel

The ZETTLER MZX panels are intelligent EN54 Parts 2 and 4 approved panels, which can be networked.

The ZX4 supports two MZX DIGITAL detection loops and can be expanded to four loops supporting up to 1000 addressable devices.

The panel is constructed with a strong steel enclosure incorporating a removable chassis plate.

The chassis plate holds:

- PSU830 5A 24Vd.c. battery backed power supply to EN54:pt.4
- FIM800 field interface PCB incorporating two MZX DIGITAL loops
- CPU800 32 bit processor and memory card
- Optional network card, additional loop card (s) and remote communications module
- Optional IOB800 input/output expansion card mounted on the PSU830
- The panel has a strong cast aluminium front door, which incorporates a modular user interface that fully complies with EN54:pt.2.

For situations where the panel is networked and located out of sight a 'Black Box' version is available, this has a plain cover with status LEDs only.

Features

- Long term service and support
- Reliable, modular fire controllers
- VdS , NF and BV approved controllers, network, detectors and ancillaries
- Expandable from one 1 zone controller to multiple 240 zone, 1000 point controllers
- Easy to use with flexible and powerful configuration functions

Order Codes

542.081	ZX4 2-4 Loop Panel Deep Housing
542.098	ZX4 2-4 Loop Black Box Panel
557.200.341	ZX4F 2-Loop Panel NF
557.200.342	ZX4F 2-Loop Panel + UGA NF
557.200.343	ZX4F 2-Loop Panel + UGA + 3GF NF
557.200.344	ZX-4BBF Black Box Panel
557.200.350	ZS Housing with Doors
557.200.351	ZS-A Base (CMSI Addressable)
557.200.352	ZS-C Base (CMSI Conventional)
557.202.130	UGA to PC Download Lead
557.202.306	UGD800 UGA Display
557.202.307	UGD801 UGA + 3F Display
557.202.308	UGT800 UGA Terminal Board
557.202.309	UGT800 UGA + 3F Terminal Board
557.202.310	UGA + 3F Inert Set (10)

CMSI Modules and Equipment

Order Codes

Modules for use with Addressable CMSI (ZS-A)

557.200.360	ZS-MDL AC1 Remote unit for 16 lines & 8 programmable inputs
557.200.361	ZS-MDL AC2 Remote unit for 12 lines & 6 programmable inputs
557.200.362	ZS-MDM Remote unit for 4 AC2 lines & 2 programmable inputs
557.200.363	ZS-MDS Remote AC2 unit providing position control for security devices
557.200.371	3 loop expansion card
557.200.372	4 output line + 2 programmable input card
557.200.373	4 relay output card for ZS-DCT
557.200.374	Remote exploitation reader

Modules for use with Conventional CMSI (ZS-C)

557.200.386	ERI Line monitoring module (for DAS)
557.200.387	ERF End of line monitoring module
557.200.393	ZS-LT4 Expansion Card 4 lines (LT or LDS)

Modules for use with Addressable and Conventional CMSI (ZS-A & ZS-C)

557.200.370	ZS-UGA-IGH 6 function Extension module
557.200.380	934-ZS ZX to ZS Comms Interface Card
557.200.381	ZX-16F Expansion card 16 security functions for ZX-C or ZX-A
557.200.382	ZS-UGA1 Expansion card 4 UGA functions for ZX-C or ZX-A
557.200.383	ROM8 8-way Relay Card for ZX-C or ZX-A
557.200.384	ROM16 16-way Relay Card for ZX-C or ZX-A
557.200.385	ROM24 24-way Relay Card for ZX-C or ZX-A

Labels for Modules

557.200.388	Kit of 20 blank labels - W/o indicators
557.200.389	Kit of 20 blank labels - Activate command w/o position control
557.200.390	Kit of 20 blank labels - Break command w/o indicator 'bilan'
557.200.391	Label kit for 4 security function or 1 UGA

CMSI Sounder Accessories

557.200.392	AGS General alarm Indicating Sounder
557.200.375	ZS-PWR Module De Puissance - Power Module for UGA sounder Lines

ZX1 & ZX4 Panel Repeaters

Features

- Fully Functional
- Flush or Surface Mounting
- Fully Monitored

Order Codes

542.084	ZXF Full Repeater 24V DC
542.085	ZXFEV Repeater C/W PSU
557.200.300	ZXFEV-F Repeater C/W PSU NF

The Zettler ZX full function repeater is an EN54 approved repeater with optional addressable EN54:Pt.4 power supply. The repeater consists of a steel backbox and cast aluminium front door which incorporates the ODM800 operator display module with a 16 x 40-character backlit LCD display, simple alphanumeric keypad and 5 softkeys. The OCM800 operator control module provides all mandatory operator control keys and LED functions including Day/Night switching. One control key and 2 indication LEDs are provided for site-specific functions.

Two power supply options are available for repeaters. The ZXF incorporates an RSM800 repeater supply module for connection to a 24 Vdc supply. Or the ZXFEV which incorporates a PSU830 power supply module for connection to a 120-240Vac mains supply and an APM800 addressable power monitor for connection to an MZX addressable loop, providing power supply monitoring in accordance with EN54-pt.4..

Remote LCD Displays

The Remote LCD Repeater Module is designed to provide an independent scrolling log of system status at numerous points within a building or site. The module interfaces directly to a serial printer port of the MX addressable fire panel. If a local printer is already connected to the Panel's MPM800 serial port, a second MPM800 must be used.

The LCD repeater must not be used in the primary fire path. It must not be used as the sole warning that a fire exists.

Order Codes

557.200.030	Remote LCD Repeater MKII (compatible with Version 4.1 and above for UK/UL/Marine/ Western European Countries)
557.200.302	LCD820 NF Exploitation Repeater approved for France
557.202.128	MX FIM com1 to RS422 Lead
557.180.151	RS232/422 converter for LCD Repeaters

Features

- Uses a backlit 4x20 character alphanumeric display.
- Provides an internal log of up to 330 events.
- Provides internal audible warning of an event.
- Allows the event log to be scrolled.
- Local internal buzzer silence.
- Connects to host panels RS232 port (maximum cable length between panels and first repeater of 15m).
- Provides an external sounder to mimic the internal buzzer.
- Can be connected to an unlimited number of other LCD Repeaters by using the RS232/RS422 converter (Up to 1200m between repeaters).

Technical Information

Dimensions (HWD):	150 x 200 x 75mm
Material:	Bayblend polycarbonate/ABS alloy
Operating Temp:	-10°C to +55°C
Relative Humidity:	Up to 95% RH Non-Condensing
Power Supply:	200mA @24Vdc
Ext. Sounder Relay:	500mA@24Vdc
EMC:	Product Family Standard EN50130-4 in respect of Conducted Disturbances, Radiated Immunity, Electrostatic Discharge, Fast Transients and Slow High Energy.

EN61000-6-3 -1 for Emissions.

Generation 6 - 850 & 830 Range Of Fire Detectors

Features

- Advanced multi-sensor designs
- Choice of heat, optical, optical and heat multisensor or 3oTec triple multi-sensor
- FASTLOGIC expert algorithms
- Up to 250 detectors per loop
- Built-in line isolator on 850 series
- Advanced commissioning features using the 850EMT Engineering Management Tool
- Two way infra-red communication to the 850EMT Engineering Management Tool
- Protective optical chamber screen
- Robust coated electronics
- Extended service life
- Fire, isolate and fault LED indications
- Green Passport Certified

The 850 and 830 series of fire detectors are designed to be both adaptable and flexible which means they can be used in most premises to protect against a wide range of potential fire risks. They use sophisticated digital signalling to communicate with the MZX Technology fire control panel, sending fire data from each sensing element for analysis. Because all the sensed data is sent to the controller, powerful algorithms can be used to determine whether a fire condition is real or not. The sensitivity, mode and degree of verification can be altered by the user in response to environmental or activity changes.

A built-in line isolator incorporated into the 850 series devices means that when a single short circuit fault occurs on a loop, all the detectors will continue to operate. An on-board amber LED will give a local indication that the line isolator has operated. The 830 series detectors can be used with an isolator base to provide protection against short circuit faults.

Two way infrared communications allows the detector to work with the 850EMT Engineering Management Tool to speed up commissioning and service routines and to provide status / reports data without the need to physically access the device. Extended drift compensation reduces the lifetime cost of ownership by typically doubling the service life of the detector whilst a new insect screen and surface coating of electronics gives a robust industrial design.

Two way infrared communications allows the detector to work with the 850EMT Engineering Management Tool to speed up commissioning and service routines and to provide status / reports data without the need to physically access the device. Extended drift compensation reduces the lifetime cost of ownership by typically doubling the service life of the detector whilst a new insect screen and surface coating of electronics results in a robust industrial design.

Both 850 series and 830 series detectors are environmentally friendly. They do not use any radioactive parts and can be returned for recycling at the end of their life.

The detectors are constructed from hardwearing flame retardant FR3010 'BAYBLEND' plastic. They are supplied with dust covers as part of the packaging which essentially prevents contamination entering the detection chambers during installation, after which they are removed.

850PH and 830PH Photo Heat Detector

With its ability to detect a wide range of fires from flaming to smouldering types, the combined optical and heat multi-sensor detector is the preferred choice for a range of applications including light industrial, retail and office environments. It operates in a number of approved modes and sensitivities that can be dynamically selected to suit different environmental conditions.

Order Codes

516.830.051	830PH Photo Heat Detector
516.850.051	850PH Photo Heat Detector
516.850.056	850PH Photo Heat Detector NF

850P and 830P Photo Detector

More benign environments where any potential fire will be slow burning can be protected using the optical detector. A choice of sensitivities and modes gives this detector a broad range of applications.

Order Codes

516.830.052	830P Photo Detector
516.850.052	850P Photo Detector
516.850.057	850P Photo Detector NF

850H and 830H Heat Detector

Complimenting the range is the heat sensor which can operate in fixed temperature and rate-of-rise modes with a number of approved sensitivities. It is most often used in areas where high levels of dust are present or where the environment precludes the use of smoke detectors.

Order Codes

516.830.053	830H Heat Detector
516.850.053	850H Heat Detector

850PC and 830PC 3oTec Triple Sensor Detector

For life protection and when the environmental conditions are challenging, the 850PC/830PC 3oTec detector provides the ultimate in detector performance and false alarm rejection. It is a multi-sensor that uses optical, heat and carbon monoxide sensors in concert to accurately determine the presence of fire.

Applications include industrial, retail, transport hubs, and healthcare. Its false alarm rejection properties make it the ideal choice for hotel bedrooms where steam from bathrooms is a common source of false alarms.

Order Codes

516.830.054	830PC 3oTec Triple Sensor Detector
516.850.054	850PC 3oTec Triple Sensor Detector

Coloured 850 & 830 Series Covers and Bases

The existing white cover on the 850 and 830 Series Fire Detectors can be removed and replaced with any of these coloured covers.

All items come in packs of 10 (Cover & Base).

Order Codes

517.050.501	Colour Sample set (One of each colour)
517.050.502	Orange Pantone 1645C (Semi-Gloss)
517.050.503	Yellow Pantone 102C (Gloss)
517.050.504	Green Pantone 355C (Matt)
517.050.505	Red Pantone 186C (Matt)
517.050.506	Brown Pantone 1615C (Matt)
517.050.507	Blue Pantone 639C (Gloss)
517.050.508	Pink Pantone 238C (Gloss)
517.050.509	Sliver Pantone 877C (Metallic)
517.050.510	Gold Pantone 873C (Metallic)
517.050.511	Black Pantone Hexachrome Black C (Matt)

800 Series MZX Address Flag

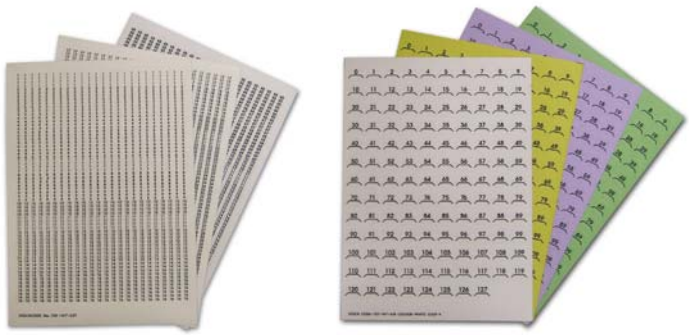
The 800 Series detectors incorporate a feature, which automatically transfers the address flag to the detector base, when the detector is plugged into the base. On removal of the detector the address flag remains on the ceiling, thus ensuring that detectors are not accidentally returned to the wrong detector base following service routines.

Order Codes

516.800.915	MX Address flags (pack of 100)
516.800.931	Address flag labels Loop A - White
516.800.932	Address flag labels Loop B - Yellow
516.800.933	Address flag labels Loop C - Purple
516.800.934	Address flag labels Loop D - Green
516.800.935	Address flag labels Loop E - Grey
516.800.936	Address flag labels Loop F - Blue
516.800.937	Address flag labels Loop G - Orange
516.800.938	Address flag labels Loop H - Red
517.050.055	4B-DAF DIN Size Add Flag Pk 100

Most MZX detection panels incorporate additional fail safe software features to ensure that incorrect detector positioning does not compromise the system. Address flags are supplied in packs of 100. Labels are provided on sheets of 250 in eight colours to enable quick identification between different loops.

Callpoint & Ancillary Address Labels



Detectors have a special address flag for carrying the address labels - detailed in the detector section. For other devices or on detectors where zone information is also required a series of address labels are available.

Numbered 1 to 250, the address labels are available in 8 different colours to distinguish between different loops. In addition small zone labels can be fixed to the address labels.

Order Codes

599.047.011	Zone labels 1-16
599.047.012	Zone labels 17-32
599.047.013	Zone labels 33-48
599.047.014	Zone labels 49-64
599.047.015	Zone labels 65-80
599.047.016	Zone labels 81-100
599.047.018	Zone labels 101-120
599.047.019	Zone labels 121-140
599.047.020	Zone labels 141-160
599.047.021	Zone labels 161-180
599.047.022	Zone labels 181-200
599.047.023	Zone labels 201-220
599.047.024	Zone labels 221-240
599.047.030	Addr. Labels 1-250 Loop A White
599.047.031	Addr. Labels 1-250 Loop B Yellow
599.047.032	Addr. Labels 1-250 Loop C Purple
599.047.033	Addr. Labels 1-250 Loop D Green
599.047.005	Addr. Labels 1-127 Loop E Grey
599.047.006	Addr. Labels 1-127 Loop F Blue
599.047.007	Addr. Labels 1-127 Loop G Orange
599.047.008	Addr. Labels 1-127 Loop H Red

4B 4 Inch Detector Base

The new 4B 4" detector base is designed to snap-fit to the ceiling tile adaptor or it can be screw fixed to a ceiling in the traditional manner.

Features

- Compatible with 830 series detectors
- Drives a remote indicator
- Detector locking pin provided with every base
- Snap fits to the Time Saver Ceiling Tile Adaptor
- Fits directly to a British or European electrical back box
- Temporary park position
- Break-outs for surface mount

Order Codes

517.050.041 4B Detector Base

4B-C 4 Inch Continuity Base

The new 4B-C 4" continuity base is designed to snap-fit to the ceiling tile adaptor or it can screw fix to a ceiling in the traditional manner. The 4B-C 4" continuity base is designed specifically for use with the 850 series detector and provides a switching mechanism that ensures continuity when the detector (and built-in short circuit isolator) is removed. When used with the time saver ceiling tile adaptor, the 4B-C 4" continuity base uses a snap-fit mechanism that saves installation time.

Features

- For use with the 850 series detectors
- Compact rigid design that improves the appearance and is easy to install
- Built-in continuity switch that closes on detector removal
- Electronics free, permits in circuit testing
- Snap fit to the time saver ceiling tile adaptor
- Detector locking pin included
- Detector park position for service and commissioning, holds the detector mechanically in place whilst disconnected from the loop and continuity switch is closed
- Choice of 8 mini-trunking break-outs

Order Codes

517.050.042 4B-C Continuity Base

802SB Sounder Base

A low current range of sounder bases for use with Addressable Fire Alarm Control Panels.

Features

- Manufactured and approved to EN54 part 3
- Integral sounder and detector base
- Volume and tone adjustable after installation
- Low Power Synchronisation
- Does not require use of a standard base (maybe installed directly onto a standard besa box)

Order Codes

572.050	802SB ZX Sounder Base
516.800.910	802SB MX Low Power Sounder Base
517.050.005	4″ base locking pin kit (pack of 100)

801RB Functional Relay Base

The 801RB provides dual relay contacts for signalling external devices on MX addressable systems. A very low operating current even when the relay is energised enables the relay base to be used without any additional power. The dual contacts are under the control of a programmable output, through the powerful cause and effect software.

Features

- Dual pole 24V DC relay contact (60VA)
- Very low power consumption (<20µA except startup)

Order Codes

516.800.905	801RB MX Relay Base

AVBase Loop Powered Sounder & Beacon Bases

Features

- High output programmable sounder base and sounder beacon base
- One point of installation for detector, isolator, sounder & beacon
- Loop powered from the MZX Digital Loop
- High brightness Multi-LED Beacon
- Software programmable
- 15 Tones and 2 Flash Rates
- Integral line isolator
- RSM (Reflective Sound Monitoring)
- Can be used as a standalone device using the sounder blanking cap
- Optional surface mount plastic conduit adaptor

The ZETTLER MZX AVBase range of devices includes a sounder beacon base and a high output sounder base for use with MZX Technology fire controllers ZX4, & MZX.

Reflective Sound Monitoring (RSM)
Reflective Sound Monitoring is employed to monitor the audio output of the sounder. This is particularly beneficial during regular weekly sounder tests. RSM allows the system to listen for audibility whenever the sounders are operated and the ZETTLER MZX panel will alert the user if any sounders fail to operate. Failure of the beacon would also generate a fault at the control panel.

Integral Line Isolation
This range of AV Bases are designed to operate on the robust ZETTLER MZX digital loop. An integral line isolator automatically provides protection against short circuit cable faults thus reducing the need for additional line isolator modules.

Simplified Installation
As a single point of installation for detector, isolator, sounder and beacon, installation costs are reduced and wiring is simplified. Four volume settings are selectable ranging from high (90dB) to low (60dB) and 15 tones are available. The high brightness Multi-LED beacon provides a 1.5 candela output with adjustable flash rate.

Order Codes

516.800.957	LPSB3000 Sounder-Only Loop Powered Addressable Base
516.800.958	LPAV3000 Sounder-Only Loop Powered Addressable Base
516.800.959	DAB3-4 Mounting flange – type B for conduit (supplied in packs of 10)
557.001.040.A	Mark 2 Sounder Cap (ADT Branded)
557.001.040.Y	Mark 2 Sounder Cap (Tyco Branded)

Programming has been simplified by allowing tone, volume and flash rate to be set by the MZXConsys configuration utility. This means adjustments to settings can be achieved without having to access the device location. Changes can be made to all sounders by a single panel software download which saves time and reduces commissioning costs.

4B-DHM Deckhead Mount

Features

- 4 x 20mm gland entries
- Fits ALL 4" bases
- IP55 with supplied gasket

Order Codes

517.050.051	4B-DHM Deckhead Mount
517.050.612	Base Accessory terminal kit (pack of 10)

Where the detectors are mounted in humid and environmentally challenging situations such as marine or offshore installations, the 4B-DHM deck head mount provides a sealed waterproof mounting which protects the electrical connections in the base. Can be screwed, bolted / welded to the deckhead. Supplied with 1 terminal. If more are required, use the optional base accessory terminal kit.

4B-EM Euro Mount

Features

- 2 x 18mm conduit entries
- 2 x 21mm conduit entries
- Fits all 4" Bases
- Accepts up to 8 accessory terminals

Order Codes

517.050.052	4B-EM Euro Mount
517.050.612	Base Accessory terminal kit (pack of 10)

The euro-mounting base provides a matching back box, which allows the 4" bases to be ceiling mounted with conduit entries for standard 18 and 21mm conduit.

SAB 801 Sounder Addressable Beacon

The SAB 801 Sounder Addressable Beacon is an MX Addressable Beacon that fits into the Standard Minerva Universal Base. Alternatively the SAB may be fitted to the 802SB, 812SB, 901SB and 912SB Sounder Bases to enable the MX Control Panel to communicate with and control these sounder bases and also provide a Flashing Beacon effectively turning the 802SB, 812SB, 901SB and 912SB into a combined addressable loop powered sounder and beacon.

The SAB is suitable for wall or ceiling mounting. Sound selection and tones will be as per the 802SB, 812SB, 901SB and 912SB.

Order Codes

516.800.956 SAB 801 Low Power Sounder Addressable Beacon (Compatible with Consys Version 8.1 and above)

Remote Indication LED

All detector bases have the ability to drive a remote LED in the event that the installed position of the detector is not easily visible.

Features

- UK Single gang mounting
- High intensity red LED

Order Code

540.003.006 Remote LED

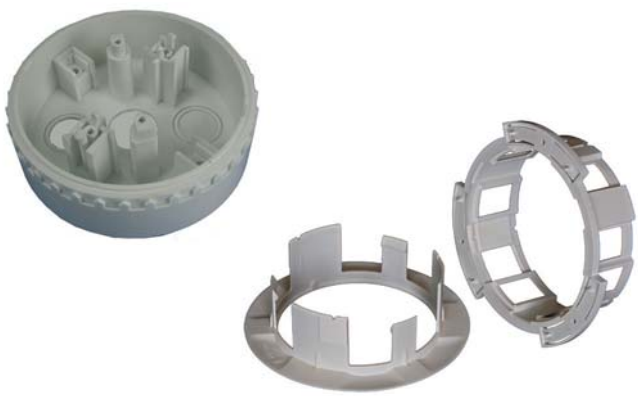
800HL Indication Lamp

The 800HL remote indicator lamp provides a larger indicator for use in place of the RIL when longer distances are involved or in VdS influenced markets. Typically used to indicate the source of an alarm in buildings with long corridors eg. Hotels, hospitals, apartments.

Order Code

540.003.006	Remote LED

Ceiling Tile Adapter



The Time Saver Ceiling Tile Adaptor is used with the 4 inch snap fit base and consists of three parts, a bezel and clamp that are fitted to the ceiling tile and a back-box that carries the detector and base assembly. It is available as a complete unit or alternatively, the components can be ordered separately. Ordering the parts separately may be preferred if there is an extended period before the false ceiling is installed. Requires a 127mm diameter hole. The CTA adaptor plate allows the Time Saver Ceiling Tile Adaptor to be used with other devices such as the AV Base, 802SB or Mini Firecryer.

Features

- Cuts installation time by 30%
- Commission the system before the suspended ceiling is installed
- Suitable for ceiling tiles from 1mm to 30mm thick
- Made from flame retardant material
- No additional back-box is required
- Time saver is designed for use with a new snap-fit 4" detector base
- Adaptor available for use with the AV base & other devices

Order Codes

517.050.056	CTA-BB CTA Back Box
517.050.057	CTA-BC CTA Bezel and Clamp
517.050.058	CTA-AP CTA Adaptor Plate
517.050.060	Ceiling Tile Adaptor Kit

4B-6A Base Adaptor

Features

- Adapts 6 inch electrical boxes to fit the 4B-C 4 inch continuity base
- Architectural trim for neat appearance
- Concealed fixings
- Use to conceal marks left by old detectors when replaced by MZX Technology

The 4B-6A 4 inch to 6 inch Adaptor is designed for use with U.S. style 6″ electrical back boxes and provides a flush architectural trim between the electrical box and the 4B-C 4″ continuity base. It can also be fixed directly to a ceiling and used to conceal marks left when old detectors are to be replaced.

Order Codes

517.050.054 4B-6A Base Adaptor

Protective Detector Cage

Robust steel protective cage for Series 600 detectors using the 5″ base. Ideal for schools and sporthalls or whenever detectors need protection. The unit features a strong coated steel construction with 4 point fitting.

Order Code

517.050.614 CW-5B Detector Cage

Protective Detector/Sounder Base Cage

White powder coated steel protective cage for Series 600 Detectors fitted with a sounder base. Internal dimensions: 120mm dia x 80mm deep.

Order Code

517.050.011 Steel Protective Detector Cage

DPK4 Duct Probe

The DPK4 and DPK4I duct probe units have been developed to detect smoke in ventilation ducts. They offer significant benefits in terms of performance and installation. The system comprises a single duct probe tube and housing specially designed for optimum airflow through the smoke detector and suitable for use in incoming, outgoing and circulation air ducts of ventilation and conditioning systems.

The duct probes can operate across a wide range of airflow speeds and are especially recommended for installations in ducts with air flow velocities between 1 m/s and 20 m/s.

Unlike more traditional duct probe units that employ an inlet and exhaust tube with sampling holes, the DPK4 and DPK4I units uses a highly efficient single sampling tube that is slotted along its length. This allows the sampling tubes to be cut to the desired length whilst maintaining maximum efficiency. The transparent cover gives clear visibility of the detector, its LED indication and airflow indicator. A red plastic flag is fixed inside the housing providing a simple but effective confirmation that there is no leakage and that the air flow from the air duct is in fact passing through the housing.

In order to reduce the time required to test the duct probe detector during routine maintenance, an aperture is provided that allows aerosol test gas to be directed at the detector without having to dismantle the unit.

Features

- Built-in MZX Detector base
- DPK4 is suitable for addressable and conventional systems
- DPK4I with built-in line isolator for use with MZX Technology systems
- Suitable for air velocities from 1 m/s to 20 m/s
- Can be used in combination with a wide range of optical smoke detectors
- One-pipe air sampling system simplifies installation
- Range of aluminium probe tubes are available for ducts up to 2700 mm
- Transparent lid allows detector to be seen
- Test hole on cover
- Sensitive flow indicator
- Simple service and maintenance
- Installer friendly connection of cables
- Easy installation of duct probe tubes

Order Codes

517.025.049	DPK4 Duct probe with 5B
517.025.050	DPK4I Duct probe with 5BI
517.025.051	DPK600 Duct Tube 600
517.025.052	DPK1500 Duct Tube 1500
517.025.053	DPK2800 Duct Tube 2800
517.025.054	DPKM-Duct Probe Mount Bracket
517.025.055	Spare Filters for DPK4

Volume Adjustment Tool

A simple Volume Adjustment Tool, specific to the task of sounder volume selection on the “variable-volume” range of Tyco MKII Sounder Bases.

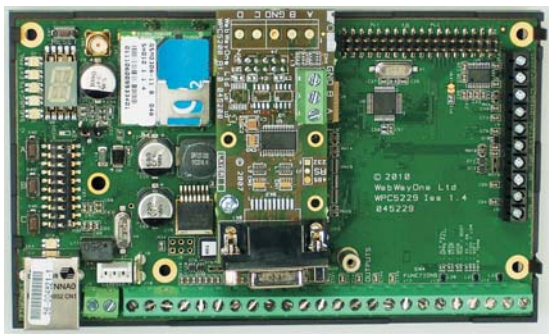
Sounder volume can be easily varied between the maximum 90dBA and minimum 68dBA-volume settings, using this simple, functional tool.

Note: Sounder Bases are supplied with the volume pre-set to maximum volume.

Order Codes

517.050.015	Volume Adjustment Tool

RS800-IP/GPRS IP Communication Module



The RS800-IP/GPRS module connects to an individual or a network of MZX, MX, MX2 and T2000 fire control panels to provide a cost effective, secure and robust IP (Internet Protocol) based communication platform for alarm signalling, fault reporting and a range of remote services.

The RS800-IP/GPRS module connects to the communication ports and relays of a fire control panel and converts the RS232 and digital data into IP data that can be transmitted over the internet.

Communication is dual path. The primary path is the client IP network, eliminating the additional cost of traditional PSTN telephone lines. Efficient, digital communication puts negligible demand on the network and ensures future compatibility as traditional analogue systems are phased out.

The GPRS mobile communication network is the secondary path and maintains communication in the event of a failure of the primary path.

Order Codes

557.202.090	RS800 Webway IP/GPRS
557.202.091	RS800 Webway IP
557.202.093	Enclosure for RS800
22-5049-10M	Webway High Gain Eng Pack, Antenna, SIM, 10m cable
22-5049-15M	Webway High Gain Eng Pack, Antenna, SIM, 15m cable
22-5054	Webway Smart Disc Eng Pack, Antenna with SIM

Features

- A cost effective digital communication platform to enable a range of remote services
- Robust dual path transmission over the clients IT network and the GPRS network, ensures continuity of communication in the event of a failure
- Regular polling of the IP path and the GPRS path confirms successful end to end communication - a failure will be reported within 3 minutes
- Secure communication ensured by AES encryption with a 128 bit key and 256 bit hash code
- BRE approved to EN 54-21 for fire alarm transmission and fault warning routing equipment
- Supplied with an activated Telefonica roaming SIM
- All access is securely controlled and logged

Technical Information

RS800-IP/GPRS

Type:	Dual Path Ethernet / GPRS EN 54-21 Alarm Transmission and Fault Routing Equipment Fire Alarms and Fault Warning Type 1 - Dual Path LPS 1277 Fire Type 1
Transmission protocol:	UDP/IP
Encryption:	AES standard with a 128-bit key and 256 bit hash code
Data bandwidth:	160 bytes (round trip inc. alarm and acknowledgement)
Approvals:	BRE 0832-CPD-1565: EN 54-21: 2006
Power Supply:	From the connected panel's EN 54-4 power supply
Power Consumption:	100 mA / 24 VDC
Dimensions:	160 x 95 x 40 mm
Weight:	0.2 kg
Housing:	To be mounted in an IP30 / Access Level 2 metal enclosure, close coupled to MZX panel.

Callpoints

A comprehensive range of callpoints for use with addressable systems. All the callpoints are designed to enable an alarm signal to be given by breaking a glass element.
This operates a switch and is indicated by an LED indicator. If required, an optional transparent hinged cover may be installed to guard against accidental operation.

Features

- Integral LED indicator for easy identification of operation
- Surface or flush mounting
- Extensive range of digital addressable callpoints
- Test key facility, speeds maintenance visits
- Hazardous areas models available (See Hazardous Area Protection Section)
- IP67 Waterproof models for external applications

Technical Information

Indoor & Outdoor

Housing:	PC/ABS
Operating Temp.:	
Outdoor	-25°C to +70°C
Indoor	-10°C to +55°C
Relative Humidity:	Up to 95% RH (non-condensing)

MZX Indoor Callpoints

The CP820 is an indoor MZX addressable manual callpoint with programmable status LED. The CP820 is approved to EN54 pt 11. The CP820 provides high speed communication to the MZX panel of a manual fire alarm.

Features

- Integral LED indicator for easy identification of operation
- Surface or flush mounting
- Test key facility, speeds maintenance visits

Order Codes

514.800.608	CP820 ZETTLER Indoor Callpoint
514.800.533.Y	CP820 Indoor NF Callpoint - Tyco Branded
514.800.603.Y	CP820 Indoor Callpoint - Tyco Branded

MZX Outdoor Callpoints

The CP830 is an outdoor MX addressable manual callpoint with programmable status LED. The CP830 is designed for LPCB approvals and the CP830M for Marine approvals. The CP830 provides high speed communication to the MZX panel of a manual fire alarm.

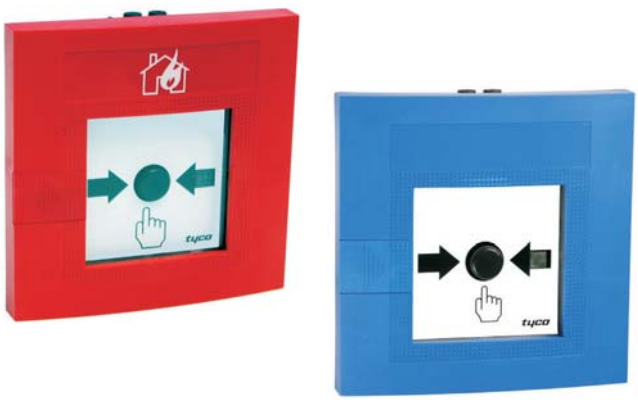
Features

- Integral LED indicator for easy identification of operation
- Surface or flush mounting
- Test key facility, speeds maintenance visits

Order Codes

514.800.607	CP830 ZETTLER Outdoor Callpoint
514.800.534.Y	CP830 Outdoor NF Callpoint - Tyco Branded
514.800.604.Y	CP830 Outdoor Callpoint - Tyco Branded

MZX DIN Callpoints



The DIN820/830 Callpoints are designed to monitor and signal the condition of a switch contact onto the MZX addressable loop, which is operated by breaking a glass sheet.

Features

- Type of alarm generated by the Callpoint may be configured in CONSYS
- DIN 820/CP 820 designed for indoor use
- DIN 830/CP 830 designed for outdoor use
- Integral red alarm LED
- In-built test facility

Order Codes

552.018	MX/ZX DIN820/IUB - Indoor Blue
552.019	MX/ZX DIN830/IUB - Outdoor Blue
552.032	MX/ZX DIN820/IUR - Indoor Red
552.033	MX/ZX DIN830/IUR - Outdoor Red

Callpoint STOPPER

Features

- Prevents accidental operation of callpoints
- Strong polycarbonate construction
- Optional break seal kit

Order Codes

515.001.030 Red Surface STOPPER STI6531

The callpoint STOPPER provides protection from malicious or accidental activation of manual callpoints. Available for flush or surface mounted callpoints the 'STOPPER' is also available with optional high pitch sounder which is activated when the lid is lifted.

An optional 'Break-Seal' fitting kit allows 'Break-Seals' to be used to provide extra protection.
WARNING:- Break seals should only to be fitted by agreement with relevant fire authorities.

The STOPPER is suitable for all callpoints up to 100mm square (Not DIN Callpoints).

Callpoint Weather STOPPER & Weather STOPPER II

Features

- Strong polycarbonate construction
- Provides environmental protection
- Ideal for offshore environments

Order Codes

515.001.035 Weather STOPPER II (Surface)
515.001.036 Weather STOPPER (Surface)

The Weather STOPPER and Weather STOPPER II extends the life of weather exposed devices, such as break glass callpoints, by offering protection against harsh conditions and environments. Experience has shown that this protective cover can extend the life of products installed in saline atmospheres, such as oil rigs and ship decks.

While offering environmental protection the Weather STOPPER and Weather STOPPER II are constructed from tough durable polycarbonate which will also guard against tampering, vandalism or accidental operation of devices such as emergency switches.

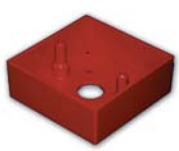
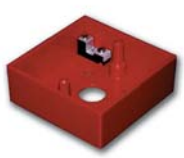
Callpoint Ancillaries

Order Codes

	Description	Order Codes
	Red M141 spacer for red CP200/800 KAC callpoints	90-107
	Callpoint hinged cover for use with MCP callpoints models (Colour -Clear)	515.001.128
	Test key for all MCP and CP style callpoints	515.001.045
	Surface frame for CP820	551.002
	Flush Frame for CP820	551.003

Callpoint Back Boxes

Order Codes

	Description	Order Codes
	Standard Red surface mounting back box for MCP & CP indoor callpoints	515.001.021
	SR2-T Optional Back Box (2 terminals)	10-115

Unless stated the indoor callpoints are supplied as flush mount units. The range is approved for use with the standard backbox. However, SR2-T backboxes are also available.

Callpoint Spare Glasses

Order Codes

	Description	Order Codes
	EN54 Part 11 Spare Glass for MCP and CP series Callpoints (Pack of 5)	515.001.119
	Deformable operating unit "glass" for use in place of glasses, for kitchens or other areas where glass is not acceptable. For MCP callpoints only.	515.001.127
	Spare glass for DIN style callpoints (80 x 80mm)	570.036
	"Not In Operation" insert for DIN Style callpoints	570.038
	Spare Glasses for DIN820/830 callpoints (Pack of 10)	570.068
	Spare glasses for CP & MCP callpoints with Dutch text (Pack of 5)	515.001.023

Symphoni Loop-Powered Sounders and Beacons

The Sounder only models are available with a red or white housing suitable for indoor use and an IP65 rated red housing for outdoor applications. The Audio / Visual models, which incorporate a highly efficient LED beacon, are also available with a red or white housing for indoor use and an IP65 rated red housing for outdoor applications.

Up to now sounder circuits have been monitored up to the EOL but not the individual sounders, fault detection has relied on human feedback from the weekly tests that should be carried out.

The LP Symphoni utilising Reflective Sound Monitoring (RSM) employs a transducer to actively monitor the units sound output during the weekly sounder test and will report back to the MZX controller if it fails to detect the sounder operating when it has been commanded to. This ensures that the LP Symphoni range of sounders will, in the unlikely event of a fault, display it immediately on the fire controller and is therefore not dependant upon the staff within a building reporting a sounder failure.

A line Isolator is now integral to the device, reducing the need for separate line isolation devices.

16 Tones are available from the sounder, which include tones compatible with the 802SB sounder base. Dutch slow whoop and the DIN 1Hz sweep are included.Two sound levels 103dB & 90dB (±3dB).

Features

- Loop Powered; Reduced installation costs
- High Output/Low consumption; Lower lifetime costs
- Indoor and Outdoor models; Same sounder tones in all areas
- Sounder/LED Beacon Version
- 16 Tones and 2 Flash rates; Suits individual requirements
- Reflective Sound Monitoring RSM; Reassurance that ALL sounders are working
- Integral Line Isolator; Saves cost and installation time

Order Codes

516.800.960	LPSY800-R L/P Symphoni (indoor) red
516.800.961	LPSY800-W LP Symphoni (indoor) white
516.800.962	LPSY865 L/P Symphoni IP65 (outdoor)
516.800.963	LPAV800-R L/P Symphoni Sounder/Beacon (indoor) red
516.800.964	LPAV800-W L/P Symphoni Sounder/Beacon (indoor) white
516.800.965	LPAV865 L/P Symphoni Sounder/ Beacon IP65 (outdoor)

Technical Information

Operating Temperature

Indoor devices:	-10°C to +55°C
Outdoor devices:	-20°C to +70°C

IP Rating

Indoor devices:	IP21C
Outdoor devices:	IP65

EMC:

Product family standard EN50130-4 in respect of Conducted Disturbances, Radiated Immunity, Electrostatic Discharge, Fast Transients and Slow High Energy

EN61000-6-3 for Emissions

AVBase Loop Powered Sounder & Beacon Bases

Features

- High output programmable sounder base and sounder beacon base
- One point of installation for detector, isolator, sounder & beacon
- Loop powered from the MZX Digital Loop
- High brightness Multi-LED Beacon
- Software programmable
- 15 Tones and 2 Flash Rates
- Integral line isolator
- RSM (Reflective Sound Monitoring)
- Can be used as a standalone device using the sounder blanking cap
- Optional surface mount plastic conduit adaptor

The ZETTLER MZX AVBase range of devices includes a sounder beacon base and a high output sounder base for use with MZX Technology fire controllers ZX4, & MZX.

Reflective Sound Monitoring (RSM)
Reflective Sound Monitoring is employed to monitor the audio output of the sounder. This is particularly beneficial during regular weekly sounder tests. RSM allows the system to listen for audibility whenever the sounders are operated and the ZETTLER MZX panel will alert the user if any sounders fail to operate. Failure of the beacon would also generate a fault at the control panel.

Integral Line Isolation
This range of AV Bases are designed to operate on the robust ZETTLER MZX digital loop. An integral line isolator automatically provides protection against short circuit cable faults thus reducing the need for additional line isolator modules.

Simplified Installation
As a single point of installation for detector, isolator, sounder and beacon, installation costs are reduced and wiring is simplified. Four volume settings are selectable ranging from high (90dB) to low (60dB) and 15 tones are available. The high brightness Multi-LED beacon provides a 1.5 candela output with adjustable flash rate.

Order Codes

516.800.957	LPSB3000 Sounder-Only Loop Powered Addressable Base
516.800.958	LPAV3000 Sounder-Only Loop Powered Addressable Base
516.800.959	DAB3-4 Mounting flange – type B for conduit (supplied in packs of 10)
557.001.040.A	Mark 2 Sounder Cap (ADT Branded)
557.001.040.Y	Mark 2 Sounder Cap (Tyco Branded)

Programming has been simplified by allowing tone, volume and flash rate to be set by the MZXConsys configuration utility. This means adjustments to settings can be achieved without having to access the device location. Changes can be made to all sounders by a single panel software download which saves time and reduces commissioning costs.

Symphoni 24Vdc Sounders

Features

- High 120dB(A) Output
- 32 Tones (Model Dependent)
- Low Current To Reduce Power Supply Requirements
- Compatibility with Roshini, Squashni and Askari
- Synchronised Start
- Double Entry Backbox for Simplified Installation

The 24Vdc Symphoni Sounder is a general purpose internal sounder, available either as a very high output sounder for noisy areas, or a high output low current sounder for applications where power is limited. Both versions share the same horn and backbox which has double cable entries for ease of installation.

The low power version has 3 selectable tones which may be employed for one, two or three stage alarm applications. The high output version has 32 selectable tones and retains full tone compatibility with the Roshni, Squashni and Askari product ranges.

Order Codes

576.501.200	SY/R Low Power Red Symphoni Sounder (3 tone)
576.501.201	SY/W Low Power White Symphoni Sounder (3 tone)
576.501.202	SYHO/R High Output Red Symphoni Sounder (32 tone)
576.501.203	SYHO/W High Output White Symphoni Sounder (32 tone)

Technical Information

Model	Symphoni (High Output)	Symphoni (Low Power)
Operation	2 Hours Continuous	Continuous
Operating Voltage Range	9-28Vdc	12-30Vdc
Sound Output @ 1m	Up to 120dB(A)	100dB(A) +/- 2dB(A) @ 24Vdc
Volume Control	-	Down to 80dB approx.
Current Consumption	240mA +/- 20mA on Tone 3	5mA +/- 1mA at all volumes
Tones	1 to 32	Alternating 990Hz / 650Hz @ 2Hz Continuous 990Hz Intermittent 990, On/Off @ 1Hz
Synchronisation	Synchronised Start	Synchronised Start
Frequency Stability	+/- 0.15%	+/- 0.5%
Operating Temperature	-25°C to +55°C	-25°C to +70°C
Line Monitoring Method	Polarised Input	Polarised Input
Construction	ABS Plastic Case	ABS Plastic Case
Ingress Protection	IP21C	IP21C
Weight	0.58Kg	0.212Kg

Banshee Excel Sounders & Lite Sounder Beacons

Banshee Excel Sounders

The Banshee Excel sounder replaces the Banshee Multi Tone range of Sounders. It uses the same technically superior rocking arm transducer to reproduce the familiar 32 tones of the previous Banshee and Bedlam ranges.

Banshee Excel Lite Sounder Beacon

The new Banshee Excel adds the Banshee Excel Lite Sounder Beacon to its range using a high output xenon with the familiar sounder. The Banshee Excel Lite can be used as a multi stage device by switching the beacon and the sounder independently using a third wire.

Order Codes

576.501.060	Banshee Excel Sounder Red IP45
576.501.061	Banshee Excel Sounder White IP45
576.501.062	Banshee Excel Sounder Red IP66
576.501.063	Banshee Excel Lite Red Sounder IP45

Features

- Modern aesthetic design
- 32 Selectable tones
- 3 Volume settings
- Push and twist mount
- Shallow and deep bases
- Available in red or white
- Low current consumption
- 2 Stage alarm available
- Independently switched sounder or beacon
- Xenon beacon with the Excel Lite

Technical Information

Approvals:	VdS approved to EN54-3
Tones available:	32
Operating voltage:	9-30Vdc
Flash current consumption:	40mA
Operating temperature range (Deg C):	-40 to +70
Volume control via DIL switch:	Maximum, Medium (-10dBA), Low (-20dBA)
Flash rate per second:	1
Ingress Protection:	IP45 or IP66
Termination:	Screw terminals for 028mm^2 to 2.5mm^2 wire conductor.

Yodalarms

This versatile range of sounders are ideally suited for fire, safety and security hazard warning.

Technical Information

Dimensions:

YO3:	89H x 89W x 85D mm
YO5:	134H x 134W x 128D mm
YO8:	216H x 216W x 153D mm

Order Codes

576.501.001	YO3 Yodalarm 3" 24Vdc 100dB @ 1Mtr
576.501.002	YO5 Yodalarm 5" 24Vdc 106dB @ 1Mtr
576.501.003	YO8 Yodalarm 8" 24Vdc 112dB @ 1Mtr

Roshni

A flexible alarm sounder for Fire and Security applications complete with volume control and dil switch to provide 32 tones.

Low profile Roshni with Deep base offers IP65 protection. All Roshni sounders have synchronised start for self synchronisation without third wire.

Technical Information

Dimensions:	93 Dia x 105D mm (Deep base)
Colour:	Red or white
Output Voltage:	9-28Vdc
Typical Current:	16mA @ 24Vdc
Typ. Sound Output:	102dB @ 1m

Order Codes

ROSHRDSR	ROSHNI Sounder c/w deep base - red
576.501.220	ROSHNI Sounder c/w shallow base - red
576.501.221	ROSHNI Sounder c/w shallow base - white

Xenon Beacons (24V) Inc. Surface Mount Adaptor

This high quality range of Xenon beacons are tested to IP 65 making them ideal for the most stringent applications.

Each beacon incorporates a low profile Fresnel lens designed to give maximum light output.

Features

- Available in 2 and 5 watts
- Protected to IP65
- Attractive low profile design
- Optional bracket for mounting both Beacon and Banshee Sounder

Order Codes

20-112	Low profile red 24Vdc 2 watt
20-113	Low profile red 24Vdc 5 watt

Technical Information

Voltage Vdc	Power Output (Watts)	Alarm Current (mA)	Flash Rate	Rating	Temp. Range	Dimensions (mm)	
						Height	Diameter
24	2	84	60/min	IP65	-30 to +70°C	51	75
24	5	210	60/min	IP65	-30 to +70°C	75	90

Flashni

A combined sounder and beacon which combines the features of the Roshni electronic sounder with a fully integrated Xenon beacon.

These sounders are fully compatible with all Roshni tones.

Features

- Combined strobe & sounder
- Matches Roshni sounders
- Weather Resistant to IP65

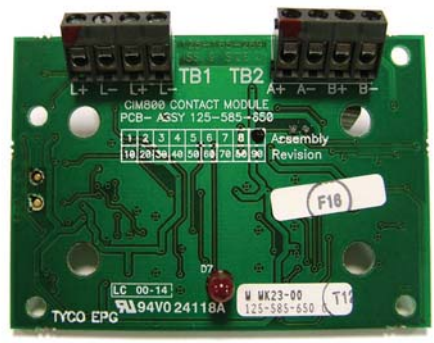
Technical Information

Dimensions:	93 Dia x 92Dmm (Shallow base) 93 Dia x 121Dmm (Deep base)
Input Voltage:	18-30Vdc
Typical Current:	68mA @ 24Vdc
Typ. Sound Output:	101dB (A) @ 1m

Order Codes

20-118	Combined Roshni sounder/strobe complete with deep base (IP65)
576.501.224	Combined Roshni Sounder/ Strobe, Red Body/Red Lens complete with shallow base & tone switch
576.501.227	Combined Roshni Sounder/ Strobe, Red Body/Red Lens, deep base, tone switch & separate sounder/strobe operation

CIM800 Contact Input Module



Technical Information

EMC/RFI:	Equal or exceeds EN50081-1 & EN50130-4
Operating Temp.:	-25°C to +70°C
Relative Humidity:	Up to 95% RH non-condensing
Dimensions:	14H x 148W x 87D mm
Weight:	100g
EOL & Monitor Resistor:	10k Ohms

The CIM800 is a flexible addressable input-monitoring device that fits in the standard ancillary housings. It provides two inputs to MZX panels though this can be implemented as two separately wired spurs (Style B) or as a loop (Style A). Both spur and loop input wiring can be configured to monitor normally open or normally closed inputs. In addition both can be configured to initiate an alarm or short circuit fault message.

Order Codes

555.800.002	CIM800 Module
555.800.032	CIM800 Module + Cover
555.800.532	CIM800 Module NF in D800 Housing
572.017	CIM800 Module VdS
572.020	CIM800 Module VdS in D800 Housing

DDM800 Fire & Gas Detector Module

Technical Information

Integrated line isolator
Loop powered or 24vDC operation
EMC/RFI Equal or exceeds EN61000-6-3 & EN50130-4

Operating Temperature:	-25°C to +70°C
Operating Humidity:	Up to 95% RH non-condensing

The DDM800 connects two zones of conventional two-wire fire detectors or two 4-20mA sensors to an MZX controller. When used to interface conventional detection devices, Open & Short circuit and device removal monitoring is provided. Intrinsically safe (IS) detection is supported when used with a galvanic isolator. The 4-20mA interface can be used to monitor devices such as gas detectors, temperature alarms or any 4-20mA interfaced device.

Order Codes

577.800.006	DDM800 Fire & Gas Detector Module
577.800.036	DDM800 Fire & Gas Detector Module + Cover
577.800.056	DDM800 Fire & Gas Detector Module in IP65 Housing
577.800.066	DDM800 Fire & Gas Detector Module in EExd Housing

DIM800 Detector Input Module

Technical Information

EMC/RFI:	Equal or exceeds EN50081-1 & EN50130-4
Operating Temp:	-25°C to +70°C
Relative Humidity:	Up to 95% RH non-condensing
Dimensions:	14H x 148W x 87D mm
Weight:	100g

The DIM800 is designed to power and monitor a circuit of low voltage conventional detectors and callpoints. The detection circuit is powered from an external 24V d.c. supply and is reset by the MX addressable panel. The DIM800 monitors the external 24V d.c. and provides a fault signal if it is lost. The input detection circuit can be wired as one or two spur circuits (Class B), one loop configured circuit (Class A) or one 4 wire detection circuit. The DIM800 is designed to be compatible with most conventional detection products (See our website for full details).

Order Codes

555.800.012	DIM800 Detector Input Module
555.800.042	DIM800 Detector Input Module + Cover
562.011	DIM800 Detector input Module VdS
562.012	DIM800 Detector input Module VdS in D800 Housing

HVR800 High Voltage Relay Module

Technical Information

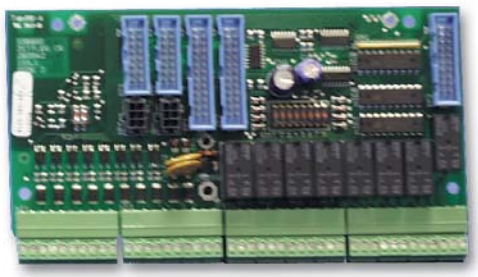
EMC/RFI:	Equal or exceeds EN61000.6.3 & EN50130-4
Operating Temp.:	-25°C to +70°C
Relative Humidity:	Up to 95% RH non-condensing
Dimensions:	26.5H x 42W x 74D mm
Relay Contacts:	Up to 10A @ 250Vac

The HVR800 module is a non-addressable device which when used with the opto isolated output of the RIM800, MIO800, QRM850 or QIO850 modules will switch mains voltage up to 10A.

Order Codes

568.800.004	HVR800 High Voltage Relay Module
568.800.034	HVR High voltage relay in D800
572.008	Housing
572.022	HVR High voltage relay VdS
	HVR High voltage relay VdS in D800 Housing

IOB800 Input/Output Expansion Board



The IOB800 is an approved board that provides 8 opto-isolated digital inputs and 8 x 24V d.c. relay outputs. This provides I/O expansion capabilities to MZX detection panels for interfacing to other subsystems and signalling devices. The IOB800 also incorporates a connector, providing decoded signals for 8 inputs and 8 outputs for specialist interfacing.

The IOB800 can be mounted in the top of a battery box or repeater. It has two expansion bus connectors which allow them to be daisy chained together.

Technical Information

The IOB800 can be used to provide expansion I/O to the following MZX panel components:

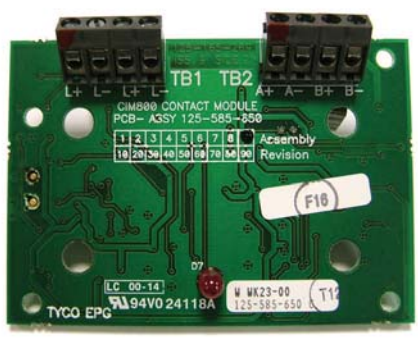
- FIM801/802 field interface modules (max 24 I/O 8IN/16OUT)
- OCM800 operator control modules (max 80 I/O)
- MPM800 multi-purpose interface (max 80 I/O)

Dimensions:	15H X 164W X 80D mm
Weight:	153g
Terminations:	1.5mm

Order Codes

542.006	IOB800 Standard 8IN/8OUT Expansion Module
557.202.006	IOB800 Standard 8IN/8OUT Expansion Module

LIM800 Line Isolator Module



The LIM800 Line Isolator Module is designed to be used on all MZX addressable loops. It monitors the line condition and upon detection of a short circuit it isolates the affected section whilst allowing the rest of the addressable loop to function normally. The LIM800 Ancillary Line Isolator Module ensures that on a looped addressable system a short circuit fault cannot disable more detection devices than are required by the installation standards.

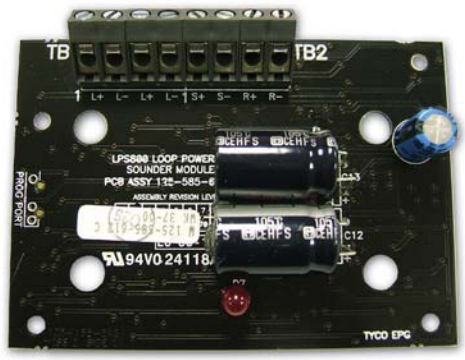
Technical Information

EMC/RFI:	Equal or exceeds EN50081-1 & EN50130-4
Operating Temp.:	-25°C to +70°C
Relative Humidity:	Up to 95% RH non-condensing
Dimensions:	13H x 48W x 57D mm
Weight:	100g
EOL Resistor:	200 Ohm
Monitor Resistor:	100 Ohm

Order Codes

545.800.004	LIM800 Line Isolator Module
545.800.033	LIM800 c/w Front Cover
545.800.533	LIM800 NF in D800 Housing
772.054	LIM800 Line Isolator Module VdS
772.054	LIM800 VdS in D800 housing

LPS800 Loop Powered Sounder Module



The LPS800 provides a single monitored sounder output circuit with up to 75mA of power sourced from the MZX panel.

Technical Information

EMC/RFI:	Equal or exceeds EN61000.6.31 & EN50130-4
Operating Temp:	-25°C to +70°C
Relative Humidity:	Up to 95% RH non-condensing
Dimensions:	14H x 148W x 87D mm
Weight:	100g
Output rating:	75mA @ 24Vdc max

Order Codes

577.800.011	LPS800 Loop Powered Sounder Module
577.800.041	LPS800 Module c/w Front Cover
572.014	LPS800 Loop Powered Sounder Module VdS
572.027	LPS800 Loop Powered Sounder Module VdS in D800 Housing

MIM800 Mini-Input Module

The MIM800 is a small MX addressable module designed for monitoring a single input circuit. It can monitor normally open or normally closed inputs and provides open and short circuit monitoring of the line. The MIM800 is designed for fitting in small devices such as flow switches, special detection devices and explosion proof callpoints.

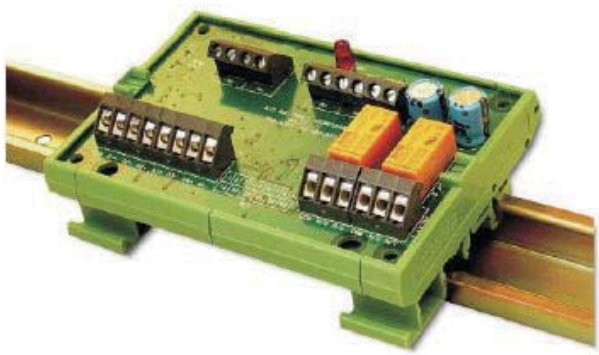
Technical Information

EMC/RFI:	Equal or exceeds EN50081-1 & EN50130-4
Operating Temp.:	-25°C to +70°C
Relative Humidity:	Up to 95% RH non-condensing
Dimensions:	13H x 48W x 57D mm
Weight:	100g
EOL Resistor:	200 Ohm
Monitor Resistor:	100 Ohm

Order Codes

555.800.001	MIM800 MX Mini-Input Module
577.016	MIM800 MX Mini-Input Module VdS

MIO800 Mini-Input Module



The MIO800 is a general purpose interface module for use with MZX fire detection systems. It allows multiple input and output connections to be made between external equipment and the MZX Digital loop. Three input and four outputs are provided. Each input and output can be programmed independently using the MZX Consys configuration tool to provide customised functionality.

A standard IP55 rated D800 style housing is offered together with an option of a DIN-rail mounting kit.

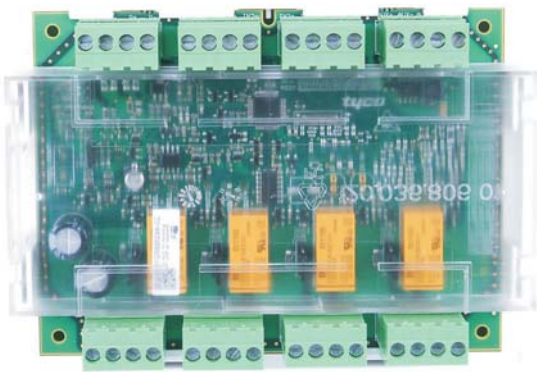
Technical Information

Operating Temperature:	-25°C to + 70°C
Storage Temperature:	-40°C to +80°C
Operating Humidity:	Up to 95% non-condensing
Dimensions (HWD) Module:	72 x 110 x 18mm
Dimensions (HWD) Boxed:	124.5 x 166.5 x 84.5mm
Weight (Module):	70g
Weight (Boxed):	271g

Order Codes

555.800.065	MIO800 Multi Input / Output Module
557.201.303	MIO800 DIN Rail Mounting Kit

QIO850 Quad Input/Output Module



The Quad Input/Output Module connects directly to the MZX Digital loop and provides four change over relay outputs, four High Voltage Relay (HVR) outputs and four monitored inputs. It is loop powered and therefore does not need a power supply, however it can monitor the presence of a local 24Vdc or 48Vdc power supply.

Order Codes

555.800.071	QIO850 Quad Input/ Output Module

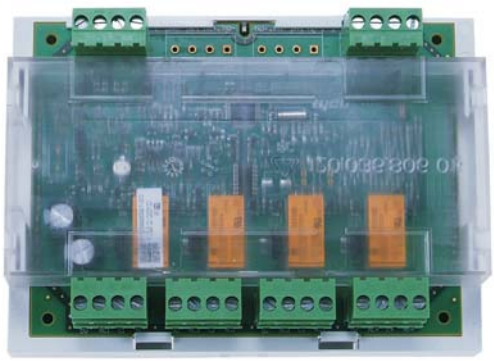
Features

- Four change over relay outputs and four monitored inputs each individually programmable
- Four HVR drivers. No need for a local power supply to switch 240Vac mains
- Inputs can monitor normally open or normally closed contacts
- The relay contacts are monitored and users are alerted to "output stuck" conditions
- Uses 2 addresses when configured for 2 inputs with 2 associated outputs
- Uses 4 addresses when configured for 4 inputs with 4 associated outputs
- Uses 8 addresses when configured for 4 inputs and 4 independent outputs
- Compact DIN rail mount design saves space
- Lower installation costs than individual modules
- Built-in line isolators improve fault tolerance
- Status LED's provide rapid diagnostics
- Two way IR communication to the 850EMT programming tool speeds up commissioning
- Monitors power for improved system integrity
- VdS and CPD approved to EN54-17, EN54-18 and EN54-13

Technical Information

Dimensions (H x W x D)	103 x 134 x 49 mm
Weight (Kg)	0.15
Voltage	40Vdc
Current	1.1mA (Standby) / 5.9mA (Alarm)
Wire Size	0.5mm^2 to 2.5mm^2
Output Circuit (Relay Contacts)	Nominal switching capacity 2A at 30Vdv (resistive load) Maximum switching power 60W, 125VA (resistive load)
Auxilliary Voltage Input	Auxiliary voltage 24Vdc to 55Vdc (Threshold voltage for aux voltage fault indication: 18Vdc +/- 1Vdc) Auxiliary voltage 48Vdc to 55Vdc (Threshold voltage for aux voltage indication: 36Vdc +/- 2Vdc)
Operating Temperature	-25°C to +70°C
Storage Temperature	-40°C to +80°C
Operating Humidity	Up to 95% Non condensing
Electromagnetic Compability	EN50130-4 for immunity / EN61000-6-3 for emissions
Approvals	EN54-17, EN54-18 and EN54-13

QMO850 Monitored Output Module



The Quad Monitored Output Module connects directly to the MZX Digital loop and requires a 24Vdc or 48Vdc power supply. It provides four monitored outputs for connection to conventional sounder circuits or auxiliary relays.

Features

- Four polarity reversal monitored outputs
- Class A or Class B wiring for versatility
- Uses 2 addresses when configured for 2 outputs
- Uses 4 addresses when configured for 4 outputs
- Compact DIN rail mount design saves space
- Lower installation costs than individual modules
- Built-in line isolators improve fault tolerance
- Status LED's provide rapid diagnostics
- Two way IR communication to the 850EMT programming tool speeds up commissioning
- Monitors input power supply for improved system integrity
- VdS and CPD approved to EN54-17, EN54-18 and EN54-13

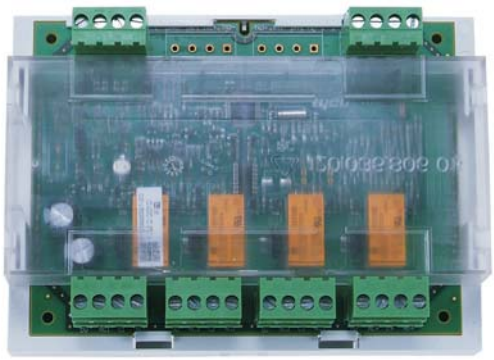
Order Codes

555.800.070	QMO850 Quad Monitored Output Module

Technical Information

Dimensions (HxWxD)	103 x 134 x 49 mm
Weight (Kg)	0.15
Voltage	40Vdc
Current	2.1mA (Standby) / 6.7mA (Alarm)
Wire Size	0.5mm^2 to 2.5mm^2
Output Circuit (Relay Contacts)	Nominal switching capacity 2A at 30Vdv (resistive load) Maximum switching power 60W, 125VA (resistive load)
Auxilliary Voltage Input	Auxiliary voltage 24Vdc to 55Vdc (Threshold voltage for aux voltage fault indication: 18Vdc +/- 1.5Vdc) Auxiliary voltage 48Vdc to 55Vdc (Threshold voltage for aux voltage indication: 36Vdc +/- 2.5Vdc) Wiring monitoring (Threshold resistance for aux voltage fault indication 50 ohms +/- 5 ohms)
Operating Temp.	-25°C to +70°C
Storage Temp.	-40°C to +80°C
Operating Humidity	Up to 95% Non condensing
Electromagnetic Compability	EN50130-4 for immunity / EN61000-6-3 for emissions
Approvals	EN54-17, EN54-18 and EN54-13

QRM850 Relay Module



The Quad Relay Output Module connects directly to the MZX Digital loop and provides four change over relay outputs or four High Voltage Relay (HVR) outputs. It is loop powered and therefore does not need a power supply, however it can monitor the presence of a local 24Vdc or 48Vdc power supply.

Features

- Four change over relay outputs each individually programmable for a wide range of applications
- Four HVR drivers. No need for a local power supply to switch 240Vac mains
- The relay contacts are monitored and users are alerted to "output stuck" conditions
- Uses 2 addresses when configured for 2 outputs
- Uses 4 addresses when configured for 4 outputs
- Compact DIN rail mount design saves space
- Lower installation costs than individual modules
- Built-in line isolators improve fault tolerance
- Status LED's provide rapid diagnostics
- Two way IR communication to the 850EMT programming tool speeds up commissioning
- Monitors input power supply for improved system integrity
- VdS and CPD approved to EN54-17, EN54-18 and EN54-13

Order Codes

555.800.073	QRM850 Quad Relay Output Module

Technical Information

Dimensions (HxWxD)	103 x 134 x 49 mm
Weight (Kg)	0.15
Voltage	40Vdc
Current	1.1mA (Standby) / 5.9mA (Alarm)
Wire Size	0.5mm^2 to 2.5mm^2
Output Circuit (Relay Contacts)	Nominal switching capacity 2A at 30Vdv (resistive load) Maximum switching power 60W, 125VA (resistive load)
Auxilliary Voltage Input	Auxiliary voltage 24Vdc to 55Vdc (Threshold voltage for aux voltage fault indication: 18Vdc +/- 1Vdc) Auxiliary voltage 48Vdc to 55Vdc (Threshold voltage for aux voltage indication: 36Vdc +/- 2Vdc)
Operating Temp.	-25°C to +70°C
Storage Temp.	-40°C to +80°C
Operating Humidity	Up to 95% Non condensing
Electromagnetic Compability	EN50130-4 for immunity / EN61000-6-3 for emissions
Approvals	EN54-17, EN54-18 and EN54-13

IP66 Housing for Quad I/O Modules

A polystyrene/polycarbonate IP66 rated housing prefitted with a din rail for mounting either 1 x Quad Input/Output Module (QIO850), or 1 x Quad Monitored Output Module (QMO850) or 1 x Quad Relay Output Module (QRM850) complete with a transparent front cover.

Order Codes

557.201.410 IP66 Housing for Quad I/O Modules

Features

- Ingress Protection rating of IP66
- Polystyrene/polycarbonate construction hence will not corrode
- Supplied prefitted with a din rail to enable the Quad Modules to snap fit into the housing
- Transparent front cover allows the status LEDS of the Quad Module to be viewed without removing the cover and also allows two way IR communication with the 850EMT programming tool
- M20/M25/M32/M40 cable entry knockouts

Technical Information

Dimensions (HWD): 170 x 254 x 90 mm
Weight: 0.65 Kg
Material: Grey Polystrene colour RAL 7035 (Base)
Transparent Polycarbonate (Cover)
Operating Temperature: -25°C to + 40°C
Operating Humidity: 100% at 25°C (Short Term)

RIM800 Relay Interface Module

The RIM800 provides a single relay output from the MZX addressable loop which can be programmed for a variety of applications. It's relay contact is rated for 2A @ 24V dc, but can switch mains voltage when used with the HVR800. The unit has two opto-isolated terminals for driving the HVR800.

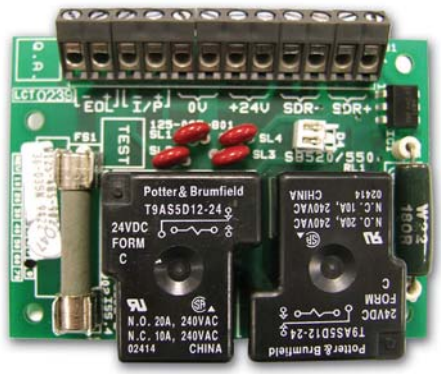
Technical Information

EMC/RFI: Equal or exceeds N61000.6.3 & EN50130-4
Operating Temperature: -25°C to + 70°C
Operating Humidity: Up to 95% non-condensing
Dimensions (HWD): 14 x 148 x 87mm
Weight : 100g
Quiescent Current: 200µA
Relay contacts: 2A @ 24V dc

Order Codes

568.800.003	Relay Interface Module
568.800.033	RIM800 + Cover
568.800.533	RIM800 NF in D800 Housing
572.007	RIM800 Module VdS
572.021	RIM800 Module VdS in D800 Housing

SNB800 / SB520 Sounder Booster Module



The SNB800 / SB520 sounder booster module enables the SNM800 to drive circuits with higher currents whilst maintaining the reverse polarity integrity line monitoring.

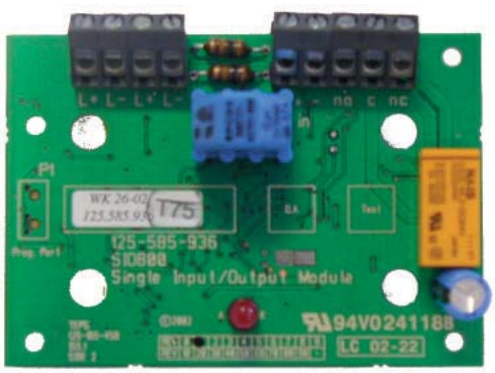
Technical Information

EMC/RFI:	Equal or exceeds EN61000.6.31 & EN50130-4
Operating Temperature:	-25°C to + 70°C
Operating Humidity:	Up to 95% non-condensing
Dimensions (HWD):	14 x 148 x 87mm
Weight:	105g
Output Rating:	15A @ 24Vdc / 10A Max per Terminal

Order Codes

577.001.033	SB520 c/w Front Cover
572.012	SNB800 Sounder Booster Module
572.024	SNB800 in D800 Housing

SIO800 Single Input / Ouput Module



The SIO800 Single Input/Output Module is designed to provide a monitored input and a volt free relay changeover output. It consists of an input for monitoring the status of a normally open contact and a single changeover relay contact. The relay is controlled by a command sent from the MZX panel via the addressable loop.

The state of the relay (activated, deactivated or stuck) is reported to the MZX panel. The LED can be turned ON or OFF by the panel during a relay activated condition.

Technical Information

EMC/RFI:	Product Family standard EN50130-4 in respect of Conducted Disturbances, Radiated Immunity, Electrostatic Discharge, Fast Transients and Slow High Energy. 61000-6-3 for Emissions.
Operating Temperature:	-25°C to + 70°C
Operating Humidity:	Up to 95% non-condensing
Dimensions (HWD):	14 x 148 x 87mm
Weight:	105g

Order Codes

555.800.063	SIO800 Module
555.800.064	SIO800 Module in Cover
572.038	SIO800 Module VdS

SNM800 Sounder Notification Module

Technical Information

EMC/RFI:	Equal or exceeds EN61000.6.3 & EN50130-4
Operating Temperature:	-25°C to + 70°C
Operating Humidity:	Up to 95% non-condensing
Dimensions (HWD):	14 x 148 x 87mm
Weight :	100g
Output rating:	2A @ 24V d.c.
EOL resistor:	27k 1/2W

The SNM800 is a remote addressable sounder circuit output device capable of switching sounder and speaker circuits up to 2A @ 24V dc, or provide a monitored output facility for other applications. These can be used in addition to the two circuits provided as standard on most MZX detection panels.

Order Codes

577.800.005	Sounder Notification Module
577.800.035	SNM800 + Cover
572.009	Sounder Notification Module VdS
572.023	SNM800 VdS in D800 Housing

TM520 Timer Module

Technical Information

Powered:	24Vdc
Operating Temperature:	-20°C to + 70°C
Operating Humidity:	Up to 95% non-condensing
Dimensions (HW):	87 x 148mm

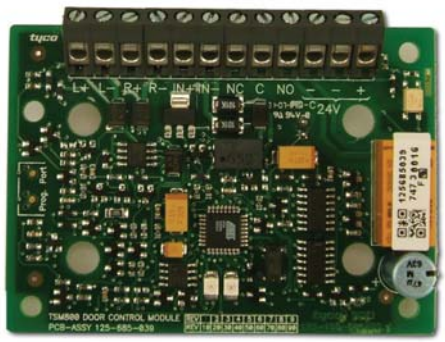
Order Codes

557.180.423	TM520 Timer Module

The TM520 provides 2 x outputs that can be activated based on a delay time. If either the key-switch on the module is activated, or a predefined event within the control panel occurs then a timed delay (set between 10 minutes and 2 hours 10 minutes) is started. When the delay reaches zero the TM520 outputs are activated.

The TM520 requires a separate 24V DC supply to operate.

TSM800 Door Control Module



Technical Information

EMC/RFI:	Equal or exceeds EN61000.6.3 & EN50130-4
Operating Temperature:	-25°C to + 70°C
Operating Humidity:	Up to 95% non-condensing
Dimensions (HWD):	14 x 148 x 87mm
Weight:	100g

The TSM800 is used to control fire doors in accordance with local standards. When activated, either by a fire signal or by a fault or isolation within the fire door zone, the TSM800 will interrupt the supply to the door holders and the doors under control of the module will close. The module has the provision to monitor a contact to report to the fire controller if the door fails to close.

Order Codes

555.800.069 TSM800 Door Control Module

APM800 Addressable Power Supply Monitor

Technical Information

EMC/RFI:	Equal or exceeds EN50081-1 & EN50130-4
Operating Temperature:	-25°C to + 70°C
Operating Humidity:	Up to 95% non-condensing
Dimensions (HWD):	24 x 127 x 57mm
Weight:	0.794

The APM800 is an addressable power supply monitoring module which is usually used with the PSM800/820/82/PSU830 power supplies to make an addressable power supply. It is designed to fix to studs on the top of the PSM800/820/821/PSU830. The APM800 monitors the PSM800/820/821/PSU830 for mains failure, earth fault, battery charger fault and battery fault. It can reset the PSM800/820/821/PSU830 24Vdc output and initiate a battery test which then reports battery voltage and current to the controller.

Order Codes

557.202.027 APM800 Addressable Power Supply Module

MZX Ancillary Housings

A variety of ancillary housings are available to fit the 800 Series MZX ancillaries. The standard sized modules are mechanically compatible with all options. VdS approvals are with the D800 housing. The M520 double gang cover provides external access for the MZX Service Tool to plug into the ancillary module which is mounted in the cover. All options allow the ancillary to be programmed and tested when the cover is removed.

Order Codes

	Description	Order Codes
	M520 Ancillary cover for use with 800 series modules. Will fit onto a MK style double gang back box.	517.035.007
	D800 IP55 ancillary housing 140W x 120H x 70D mm Incorporates window to view module LED	557.201.401
	K9250 IP55 Ancillary Housing 200 x 160 x 98mm	557.201.407
	ANC-3 ancillary housing - for use with M800 ancillary modules (can accommodate up to 3 M800 modules). 340W x 290H x 90D mm	557.180.097.A
	ANC-8 ancillary housing - for use with M800 ancillary modules. Houses 8 modules, expandable to 16 using the STK8 stacking kit. 440W x 320H x 140D mm	557.180.096.A
 	The DIN Rail mounting bracket enables any module which can be mounted to a M520 ancillary cover to be DIN rail mounted. Clip-on PCB mounting pillars are included. Will fit standard 35mm DIN Rail bracket.	547.004.002

XOM80 80-Way Mimic Driver Module

Technical Information

Dimensions:	235H x 190Wmm
Operating Temp:	-10°C to +55°C
Storage Temp:	-20°C to +65°C
Relative Humidity:	Up to 95% RH Non-condensing
Power Consumption:	11mA (Quiescent) 200mA (25% Alarm) 800mA (Lamp Test)

The 80-Way Mimic allows custom-made display and presentation panels to be incorporated in the MZX system. It is supplied as a single PCB, which may be mounted in an expansion box or on the rear of a free-standing panel, as required. It may be used to drive up to 80 zonal LED indicators, arranged in any configuration, together with two FIRE LEDs, one FAULT LED and one ISOLATE LED.

These indicators can operate in the same manner as the corresponding indicators on the panel.

A remote Mimic can also be connected to the MPM800's configured as remote Mimic drivers via the remote bus.

Up to 15 MPM800's can be connected on to the remote bus, each with a unique address [set on-board].

The Mimic includes audible and visible warning facilities..

Order Codes

557.180.005	80-Way Mimic Driver Module
542.062	80-Way Mimic Driver Module XOM800

ANN820 Annunciator Module

ANN820 LED Annunciator Module which has 20 dual colour red/yellow and twenty dual colour green/yellow LED's. The ANN820 is ideal for use as a status module/display for sprinkler panels according to the EN 12845: 2004 A2:2009 standard, but has many other potential applications such as fire damper and fire door status monitoring.

Technical Information

Power Consumption:	
Quiescent:	1mA + MPM800
25% zones in alarm:	85mA + MPM800
Lamp Test:	340mA +MPM800
Dimensions (HWD):	25 x 232 x 133 mm
Weight:	177g

LED Mapping:	
Zones 1-20:	Red
Zones 21-40:	Green
Zones 1-40:	Yellow

Order Codes

557.202.018	ANN820 Dual Colour LED Status Monitor

ANN840 Annunciator Module

The ANN840 is a standard LED annunciator user interface module. The MPM800 can be mounted remotely or "piggy-backed" on the ANN840. The ANN840 has removable legends for 40 zone status indicators. Each zone can indicate RED (eg. Alarm) and YELLOW (eg. Fault & Isolate). The functionality is programmed in the MX detection panel.

The ANN840 operates as 80 outputs (RED & YELLOW).

Technical Information

Power Consumption:	
Quiescent:	1mA + MPM800
25% zones in alarm:	85mA + MPM800
Lamp Test:	340mA +MPM800
Dimensions (HWD):	25 x 232 x 133 mm
Weight:	177g

Order Codes

557.202.021	ANN840 40 Way Alarm/Fault Monitor

ANN880 Annunciator Module

The ANN880 is a standard LED annunciator user interface module, which can be driven from an OCM800 or an MPM800. The MPM800 can be mounted remotely or "piggy-backed" on the ANN880. The ANN880 has 80 red LEDs numbered 1 to 80. The functionality is programmed in the MX detection panel but is defaulted to zone alarm LED's.

Technical Information

Power Consumption:	
Quiescent:	1mA + MPM800
25% zones in alarm:	85mA + MPM800
Lamp Test:	340mA +MPM800
Dimensions (HWD):	25 x 232 x 133 mm
Weight:	177g

Order Codes

557.202.022	ANN880 80 Way Alarm LED Module

COM820 LED Annunciator and Input Module

The COM820 is a standard user interface module, which can be driven from an OCM800 or an MPM800. The MPM800 can be mounted remotely or "piggy-backed" on the COM820. The COM820 has removable legends for 20 status command functions. Each function includes a command button and a yellow status LED. The functionality is programmed in the MZX detection panel. Two can be driven from 1 x MPM800.

Typical Applications

- Manual/OFF/Auto/Isolate functions for evacuation or plant control
- Selective isolate and evacuate functions for fireman's control
- Selective plant shutdown and override functions
- Selective system delay and timer functions

Technical Information

Dimensions (HWD):	25 x 232 x 133mm
Weight:	204g
Power Consumption:	0.267mA (Quiescent)
	5mA (Alarm - 25% LED's)
	21mA (Lamp test)

Order Codes

557.202.020	COM820 Module

CPU800 Expert Central Processor

The CPU-800 provides the main processing power behind the MZX detection panels. It is a multi-layer PCB and contains the CPU, the memory and interface electronics. The CPU-800 contains a Data Memory (SRAM), a Program Memory (Flash EPROM), a Configuration Memory (Flash EPROM) and a Boot ROM (EPROM). The use of flash EPROM allows program upgrades without having to change chips.

Features

- Full alarm and fault monitoring for up to 1000 addressable points
- Concurrent operation of the main user interface and 2 remote user interfaces
- Cause and core effect using up to 1000 input, output groups, delay timers and logic functions

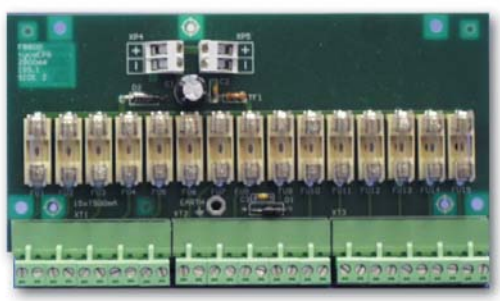
Technical Information

32 bit Processor:	Motorola 68331
Data Memory SRAM:	1 MB Prog. Memory Flash
EPROM:	2 MB Config. Memory Flash
EPROM:	1 MB
Boot EPROM:	64 kB

Order Codes

557.202.002	CPU800 1MB CPU PCB
542.002	CPU800 VdS

FB800 Fuse Board



The FB800 fuse board provides terminations for 15 fused 24Vdc output spurs from a single 24V d.c. input. The FB800 is designed to be normally mounted on the PSU830 power supply. The fuses are rated at 500mA.

Technical Information

Dimensions (HWD):	93 x 165 x 80mm
Weight:	149g
Input:	24Vdc
Output:	15 x 24V d.c / 500mA
Terminations:	2.5mm

Order Codes

557.202.100	FB800 Fuse Board (15 way)
542.064	FB800 Fuse Board (15 way)

FIM800 Field Interface Module

The Field Interface Module FIM is the main interface for field wiring on MX detection panels and contains plug-in field wiring terminals, inter board connectors, EMC protectors and filters and general I/O electronics. The FIM801and FIM801CV provides 1 x MZX DIGITAL loop and the FIM802 provides 2 x MZX DIGITAL loops. Each MZX DIGITAL loop can support several kilometres of loop wiring using a mixed topology using multiple loops and spurs.

The FIM provides up to 495mA of loop power to each loop to drive loop powered sounders and other loop power devices. An optional plug-in additional loop cards (XLM800-MX) provide up to 8 x MZX Digital loops.

The FIM incorporates the following local I/O connections:

- 2 x reverse polarity monitored sounder outputs
- 2 x volt free outputs (Default alarm and fault)
- 1 monitored input (eg. Day/Night changeover)
- 1 emergency alarm input
- 1 unmonitored input (eg. Class Change or Tamper)
- Full monitoring of power supply
- Ground fault monitoring

The FIM incorporates a local I/O bus which allows the local I/O connections to be increased by 24. A variety of I/O expansion boards are available including:

- IOB800 (8 in/8 out) expansion board
- TUD800 German Transmission Unit

Features

- Interfaces to CPU & XLM modules
- 3 Download/Network & Printer ports
- Up to 2 MZX Loops

Technical Information

Dimensions:	25H x 105W x 196D mm
Weight:	156g
Power Consumption:	119mA (Quiescent) 169mA (Alarm)
Relay Outputs:	30Vdc @ 2A
Monitored inputs:	10k Ohm EOL, 3KHz in parallel
RBUS:	RS-485 , default 19.6kB, up to 1200m
Serial Ports:	RS232C, 19.6kB, up to 10m
Local I/O Expansion:	Up to 2 modules, up to 24 I/O, max. 300mm

Order Codes

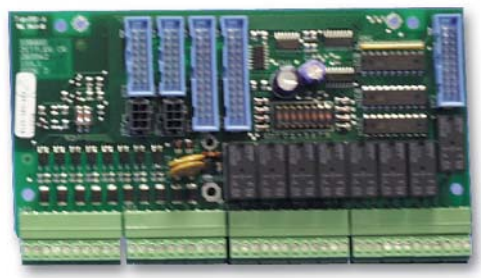
542.000	FIM801 Field Interface Module with one MZX Loop Driver
542.001	FIM802 Field Interface Module with two MX Loop Drivers
557.202.000	FIM801 Field Interface Module with one MX Loop Driver
557.202.001	FIM802 Field Interface Module with two MX Loop Drivers

The FIM includes two connections to the RBUS one for the local user interface and one for connecting up to 15 remote addresses in the form of up to 2 x operator control modules (OCM800) or up to 15 multi-purpose modules (MPM800).

The FIM provides 3 configurable external serial ports:

- Port 1 Local printer
- Port 2 Configuration PC or remote diagnostics and upload/downloadmodem
- Port 3 FSI open protocol or Network card/ gateway (TLI800EN network card)

IOB800 Input/Output Expansion Board



Technical Information

Dimensions (HWD):	15 X 164 X 80mm
Weight:	153g
Terminations:	1.5mm

Order Codes

557.202.006	IOB800 Expansion Board and cables
542.006	IOB800 Expansion board and cables

The IOB800 is an LPCB approved board that provides 8 opto-isolated digital inputs and 8 x 24V d.c. relay outputs for providing I/O expansion capabilities to MX detection panels for interfacing to other subsystems and signalling devices. The IOB800 also incorporates a connector, which provides decoded signals for the 8 inputs and 8 outputs for specialist interfacing.

The IOB800 can be mounted in the top of a battery box or repeater. The unit has two expansion bus connectors which allow them to be daisy chained together.

The IOB800 can be used to provide expansion I/O to the following MX panel components:

- .FIM801/802 field interface modules (maximum 24 I/O 8IN/16OUT)
- OCM800 operator control modules (maximum 80 I/O)
- MPM800 multi-purpose interface (maximum 80 I/O)

MPM800 Multi-Purpose Interface Module

The MPM800 is used to provide various expansion capabilities via the remote bus (RBUS). It is provided as a standalone module, but is also incorporated into the circuitry of the OCM800 operator control module to drive the LCD display, LEDs, keyswitch and keys on the OCM800 and the operator display module. The OCM800 and MPM800 have an XBUS which can be used to drive up to 80 I/O. The MPM800 also has a printer interface for connecting to a printer.

An additional printer driver kit is required to allow the MPM800 to drive a printer. A serial isolation module should be used to eliminate earth fault indications caused by some mains connected printers.

Up to 15 x MPM modules can be connected to each panel of which 8 can be in the form of OCM800 (including the main OCM800 user interface). One OCM800 can also be in the form of an emulated user interface on a remote PC connected via the network or dial up modem.

The modules below can be slaved from an MPM800:

- Up to 5 x IOB800 (8 in/8 out expansion board)
- Up to 5 x XIOM800 (16 way universal I/O board)
- One Mimic Panel (80 way LED mimic driver PCB)
- One 80 way ANN880 LED mimic**
- One 40 way ANN840 LED mimic using red & yellow LEDs**
- One 20+20 way ANN820 mimic using Red/ Yellow & Green/Yellow LEDs
- Two 20 way COM820 LED status/command modules**

Features

- Drives up to 80 I/O points
- Direct Interface to Zonal Displays and other Modules
- Interfaces to FIM Board

Technical Information

Power Supply:	24Vdc (from PSU830)
Communications:	RS-485, up to 19.6kB
Printer Connection:	Serial or Parallel
Dimensions:	25.4 x 92 x 167.64mm
Weight:	98g

Order Codes

542.012.012	MPM800 Multi-Purpose Interface Module
542.012	MPM800 Multi-Purpose Interface Module VdS
557.180.053	Isolating RS485 Chip (U16)
557.202.117	Serial printer lead assembly
572.039	Serial printer driver kit

The MPM800 is mounted by plugging directly onto the back of those items marked **

PSU830 Power Supply

The PSU830 power supply module is a state-of-the-art integrated switch mode system power supply and batterycharger, which can provide up to 5A external and auxiliary loop power during alarm conditions.The charging voltage is temperature compensated. The power supply recharges the batteries within 24hr for the following timings:

- 90hr stand by time and 15 minute alarm condition.
- 72hr stand by time and 30 minute alarm condition.

The power supply provides full condition and fault monitoring to the system via the FIM or addressable power supply monitor module APM800. The PSU830 incorporates a booster module to provide the correct voltage levels to maximise the performance of the MZX DIGITAL protocol.

Fault signals (Loss of AC, Battery charger fault, Battery fault and earth fault) are provided. Battery voltage readings are also provided to the FIM and a volt free fault o/p is also provided. Screw terminals provide 2 x 27V outputs (one with reset control) and one 5V output.

The power supply is fitted in a steel cage with mounting points to allow any of the following boards to be mounted:

- APM800 addressable power supply monitor module.
- FB800 fuse board with 15 x 24Vdc fused spurs.
- IOB800 input/output expansion board.
- PTM800 power terminal module.

Technical Information

Dimensions (HWD):	62 x 132 x 242mm
Input Voltage:	120-240Vac -15% /+10%
	50/60Hz (auto ranging)
Input Current Rated Load:	0.8-2.2ARMS
Output Voltages	27.3Vdc @ +25°C
Non-reset:	27.3Vdc @ 2A
	5Vdc @ 2.2A
	40Vdc @ 2.2A
Reset:	27.3Vdc @ 2A
Rated Output	
Maximum Alarm current	5A for 30 minutes
Maximum continuous load current (excluding charging):	2.5A
Battery Requirements	17Ah or 38Ah single PSU
	65Ah dual PSU
Standby Current Consumption:	
	90mA @ 24Vdc
Battery Fault High Resistance:	
Single PSU:	0.6 Ohms
Dual PSU:	0.3 Ohms

Order Codes

557.202.210	PSU830 Power Supply Module
557.201.232	PTM800 Power Terminal Module
557.201.231	MX2 PSU830 Dual PSU Kit
557.202.044	PSU 830K Power Expansion Kit
557.202.030	PSU 830 Panel Fixing Conversion Kit
557.202.031	PSU 830 Small Chassis Plate Conversion Kit
557.200.014	MXAPSU17 Boxed Addressable PSU (17A/H)
542.088	MXAPSU17 Boxed Addressable PSU (17A/H)
557.200.015	MXAPSU38 Boxed Addressable PSU (38A/H)
542.089	MXAPSU38 Boxed Addressable PSU (38A/H)

PRN800 Printer Kit

The PRN800 Printer Kit is designed for use with the designer range of MZX Controllers. It is fitted to the front cover of the MX battery housing and is powered from the PSU830 power supply via an FB800 fuseboard in the MZX Controller housing.

Features

- Highly reliable thermal printer mechanism
- Lightweight and compact design
- Quiet, high-speed printing: 40mm per second.
- Quiet, high quality printing: 384 dots.

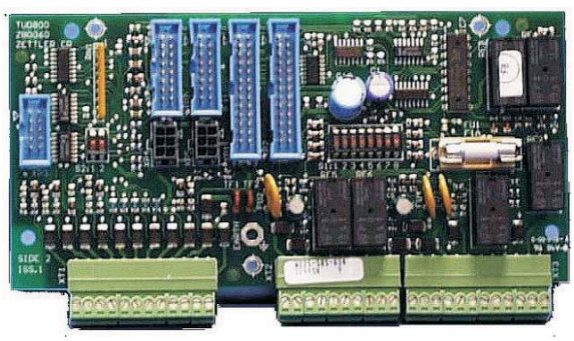
Technical Information

EMC:	61000-6-3 (Emissions)
	BS EN 50082-1 (Immunity)
Operating Temperature:	+5°C to +45°C
Storage Temperature:	-20°C to +70°C
Relative Humidity:	Up to 80% non-condensing
Dimensions:	230 x 137 x 85mm
Weight:	0.38Kg

Order Codes

557.202.024	PRN800 Printer Kit
557.301.014	Spare printer paper roll (pack of 5)

TUD800 German Transmission Unit



The TUD800 is a VdS approved input/ouput module specifically designed for interfacing ZETTLER control panels to German Fire Brigade equipment. The TUD800 takes the place of an IOB800 when used and is typically mounted in the deep battery/ expansion box.

Technical Information

Dimensions: (HWD)	15 x 164 x 80mm
Weight:	153g
Power Cionsumption:	29mA (Quiescent)
	65mA (Alarm)

Order Codes

542.010	TUD800 Transmission Unit plus cables

XIOM Input/Output Expansion Board

Features

- 16 I/P's or 16 O/P's or 8 I/P + 8 O/P
- 5 per MPM800 (80 I/O points)
- Fully configurable in MX consys

Technical Information

Dimensions (HWD): 144 x 85 x 15mm

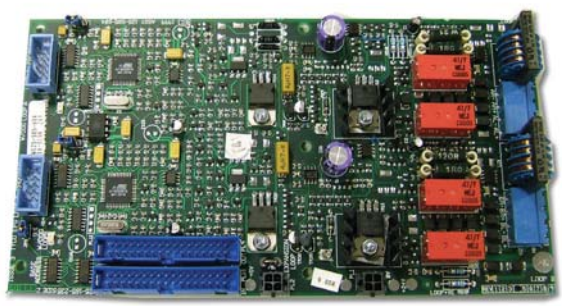
The XIOM is a 16 universal input/output expansion board. The I/O on the XIOM can be set in banks of 8 to operate as follows:

- LED driver outputs (10mA source)
- Relay Driver Outputs (100mA sink)
- Voltage Monitor Input (8 - 30Vdc Normal)
- Volt Free Contact inputs

Order Codes

557.180.016	XIOM Input/Output Expansion Module (16 Way)

XLM800 Loop Expansion Module



Features

- MZX Digital Loop Protocol
- Extensive Loop Protection
- Interfaced to FIM 800 module

Technical Information

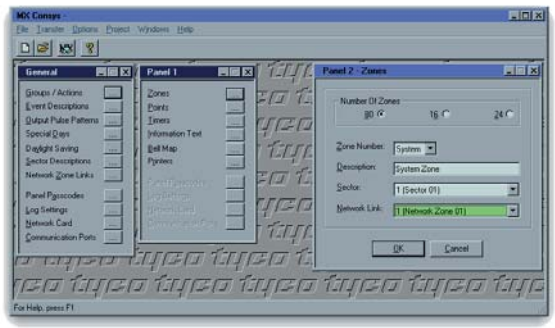
Dimensions:	17.5 x 104 x 196mm
Battery Requirements:	
Standby:	104.3mA+loop current
Alarm:	105.3mA + loop current
Loop Current:	495mA maximum

The XLM800 Loop Expansion Module "piggybacks" onto the FIM or an existing XLM 800. It is used to expand the capability of the two loop system to eight loops or to replace the FIM loops in case of a failure on either a two or four loop system. The XLM800 controls communications between the detectors (and other ancillaries) connected on the 2-wire loop circuits and the controller.

Order Codes

542.007	XLM800 Module + Cable
557.202.007	XLM800 Module + Cable

MZXConsys Programming Software



Features

- Programs the system across multiple sub-panels
- Downloads to the system from one point
- Provides Firmware download as well as configuration download
- Dongle protected
- Provides full project configuration printouts.

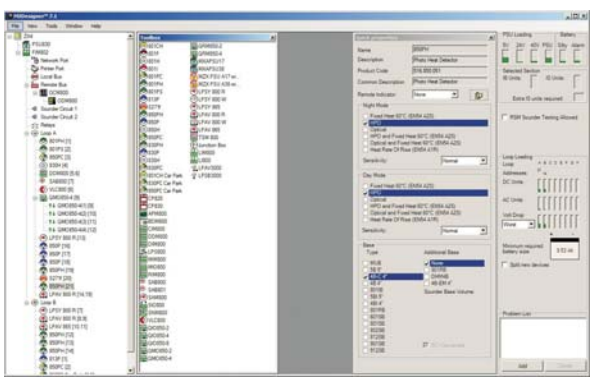
MZXConsys is a powerful Windows programming tool which provides full system programming functions and project configuration and issue control. MZXConsys is used on The MZX & ZX panels.

It also supports automatic data transfer to the TXG graphical mimic and alarm management systems. MZXConsys is available under document control from authorised personnel in the Tyco businesses.

Order Codes

557.203.001	MZXConsys Parallel Dongle & License
557.203.003	MZXConsys USB Dongle & License
557.202.118	MZXConsys download lead (PC to FIM)

MZXDesigner System Design Tool

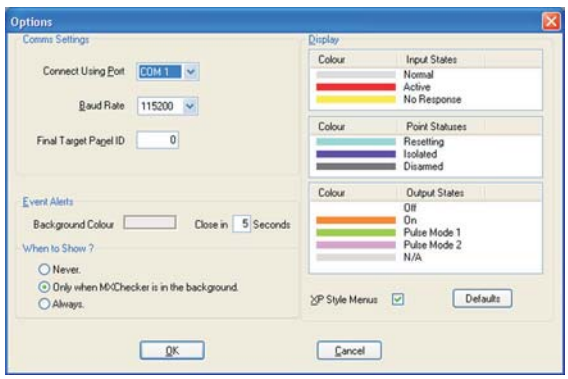


MZXDesigner is a system design tool that provides a graphical user interface to simplifies the detailed design of MZX Technology systems.

Using drag & drop techniques MZXDesigner can automatically produce system schematics. As a system design takes shape MZXDesigner will constantly monitor loop loading, power supply loading, battery calculations and remote bus limits. This enables system designers and sellers, new to MZXTechnology to confidently design systems without exceeding the design parameters.

Additionally, MZXDesigner provides a complete bill of materials that lists all part numbers and branding options. A quantity breakdown is also provided for each loop used.

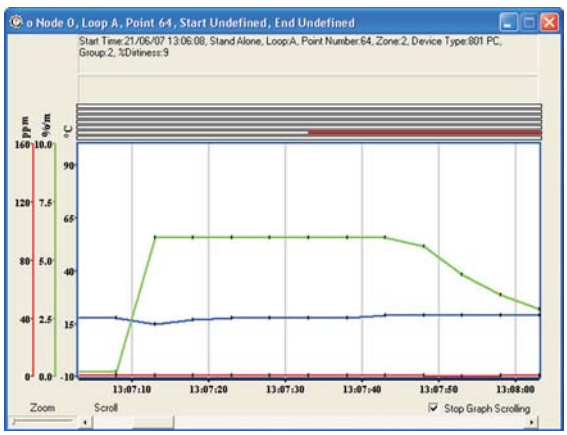
MZX Checker Utililty



MZX Checker is a software tool for commissioning engineers use and provides an easy way to debug MZX Consys cause and effect programming, without having to connect installed devices (eg. detectors, callpoints, relays). Productivity is increased by proving software configurations without disrupting plant operations, whether this is for new builds or during a system upgrade.

MZXChecker can be used for off-site commissioning or factory acceptance testing for major projects. At final commissioning the commissioning engineer can attend the site with the confidence that the configuration will operate correctly.

MZX Data Logger



MZX Datalogger is a PC based service tool that enables device point values to be collected from MZX panels at regular intervals. The collected data may be displayed in tabular form, graphically or stored for later analysis. Graphical representations provided by MZX Datalogger can reveal trends that could be the result of environmental factors affecting the performance of the detection system. For multi-sensor devices such as the 3oTec Photo/Heat/CO detector, all three sensing elements can be monitored individually.

MXRemote

MXRemote is a Windows based software tool for remote service and support of MX detection panels. MXRemote provides a full function fire panel repeater running on a PC either locally or over dial up telephone lines or via the internet. Providing the operator has the correct passwords MXRemote allows all operator, manager, service and engineer functions available at the panel to be provided at the PC.

This allows the customer or the Tyco service organisation to provide remote assistance, service and limited configuration assistance to the installation.

MXRemote is available as a stand-alone software application for Tyco service operations. Alternatively Tyco Fire Protection Products are able to provide consultancy and assistance in implementing MXRemote as an integrated part of a central station and service centre system.

Order Codes

557.203.002	MXRemote Dongle and license (parallel)
557.203.004	MXRemote Dongle and license (USB)
557.202.116	MX-FIM Modem Lead
UDS1100	Lantronics Device Server LAN

850EMT Engineering Management Tool

The engineering management tool communicates with the 850 series and 830 series devices using a 2 way infrared wireless link. Commissioning data is held within the 850 EMT and the technician will be prompted to select and confirm configuration details resulting in an evidence based commissioning document that can be downloaded from the programmer.

Technical Details:

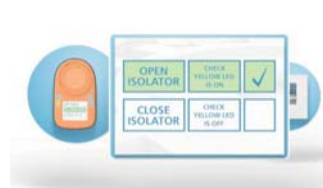
- 2 way wireless infrared communication with detectors
- TFT colour touch screen display
- Save time with One Visit Commissioning (OVC)
- Facilitates evidence based commissioning
- Read/write the detector/ancillary address
- Display and confirm zone and point strings
- Display temperature/ CO levels / smoke obscuration
- Programme the device LED
- Initiate detector self verification test
- Display detector dirtiness level
- Control ancillary outputs
- Read ancillary statuses
- Compatible with all 800 series devices.

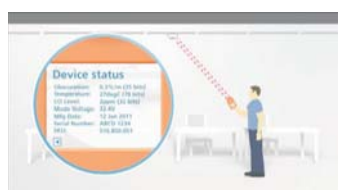
Features

- Simplifies installation and commissioning
- Reduces the possibility of engineer error
- Improves health and safety by removing the need to work at height
- Provides peace of mind through evidence based digital reporting

Order Codes

516.850.900	850EMT Engineering Managemnt Tool
516.800.922	Spare ancillary programming lead
516.800.924	Pack of 10 spare pins for ancillary lead
516.800.923	Accessory kit (Carry case, shoulder strap & car 12v adaptor)





MZX AVR Programmer

This unit will allows the MZX Technology Fire Controller Loop Drivers to be updated to the latest software version. When required upgrades can be performed easily and quickly in the field with minimal system downtime. The MZX AVR Programmer is designed for use with MX,MZX,ZX and T2000 addressable fire controllers, please check document 17-05-AVR for compatibility details.

Features

- Pre-Programmed with latest AVR firmware
- Powered from XLM Loop card or FIM, No external power required
- Simple to operate
- Compact handheld device
- Complete with ribbon cable and connector

Technical Information

Keypad:	2 Button
Status LEDs:	3
Operating Temperature:	0°C to 50°C
Dimensions:	189 x 80 x 31mm

Order Codes

516.800.942	Tyco MZX AVR Programmer

Service and Spares

Keys & Keyswitches

Part Number	Description
557.203.005	Set of spare keys for MX Panel (AL102)
557.180.209	Keyswitch assembly for use with MX2 controllers (spare)
557.201.508	MZX Spare Key Set

Housings & Metalwork

Part Number	Description
557.201.300	BFP801Blank Half Module - Grey Overlay
557.201.306	Standard MZX Expansion backbox and chassis plate
557.201.310	Deep MX Expansion backbox and chassis plate
557.202.000	FIM801 1-Loop Field I/F Module
557.202.001	FIM802 2-Loop Field I/F Module
557.202.007	XLM800 2-Loop Expansion Card
557.002.002	CPU800 Central Processor Unit

Power Supplies

Part Number	Description
557.202.210	PSU830 Power Supply with Loop Booster
557.201.210	Dual Power Supply Mounting Kit
557.202.050	PSM800 Temperature Sensor Mounting Kit
557.202.113	PSB to FIM Cable
557.202.608	PMM800 Power Monitor Module
557.202.609	BAQ60T24 2.5A MZX PSU
557.202.610	BAQ140T24 5A MZX PSU
557.202.611	PMM805 Power Monitor Module - 5V Repeater
557.202.612	PMM840 Power Monitor Module - 40V Loop Power
557.202.301	UGP800 AES UGA PSU Spare 24V

Indication & Expansion

Part Number	Description
557.202.013	OCM800 Operator Control Module
557.202.019	ODM800 Operator Display Module
557.202.021	ANN840 40-Way Alarm/Fault LED Module
557.202.022	ANN880 80-Way Alarm LED Module
557.202.020	COM820 20-Way Status/Command Module
557.202.601	DCM816 16 zone display PCB for MZX125/MZX16R
557.202.602	DCM832 32 zone display PCB for MZX250/251/252
557.202.603	DCM832S 32 zone display PCB for MZX251S and MZX32SR (Scandinavian)
557.202.613	DCM864R Spare Display / Control PCB for MZX 253 (64 red zonal LEDs)
557.202.614	DCM8240 240 zone display PCB for MZX254 and MZXDR
557.202.615	DCM8240S 240 zone display PCB for MZX254S and MZXSDR (Scandinavian)
557.202.604	FBF-CH Fire Brigade Display Board
557.202.028	RSM800 Power Supply
557.180.053	Isolating RS485 Chip (U16)
557.180.052	Serial Printer Driver Kit
557.201.506	MZX 16 Zone Panel / Repeater Blank Insert Set
557.201.507	MZX 32 Zone Panel / Repeater Blank Insert Set

Callpoint Key and Glasses

Part Number	Description
515.001.045	MCP Test Key
515.001.119	MCP EN54 Spare Glasses (Pk of 5)
572.068	DIN820/830 Spare Glasses (Pk of 10)
570.036	DIN Style CPs Spare Glasses (80 x 80mm)

850 Engineering Management Tool

Part Number	Description
516.800.922	MZX Service Tool spare programming lead
515.001.119	MZX Service Tool Spare Pins for Programming Lead (Pk of 10)

Conventional Systems

Panels
Detectors
Callpoints
Sounders & Beacons
Spare Parts

Conventional Systems

Whilst acknowledging the benefits of addressable systems technology, there still remains a place for conventional fire alarm and detection systems. Conventional systems can be installed using both two and four wire devices, that is with sounder and beacon devices on the same circuits as detectors and call points (2 wire) or on separate circuits (4 wire). The obvious advantage of the two wire system is a saving in the cost of cable and labour. Conventional systems are suitable for the smaller and simpler systems where the functionality of addressable systems is not required, such as small shops, schools, and small industrial units and similar.

Control Panels

The MZX range of conventional panels supports "twin wire" systems up to eight zones and four wire systems from four to thirty two zones thereby providing a panel to suit a wide range of types and sizes of buildings. Both "twin wire" and four wire systems support simple class-change for use in schools, and two stage alarm outputs where phased evacuation is a requirement. Repeater panel options are available with both systems as are a comprehensive range of detectors, call points and sounders and beacons.

Detectors

The MZX range of Conventional detectors, although not as intelligent as their addressable namesakes, employs similar excellent detection and anti-false alarm features. The range includes Multisensors, optical/heat and carbon monoxide/heat, in addition to single channel optical smoke, rate of rise and fixed temperature heat, ionisation chamber and infra-red flame detectors. All detectors within this range can be fitted to a standard or sounder base or a diode continuity base. The detector range is further enhanced by a range of detector ancillaries including, false ceiling mounting adaptor, conduit mounting adaptor, waterproof mounting adaptor, protective cage and remote led indicator allowing installation into a variety of areas and conditions.

Callpoints

The MCP range of call-points includes both indoor and outdoor models. Call points can be flush or surface mounted as a selection of back boxes and bezels are available. Anti-tamper devices are also available which fit around the unit making it less likely for persons to attempt malicious activations. The call point activation window can be a non-fragmenting element which breaks cleanly with no glass fragmentation, but needs replacing after use; or a deformable element which can be reset with a key and does not need replacing. All models have an integral alarm led. In addition to that, the range includes manual DIN call points for inside and outside use.

Sounders and Beacons

A full and comprehensive range of audio and visual devices are available within the MZX range, for both two and four wire systems. On twin wire systems sounders and beacons can be installed on the detection wiring and/or on separate sounder circuits. The devices for twin wire operation are different from those used on sounder circuits but some tones are the same allowing a mixture of sounders, where higher volumes might be required in some areas, to be fitted to both the detection loop and sounder circuits. On both systems the sounder circuits will support the full range of sounders and combined sounder beacons, including voice alarm units which can be wired via a PCB and which provide for eight synchronised circuits. Upgrading existing sounder only systems by retrofitting beacons to existing Banshee type sounders can be achieved using the Easy AV strobe, saving time and the cost of installing completely new units.

Ancillaries

Conventional systems can incorporate many add-ons simply by utilising programmable inputs and outputs located within the control panel. MZX conventional systems can be supplied with any of the following;

- Paging system, designed to connect via a simple interface and to transmit fire messages to remote paging units, suitable under the DDA regulations for hearing impaired persons.
- Door Release Equipment including door magnets, brackets and power supplies
- Alarm relays including heavy duty mains operated
- Third party detection systems, such as linear heat, beam detection, and aspirating systems
- Duct Probes allowing detection within ventilation ducting

Spare Parts

The life of the fire detection system may be an issue depending upon the age of the technology when the system is purchased. Some would be weary of new technology that has not had much previous history. Others may be concerned that older technology might be phased out in a year or two and replaced by a new version. With MZX technology there is no need for concern as spare parts are constantly available and in most cases even new technology devices can be installed into older systems without any reduction in functionality. This ensures the longest possible lifespan for a fire detection system and provides an extremely low cost of ownership when compared to some systems

MZX-c Conventional Panel

The MZX-c range of conventional fire alarm control panels will satisfy a wide range of applications from 4 to 8 zones and have many features that are normally associated with more expensive addressable systems.

The MZX-c range of conventional fire detection control panels are designed to be both installer and user friendly. A high degree of flexibility and programmability allows the systems to be customised without the need for any configuration software.

The range consists of 4 and 8 zone panels together with an 8 zone repeater. The matching repeater panel has an inbuilt 240Vac power supply.

Features

- 4 and 8 zone versions available
- Supports the complete range of EN54 approved series 600 detectors including photo multi-sensor and CO multi-sensor
- Drives up to 3 repeater panels
- Access to controls via key switch
- Space for 2 x 3.4 A/H batteries providing up to 72 hour standby
- Remote control inputs for class change, alert, evacuate, silence alarms and reset
- Zone 1 configurable for latching or non latching
- Selectable zonal or general alarm sounder operation
- Alert sounder option
- Configurable zone co-incidence for automatic detectors
- Fully monitored fire signalling output
- Single pole volt-free change-over fire relay output
- Single pole volt-free change-over fail-safe fault relay output
- Short circuit fire option
- Auxiliary 24VDC 250mA power supply output
- Open collector output for buzzer active, disablement active and evacuate active
- Earth fault monitoring
- Zone/Output disablement for each zone, fire signal output and all sounders
- Buzzer disable feature
- One-man zone test and one-man sounder test
- Automatic fire detector and manual alarm call point fire event discrimination
- Alarm counter
- Compatible with diode bases for detector removal

Order Codes

508.031.005.NL	MZXC 4 Zone Panel 4 Wire NL
508.031.006.NL	MZXC 8 Zone Panel 4 Wire NL
508.031.016.NL	MZXC 8 Zone Repeater Panel NL

Technical Information

	Panels		Repeater
	4 Zone	8 Zone	8 Zone
Electrical			
Mains Supply	230Vac +10% -15%		
Power Consumption (Max)	138W		
PSU / Charger Output	1.5A		
Sounder Circuits 24Vdc Nominal	4 x 0.5A	4 x 0.5A	N/A
Aux DC Output 24Vdc Nominal	0.25A		N/A
Maximum Battery Space	2 x 3.4A/H (PS-1230)		
Environmental			
Operating Temperature	-5°C to +40°C		
Operating Humidity	95% Non-condensing		
Mechanical			
Dimensions (HWD mm)	365 x 273 x 110		
Weight (Excluding Batteries) Kg	2.2		
Enclosure Colour	Light Grey (RAL 7035)		

MZX-c+ Conventional Panel

Features

- 4, 8, 16 and 32 zone versions available
- Semi-Flush mounting using optional bezel
- Supports the complete range of EN54 Approved Series 600 Detectors
- Compatible with System 620 ATEX and IECEx approved intrinsically safe system
- Extensive custom options programmable via switches and front panel controls
- Two stage alarms and investigate delay options
- Day/Night modes and alarm counter (with optional timer module)
- Full EN54 zones with options for non-latching, short circuit alarm or indication-only circuits

The MZX-c+ range of Conventional Control Panels are designed to be both installer and user friendly. They are designed and manufactured to a high standard and are approved to EN54 parts 2 & 4. These Panels are available in 4,8,16 & 32 zone versions along with suitable Repeaters for all models.

The 8 to 32 Zone Panels are capable of driving any combination of 8 channel output expansion boards (relays, alarm circuits & open collector 0v outputs) up to a maximum of 12 boards which can be set to zonal activated or common output modes. Each Panel has extensive configuration options but remains easy to install, program and operate and are supported by detailed documentation on commissioning, operation and maintenance. The Panels are designed to work with a wide range of manufacturers detectors (in addition to Tyco detectors) and are suitable for use in many types of installation including upgrades and new installations.

Additional Benefits

- Inputs for remote Silence, Evacuate, Reset and Class change
- Configurable monitored or volt free outputs for Fire, Fault and Protection
- Outputs for zones 1 to 4 (open collector) with 8, 16 or 32 zonal outputs provided by optional expansion boards
- Outputs for Disablement active, Evacuate active and buzzer active (open collector)
- Volt free reset relay. Active for 10 seconds following a panel reset
- 8 to 32 zone systems can drive up to 12 expansion input / output modules per panel
- Drive up to 5 repeater panels

Ancillaries and Expansion

- C1631 Repeater Interface Board provides a port for driving up to 5 repeater panels. One unit is required for the panel and one for each repeater. Repeaters are supplied with a C1631 fitted.
- C1630 Output Expansion Interface Board provides a port for driving up to 12 output expansion boards.
- EXP 4 and EXP 4 PSU Expansion Housings house combinations of up to 4 output expansion boards. The EXP 4 PSU is equipped with a 5A 24VDC power supply with space for 2 x 12V 12Ah batteries.
- EXP 5 and EXP 5 PSU Expansion Housings are similar to the EXP 4 and EXP 4 PSU but accommodate five output expansion boards.

Technical Information

	Panels				Repeaters		
	4 Zone	8 Zone	16 Zone	32 Zone	8 Zone	16 Zone	32 Zone
Electrical							
Mains Supply	230Vac +10% -15%						
Power Consumption (Max)	85W	165W	165W	240W	85W	85W	85W
PSU/Charger Output	1.5A	3.0A	3.0A	5.0A	1.5A	1.5A	1.5A
Sounder Circuits 24Vdc Nominal	4 @ 500mA	4 @ 1A	4 @ 1A	4 @ 1A	N/A	N/A	N/A
Aux DC Output 24Vdc Nominal	500mA	1A	1A	1A	N/A	N/A	N/A
Max Battery Space	2 x 3Ah	2 x 7Ah	2 x 12Ah	2 x 17Ah	2 x 3Ah	2 x 3Ah	2 x 3Ah
Environmental							
Operating Temp	-5°C to +40°C						
Operating Humidity	95% Non-condensing						
Mechanical							
Dimensions (WHD mm)	325 x 370 x 126mm			400 x 441 x 131mm	325 x 370 x 126mm		400 x 441 x 131mm
Space for 8-Way Expansion	N/A	2 Boards	2 Boards	Use Exp. Housing	N/A		
Weight Exc. Batteries	6.2Kg	7.1Kg	7.1Kg	10.25Kg	6.2Kg	6.2Kg	7.6Kg
Enclosure Colour	RAL 7035 Light Grey						

Order Codes

508.032.002.EA MZXC+ 4 Zone (ENG+ARB)
508.032.002.NC MZXC+ 4 Zone (NL+CZ)
508.032.003.EA MZXC+ 8 Zone (ENG+ARB)
508.032.003.NC MZXC+ 8 Zone (NL+CZ)
508.032.004.EA MZXC+ 16 Zone (ENG+ARB)
508.032.004.NC MZXC+ 16 Zone (NL+CZ)
508.032.005.EA MZXC+ 32 Zone (ENG+ARB)
508.032.006.EA MZXC+ 8 Zone Repeater 240V (ENG+ARB)
508.032.006.NC MZXC+ 8 Zone Repeater 240V (NL+CZ)
508.032.007.EA MZXC+ 16 Zone Repeater 240V (ENG+ARB)
508.032.007.NC MZXC+ 16 Zone Repeater 240V (NL+CZ)
508.032.008.EA MZXC+ 32 Zone Repeater 240V (ENG+ARB)

508.032.012 MZXC+ 4 Way Exp. Housing
508.032.013 MZXC+ 4 Way Exp. Housing with PSU
508.032.014 MZXC+ 5 Way Exp. Housing
508.032.015 MZXC+ 5 Way Exp. Housing with PSU
557.201.502 Flush Mount Bezel for MZXC+ 4/8/16 Zone Panel and Repeater
2605060 C1630 O/P Exp. Interface Board
2605061 C1631 Repeater Interface Board
2605062 C1632 16 Zone Interface Board
2605063 C1633 LED Driver Board
2605064 C1634 Relay Output Board
2605065 C1635 Monitored Output Board
2605070 C1651 MZX-c+ Timer Board

Conventional Point Detectors

Features

- Unique early detection enhanced CO fire detector
- Intelligent Universal HPO Smoke Detector
- Low profile, discreet and unobtrusive
- Superior performance and reliability
- Designed for fast, easy installation
- Integral and remote alarm LED
- Series of Product Approvals

Through innovative design the Series 600 detectors have reduced the installation and servicing time to a minimum, needing only one visit to complete the installation and having a park position for the detector to ease the servicing.

The Series 600 detectors include the unique enhanced Carbon Monoxide CO fire detector, which provides a general purpose fire detector with unprecedented early detection capability and excellent false alarm immunity. The CO fire detectors are the first choice for sleeping risks.

Also included within the range is the intelligent high performance optical smoke (HPO) detector. The use of the patented optical sensing chamber, together with refined signal processing, has enabled the introduction of a smoke detector suitable for fast, reliable smoke detection of both slow and fast developing fires.

The HPO can be seen as a truly universal smoke detector, suitable for most applications.

Approvals:

601CH Enhanced Carbon Monoxide Heat Detectors

Datasheet - Product Code PSF123
Manual - Vol 01C-02-D3 "Detectors Fire Manual"

The CO fire detector is a unique general purpose fire detector which provides very early warning of slow smouldering fires. Ideal for sleeping risks the CO fire detector is also well suited to many applications where heat detection is insufficient but smoke detection causes false alarms.

As CO travels more freely than smoke the position of CO fire detectors is more flexible. This feature is particularly useful in large complex structures such as atria and warehouses, where position of smoke detectors is difficult.

Order Code

516.600.004	601CH CO + Heat Fire Detector
562.010	601CH CO + Heat Fire Detector

601H Heat Detectors

Datasheet - Product Code PSF123
Manual - Vol 01C-02-D5 "Detectors Fire Manual"

These detectors use two networked thermistors in a bridge configuration to provide a fast response, that depends both on absolute temperature and notes the change of temperature. The rate of rise/ fixed temperature heat detectors can be used in areas where smoke sensors are unsuitable due to environmental conditions (smoke, dust etc,). Such areas include kitchens, locker rooms, canteens, garages, loading bays etc.

Order Codes

562.008	601H-R Rate of Rise Detector
562.009	601H-F 60°C Fixed Temperature Detector
516.600.033	631H-F 90°C Fixed Temperature Detector
516.600.214	611H-F 60°C Fixed Temperature Detector
516.600.003	601H-R Rate of Rise Detector
516.600.013	601H-F 60°C Fixed Temperature Detector

601I Ionisation Smoke Detectors

Datasheet - Product Code PSF123
Manual - Vol 01C-02-D4 "Detectors Fire Manual"

These detectors react to the visible and invisible fire aerosols (products of combustion) and are therefore capable of detecting the early presence of hot smouldering and flaming fires, such as wood, paper etc.

They are particularly suitable for general applications in all areas and use a dual ionisation chamber in which the air is ionised by a single radioactive source (33k Bq Americium 241). The presence of smoke in the sampling chamber causes a change in the balance voltage, between the two chambers. This is then compared against an alarm level.

Order Codes

562.013	601I Ion Chamber Smoke Detector
516.600.005	601I Ion Chamber Smoke Detector

601P Optical Smoke Detectors

Datasheet - Product Code PSF123
Manual - Vol 01C-02-D6 "Detectors Fire Manual"

These detectors are capable of detecting the visible smoke produced by materials which smoulder or burn slowly, i.e. soft furnishings, plastic foam etc;. or 'smoke' produced by overheated but unburnt PVC. These detectors are particularly suitable for general applications and areas where cable overheating may occur e.g. electrical services areas. The novel design of the asymmetrical sampling chamber and signal processing techniques stop unwanted alarms caused by very small insects. i.e. thrips. Smoke entering the sampling chamber scatters the infra-red light pulses onto a photo-diode. These pulses are converted to an electrical signal which is compared against a preset alarm level.

Order Codes

562.006	601P Optical Smoke Detector
516.600.001	601P Optical Smoke Detector

601PH Optical Smoke + Heat Detectors

Datasheet - Product Code PSF123
Manual - Vol 01C-02-D2 "Detectors Fire Manual"

These detectors react to the whole range of fire products from slow smouldering fires, producing visible particles to open flaming fires producing large numbers of very hot smaller sized aerosols. It combines optical and heat detector technology to detect clear burning fire products which hitherto could only be easily detected by ion detectors.

For normal ambient conditions, the high performance optical detector behaves as a normal optical detector. Only when a rapid rise in temperature is detected does the sensitivity of the detector increase and the presence of smoke then confirms a fire condition. The HPO will not operate on a rate of rise of temperature alone.

Order Codes

562.007	601PH HPO Smoke Detector
516.600.002	601PH HPO Smoke Detector

601F Flame Detector

Datasheet - Product Code PSF132
Manual - Vol 01C-02-D9 "Detectors Fire Manual"

Order Code

516.600.006	601F Flame Detector

Flame detectors, unlike smoke and heat detectors, do not rely on convection to transport the fire product to the detector, nor do they rely on a ceiling to trap the products. They can therefore, be used to protect large open areas without sacrificing speed of response to flaming fires. In order to ensure full coverage, flame detectors do require direct line of sight to all parts of the protected area. Infra-red flame detectors such as the 601F are designed to respond rapidly to fires which involve clean-burning fuels such as alcohol or methane, ie fires which would not be detected by smoke detectors.

The 601F Flame detector, by virtue of it's operating wavelength and flicker discrimination, is insensitive to normal environmental influences. For outdoor use, a solar-blind detector (e.g. the S200Plus) should be used. The 601F flame detector should, normally, only be used inside buildings to supplement heat and smoke detectors.

T54B - Point Type Heat Detector

Constructed from stainless steel, the T54B is an extremely rugged heat detector that can be used to detect fires in the harshest of environments. The T54B can be used in environments with ambient temperatures up to 200°C and, being hermetically sealed is impervious to most contaminants.

Classified as a simple device, the T54B can be used in Zone 0 areas when connected to a suitable intrinsically safe barrier.

For reliable operation, it is recommended that T54B detectors have set points 20°C or 20% (whichever is higher) above the maximum temperature they will be exposed to in normal operation.

Preferred factory preset temperatures are: 60, 90, 100 and 145°C; with normally open contacts.

Features

- Sealed Stainless Steel Construction
- Suitable for use in hazardous areas

Technical Information

Operating voltage @ 0.5A:	240Va.c. to 24Vdc
Switching Current:	5 to 500mA
Contact Resistance:	<1 ohm
Actuating Temp: (factory set)	60 to 240°C
Fixed Temp. only:	Type E
Accuracy:	+ or - 5%
Ambient Temperature:	-40 to +270°C
Relative Humidity:	100% RH
Protection Category:	IP67
Thread Size:	M20 x 1.5mm

Order Codes

516.033.011	T4E60X T54B Point Type Heat Detector - 60°C
516.033.012	T4E60X T54B Point Type Heat Detector - 90°C
516.033.013	T4E60X T54B Point Type Heat Detector - 100°C
516.033.014	T4E60X T54B Point Type Heat Detector - 145°C

Other temperatures and normally closed contacts are available by request.

4B 4 Inch Detector Base

The new 4B 4" detector base is designed to snap-fit to the ceiling tile adaptor or it can be screw fixed to a ceiling in the traditional manner.

Features

- Drives a remote indicator
- Detector locking pin provided with every base
- Snap fits to the Time Saver Ceiling Tile Adaptor
- Fits directly to a British or European electrical back box
- Temporary park position
- Break-outs for surface mount

Order Code

517.050.041 4B Detector Base

4B-D 4" Diode Continuity Base

The 4B-D Continuity Base is a standard 4 inch base fitted with a continuity diode, for use with all Series 600 detectors. This base ensures that if a detector is removed, any detector or callpoint after it continues to function.

Features

- Compatible with Series 600 Low Profile Detector Range
- Designed for two wire operation
- Facility to drive a remote indicator
- A breakout locking key is provided as an integral part of each base, which can be fitted to lock the detector into position.
- A temporary park position is provided so that the field wiring can be tested with the detector in situ.
- Maybe fitted directly to a British or European conduit box or directly onto the ceiling

Order Code

517.050.045 4B-D 4" Diode Continuity Base

601SB Sounder Bases

A low current range of sounder bases for use with Conventional Fire Alarm Control Panels.

Features

- Manufactured to EN54 part 3
- Integral sounder and detector base
- Volume and tone adjustable after installation
- Low Power Synchronisation
- Do not require use of a standard base (maybe installed directly onto a standard besa box)

Order Codes

577.001.035	601SB Conventional Sounder Base
577.001.037	601SBD Conventional Diode Sounder Base
517.050.022	Volume Pot Spare Cover (1 sheet of 144)
517.050.005	4" Detector Base Locking Pin Kit (PK100)

4B-DHM Deckhead Mount

Where the detectors are mounted in humid and environmentally challenging situations such as marine or offshore installations, the 4B-DHM deck head mount provides a sealed waterproof mounting which protects the electrical connections in the base. Can be screwed, bolted / welded to the deckhead. Supplied with 1 terminal. If more are required, use the optional base accessory terminal kit.

Features

- 4 x 20mm gland entries
- Fits ALL 4" bases
- IP55 with supplied gasket

Order Codes

517.050.051	4B-DHM Deckhead Mount
517.050.612	Base accessory terminal kit (pack of 10)

Tyco MKII Sounder Cap

A plastic cap which fits onto the 601SB and 601SBD Sounder Base to enable these bases to operate as a sounder without fitting a detector.

Order Code

557.001.040.Y Mark II Sounder Cap (Tyco Branded)

MC600 Functional Relay Base

Features

- Dual pole 24Vdc relay contact (60VA)
- Status indicator LED
- Low power consumption (<20µA except start up)
- Latching operation
- Can be used instead of a standard base
- Requires diode fitting if used in place of a diode base

The 600 Series relay base provides dual relay contacts for signalling external devices on conventional detection systems. Very low operating current even when the relay is energised, enable the relay base to be used without additional power. The relay contacts operate when the detector enters the alarm condition.

Technical Information

Operating Temperature:	-25°C to +70°C
Humidity:	Up to 95% RH (non- condensing)
Vibration:	Exceeds requirements of EN54-3, Marine & UL268

Order Code

568.001.018 MC600 Relay base (BS5839)

4B-EM 4 Inch Euro Mount

Features

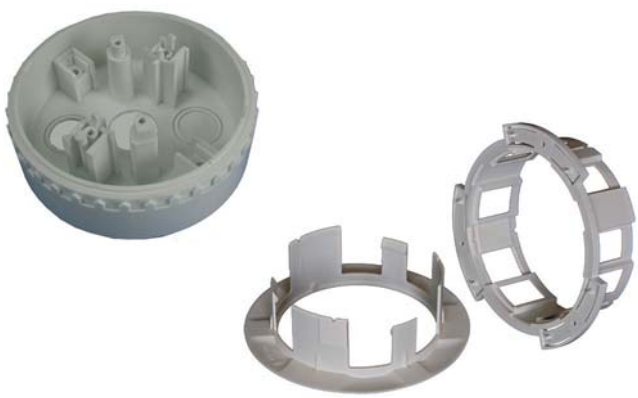
- 2 x 18mm conduit entries
- 2 x 21mm conduit entries
- Fits all 4" Bases
- Accepts up to 8 accessory terminals

Order Codes

517.050.052	4B-EM Euro Mount
517.050.612	Base Accessory terminal kit (pack of 10)

The euro-mounting base provides a matching back box, which allows the 4" bases to be ceiling mounted with conduit entries for standard 18 and 21mm conduit.

Ceiling Tile Adapter



Features

- Cuts installation time by 30%
- Commission the system before the suspended ceiling is installed
- Suitable for ceiling tiles from 1mm to 30mm thick
- Made from flame retardant material
- No additional back-box is required
- Time saver is designed for use with a new snap-fit 4" detector base
- Adaptor available for use with the 601 Sounder Base

Order Codes

517.050.056	CTA-BB CTA Back Box
517.050.057	CTA-BC CTA Bezel and Clamp
517.050.058	CTA-AP CTA Adaptor Plate
517.050.060	Ceiling Tile Adaptor Kit

The Time Saver Ceiling Tile Adaptor is used with the 4 inch snap fit base and consists of three parts, a bezel and clamp that are fitted to the ceiling tile and a back-box that carries the detector and base assembly. It is available as a complete unit or alternatively, the components can be ordered separately. Ordering the parts separately may be preferred if there is an extended period before the false ceiling is installed. Requires a 127mm diameter hole. The CTA adaptor plate allows the Time Saver Ceiling Tile Adaptor to be used with other devices such as the 601 Sounder Base.

4B-6A 4 Inch to 6 Inch Base Adaptor

Features

- Adapts 6 inch electrical boxes to fit the 4B-C 4 inch base
- Architectural trim for neat appearance
- Concealed fixings
- Used to conceal marks left by old detectors when changing to new low profile devices

The 4B-6A 4 inch to 6 inch Adaptor is designed for use with U.S. style 6" electrical back boxes and provides a flush architectural trim between the electrical box and the 4B-C 4" base. It can also be fixed directly to a ceiling and used to conceal marks left when old detectors are to be replaced.

Order Code

517.050.054 4B-6A Base Adaptor

Volume Adjustment Tool

A simple Volume Adjustment Tool, specific to the task of sounder volume selection on the "variable-volume" range of Tyco MKII Sounder Bases. Sounder volume can be easily varied between the maximum 90dBA and minimum 68dBA-volume settings, using this simple, functional tool.

Order Code

517.050.015 Volume Adjustment Tool

Remote Indication LED

Features

- UK Single gang mounting
- High intensity red LED

Order Code

540.003.006 Remote LED

All detector bases have the ability to drive a remote LED in the event that the installed position of the detector is not easily visible.

Protective Detector Cage

Robust steel protective cage for Series 600 detectors using the 5″ base. Ideal for schools and sporthalls or whenever detectors need protection. The unit features a strong coated steel construction with 4 point fitting.

Order Code

517.050.614 CW-5B Detector Cage

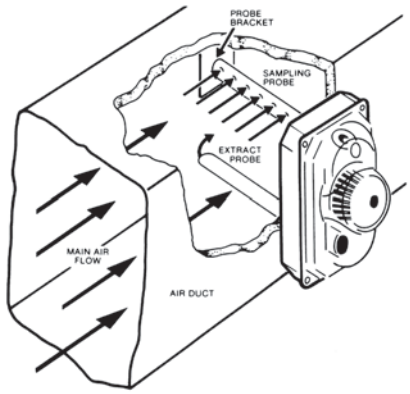
Protective Detector/Sounder Base Cage

White powder coated steel protective cage for Series 600 Detectors fitted with a sounder base. Internal dimensions: 120mm dia x 80mm deep.

Order Code

517.050.011 Steel Protective Detector Cage

Duct Probes



Warning
Duct probe units sited in the common duct work to several extract grills may fail to respond to smoke from any one extract due to the effect of dilution. The SMP units will not respond to airflow of less than 1.5m/sec.

Technical Information

Operating Temperature:	-20°C to +70°C
Storage Temperature:	-25°C to +80°C
Relative Humidity:	0 to 95%
SMP69	Stainless steel 316 housing with transparent polycarbonate cover
Dimensions (HWD):	90 x 150 x 225mm
Weight:	1.2Kg

SMP Duct Probe Units

Where smoke within duct work needs to be detected these duct probe units provide an economical solution, for use with series 600 detectors. .

The SMP Duct Probe Units are designed to be installed in air conditioning supply and exhaust ducts for the purpose of monitoring the airflow for smoke and combustion products.

The SMP69 probe units are designed to accept and operate with series 600 detectors. For general applications it is recommended that photoelectric smoke detectors rather than ionisation smoke detectors are used. The SMP stainless steel probe unit is designed to withstand the more demanding environments of the offshore oil and gas industries.

The units are designed to operate in airspeeds of 1.5 to 25 metres per second. A range of sampling tubes from 525mm to 1575mm are available.

SMP69 Stainless Steel Duct Probe Unit

Order Codes

517.025.035	SMP69 Stainless Steel Duct Probe unit and universal detector base
517.025.028	DPS450 450mm Stainless Steel Probe & Exhaust
517.025.029	DPS600 600mm Stainless Steel Probe & Exhaust
517.025.030	DPS750 750mm Stainless Steel Probe & Exhaust
517.025.031	DPS900 900mm Stainless Steel Probe & Exhaust

517.025.033	DPS1500 1500mm Stainless Steel Probe & Exhaust

DPK4 Duct Probe

The DPK4 duct probe unit has been developed to detect smoke in ventilation ducts. It offers significant benefits in terms of performance and installation. The system comprises a single duct probe tube and housing specially designed for optimum airflow through the smoke detector and suitable for use in incoming, outgoing and circulation air ducts of ventilation and conditioning systems.

The duct probes can operate across a wide range of airflow speeds and are especially recommended for installations in ducts with air flow velocities between 1 m/s and 20 m/s.

Unlike more traditional duct probe units that employ an inlet and exhaust tube with sampling holes, the DPK4 unit uses a highly efficient single sampling tube that is slotted along its length. This allows the sampling tubes to be cut to the desired length whilst maintaining maximum efficiency. The transparent cover gives clear visibility of the detector, its LED indication and airflow indicator. A red plastic flag is fixed inside the housing providing a simple but effective confirmation that there is no leakage and that the air flow from the air duct is in fact passing through the housing.

In order to reduce the time required to test the duct probe detector during routine maintenance, an aperture is provided that allows aerosol test gas to be directed at the detector without having to dismantle the unit.

Features

- Built-in MZX Detector base
- DPK4 is suitable for conventional systems
- Suitable for air velocities from 1 m/s to 20 m/s
- Can be used in combination with a wide range of optical smoke detectors
- One-pipe air sampling system simplifies installation
- Range of aluminium probe tubes are available for ducts up to 2700 mm
- Transparent lid allows detector to be seen
- Test hole on cover
- Sensitive flow indicator
- Simple service and maintenance
- Installer friendly connection of cables
- Easy installation of duct probe tubes

Accessories

Tyco Fire Protection Products offer 3 lengths of the duct probe tubes. The tube is made of aluminium and can easily be shortened to suit the span of the air duct. Where the unit is mounted on insulated or circular air ducts, the DPKM mounting bracket is required.

Order Codes

517.025.049	DPK4 Duct Probe with 5B
517.025.051	DPK600 Duct Tube 600
517.025.052	DPK1500 Duct Tube 1500
517.025.053	DPK2800 Duct Tube 2800
517.025.054	DPKM-Duct Probe Mount Bracket
517.025.055	Spare Filters for DPK4

MCP Series Callpoints

Features

- Integral LED indicator for easy identification of operation
- Surface or flush mounting
- Extensive range of conventional callpoints
- Test key facility, speeds maintenance visits
- Optional transparent hinged cover
- IP67 Waterproof models for external applications

A comprehensive range of callpoints for use with conventional systems. All the callpoints are designed to enable an alarm signal to be given by breaking a glass element. This operates a switch and is indicated by an LED indicator. If required, an optional transparent hinged cover may be installed to guard against accidental operation.

Technical Information

Indoor & Outdoor

Housing: PC/ABS
Operating Temp:
Outdoor -30°C to +70°C
Indoor -10°C to +55°C
Relative Humidity: Up to 95% RH (non-condensing)

Model	Colour	Type	IP Rating	R4/R1 Ohms
MCP200	Red	Conventional Alert	24D	120/470
MCP210	Red	Conventional Evacuate	24D	47/39
MCP230	Red	Conventional Alert	67	120/470

Conventional MCP200 Callpoints

Features

- Integral LED indicator for easy identification of operation
- Surface or flush mounting
- Test key facility, speeds maintenance visits

Order Codes

514.001.142.Y MCP200 Callpoint
514.001.115.Y MCP206 NF Callpoint

The MCP200 is a red indoor callpoint with 'alert' resistors and LED indicator. The MCP200 is LPCB approved and is supplied without a backbox.

Conventional MCP210 Callpoint

Features

- Integral LED indicator for easy identification of operation
- Surface or flush mounting
- Test key facility, speeds maintenance visits

Order Code

514.001.143.Y MCP210 Callpoint

The MCP210 is a red indoor callpoint with LED indicator and 'evacuate' resistors. The MCP210 is LPCB approved and is supplied without a backbox.

Conventional MCP230 Callpoints

Features

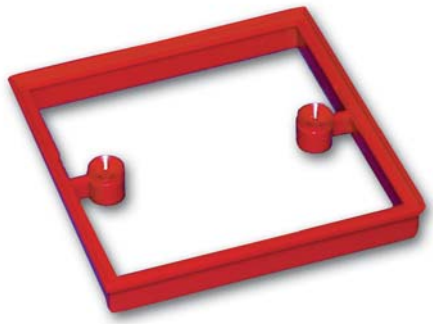
- Integral LED indicator for easy identification of operation
- Surface mounting
- Test key facility, speeds maintenance visits

Order Codes

514.001.110.Y MCP230 Tyco Branded
514.001.116.Y MCP236 NF Callpoint

The MCP230 is a IP67 red outdoor callpoint with"alert" resistors and LED indicator and is LPCB approved.

Callpoint Ancillaries



Order Codes

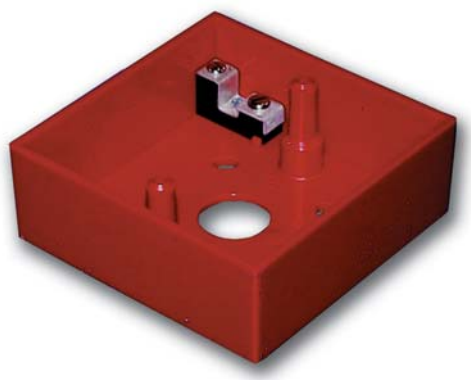
90-107 Red M141 spacer for red MCP KAC callpoints

515.001.128 Callpoint hinged cover for use with MCP & CP style callpoint models (Colour = clear)

Callpoint Back Boxes

Order Codes

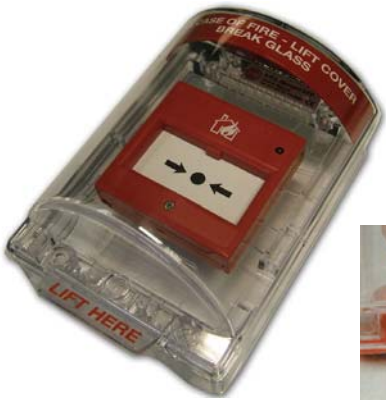
515.001.021 Standard red surface mounting back box for MCP & CP indoor callpoints



10-115 SR2-T optional back box (2 terminals) for MCP & CP indoor callpoints

Unless stated the indoor callpoints are supplied as flush mount units. The range is approved for use with the standard backbox. However, the SR2-T backbox is also available.

STOPPER



The callpoint STOPPER provides protection from malicious or accidental activation of manual callpoints. Available for flush or surface mounted callpoints the 'STOPPER' is also available with optional high pitch sounder which is activated when the lid is lifted. An optional 'Break-Seal' fitting kit allows 'Break-Seals' to be used to provide extra protection. The STOPPER is suitable for all callpoints up to 100mm square, including the MCP200 and other indoor KAC style callpoints.

WARNING:- Break seals should only to be fitted by agreement with relevant fire authorities.

Features

- Prevents accidental operation of callpoints
- Strong polycarbonate construction
- Optional break seal kit

Technical Information

Max Callpoint Size

STOPPER:	100 x 100mm
STOPPER II:	160 x 160mm

Max Callpoint Depth

STOPPER:	57.5mm (+30mm surface)
STOPPER II:	120mm

Overall Dimensions

STOPPER (HWD):	210 x 137 x 57.5mm
STOPPER II (HWD):	254 x 178 x 86mm

Order Codes

		STOPPER	STOPPER II	Weatherproof
Order Code	Ref	Surface		
515.001.030	STI6531	Yes		
515.001.036	STI6535	Yes		Yes
515.001.035	STI3150		Yes	Yes

515.001.033 IP036 Break Seal Kit (Pack of 1)

Weather STOPPER & Weather STOPPER II

Features

- Strong polycarbonate construction
- Provides environmental protection
- Ideal for offshore environments

The Weather STOPPER and Weather STOPPER II extends the life of weather exposed devices, such as break glass callpoints, by offering protection against harsh conditions and environments. Experience has shown that this protective cover can extend the life of products installed in saline atmospheres, such as oil rigs and ship decks.

While offering environmental protection the Weather STOPPER and Weather STOPPER II are constructed from tough durable polycarbonate which will also guard against tampering, vandalism or accidental operation of devices such as emergency switches.

Order Codes

515.001.036	STI6535 Surface fit Weather STOPPER
515.001.035	STI3150 Surface fit Weather STOPPER II

Keybox

This tough polycarbonate breakglass keybox is available to protect emergency keys.

Order Code

515.001.043	STI6720 Keybox with printed glass

Symphoni 24Vdc Sounders

Features

- Up to 120dB(A) Output
- Upto 32 Tones
- Low Current To Reduce Power Supply Requirements
- Compatibility with Roshini, Squashni and Askari
- Synchronised Start
- Double Entry Backbox for Simplified Installation

The 24Vdc Symphoni Sounder is a general purpose internal sounder, available either as a very high output sounder for noisy areas, or a high output low current sounder for applications where power is limited. Both versions share the same horn and backbox which has double cable entries for ease of installation.

The low power version has 3 selectable tones which may be employed for one, two or three stage alarm applications. The high output version has 32 selectable tones and retains full tone compatibility with the Roshni, Squashni and Askari product ranges.

Order Codes

576.501.200	SY/R Low Power Red Symphoni Sounder (3 tone)
576.501.201	SY/W Low Power White Symphoni Sounder (3 tone)
576.501.202	SYHO/R High Output Red Symphoni Sounder (32 tone)
576.501.203	SYHO/W High Output White Symphoni Sounder (32 Tone)

Technical Information

Model	Symphoni (High Output)	Symphoni (Low Power)
Operation	2 Hours Continuous	Continuous
Operating Voltage Range	9-28Vdc	12-30Vdc
Sound Output @ 1m	Up to 120dB(A)	100dB(A) +/- 2dB(A) @ 24Vdc
Volume Control	-	Down to 80dB approx.
Current Consumption	240mA +/- 20mA on Tone 3	5mA +/- 1mA at all volumes
Tones	1 to 32	Alternating 990Hz / 650Hz @ 2Hz Continuous 990Hz Intermittent 990, On/Off @ 1Hz
Synchronisation	Synchronised Start	Synchronised Start
Frequency Stability	+/- 0.15%	+/- 0.5%
Operating Temperature	-25°C to +55°C	-25°C to +70°C
Line Monitoring Method	Polarised Input	Polarised Input
Construction	ABS Plastic Case	ABS Plastic Case
Ingress Protection	IP21C	IP21C
Weight	0.58Kg	0.212Kg

Banshee Excel Sounders & Lite Sounder Beacons

Features

- Modern aesthetic design
- 32 Selectable tones
- 3 Volume settings
- Push and twist mount
- Shallow and deep bases
- Available in red or white
- Low current consumption
- 2 Stage alarm available
- Independently switched sounder or beacon
- Xenon beacon with the Excel Lite

Banshee Excel Sounders

The Banshee Excel sounder replaces the Banshee Multi Tone range of Sounders. It uses the same technically superior rocking arm transducer to reproduce the familiar 32 tones of the previous Banshee and Bedlam ranges.

Banshee Excel Lite Sounder Beacon

The new Banshee Excel adds the Banshee Excel Lite Sounder Beacon to its range using a high output xenon with the familiar sounder. The Banshee Excel Lite can be used as a multi stage device by switching the beacon and the sounder independently using a third wire.

Technical Information

Approvals:	VdS approved to EN54-3
Tones available:	32
Operating voltage:	9-30Vdc
Flash current consumption:	40mA
Operating temperature range (Deg C):	-40 to +70
Volume control via DIL switch:	Maximum, Medium (-10dBA), Low (-20dBA)
Flash rate per second:	1
Ingress Protection:	IP45 or IP66
Termination:	Screw terminals for 028mm^2 to 2.5mm^2 wire conductor.

Order Codes

576.501.060	Banshee Excel Sounder Red IP45
576.501.061	Banshee Excel Sounder White IP45
576.501.062	Banshee Excel Sounder Red IP66
576.501.063	Banshee Excel Lite Red Sounder IP45

Yodalarms

This versatile range of sounders are ideally suited for fire, safety and security hazard warning.

Technical Information

Dimensions:

YO3:	89H x 89W x 85D mm
YO5:	134H x 134W x 128D mm
YO8:	216H x 216W x 153D mm

Order Codes

576.501.001	YO3 Yodalarm 3" 24Vdc 100dB @ 1Mtr
576.501.002	YO5 Yodalarm 5" 24Vdc 106dB @ 1Mtr
576.501.003	YO8 Yodalarm 8" 24Vdc 112dB @ 1Mtr

Roshni

A flexible alarm sounder for Fire and Security applications complete with volume control and dil switch to provide 32 tones.

Low profile Roshni with Deep base offers IP65 protection. All Roshni sounders have synchronised start for self synchronisation without third wire.

Technical Information

Dimensions:	93 Dia x 105D mm (Deep base)
Colour:	Red or white
Output Voltage:	9-28Vdc
Typical Current:	16mA @ 24Vdc
Typ. Sound Output:	102dB @ 1m

Order Codes

ROSHRDSR	ROSHNI Sounder c/w deep base - red
576.501.220	ROSHNI Sounder c/w shallow base - red
576.501.221	ROSHNI Sounder c/w shallow base - white

Multi-Tone Askari Compact

Technical Information

Dimensions (HWD):	87.5 x 87.5 x 36mm
Colour:	Red or white
Approvals:	BS 5839 pt 1
Input Voltage:	9-28Vdc
Typ. Current:	18mA @ 24Vdc
Typ. Sound Output:	97dB (A) @1m

The Multi-Tone Askari Compact is a compact bedroom sounder for unobtrusive installation. It comes with a volume control and is fully compatible with Roshni tones and has a synchronised start. A surface mount backbox is available from the supplier to special order.

Order Codes

576.501.242	Multi Tone Askari Compact Sounder - white
576.501.243	Multi Tone Askari Compact Sounder - red

Solista LED Beacon

Order Code

576.501.230	Solista LED Beacon (Red)

Ultra low power requirement 3mA or 6mA at 24Vdc. Long life low profile design. Protected to IP54, supplied complete with base.

Xenon Beacons (24V) Inc. Surface Mount Adaptor

This high quality range of Xenon beacons are tested to IP 65 making them ideal for the most stringent applications.

Each beacon incorporates a low profile Fresnel lens designed to give maximum light output.

Features

- Available in 2 and 5 watts
- Protected to IP65
- Attractive low profile design
- Optional bracket for mounting both Beacon and Banshee Sounder

Order Codes

20-112	Low profile red 24Vdc 2 watt
20-113	Low profile red 24Vdc 5 watt

Technical Information

Voltage Vdc	Power Output (Watts)	Alarm Current (mA)	Flash Rate	Rating	Temp. Range	Dimensions (mm)	
						Height	Diameter
24	2	84	60/min	IP65	-30 to +70°C	51	75
24	5	210	60/min	IP65	-30 to +70°C	75	90

Flashni - Sounder/Strobe

A combined sounder and beacon which combines the features of the Roshni electronic sounder with a fully integrated Xenon beacon.

These sounders are fully compatible with all Roshni tones.

Features

- Combined strobe & sounder
- Matches Roshni sounders
- Weather Resistant to IP65

Technical Information

Dimensions:	93 Dia x 92D mm (Shallow base) 93 Dia x 121D mm (Deep base)
Input Voltage:	18-30Vdc
Typical Current:	68mA@24Vdc
Typ. Sound Output:	101dB (A)@1m

Order Codes

20-118	Combined Roshni sounder/strobe complete with deep base (IP65)
576.501.224	Combined Roshni Sounder/ Strobe, Red Body/Red Lens complete with shallow base & tone switch
576.501.227	Combined Roshni Sounder/ Strobe, Red Body/Red Lens, deep base, tone switch & separate sounder/strobe operation

Spare Parts

Part Number	Description
2605503	4 Zone 4 Wire MZX-c Motherboard
2605504	8 Zone 4 Wire MZX-c Motherboard
2605505	MZX-c Motherboard 8 Zone Repeater
BAQ35T-24	MZX-c Power Supply
2501061	MZX-c Spare Enable Key
2605538	MZX-c Zone EOL Unit - Pk 5
557.201.508	MZX-c+ Spare Key Set
2605071	MZX-c+ 5 Amp PSU - C1652
2000636	MZX-c+ 1.5 Amp Transformer
2000637	MZX-c+ 3 Amp Transformer
2000638	MZX-c+ 5 Amp Transformer
515.001.033	STOPPER Break Seal Kit (Pk of 1)
515.001.045	MCP/CP Callpoint Test Key (Pk of 1)
515.001.119	MCP/CP Callpoint EN54 Pt11 Spare Glass (Pk 5)
515.001.127	MCP Deformable Element (Pk 1)
508.200.200	ZB8 8-ZONE PANEL + UGA + 2F
508.200.201	ZB8 8-ZONE PANEL
508.200.202	RP2 - Fire and Fault Repeater
552.022	DRUCKKN.-MELDER INNEN BLAU HAU

Suppression

MZX-e Extinguishing Controller & Ancillaries

FAST2000 Fire Alarm and Extinguishing Control Panels

Suppression Systems

Fire Detection systems which are primarily aimed at discharging fire suppression system are covered by a different standard. The MZX range of gaseous extinguishing controllers includes both conventional and addressable technologies. Addressable systems use MZX addressable devices, detectors, ancillaries and sounder/beacons, albeit the controller, FAST2000 is a suppression systems panel. FAST2000 incorporates a range of fire detection and suppression control panels for small and medium installations in industrial and commercial applications. The system includes a fully functional repeater panel and a range of extinguishing system accessories.

Conventional systems also use the MZX conventional detection range with the MZX-e Extinguishment control panel and its range of ancillaries, including Status displays, functional remote controls and manual releases. Simple to install yet powerful and highly configurable both systems offer the best in detection and control for interfacing to any Tyco Fire Suppression system, be it water based, inert or chemical , gaseous or Foam.

MZX-e Extinguishing Control Panel

Features

- Approval to EN 12094-1:2003 additional options
- Approval to EN 54-2 and 4
- Comprehensive facilities for gaseous extinguishing systems
- Monitored inputs for gas discharged, gas low, isolation valve closed/abnormal, gas trapped in manifold
- Control inputs for auto/manual, gas hold, gas abort
- 1 minute actuator cut off option
- Monitored actuator/solenoid release
- Extensive disablement options
- Common fire, fault, relay / monitored output facilities
- 1st, 2nd, 3rd stage and gas discharged relay / monitored output facilities
- Reset relay facilities

The MZX-e gaseous extinguishant control panel is powerful yet user-friendly and is designed and manufactured to a high standard. The panel features approval to EN 12094- 1:2003, and EN 54-2. The panel has extensive configuration options but is easy to install, programme and operate. The removable chassis enables the engineer to “first fix” an empty cabinet and then fit the chassis at the commissioning stage.

This is supported by comprehensive documentation on commissioning, operating, maintenance and fault finding. In addition there is a comprehensive range of compatible accessories available to meet most customer requirements.

Operation

Three fully-monitored detection zones are provided. Zones 1 and 2 normally provide first stage and second stage fire conditions to allow extinguishant discharge (coincidence detection zones). Zone 3 is an auxiliary zone for detection only purposes. Zone 4 is used as a manual release zone.

Additional Benefits

- Intrinsically safe barrier settings
- Metron or solenoid compatible
- Single or double knock operation
- Pre-discharge delay adjustable from 0 to 60 seconds
- Discharged indication with or without pressure switch
- Inhibit silence alarms until gas discharged
- Latching or non latching fault indication option
- Option for rapid buzzer pulse when gas discharge is imminent
- One man zone and sounder test
- Easily removable chassis

Facilities

Three fully-monitored alarm circuits are provided, each rated at 0.5A with various configuration options via the engineers DIL switch settings. Two circuits are designed to provide audible warning of any fire condition and one circuit to provide an individually distinct audible warning of the pre-discharge, discharged and emergency hold condition.

Two fully-monitored actuator/solenoid circuits, each rated at 1A, operate simultaneously upon "extinguishant release".

An RS485 multi-drop circuit link supports up to 7 Status Controller/Indicators of any type mixed on the communication path. Additional terminals and configuration options allows the engineer to configure the manual release, abort and hold switches to either data comms or hard wired inputs as required.

Normally-open inputs provide for remote evacuate, silence alarms, system reset, lock-off input, low pressure and gas discharged pressure switch input.

Outputs are provided for first stage signalling, second stage signalling, system discharged, common fire and common fault . These outputs may be configured as either Volt-Free C/O contacts or monitored 24V (50mA) outputs. A system reset Volt-Free relay is also provided.

Configuration

The use of DIL switches on the internal motherboard enables the engineer to easily configure the extensive options available and view the panel's configuration upon any return visit.

Order Codes

Control Panels

508.033.050.BL	MZXE Extinguishing Panel (FR+FLEM)
508.033.050.CZ	MZXE Extinguishing Panel (CZ)
508.033.050.DS	MZXE Extinguishing Panel (DK+S)
508.033.050.EA	MZXE Extinguishing Panel (ENG+ARB)
508.033.050.NL	MZXE Extinguishing Panel (NL)

Status Lamp Units

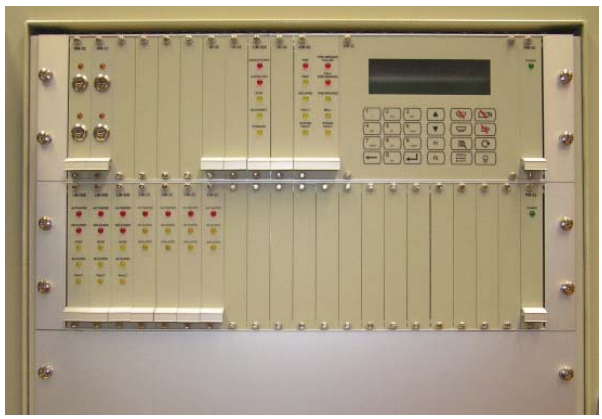
508.033.002.BL	MZXE SLU1 Indication (FR+FL)
508.033.002.DS	MZXE SLU1 Indication (DK+S)
508.033.002.EA	MZXE SLU1 Indication (ENG+ARB)
508.033.002.NC	MZXE SLU1 Indication (NL+CZ)
508.033.003.BL	MZXE SLU2 Basic Unit (FR+FL)
508.033.003.DS	MZXE SLU2 Basic Unit (DK+S)
508.033.003.EA	MZXE SLU2 Basic Unit (ENG+ARB)
508.033.003.NC	MZXE SLU2 Basic Unit (NL+CZ)
508.033.004.BL	MZXE SLU3 Full Function (FR+FL)
508.033.004.DS	MZXE SLU3 Full Function (DK+S)
508.033.004.EA	MZXE SLU3 Full Function (ENG+ARB)
508.033.004.NC	MZXE SLU3 Full Function (NL+CZ)
508.033.005.BL	MZXE SLU4 Weatherproof (FR+FL)
508.033.005.DS	MZXE SLU4 Weatherproof (DK+S)
508.033.005.EA	MZXE SLU4 Weatherproof (ENG+ARB)
508.033.005.NC	MZXE SLU4 Weatherproof (NL+CZ)

Ancillaries

509.030.117	T561 Extinguishing Release Manual Callpoint
557.201.508	MZX-e Spare Key Set

FAST2000® Fire Alarm & Extinguishing Range

FAST2000®/2 19" Fire Alarm & Extinguishing Panel



The FAST2000®-2 is a range of fire detection and extinguishing control panels for small, medium and large installations in industrial and commercial applications.

The FAST2000® is based on the latest Tyco PBS Technology and conforms to the EN54-2/4 standard for Fire Alarm Panels, EN12094-1 standard for extinguishing control systems and the VdS Guidelines.

Various modules with different tasks are available to adapt the panel to the requirements of the project. 19" front modules installed in one or more 19" frames are connected to termination boards on the mounting plate.

One separate microprocessor for each extinguishing area controls the complex procedures between the intelligent analogue fire detectors and the control outputs that trigger alarms and extinguishing actions. Another microprocessor handles the control of the display and the internal communication.

Because the FAST 2000® can be programmed freely, it is also able to meet the most complex requirements.

The integrated networking capability allows networking with other panels of the FAST2000 or PBS range on RS422/485, 30mA or fibre optic cable.

Features

- 19" rack mounted panel
- Separate loop module for each extinguishing area
- Up to 198 addressable devices per loop, 128 acc. VdS
- Fully complies with EN54-2 and 4 as fire alarm panel
- Fully complies with EN12094-1 as extinguishing control device
- Optional remote full function repeaters
- 3 languages available at the same time, can be selected in the menu
- Up to 500 loops
- Up to 250 extinguishing areas

Three versions of the FAST2000® are available:

FAST2010®-2:
- Wall mounted cabinet for small applications up to 2 extinguishing areas (4 loops)

FAST2020®-2:
- Wall mounted cabinet for medium applications up to 4 extinguishing areas (8 loops)

FAST2030®-2:
- Free standing cabinet for large applications up to 250 extinguishing areas (500 loops)

Technical Information

Power Supply Unit

Input	105 – 250 VAC 47 – 63 Hz
Output	27.2 V DC, 5.5 A max. temperature compensated (EN54-4)
Battery	2 x 12V, 65Ah max.

Power consumption

Alarm current	< 400 mA
Battery only	> 300 mA

Detection Loops

System Sensor Protocol	2

Series 200 and 500 Detectors, Call Points and Input/Output Devices

Relay outputs	4A / 230 VAC

Alarm Outputs

Quantity	2
Continuous current	2A

Valve Outputs

Quantity	2
Peak current	1.8A
Load resistance	> 15 Ohm < 600 Ohm

Size (HWD)

FAST2010:	478 x 600 x 400mm
FAST2020:	746 x 600 x 400mm
FAST2030:	2000 x 800 x 500mm

Protection Class:	IP55

Order Codes

K09900120	CM-32/2 Control-Module
K09900121	DE-32/2 Display-Module
K09900130	LM-32E/2 Loop Module Extinguishing
K09900132	LM-32D/2 Loop Module Detection
K09900134	EM-32/2 Extinguishing Control Module

Options

K09900220	CM-32 CTCB2-DIN Network Motherboard for DIN Rail
K09900113	CM-32 CTCM1 Network Termination board 30mA
K09900114	CM-32 CTCM232 Network Termination board RS232
K09900115	CM-32 CTCM422 Network Termination board RS422/485
K09900117	CM-32 CTCMOPT1 Network Termination board Fibre Optic
K02459002	SRP-32-ZI Repeater Panel with zone indication
K02459004	SRP-32-SC Repeater Panel with Scandinavian front

FAST2000® Compact/2

The FAST2000® Compact/2 is a range of fire detection and extinguishing control panels for small and medium installations in industrial and commercial applications.

The FAST2000® Compact/2 is a 2-loop panel based on the latest Tyco PBS Technology and conforms to the DIN/EN54-2/4 standard for fire alarm panels and the EN12094-1 standard for extinguishing control systems and the VdS Guidelines.

One microprocessor controls the complex procedures between the intelligent analogue fire detectors and the control outputs that trigger alarms and extinguishing actions. Another microprocessor handles the control of the display and the internal communication.

Because the FAST2000® Compact/2 can be programmed freely, it is also able to meet the most complex requirements.

The integrated networking capability allows networking with other panels of the FAST2000 or PBS range on RS422/485, 30mA or fibre optic cable.

Features

- 2-Loop panel, can be expanded to 8 loops, up to 198 addressable devices per loop
- Fully complies with EN54-2 and 4 as a fire alarm panel and EN12094-1 as an extinguishing control device
- Optional remote full function repeaters
- Zone indication for 12 detection zones
- Language neutral, no text only pictograms used on the front
- 3 languages available at the same time and can be selected in the menu
- Compatible with PBS-2/16 systems providing an upgrade path for existing installations

Three versions of the FAST2000® Compact/2 are available:

FAST2000® Compact-E/2-ZI:
- 1-section extinguishing control panel with zone indication on the front (2 loops each with 198 addresses)
- 6 monitored digital inputs, extinguishing activation with 2 monitored alarm sounder outputs and 2 monitored activation outputs

FAST2000® Compact-E/2-SC:
- 1-section extinguishing control panel with Scandinavian fire mans interface on the front (2 loops each with 198 addresses)
- 6 monitored digital inputs, extinguishing activation with 2 monitored alarm sounder outputs and 2 monitored activation outputs

FAST2000® Compact-D/2-ZI:
- Fire detection panel (2 loops with 128 addresses each, 2 monitored digital inputs)
- 4 monitored alarm sounder outputs

All versions can be extended to 8 loops.

Technical Information

Power Supply Unit

Input	105 – 250 VAC 47 – 63 Hz
Output	27.2 V DC, 2.5 A max. temperature compensated (EN54-4)
Battery	2 x 12V, 24Ah max.

Power consumption

Alarm current	< 400 mA
Battery only	> 200 mA

Detection Loops

System Sensor Protocol	2

Series 200 and 500 Detectors, Call Points and Input/Output Devices

Relay outputs	4A / 230 VAC

Alarm Outputs

Quantity	2
Continuous current	2A

Valve Outputs

Quantity	2
Peak current	1.8A
Load resistance	> 15 Ohm < 600 Ohm

Size (HWD)	470 x 370 x 240mm
Protection Class	IP54
Approvals	VdS G207105 CPD 0786-CPD-20408

Order Codes

K02459000	FAST2000 Compact/2-ZI with Zone Indication
K02459001	FAST2000 Compact/2-SC with Scandinavian Fire Mans Interface
K02459002	SRP-32 Repeater Panel
K02459003	FAST2000 Compact-D/2-ZI with Zone Indication
K02459004	SRP-32-SC Repeater Panel Scandinavia
K02459456	Battery 12V/24Ah

Options:

K09900220	CM-32 CTCB2-DIN Network Motherboard for DIN Rail
K09900113	CM-32 CTCM1 Network Termination board 30mA
K09900114	CM-32 CTCM232 Network Termination board RS232
K09900115	CM-32 CTCM422 Network Termination board RS422/485
K09900117	CM-32 CTCMOPT1 Network Termination board Fibre Optic
K09900166	LM-32C Loop Module
K09900124	IO-32C Output Card with 8 Open-Collector-Outputs
K09900212	Single relay 1 c/o contact
K09900214	Single relay 2 c/o contacts
K09900184	CM-32F Fire brigade connection

Spare Parts:

K09900120	CM-32C-2 Control Module
K09900121	DE-32-ZI Display Unit with Zone Indication
K09900122	DE-32-SC Display Unit Scandinavian
K09900123	GP-32-2 Compact Motherboard Vers.2
K09900166	LM-32C Loop Module
K09900234	Power Supply Unit

Repeater Panel SRP-32

The SRP-32 is a repeater panel for the FAST2000® range of fire detection and extinguishing control panels and for PBS-16/2 panels. The SRP-32 is based on the latest Tyco PBS Technology and conforms to the VdS Guidelines, DIN/EN54-2/4 and the EN12094-1 standard for extinguishing control systems.

One microprocessor handles the control of the display and the internal communication and controls the complex procedures between the repeater panel and the other panels in the installation.

5 auxiliary relays are providing common signal outputs as required by the standards. Monitoring circuits for power supply unit and battery are integrated part of the termination board. Because the SRP-32 can be programmed freely, it is also able to meet the most complex requirements.

The integrated networking capability allows networking with other panels of the FAST2000 or PBS range on RS422/485, 30mA or fibre optic cable.

Two versions of the SRP-32 repeater panel are available:

SRP-32/ZI:
- Repeater panel with zone indication on the front

SRP-32/SC:
- Repeater panel with Scandinavian fire mans interface on the front

Features

- Large LCD with 8 lines and 40 characters each
- Language neutral, only images used on the front
- Fully complies with EN54-2 and 4
- Indications for extinguishing systems
- Integrated networking capability, connection with RS422/485, 30mA or fibre optic cable
- Zone indication for 12 detection zones
- 3 languages available for selection from the menu

Technical Information

Power Supply Unit	24V DC acc. EN54-4
Battery	24V DC
Alarm current	< 200 mA
Battery only	< 150 mA
Relay Outputs	4A / 230 V AC
Size (HWD)	250 x 250 x 75mm

Order Codes

K02459002	SRP-32-ZI Repeater Panel with zone indication
K02459004	SRP-32-SC Repeater Panel with Scandinavian front

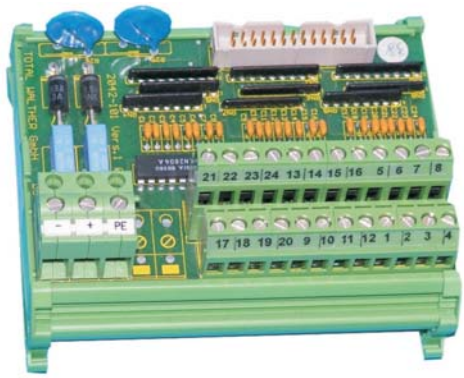
Options

K09900113	CM-32 CTCM1 Network Termination board 30mA
K09900114	CM-32 CTCM232 Network Termination board RS232
K09900115	CM-32 CTCM422 Network Termination board RS422/485
K09900117	CM-32 CTCMOPT1 Network Termination board Fibre Optic

Spare Parts

K09900118	CM-32CTMB1 Mother Board for SRP-32
K09900119	CM-32CTCB1 Network Mother Board for SRP-32
K09900120	CM-32C/2 Control Module
K09900121	DE-32/ZI Display Unit with Zone Indication
K09900122	DE-32/SC Display Unit Scandinavian

IO-32TOC Open Collector Output Card for FAST2000



Technical Information

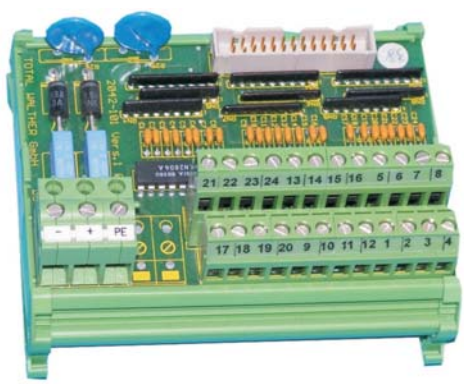
Outputs		
CM-Module IO	Card 1	R17 to R40
	Card 2	R41 to R64
LM-Module	Card 1	R9 to R32
	Card 2	R33 to R56
Operating Voltage		24V DC
Max. current per output		100mA

The IO-32TOC is an Open-Collector output card for the FAST2000® 19"-rack panel. The IO-32TOC is controlled by the IO-32 front module and provides 24 open collector outputs for control of relays or LED's. The IO-32TOC is connected to the back plane of the 19" rack via 26-core ribbon cable to the 26-core ribbon cable connector next to the IO-32 front module.

Order Codes

K09900183	IO-32 Output Card for FAST2000
K09900212	Relay with 1 no/nc contact
K09900214	Relay with 2 no/nc contacts

IO-32TOC Output Card for FAST2000 Compact/2



Technical Information

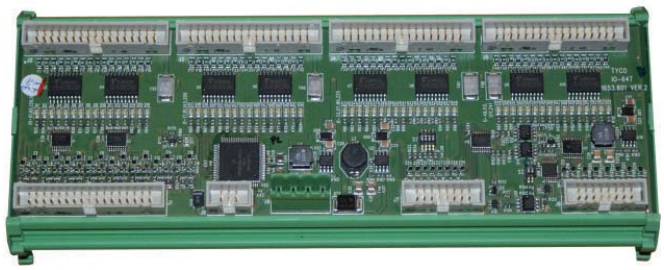
Outputs		
CM-Module IO	Card 1	R17 to R24
	Card 2	R41 to R48
LM-Module	Card 1	R9 to R16
	Card 2	R33 to R40
Operating Voltage		24V DC
Max. current per output		100mA

The IO-32C is an output card for the FAST2000® Compact/2 which provides 8 open collector outputs for control of relays. The IO-32C is controlled by the CM- or a LM-module. The card receives serial information on the SPI bus which is converted to parallel signals.

Order Codes

K09900124	IO-32 Output Card for FAST2000 Compact/2
K09900212	Relay with 1 no/nc contact
K09900214	Relay with 2 no/nc contacts

IO-64T Interface Card for Mimic Panels



The IO-64T is an input/output card specially designed for Mimic panels. The IO-64T is used together with the mimic controller MC-32 or the repeater panel SRP-32. The card provides 64 open collector inputs with common +24V and 16 supervised inputs. Each output is protected by a 100mA electronic auto resettable fuse. To limit the total current consumption the +24V of each group of 16 outputs are in addition protected by a 500mA electronic auto resettable fuse.

Each output has a green LED for indicating that the output is ON.

Upto 16 IO-64T's can be connected together for a total of 1024 driver outputs and 256 supervised inputs.

Technical Information

Operating Voltage @24V	typ: 27.1V DC, min 9V, max 30V
Current consumption @24V	
All outputs OFF, input 12V OFF	6 mA
All outputs OFF, input 12V ON	10 mA
All outputs ON no ext. load, input 12V ON	30mA
Add for each supervised input	3.2mA
Add for each activated input	10.6mA
Output load: Individual output	max 100mA
Each group of 16 outputs	max 500mA
PCB dimensions	72 x 220 mm
Housing dimensions	90 x 222 mm

Order Codes

K02459006	Interface Card for Mimic Panels IO-64T

Options

K02459005	MC-32 Mimic Controller
K02459002	SRP-32-ZI Repeater Panel with zone indication
K02459004	SRP-32-SC Repeater Panel with Scandinavian front
K09900113	CM-32 CTCM1 Network Termination board 30mA
K09900114	CM-32 CTCM232 Network Termination board RS232
K09900115	CM-32 CTCM422 Network Termination board RS422/485
K09900117	CM-32 CTCMOPT1 Network Termination board Fibre Optic

CM-32 CTCB2 Communication Termination Board

The CM-32 CTCB2 is the communication base card for the FAST2000® Compact/2 and the 19"-rack version of the FAST2000®. The card provides two communication channels which can be independently equipped with any of four interface modules RS422/RS485, RS232, Fibre optic or 30mA.

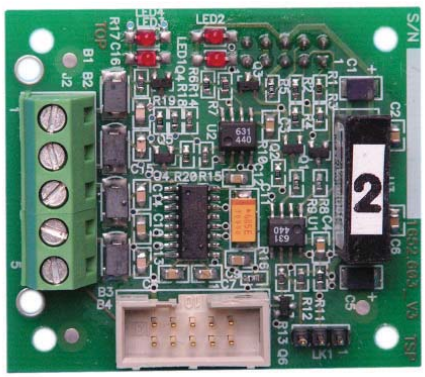
Technical Information

Input supply voltage	min 19V, typ. 27.2V, max 30V
Normal current cons.	typ. 4.2mA, max 5.3mA
Add for each RS422/ RS485 module	typ. 21 mA, max 26.3 mA
Add for each RS232 module	typ. 15 mA, max 18.8 mA
Add for each 30mA module	typ. 17.5 mA, max 21.9 mA
Add for each enabled 30mA driver	typ. 20.5 mA, max 25.6 mA
Add for each Fibre optic module	typ. 9 mA max 11.3 mA
PCB dimensions	typ. 72x100 mm
Module dimensions	typ. 90x103 mm

Order Codes

K09900220	CM-32 CTCB2 Communication Termination Board
K09900113	CM-32 CTCM1 Network Termination board 30mA
K09900114	CM-32 CTCM232 Network Termination board RS232
K09900115	CM-32 CTCM422 Network Termination board RS422/485
K09900117	CM-32 CTCMOPT1 Network Termination board Fibre Optic
K09900508	10-way Ribbon cable connector
K09900504	10-way Ribbon cable

CM-32 CTCM232 RS232 Driver Board



The CM-32 CTCM232 is a plug in driver board for the FAST2000 CM-32 CTCB1 or CM-32 CTCB2 communication termination board. The CM-board converts the logic levels of the CM-32's serial channels to RS232. The module can be configured to transfer a fire condition as a break on the RS232 line. Four LED's in series with the isolating optocouplers indicate if there is activity on the RX, TX, RTS or CTS lines of the interface.

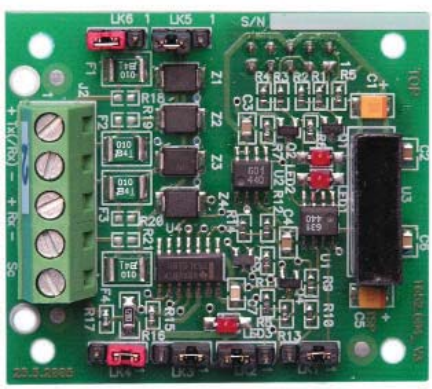
Technical Information

Input supply voltage @ 5 V	typ. 5.0 V
Normal current consumption	typ. 15.0 mA max. 18.8 mA
PCB dimensions	typ. 49 mm x 56mm

Order Codes

K09900114	CM-32 CTCM232 RS232 Network Termination Board
K09900220	CM-32 CTCB2 Communication Termination Board
K09900504	10-way Ribbon cable
K09900508	10-way Ribbon cable connector
K09900515	9 pin DSUB ribbon cable connector male
K09900516	9 pin DSUB ribbon cable connector female

CM-32 CTCM422 RS422/RS485 Driver Board



The CM-32 CTCM422 is a plug in driver board for the FAST2000 CM-32 CTCB1 or CM-32 CTCB2 communication termination board. The CM-32 CTCM422 converts the logic levels of the CM-32's serial channels to RS422/RS485. The module can be set up in a number of different RS422/RS485 modes. It can also be set up to transfer a fire condition as a break on the RS422/RS485 line. Three LED's in series with the isolating optocouplers indicate if there is any activity on the Rx, Tx or RTS lines of the interface

Technical Information

Input supply voltage	typ. 5.0 V
Normal current consumption	typ. 21.0 mA max. 26.3 mA
Termination Resistor	120 Ohm
Cable type	Shielded twisted pair cable e.g. standard Cat5 FTP network cable
Cable length	max 1219m (4000ft)
PCB dimensions:	typ.49 mm x 56 mm

Order Codes

K09900115	CM-32 CTCM422 Network Termination board RS422
K09900220	CM-32 CTCB2 Communication Termination Board

Other Useful Order Codes

Part Number	Description
K02455027	Conventional Manual Call Point HFM/3/11/17
K02455047	Conventional Manual Release Push Button HM/1/11/17/17
K02455092	Glass pane 80x80 mm
K02455408	Powered Deep Base
K02455448	Red Flashing Light Solex 10Cd
K02457447	Optical Smoke Detector 2351E
K02457467	Heat Detector 4351E
K02457477	Heat Detector 5351E
K02457506	Detector Base B401R
K02457546	Addressable Optical Smoke Detector 22051E-IV
K02457606	Surface Adapter SMK400EAP-IV
K02459416	Detector Support for False Floor WI 75-9
K02461536	Heat Detector MM40EX/72
K02461546	Heat Detector MM40EX/80
K02461556	Heat Detector MM40EX/100
K02469056	Addressable Module M503ME
K02469079	Base with Isolator B524IEFT
K02469096	Red Weather Protection for Manual Call Point HFM
K02469106	Yellow Weather Protection for Manual Release HM
K02469130	Red Addressable Manual Call Point HFM/3/22/17
K02469140	Addressable Manual Release PB HM/1/22/17/17

Part Number	Description
K02469150	IP54 Accessories for HFM/HM
K02469166	Addressable Limit Switch 500 EDS500-3/GR
K02469168	Addressable Limit Switch 500 EDS500-3/GA
K02469170	Blue Stop Push Button
K02469180	Yellow Weatherproof Manual Release PB including Address Module

Special Detection

Beam Detection

Air Sampling

Linear Heat Detection

Special Detection

Beam Detection

Specialist detection systems are sometimes the preferred option over point detection due to factors affecting installation, maintenance or the environment to which detectors will be exposed. MZX loops support a range of specialist detectors supplying both power and communications and providing true and seamless integration. Optical Beam detectors connect through beam detector modules and provide options for end to end beams, reflected beams where transmitters and receivers are combined and auto aligning beams where building movement is overcome by on-board alignment correction devices. Open Area Smoke Imaging Detection utilises IR and UV light to provide superior detection in spaces such as Atria, shopping malls and other large open spaces. Multiple detection paths provide a 3D image, similar to a CCTV camera ensuring optimum and reliable early warning of fire.

Air Sampling

Aspiration systems, like Beam detectors, connect directly to the MZX system loop through interfaces integral to the detectors. From the smaller compact systems through the mid to the high end models, integration is complete simply by connecting the two core loop to the device, saving time and cost over systems where external interfaces have to be installed. Communication with the MZX system provides both inputs and output allowing fire and fault signals to be sent to the MZX controller, and for the system to be reset remotely. Aspiration systems are widely used and preferred in challenging situations such as areas of high airflow or where condensation is present or where very early detection is required as in communications and computer rooms. The aspiration system is also ideal for providing detection in equipment cabinets.

Linear Heat Detection

Heat detection may appear limited in its application due to the time it takes to respond to most fires. The Linear versions however are extremely versatile and useful in certain special applications. MZX supports two distinct linear heat detection (LHD) systems which between them cover a diverse range of applications. Analogue LHD senses temperature variation as the resistance of the heated cable changes. The cable will recover and is re-useable providing the temperature does not exceed 120°C for excessive periods. Its uses are typically in confined or difficult areas such as storage racks, escalator housings, cable trays, conveyors and in covered car parks. MZX also supports a fibre optic LHD. The sensor will detect temperature change over several thousands of metres and is accurate in pinpointing the incident to within one metre. Laser pulses sent down the fibre are returned from the section affected by temperature change and analysed in the controller. Multiple zones can be created in a single cable with different detection criteria set for each zone. The controller is available in various formats dependent upon the topology and will interface directly with the MZX fire alarm control panel or alternatively over Modbus/TCP/IP to a SCADA system. Typical applications are tunnels and metros, conveyor systems, parking areas, refineries and power plants

FIRERAY 5000 Optical Beam Smoke Detector

Features

- Motorised Auto-Aligning
- Up to 4 Detectors per System Controller
- Each Detector configurable from 8m to 100m
- Integral LASER
- Auto-Align Fast Automatic Beam Alignment
- Auto-Optimise Building Movement and Contamination Compensation
- Low Level System Controller
- 20mm Cable Gland Knockouts on System Controller
- 2-wire interface from System Controller to Detector
- Worldwide Approvals including EN54:12 and UL268
- Up to 4 Detectors per System Controller

The FIRERAY® 5000 motorised, auto aligning infrared optical beam smoke detector can now be installed with up to four detector heads per system, thus saving on installation time and costs. This innovative system has been designed from the ground up to include pioneering technology that fully addresses the needs of the installer and user, both now and in the future.

With its industry leading optics, the FIRERAY 5000 is ideally suited for the protection of large areas where the use of traditional detection technologies would prove to be too difficult and/or costly to install. The FIRERAY 5000 combines an infrared transmitter and receiver in the same discrete unit and operates by projecting a well-defined beam to a reflective prism, which returns the beam to the receiver for analysis. Smoke in the beam path causes a drop in power, which, if below a pre-determined level, results in an alarm signal.

Getting the system operational is simplified by a number of groundbreaking features that combine to make the FIRERAY 5000 the quickest and easiest detector of its type to install. Once the detector heads are connected, using the Easifit First Fix system, an integral LASER, which is aligned along the optical path of the beam, can be activated. This allows the reflective prism to be sighted quickly and with confidence. Once the LASER has been used to coarsely align the beam, the AutOptimise beam alignment system takes over and automatically steers the beam into the optimum position.

The system can be fully customised, according to local conditions; both alarm thresholds (sensitivity) and time to Alarm/Fault can be set from the ground level System Controller.

Each detector head is independently configurable from 8m through to 100m and has its own individual fire threshold. The System Controller retains one set of Fire and Fault relays that is common to all detectors that are installed.

The FR5000 MultiHead is supplied with one detector head and reflector for single beam operation from 8 to 50 meters. Up to 3 additional detector heads can be added to the controller to enable larger or more complex areas to be protected (Subject to local codes and standards).

The Fireray 5000 when used in its low power mode can be interfaced to the MZX Fire Controller using the BDM800 module.

Technical Information

Operating Current (low power mode):	10mA @ 24VDC
Additional Detector Head:	2mA @ 24VDC
Operating Voltage:	14 to 28VDC
Operating Temp:	-20 to +55°C
Humidity:	93% RH (non condensing) max
IP Rating:	IP54
Dimensions (WHD):	
Controller:	202 x 230 x 81 mm
Detector:	134 x 135 x 134 mm
Weight:	
Controller:	0.9 Kg
Detector:	0.5 Kg

Order Codes

516.015.017	FIRERAY 5000 Beam Detector NF
516.015.020	FIRERAY 5000 System (50m)
516.015.021	FIRERAY 5000 Detector Head (50m)
516.015.007	FireRay Reflector 100 x 100mm 4 reflectors are required for distances from 50 to 100m
562.015	BDM800 Beam Detector Module in D800 Housing
555.800.066	BDM800 Beam Detector Module + Cover
562.017	BTM800 Beam Termination Module in D800 Housing
555.800.067	BTM800 Beam Termination Module + Enclosure

FIRERAY 3000 Optical Beam Smoke Detector

The FIRERAY® 3000 is ideal for applications where line of sight for the IR (infra-red) detection path is narrow and where the building structure uses reflective surfaces. It has also been designed to be aesthetically pleasing and thus can equally suit modern architectural buildings as well as heritage sites, particularly where ornate ceilings exist.

The FIRERAY® 3000 has been designed so that it can be installed by one operator, with its laser assisted alignment method combined with easy to use alignment LED's offering visual feedback. The integrated laser alignment aid can be activated at the controller or at the receiver head.

An additional detector head set (one transmitter & one receiver) can be added to the controller, separate relay contacts are provided for each of the 2 beam sets.

Order Codes

516.015.030	FIRERAY 3000 Optical Beam Detector
516.015.031	FIRERAY 3000 Extra Beam Set

Features

- Separate Transmitter and Receiver Heads
- Range 5 to 120 metres, configurable per set of Detectors
- Integral Laser Alignment in Receiver
- 2-wire Interface between Controller and Receiver
- Single and Twin Detector options
- Separate Fire and Fault Relays per Detector
- Low Level Controller with LCD display
- Programmable Sensitivity and Fire Threshold
- Automatic Gain Control (AGC) for drift compensation
- First Fix concept for Transmitter, Receiver and Controller
- Multiple cable gland knockouts for ease of wiring
- Optional Transmitter powering from Controller

Technical Information

Operating Range:	5 to 120m
Operating Voltage Range:	12 to 36V DC ±10%
Operating Current (Controller with 1 or 2 Receivers):	14mA (constant)
Operating Current (Transmitter):	8mA (per transmitter)
Power Down Reset Time:	>10 seconds
Fire and Fault Relay Contacts:	VFCO 2A @ 30Volts DC resistive
Operating Temperature:	UL -20°C to +55°C EN54 -10°C to +55°C
Relative Humidity:	93% (Non-condensing)
IP Rating:	IP54
Dimensions (WHD):	
Control Unit:	203 x 124 x 71.5mm
Transmitter & Receiver:	78 x 77 x 161mm
Weight:	
Control Unit:	606g
Transmitter & Receiver:	207g

FIRERAY Optical Beam Mounting Accessories

There are a range of mounting accessories available for use with FireRay Optical Beam Smoke Detectors. These accessories will help reduce installation times and provide a professional mounting solution when faced with challenging building internals.

The Universal Mounting bracket can be used with the Fireray 5000 detector head and the 1 or 4 way prism plates to enable the detector head or prism plates to be easily mounted and adjusted when fixing to angled walls or cladding.

The Flat Mounting plate is a metal plate which will support a single prism or 4 prisms, the side mounting holes are compatible with Unistrut racking systems.

Adjustable bracket for use with the Fireray 3000 heads or Fireray 5000 head.

The large prism plate will securely mount 4 prisms and is designed to be used in conjunction with the Universal Mounting Bracket (not included).

The small prism plate will securely mount a single prism and is designed to be used in conjunction with the Universal Mounting Bracket (not included).

Order Codes

5000-005	Universal Mounting Bracket
5000-006	Flat Mounting Plate for 1 to 4 Prisms
5000-007	Prism Mounting Plate for 4 Prisms
5000-008	Prism Mounting Plate for 1 Prism
3000-201	FireRay3000 adjustable bracket

OSID Smoke Detection

Open-area Smoke Imaging Detection (OSID) is a new innovation in projected beam smoke detection technology. By using advanced dual wavelength projected beams & optical imaging technology, OSID provides a low-cost, reliable & easy to install solution that overcomes typical beam detection issues such as false alarm incidents & alignment difficulties.

Unique Detection Technology
The OSID system measures the level of smoke entering beams of light projected over an area of protection. A single OSID Imager can detect up to seven Emitters to provide a wide coverage area.

Simple Installation and Maintenance
The OSID system consists of up to seven Emitters, for the 45° and 90° Imager units, located along the perimeter of the protected area, and an Imager mounted opposite. Each component can be mounted directly to the surface or can be secured with the supplied mounting brackets. Battery powered Emitters with up to five years battery life are also available to reduce installation time and cost.

Order Codes

OSI-10	Imager 7° coverage
OSI-45	Imager 38° coverage
OSI-90	Imager 80° coverage
OSE-SP	Emitter Standard Power
OSE-SPW	Emitter Standard Power, Wired
OSE-HPW	Emitter High Power, Wired
OSID-INST	OSID Installation Kit
VKT-301	OSID Demo Kit

Features

- Maximum detection range of 150 metres for the OSI-10
- Status LEDs for Fire, Fault and Power
- High false alarm immunity
- Dust and intrusive solid object rejection
- Easy alignment with large adjustment and viewing angles
- No need for precise alignment
- Tolerant of alignment drift
- Automatic commisioning in under ten minutes
- Simple DIP switch configuration
- Dual wavelength LED-based smoke detection
- Simple and easy maintenance requirements
- Conventional alarm interface for straightforward fire system integration
- Three selectable alarm thresholds

Technical Information

Supply Voltage:	20 to 30 VDC (24 VDC nominal)
Imager Current Consumption:	Nominal (at 24 VDC): 4 mA (1 Emitter) 7 mA (7 Emitters) Peak (at 24 VDC) during training mode: 27 mA
Emitter Current Consumption:	Wired Version (at 24 VDC): 350µA
Battery Version:	Built-in 5 Year Battery
Adjustment Angle:	±60° (horizontal) ±15° (vertical)
Max. Misalignment Angle:	± 2°
Dimensions (WHD)	
Emitter / Imager:	198 mm x 130 mm x 96 mm
Operating Temp.:	-10°C to 55°C
Operating Humidity:	10 to 95% RH (non-condensing)
IP Rating:	IP 44 for Electronics IP 66 for Optics Enclosure
Status LEDs	Fire Alarm (Red) Trouble / Power (Bi-color Yellow / Green)

LaserFOCUS Aspirating Smoke Detection

Incorporating detection methodology derived from its VESDA predecessors - the VESDA LaserFOCUS multiple point air sampling technology works by utilising a highly effective aspirator that continually draws air into its laser detection chamber via a pipe network.

Accurate assessment of the air sample using calibrated detection and long detector life expectancy, are assured with a patented dual stage filtration process that both eliminates background 'noise' and preserves the optical integrity of the laser technology with its clean air bleed. The result of which is an unchallenged detection process able to provide reliable and consistent very early warning smoke detection performance across a diverse range of applications.

Features

- Laser Based Absolute Smoke Detection
- Very Early Warning of a Potential Fire Incident
- Wide Sensitivity Range (0.025% - 20% obs/m) (0.008 - 6.4% obs/ft)
- Detection Capabilities for smaller critical areas up to 500m
- Dual Stage Dust Filtration
- Programmable Alarm Thresholds
- Reliable Air Flow Monitoring
- Easy User Interaction
- AutoLearn Smoke & Flow
- Pre-engineered Pipe Designs

Technical Information

Supply Voltage:	18 to 30 Vdc
Current Consumption:	220mA quiescent 295 mA alarm
Dimensions:	255H x 185W x 90Dmm
Weight:	2 kg
IP Rating:	IP30
Operating Temp:	0°C to + 40°C
Sampled Air:	0°C to + 40°C
Humidity:	5% to 95% (non condensing)

Order Codes

516.018.020	VLF-250-00 Vesda LaserFOCUS with English overlay
516.018.021	VLF-250-01 Vesda LaserFOCUS with European overlay
516.018.021.R	VLF-250-04 Vesda LaserFOCUS with Russian overlay
516.018.022	VIC-010 LaserFocus Vesda Network Card
516.018.023	VLF-500-00 Vesda LaserFOCUS with English overlay
516.018.024	VLF-500-01 Vesda LaserFOCUS with European overlay
516.018.024.R	VLF-500-04 Vesda LaserFOCUS with Russian overlay

ICAM IAS800 Air Sampling Smoke Detection System

The ICAM IAS800 Air Sampling Smoke Detection System provides a flexible solution to meet the unique needs of numerous applications including industrial spaces such as cable tunnels, tamper proof and unobtrusive requirements for special accommodation, or can simply be used to replace spot (point) detectors in office environments.

The IAS800 system actively draws air from the protected area through sampling holes in a pipe network. Sampled air is then filtered before being analyzed by upto two MZX Technology detectors.

The IAS800 system is available in three configurations:-

- IAS800 twin inlet pipe configuration which can be fitted with two detectors for monitoring one or two pipe runs.
- IAS801 single inlet pipe configuration which can be fitted with one detector.
- IAS802 twin inlet pipe configuration which can be fitted with two detectors for monitoring one or two separate pipe runs with independant fault outputs.

The system utilises a high performance aspirator and software configurable flow monitoring circuitry. The air flow level is displayed on a ten element bar graph that can be adjusted for high and low flow thresholds, and flow failure is reported as a device fault via upto two MIM800 addressable modules.

Features

- Powerful fan
- Upto two x 50m pipe runs
- Pipes can be individually monitored for air flow with LED bar graph
- MZX Loop and 24 VDC connections
- Fault monitored via the MX Loop
- IP65 enclosure
- Field serviceable air filters
- Uses standard 25mm Vesda pipe & fittings

Technical Information

Supply Voltage:	18 to 30Vdc
Current Consumption:	300mA
Dimensions:	259w x 184h x 166dmm
Weight:	2.77 Kg
Operating Temperature:	-10 to +55°C (with detectors)
Humidity:	10 to 90% RH (Non-condensing)
Sampling Pipes:	25mm dia, 50m per inlet

Order Codes

516.016.301	ICAM IAS800 Detector
516.016.304	ICAM IAS801 Detector
516.016.305	ICAM IAS802 Detector
516.016.303	ICAM Filter (PK10)
516.016.306	ICAM In-Line Filter Housing

VESDA LaserCOMPACT Aspirating Smoke Detection

The LaserCOMPACT and VLC800 MZX Laser compact detector has been specifically designed to provide all the benefits of aspirating smoke detection, including very early warning, in single small areas and where space is a premium.

This has been achieved through the combination of approved LaserPLUS detection technology, dual stage filtration technology and a modified aspirator design incorporated in a smaller enclosure with simplified display.

The LaserCOMPACT is available in two versions, one that interfaces via relays only (RO) or across either the relays or VESDAnet™ (VN).

The VLC 800MX Laser Compact is available with an in-built MZX interface to enable it to communicate directly with the MZX loop.

Features

- Reduced size
- Absolute smoke detection
- Wide sensitivity range
- Single pipe inlet
- Simple display
- Referencing
- VESDAnet communication (VN)
- Dual stage dust filter
- Three alarm levels
- Configurable relays
- Air flow monitoring
- Optional remote display and relay capability
- Simple mounting design
- AutoLearn™

Technical Information

Supply Voltage:	18 to 30Vdc
Current Consumption:	225mA quiescent, 245mA in alarm
Dimensions:	225H x 225W x 85Dmm
Weight:	1.9Kg
Operating Temperature:	-10°C to+ 39°C
Sampled Air:	-20°C to +60°C

Order Codes

561.042	227887 VLC-500RO LaserCOMPACT
561.043	227888 VLC-505VN LaserCOMPACT
561.052	VLC-800-MX LaserCOMPACT
516.018.010	VLC-500-RO LaserCOMPACT (RO)
516.018.011	VLC-505-VN LaserCOMPACT (VN)
516.018.012	VLC-800-MX LaserCOMPACT

VESDA LaserPLUS Standard Modular Range

The detector assembly contains the laser detection chamber, high efficiency aspirator, monitored filter cartridge, control electronics and relay interface. The detector assembly can be used as a "distributed" system, with the display, programmer and VESDAnet socket modules mounted in a remote location.

Alternatively, the detector assembly can be configured as a "self-contained" system by replacing the detector's blank panels with the display and/or programming modules.

Features

- Wide sensitivity range
- Laser-based light source
- 4 Configurable alarm levels
- Purpose built Aspirator
- 4 In-line Inlet pipes
- Flow sensor for each inlet pipe
- Wide range DC power
- Low-cost maintenance
- Dual stage filter
- Easy access to filter cartridge
- 7 Software configurable relays
- Recessed mounting
- Multiple exhausts

Technical Information

Supply Voltage:	18 to 30Vdc
Current Consumption:	(No display or programmer) 240mA quiescent plus 50mA alarm (24Vdc at 3000 rpm)
Dimensions (HWD):	225 x 350 x 125 mm
Weight:	4.0Kg (including display & programmer modules)
Operating Temperature:	0°C to + 39°C
Humidity:	0-95% RH Non-condensing

Order Codes

516.018.001 (561.036)	VLP-012 LaserPLUS Detector, Programmer and Display
516.018.002 (561.037)	VLP-002 LaserPLUS Detector and Display
561.038	VLP-400 LaserPLUS Detector with Fire OK LED
516.018.014	VIO800 MZX VESDA Interface

VESDA LaserPLUS Scanners

VESDA LaserPLUS is also available in a Scanner configuration, which allows the system to distinguish and identify the pipe carrying smoke, while sampling multiple sectors.

The VESDA LaserPLUS will continue to sample from all sectors to monitor the fire growth and maintain full protection.

Technical Information

Supply Voltage:	18 to 30Vdc
Current consumption:	(No display or programmer) 240mA quiescent plus 70mA alarm (24Vdc at 3000 rpm)
Dimensions (HWD):	225 x 350 x 125mm
Weight:	4.0Kg including display and programmer modules
Operating Temp:	0°C to + 39°C
Humidity:	10-95% RH (Non -condensing)
Relay Outputs:	7 or 12

Features

- Individual pipe annunciation
- Adaptive scan threshold
- Wide sensitivity range (0.005 to 20% obs/m)
- Laser based light source
- Configurable alarm levels
- Purpose built Aspirator
- 4 In-Line inlet pipes
- Flow sensor for each pipe inlet
- Low-cost maintenance
- Dual stage filter
- Easy access to filter cartridge
- Recessed mounting

Order Codes

516.018.004 (561.044)	VLS-214 FD7 Scanner, Programmer & Display + 7 Relays
516.018.007 (561.039)	VLS-314 FD12 Scanner, Programmer & Display +12 Relays
516.018.005 (561.045)	VLS-204 FD7 Scanner & Display + 7 Relays
561.040	VLS-304 FD12 Scanner and Display +12 Relays
516.018.016 (561.046)	VLS-600 FD7 Scanner with Fire OK LED
561.041	VLS-700 FD12 Scanner with Fire OK LED

VESDA LaserPLUS Remote Displays and Modules

Features

- Four alarm levels (Alert/Action, Fire 1 & Fire 2)
- 20 segment vertical bar graph
- Alarm threshold indicators (Alert, Action & Fire 1)
- Audio and visual indication
- Alarm indicators
- Informative fault indicators
- Multi-mode numeric display (defaults to smoke obscuration)
- Acknowledged push-button presses
- Multiple language supported
- Addressable to any detector

A display module monitors the VESDA LaserPLUS detector. It reports a visual representation of smoke levels, and all alarm and fault conditions. The internal sounder warns personnel in the local area that an alarm threshold has been reached, or a fault has occurred.

It has a 20 segment vertical bar graph, a 2-digit numerical display, an audible sounder and clear alarm and fault indicators. It also has 4 push buttons to control the detector and the mode of the display.

Displays can be located at a convenient location - either within the detector module, or remotely on the VESDAnet. For monitoring convenience, multiple displays can be associated with a single detector.

Technical Information

Supply Voltage:	18-30Vdc (when used in detector unit, Remote unit or 19" rack)
Current Consumption:	60mA quiescent plus 20mA alarm @24Vdc - (module only)/90mA quiescent plus 20mA alarm @24Vdc (in remote mounitng box)
Dimensions (HWD):	150 x 140 x 90 mm
Operating Temp:	0°C to +39°C
Humidity:	10-95% RH Non-condensing

Order Codes

516.018.107	VRT-700 Remote Scanner display - No Relays
571.082	VRT-600 Remote Detector Display - No Relays
516.018.119	VRT-J00 Compact Display + 7 Relays
516.018.103 (571.104)	VRT-300 Remote VESDAnet Socket
516.018.101 (571.104)	VRT-100 Remote Programmer
516.018.102	VRT-200 Remote Display + 7 Relays

VESDA LaserPLUS Ancillaries & Power Supplies

Order Codes

516.018.201	VSR-2000 19" Sub-rack with 1 detector display and 3 blanks
516.018.204	VSR-2221 19" Sub-rack with 3 detector displays and programmer

LaserPLUS Standard 19 Inch Sub-Rack Remote Display Assemblies

The 19" sub-rack is available as a mounting option, with 4 mounting slots for display or programming modules.

Order Codes

516.018.260	VSU-0 Blank Sub-unit
516.018.262	VSU-2 Detector display sub-unit plus 7 relays
516.018.210	VSR-CUSTOM Custom sub-rack housing includes cost of custom building 4 VSU sub-rack units

LaserPLUS Components for Custom Built Sub-Racks

Sub-rack configurations other than those available as standard can be supplied as custom built units. The sub-rack and cost of assembly are included in the VSR-CUSTOM. The configuration of the custom built unit must be specified at time of ordering (e.g. 2 x VSU-0 and 2 x VSU-2 configured as VSR-0022) Note: The order of the numbers (e.g. 0022) indicates the order in which the sub-units will be mounted in the sub-rack housing when looking from the front of the unit - from left to right.

VESDA LaserPLUS Ancillaries & Power Supplies

LaserPLUS Standard 19 Inch Rack Remote Display Assemblies

Standard rack enclosures are available to fit 2 (see picture) or 5 sub-rack assemblies.

Order Code

516.018.303	020-050 IP65 Enclosure

LaserPLUS Ancillaries & Power Supply Unit

A variety of other ancillaries are available. Configuration software is available from the Xtralis website www.vision-fs.com.

Order Codes

571.086	VHX-0200 PC link HLI plus leads (MK2)
516.018.407 (571.173)	VESDA VPS-220 2A 24VDC PSU
516.018.410	VESDA VPS-250-E 2A 24VDC PSU
571.085	VHH-100 Hand held programmer plus leads

LaserPLUS Spares

The following common VESDA LaserPLUS spares are kept in stock by Tyco Fire Protection Products. Other spares can be supplied if required.

Order Codes

516.018.502	VSP-004 Scanner display (spare)
516.018.505	VSP-019 Filter cover door (spare)
516.018.506	VSP-006 Spare detector chassis and manifold
516.018.508	VSP-008 Spare remote termination card 7 relays
516.018.514	VSP-014 Spare header termination card 7 relays
516.018.515	VSP-015 Spare aspirator fan
516.018.504	VSP-005 Filter cartridge (spare)

VESDA Pipe, Fittings and Test Equipment

VESDA Aspirating Pipe & Fittings are a metric standard of 25mm external diameter. The pipe is produced from ABS and is also available in PVC under stringent quality control approved to BS EN ISO9001, which covers all aspects of product design, manufacture and inspection.

Features

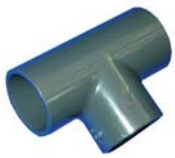
- Toughness and durability
- Chemical resistance
- Easy to joint
- Low Friction
- Wide temperature range
- Lightweight

Order Codes

	Item	Description	Order Codes
	Pipe 25mm Diameter	VESDA aspirating pipe, printed along its length on opposite side at 450mm intervals. 3 m length pipe. Order in multiples of 10.	571.270
	Socket 25mm	Straight socket for 25mm pipe. Order in multiples of 10.	571.121
	Socket Union 25mm	Socket union to facilitate servicing of pipework. Order in multiples of 1.	571.122
	Socket Adaptor 25mm to 3/4"	Socket adaptor, imperial to metric, to extend existing systems. Order in multiples of 5.	571.126
	Bend 25mm	90 degree Long Radius bend. Order in multiples of 5.	571.123

	Item	Description	Order Codes
	Elbow 25mm	45 degree elbow. Order in multiples of 5.	571.128
	End Cap 25mm	End cap 25mm. Order in multiples of 5	571.125
	Equal Tee 25mm	Equal Tee 25mm. Order in multiples of 5	571.124
	In-Line Filter	In-Line Filter, suitable for all Vesda Aspirating Smoke Detectors.	516.018.925
	Filter Elements	Dual density replaceable filter elements for use with In-Line Filter.	516.018.926
	Pipe Clip 25mm	Pipe Clip 25mm. Order in multiples of 10.	571.127
	Solvent Cement (0.25 Litre Tin)	Solvent Cement.	516.018.910 (570.888)
	Capillary Tube Conical Sample Point Assembly	Capillary Tube Conical Sample Point Assembly. 25mm socket adaptor + 2m capillary tube (tube colour - red).	571.144
	Capillary Tube Flush Sample Point Assembly	Capillary Tube Flush Sample Point Assembly. 25mm socket adaptor + 2m capillary tube (tube colour - red).	577.145
	Capillary Tube 10 mm	Capillary Tube 10mm. 10mm o/d x 30m length (tube colour - red).	571.148

	Item	Description	Order Codes
	Pipe Ties	Pipe Ties (Red). Order in multiples of 100.	516.018.920
	Sampling Point Label (1reel)	Sampling Point Label. Order in multiples of 100	571.152
	Pipe Label (1reel)	Pipe Label. Order in multiples of 100	517.017.006
	Pipe R25PVC	Size: 25/21.2mm Length: 5m Material: PVC Colour: Grey Order in mutiples of 1	571.129
	Pipe R16PVC	Only to be used as "Drop Pipe" Size: 16/13.6mm Length 5m Material: PVC Colour: Grey Order in mutiples of 1	571.130
	Sleeve M25PVC	Pipe connector for 25mm pipes Material: PVC Colour: Grey Order in mutiples of 10	571.131
	Coupling V25PVC	Detechable union for 25mm pipes Material: PVC Colour: Grey Order in mutiples of 10	571.133
	O-Ring OR25	For coupling V25PVC	571.151
	Bend B90/25PVC	Bend for 25mm pipes Angle: 90° Radius: 60mm Material: PVC Colour: Grey Order in mutiples of 5	571.134

	Item	Description	Order Codes
	Equal Tee T25PVC	Equal Tee for 25mm pipes Material: PVC Colour: Grey Order in multiples of 10	571.149
	45° Elbow W45/25PVC	45° Elbow for 25mm pipes Angle: 45° Material: PVC Colour: Grey Order in multiples of 10	571.135
	End Cap EK25PVC	End cap for 25mm pipes Material: PVC Colour: Grey Order in multiples of 10	571.136
	Pipe Clip RK25PP	Pipe clip for 25mm pipes Material: PP Colour: Grey Order in multiples of 10	571.140
	Pipe Clip RK16PP	Pipe clip for 16mm pipes Material: PP Colour: Grey Order in multiples of 10	571.141
	Conical Sample Point APK	Capillary Sample Point, Conical for use with 10mm capillary tube, 2mm diameter sampling hole. Order in multiples of 1	571.146
	Flush Sample Point APF	Capillary Sample Point, Flush for use with 10mm capillary tube, 2mm diameter sampling hole. Order in multiples of 1	571.147

	Item	Description	Order Codes
	Tee Adaptor 10/25	Tee Adaptor to convert 25mm pipe to 10mm Capillary Order in multiples of 1	571.150
	Glue KPVC	Glue for PVC pipe and fittings 0.5 Kg Tin	570.889
	Cleaner RAP	For pipes and fittings made of ABS and PVC 1 lire container.	570.890

Pipework designs for Vesda Systems must be verified by the use of the "Aspire" pipework Design Software Tool. Available for download from the Xtralis Website at www.vision-fs.com.

VESDA ECO Gas Detection

A: VESDA Aspirating Smoke Detector
B: Detection pipe work
C: VESDA ECO Gas Detector

Features

- Single gas or dual gas versions available
- Greater coverage than point gas detection
- Highly cost effective solution
- Can use the same pipe work to detect smoke and gas hazards
- Easily retrofitted to existing VESDA ASD installations
- Relay, 4-20mA and RS485 Modbus interfaces provided as standard
- High level interface to MZX via the DDM800 module
- On-board data logging

Gas Detection and Aspirating Smoke Detection Plus Environmental Monitoring

The VESDA ECO is a gas detector module that is inserted into the pipework of a VESDA aspirating smoke detector. Different VESDA ECO models detect different gasses.

Applications

VESDA ECO by Xtralis provides protection from both fire and gas threats in powerful yet cost effective configurations to provide point, zone or total area coverage in a variety of applications including:

- Battery charging rooms
- Underground utility tunnels
- Boiler rooms
- Warehouses
- Manufacturing facilities
- Parking garages
- Transportation centres

Areas requiring gas detection often also require a fire / smoke detection system. Xtralis VESDA ECO combines gas detection capability with VESDA aspirating smoke detection (ASD) at minimal additional cost. This combined solution can be significantly less expensive than a number of conventional standalone fixed point gas detectors and a separate fire detection system. Routine maintenance costs are also reduced as a single service contract can cover both systems.

It is common practice to provide constant ventilation of plant and process areas to reduce the risk of a gas hazard. The energy costs associated with this solution can be considerable. As an alternative, gas detection can be used to activate or boost ventilation only when required and consequently reduce HVAC operating costs. VESDA ECO provides an economical method of providing gas detection over a wide area for this application.

Technical Information

Mechanical

Weight:	250 g
Dimensions:	110x125x34mm
Pipe external diameter:	25 mm
Terminal size:	1.5mm^2
Cable Access:	2xM16 bulkhead grommets

Environmental

Ingress protection:	IP65 and NEMA 4
Operating Temperature:	-20°C to 55°C
Sampled Air Temp:	-20°C to 55°C
Humidity:	10-95% RH, non-condensing

Electrical

Voltage:	18-30 VDC
Current quiescent:	Typically 60 mA @ 24 V DC
Current alarm:	85 mA
Power consumption:	3.2 W
Outputs:	RS 485 Modbus RTU Four programmable relays 30VDC 1A 4-20 mA output
Onboard Memory Card:	Micro SD card 2 GB

Order Codes

ECO-D-B-11	ECO Hydrogen H_2 Gas Detector
ECO-D-B-12	ECO Methane CH_4 Gas Detector
ECO-D-B-13	ECO Propane C_3H_8 Gas Detector
ECO-D-B-31	ECO Oxygen O_2 Gas Detector
ECO-D-B-41	ECO Carbon Monoxide CO Gas Detector
ECO-D-B-41-45	ECO Dual CO & NO_2 Gas Detector
ECO-D-B-42	ECO Ammonia NH_3 Gas Detector
ECO-D-B-43	ECO Hydrogen Sulphide H_2S Gas Detector
ECO-D-B-44	ECO Sulphur Dioxide SO_2 Gas Detector
ECO-D-B-45	ECO Nitrogen Dioxide NO_2 Gas Detector
ECO-SC-11	ECO Spare Cartridge H_2
ECO-SC-12	ECO Spare Cartridge CH_4
ECO-SC-13	ECO Spare Cartridge C_3H_8
ECO-SC-31	ECO Spare Cartridge O_2
ECO-SC-41	ECO Spare Cartridge CO
ECO-SC-41-45	ECO Spare Cartridge CO & NO_2
ECO-SC-42	ECO Spare Cartridge NH_3
ECO-SC-43	ECO Spare Cartridge H_2S
ECO-SC-44	ECO Spare Cartridge SO_2
ECO-SC-45	ECO Spare Cartridge NO_2

Linear Heat Detection

The LD40 linear heat detection system is used to monitor fire (or overheat) conditions in confined or polluted areas or where there are adverse or unusually variable environmental conditions.

The sensor cable is unaffected by dust, moisture or vibration and requires little maintenance.

Technical Information

Dimensions:	178H x 130W x 75D mm
Weight:	0.55Kg
Operating Temp:	-25°C to +70°C
Relative humidity:	Up to 98% RH non-condensing
Rating:	IP55
Operating Voltage:	+8 to +30Vdc
Quiescent Current:	60-80µA

Features

- Easy and cost effective installation
- Good sensitivity with adjustable alarm threshold
- Open and short circuit monitoring
- Suited for outdoor and indoor applications
- Can be used in hazardous areas
- Mechanical protection is provided for cables in areas where damage may occur
- Chemical resistance sheathing is available for areas where petro-chemical corrosion may occur

Order Codes

516.016.005	LD40 High resistance sensor cable blue - 200M reel
516.016.006	LD40 High resistance sensor cable black - 200M reel (Nylon sheath suitable for petrochemical exposure)
516.016.010	LD40 EOL Termination kit (PK10)
516.016.011	LD40 In-line Jointing kit (PK10)
516.016.012	LD40 Analyser module with conventional detection zone interface
562.030	LD40 Analyser Module with Fire & Fault Relay Output
516.016.201	B6782-003 EDGE CLIP 2-3mm WEB
516.016.202	B6782-024 EDGE CLIP 3-8mm WEB
516.016.203	B6782-025 EDGE CLIP 8-13mm WEB
516.016.204	B6782-026 EDGE CLIP 14-20mm WEB
516.016.205	B6782-004 'T' CLIP
516.016.206	B6782-005 PIPE CLIP
516.016.207	B6782-023 'V' CLIP
516.016.208	B6782-008 Neoprene Sleeve

MZX SensorLaser™ Plus Linear Heat Detection

Features

- Continuous detection despite extremely large monitoring area.
- Easy and rapid installation of the sensor cable.
- Very high resistance to extreme ambient influences (immune against heat, cold, humidity, corrosion, strong winds and draft).
- Immune to electromagnetic interference.
- Unprecedented security against false alarms.
- High sensor cable service life of up to 30 years.
- Temperature profile over the complete measurement range delivers exact information of location, size and spread of fire.
- Very low maintenance costs as maintenance and trouble shooting can be done from the control unit.
- VdS certified to EN 54 part 5
- One controller unit will drive up two 8 km spurs or one 8 km loop.
- Easy integration into existing installations.
- Each sensor cable divided into up to 256 zones.
- Individual configuration of 5 alarm criteria per zone.
- Network connection through Modbus, TCP/IP, FTP and SCPI interfaces.

The MZX SensorLaser™ Plus guarantees fast and continuous fire detection even in difficult and varying ambient conditions. This linear heat detection system enables long and heavily fragmented facilities such as traffic and supply tunnels, cable routes and conveyor belts as well as large scale buildings such as production halls, cold stores and multi storey car parks to be monitored at all times. The MZX SensorLaser™ Plus is ideal for use in areas that are hard or impossible to access after installation, e.g. false floors, since maintenance and troubleshooting can be carried out from the control unit.

The fibre optic sensor cable itself is maintenance-free and, thanks to its particularly robust characteristics, offers a high level of security against false alarms. The sensor cable is insensitive to dust, dirt, moisture, high temperatures (up to approx. 90°C), pressure and the action of vibration and wind as well as corrosive atmospheres. Because of its purely passive, optical analysis process, the MZX SensorLaser™ Plus is even immune from electromagnetic interference caused by generators, energy routes, cables or motors.

The MZX SensorLaser™ Plus delivers precise information about the location, size and spread of a fire even under ambient conditions that would cause other fire detection systems to fail.

The MZX SensorLaser™ Plus enables a measuring range of up to 8 km per sensor cable. Up to 2 spurs each with an 8 km measurement range, or 1 loop with an 8 km range can be connected.

Since the ambient conditions in a monitoring area of this size can vary enormously, each sensor cable can be divided into up to 256 zones. Several alarm criteria can be freely defined in each zone. This level of precision adjustment allows the MZX SensorLaser™ Plus to provide a high level of resistance to false alarms and precise fire detection despite contrary and variable ambient conditions.

The accessible laser radiation emitted by the Class 1M laser is not hazardous to the eyes (provided there are no other optical instruments in the path of the beam), while operation is absolutely fail-safe even in the event of a break in the cable. Also, the sensor cable can be used in explosive atmospheres (ATEX zones) up to zone 0 without any additional measures being required. In contrast to conventional fibre optic systems, the low laser output of < 20mW ensures that the measuring system has a long service life.

Zone Configuration

Ambient conditions (temperatures) can fluctuate sharply over a measuring range of many hundreds of metres. This makes it essential to divide the measuring range into zones that can be adapted optimally to the ambient conditions on the basis of differing alarm criteria. This ensures high detection reliability and also security against false alarms.

The MZX SensorLaser™ Plus allows the measuring range to be very finely divided into zones. Up to 256 zones can be defined for each sensor cable, with up to 5 alarm criteria configurable in each zone. Another 2 alarm criteria respond when there is a temperature drop, enabling them to be used e.g. in tunnels to warn of black ice.

Control Unit

With ten product variants, permitting measuring ranges of 1 to 8 km, the MZX SensorLaser™ Plus can be configured to suit the particular project.

Sensor Cable

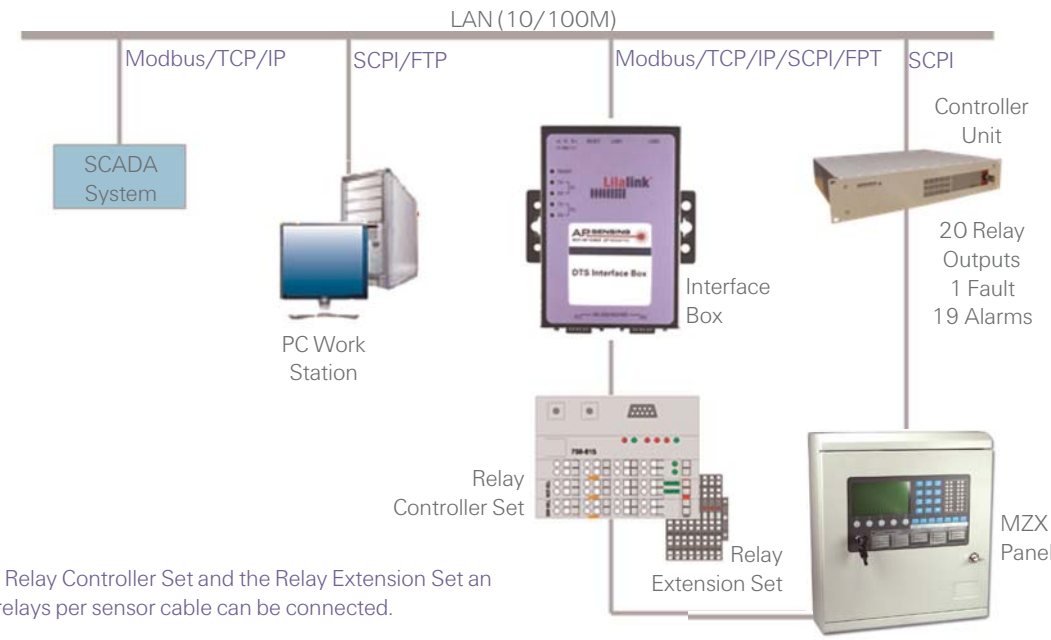
The sensor cables offered are optimised for a rapid response time. The sheathing is flame retardant, halogen free and resistant to dust, dirt, moisture, corrosive atmospheres and most organic solvents.

Both types of sensor cable offer adequate protection against rodents and are designed for a service life of 30 years.

There are two different types of sensor cable for differing project requirements. The MZX SensorLaser™ Plus Safety cable can be used under normal ambient conditions. It is particularly flexible and extremely versatile. Where the sensor cable is expected to be exposed to high mechanical stresses, we recommend that the MZX SensorLaser™ Plus Steel Wire Armoured cable be used. This sensor cable, which was specifically developed for heavy duty applications, is particularly suitable where high tensile forces and high lateral pressures can occur.

The cable length will be individually cut to the customer specified length and 2 connectors are fitted for easy handling. The cable should be commissioned in multiples of one metre and therefore the order for the cable has to be placed per metre.

Every order for sensor cable must include the corresponding connectors, which will be assembled by the supplier. The cable with pre assembled connectors offers fast commissioning of the system without any additional splicing.



By means of the Relay Controller Set and the Relay Extension Set an additional 256 relays per sensor cable can be connected.

Mounting Materials
For professional mounting of the sensor cables four different types of mounting sets are available. These sets are designed for different applications. They can be used for the mounting of the sensor cable to the wall and the ceiling. Every set contains 100 x clamps, 100 x anchors and 1 x SDS drill bit.

Plastic Clamps
The plastic of these clamps is UV resistant, halogen free and particularly robust in ambient conditions.

Steel Clamps
The clamps in these sets are made of stainless steel or zinc plated steel and are rubber protected. The rubber protection guarantees that the sensor cable is not damaged if friction occurs. For every clamp 2 x nuts are included for fixing to the anchor.

Connection Cable
Connection to the MZX Fire Alarm Panel is by means of the MZX SensorLaser™ Plus Connection Set. This set consists of 3 x cables. For connection of the Fire Alarm Panel to one end of the sensor cable a D-Sub connector is included. The other end of the sensor cable is desoldered which provides a quick connection into the MZX System without any soldering effort.

Enhanced Communication
The MZX SensorLaser™ Plus iBox allows the 20 relay outputs supplied as standard to be expanded up to 2 x 256 outputs so that each zone can be assigned its own relay output. This could, for instance, be used to control fire extinguishing systems. The iBox also enables connection to SCADA or process control systems via Modbus TCP or Modbus RTU.

The number of relays can be extended using the MZX SensorLaser™ Plus Relay Controller Set. This set consists of a pre-programmed field bus controller, one Digital Output Module and an End module. It also comes with 8 x relays and accessories for easy wiring.

MZX SensorLaser Compliance
Complies with the essential requirements of the following applicable European Directives and carries the CE marking accordingly:

- The Low Voltage Directive 73/23/EEC amended by 93/68/EEC
- The EMC Directive 2004/108/EC

Conforms with the following product standards:

EMC
- IEC61326:1997+A1:1998+A2:2000 EN61326:1997+A1:1998+A2:2001
- CISPR11:1997+A1:1999 / EN55011:1998+A1:1999
- IEC61000-4-2:2001/EN61000-4-2:1995+A1:1998+A2:2001
- IEC61000-4-3:2002/EN61000-4-3:2002
- IEC61000-4-4:2001/EN61000-4-4:1995+A1:2001+A2:2001
- IEC61000-4-5:2001/EN61000-4-5:1995+A1:2001
- IEC61000-4-6:1995+A1:2000 /EN61000-4-6:1996+A1:2001
- IEC61000-4-8:2001/EN61000-4-8:1993+A1:2001
- IEC61000-4-11:1994+A1:2000
- EN61000-4-11:1994+A1:2001
- Canada: ICES-001:1998

SAFETY
- IEC61010-1:2001/EN61010-1:2001
- IEC60825-1:2001/EN60825-1:1994+A11:1996+A2:2001
- Canada:CAN/CSA-C22.2No.61010-1:2004
- USA:UL61010-1:2004; FDA21CFR1040.10+ Laser Notice No.50

Technical Information

Operating Temp:	-10°C to +60°C (2 channel options: from -5°C)
Storage Temp:	-40°C to +80°C
Operating Humidity:	0% to 95% RH (2 channel options: 15% to 85% RH) non condensing
Dimensions (HWD):	88 x 448 x 364 mm (19" rack)
Weight:	9 kg
Fibre types:	MM 50/125 µm graded index MM 62.5/125 µm graded index
Dynamic range:	30 dB (2-way loss)
Sensing Temp:	-273°C to +700°C depending on sensor coating
Optical connector:	E2000; 8° angled
No. of channels:	1, 2 depending on channel option
Computer interface:	USB, LAN
Relay board:	4 inputs / 20 outputs
Power supply:	10 V to 30 Vdc
Power consumption:	15 W typically, at 20°C ambient temperature < 40 W (entire operating conditions)
Measurement times:	From 10s to 30s
Available Spatial Resolution settings:	1 m; 1.5 m; 3 m; 5 m; 8 m
Available Measurement modes:	Single ended/Dual ended; including fibre break recovery
Internal data storage capability:	150 traces total
Power Supply (option) Operating Conditions:	0°C to +50°C; non-condensing; indoor use only
Laser class (IEC 60825-1: 2001):	1M

Order Codes

516.016.310	MZX SensorLaser Plus 1/1
516.016.311	MZX SensorLaser Plus 1/2
516.016.312	MZX SensorLaser Plus 2/1
516.016.313	MZX SensorLaser Plus 2/2
516.016.333	MZX SensorLaser Plus 3/1
516.016.334	MZX SensorLaser Plus 3/2
516.016.314	MZX SensorLaser Plus 4/1
516.016.315	MZX SensorLaser Plus 4/2
516.016.316	MZX SensorLaser Plus 8/1
516.016.317	MZX SensorLaser Plus 8/2
516.016.318	MZX SensorLaser Plus Con Set
516.016.319	MZX SensorLaser Plus iBox
516.016.320	MZX SensorLaser+ Relay ConSet
516.016.321	MZX SensorLaser+ Power Supply
516.016.322	MZX SL+ Cable Safety
516.016.323	MZX SL+ Cable Steel Wire Armoured
516.016.324	MZX SensorLaser+ Setting Tool
516.016.325	MZX SL+ Relay Extension Set
516.016.326	MZX SL+ Plastic ClampSet zinc
516.016.327	MZX SL+Plastic ClampSet steel
516.016.328	MZX SL+ Steel Clamp Setzinc
516.016.329	MZX SL+ Steel Clamp Set steel
516.016.330	MZX SensorLaser + Spare unit
516.016.331	MZX SL+ Demo unit
516.016.332	MZX SensorLaser Plus Demo Box
516.016.322.C	MZX SL+ Connector Safety
516.016.323.C	MZX SL+ Connector Steel

Network & Graphics

Tyco Expert Graphics (TXG)

TLI800EN Network Interface Module

CCU3 MODBUS Interface

MZX BACNet Converter

Network & Graphics

MZX technology offers a range of panels from a single loop to 8 loops .Each panel has a one thousand address capacity and is configurable up to 240 zones. Panels can be easily networked by adding a network card. An MZX network can be extended up to 99 panels with panels interacting with each other where required. The network is a true peer to peer network which 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. Networks can be created using a wide range of cable types or fibre optics.

The network will support the Tyco Expert Graphics (TXG), Emergency Management System and Graphical User Interface. The system provides annunciation, status display and control for the MZX network either to a single or multiple stations. Multiple stations are connected as true clients of the dedicated primary station, (server) and can be on the clients own network if desired. TXG is windows based system which uses a combination of symbols, floor plans, pictures, text, voice messages and video input to display events and create actions for the operator. TXG is user friendly and simplifies the operator's actions, saving valuable time in an emergency.

Third Party Interfaces

When Fire alarm systems have to be interfaced to a third party's system such as BMS, there are no specials with MZX technology. The MZX to BACnet interface provides high level communication between the fire alarm and building automation systems. The BACnet client will display both point and zone events together with various system statuses and analogue detector values. The system also supports commands thereby providing a seamless bidirectional interface.

A MODBUS interface also exists for the MZX network allowing connection via a number of protocols to the third party system. Multiple units can be interconnected within a single system. The module has on-board relays which can be configured as inputs to the MZX system plus a number of supervised inputs whose status can be read from the MODBUS map.

Tyco Expert Graphics (TXG)

Features

- Provides annunciation, status display, and control in both normal and emergency situations
- Developed by Tyco specifically to provide monitoring and control of fire protection life safety systems
- Supports a range of fire detection systems such as MZX, ZETTLER Zetfas and Tyco Fast 2000
- Multiple workstations can be configured for specific functions or redundant operation
- Single monitor or two monitor (text and graphics) support at each workstation

Emergency Management System & Fire Detection Graphical User Interface

Tyco Expert Graphics is a new client/server emergency management system and fire detection graphical user interface.

TXG is based on a Tyco graphical alarm monitoring system that has been installed on hundreds of large fire detection and alarm monitoring systems around the world and will now be able to integrate the ZETTLER product range with improved functionality, particularly suited to the MZX Graph markets.

Tyco Expert Graphics provides annunciation, status display, and control for various fire detection and alarm systems including MZX networks incorporating the latest MZX Technology fire detection systems. It also supports the predecessor ZETTLER fire detection systems thus ensuring that future updates can be accommodated. Additional support is provided for Simplex 4100 range, Zetfas and Fast2000/PBS (Token ring format).

TXG is a Microsoft Windows® based graphical interface with a high resolution colour display. Responsive touch-screen (optional) buttons with realistic icons provide control switches specific to the operation being performed. Utilising a combination of symbols, floor plans, pictures, text, voice messages and video input, TXG displays the precise location and gives instructions on what emergency action should be taken.

The display can be configured to track detector inputs by changing the colour of areas in response to changes in analogue value. A detailed map of the area affected can be printed automatically for use by personnel responding to an emergency. Prompt response to a fire emergency, with the correct action, provides the opportunity to reduce financial loss and greatly improves safety.

Much of the work involved in configuring TXG has been simplified through the automatic import of panel configurations and the ability to use a wide range of input data file types including GIF, JPG, bitmap, AutoCAD®, Vector and WAV files.

System maintenance can be carried out via the high level user interface with the ability to edit the position and attributes of point icons as well as make changes to drawing layouts. As well as simplifying maintenance, being a true client server application means that any number of on-site or off-site workstations can interrogate the database with pre-defined security levels to facilitate any required combination of access and control.

The IP Video feature allows real-time images of the area at risk to be displayed in the event of an alarm or fault. Video capture of the affected area appears on the screen automatically, allowing the severity of the situation to be assessed quickly and the appropriate executive action to be taken.

For less serious incidents, expensive and unnecessary plant shut downs can be avoided. In more critical situations, accurate information can be quickly and efficiently communicated to the response team.

MZX HOTSPOT Icons representing the devices being monitored will change colour dependant on status, alarm, normal, fault, isolate etc.

In addition to this, selected areas can be highlighted using the chromatic analogue display feature, MZX HOTSPOT. As the analogue value of a monitored point changes the chromatic analogue display will change the highlight colour through a pre-defined range.

For example a heat detector assigned MZX HOTSPOT could transit the highlight from blue to red. The number of chromatic steps is dependant on the resolution of the graphics card used, 16, 24 or 32 bits.

Notification By E-mail

Events, whether they are real or false alarms are handled most efficiently when information can be quickly and accurately communicated. TXG allows users to set up email groups and notification texts linked to predetermined events.

These are automatically transmitted ensuring that the appropriate resource is deployed.

Additional Features

- Link up with I.P. CCTV camera systems, no additional wiring, reduced installation cost for a fully integrated fire/CCTV system
- Compatible with Flamevision® FV300 array based IR flame detectors with built in CCTV
- MX Hotspot, chromatic analogue display. Programmable tracking of analogue values. Changes display colour in response to changes in analogue value from a selected number of MZX devices
- Trending diagrams of analogue values helps reduce maintenance time and cost
- Export analogue values to Excel for in-depth analysis
- Audio descriptions of screens can be played when they are displayed or played when an event occurs
- High level user interface allows end user to make changes to point attributes and layout further reducing lifetime cost of ownership
- Centralised security administration means that operator accounts are administered through the TXG client's common database
- Mouse, keyboard or touch-screen control with full multimedia compatibility
- Dual language switching
- The ability to display live video when specific predefined alarm conditions occur
- Easy to configure and set-up. No special networking or PC training required
- Facilities and maintenance management report and analysis tools are available

Additional Functions

- Response buttons with configurable icons or text provide control switches specific to any operation being performed
- Uses a combination of symbols, floor plans, pictures, text and video to communicate events
- Standard MZX symbol libraries supplied
- Gives instructions on what emergency action should be taken
- Prints maps and instructions to assist response teams
- History logging recallable or printable by event, dates, device, or a host of other available filters
- An advanced filter allows the history report to be limited to a particular range or date period
- Commands to control outputs from the Graphical User Interface
- Events can be accepted individually or can be "auto-accepted"
- Supports all standard PC image file types

TXG is Totally Scaleable

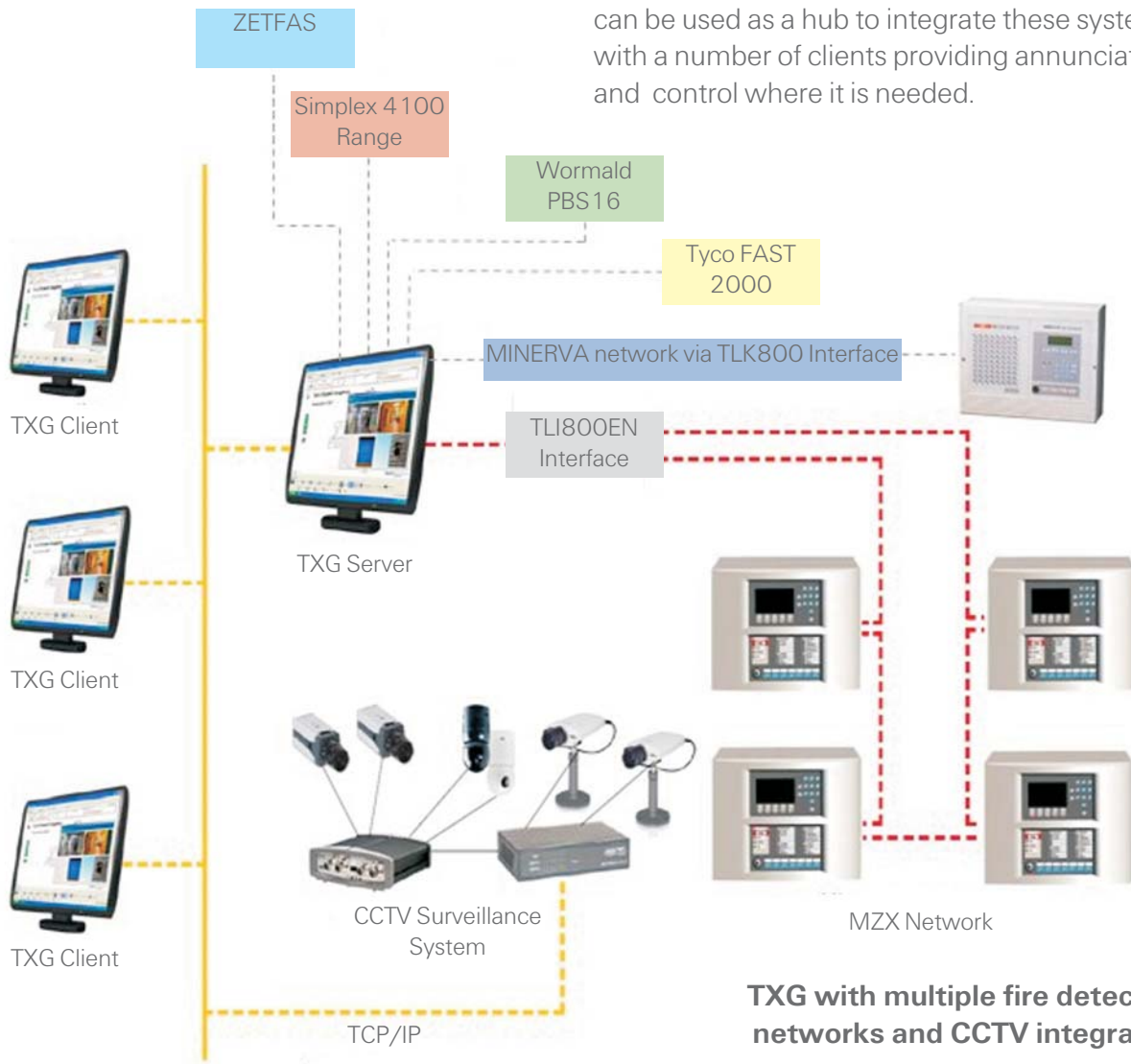
TXG with direct connection to a single MZX panel

.....FROM A SINGLE FIRE ALARM PANEL CONNECTED TO A TXG SERVER.....

The modest additional cost of a single TXG client/server is easily justified when the benefits that a Graphical User Interface bring are considered.

.....TO A COMPLEX INSTALLATION WITH MULTIPLE DIVERSE NETWORKS AND DISTRIBUTED CLIENTS

Large multi-building facilities may have a number of fire detection networks, possibly installed over an extended period of time. TXG can be used as a hub to integrate these systems with a number of clients providing annunciation and control where it is needed.



TXG with multiple fire detection networks and CCTV integration

Availability & Order Process

TXG can be downloaded from the tycoemea.com website and can be used with a time restriction for demonstration or training purposes. TXG can also be ordered from our Echt distribution centres.

Customers can fax or e-mail an order form which details the software options required, to customer service at Echt. Original order forms can be obtained from http://www.zettlerfire.com. This form will allow customer service to prepare and allocate a license code that will activate the required features. Customers will also be required to place an order on JDE for each part number on the form.

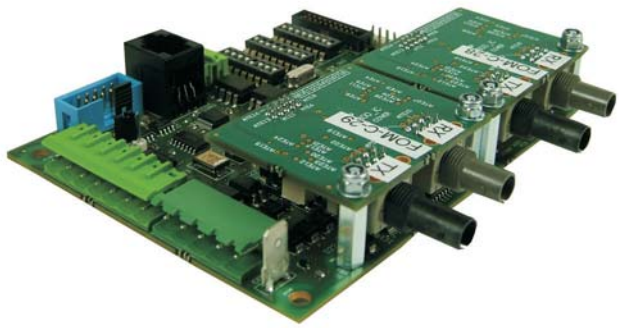
A media pack containing CD with license number, dongle, multi language manuals on CD and original order form will be dispatched to the customer.

On receipt, the software can be loaded and the license number entered to make available the requested software features.

Order Codes

508.040.001	TXG001-Single Client-panel 1
508.040.002	TXG004-Single Client-pan. 2-4
508.040.003	TXG010-Single Client-pan. 5-10
508.040.004	TXG020-Single Client-pan.11-20
508.040.005	TXG999-Single Client-pan. 21-xx
508.040.011	TXG-C Additional Client licence
508.040.023	TXG-ZETA ZAD/FIL drive licence
508.040.024	TXG-ZETF Zetfas/FIL drive licence
508.040.025	TXG-OPC-AES OPC Alarm/Event licence
508.040.033	TXG-PBS/FAST2000 Driver
508.040.100	TXG-Dongle+CD (kit part only)

TLI800EN Network Interface Module



Features

- Allows MZX Technology Fire Controllers to be "seamlessly" networked together
- Dual ARM 7 RISC processors
- Support for Emergency Mode Indication
- True peer-to-peer communications; no host or master controller required
- Highly resilient, node failure open and short circuit does not affect remaining network
- VdS approved to EN54-13 and EN54-2
- Up to 99 controllers may be used on the network
- Wide range of cable topography supported
- Network can use a variety of cable types with up to 2500m between nodes (cable dependant), 1200m using standard 1.5mm MICC cable
- FOM800 Plug on fibre optic module provides up to 5000m between nodes using 62.5/125 multimode fibres
- Easy to install and programme
- Simple to operate

Inter-Controller Network

The use of the MZX Technology Network allows the fragmentation of a number of fire controllers to be drawn into a network system. Because every installation is different, the MZX Technology Network has been designed to be highly flexible, allowing for a wide range of different systems applications. With a large network system the amount of data and information passing between fire controllers can become high during an emergency condition. The MZX Technology Network communication protocol has been specifically designed with this in mind and ensures that each event message passed around the network is acknowledged by the receiving controller in the fastest possible time.

Operation

The network is totally flexible and enables from 2 to 99 fire controllers to be seamlessly linked together, providing a system capability of up to 23,760 fire zones with 99,000 detection addresses, and over 100,000 digital I/O points.

System Overview

The MZX Net communications network comprises a collection of network interface modules and peripheral equipment that together form a fault resistant, and flexible peer-to-peer network for the MZX Digital addressable fire systems controllers.

With the MZX Technology Network, each MZX Fire Controller on the network permits an operator to interrogate and control any other MZX Fire Controller on the network for extended interrogation and control.

The MZX Technology Network allows for up to a maximum of five nodes on the network to be configured either as Master operating stations or TXG graphical user interfaces (refer to datasheet PSF206).

Master operating stations use the standard MZX Fire Controller hardware. In this application, the controller changes its personality; and enables additional information from each controller on the network to be displayed.

Mode of Operation

The MZX Technology Network employs a token passing communications protocol that treats each node on the network equally. Loss of one or more nodes does not affect the operation of the remainder of the network.

Data is regenerated at each node in the network enabling maximum distance between nodes. In the event of a short/ open circuit on the network between any two nodes, isolation will automatically occur and the network will re-configure communications and continue to allow communication between all nodes physically connected.

The MZX Technology Network offers a high level of system integrity, allowing safety critical actions to be passed across the network from one MZX Fire Controller to another. This very high level of system integrity enables the MZX Technology Network to meet the requirements of EN54-13 and EN54-2.

In the event of loss of communication with the host controller, the TLI800EN will use its secondary processor to monitor the controllers fire outputs and if necessary can activate the controllers emergency fire input. In addition it can support a LED annunicator for network panel fire indication, this is wired to a MPM800 via the TLI800EN's integral RBus RS485 port.

Fibre Optics

Fibre optics can also be supported on the MZX Technology Network system by fitting one or two FOM800 modules to the TLI800EN network card, this uses either type 62.5/125 or 50/125 multi-mode fibres between nodes on the network. Use of fibre permits a maximum distance between nodes of up to 5000 metres in either bus or ring topology.

Cable Parameters		
Maximum wire to wire capacitance		**Resistance**
Baud Rate	**Capacitance**	Maximum resistance = 40 Ohm for EN54-13 compliant installation. Maximum resistance = 65 Ohm for proper function without compliance (all baud rates).
38400	0.3 uF	
19200	0.6 uF	
9600	1.2 uF	
2400	1.2 uF	
1200	1.2 uF	

Technical Information

TLI800EN Network Card

Mechanical

Dimensions:	116 x 90 x 20 mm
Weight:	0.10 Kg
Housing:	The TLI800EN Network P.C.B. is mounted directly onto the MZX CPU800 within the panel enclosure

Electrical

Power Consumption:	74mA @ 24VDC & 20mA @ 5VDC
Network Connections:	2 x RS 485
Network diagnostic:	9 x on board LED's / RS232 port for system analysis and fault finding
Cable Type:	2 Core MICC, Shielded or Twisted pair
Network Connections:	Screw terminals, will accept 2.5 mm^2 cable

Network Parameters

Number of nodes:	99 (max)
Distance between nodes:	1000 to 5000 metres (dependent upon cable type)
Communications type:	RS485
Baud Rates:	9.6K to 115.2K
Transport Type:	Token passing, non-collision protocol

Environmental

Operating Temperature:	-10°C to + 55°C
Storage Temperature:	-10°C to + 70°C
Relative Humidity:	95% (100% intermittent)

Technical Information

FOM800 Fibre Optic Network Interface

Mechanical

Dimension:	50 x 58 x 12 mm
Weight:	0.015 Kg
Housing:	The FOM800 is mounted directly onto the TLI800EN Network card

Electrical

Supply Voltage:	Powered from TLI800EN
Network Connections:	2 x ST Fibre optic connections
Cable Type:	62.5/125 or 50/125 multi-mode fibre optic cables

Environmental

Operating Temp:	-10°C to + 55°C
Storage Temp:	-10°C to + 70°C
Relative Humidity:	95% (100% intermittent)

TLI800EN-G Housed Network Card with PSU

Mechanical

Dimension:	300 x 200 x 85 mm
Weight:	3.85 Kg

Environmental

Operating Temperature:	0°C to +55°C
Relative Humidity:	95% max

Electrical

Supply Voltage:	220 to 250 VAC
Power consumption:	160mA

Order Codes

557.200.039	TLI800ENG Network Interface in Housing
557.202.080	TLI800EN Network Card and Cable
557.202.081	FOM800 Fibre Optic Module

CCU3 MODBUS Interface

Technical Information

Input Voltage:	18-30Vdc
Current:	150mA at 24Vdc
Dimensions:	140 x 105 x 15mm

Order Code

557.202.046	MZX CCU3/C-MXMB MZX to MOD Bus Interface

The CCU3/C-MXMB provides a MODBUS interface to a number of MZX panels on an MZXNet. CCU/IO boards may also be connected to provide general I/O devices accessed through the MODBUS interface.

The CCU3/C-MXMB connects to MZX panels on the MZXNet via a TLI-800 (TPI) interface card using RS232 (PL2 socket). It connects to MODBUS via either an RS232, RS485 (default) or RS422 connection. Another port allows up to 8 CCU/IO boards to be connected. Each CCU/IO has 8 relay outputs that can be used as inputs to the MZX. These contacts are controlled via WRITE commands to the MODBUS map. Each CCU/IO also has 8 supervised inputs whose status can be read from the MODBUS map.

MZX BACNet Interface

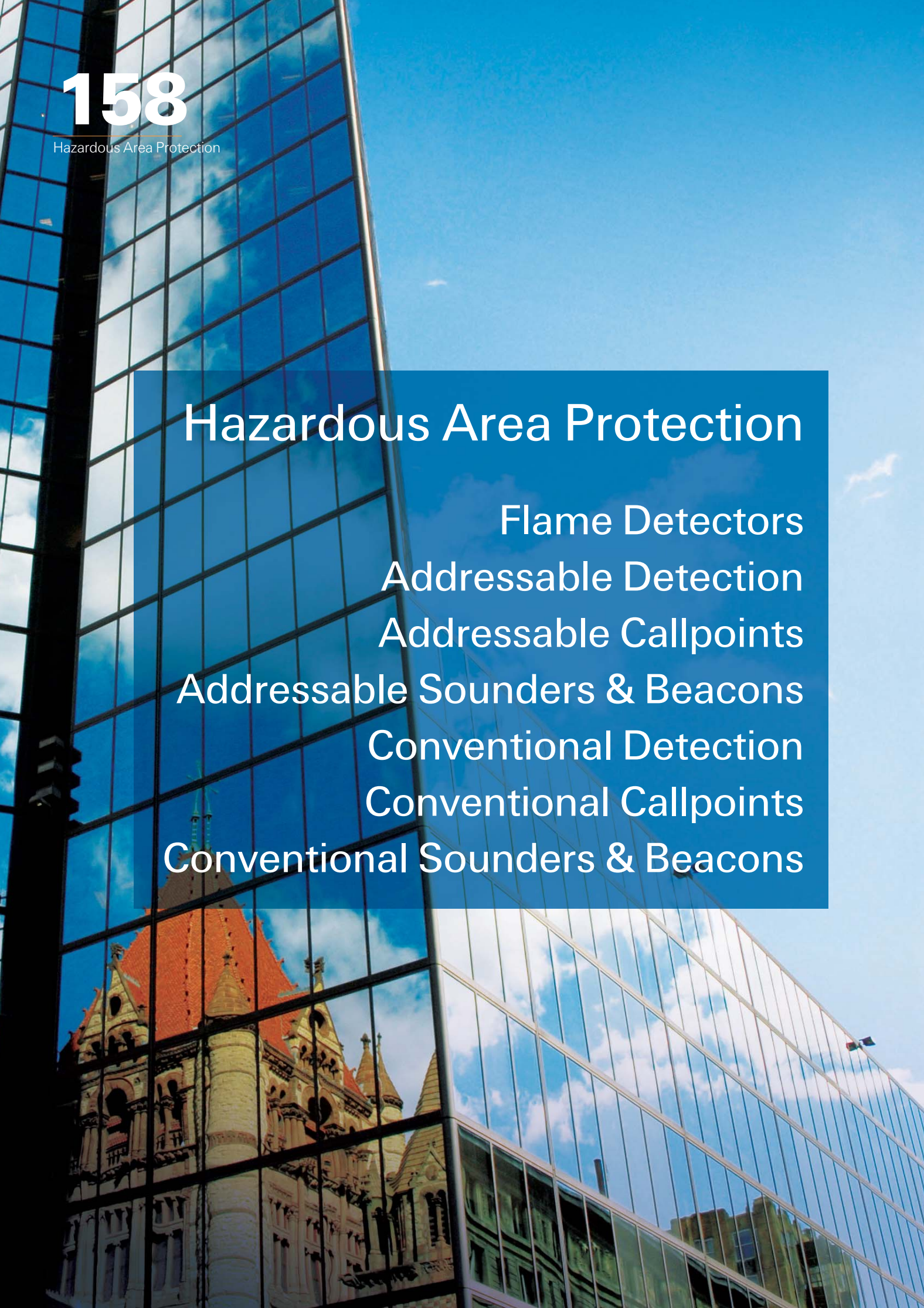
Features

- High level interface to building automation systems
- Meets interfacing requirements for large integrated projects
- Low cost solution – no need for expensive bespoke integration solutions
- Increase sales opportunities in the integrated solutions market

Order Code

557.202.135 BACnet Converter for MZX

BACnet is an industry standard communications protocol for building automation and control networks. It was designed to allow communication of building automation and control systems for applications such as heating, ventilating and air-conditioning control, lighting control, access control, and fire detection systems and their associated equipment. The BACnet protocol provides mechanisms for computerised building automation devices to exchange information, regardless of the particular building service they perform.



Hazardous Area Protection

Flame Detectors
Addressable Detection
Addressable Callpoints
Addressable Sounders & Beacons
Conventional Detection
Conventional Callpoints
Conventional Sounders & Beacons

Hazardous Area Protection

MZX systems include the most extensive range of products which are suitable for and approved for use in all classes of hazardous areas. The range extends from intrinsically safe detectors for use on conventional systems to flameproof and intrinsically safe flame detectors for use in the most demanding environments, both on and off shore. A complete range of barriers, housings, call points, ancillary modules and sounders is provided to enable a complete system to be supplied. Systes 620 conventional and system 800 addressable solutions include detailed design guides ensuring the system designer has all the tools to implement a safe and effective solution. ATEX and IECEx approvals are in most cases for both dust and gas hazards. In addition to individual component approvals both conventional and addressable systems have systems certification.

Flame Detectors

MZX Infra-Red Flame detection offers unrivalled performance where hydrocarbon based fires exists. IR detection is less susceptible to radiation inhibitors than is UV, being able to detect through oil mist, smoke and vapour, all of which can be commonly associated with fires involving fuels. They are also less prone to false alarms from background radiation sources. IR sensors are tuned to a bandwidth typical of the radiation emitted from Carbon Dioxide which is present in hydrocarbon fires. Single channel detectors are set to a fixed frequency and then rely on flame flicker, whereas triple channel detectors can monitor frequencies above and below the fire threshold filtering background radiation from non-fire sources. Array based IR detectors use 256 sensors making them sensitive yet extremely stable. The array can be configured to ignore hot spots such as exhausts, flues and flame stacks. The detector in addition to all other approvals is IEC61508, (SIL2) approved. Some models can also incorporate a CCTV camera within the detector housing, providing real time images of the incident. All of the above detector types are available within the MZX range covering all categories of risks.

Addressable Detection

800 series Addressable detectors are intrinsically safe and use galvanic isolators when connected to the MZX loop. Galvanic isolators do not require a high integrity earth connection as the primary and secondary circuits are not directly interconnected. This offers the installer a much easier and less costly installation and removes the need for regular checking to ensure continuous earth continuity. Available detection technologies are Multisensors, Smoke/Heat detector, Carbon Monoxide/Heat detector, Ionisation detector ,Heat detector and the single channel IR, point detector. Each sensor offers flexibility in programming and offers various modes of operation which can be selected to suit the risk. All detectors connect to a common intrinsically safe approved base and have ATEX and IECEx approval for use in both gas and dust atmospheres.

Callpoints

Both indoor and outdoor Call points are available for use in hazardous areas. Alternatively suitable none addressable devices can be connected to the MZX loop via an addressable interface. Manual call points are themselves simple devices and can be connected via a galvanic isolator, or be constructed so as to be incapable of causing ignition, or be enclosed within a flameproof enclosure. In addition to the type of protection offered the device is also rated for use in a particular (gas group) atmosphere and temperature rated so as never to exceed the ignition temperature of any gas or dust /air mixture present. MZX offers the widest range of call points and interfaces to meet the required standard whilst minimising the amount of equipment to be installed.

Sounders, Beacons and Accessories

Installing sounders and beacons into hazardous areas requires careful consideration and design experience. Whilst electrical safety is still paramount so is the need to create a distinct and audible signal. Within the MZX range there are both sounders and beacons which are either intrinsically safe, when used with an appropriate safety barrier, or flameproof in their construction. Sounders and beacons offer a range of outputs to suit all environments which when connected through the appropriate module/ driver will minimise the risk to the designer and ensure a safe and adequate system is provided. A number of I/O units mounted within flameproof enclosures complete this very comprehensive range of hazardous area equipment.

Conventional Detection

System 620 provides a range of conventional detectors very similar to the 800 series addressable. Conventional detection circuits also require a safety barrier, galvanic, (for new systems) or shunt diode (for extending some older systems), in order to meet safety requirements. Conventional detectors can be connected to an appropriate approved control panel or an interface and onto an MZX loop, within an adjacent safe area. Within the product range are Multisensors, Smoke/Heat detector, Carbon Monoxide/Heat detector, Ionisation detector, Heat detector and the single channel IR, point detector. All detectors connect to a common IS labelled base and have ATEX and IECEx approval for use in both gas and dust atmospheres.

Hazardous Area Protection

ZETTLER manufactures and provides a wide range of equipment suitable for use in hazardous areas where normal equipment cannot be safely used. The range extends from IS detectors for use on conventional systems to flameproof and I.S. flame detectors for use in the most demanding of environments.

A complete range of Barriers, Housings, Callpoints and Sounders are available to support the range.

Electrical equipment supplied for use in Hazardous Areas must comply with rigid requirements to ensure that its introduction into the area does not increase the existing risk. We have designed Intrinsically Safe (I.S.) systems and equipment for use in Hazardous Areas which can be connected to Fire Detection Systems installed in Safe Areas.

There are two I.S. systems used. System 620 for use in conventional fire detection circuits and System 800 for use with MZX digital addressable circuits. The control equipment of the fire detection system must be connected either via a Shunt Diode Safety Barrier or by an Isolating Interface to System 620 and System 800..

Two Sounder Systems (one earthed and one isolated) are available for use with System 620 and System 800.

Application - General

The System Designer must be familiar with BS EN 60079-14: 2003, EN 50, EN 50020 and ATEX certification and have successfully completed an appropriate recognised course in Intrinsic Safety.

Design of the system requires that the designer has all the information concerning the installation correctly documented.

The nature of the Hazard must be defined by the customer and a survey carried out to determine the proximity of the safe area to establish cable runs. The probability of a flammable mixture being present is defined by a Zone Number. Flammable gases are classified in Groups and their minimum spontaneous ignition temperature is categorised by Class. Equipment marked EExe ia IIC T5 would be suitable for use in worst case conditions, e.g. Zone 0 (ia), Hydrogen (IIC), T5 (100 deg C).

The Fire Alarm Equipment and Safety Barriers should be placed as near as possible to the containment wall of the Hazardous Area. This minimises the cable lengths between the barrier and the Hazardous Area and thus the capacity to store energy.

In order that an Installation will comply with the ATEX certification designated for each system it is essential that the certified devices are connected with cables of the specified limits. These limits have been certified for specific classifications of hazard in order that energy storage is limited.

Safety Barriers are incorporated into the circuit feeding the Hazardous Area to limit the voltage excursion and the current. The limit of voltage and current will prevent a fault within the I.S. circuit exceeding the ignition conditions.

THE FITTING OF SAFETY BARRIERS, ISOLATING INTERFACES OR SOUNDER DRIVERS DOES NOT IN ITSELF MAKE A CIRCUIT TO WHICH THEY ARE CONNECTED INTRINSICALLY SAFE..

Application - Hazardous Area
A Hazardous Area is defined as one where in the presence of a flammable mixture, ignition may cause an explosion. There is a risk of an explosion when substances (whether liquid, gas, vapour, dust, powder, or solid) are mixed with air to form a flammable atmosphere. To prevent the possibility of ignition in flammable atmospheres special precautions for the construction and use of electrical apparatus is required. One method of construction and use is defined as INTRINSICALLY SAFE.

Application - Intrinsically Safe
To preclude the risk of an explosion, equipment in the Hazardous Area must not be capable of causing ignition under normal operating, or specific fault conditions. Limiting the energy which can be stored in, and released by, electronic circuitry and cables in the Hazardous Area is achieved by using Intrinsically Safe equipment and by placing restrictions on the cable parameters.

To complete the explosion protection concept of a circuit a Safety Barrier must be connected between the Hazardous Area equipment and the source of power in the Safe Area. The electrical power, supplied or drawn from a Safe Area (i.e. an area with no definable hazard) is limited by using Shunt-Diode Safety Barriers or Isolating I.S. Interface Units.

Connection of the Hazardous Area equipment to the Safety Barrier must comply with the limitations listed in the System Certification. These limits have been certified for specific classifications of hazard in order that energy storage in the cables is limited. If the Electrical Energy in a circuit is less than the value required to ignite a potentially explosive mixture then the circuit is said to be INTRINSICALLY SAFE.

Application - Galvanic Isolators
Galvanic isolators protect the integrity of an Intrinsically Safe circuit under "Fault" conditions. Galvanic isolators operate in a fully floating electrically isolated condition, no High Integrity I.S. earth is required.

Shunt-Diode Safety Barriers & Interface Units
A Shunt-Diode Safety Barrier, Isolating I.S. Interface Unit, or Isolating Sounder Driver protects the integrity of an Intrinsically Safe circuit under 'Fault' conditions. The over-voltage protection provided by a Shunt-Diode Safety Barrier is with reference to the safety barrier earth connection. It is therefore imperative that a HIGH INTEGRITY EARTH is used for this type of barrier.

A High Integrity Earth is a current sink of nominally zero impedance capable of passing a fault current without compromising the function of the Shunt-Diode Safety Barrier. Connection to this earth and the barrier earth must not be more than 1 ohm and not less than 4mm^2 cross section area.

Several types of safety barrier are commercially available and include Single circuit and Dual circuit Shunt-diode, and galvanically isolating types. The Shunt-diode type requires a High Integrity Earth connection and the galvanically Isolating type operates in a fully floating electrically isolated condition; no High Integrity I.S. earth is required.

A Shunt-Diode Safety Barrier DOES NOT make a circuit to which it is connected Intrinsically Safe.

Certification
The design and construction of the equipment that may be installed in a Hazardous Area is controlled by a scheme of inspection and certification to the EU ATEX Directive 94/9/EC. The inspection and certification is carried out by an approved ATEX notified body.

Designers are licensed to reproduce the marks on equipment that complies with the Certification listed in its License Number.

Only ATEX approved barriers/isolators and intrinsically safe hazardous area equipment may be used.

FV300 Array Based Flame Detectors

The FlameVision FV300 is a range of detectors that use a 256 cell multi-infrared array, to detect flame and provide positional information so that the location of a flame within the detector's field of view can be communicated. Additionally, an inbuilt CCTV camera can transmit a "detector's eye view" of the protected area to a CCTV monitor. Superimposed onto the CCTV picture will be the positional data highlighting exactly where the source of alarm is coming from.

An angle of view of 90 degrees on the horizontal plane has been achieved with little or no reduction in sensitivity over the entire field. A pan fire covering one-tenth of a square metre can be detected by the FlameVision FV300 at a range of 60 metres. Such a small fire at that range would not normally be visible on a CCTV picture. The superimposed positional data on the CCTV display highlights and identifies the source of the alarm. This can save precious time and allow executive actions to take place at the earliest opportunity thus minimising potential fire losses.

FV300 Flame Detector Model Number		
Feature	**Cable Gland Entries**	**Sealed Back Box**
No Camera	FV311S	FV312S
PAL Format Camera	FV311SC	FV312SC
NTSC Format Camera	FV311SC-N	N/A

Features

- ATEX, IECEX & FM approved
- Fast, reliable flame detection using multi-infrared detection
- Simplifies alarm handling for remote control room situations
- Provides immediate visual ID of alarm location
- Robust stainless steel housing with heated window
- Automatic monitoring of detector functionality
- 256 cell infrared sensor array monitoring the field of view to separately identify flame and non flame sources
- Range of integral interface options
- Masking of part of field of view with software configuration tool
- 60m detection range with 90° field of view
- Remote video monitoring with fire location and detector information
- Automatic optical path monitoring
- History Log stored in detector

Range of Interfaces:
As standard the FV300 is supplied with the following interfaces:

- Fire and fault relays, programmable as normally open or normally closed
- 4 to 20mA analogue current output, proportional to the flame detection signal (sink or source)
- RS485 serial data port suitable for network connection using a MODBUS protocol. This can be used to communicate the positional co-ordinates of a flame within the field of view of the detector
- Video output compatible with twisted pair video cable

FlameVision Models:
There are five FlameVision models in the FV300 detector range. There are models with and without cameras. Each model is also supplied either with a sealed back-box and a pre-connected 3m length of cable or with two threaded cable gland entries.

Technical Information

Mechanical Characteristics

Dimensions (HWD):	138.8 x 152.8 x 91.7 mm
Weight:	3.96 kg
Mounting Bracket weight:	1.54 kg

Materials

Enclosure:	Stainless Steel 316L, ANC4BFCLC to BS 3146: Part 2
Detection window:	Sapphire
Camera window:	Toughened glass
Guard/label plate:	Stainless Steel 316S16 to BS 1449: Part 2
Mounting bracket:	Stainless Steel 316S16 to BS 1449: Part 2
Screws etc. exposed to the elements:	Stainless Steel 316 A4

Electronic modules: Fibreglass substrate

Electrical access

FV311 Series detectors:	Standard M20 gland holes (two)
FV312 Series detectors:	Multi twisted pair screened cable

Environmental

Operating Temperature without camera:	- 40°C to + 80°C
Operating Temperature with camera:	- 10°C to + 55°C
Maximum withstand Temperature:	120°C (for 10 minutes)
Storage Temperature:	- 40°C to + 80°C
Relative humidity:	Up to 99% (non condensing)
Enclosure protection:	Tested to IP66 and IP67
Normal operating atmospheric pressure:	910 mbar to 1055 mbar
Heat radiation from sun:	0 to 1kWm^2 typical

Markets

The FlameVision FV300 detectors are intended for applications demanding a high level of protection and where a rapid response to fire is important.

Typical applications are:

- Refineries
- Drilling and production plants
- Fuel loading facilities
- Compressor stations
- LNG/LPG processing & storage
- Gas turbines
- Chemical production
- Aircraft hangars
- Waste management/transfer
- Sports stadiums
- Tank farms
- Printing industry
- Warehousing
- Munitions storage

Order Codes

516.300.006	FV311S Flameproof Detector - cable gland entries - no camera
516.300.007	FV311SC-N Flameproof Detector - cable gland entries - NTSC camera
516.300.008	FV311SC Flameproof Detector - cable gland entries - PAL camera
516.300.055	FV312S Flameproof Detector - sealed back box - no camera
516.300.057	FV312SC Flameproof Detector - sealed back box - PAL camera
517.300.001	MB300 Mounting Bracket
517.300.002	WH300 Stainless Steel Weather Hood
517.300.005	JB300 Exe Junction Box
517.300.006	MK300 Field Spares Kit
517.300.021	WT300 Walk-test Controller
517.300.022	CTI300 Off-line Configuration Tool Kit

S200 Plus Triple IR Solar Blind Flame Detector

Features

- Triple waveband infrared solar blind flame detection for optimum false alarm immunity
- Unrivalled black body rejection over a wide range of source temperatures
- Range adjustable to 50 metres for a 0.1m^2 petrol pan fire
- Discrimination of optical faults (dirty windows) from other faults by the built-in self test feature
- Housing designed for easy installation of cabling
- Models also available with relay or 4-20mA outputs
- Patented dual filter for complete solar blindness
- 100° field of view on IS versions
- 90° field of view on Flameproof versions
- ATEX, IECEX & FM Approval

Unlike other flame detectors on the market the S200 PLUS is available in both Intrinsically Safe (EEx ia) and Flameproof (EEx d) models.

The intrinsically safe models are suffixed by the letter " i " and are ATEX Certified EEx ia IIC T5. As part of an intrinsically safe circuit, it is suitable for zones 0, 1 and 2 where group IIC gases or lesser hazards can be continuously present in explosive concentrations. The flameproof models are suffixed by the letter "f " and are ATEX Certified EEx d IIC T6. The detectors are suitable for zones 1 and 2 where group IIC gases or lesser hazards can be intermittently present in explosive concentrations.

Technical Information

Detector Material:	Stainless Steel 316L/316
Dimensions (HWD):	167 x 167 x 89mm
Weight:	4.5Kg
Gland Entry:	2 x 20mm
Range:	0.1m^2 petrol at 50m 0.4m^2 petrol at 60m
Operating Temperature	
Intrinsically Safe:	- 40°C to +80°C (IECEX & ATEX)
Flame Proof:	- 20°C to +60°C/+80°C (IECEX/ATEX)
Response Time:	Field Selectable 3, 6 and 12s
Sensitivity:	3 range settings
Relative Humidity:	95% (100% intermittent)
Enclosure:	IP 66 and IP 67

Approvals
Various models are certified by a number of approval bodies.

Additional Features

- Flexible mounting and angular adjustment
- 2 x 20mm field cable entries
- IP66/67 housing designed for external use
- Rugged 316 stainless steel housing and mounting bracket
- Variable response times and sensitivity settings
- Remote self test and range setting
- True window test in detection area (i.e. not in the edge of the window)
- Terminals provided for Remote LED connection where relevant
- BASEEFA (CENELEC) certified
- Approved to EN54 Pt 10
- IEC 61508 Approved (SIL2)
- FM, DNV and LRS certified
- Very low power consumption (0.35mA)
- Models available with Conventional or Analogue Addressable interface (requires 2 core cable only)

Order Codes

516.037.003	S231F+ Flameproof Flame Detector with Conventional Interface
516.037.004	S231I+ Intrinsically Safe Flame Detector with Conventional Interface
516.038.003	S241F+ Flameproof Flame Detector with 4-20mA Interface
516.038.004	S241I+ Intrinsically Safe Flame Detector with 4-20mA Interface
516.040.002	S261F+ Flameproof Flame Detector with Relay Interface
516.041.003	S271F+ Flameproof Flame Detector with MZX Interface
516.041.004	S271I+ Intrinsically Safe Flame Detector with MZX Interface
517.001.184	S100-200 Detector Mounting Bracket
517.001.263	S200+ Weather Prtoection Assembly
517.001.266	S200+ Spares Kit & Sealant

					Approvals	
	Interface				ATEX	
Model	Conventional	4-20mA	MZX Addressable	Relay	Ex 'ia'	Ex 'd'
S231i+	Yes				Yes	
S231f+	Yes					Yes
S241i+		Yes			Yes	
S241f+		Yes				Yes
S261f+				Yes		Yes
S271i+			Yes		Yes	
S271f+			Yes			Yes

601FEx Flame Detector

Features

- Solar Blind for false alarm free operation
- Intrinsically Safe
- Fast response to flame
- Detect a 0.1m^2 fire at a range of 20m
- Discrete ultra low profile design
- Fits a standard point fire detector base
- Integral alarm LED with 360° angle of view
- Use T110 infrared test source (With separate adapter)

Flame detectors, unlike smoke and heat detectors, do not rely on convection to transport the fire products to the detector nor do they rely on a ceiling to trap the products. They can therefore be used to protect large open areas without sacrificing speed of response to flaming fires. In order to ensure full coverage however, flame detectors do require direct line of sight to all parts of the protected area.

Infra-red flame detectors such as the 601FEx are designed to respond rapidly to fires which involve clean-burning fuels such as alcohol or methane, i.e. fires which would not be detected by smoke detectors.

The 601FEx Flame Sensor, by virtue of its operating wavelength and flicker discrimination is insensitive to normal environmental influences. For outdoor use a solar-blind detector [e.g. the S200 Plus] should be used. The 601FEx Flame detector should, normally, only be used inside buildings to supplement heat and smoke detectors.

Technical Information

ATEX Code:	Ex II 1GD
Cenelec Code:	Ex ia IIC T4/ Ex iaD 20 T135°C
Operating Temperature:	-20°C to +70°C
Storage Temperature:	-40°C to +80°C
Relative Humidity:	90% non-condensing

Order Code

516.600.066	601FEX Conventional I.S. Flame Detector

801FEx Flame Detector

The 801FEx point type flame detector forms part of the MZX Technology range of digital addressable fire detectors. The detector plugs into the MUBEX base.

The 801FEx is a full featured solar blind flame detector and can detect a 0.1m^2 fire at a range of 20m.

Features

- Solar Blind for false alarm free operation
- Fast response to flame
- Detect a 0.1m^2 fire at a range of 20m
- Automatic health check feature
- Discrete ultra low profile design
- Fits a standard MZX detector base
- Integral alarm LED with 360° angle of view
- Use T110 infrared test source (With separate adapter)

Technical Information

ATEX Code:	Ex II 1GD
Cenelec Code:	Ex ia IIC T4/ Ex iaD 20 T135°C
Weight:	0.2Kg detector and base (approx)
Operating Temp.Range:	-20°C to +70°C
Storage Temp:	-40°C to +80°C
Relative Humidity:	90% non-condensing

Order Code

516.800.066	801FEX MZX IS Flame Detector

System 800 Fire Detection for Hazardous Areas

Features

- Addressable I.S. MX Technology
- Compatible with S271i+ flame detector
- Compatible I.S. callpoint.
- ATEX certified intrinsically safe Ex II 1 GD System
- Suitable for use in Zone 0, 1, 2, 20, 21 & 22

A complete range of ATEX and ICEX certified detectors suitable for use in Zone 0, 1, 2, 20, 21 & 22 Areas. MZX digital addressable for use on MZX Fire Controllers.

There is a risk of fire or explosion in all areas containing flammable substances in the form of liquids, gasses, dust or materials. Where these combustible materials are mixed with air in sufficient concentration they form a flammable atmosphere and the areas containing them are designated Hazardous Areas. When a source of ignition, such as a spark, is applied in a hazardous area, an explosion could take place. Electrical equipment supplied for use in Hazardous Areas must comply with requirements to ensure that its introduction into the area does not increase the existing risk. System 800 is an MZX Technology™ Intrinsically Safe (I.S) system for use in Hazardous Areas which can be connected to the MZX Fire Detection Systems installed in the Safe Areas.

The System designer must be familiar with ATEX certification and have successfully completed an appropriate recognised course in Intrinsic Safety. Design of the system requires that the designer has all the information concerning the installation correctly documented. The nature of the hazard must be defined by the customer and a survey carried out to determine the proximity of the safe area to establish cable runs.

The probability of a flammable mixture being present is defined by a zone number. Flammable gasses are classified in Groups and their minimum spontaneous ignition temperature is categorised by Class. Tyco Fire Protection Products supplied equipment marked EEx ia IIC T5 would be suitable for use in worst case conditions. E.G. Zone 0 (ia), Hydrogen (IIc), T5 (100 deg C). The Fire Alarm Equipment and Safety Barriers should be placed as near as possible to the containment wall of the Hazardous Area. This minimises the cable lengths between the barrier and the Hazardous Area and thus the capacity to store energy.

In order that an Installation will comply with the ATEX certification designated for each system, it is essential that the certified devices are connected with cables of the specified limits. These limits have been certified for specific classifications of hazard in order that energy storage is limited.

The number of devices connected to the barrier and located in the Hazardous Area must always be limited to not more than the listed maximum.

The use of the MX designer Software tool will ensure correct loop loading and it's use is essential to the design process.

System 800 is for use in MZX Technology Addressable Fire detection circuits.

801CHEx/811CHExn CO and Heat Detector

Technical Information

ATEX Code:	Ex ia EX II 1GD / Exn EX II 3G
Cenelec Code:	Ex ia IIC T5/Ex iaD 20 T100°C/ EExnA II T4
Weight:	0.2Kg detector and base (approx)
Operating Temp:	0°C to +55°C/ -20°C to +40°C
Storage Temp:	-20°C to +55°C
Relative Humidity:	95% non condensing

The 801CHEx/811CHExn Carbon Monoxide plus Heat Detector form part of the 800Ex Series of MZX Addressable Fire Detectors. The detector plugs into the MUBEX base.

Order Codes

516.800.531	801CHEX I.S. CO/Heat Detector
516.800.535	811CHEXN N Type CO/Heat Detector

The mode of detector may be:

- Heat only detector (A1R or A2S) (sensitivity: - High, Normal or Low)
- Compensated Carbon Monoxide detector (sensitivity: - High, Normal or Low)
- Compensated Carbon Monoxide detector (sensitivity: - High or Normal) combined with heat (A1R)

801PHEx/811PHExn Smoke and Heat Detector

Technical Information

ATEX Code:	Ex ia EX II 1GD / Exn EX II 3G
Cenelec Code:	Ex ia IIC T5/Ex iaD 20 T100°C/ EExnA II T4
Weight:	0.2Kg detector and base (approx)
Operating Temp:	-25°C to +70°C
Storage Temp:	-40°C to +70°C
Relative Humidity:	95% non- condensing

The 801PHEx/811PHExn Optical Smoke & Heat Detectors form part of the 800Ex Series of MZX Addressable Fire Detectors. The detector plugs into the MUBEX base.

Order Codes

516.800.530	801PHEX I.S. Optical/Heat Detector
516.800.534	811PHEXN N Type Optical/Heat Detector

The mode of detector may be:

- Optical smoke only detector (sensitivity - High, Normal or Low)
- HPO smoke detector (sensitivity - High, Normal or Low)
- Heat only rate-of-rise (A1R) detector (no sensitivity selection)
- Heat fixed temperature 60°C (A2S) detector (no sensitivity selection)
- Optical (sensitivity - High, Normal or Low) combined with heat fixed temperature 60°C (A2S)
- HPO (sensitivity - High, Normal or Low) combined with heat fixed temperature 60°C (A2S)

801HEx/811HExn Heat Detector

Technical Information

ATEX Code:	Ex ia EX II 1GD
	Exn EX II 3G
Cenelec Code:	Ex ia IIC T5/Ex iaD 20
	T100°C/EExnA II T4
Weight:	0.2Kg detector and base (approx)
Operating Temp:	-25°C to +70°C
Storage Temp:	-40°C to +70°C/-40°C to +80°C
Relative Humidity:	95% non-condensing

The 801HEx/811HExn Heat Detectors form part of the 800Ex Series of MZX Addressable Fire Detectors. The detector plugs into the MUBEX base.

The mode of detector may be:

- EN54-5 A1R, rate-of- rise normal ambient
- EN54-5 A2S, fixed 60°C
- EN54-5 CR, rate-of-rise high ambient

Order Codes

516.800.532	801HEX IS Heat Detector
516.800.536	811HEXN N TYPE Heat Detector

801FEx Flame Detector

Technical Information

ATEX Code:	Ex II 1GD
Cenelec Code:	Ex ia IIC T4/
	Ex iaD 20 T135°C
Weight:	0.2Kg detector and base (approx)
Operating Temperature:	-20°C to +70°C
Storage Temperature:	-40°C to +80°C
Relative Humidity:	90% non-condensing

The 801FEx point type flame detector forms part of the MZX Technology range of digital addressable fire detectors. The detector plugs into the MUBEX base.

The 801FEx is a full featured solar blind flame detector and can detect a 0.1m^2 fire at a range of 20m.

Order Code

516.800.066	801FEX MZX I.S. Flame Detector

MUBEX Detector Base

Technical Information

ATEX Code:	Ex II 1GD
Cenelec Code:	EEx ia IIC T5
Operating Temp:	-10°C to +55°C
Storage Temp:	-20°C to +55°C
Weight:	0.2Kg detector and base (approx)
Relative Humidity:	90% Non-condensing

Order Code

517.050.610 MUBEX Mounting Base

IF800Ex Interface Module

Technical Information

ATEX Code:	Ex II 1GD
Cenelec Code:	EEx ia IIC T5

Order Code

514.001.062 IFCP800EX IS Interface

The Intrinsically Safe IF800EX Interface Module is designed to monitor fire contacts such as sprinkler flow switches. The IF800Ex is contained within a grey compression moulded glass filled polyester box with 2 x 20mm cable gland holes.

The electronic components are mounted on a double sided printed circuit board built into a potted module formed from a plastic moulding. Connectivity is via two terminal blocks fitted to the PCB.

70°C Probe Heat Detector

Order Code

550.260 70°C Probe Heat Detector

EXI800 Interface Module & Galvanic Isolators

Order Codes

514.001.063	EXI800 Interface Module
517.001.259	Pepperl & Fuchs KFDO-CS-EX1.54 Galvanic Isolator
517.001.304	MTL5525 I.S. Sounder Driver

The EXI800 Interface Module when used with a galvanic isolator, provides a path for an MZX panel to transparently communicate to slave devices (800Ex Detectors, IF800Ex Interface Module or CP840Ex Addressable Break Glass Call Point) connected to the Intrinsically Safe Loop. The EXI800 interface reduces the standard MX loop supply voltage and signalling currents to levels that are acceptable for hazardous areas. The EXI800 can detect a short circuit on the left-loop, the right-loop, or the IS spur and will isolate the offending circuit from the other loop connections.

The IS loop output of the EXI800 interfaces with the Pepperl & Fuchs KFDO-CS-Ex1.54 Galvanic Isolator supplying loop voltage and signalling currents to the Intrinsically Safe Loop. The MTL5525 Isolating Sounder Driver enables an intrinsically safe sounder located in the hazardous area, to be controlled from the safe area. The MTL5525 has one channel and is suitable for connecting certified loads in Zone 0, IIC, T4-T6 hazardous areas.

IS Barrier Enclosure

The MTL 'DX' Series enclosures will house the EXI800 (20mm pitch), Pepperl & Fuchs KFDO-CS-Ex1.54 Galvanic Isolator (20mm pitch) and the MTL5525 I.S. Sounder Driver (16.2mm pitch). The units are DIN rail mounted with 70mm of rail supplied with the DX070 and 170mm of rail with the DX170. The enclosures are usually selected on the number of units they will accommodate. The following table shows the capacity of each of the enclosure types.

Enclosure	MTL5500 Isolators 16.2mm Pitch	MTL7700 Barriers 7.5mm Pitch
DX070	4 (2*)	9 (5*)
DX170	10 (8*)	22 (18*)

* Use these figures when two IMB57 mounting brackets for tagging/earth rail accessories are included.

Order Codes

517.001.248	DX070 Enclosure
517.001.247	DX170 Enclosure

CP840Ex Break Glass Call Point

The CP840Ex Weatherproof Break Glass Call Point is designed to monitor and signal the condition of a switch contact associated with the break glass.

Technical Information

ATEX Code:	Ex II 1GD
Cenelec Code:	Ex ia IIC T5/Ex iaD 20 T100°C
Operating Temp:	-25°C to+70°C
Storage Temp:	-30°C to +70°C
Relative Humidity:	Up to 95% RH non condensing

Order Code

514.800.513	CP840Ex MX Digital Addressable Break Glass Call Point

CP830Exn Break Glass Call Point

The CP830Exn Weatherproof Break Glass Call Point is designed to monitor and signal the condition of a switch contact associated with the break glass.

Technical Information

ATEX Code:	Ex II 3G
Cenelec Code:	EEx nL IIC T4 (-20°C ≤ Ta ≤ +40°C)
Operating Temp:	-25°C to +70°C
Storage Temp:	-40°C to +80°C
Relative Humidity:	Up to 95% RH non condensing

Order Code

514.800.514	CP830Exn MX Digital Addressable Break Glass Call Point

IS28 Mark 5 Banshee Electronic Sounder

The IS28 Mark 5 Banshee Electronic Sounder is the industry standard intrinsically safe sounder for use in hazardous gas and dust environments. This traditional high profile Banshee Electronic Sounder has 32 tones providing ultimate flexibility and is designed to be connected directly to the 24Vdc sounder circuit of a conventional Fire Alarm Control Panel via an MTL5525 Safety Barrier

Please Note:-

1.The IS28 Mark 5 Banshee Electronic Sounder must only be used with the MTL5525 Sounder Driver (517.001.304) and not be connected to any other type of Sounder Driver (barrier) new or existing on the system.

2.Nothing else must be connected to the MTL5525 except IS28 Mark 5 Banshee Electronic Sounders (maximum of 3 per barrier, irrespective of the selected tone).

Technical Information

- Intrinsically Safe for use in hazardous gas and dust environments
- ATEX Approved: Ex II 1GD (Certificate Number ITS10ATEX27151X)
- IECEX Approved: Certificate Number IECEX ITS 10.0050X
- Gas Code: Ex ia IIC T5
- Dust Code: Ex ia IIIC T100ºC
- Ingress Protection to IP66
- Choice of 32 Selectable Tones
- Choice of 3 Volume Settings
- 2 x 20mm Cable Entry Knockouts

Order Code

576.501.017	IS28 Mark 5 Banshee Sounder

BG MIM800 Callpoint EX II 2 GD

An Ex II 2 GD Dust Approved & Increased Safety (EExemd) Resettable Manual Alarm Call Point for use with the EExd Flameproof MIM800 input module in EExd housing on an Addressable Detection & Releasing System in gas and dust explosive risks.

Please note that the above part is only compatible with Consys Version 17.0 and above when used with 577.800.067.

Order Code

514.001.107	EX II 2 GD Dust Approved & Increased Safety (EExemd) Resettable Manual Alarm Callpoint

Features

- Glass Reinforced Polyester Enclosure – light, strong and not subject to corrosion.
- Resettable Element.
- Explosion protected EExe (ATEX Approved).
- In line and end of line resistors.
- Red Epoxy Finish.
- 7 x terminals.
- Lift-flap for extra protection against inadvertent operation.
- 1 x changeover switch.
- Captive cover screws.
- Key operated test facility – simple but secure.
- 1 x M20 bottom cable entry.

Technical Information

Protection:	Explosion Protected EExed (Increased Safety)
Certification:	ATEX approved Ex II 2 GD BAS02ATEX2105X EExemdIICT4 CENELEC EN50014 / EN50019 / EN50018 / EN50028 Suitable for use in Zones 1 & 2
Voltage:	Up to 250V
Certified Temp:	-20°C to +50°C
Ingress Protection:	IP66 & 67
Terminals:	7 x 2.5mm^2
Switch Ratings (1 x Changeover):	DC 0-30V 5A (Resistive) or 3A (Inductive) DC 30-50V 1A Resistive or Inductive AC 0-254V 5A Resistive or Inductive
Cable Entries:	1 x M20 Bottom
Weight:	1.2Kg
Material:	Anti Static U.V. Resistant Glass Reinforced Polyester
Finish:	Red Epoxy Paint
Resistors:	Alarm: 100 Ω / EOL: 250 Ω
Labelling:	Burning House Symbol
Dimensions WHD:	120 x 126 x 75mm

MIM800 Input Module in EExd Housing

An EExd Flameproof MIM800 Addressable Module for extending the monitoring of Call Points and other Alarm Inputs on an MZX Technology Addressable System in gas and dust explosive risks.

Order Code

577.800.067	MIM800 Input Module in EExd Housing

Features

- Copper Free Metal Alloy Aluminium Housing
- Explosion Protected to EExd (ATEX Approved)
- 9 x Terminals
- 3 x M20 Cable Entries
- Fast Interrupt Mode for Call Points

Technical Information

Protection:	Explosion Protected EExd (Flameproof)
Certification:	Ex II 2 GD LOM02ATEX2037 EExdIICT6 CENELEC EN50014 EN50018 EN50019 EN50281-1-1 EN60439-1 Suitable for use in Zones 1 and 2 to IEC 60079-10 Suitable for use in Zones 21 and 22 to EN50281-3
Voltage:	40Vdc
Certified Temp:	-20°C to +55°C
Ingress Protection:	IP67
Terminals:	9 x 2.5mm^2
Cable Entries:	3 x M20 (No Blanking Plugs)
Weight:	0.8 Kg
Material:	Metal Alloy Aluminium - Copper Free
Dimensions WHD:	108 x 98 x 90mm

DDM800 Fire/Gas Detector Module in EExd Housing

A DDM800 Fire and Gas Detector Module in a EExd Housing for use in special hazardous area applications.

The DDM800 Universal Fire and Gas Detection Module is a detector module designed to interface a wide range of conventional fire detectors to MZX Technology control panels.

Additionally the option is available to connect two 4 to 20mA devices and to configure the alarm thresholds within the control panel.

The DDM800 is supported by MZXConsys Version 15 and above and Issue 6 MZXDesigner. It is recommended that MZXDesigner is used for all system designs using DDM800 modules.

Order Code

577.800.066	DDM800 Fire & Gas Detector Module in EExd Housing

Features

- Allows the DDM800 to be mounted in a Hazardous Area.
- Allows the monitoring of Call Points and other Alarm Inputs (including 4-20mA devices) designed for use in Hazardous Areas on an MZX Addressable System in gas and dust explosive risks.
- Approved for use in Gas Zone 1 and 2.
- Approved for use in Dust Zone 21 and 22.
- Copper Free Metal Alloy Aluminium Housing.
- Explosion Protected to EExd (ATEX Approved).
- 5 x M20 Cable Entries (3 x bottom and one each side).

Technical Information

Protection:	Explosion Protected EExd (Flameproof)
Certification:	Ex II 2 GD LOM02ATEX2037 EExdIICT6 CENELEC EN50014 EN50018 EN50019 EN50281-1-1 EN60439-1 Suitable for use in Zones 1 and 2 to IEC 60079-10 Suitable for use in Zones 21 and 22 to EN50281-3
Voltage:	40Vdc
Certified Temp:	-20°C to +55°C
Ingress Protection:	IP67
Terminals:	12 x 2.5mm^2
Cable Entries:	5 x M20 (3 Blanking Plugs Supplied)
Weight:	1.3 Kg
Material:	Metal Alloy Aluminium - Copper Free
Dimensions (HWD):	150 x 150 x 104mm

SIO800 Single Input/Output Module in EExd Housing

The SIO800 Single Input/Output Module is designed to monitor a normally open contact input and provide a volt free changeover relay output. This enables inputs and outputs from hazardous area devices to be easily interfaced to the MZX Technology Range of Control Panels.

Order Code

555.800.072	SIO800 Single Input/Output Module in EExd Housing

Features

- Allows the SIO800 to be mounted in a Hazardous Area.
- Allows the status of a normally open contact to be monitored and/or a volt free change over relay output in a Hazardous Area to be interfaced onto an MZX Addressable System in a gas and dust explosive risk.
- Approved for use in Gas Zone 1 and 2.
- Approved for use in Dust Zone 21 and 22.
- Copper Free Metal Alloy Aluminium Housing.
- Explosion Protected to EExd (ATEX Approved).
- 5 x M20 Cable Entries (3 x bottom fitted with blanking plugs and one each side supplied open).

Technical Information

Protection:	Explosion Protected EExd (Flameproof)
Certification:	Ex II 2 GD KEMA 09ATEX0110 EExdIICT6 CENELEC EN50014 EN50018 EN50019 EN50281-1-1 EN60439-1 Suitable for use in Zones 1 and 2 to IEC 60079-10 Suitable for use in Zones 21 and 22 to EN50281-3
Voltage:	40Vdc
Certified Temp:	-20°C to +55°C
Ingress Protection:	IP67
Terminals:	9 x 2.5mm^2
Cable Entries:	5 x M20
Weight:	1.64 Kg
Material:	Metal Alloy Aluminium - Copper Free
Dimensions (HWD):	150 x 150 x 104mm

System 620 Fire Detection for Hazardous Areas

Features

- Conventional I.S. system
- Suitable for worst case (EEx ia IIC T5)
- High Performance Optical (HPO) smoke detector
- Compatible with S231i+ flame detector
- Compatible I.S. callpoint
- Suitable for use in Zone 0,1,2,20,21& 22

A complete range of ATEX and ICEX certified detectors suitable for use in Zones 0,1,2,20,21 & 22 areas for use on conventional panels. There is a risk of fire or explosion in all areas containing flammable substances in the form of liquids, gasses, dust or materials. Where these combustible materials are mixed with air in sufficient concentration they form a flammable atmosphere and the areas containing them are designated Hazardous Areas. When a source of ignition, such as a spark, is applied in a hazardous area, an explosion could take place. Electrical equipment supplied for use in Hazardous Areas must comply with requirements to ensure that its introduction into the area does not increase the existing risk. System 620 is an Intrinsically Safe (I.S.) system for use in Hazardous Areas which can be connected to a conventional fire Alarm Controller installed in the Safe Area.

The System Designer must be familiar with ATEX certification and have successfully completed an appropriate recognised course in Intrinsic Safety. Design of the system requires that the designer has all the information concerning the installation correctly documented. The nature of the hazard must be defined by the customer and a survey carried out to determine the proximity of the safe area to establish cable runs.

The probability of a flammable mixture being present is defined by a Zone Number. Flammable gases are classified in Groups and their minimum spontaneous ignition temperature is categorised by Class.

Tyco Fire Protection Products supplied equipment marked EEx ia IIC T5 would be suitable for use in worst case conditions. Eg. Zone 0 (ia), Hydrogen (IIc), T5 (100 deg C). The Fire Alarm Equipment and Safety Barriers should be placed as near as possible to the containment wall of the Hazardous Area. This minimises the cable lengths between the barrier and the Hazardous Area and thus the capacity to store energy.

In order that an Installation will comply with the ATEX certification designated for each system it is essential that the certified devices are connected with cables of the specified limits. These limits have been certified for specific classifications of hazard in order that energy storage is limited. The number of devices connected to the barrier and located in the Hazardous Area must always be limited to not more than the listed maximum.

When a mixture of devices is connected to any one zone the numbers must be reduced in proportion to the ratio of the load presented to the barrier. When a System includes the use of an S231i+, it must be remembered that the load it presents to the circuit is twice that of a detector. A mixture of large and small load devices connected to a zone will require a calculation for the number of allowed detectors.

System 620 is for use in conventional fire detection circuits. Two Sounder Systems, (one earthed and one isolated), are available and either can be used with System 620.

MD600Ex Heat Detectors

If environmental conditions rule out the use of smoke detectors, then a heat detector of the type MD601Ex/MD611Ex may provide an acceptable, though less sensitive, alternative. For general use, and particularly where the ambient temperature may be low, a 'Rate-of-Rise' heat sensor is to be preferred. This type of sensor reacts to abnormally high rates of change of temperature and provides the fastest response over a wide range of ambient temperatures.

A fixed temperature limit is also incorporated in these detectors. In many environments, e.g. kitchens and boiler rooms, sudden, large changes in temperature are considered 'normal'.

Rate-of-rise detectors are generally not suitable in these cases and fixed temperature [static] types should be used.

Technical Information

ATEX Code :	Ex II 1GD
Cenelec Code:	Ex ia IIC T5/Ex iaD 20 T100°C
Operating Temperature:	-20°C to +70°C
Storage Temp:	-25°C to +80°C
Relative Humidity:	95% non-condensing

Order Codes

516.052.051.Y	MD601EX Conventional Rate of Rise Heat Detector
516.052.041.Y	MD611EX Conventional Fixed Temperature Heat Detector

MR601TEx HPO Smoke Detector

The MR601TEX overcomes the slower response of optical detectors to hot burning fires by increasing the sensitivity of the optical detector when it is associated with a rapid change in temperature. In this way it is intended to become a detector which will suit some of the risks currently covered by ion chamber detectors. Smoke detectors will not detect burning alcohol or other clean burning liquids which do not generate smoke particles.

Technical Information

ATEX Code:	Ex II 1GD
Cenelec Code:	Ex ia IIC T5/Ex iaD 20 T100°C
Operating Temperature:	-20°C to +70°C
Storage Temperature:	-25°C to +80°C
Relative Humidity:	95% non-condensing

Order Code

516.054.011.Y	MR601TEX Conventional High Performance Optical Smoke Detector

601FEx Flame Detector

Infra-red flame detectors such as the 601FEx are designed to respond rapidly to fires which involve clean-burning fuels such as alcohol or methane.

The 601FEx Flame Sensor, by virtue of its operating wavelength and flicker discrimination is insensitive to normal environmental influences. The 601FEx Flame detector should, normally, only be used inside buildings to supplement heat and smoke detectors.

Technical Information

ATEX Code:	Ex II 1GD
Cenelec Code:	Ex ia IIC T4/Ex iaD 20 T135°C
Operating Temperature:	-20°C to +70°C
Storage Temp:	-40°C to +80°C
Relative Humidity:	90% non-condensing

Order Code

516.600.066	601FEX Conventional I.S. Flame Detector

MUBEX Detector Base

Technical Information

ATEX Code:	Ex II 1GD
Cenelec Code:	EEx ia IIC T5
Operating Temperature:	-10°C to +55°C
Storage Temperature:	-20°C to +55°C
Relative Humidity:	90% Non-condensing

Order Code

517.050.610	MUBEX Mounting Base

70°C Probe Heat Detector

Order Code

550.260	70°C Probe Heat Detector

MCP220Ex Break Glass Call Point

The MCP220Ex is a conventional callpoint for use on the ATEX Certified System.

Features

- Intrinsically Safe
- Weatherproof to IP67
- Compatible with System 620

Technical Information

ATEX Code:	Ex II 1GD
ATEX Cert:	SIRA 06ATEX2131X
Cenelec Code:	EX ia IIC T4 Ga /EX iaD T135°C Da
Dimensions (HWD):	93 x 98 x 66mm
Weight:	270g
Material:	PC/ABS
Colour:	Red
IP Rating:	IP67

Order Code

514.001.109	MCP220Ex Red Callpoint intrinsically safe for use with ATEX certified conventional system 620.

IS28 Mark 5 Banshee Electronic Sounder

The IS28 Mark 5 Banshee Electronic Sounder is the industry standard intrinsically safe sounder for use in hazardous gas and dust environments. This traditional high profile Banshee Electronic Sounder has 32 tones providing ultimate flexibility and is designed to be connected directly to the 24Vdc sounder circuit of a conventional Fire Alarm Control Panel via an MTL5525 Safety Barrier.

Please Note:-

1.The IS28 Mark 5 Banshee Electronic Sounder must only be used with the MTL5525 Sounder Driver (517.001.304) and not be connected to any other type of Sounder Driver (barrier) new or existing on the system.

2.Nothing else must be connected to the MTL5525 except IS28 Mark 5 Banshee Electronic Sounders (maximum of 3 per barrier, irrespective of the selected tone).

Technical Information

- Intrinsically Safe for use in hazardous gas and dust environments
- ATEX Approved: Ex II 1GD (Certificate Number ITS10ATEX27151X)
- IECEX Approved: Certificate Number IECEX ITS 10.0050X
- Gas Code: Ex ia IIC T5
- Dust Code: Ex ia IIIC T100°C
- Ingress Protection to IP66
- Choice of 32 Selectable Tones
- Choice of 3 Volume Settings
- 2 x 20mm Cable Entry Knockouts

Order Code

576.501.017 IS28 Mark 5 Banshee Sounder

Galvanic Isolators - MTL5500

The MTL5561 is a two channel interface for use with conventional detectors located in hazardous areas. This galvanic isolator is CE marked, and replaces the MTL3043 barrier option. It is suitable for connecting loads in Zone 0, IIC, T4-T6 hazardous areas if suitably certified.

The MTL5525 Isolating Sounder Driver enables an intrinsically safe sounder located in the hazardous area, to be controlled from the safe area. The MTL5525 barrier is designed as a CE marked replacement for the existing MTL3021 barrier. It has one channel and is suitable for connecting loads in Zone 0, IIC, T4-T6 hazardous areas if suitably certified.

When designing new systems or upgrading existing MTL3000 series systems to MTL5500 series, please use the appropriate MTL "DX" series enclosure equipment (16.2mm pitch).

Order Codes

517.001.302	MTL5561 2 Channel Galvanic Isolator
517.001.304	MTL5525 I.S. Sounder Driver

Zener Barriers - MTL700

The MTL700 series are 1 or 2 channel devices which pass the electrical signal from fire detectors to the control panel or from the control panel to the output device. The barriers limit the amount of energy to a level that cannot ignite explosive atmospheres. The over-voltage protection provided by a Shunt-Diode Safety Barrier is with reference to the safety barrier earth connection. It is therefore imperative that a HIGH INTEGRITY EARTH is used for this type of barrier (14.2mm pitch).

Order Codes

517.001.201	MTL728 Single Channel Zener Safety Barrier
517.001.202	MTL788 Dual Channel Zener Safety Barrier

Zener Barriers - MTL7700

The MTL7700 Series intrinsically safe shunt-diode safety barriers are innovative devices designed to provide exceptionally high packing densities, straightforward installation and simplified connection, commissioning and maintenance facilities. The MTL7700 Series include secondary replaceable fuses. These are useful where there is the possibility of faults occurring during commissioning, which would otherwise blow the barriers internal safety fuses.

One secondary replaceable fuse for each barrier channel is provided and is lower in value than the safety related fuse. Fuses are packaged in small mouldings which can be latched in a disconnect position to break the safe and hazardous areas during commissioning, maintenance and fault finding, thus avoiding the need for additional disconnect terminals.

Please note that this barrier is a direct alternative for the MTL728+ barrier.

Order Code

517.001.301 MTL7728 + Zener Safety Barrier for conventional detection circuits designed in accordance with System 601

IS Barrier Enclosure

The MTL 'DX' Series enclosures will house the MTL5561 two channel Galvanic Isolator, MTL7728+ Zener Safety Barrier and MTL5525 I.S. Sounder Driver. The units are DIN rail mounted with 70mm of rail supplied with the DX070 and 170mm of rail with the DX170. The enclosures are usually selected on the number of units they will accommodate. The following table shows the capacity of each of the enclosure types.

Enclosure	MTL5500 Isolators 16.2mm Pitch	MTL7700 Barriers 7.5mm Pitch
DX070	4 (2*)	9 (5*)
DX170	10 (8*)	22 (18*)

* Use these figures when two IMB57 mounting brackets for tagging/earth rail accessories are included.

Order Codes

517.001.248 DX070 Enclosure
517.001.247 DX170 Enclosure

MT Series Enclosure

The MT series of enclosures provides a simple, effective means of mounting and protecting MTL700 Series barriers in safe areas or low-risk hazardous areas. A lightweight polycarbonate enclosure with see through lid accommodates up to 2 barriers in the safe area. The enclosure is supplied ready fitted with a nickel plated brass busbar mount, so barriers can be installed and wired up immediately without special tools.

Order Code

517.001.198 MT2 2 Way Zener Barrier Housing

BG Conventional Callpoint EX II 2 GD

This EX II 2 GD Dust Approved & Increased Safety (EExemd) Conventional Break Glass Manual Alarm Call Point is fitted with a 470 ohm Alarm Level Resistor and a 4K7 ohm EOL Resistor for use with Tyco Conventional Detection Circuits including the DIM800 and DDM800 MX Modules.

It is also fitted with a removable link which allows it to be connected on its own or with other Conventional Devices to a Tyco Conventional Detection Circuit.

Order Code

514.001.108	EX II 2 GD Dust Approved & Increased Safety (EExemd) Conventional Break Glass Manual Alarm Callpoint

Features

- Polyester Enclosure – light, strong and not subject to corrosion.
- Break Glass.
- Explosion protected EExe (ATEX Approved).
- In line and end of line resistors.
- 9 x terminals.
- Lift-flap for extra protection against inadvertent operation.
- 1 x changeover switch.
- Captive cover screws.
- No hammer required
- Key operated test facility – simple but secure.
- 2 x M20 bottom cable entries.

Technical Information

Protection:	Explosion Protected EExed (Increased Safety)
Certification:	ATEX approved Ex II 2 GD BAS02ATEX2105X EExedmIICT4 CENELEC EN50014 EN50019 / EN50018 / EN50028 Suitable for use in Zones 1 & 2
Voltage:	Up to 250V
Certified Temp:	-20°C to +50°C
Ingress Protection:	IP66 & 67
Terminals:	9 x 2.5mm – up to 60V
Switch Ratings (1 x Changeover):	DC 0-30V 5A (Resistive) or 3A (Inductive) 30-50 1A Resistive or Inductive AC 0-254V 5A Resistive or Inductive
Cable Entries:	2 x M20 Bottom
Weight:	1.2Kg
Material:	Anti Static U.V. Resistant Glass Reinforced Polyester
Finish:	Red Epoxy Paint
Resistors:	Alarm: 470 Ohm EOL: 4K7 Ohm
Labelling:	Burning House Symbol

XB8 Intrinsically Safe Beacon

This ruggedised, intrinsically safe and weatherproof beacon is intended for use in potentially explosive atmospheres, and has been designed with high ingress protection to cope with the harsh environmental conditions found offshore and onshore in the oil, gas and petrochemical industries. Please refer to MEDC for guidance on cable capacitance and barriers.

Order Code

540.001.038	Intrinsically Safe Xenon Beacon (XB8BB024CNR)

Features

- Robust GRP Body
- Suitable for offshore and petrochem
- Certificated Intrinsically Safe

Technical Information

Certification:	CENELEC EN50014, 20 & 39 BAS02ATEX1258X EExia IIB T4 Zones 0,1 & 2
Material:	UV stable glass reinforced polyester body. Clear polycarbonate cover/lens. Retained stainless steel cover screws.
Finish:	Painted Red
Tube Type:	Xenon discharge
Lens Colour:	Clear
Terminals:	8 x 2.5mm^2
Flash Rate:	1 flash per second
Cable Entries:	Up to 3 x M20 via knockouts
Tube Energy:	0.5 Joules
Weight:	1.4kg
Certified Temp:	-55°C to + 60°C
Ingress Protection:	IP66 & IP67
Tube Life:	>1 x 10^6 Flashes
Voltage:	24V via suitable barrier
Current Consumption:	71mA max nominal

GD210 Gas Detector

The GD210 flammable gas detector is designed for use in non-hazardous areas where flammable gas detection is required, typical locations include kitchens, gas fired boiler rooms, meter rooms, sub basements and cable chambers.

This detector connects via a 4-20mA interface to the DDM800 Universal Fire and Gas Module

Technical Information

Voltage:	12-30 VDC
Power:	3.5 watts
Output:	4-20mA 3 wire Source
Load Resistance:	250 ohms (max)
Operating Temperature:	-40 to +65°C
IP Rating:	IP55
Cable Entry:	1 x M20

Order Codes

516.100.050	GD210 Flammable Gas Detector 4-20mA interface
516.100.013	Test Gas Kit - 12 L can of 2.5% methane (50%LEL) c/w adaptor and tube
516.100.014	Test Gas - 12 L can of 2.5% methane (50%LEL)
516.100.051	Spare Flammable Gas Detector Sensor
516.100.052	Spare Flammable Gas Detector PCB

Detector Test Equipment

Detector Test Equipment

Testing automatic detection devices is a requirement under most standards and is to be recommended at least on an annual basis. The method and means of generating the smoke, carbon monoxide or heat is important both for the safety of personnel and to ensure that no lasting damage is caused to the device itself. All MZX detection devices can be tested from a single safe source which will generate smoke, CO and heat and where required in the right proportions in order to test multisensors which may respond to all three simultaneous sources. A range of pole attachments are available to allow access to higher level devices. Alternatively single test sources of Smoke, CO and Heat are available for the smaller systems. For testing Flame Detectors specific test equipment is provided and which is approved for use in both hazardous and safe areas. The test equipment emits pulsed infra-red radiation which creates a similar flicker effect to that of a flame.

Essential Test Equipment

Testifire is a 3 in 1 tool which represents the next generation of detector testing enabling smoke, heat and CO testing from one device. Latest technology stimuli production and delivery renders the product suitable for testing complex multi sensors to basic single sensor detectors.

Its advanced design allows for single, sequential or simultaneous stimuli generation. This ensures each type of detector can be functionally tested in an efficient manner.

Testifire eliminates the need for pressurised canisters by using replaceable capsules. It addresses global warming concerns associated with aerosols reducing waste and transport bulk.

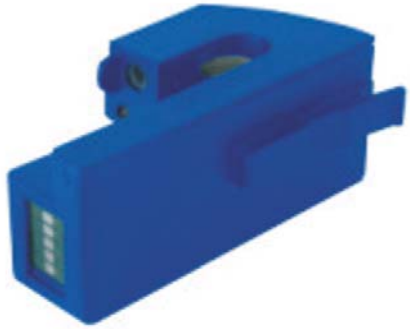
Smoke, Heat & CO Detector Test Kit

Order Code

517.001.236

Includes:
1 x Testifire Smoke, Heat & CO Detector Tester
1 x Testifire Smoke Capsule
1 x Testifire CO Capsule
2 x Solo Battery Batons
1 x Solo Battery Charger

Smoke Capsules



Order Code

517.001.237

6 x Replacement smoke capsules for use with Testifire

CO Capsules

Order Code

517.001.238 6 x Replacement CO capsules for use with Testifire

Detector Removal Tool

Order Code

517.001.240 Universal Solo Detector Removal tool.
Design suits wide range of detectors and is suitable for use at / from angles

800RT Detector Removal Tool

Order Code

516.800.917 800RT Detector Removal Tool. Compatible with 800 and 600 series detectors. Enables detector dust covers to be removed

Telescopic Access Pole

Order Code

517.001.230 Telescopic Access Pole.
Pole extends from 1.26 to 4.5m. Optimum strength to weight ratio. Certified non-conductivity. Simple locking mechanism and easy to use

Extension Pole

Order Code

517.001.226 Extension Pole.
A 1.13 metre Solo Extension Pole which can be used on its own or fitted to the Solo Telescopic Access Pole

Storage Bag

Order Code

517.001.264 A protective carry and storage bag for the Solo or Testifire product range

Adaptor Tube B

Order Code

517.001.224 Adaptor for Solo Access Poles to allow fitting of:
800RT Detector Removal Tool
T110 Flame Detector Tester
T210+ Flame Detector Tester
M900 Address Key Extractor Tool

Adaptor Tube E

Order Code

571.157 The adapter E - SOLO707-007 enables the use of SOLO detector testers and extractors. It can be plugged onto the ZETTLER / Cerberus rods

M900 Address Key Extractor Tool

Order Code

517.001.235

The address key extractor tool can be used to remove the address key from either a 4" or 5" detector base from ground level

Additional and Alternative Products and Accessories

Smoke & Heat Detector Test Kit

Order Code

517.001.267

Includes:
1 x Testifire Smoke & Heat Detector Tester
1 x Testifire Smoke Capsule
2 x Solo Battery Batons
1 x Solo Battery Charger

Dispenser for Solo Smoke and CO Canister

Order Code

517.001.255

Dispenser for use with Solo Smoke and CO Canisters.
The unit is lightweight, simple to use and incorporates a universal design to suit wide range of detectors. This is a spring loaded solution for suspended ceilings and is designed for use at height, angles or low level

Solo Smoke Detector Tester

Order Code

517.001.256 Smoke Detector Tester designed for use with Solo Dispenser. It is non-flammable, fast activating and fast clearing

Solo CO Detector Tester

Order Code

517.001.262 CO Detector Trster designed for use with Solo Dispenser. It is a genuine, non-flammable CO stimulus with controlled delivery

Cordless Heat Detector Test Kit

Order Code

517.001.254 Battery powered Cordless Tester. No cables, trailing leads or hanging wires. The unit suits fixed temperature, rate of rise and combination detectors upto 90°C The unit is lightweight and simple to use and its universal design suits a wide range of detectors.

Includes:
1 x Solo Heat Detector Tester
1 x Solo Battery Charger
2 x Solo Battery Batons

Battery Baton

Order Code

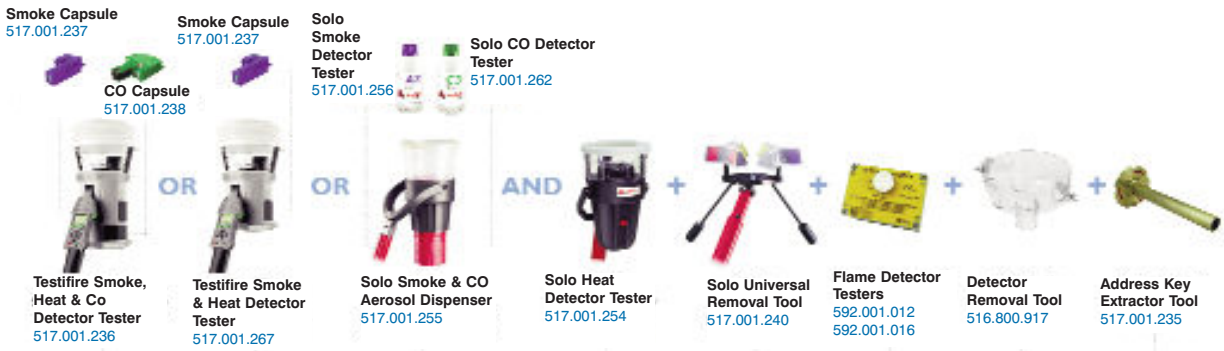
517.001.239 NiMH Battery Baton for use with Testifire and Solo Cordless Heat Detector Tester

Battery Charger

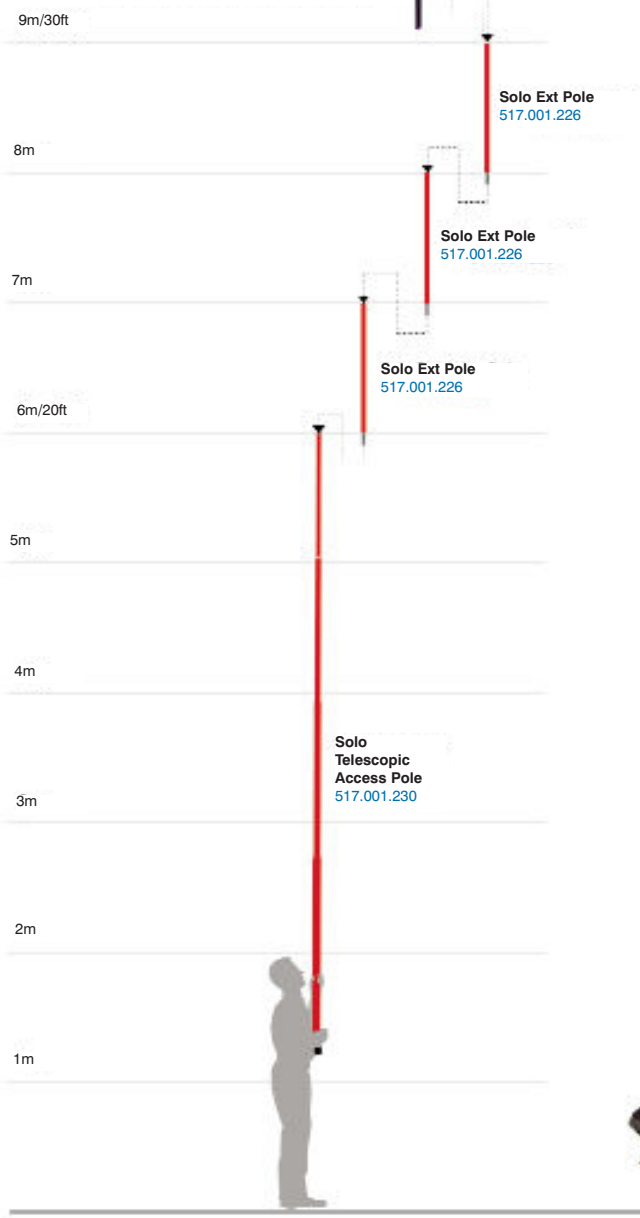
Order Code

517.001.243 Fast Charger for use with Solo Battery Batons

Product Selector



Solo Battery Baton 517.001.254
For use with:
Smoke, Heat & CO Detector Test Kit 517.001.236
Smoke & Heat Detector Test Kit 517.001.267
Cordless Heat Detector Test Kit 517.001.254



Solo Poles Access Height

Part Numbers	Access Height (approx max.)
517.001.230	6m / 20ft
517.001.230+ 517.001.226 (x1)	7m / 23ft
517.001.230+ 517.001.226 (x2)	8m / 26.25ft
517.001.230+ 517.001.226 (x3)	9m / 30ft

Solo Battery Baton Charger
517.001.243

Solo Carry Bag
517.001.264

S200+ Series Test Equipment

Features

- Approved for use in zone 1 & 2 areas (GPIIC gases)
- Adaptor plate to ensure perfect alignment
- IECEX Approved

Order Codes

592.001.016	T210+ Test source for use with Solo 704 Adaptor Tube B (517.001.224) and Solo 100/101 Poles (517.001.230/226)
592.001.014	T210+ Adaptor required for the T210+ to be used with S200 and S200 Plus Flame Detectors
592.001.010	T110 PP9 Battery and Charger Kit

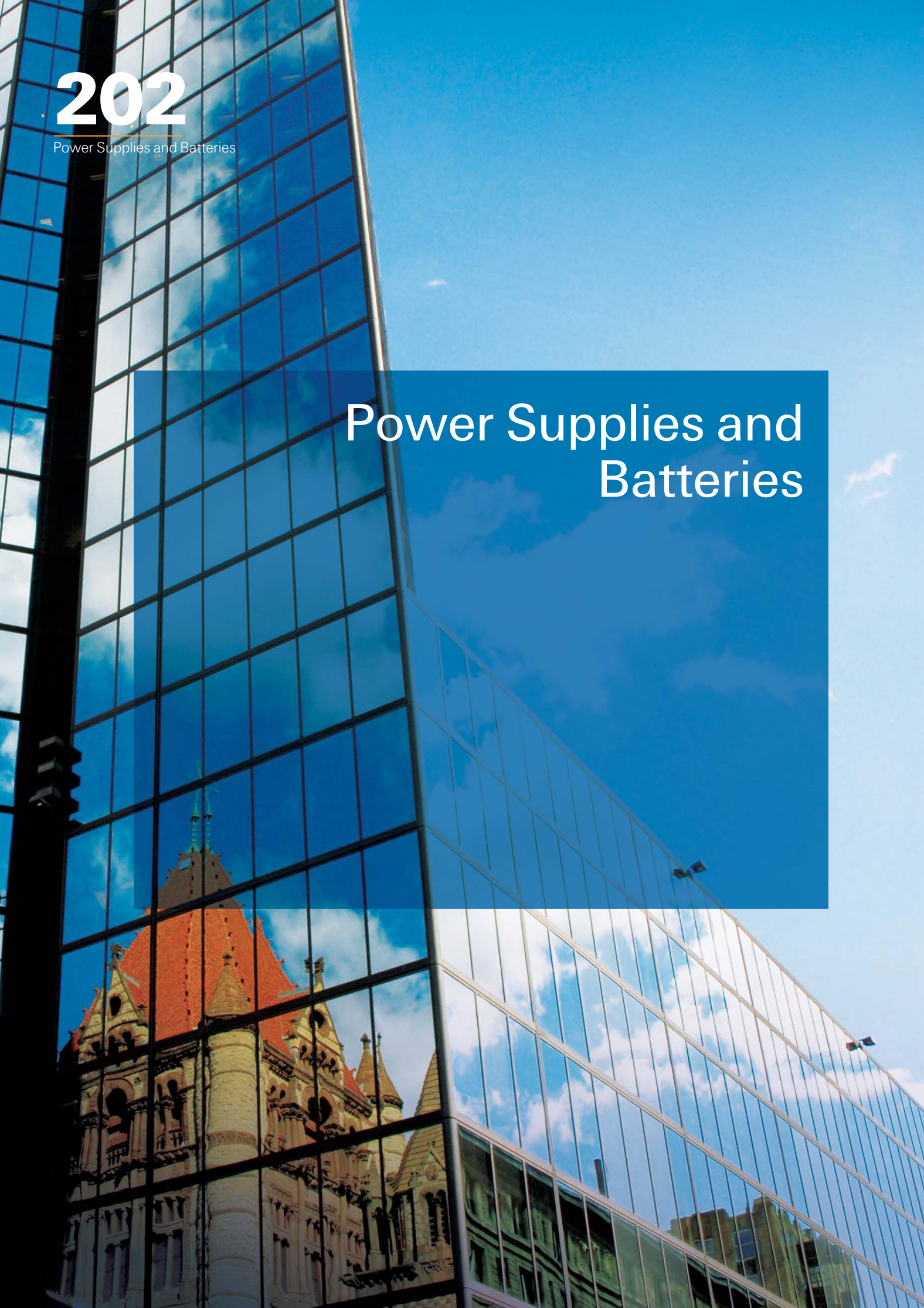
Technical Information

Material:	Glass filled polyester
Weight:	0.8kg
Supply Voltage:	9Vdc
Operating Temp:	-10°C to + 50°C
Humidity:	95% (Non Condensing)
Enclosure:	IP54
Classification:	Atex EExe ib IICT4. Suitable for use in zones 1 & 2 where group IIC gases or lesser hazards are sometimes present in explosive concentrations

Point Flame Detector Test Equipment

Order Codes

592.001.012	T110 Test Source for use with Solo 704 adaptor tube B (517.001.224) and Solo 100/101 poles (517.001.230/226)
592.001.018	T110 Adaptor for series 600 and 800 flame detectors
592.001.010	T110 PP9 Battery and Charger Kit



Power Supplies and Batteries

Power Supplies and Batteries

The system's power supplies are both integral to the MZX control panel and available as remote units for powering such things as door release units, sounders, beacons and ancillary modules, when required. All MZX power supply units are switch mode type and are suitably enclosed when outside of the main panel, with space for the standby batteries. Power supplies can recharge up to 38 AH batteries and within the main panel dual power supplies can charge up to 65 AH capacity, ensuring available standby power suitable for a whole range of systems sizes and loadings. Single enclosures will house batteries up to 65 AH capacity and are of steel construction. All units are supervised with the minimum provision being an integral fault output relay. Some units are capable of providing full condition and fault monitoring via an addressable power supply module. A door release power supply, (transformer rectifier only), is available for when switching door release magnets.

A complete range of rechargeable 12 volt sealed lead acid batteries are available from 2 to 65 ampere hour capacity. Batteries are encased in high quality ABS and present no restrictions when transported by surface or by air. Batteries are maintenance free with a 99% gas recombination factor, providing reliability over a long life. All batteries incorporate a safety relief valve in the unlikely event of excessive overcharging

Power Supplies

MXP24/50 5A - 24VDC Boxed PSU

BAQ60T24 2.5A Power Supply

Power Supplies	
Order Number	**Description**
557.200.530	PSU A17 5A - 24VDC Power Supply, for 17A/H batteries
557.200.531	PSU A38 5A - 24VDC Power supply, for 38A/H batteries
557.201.210	Dual Power Supply Mounting Kit
557.201.231	MX2 PSU830 Dual Power Supply Kit
557.201.232	PTM800 Power Terminal Module
557.201.516	PSU monitor kit for 557.200.530/1 (includes MIM800 + cables)
557.202.030	PSU830 Panel Fix Conversion Kit
557.202.031	PSU830 Small Chasis Plate
557.202.043	PSB800MK LP Power Expansion Kit
557.202.044	PSU830K Power Expansion Kit
557.202.050	PSM800 Temperature Sensor Acc Kit
557.202.210	PSU830 Power Supply Module
557.202.301	UGP800 AES UGA PSU Spare 24V - NF
557.202.315	PSM841 AES 24V 2A C24 SB PSU - NF
557.202.316	PSM842 AES 24V 4A C38 SB PSU - NF
557.202.317	PSM843 AES 24V 8A C85 SB PSU - NF
557.202.318	PSM844 AES 48V 4A C85 SB PSU - NF
557.202.609	BAQ60T24 2.5A Power Supply
557.202.610	BAQ140T24 5.0A Power Supply
557.202.611	PMM805 Power Monitor Module 5V
557.202.612	PMM840 Power Monitor Module 40V
558.004.020	MXP24/50 5A - 24VDC Boxed PSU for 17A/H Batteries
542.003	PSM800 Standard Power supply Module

Batteries

Batteries	
Order Number	**Description**
PS-1221	12V 2 A/H Sealed Lead Acid Battery
PS-1230	12V 3.4 A/H Sealed Lead Acid Battery
PS-1270	12V 7.0 A/H Sealed Lead Acid Battery
PS-12120	12V 12 A/H Sealed Lead Acid Battery
PS-12170	12V 17 A/H Sealed Lead Acid Battery
PS-12260	12V 26 A/H Sealed Lead Acid Battery
PS-12380	12V 38 A/H Sealed Lead Acid Battery
PS-12650	12V 65 A/H Sealed Lead Acid Battery
K02455466	NP12-65 12V 65 A/H Sealed Lead Acid Battery
K02459456	NP12-24 12V 24 A/H Sealed lead Acid Battery

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